

Decision ID No. 42707

Service Date: October 5, 2012

Comments Due: November 9, 2012

# Draft Environmental Assessment

**CSX Transportation, Inc.**

**Acquisition of Easement**

**Grand Trunk Western Railroad Company**

**Docket No. FD 35522**



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***SURFACE TRANSPORTATION BOARD***

***Washington, DC 20423***

*Office of Environmental Analysis*

October 5, 2012

Re: Docket No. FD 35522, CSX Transportation, Inc.—Acquisition  
of Operating Easement—Grand Trunk Western Railroad  
Company

Dear Reader:

The Surface Transportation Board's (Board) Office of Environmental Analysis (OEA) is pleased to provide you with your copy of the Draft Environmental Assessment (EA) on the proposed acquisition of an easement by CSX Transportation, Inc. (CSXT) over the Elsdon Line between Munster, Indiana and Elsdon, Illinois, a total of 22.37 miles (the Proposed Transaction). At present, CSXT operates its trains in the Chicago area (called the "Chicago Terminal" by railroads) over the lines of other railroads. This often means that CSXT's trains do not move as efficiently as the railroad would like. CSXT is seeking to become the primary user of the Elsdon Line and to be responsible for dispatching trains on and maintaining the Elsdon Line, to enable CSXT to move its trains nonstop over the Elsdon Line. If the Board approves CSXT's proposed transaction, CSXT projects that it will save time (one hour for each train rerouted to the Elsdon Line) and money (\$2 billion per year). In deciding to approve CSXT's request, the Board must first consider the potential environmental effects of its decision. The Draft EA is the first step in this process.

This Draft EA examines the potential environmental effects of rerouting CSXT's trains from the lines of other railroads to the Elsdon Line. As a result of CSXT's proposed transaction, three segments of the Elsdon Line (between Thornton Junction and Hayford in Illinois) would experience an increase in train traffic of 10 to 19.5 trains per day, two segments of the Elsdon Line (between Griffith, Indiana and Thornton Junction, Illinois) would experience a decrease in train traffic, and train traffic on one segment (between Hayford and Elsdon in Illinois) would remain the same. Train traffic on other rail lines currently used by CSXT would also decrease.

The Draft EA preliminarily concludes that CSXT's proposed transaction would adversely affect two environmental resource areas: emergency response and noise/vibration. To reduce the potential adverse effects to these areas, we have developed mitigation measures and are recommending that the Board impose these (and other) measures in any decision approving the proposed transaction.

We encourage you to send us written comments on this Draft EA. OEA will consider and respond to comments in preparing the Final EA. The Final EA will include OEA's final conclusions on potential impacts that may result from the proposed transaction and OEA's final

recommendations, including the final recommended mitigation measures. To be considered, comments must be submitted during the comment period, which will close on **November 9, 2012**. OEA will issue the Final EA on or before January 14, 2013. The Board plans to issue a final decision on the proposed transaction by February 8, 2013.

When submitting comments on the Draft EA, please be as specific as possible. We are particularly interested in your thoughts on the recommended mitigation measures. Any suggestions you may have to improve our recommendations to the Board would be very welcome.

Comments may be submitted by mail or electronically using “E-Filing” button on the Board’s website ([www.stb.dot.gov](http://www.stb.dot.gov)).

- **By Mail:** If you are sending your comment by mail, please be aware that there may be up to a week delay in the delivery of mail to federal agencies. Mail written comments to:

Diana Wood  
Surface Transportation Board  
395 E Street, SW  
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Washington, DC 20423

- **Electronically:** For electronic comments, simply click on E-filing and then “Environmental Comments” from the E-Filing button on the Board’s website. The next page will be formatted to allow you to fill in your information and comment.

If you have questions or need clarification or guidance, please call Diana Wood at (202) 245-0302. You may email Ms. Wood at [woodd@stb.dot.gov](mailto:woodd@stb.dot.gov). We appreciate your time and effort in helping us to carefully evaluate the potential environmental effects here and we look forward to receiving your comments.

Sincerely,



Victoria Rutson  
Director

## **Summary of Major Conclusions in this Draft Environmental Assessment**

- CSX Transportation (CSXT) is proposing to improve the movement of its trains into and out of Chicago. Currently, CSXT uses several rail corridors to the south, east, and west to enter the “Chicago Terminal”—the area in and around Chicago. These rail corridors are maintained and dispatched by other railroads than CSXT. By acquiring an easement over the Elsdon Line, CSXT would have more control over the movements of its trains. This additional control would allow CSXT to save one hour in transit time per train within the Chicago Terminal and save CSXT more than \$2 million each year.
- The Elsdon Line, located south of Chicago, saw reduced train traffic as a result of the 2008 Board decision allowing the Canadian National Railway (CN) to acquire the Elgin Joliet & Eastern Railroad (EJ&E). The decrease in train traffic on the Elsdon Line would allow CSXT to reroute approximately 25 total trains from other lines in the Chicago Terminal to the Elsdon Line.
- CSXT proposes to reroute 19.5 CSXT trains on the segment of the Elsdon Line between Blue Island and Hayford, Illinois (segment GTW-05), 10.9 trains between CN Junction and Blue Island, Illinois (segment GTW-04), and 10.1 trains between Thornton Junction and CN Junction (segment GTW-03). The remaining three segments that comprise the Elsdon Line (segments GTW-01, 02, and 06) between Griffith, Indiana and Thornton Junction, Illinois and between Hayford and Elsdon, Illinois) would experience either a decrease in train traffic or no change as a result of the Proposed Transaction.
- Based on CSXT’s application, the Surface Transportation Board (Board) has classified CSXT’s Proposed Transaction as a “minor” transaction, a term defined in the Board’s regulations to mean one that would not cause any competitive harm and would generate public benefits. The term “minor” does not mean that the Proposed Transaction is not important, nor that it does not require a thorough environmental review of potential impacts under the National Environmental Policy Act (NEPA).
- The Board’s Office of Environmental Analysis (OEA) has prepared a Draft Environmental Assessment (EA) of CSXT’s Proposed Transaction to enable the Board to consider the effect of its decisions on the environment and provide a full and open process for the public to participate in the environmental review process. This is consistent with our obligations under NEPA and in keeping with the Board’s environmental rules at 49 C.F.R. § 1105.6(b)(4). That section provides that the Board will prepare an EA for acquisitions that could result in an increase of train traffic above the Board’s thresholds (in this case, three trains per day). As explained above, CSXT’s Proposed Transaction would increase train traffic on three segments of the

Elsdon Line by between 10 and 19.5 trains per day. Traffic on other three segments of the Elsdon Line would decrease or remain unchanged.

- The analysis in this Draft EA indicates that the Proposed Transaction would not adversely affect several environmental resource areas, including traffic and grade crossing delay, rail safety and operations (including hazardous materials transport), land use, socioeconomic, geology and soils, water resources, biological resources, air quality and climate, energy, cultural resources, and environmental justice. Each of these resources, along with OEA's conclusions, is discussed separately in the Draft EA.
- The Proposed Transaction would cause adverse effects to emergency response and to noise and vibration. With the imposition of mitigation, however, these impacts would be reduced below the level of significance. Therefore, preparation of an Environmental Impact Statement in this case is not necessary. Emergency response and noise and vibration impacts are discussed in detail in the Draft EA and a summary of these discussions, including the potential impacts and recommended mitigation, is presented below.
  - Emergency Response – Train traffic increases of 19.5 trains per day at the 95<sup>th</sup> Street crossing would affect emergency response operations to the Advocate Christ Medical Center (1.2 miles from the Elsdon Line) in Oak Lawn, Illinois and the Little Company of Mary Hospital (0.3 miles from the line) in Evergreen Park, Illinois. There is no grade separation or alternate route near these hospitals. Although CSXT anticipates that the 95<sup>th</sup> Street crossing would not be blocked any longer than the 2.5 minutes it would take a CSXT train to clear the crossing, OEA has recommended mitigation measure MM 2, which would require CSXT to install a Closed-Circuit Television Surveillance System (CCTV) or other similar system (with a camera in each direction) at the 95<sup>th</sup> Street crossing. The video camera(s) would transmit a signal to a specific place where they would be directly linked to live video monitors at designated emergency response dispatch centers. This would provide emergency dispatchers with information that could be used to predict train movements and to reroute emergency response vehicles, thus significantly reducing the possibility of impacts on emergency services due to the Proposed Transaction. OEA has also recommended mitigation measure MM 4, which would require CSXT to establish a community liaison to consult with affected communities and appropriate agencies; develop cooperative solutions to local concerns; be available for public meetings and conduct periodic outreach. In addition, CSXT has developed voluntary mitigation measures that would commit it to:

provide 911 notification to the City of Chicago for train blockages of 10 minutes or more, and again when the train has cleared the crossing; and operate under U.S. Operating Rule 526, which requires trains to be cut for blockages of 10 minutes or more at grade crossings. CSXT also intends to operate its trains over the Elsdon Line without stopping and would control dispatching so that other carriers' trains entering the Elsdon Line operate over the Line at the maximum allowable speed without stopping.

- Noise and Vibration – The Proposed Transaction would impact a total of 1,014 noise-sensitive receptors on the three segments of the Elsdon Subdivision that would experience train increases (188 on segment GTW-03, 327 on segment GTW-04, and 499 on segment GTW-05). The predominant noise source in segments GTW-03 and GTW-04 is locomotive horn noise. Therefore, as mitigation for these two segments, CSXT has agreed to work with the affected communities to establish quiet zones (areas where horns do not need to be routinely sounded, abbreviated QZ). The predominant noise source in segment GTW-05, already a designated QZ, would be from the locomotive engine and the rail/wheel interface. As mitigation, CSXT would install continuously welded track, track lubrication and other noise control devices. If the recommended mitigation measures are imposed, the number of noise sensitive receptors experiencing noise levels of 70 dBA or greater would be substantially reduced to 1 in segment GTW-03, 0 in segment GTW-04, and 77 in segment GTW-05. In addition, OEA has recommended mitigation measure MM 4, which would require CSXT to establish a community liaison to consult with affected communities and appropriate agencies; develop cooperative solutions to local concerns; be available for public meetings and conduct periodic outreach.
- Regarding vehicle delay, the Draft EA concludes that of the 31 public at-grade crossings that would experience a transaction-related increase in vehicles (cars and trucks), only one crossing—79<sup>th</sup> Street—would exceed the U.S. Department of Transportation Federal Highway Administration's 40-hour threshold for vehicle delay (explained in detail in Chapter 3). The 79<sup>th</sup> Street crossing (in segment GTW-05 between Hayford and Evergreen Park, Illinois where train traffic is projected to increase by 19.5 trains per day) would experience 66-hours of vehicle delay in a 24-hour period. The longest delay would occur between 6:00 and 7:00 P.M. when two trains are projected to cross 79<sup>th</sup> Street, each taking four minutes. The Draft EA analysis indicates that there are sufficient roadways in the area to allow motorists a range of alternatives to avoid roads that may be blocked by train traffic. Therefore, the Proposed Transaction should not result in substantial effects on mobility.

- As part of the Proposed Transaction, CSXT would reroute up to 133,831 carloads per year of hazardous materials from other rail lines in the Chicago Terminal to the Elsdon Line. The Elsdon Line would once again (as it was before the CN acquisition of the EJ&E line) become a “key route” that must meet specific safety requirements, as outlined in the Association of American Railroads’ (AAR) Circular No. OT-55-1. Although the risk of an accident cannot be eliminated entirely, the existing regulatory framework in place for key routes would reduce the likelihood of such an accident or release of hazardous materials taking place. As part of its voluntary mitigation, CSXT also would work with affected communities by conducting outreach, training, and assistance related to hazardous materials transportation. The Draft EA thus concludes that the likelihood of any releases occurring as a result of the Proposed Transaction is remote.
- OEA welcomes public comment on all aspects of this Draft EA during the comment period, which ends on **November 9, 2012**. OEA will respond to comments received, will make final recommendations to the Board, including recommendations for mitigation, and will issue those recommendations in a Final EA. The Final EA is scheduled to be issued on or before January 14, 2013. The Board then will issue its final decision addressing the Proposed Transaction and impose any environmental mitigation found to be appropriate. The Board intends to issue its final decision by February 8, 2013.

## OVERVIEW

CSX Transportation, Inc. (“CSXT”) is proposing to acquire an exclusive, perpetual, non-assignable railroad operating easement over a 22.37-mile rail line between Munster, Indiana, milepost (MP) 31.07, and Elsdon, Illinois, MP 8.7 (the “Elsdon Line”) from the Grand Trunk Western Railroad Company (“GTW”), which connects to the southern end of the BNSF Railway Company’s Corwith Yard. The Elsdon Line is in Cook County, Illinois, and Lake County, Indiana. CSXT’s reason for the Proposed Transaction is to improve the efficiency of its operations in and through the Chicago, IL area (referred to as the “Chicago Terminal”). The Chicago Terminal has the densest concentration of railroad lines serving freight and passengers in the United States.

CSXT is a large railroad (defined by the Board as a Class I railroad) that operates about 80 trains per day into, out of, and within the Chicago Terminal, including those of its wholly owned subsidiary, the Baltimore & Ohio Chicago Terminal Company (“B&OCT”). These include local trains that serve local industry, trains that move freight between processing facilities, and trains with traffic destined for locations throughout the United States and Canada.

CSXT currently enters the Chicago Terminal using several corridors located to the south, east, and west. Once in the Chicago Terminal, CSXT must use a combination of its own lines and other carriers’ lines to move traffic to and from yards and terminals in the Chicago Terminal area. Under the Proposed Transaction, CSXT would reroute some of its trains from other routes that it uses in and through the Chicago Terminal to the Elsdon Line, which CSXT believes is currently underutilized. CSXT’s operations in Chicago today use routes that are maintained and dispatched by various other railroads. Under the Proposed

Transaction, CSXT would maintain, dispatch and make capital improvements on the Elsdon Line. According to CSXT, this would provide CSXT with substantial benefits. With a route that is neither dispatched nor maintained by another rail carrier, CSXT would not have to rely on another railroad to control freight train movements on the Elsdon Line. CSXT also would be able to enter the Elsdon Line and move over and exit the Elsdon Line without stopping or slowing for other rail traffic. CSXT anticipates that, by being able to operate into, through, and out of the Chicago Terminal more easily, it could provide more efficient and reliable service to CSXT's customers and enhance the efficiency of its operations. CSXT also contends that the Proposed Transaction would ease overall rail congestion within the Chicago Terminal area and that the Proposed Transaction would further the goals of the Chicago Regional Environmental and Transportation Efficiency (CREATE) project. CSXT estimates that it would save about one (1) hour in transit time per rerouted train just within the Chicago Terminal and generate annual savings in excess of \$2 million.

Before it can proceed with the Proposed Transaction, CSXT must obtain approval from the Surface Transportation Board (the "Board"), which will include a review of the potential environmental and historic impacts of the Proposed Transaction. To that end, on August 13, 2012, CSXT filed an application for approval of the Proposed Transaction with the Board pursuant to 49 U.S.C. § 11323(a)(2) and 49 C.F.R. Part 1180. In its application, CSXT contends that the Proposed Transaction would not cause any competitive harm and would generate public benefits and that the Proposed Transaction should be classified as a "minor" transaction, as that term is defined in the Board's regulations at 49 C.F.R. § 1180.2(c). By decision served September 12, 2012, the Board adopted for consideration CSXT's

application, found the Acquisition to be a “minor” transaction because it appears that there would not be anticompetitive effects from the transaction, and set a procedural schedule.

If the Proposed Transaction is approved and becomes effective, CSXT plans to shift approximately twenty-five (25) trains per day from other lines that CSXT uses in the Chicago Terminal to various segments of the Elsdon Line. Thus, based on current traffic, there would be a decrease in the volume of traffic on other lines used in the Chicago terminal area by CSXT while there would be an increase of rail traffic on the Elsdon Line. Environmental review under the National Environmental Policy Act is required here because, as described in more detail later in this document, the projected increases in train traffic on some segments of the Elsdon Line (19.5 more trains per day on one segment and approximately 10 trains per day on two others) exceed the thresholds in the Board’s environmental rules (generally an increase of 3 or 8 trains per day, depending on the air quality of the project area).

Accordingly, consistent with those rules, the Board’s Office of Environmental Analysis is issuing for public review and comment, this Draft Environmental Assessment assessing the potential environmental impacts of the Proposed Transaction and proposing environmental mitigation to minimize potential impacts. Comments on this document are due by **November 9, 2012**. Following the receipt of public comments on the Draft EA, a Final EA will be issued, completing the environmental review process. The Board will then consider whether to authorize the Proposed Transaction by addressing concerns related to competition, see 49 U.S.C. §11324 (d). In addition the Board will consider the entire environmental record (including the Draft EA, Final EA and all public and agency comments) in determining what, if any, environmental conditions to impose, should the Transaction be authorized.

In an acquisition proceeding such as this, which does not involve the merger or control of at least two large Class I railroads, the STB, under 49 U.S.C. § 11324(d), “shall approve . . . an application unless it finds that – (1) as a result of the transaction, there is likely to be substantial lessening of competition, creation of a monopoly, or restraint of trade in freight surface transportation in any region of the United States; and (2) the anticompetitive effects of the transaction outweigh the public interest in meeting significant transportation needs.” Therefore, the STB must approve this transaction unless it makes specific statutory findings concerning possible anticompetitive effects from the transaction. The Board, however, can impose environmental conditions to minimize environmental effects. *See* 49 U.S.C. §11324 (c).

**Draft Environmental Assessment**

**October 5, 2012**

**Docket No. FD 35522**

**CSX Transportation, Inc.—Operating Easement—Grand Trunk Western  
Railroad Company**

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## List of Acronyms and Abbreviations

<b><u>Acronym</u></b>	<b><u>Definition</u></b>
AADT	Annual Average Daily Traffic
AAR	Association of American Railroads
ABS	Automatic Block System
ADT	average daily traffic
AREMA	American Railway Engineering and Maintenance of Way Association
B&OCT	Baltimore & Ohio Chicago Terminal Railroad Company
BNSF	BNSF Railway Company
Board	Surface Transportation Board
BP	before present
BRC	Belt Railway of Chicago
$C_{throttle}$	adjustment for throttle setting
$C_{track}$	adjustment for track conditions
CAA	Clean Air Act
CDOT	Chicago Department of Transportation
CEDS	Comprehensive Economic Development Strategy
CEQ	Council on Environmental Quality
C.F.R.	Code of Federal Regulations
CIP	75 <sup>th</sup> Street Corridor Improvement Project
CMAP	Chicago Metropolitan Agency for Planning
CN	Canadian National Railway Company
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CREATE	Chicago Region Environmental and Transportation Efficiency
CSXT	CSX Transportation, Inc.
CTC	Centralized Traffic Control
CW	Chicago Wilderness
CWA	Clean Water Act
CWR	continuously welded rail
Da	average delay per delayed roadway vehicle
dB	decibel
dBA	A-weighted decibel
Dc	blocked crossing time per train
Di	delay for vehicles
DPM	diesel particulate matter
Dv	average delay for all vehicles
E	Endangered
Easement	The exclusive, perpetual, non-assignable railroad operating easement by GTW to CSXT over 22.37 miles of GTW between Munster, Indiana, milepost 31.07, and

<b><u>Acronym</u></b>	<b><u>Definition</u></b>
	Elsdon, Illinois, milepost 8.7.
EA	Environmental Assessment
EIS	Environmental Impact Statement
EJ&E	Elgin, Joliet & Eastern Railway Company
EO	Executive Order
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Maps
FR	Federal Register
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
FWCA	Fish and Wildlife Coordination Act of 1934
GHG	greenhouse gases
GIS	Geographic Information System
GTM	gross-ton-miles
GTW	Grand Trunk Western Railroad Company
HAP	hazardous air pollutants
HCM	Highway Capacity Manual
HED	Hine's emerald dragonfly
HUC	Hydraulic Unit Code
IC	Indiana Code
ICC	Illinois Commerce Commission
ICS	Illinois Compiled Statutes
IDEM	Indiana Department of Environmental Management
IDOT	Illinois Department of Transportation
IEPA	Illinois Environmental Protection Agency
IHB	Indiana Harbor Belt Railroad Company
IHPA	Illinois Historic Preservation Agency
ILCS	Illinois Compiled Statutes
ILDNR	Illinois Department of Natural Resources
ILNAPA	Illinois Natural Areas Protection Act
INDNR	Indiana Department of Natural Resources
INDOT	Indiana Department of Transportation
INNPA	Indiana Nature Preserves Act
INNESA	Indiana Nongame and Endangered Species Act of 1973
ISGS	Illinois State Geological Survey
ISO	International Organization for Standardization
KBB	Karner blue butterfly
km/h	kilometers per hour
L	length of the train

<b><u>Acronym</u></b>	<b><u>Definition</u></b>
$L_{dn}$	day-night noise level
$L_{eq}$	equivalent sound level
Landlord Railroads	rail lines of numerous rail partners
Elsdon Line	The 22.37-mile portion of the GTW's Elsdon Subdivision rail line between Munster, Indiana, MP 31.07, and Elsdon, Illinois, MP 8.7.
LOS	Level of service
MBTA	Migratory Bird Treaty Act
$mg/m^3$	milligrams per cubic meter
MOU	Memorandum of Understanding
MP	milepost
mph	miles per hour
MSA	Master Service Agreement
MSAC	Modern Schools Across Chicago
MSAT	mobile source air toxics
N	trains per day
$N_{loco}$	number of locomotives per train
$N_{cars}$	number of railcars per train
NAAQS	National Ambient Air Quality Standards
National Register	National Register of Historic Places
NEPA	National Environmental Policy Act
NL	number of traffic lanes
$NO_2$	nitrogen dioxide
$NO_x$	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NS	Norfolk Southern Railway Company
NWI	National Wetland Inventory
$O_3$	ozone
OEA	Office of Environmental Analysis
OSHA	Occupational Safety and Health Administration
Pb	lead
PBC	Public Building Commission of Chicago
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
$PM_{10}$	particulate matter less than 10 microns in diameter
ppb	parts per billion
ppm	parts per million
Proposed Transaction	Acquisition of an Easement over a 22.37-mile portion of the GTW's Elsdon Subdivision rail line between Munster, Indiana, MP 31.07, and Elsdon, Illinois, MP 8.7.
Q	vehicle queue length

<b><u>Acronym</u></b>	<b><u>Definition</u></b>
QZs	quiet zone
RCRA	Resource Conservation and Recovery Act
ROW	right-of-way
S	average speed of train
$S_{ref}$	reference speed
Sc	departing vehicles slope
SEL	sound exposure level
SES	Metra Proposed South-east Service
SHPO	State Historic Preservation Office
SO <sub>2</sub>	sulfur dioxide
Sq	average arrival rate of traffic
STB	Surface Transportation Board
Study Area	Comprises the Elsdon Line segments GWT-03, 04, and 05 from Thornton Junction, Illinois, MP 25.2 to Hayford, Illinois, MP 11.8, where train traffic would increase as a result of the Proposed Transaction. The study area differs for some resources (see sections for the definition of the resource-specific study area).
SWL	sound power level
SWS	Metra South-west Service
T	Threatened
Td	total vehicle traffic delay
TIH	toxic inhalation hazard
TNC	The Nature Conservancy
tpy	tons per year
Tqc	queue clearance time in minutes
TRANSCAER	Transportation Community Awareness and Emergency Response Program
TRB	Transportation Research Board
UHI	urban heat island
UP	Union Pacific Railroad Company
U.S.	United States
USACE	U.S. Army Corps of Engineers
U.S.C.	United States Code
USD	U.S. dollars
USDA-NRCS	U.S. Department of Agriculture-Natural Resources Conservation Service
USDOT	U.S. Department of Transportation
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
V	average train speed in miles per hour
V/C	volume to capacity ratio
VdB	vibration decibel
VM	voluntary mitigation

<b><u>Acronym</u></b>	<b><u>Definition</u></b>
vmt	vehicle miles traveled
VOC	volatile organic compounds
vpd	vehicles per day
$\mu\text{g}/\text{m}^3$	micrograms per cubic meter of air



## EXECUTIVE SUMMARY

### 1. This Proceeding

On August 13, 2012, CSX Transportation, Inc. (“CSXT”) filed an application with the Surface Transportation Board (the Board) in STB Docket No. 35522 pursuant to 49 U.S.C. § 11323(a)(2) and 49 C.F.R. Part 1180. CSXT wishes to acquire from the Grand Trunk Western Railroad Company (“GTW”) an exclusive, perpetual, non-assignable railroad operating easement over 22.37-miles of GTW rail line (the “Elsdon Line”) between Munster, Indiana, milepost (MP) 31.07, and Elsdon, Illinois, MP 8.7 (the “Proposed Transaction”).<sup>1</sup> CSXT’s application states that GTW’s use of the Elsdon Line has decreased since the Canadian National Railway Company (“CN”) acquired the Elgin, Joliet & Eastern rail line (“EJ&E”) in 2008,<sup>2</sup> which has allowed CN’s subsidiary railroads<sup>3</sup> to divert traffic from the Elsdon Line to the EJ&E line. CSXT believes that its proposed use of the Elsdon Line would increase CSXT’s ability to control its traffic flowing through the Chicago Terminal, reduce congestion on the other lines that CSXT uses to operate in the Chicago Terminal, and enhance the efficiency of its operations and the operations of other railroads in the Chicago Terminal. The Proposed Transaction would reroute trains over shorter distances and take less time according to CSXT. The Proposed Transaction lies within Cook County, Illinois, and Lake County, Indiana. Figure 1.1-1 in Chapter 1 shows the location of the Proposed Transaction.

CSXT also has agreed to convey “trackage rights” allowing various GTW affiliates and a CSXT subsidiary to continue to operate over the Elsdon Line to serve local shippers and move traffic over the Elsdon Line, if the Proposed Transaction is approved by the Board. The Proposed Transaction requires an environmental review under NEPA and related environmental laws because the projected increases in train traffic on some segments of the Elsdon Line (19.5 more trains on one segment and about 10 more trains per day on two others) exceed the thresholds in the Board’s environmental rules (generally an increase of 3 or 8 trains per day, depending on the air quality in the project area).

### 2. The Parties’ Planned Swap

In exchange for obtaining the easement over the Elsdon Line described above, CSXT has agreed, in a separate transaction, to grant GTW an exclusive, perpetual non-assignable railroad operating easement over approximately 2.1 miles of CSXT’s Memphis Terminal Subdivision, between Leewood, TN, milepost 00F371.4, and Aulon, TN, milepost 00F373.4. According to GTW, this easement would allow GTW and its affiliates greater control of the

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<sup>1</sup> CSXT already operates over the line pursuant to trackage rights.

<sup>2</sup> See *Canadian National Railway Company and Grand Trunk Corporation—Control EJ&E West Company*, STB Finance Docket No. 35087 (STB served Dec. 24, 2008).

<sup>3</sup> Grand Trunk Western Railroad, Illinois Central Railroad Company (“IC”), Chicago, Central & Pacific Railroad Company (“CCP”), and Wisconsin Central Ltd. (“WCL”).

operation of their north-south trains between the Gulf of Mexico and Chicago. This proposal also requires Board approval and will be adjudicated in a separate proceeding, Docket No. FD 35661.<sup>4</sup> GTW has explained, however, that an environmental review of the proposal is not needed because the proposed acquisition of the 2.1 miles of rail line in Tennessee would not result in any operational changes that meet or exceed the Board's thresholds for environmental review. Accordingly, the environmental review here encompasses only the transaction involving the Elsdon Line at issue in Docket No. 35522.

### 3. NEPA and the Environmental Review Process

The National Environmental Policy Act ("NEPA"), 42 U.S.C. § 4321, requires that the Board examine the significant environmental effects of major federal actions—including regulatory approval of projects proposed by private parties—and to inform the public concerning those effects.<sup>5</sup>

Under NEPA, the Board must consider potential environmental impacts. While NEPA prescribes the process that must be followed, it does not mandate a particular result.<sup>6</sup> Thus, once the environmental effects have been adequately identified and evaluated, the Board may conclude that other values outweigh the environmental costs.<sup>7</sup> Regulations governing implementation of NEPA have been promulgated by the Council on Environmental Quality (CEQ)<sup>8</sup> and by the Board.<sup>9</sup> The Board's Office of Environmental Analysis ("OEA") is responsible for conducting environmental reviews on behalf of the Board, evaluating potential environmental impacts, and recommending environmental mitigation conditions to the Board. In imposing environmental mitigation conditions in acquisition proceedings, the Board has consistently focused on the potential environmental impacts that would result directly from transaction-related changes in activity levels on existing rail lines and at rail facilities. The Board typically does not require mitigation for pre-existing environmental conditions, such as the effects of current railroad operations.

The level of environmental review depends upon the potential for significant impacts. Actions whose environmental effects are ordinarily insignificant may normally be categorically excluded from a case-specific NEPA review.<sup>10</sup> Included in this category are acquisition transactions that would not result in operational changes that exceed certain rail activity thresholds established by the Board and trackage rights. *See* 49 C.F.R. §1105.7(e)

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<sup>4</sup> *Grand Trunk Western R.R.-Acquisition of Operating Easement-In Shelby County, Tennessee*, Docket No. FD-35661.

<sup>5</sup> 42 U.S.C. §4332(2)(C); *Baltimore Gas & Elec. Co. v. Natural Res. Def. Council*, 462 U.S. 87, 97 (1983).

<sup>6</sup> *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350-51 (1989).

<sup>7</sup> *Id.*

<sup>8</sup> 40 C.F.R. Parts 1500-1508

<sup>9</sup> 49 C.F.R. Part 1105

<sup>10</sup> 40 C.F.R. §§1500.4(p), 1501.4(a)(2), 1508.4; 49 C.F.R. §1105.6(c), (d).

(4), (5). Acquisitions that are expected to cause increases in trains per day, rail traffic, or rail yard activity above the Board's thresholds for environmental review (generally, an increase of 3 trains per day in areas with poor air quality and 8 trains per day in areas with good air quality) presumptively require the preparation of an Environmental Assessment (EA).<sup>11</sup> The thresholds for environmental review will be met in this case because train traffic is expected to increase 19.5 trains per day on one portion of the Elsdon Line and approximately 10 trains per day on two other portions of the Elsdon Line.

For CSXT's proposal to acquire an operating easement over the Elsdon Line, CSXT requested permission from OEA to prepare a Preliminary Draft EA (PDEA), which OEA approved under CEQ guidelines at 40 C.F.R. § 1506.5(b). These guidelines provide that an agency may permit an applicant to prepare an EA, provided the agency makes its own evaluation of the environmental issues and takes responsibility for the scope and content of the EA.

After receiving approval from OEA to prepare a PDEA, CSXT then conducted early outreach and consultation with various federal, state, and local agencies, officials, and other interested parties. CSXT performed its outreach and consultations both by letter and by public meetings held in the project area. Based on studies and feedback from many stakeholders, CSXT prepared its PDEA (using the consulting firm of HDR, Inc.), which described the purpose and need for the proposed action and described the affected environment and the reasonably foreseeable environmental impacts of the proposal and the No-Action Alternative (retention of the status quo). The PDEA also set forth voluntary mitigation that CSXT agreed to comply with should the Board approve the Proposed Transaction and concluded that, as mitigated by the measures suggested by CSXT, CSXT's proposal would not result in significant environmental impacts.

CSXT received several comments during its preliminary outreach and consultation. Comments were received from the Village of Evergreen Park, the Village of Lansing, the City of Blue Island, the South Suburban Mayors and Managers Association, Metra, Amtrak, the Illinois Environmental Protection Agency, the Indiana Department of Environmental Management, the U.S. Fish and Wildlife Service, the City of Greenwood, and the Illinois and Indiana State Historic Preservation Offices. Each of these comments may be found in Appendix A of this Draft EA and in CSXT's application.

OEA has taken the PDEA, carefully reviewed the information set forth in the document, verified the methodologies and data, edited the PDEA to ensure its accessibility to the public, and turned it into this Draft EA, which OEA is now issuing for public review and comment. The Draft EA describes the affected environment; evaluates and compares the environmental

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<sup>11</sup> 49 C.F.R. §§ 1105.6(b)(4), (c)(2)(i). Agencies must prepare a detailed Environmental Impact Statement (EIS) for proposals that would significantly affect the quality of the human environment. 42 U.S.C. § 4332(2)(C). Agencies may prepare a more limited EA to determine whether a full EIS is necessary or whether, with appropriate mitigation, they can make a Finding of No Significant Impact. 40 C.F.R. §§ 1501.3, 1501.4.

effects of the Proposed Transaction and No-Action alternatives; and identifies mitigation measures that could eliminate or lessen the expected environmental impacts. The Draft EA includes both CSXT's proposed voluntary mitigation and additional recommended mitigation for the Board to consider imposing on CSXT should this transaction be approved. The mitigation measures in the Draft EA cover the following resource areas: transportation; rail operations; rail safety; pedestrian and bicycle safety; hazardous materials transportation; emergency response; air quality; noise and vibration; environmental justice; and monitoring and enforcement.

In addition, OEA has provided responses to comments submitted during the PDEA process in the appropriate sections of this Draft EA. Based on all the information available to date, OEA has preliminarily determined that the potential environmental impacts of CSXT's proposal, with the mitigation set forth in the Draft EA, would not be significant.

OEA emphasizes that the recommended environmental mitigation measures for the Proposed Transaction in the Draft EA are preliminary, and it invites comments on these proposed environmental mitigation measures and all other aspects of this Draft EA, during the comment period on this Draft EA, which will end on **November 9, 2012**. In order for OEA to effectively assess the comments, it is critical that the public be specific regarding their concerns, including any desired additional mitigation and the reasons why it would be appropriate. OEA will consider all public comments on the Draft EA, and may conduct further environmental analysis and agency consultation as appropriate based on these comments. OEA will then issue a Final EA on or before **January 14, 2013** completing the environmental review process. The Final EA will address the comments received on the Draft EA and make final environmental recommendations, including mitigation to the Board.

In an acquisition proceeding such as this, which does not involve the merger or control of at least two large Class I railroads, the STB, under 49 U.S.C. § 11324(d), "shall approve . . . an application unless it finds that – (1) as a result of the transaction, there is likely to be substantial lessening of competition, creation of a monopoly, or restraint of trade in freight surface transportation in any region of the United States; and (2) the anticompetitive effects of the transaction outweigh the public interest in meeting significant transportation needs." Therefore, the STB must approve this transaction unless it makes specific statutory findings concerning possible anticompetitive effects from the transaction. The Board, however, can impose environmental conditions to minimize environmental effects. *See* 49 U.S.C. §11324(c). Should the Proposed Transaction be approved, the Board will consider the entire environmental record, all public comments, and OEA's final environmental recommendations, including final recommended mitigation measures in deciding what, if any environmental mitigation to impose.

## **PURPOSE OF AND NEED FOR THE PROPOSED TRANSACTION**

CSXT has stated in its Application that the Proposed Transaction would improve the efficiency, consistency, and reliability of CSXT's operations in the Chicago Terminal area. CSXT states that currently, it uses a combination of its own lines and other carriers' lines to

move traffic to and from yards and terminals. CSXT claims that, by acquiring the easement over the Elsdon Line, and become the primary user of that line, it would acquire a route that is not encumbered by the control of another railroad. According to CSXT, the Proposed Transaction would give CSXT greater control over the handling of its trains to, from, and through the Chicago Terminal, reduce CSXT's reliance on other railroads, and enable CSXT to operate more efficiently and consistently, allowing CSXT to provide better services to its customers that route traffic through the Chicago Terminal. And because CSXT would be able to remove traffic from those other carriers' lines, those carriers, according to CSXT, would also benefit from the Proposed Transaction.

According to the Application, the Proposed Transaction would reroute trains over shorter distances and therefore, take less time. CSXT claims that the improved train movement that would result under the Proposed Transaction would reduce fuel consumption and emissions, resulting in reduced environmental impacts from the current operations. CSXT further states that the acquisition would further the goals of CREATE,<sup>12</sup> which has as its objective increasing the efficiency of the Chicago region's rail infrastructure by reducing train delays and congestion in the Chicago area.

CSXT maintains that the acquisition would not result in a substantial lessening of competition, creation of a monopoly, or restraint of trade in freight in any region of the United States. According to CSXT, it would not result in a reduction in the number of rail carriers serving any shipper. CSXT asserts that all of the railroads operating in the Chicago Terminal would continue to serve that area. It notes that GTW and GTW's affiliates would be able to continue to jointly use the Elsdon Line via trackage rights and that other railroads would be able to use their own routes.

Under the CEQ's NEPA regulations, specifically 40 C.F.R. § 1508.9(b), an agency's EA shall include a brief discussion of the proposed project's purpose and need. OEA notes that the analysis of a project's purpose and need depends upon the type of federal action that is involved in the particular project. Here, the Proposed Transaction involves an application by a rail carrier, CSXT, for a license or approval. The Proposed Transaction is not a federal government-proposed or sponsored project. In cases such as this, courts have held that the project's purpose and need should be defined by the private applicant's goals, in conjunction with the agency's enabling statute, 49 U.S.C. §§ 11323-11325.<sup>13</sup>

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<sup>12</sup> The CREATE Program is a public-private partnership between the US Department of Transportation, the State of Illinois, City of Chicago, Metra Commuter Rail and large Class I railroad companies. The primary goal of the CREATE Program is to increase the efficiency of the Chicago-region's rail infrastructure by reducing train delays and congestion in the Chicago area.

<sup>13</sup> See, e.g., *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 196 (D.C. Cir. 1991); see also *Nat'l Parks & Conservation Assoc. v. BLM*, 606 F.3d 1058, 1070 (9th Cir. 2009).

## **PROPOSED TRANSACTION AND NO-ACTION ALTERNATIVE**

The Draft EA evaluates two alternatives: the Proposed Transaction and the No-Action Alternative (maintaining the status quo). Because the Proposed Transaction involves the acquisition of an easement, and no construction of additional railroad lines is planned, there is no other reasonable and feasible alternative to move CSXT's train traffic through the Chicago Terminal other than the Proposed Transaction and the No-Action Alternative. As a result of the Proposed Transaction, CSXT would reroute some traffic in the Chicago Terminal resulting in the increase of traffic on portions of the Elsdon Line of as many as 19.5 trains a day and reductions of traffic on other rail lines used by CSXT in the Chicago Terminal. Where there would be potential adverse effects from traffic increases on the Elsdon Line, CSXT has proposed voluntary mitigation to reduce the potential effects. OEA has also developed additional mitigation in this Draft EA to minimize some of these effects.

Furthermore, CSXT has advised OEA that it is willing to negotiate reasonable mitigation agreements with affected communities. The Board encourages communities and other entities and applicants to reach negotiated agreements because negotiated agreements can be more far-reaching and more tailored to the specific needs of the community or other entity than mitigation the Board could unilaterally impose. The Board's practice is to impose conditions requiring compliance with any negotiated agreements that are reached in lieu of other site-specific mitigation that might be imposed and to impose in supplemental decisions the terms of any negotiated agreements that might be reached after a final Board decision has been issued and has become effective.

### **Expected Train Increases Under the Proposed Transaction**

As noted, CSXT is seeking the Board's authorization under 49 U.S.C. § 11323(a)(2) and 49 C.F.R. Part 1180 to acquire from GTW an exclusive, perpetual, non-assignable railroad operating easement over the 22.37-mile Elsdon Line between Munster, Indiana, MP 31.07, and Elsdon, Illinois, MP 8.7. To assess the potential impacts of the Proposed Transaction, this Draft EA has divided the Elsdon Line into 6 rail line segments (GTW-01 through GTW-06) that lie within Cook County, Illinois, and Lake County, Indiana.

Figure 1.1-1, Table 1.1 1a, and page 42 of Volume 1 of the Application, show the proposed changes in CSXT train traffic volume for each segment and nearby railroad lines where CSXT operates that would result from the Proposed Transaction. This Draft EA evaluates the line segments where there would be an increase in the number of daily trains. Segments where there would be no increase in the number of trains would have no potential for causing environmental effects.

Under the Proposed Transaction, CSXT plans to reroute to various segments of the Elsdon Line a total of approximately 25 trains per day from the lines of other railroads that CSXT currently uses in the Chicago Terminal. Based on the difference between the number of trains operated on the Elsdon Line today and the number of trains that would be operated under the Proposed Transaction, the Proposed Transaction would result in an increase of train traffic on segments GTW-03 (+10.1 trains), GTW-04 (+10.7 trains), and GTW-05 (+19.5

trains). At the same time, the Proposed Transaction would decrease train traffic on segments GTW-01 (-2.9 trains) and GTW-02 (-0.8 trains). Train volume on segment GTW-06 would remain unchanged. See Table 1.1-2.

In addition, CSXT explains that the Proposed Transaction is consistent with CREATE. Two CREATE projects, in fact, make this Proposed Transaction possible. These are expected to be completed and in service by the second quarter of 2013. These are:

- Project B-16 which involves the installation of a connection in the southwest quadrant of Thornton Junction replacing a connection that was formerly located in the same quadrant.
- Project WA-10, which involves the installation of a universal crossover just north of the Cal-Sag Canal at Blue Island Junction, plus a crossover between the two-main-track of the Elsdon Line, located near Burr Oak Avenue.

The CREATE projects will take place whether or not the Proposed Transaction is approved.

### **No-Action Alternative**

CEQ's regulations implementing NEPA (40 C.F.R. § 1502.12(d)) require consideration of a No-Action Alternative (maintaining the status quo). Consideration of the No-Action Alternative provides a basis for understanding the benefits and potential adverse impacts of the Proposed Transaction. Under the No-Action Alternative, CSXT would not acquire an exclusive, perpetual, non-assignable railroad operating easement from GTW. CSXT would continue to make connecting train movements between Munster, Indiana, MP 31.07, and Elsdon, Illinois, MP 8.7, in the same manner as the movements now occur and would not make changes to existing rail operations. Under the No-Action Alternative the traffic increases that would occur under the Proposed Transaction would not occur, but the potential transportation-related benefits of this project to CSXT, the other railroads that operate in the Chicago Terminal, and their shippers also would not take place.

### **AFFECTED ENVIRONMENT AND ENVIRONMENTAL IMPACTS**

The existing social, economic, and environmental conditions were examined in the study area (for most environmental resources, the line between Munster, Indiana at MP 31.07 and Elsdon, Illinois, MP 87) to serve as the baseline for comparing the potential impacts of the Proposed Transaction and the No-Action Alternative, and for assessing the need for mitigation of potential adverse environmental impacts. To describe the existing conditions and assess the potential impacts of the increases in rail traffic that would occur under the Proposed Transaction, the following issue areas were studied in preparing this Draft EA: traffic and grade crossing delay, rail safety and operations (including hazardous materials transport), emergency response, community resources and land use, socioeconomics, geology and soils, water resources, biological resources, air quality and climate, noise and vibration, energy, cultural resources, and environmental justice. Of this group, the analysis in the Draft EA indicates that without mitigation, adverse impacts could occur to emergency response, and noise and vibration. Each resource area assessed in the Draft EA is summarized below.

Mitigation, both voluntary from CSXT and OEA's recommended mitigation follows. These measures are designed to minimize any adverse impacts from the Proposed Transaction to below significant levels.

As part of its environmental evaluation, OEA staff made a site visit to view the Elsdon Line on May 27, 2011. OEA staff was accompanied by CSXT staff that provided information on the Proposed Transaction, operations, and adjoining areas. This site visit allowed OEA to observe the Elsdon Line and adjoining areas first-hand.

As noted, this Draft EA does not assess in detail the portions of the Elsdon Line designated GTW-01, GTW-02, and GTW-06, because there would either be no increase in rail traffic as a result of the Proposed Transaction (GTW-06) or the expected traffic increase was below the Board's thresholds for potential environmental impacts (49 C.F.R. §1105.7(e)(4 or 5)). The analysis conducted for this Draft EA is summarized below.

### **Transportation**

Potential impacts of the Proposed Transaction on traffic and crossing delay, rail operations, rail safety, and emergency response were analyzed, as summarized below.

#### **Traffic and Grade Crossing Delay**

The potential effects of increased rail traffic as a result of the Proposed Transaction were evaluated. A total of 60 crossings are located along the Elsdon Line. Of the 60 crossings, 16 are grade-separated, one is a pedestrian crossing, and 43 are at-grade crossings of public roads. Of these 43 at-grade crossings, 31 are on rail line segments that would experience a transaction-related increase in train traffic.

Out of 31 public at-grade crossings, the most current and available Average Daily Traffic ("ADT") ranges from 300 vehicles per day ("vpd") at Union Street in Blue Island, Illinois, to 27,200 vpd at U.S. 6/162<sup>nd</sup> Street in South Holland. Because ADT volumes are from 2009 and 2010 surveys, a two-percent growth rate was applied in determining the existing ADT volumes (Table 3.1-1). It was previously determined that a two-percent growth rate for ADT was appropriate to use in Western Cook County, IL. See Table 3.3-2, in *Canadian National Railway Company, Grand Trunk Corporation—Control—Elgin, Joliet, and Eastern Railroad*, Finance Docket No. 35087, Draft Environmental Impact Statement (served July 25, 2008) (the "CN DEIS").

All of the crossings analyzed in this case exhibit some level of delay under existing 2012 conditions. It was found that currently the time required for a train to enter an intersection and clear the at-grade crossing ranges from 1.9 to 4.0 minutes. The average delay per delayed vehicle ranges from 1.2 to 2.6 minutes. The queue analysis results showed the longest vehicular queues at the at-grade crossings of 127<sup>th</sup> and 111<sup>th</sup> Streets (30 vehicles), 119<sup>th</sup> Street (32 vehicles), and 79<sup>th</sup> Street (48 vehicles). The delay analysis under the Proposed Transaction indicates that there would be some effects on each crossing due to increased train traffic resulting from the Proposed Transaction. The greatest effects would be located at 79<sup>th</sup> Street, where the number of trains would increase from 3.5 per day to 23.0 per

day. Accordingly, additional analysis for 79<sup>th</sup> Street was conducted, and it was determined that vehicle traffic at the crossing would experience 66 hours of cumulative delay in a 24-hour period.

When a queue of vehicles is so long that it blocks an arterial roadway, the mobility of the community is considered to be affected. On the other hand, when queues block no roadways or a local roadway only, the mobility of the community is not considered to be affected.

Here, the analysis revealed that the vehicle queue length for 79<sup>th</sup> Street does not currently block the adjacent major signalized intersections of Pulaski Road and Kedzie Avenue. The vehicle queue during the peak hour may block the signalized intersection of South Lawndale Avenue and Hamlin Avenue. Both South Lawndale and Hamlin Avenues are local roads. The 79<sup>th</sup> Street crossing did not exceed any other threshold criteria used by the Board to determine whether mitigation would be warranted. Therefore, the Draft EA concludes that the Proposed Transaction would not significantly affect regional mobility.

CSXT has nevertheless offered voluntary mitigation measures (VM 1-6) related to traffic and crossing delay. Although CSXT has not identified any grade crossings that would require mitigation under OEA's established standards, under CSXT's voluntary mitigation, CSXT would, upon request, cooperate with municipalities and counties in support of their efforts to secure funding, in conjunction with appropriate state agencies, for grade separations where they may be appropriate under criteria established by relevant state Department of Transportation. CSXT has also agreed to examine train operations for ways of reducing highway/rail at-grade crossing blockages. Moreover, CSXT would cooperate with the appropriate state and local agencies and municipalities to: evaluate the possibility that one or more roadways listed in Table 3.1-1 could be closed at the point where it crosses the Elsdon Line, in order to eliminate the at-grade crossing; improve or identify modifications to roadways that would reduce vehicle delays by improving roadway capacity over the crossing by construction of additional lanes; assist in a survey of highway/rail at-grade crossings for a determination of the adequacy of existing grade crossing signal systems, signage, roadway striping, traffic signaling inter-ties, and curbs and medians; and identify conditions and roadway, signal, and warning device configuration that may trap vehicles between warning device gates on or near the highway/rail at-grade crossing. In order to minimize the number of trains being stopped by operators at locations that block grade crossings on the Elsdon Line, CSXT has agreed to work with other railroads to establish reasonable and effective policies and procedures to prevent other railroads' trains from interfering with CSXT's trains on the Elsdon Line. Further, CSXT's design for wayside signaling systems would be configured and implemented to minimize the length of time that trains or maintenance-of-way vehicles or activities occupy at-grade crossings or unnecessarily activate grade-crossing warning devices. And CSXT would operate under U.S. Operating Rule No. 526 (Public Crossings), which provides that a public crossing must not be blocked longer than 10 minutes unless it cannot be avoided and that, if possible, rail cars, engines, and rail equipment may not stand closer than 200 feet from a highway/rail at-grade crossing when there is an adjacent track. If the blockage is likely to exceed this time frame, then the train would be promptly

cut to clear the blocked crossing or crossings. In addition, OEA has recommended mitigation measure MM 4, which would require CSXT to establish a community liaison to consult with affected communities and appropriate agencies; develop cooperative solutions to local concerns; be available for public meetings; and conduct periodic outreach. CSXT would be subject to the condition for a period of one year following the startup of transaction-related operations on the Elsdon Line.

### **Rail Operations**

If the Proposed Transaction is approved and implemented, CSXT plans to shift a total of approximately 25 trains per day from other lines that CSXT uses in the Chicago Terminal to various segments of the Elsdon Line.<sup>14</sup>

### **Train Speed**

Existing train speeds on the Elsdon Line are between 30 and 60 mph under GTW's timetable. CSXT intends to operate over the Elsdon Line at the same speeds and anticipates operating its trains without stopping on the Elsdon Line.

### **Dispatch of Trains**

Under the Proposed Transaction, dispatch of the Elsdon Line would be transferred from GTW to CSXT. CSXT would then dispatch the Elsdon Line from CSXT's Chicago Dispatch Center at Calumet City, Illinois.

To allow CSXT to begin dispatching the Elsdon Line as soon as possible, should the Board approve the proposed acquisition, CSXT plans to design and implement the redirection of all GTW control points<sup>15</sup> to CSXT's dispatch center in Calumet City. CSXT also plans to complete the appropriate design and implementation of automation of all of GTW's responsibilities at the Blue Island Junction interlocking, on the Elsdon Line, including the road crossings at Broadway Street.<sup>16</sup>

### **Intercity Passenger Service**

Under the Proposed Transaction, passenger train service should not be adversely affected, given the low number of passenger trains on the Elsdon Line. Currently, Amtrak operates

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<sup>14</sup> The proposed train volumes that would shift as a result of the Proposed Transaction are expected to occur within twenty-four months of receiving Board authority to acquire the operating easement over the Elsdon Line. Prior to shifting any traffic, CSXT must complete the construction of CREATE projects WA-10 (at Blue Island Jct.) and B-16 (at Thornton). CSXT expects WA-10 to be complete and in service by the early part of the second quarter of 2013, and B-16 to be complete and in service by the winter of 2013. Both connections are being made within the existing right-of-way and do not enable CSXT to access new markets. The connection at Thornton Jct. is a replacement of an inactive or previously removed connection. The connections at Blue Island Jct. are crossovers to improve efficiency and operating options.

<sup>15</sup> A location where remote control operators divert trains onto different tracks.

<sup>16</sup> Railroads may make these kinds of improvements and changes without seeking Board authority though CSXT would do so at its peril if the Board were to deny CSXT's application for authority for the Proposed Transaction.

one train daily in each direction between Chicago Union Station and Indianapolis. Amtrak's use of the Elsdon Line under CSXT control and dispatching would be controlled by CSXT's master agreement with Amtrak. These trains operate on the Elsdon Line between Munster, Indiana, and Thornton Junction, Illinois, and then proceed on the UP's Villa Grove Subdivision.

### ***Commuter Rail Service***

Metra Southwest Service operates 30 trains per day (Monday through Friday) on the Norfolk Southern Railway Company (NS)/Metra line, which crosses the Indiana Harbor Belt Railroad Company (IHB) line between Blue Island Junction and Argo at Ridge at a level rail/rail crossing, and at Ashburn (south of Hayford on the Elsdon Line, segment GTW-05) at a level rail/rail crossing. No increase in the number of Metra trains crossing the Elsdon Line is expected. Under the Proposed Transaction the number of freight trains per day would decrease from 22.0 to 8.1 (a reduction of 13.9) at the Ridge crossing, while the number of freight trains at the Ashburn crossing would increase from 3.5 to 23.0 (an increase of 19.5). No impacts to commuter rail service are expected at the Ridge and Ashburn crossings as a result of the Proposed Transaction because Metra trains will have priority on the Elsdon Line. Under the Proposed Transaction, a train would be held off of the Elsdon Line until it can move through the Ridge and Ashburn crossings without stopping. Also the effects of the increase in the number of freight trains at the Ashburn crossing would be offset to some extent by the reduction in freight train movements at the Ridge crossing and the priority that Metra trains have over these rail/rail crossings.

### **Rail Safety**

An important part of the environmental analysis for this Draft EA involved the evaluation of the potential effects of the Proposed Transaction on highway/rail crossings, freight rail safety, passenger rail safety, and hazardous materials safety.

An analysis was conducted of at-grade highway/rail crossings with a high predicted accident frequency of more than 0.15 accidents per year (one accident every seven years), which is used as an indicator that a crossing should be considered for either warning device upgrading or, if the warning devices are already sufficient, additional mitigation measures. This analysis showed that no crossings would meet or exceed the rate of greater than 0.15 accidents per year under either existing conditions or the Proposed Transaction. Thus, based on the information available to date, OEA does not believe that there is a need for additional safety measures at any individual crossing.

Freight rail safety was evaluated using the rate of train accidents and incidents for CSXT, CN, and the Class I railroad industry average between 2006 and 2010 collected from the Federal Railroad Administration's (FRA) website. Based on these data, the Proposed Transaction would not be likely to increase accident and incident rates for the number of trains that would be rerouted over the Elsdon Line.

With respect to hazardous materials transportation, CSXT anticipates the rerouting of up to 133,831 carloads of hazardous materials to the Elsdon Line per year from other routes in the

Chicago Terminal. Under the Proposed Transaction, were this increase in hazardous materials carloads to occur, the Elsdon Line would become a “key route” (rail segments where either in excess of 10,000 carloads of hazardous materials or 4,000 carloads of TIH and other referenced materials are transported annually) again.<sup>17</sup> Key routes must meet specific safety requirements set out in AAR Circular No. OT-55-I. In addition, CSXT has offered voluntary mitigation measures (VM 22-36) to address the change in status of the Elsdon Line to a “key route.” These measures include assisting in hazardous materials training for emergency responders for affected communities that express an interest in training; providing a dedicated toll-free telephone number to the emergency response organizations located along the Elsdon Line; and conducting Transportation Community Awareness and Emergency Response Program workshops. While the risk of an accident cannot be eliminated, the existing statutory and regulatory framework is designed to reduce the likelihood of an accident or release of hazardous materials to the extent possible. Moreover, although the Proposed Transaction might result in an increase of potential for a release to occur on the Elsdon Line because the volume of hazardous materials transported would increase, the likelihood of a release of hazardous materials would still be remote based on CSXT’s history of handling this material through the Chicago Terminal over other railroad lines and the fact that CSXT would be required to continue to comply with applicable federal regulations governing hazardous materials transportation, as well as the additional voluntary mitigation it has proposed.

### **Emergency Response**

Potential impacts on emergency response were analyzed in communities along the Elsdon Line. This analysis showed that trains would block public at-grade crossings located on the Elsdon Line between 1.9 and 4.0 minutes under the Proposed Transaction. This Draft EA evaluated alternate routes that emergency response vehicles could use. In addition, the Draft EA identified four hospitals located close to the Elsdon Line where trains blocking at-grade crossings could delay ambulances as a result of the Proposed Transaction. Table 3.1-17 on page 3-46 lists these hospitals. Out of the four hospitals, the Proposed Transaction would affect access to two of them since there is no grade separation (overpass or underpass) near these hospitals at the 95<sup>th</sup> Street at-grade crossing. The Proposed Transaction would block the at-grade crossing at 95<sup>th</sup> Street for the 2.5 minutes it would take a CSXT train to clear the crossing.

For the reasons detailed below, however, the impacts on emergency response from the Proposed Transaction are not expected to be significant. First, although the Proposed Transaction could potentially affect emergency access for police, ambulance, and fire vehicles, the communities along the Elsdon Line maintain mutual aid agreements and other forms of intergovernmental agreements to contact each other in the event of blocked at-grade crossings, in order to provide alternative routes or other forms of assistance as needed.

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<sup>17</sup> The Elsdon Line was considered a key route prior to 2008.

Second, the City of Chicago has defined certain at-grade crossings as 911 crossings and executed a Memorandum of Understanding (MOU) with several railroads, including CSXT. Under this MOU, CSXT calls the Office of Emergency Communications when a train will block a 911 crossing for 10 minutes or more and again when the train has cleared the at-grade crossing. CSXT's operations over the Elsdon Line under the Proposed Transaction would be subject to the requirements of the MOU, should the Board approve this transaction.

Third, under the Proposed Transaction, trains would not stop on the Elsdon Line, which would reduce the potential for blocked at-grade crossings. This significantly reduces the possibility of impacts on emergency services due to the Proposed Transaction.

Fourth, CSXT has indicated that it does not expect to allow a train to enter the Elsdon Line unless the Elsdon Line is clear and the point of exit would be clear when the train reaches it so that a train entering the Elsdon Line can operate over it at the maximum allowable speed without stopping. Thus, as Chapter 3 of the Draft EA explains in detail, CSXT's operations should not block any crossing for more than 4 minutes. The at-grade crossing the Proposed Transaction would block the longest would be that at 79<sup>th</sup> Street (4.0 minutes). However, emergency response vehicles could use the grade separation located at 67<sup>th</sup> Street as an alternate route.

Finally, CSXT has proposed voluntary mitigation (VM 37) where CSXT would notify Emergency Services Dispatching Centers for communities along the affected segments of all crossings blocked by trains that are stopped and may be unable to move for a significant period of time. Furthermore, CSXT has agreed to work with affected communities to minimize emergency vehicle delay by maintaining facilities for emergency communication with local Emergency Response Centers through a dedicated toll-free telephone number.

In addition to CSXT's voluntary mitigation, OEA has developed a mitigation measure that would assist emergency responders trying to reach the Little Company of Mary Hospital to obtain information immediately in mitigation measure MM 2. This measure would require CSXT to install a closed circuit television (CCTV), or similar option, that would enhance communication and provide advanced information to emergency service providers. OEA has also recommended mitigation measure MM 4, which would require CSXT to establish a community liaison to consult with affected communities and appropriate agencies; develop cooperative solutions to local concerns; be available for public meetings; and conduct periodic outreach.

### **Community Resources and Land Use**

The potential impacts of the Proposed Transaction were evaluated as to public facilities, displacements of population, and land use. The Elsdon Line is an existing rail line within a heavily developed area. According to CSXT, the Proposed Transaction would permit continuing freight rail use on the Elsdon Line in a more efficient manner and consistent with historic, current, and future land uses, the GO TO 2040 Plan, the Comprehensive Economic Development Strategy (CEDSES) report, and the CREATE program.

The Proposed Transaction involves use of an existing line that serves as a boundary between neighborhoods and communities. The communities in the area developed using the existing railroad line as a border. Rail operations on some segments of the line would decrease under the Proposed Transaction. While rail traffic would increase by as much as 19.5 trains per day on one segment, and about 10 trains per day on two others, the Proposed Transaction would not separate or isolate any neighborhoods.

Because the Proposed Transaction would not involve construction of new rail lines or abandonment of existing rail lines, the Proposed Transaction would not result in land conversion to or from transportation use. In addition, the Proposed Transaction would not impact community resources because the existing Elsdon Line serves as a boundary between neighborhoods and communities. Thus, the Proposed Transaction would not affect, separate, or isolate any distinct neighborhoods from community resources.

### **Socioeconomics**

The potential impacts of the Proposed Transaction on socioeconomics were analyzed. As previously noted, the Proposed Transaction would not involve construction of new rail lines or abandonment of existing rail lines, but rather, changes in operations on an existing rail line. The changes in rail operations associated with the Proposed Transaction are not expected to change the socioeconomic conditions within the study area. There would be no displacement of population in the study area. In addition, employment opportunities should not change as a result of the Proposed Transaction. As such, the Proposed Transaction would not generate any pressure on housing or public services (such as fire, police, day care centers, schools, hospitals, and libraries) that could not be absorbed by the existing infrastructure.

### **Geology and Soils**

Potential impacts on geology and soils, including hazardous waste sites, were evaluated as part of the environmental review process here. The Proposed Transaction would result in changes in rail operations (both increases and decreases in train volumes), but would not entail construction or ground-disturbing activities. Therefore, geology and soil resources would remain unchanged. In addition, there would be no potential for encountering existing hazardous materials sites.

### **Water Resources**

The potential effects of the Proposed Transaction on surface waters, groundwater, floodplains, wetlands, and water quality also were examined. The Draft EA analysis shows that the Proposed Transaction would not impact water resources as a result of the proposed change in rail operations that would take place.

### **Biological Resources**

The expected effects of the Proposed Transaction on vegetation; wildlife; threatened, endangered, and rare species; and migratory birds in the study area were evaluated. The Proposed Transaction would not involve rail line construction or ground-disturbing activities.

Therefore, the Proposed Transaction would not impact vegetation. However, it is possible that the Proposed Transaction could increase wildlife and protected species strikes along the portion of the Elsdon Line that would experience an increase in train traffic (segments GTW-03, GTW-04, and GTW-05). The Proposed Transaction could also decrease railcar/wildlife strikes along rail segments where train traffic would be reduced. Because the increase in traffic within the study area would be only a shift of trains from one segment to another and because of the lack of critical habitat in the study area, the Proposed Transaction is not expected to affect any federally-listed species or impact any state-listed species.

### **Air Quality and Climate**

The extent to which air pollutant emissions could change as a result of the Proposed Transaction was assessed in preparing the Draft EA. This analysis shows that emissions would decrease because 0.5 million U.S. gallons (gallons) less of diesel fuel would be used per year due to the shorter routes (both in terms of miles and time) that would be taken under the Proposed Transaction. In addition, the efficiency of the CSXT system would be improved and train idling time would be reduced, which also would reduce the amount of diesel fuel that would be needed for CSXT trains.

Emissions as a result of delayed vehicles were also analyzed. According to U.S. Environmental Protection Agency (USEPA) guidance, signalized intersections that operate at level of service (LOS) D, E, or F have sufficient traffic congestion that the associated vehicle emissions might cause or contribute to local carbon monoxide and particulate concentrations that might exceed the National Ambient Air Quality Standards (“NAAQS”) within maintenance and nonattainment areas. Because most of the at-grade crossings in the study area would remain at LOS A (with the exception of two that would change to LOS B and one to LOS C), the Draft EA concludes that vehicle delay as a result of the Proposed Transaction would not have any air quality impacts at specific local at-grade crossings.

The reduction in fuel usage that is expected from this project would result in a reduction of greenhouse gas (GHG) emissions; however, for the reasons explained in section 3.7.1.1 below, the predicted change here would be too minor to have any quantifiable effect on climate change.

### **Noise and Vibration**

Potential changes in train noise associated with the Proposed Transaction were assessed. The projected increase in daily train traffic on some segments is expected to increase train noise levels in the areas immediately adjacent to the Elsdon Line. Segments GTW-03, GTW-04, and GTW-05 would experience an increase in train traffic in excess of 8 trains per day, which exceeds the Board’s threshold for noise analyses. Therefore, the potential for an increase in noise exposure of 3 A-weighted decibel (dBA) or more in the day-night noise level ( $L_{dn}$ ) or an increase to a noise level of 65 dBA  $L_{dn}$  or greater on these 3 segments was evaluated. The Draft EA concludes that traffic changes on these 3 segments would contribute to an increase of 3 dBA or more in the  $L_{dn}$ . The number of noise-sensitive receptors in the 65-dBA  $L_{dn}$  contour in the 3 segments would increase from 330 to 1,014 (an

additional 684 noise-sensitive receptors). Most of these receptors are near segments GTW-04 and GTW-05. The dominant noise source for many of these receptors would be locomotive horn noise as trains approach at-grade crossings.

Some receptors located between at-grade crossings would experience less locomotive horn noise under the Proposed Transaction; however, a combination of locomotive engine noise and wheel/rail noise would contribute more noise at the receptor. The rail line segment with the largest potential incremental increase in trains per day is GTW-05. The density of residential development is higher in this portion of the project area than in other areas. Horn noise, however, is not a factor at public at-grade crossings in GTW-05; these crossings have been quiet zones (QZ) (areas where horns do not need to be routinely sounded) since 2008 (FRA 2011a). The train noise sources which are contributing to the noise level at receptors near GTW-05 are a combination of the locomotive engine noise and the wheel/rail noise. For a list of all municipalities crossed by the Proposed Transaction see Table 1.1-3.

Historically, the Board has treated noise-sensitive land uses within the 70-dBA  $L_{dn}$  noise contour as being potentially eligible for conditions to mitigate transaction-related train noise. See *CN December 24 Decision* and *Alaska Railroad Corporation Construction and Operation of a Rail Line Extension to Port MacKenzie, Alaska*, STB Finance Docket No. 35095 (STB served March 25, 2011).

The noise analysis for this Draft EA showed that locomotive horn use would increase on segments GTW-03 and GTW-04. Therefore, one potential opportunity to reduce train noise levels would be to implement QZs on these 2 segments (segment GTW-05 is already a QZ), which as shown in Table 3.8-10, would reduce noise because horns would no longer need to routinely be sounded. Another potential way to reduce projected increases in train noise levels would be to install continuously welded rail (CWR) in place of bolted rail. GTW-05 is the only segment that has bolted rail, so this potential opportunity is limited to use on GTW-05. The benefits of implementing CWR on segment GTW-05 are shown in Table 3.8-10. For comparison, Table 3.8-11 shows the noise effects of the Proposed Transaction with and without these two noise mitigation measures.

CSXT has proposed a number of voluntary mitigation measures to minimize the effects of transaction-related noise on GTW-03 and-GTW-04. One of CSXT's proposed conditions would require that the railroad comply with FRA regulations establishing decibel limits for train operations (VM 42). Under another voluntary mitigation condition, CSXT would negotiate opportunities to reduce train noise with affected communities that have noise sensitive receptors that would experience an increase of at least 5 dBA and reach 70 dBA to mitigate train noise to levels as low as 70 dBA by cost effective means as agreed to by an affected community and CSXT. In the absence of such an agreement, CSXT would implement cost effective mitigation that could include such measures as installing continuously welded rail and constructing noise control devices such as noise barriers and installing vegetation or berming (VM 39). Additionally, CSXT would consider lubricating curves where doing so would be consistent with safe and efficient operating practices and significantly reduce noise for residential or other noise sensitive receptors (VM 40). Upon

request, CSXT would also consult with communities affected by wheel squeal at existing locations on the Elsdon Line, and cooperate in determining the most appropriate methods for implementing VM 40. In response to concerns raised by local entities regarding the establishment of quiet zones, OEA has recommended mitigation measure MM 3, which would require CSXT to assess the feasibility of establishing quiet zones in communities along the Elsdon Line that would be affected by noise as a result of the Proposed Transaction. In addition, OEA is recommending mitigation measure MM 4, which would require CSXT to establish a Community Liaison to consult with affected communities and appropriate agencies; develop cooperative solutions to local concerns; be available for public meetings; and conduct periodic outreach.

As for vibration, the vibration level caused by a train is affected by track conditions, the location of special track work (e.g., crossings and switches), train speed, and extent to which the ground vibrates between the tracks and the receiver. None of these factors would change under the Proposed Transaction. Therefore, vibration impacts are not expected to increase as a result of the Proposed Transaction.

### **Energy Resources**

Changes in energy use under the Proposed Transaction also were calculated. Under the acquisition, train operations would be more efficient, trains would idle for shorter periods of time (except North/South Routings - 59<sup>th</sup> Street), and the distance traveled would be shorter, resulting in a net decrease in annual energy use of 0.5 million gallons of diesel fuel per year.

The total daily change in vehicle delay for segments GTW-03, GTW-04, and GTW-05 would be 305 hours. Assuming a fuel consumption rate of 0.5 gallon per hour of vehicle idling, 305 hours of delay would equate to the use of 152.5 additional gallons of fuel used daily by vehicles at crossings on those segments. However, those increases generally would be offset by decreases at other crossings on the Elsdon Line. In addition, the Proposed Transaction would not change commodities that are currently transported along the Elsdon Line. Thus, the effects of the Proposed Transaction on energy resources are not expected to be significant.

### **Cultural Resources**

Section 106 of the National Historic Preservation Act, 16 U.S.C. 470, applies to the Proposed Transaction. The Section 106 process has 3 steps: identification of historic resources, determination of adverse effects; and if there will be any adverse effects, development of appropriate mitigation. Accordingly, preparation of the Draft EA included an analysis of the potential impact of the Proposed Transaction on archaeological resources and historic properties in the study area.

In a letters dated June 24, 2011 and June 28, 2011, the Illinois Historic Preservation Agency and the Indiana Department of Natural Resources' Division of Historic Preservation and Archaeology (State Historic preservation Offices or SHPOs), respectively, commented that no historic properties would be affected as a result of the Proposed Transaction. Therefore,

pursuant to the Section 106 regulations at 36 C.F.R. § 800.5(b), the Draft EA concludes that the Proposed Transaction would not affect historic properties listed in or eligible for inclusion in the National Register. The SHPOs also commented that they would want to be immediately notified if any unmarked graves or human remains are discovered, pursuant to the Illinois Human Skeletal Remains Protection Act (20 ILCS § 3441) and Indiana Code 14-21-1-27, respectively. However, the Draft EA explains that these provisions do not apply here because the rail line is fully operational, and no new rail line construction would take place under the Proposed Transaction. Therefore, the Draft EA concludes that, based on the information available to date, there is no need for further review of cultural and historic resources and no need to impose a Section 106 condition, or condition related to the discovery of unmarked graves or human remains in this case.

### **Environmental Justice**

The Draft EA assessed the extent to which train noise and highway/rail at-grade crossing safety and delay resulting from the Proposed Transaction could disproportionately affect minority or low-income populations in the project area. The analysis indicates that without mitigation, noise impacts on segment GTW-05 (between Blue Island and Hayford, Illinois) would be “high and adverse.” The term “high and adverse is consistent with the language in Executive Order 12898 on Environmental Justice, which states that

Each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States.

But as explained in detail in Chapter 3, two additional factors support the conclusion that the Proposed Transaction would not adversely affect environmental justice communities. First, the entire segment GTW-05 would experience increased noise impacts as a result of wheel squeal caused by the increased number of trains associated with the Proposed Transaction; thus the potential impacts would not be borne disproportionately by minority or low income populations. Second, CSXT has proposed voluntary mitigation that would require it to (1) replace the jointed rail on segment GTW-05 with CWR and (2) use effective lubricants on the affected segments to reduce wheel squeal. With the imposition of this mitigation, the Draft EA calculates that noise impacts on segment GTW-05 would be reduced from 499 noise sensitive receptors affected to 77. This reduction minimizes Proposed Transaction-related noise impacts. In response to concerns raised by local entities regarding the establishment of quiet zones, OEA has recommended mitigation measure MM 4, which would require CSXT to establish a community liaison to consult with affected communities and develop cooperative solutions to local concerns such as establishing QZs.

### **Cumulative Effects**

The environmental analysis here identified several projects within 0.5 miles from the portion of the Elsdon Line that would experience an increase in train traffic with the potential to result in cumulative impacts when considered together with the Proposed Transaction. These were:

- Metra South-west Service (SWS) that provides service on an existing line that crosses the Elsdon Line at Ashburn.
- Metra Conceptual South-east Service (SES) to provide future service from downtown Chicago.
- 75<sup>th</sup> Street Corridor Improvement Project to relieve congestion resulting from 2 passenger (Metra and Amtrak) and 4 freight (NS, CSXT, Union Pacific Railroad Company [UP], and Belt Railway of Chicago [BRC]) railroads passing through the Chicago neighborhoods of Ashburn, Englewood, Auburn Gresham, and Chatham.
- Reconstruction of 159<sup>th</sup> Street Viaduct by the Illinois Department of Transportation (IDOT) that carries Metra and the CN lines over 159<sup>th</sup> Street in Harvey, Illinois. Reconstruction of 159<sup>th</sup> Street Roadway by IDOT between the Tristate Toll way (I-294) and Halsted Street (Illinois [IL] Route 1) in Harvey, Illinois.
- CREATE Projects B16 and WA10, which make the Proposed Transaction possible.

To identify possible cumulative impacts on environmental resources, the Draft EA analysis examined the potential effects of each project in combination with potential effects from the Proposed Transaction identified in this Draft EA. In addition, the Draft EA considered whether those related projects, in conjunction with the Proposed Transaction, could result in cumulative impacts on any environmental resource; and whether the approval of the Proposed Transaction would result in any indirect effects. Finally, OEA determined whether potential cumulative effects that were identified would warrant mitigation.

As a result of the environmental analysis, the Draft EA concluded that:

- Metra's SWS line crosses the Elsdon Line in the GTW-05 segment and is an existing noise source that would not change as a result of the Proposed Transaction. The increase in train traffic associated with the Proposed Transaction, however, would contribute to the cumulative noise impact near GTW-05.
- Metra's SES line is in the conceptual stages of development. If the Proposed Transaction is authorized and implemented, the SES line is not expected to be in service until after the Proposed Transaction has been implemented. If the SES line were to be implemented in the future, it could result in cumulative effects on noise near GTW-03. Any potential noise impacts associated with the SES line would be identified and, if required, mitigated as a part of Metra's planning process.
- It is unlikely that the planned 75<sup>th</sup> Street and 159<sup>th</sup> Street roadway improvements would contribute to a cumulative noise effect, as they are intended to improve traffic flow and

reduce congestion, which would also reduce noise once the roadway improvement projects are completed.

- It is possible that CREATE projects B-16 and WA-10 could contribute to a cumulative noise effect near the Elsdon Line. These projects would permit CSXT to implement the rerouting of certain trains to the Elsdon Line. The construction noise impact would be temporary.

Therefore, the cumulative impacts associated with the Proposed Transaction may contribute minimally to noise impacts. However, as discussed above in the noise section, CSXT has proposed a number of voluntary mitigation measures to minimize the effects of transaction-related noise. In addition, OEA has recommended mitigation measure MM 3, which would require CSXT to consult with Metra on its current and planned service, thereby potentially leading to mitigation if required, as part of Metra's planning process for the SES line. In addition, OEA has recommended mitigation measure MM 4, which would require CSXT to establish a community liaison to consult with affected communities and appropriate agencies; develop cooperative solutions to local concerns; be available for public meetings; and conduct periodic outreach.

### **Request for Comments on the Draft EA**

We encourage the public and any interested party to send us written comments on this Draft EA. OEA will consider and respond to comments in preparing the Final EA. The Final EA will include OEA's final conclusions on potential impacts that may result from the Proposed Transaction and OEA's final recommendations, including the final recommended mitigation measures. To be considered, comments must be submitted during the comment period, which will close on **November 9, 2012**. OEA will issue the Final EA on or before January 14, 2013. The Board plans to issue a final decision on the Proposed Transaction by February 8, 2013.

When submitting comments on the Draft EA, please be as specific as possible. We are particularly interested in your thoughts on the recommended mitigation measures. Any suggestions you may have to improve our recommendations to the Board would be very welcome.

Comments may be submitted by mail or electronically using "E-Filing" button on the Board's website ([www.stb.dot.gov](http://www.stb.dot.gov)). Comments must refer to Docket No. FD 35522 in all correspondence, including e-filings, addressed to the Board.

- **By Mail:** If you are sending your comment by mail, please be aware that there may be up to a week delay in the delivery of mail to Federal agencies. Mail written comments to:

Diana Wood  
Surface Transportation Board  
395 E Street, SW  
Room 1110  
Washington, DC 20423

- **Electronically:** For electronic comments, simply click on E-filing and then “Environmental Comments” from the E-Filing button on the Board’s website. The next page will be formatted to allow you to fill in your information and comment. If you have questions or need clarification or guidance, please call Diana Wood at (202) 245-0302. You may email Ms. Wood at [woodd@stb.dot.gov](mailto:woodd@stb.dot.gov).

## **MITIGATION**

### **Overview of Approach to Mitigation**

The analysis used in preparing this Draft EA has taken a hard look at the environmental consequences of the Proposed Transaction and alternatives, consistent with NEPA and the relevant CEQ and Board regulations. The potential environmental effects that have been identified would be both beneficial and adverse. Chapter 3 discusses in detail the affected environment and potential environmental benefits and effects.

CSXT submitted a number of voluntary mitigation measures to address potential effects that would result from the Proposed Transaction. The Draft EA includes CSXT's proposed mitigation without any changes and proposes additional environmental mitigation developed by OEA. OEA seeks public comment on all the mitigation proposed in the Draft EA. The Final EA will contain final recommendations for mitigation that the Board should impose if the Proposed Transaction is authorized.

### **Limits of Conditioning Power**

The Board has authority to impose conditions to mitigate potential environmental impacts, but that authority is not limitless. As a government agency, the Board can only impose conditions that are consistent with its statutory authority. Any conditions the Board imposes must relate directly to a specific transaction, must be reasonable, and must be supported by the record before the Board. The Board's practice consistently has been to consider mitigation for only those impacts that result directly from a proposed action, and not to impose mitigation to remedy preexisting conditions.

### **Voluntary Mitigation and Negotiated Agreements**

OEA encourages applicants to propose voluntary mitigation. Because applicants seeking Board authority may gain substantial knowledge about local community or other issues involved during project planning, and because they consult with other regulatory agencies and communities during project planning and at the early stages of the regulatory process, applicants can often propose relevant voluntary mitigation. For the Proposed Transaction, CSXT has engaged in substantial outreach with potentially affected agencies, entities, and communities and has proposed extensive voluntary mitigation for this project, which is set forth and discussed in more detail below.

As noted above, the Board also encourages applicants like CSXT to negotiate mutually acceptable agreements with affected communities and other government entities to address potential environmental impacts, if appropriate. Negotiated agreements can be with neighborhoods, communities, or other entities. If CSXT enters into any negotiated agreements, the Board would require compliance with the terms of any such agreements as environmental conditions in any final decision approving the Proposed Transaction. These negotiated agreements would supersede any environmental conditions for that particular community or other entity that the Board would otherwise impose.

## **Preliminary Nature of Environmental Mitigation**

OEA emphasizes that all of the environmental mitigation measures proposed here are preliminary, and welcomes public and agency comment on these measures. In order for OEA to assess the public comments effectively, the public should be specific about any desired mitigation and the reasons why the suggested mitigation would be appropriate.

After considering all public comments on the Draft EA, OEA will issue a Final EA responding to any comments on the Draft EA (including any suggestions related to mitigation) and presenting any additional environmental analysis. The Final EA will contain OEA's final recommendations to the Board, including final recommended environmental mitigation. The Board will then make its final decision regarding the Proposed Transaction. As previously noted the Board weighs only potential competitive effects in deciding whether to authorize this type of transaction. 49 U.S.C §11324 (c).

## **CSXT's Voluntary Mitigation Measures**

As part of its Application, CSXT submitted proposed voluntary mitigation measures to OEA for the Board to consider. OEA has reviewed the voluntary mitigation measures and should the Proposed Transaction be approved, OEA would recommend that the Board require CSXT to comply with all of the voluntary mitigation measures submitted.

Below, OEA presents for public review and comment CSXT's current voluntary mitigation measures (identified as voluntary mitigation (VM) VM-#). These voluntary mitigation measures are worded exactly as submitted to OEA by CSXT and may be modified or supplemented in the Final EA.

## **Transportation**

### **Traffic and Grade Crossing Delay**

VM 1. CSXT shall, upon request, cooperate with municipalities and counties in support of their efforts to secure funding, in conjunction with appropriate state agencies, for grade separations where they may be appropriate under criteria established by relevant state Department of Transportation.

VM 2. CSXT shall examine train operations for ways of reducing highway/rail at-grade crossing blockages.

VM 3. CSXT shall cooperate with the appropriate state and local agencies and municipalities to:

- Evaluate the possibility that one or more roadways listed in Table 3.1-1 could be closed at the point where it crosses the Elsdon Line, in order to eliminate the at-grade crossing.
- Improve or identify modifications to roadways that would reduce vehicle delays by improving roadway capacity over the crossing by construction of additional lanes.

- Assist in a survey of highway/rail at-grade crossings for a determination of the adequacy of existing grade crossing signal systems, signage, roadway striping, traffic signaling inter-ties, and curbs and medians.
- Identify conditions and roadway, signal, and warning device configuration that may trap vehicles between warning device gates on or near the highway/rail at-grade crossing.

VM 4. In order to minimize the number of trains being stopped by operators at locations that block grade crossings on the Elsdon Line, CSXT shall work with other railroads to establish reasonable and effective policies and procedures to prevent other railroads' trains from interfering with CSXT's trains on the Elsdon Line.

VM 5. CSXT's design for wayside signaling systems shall be configured and implemented to minimize the length of time that trains or maintenance-of-way vehicles or activities block at-grade crossings or unnecessarily activate grade-crossing warning devices.

VM 6. CSXT shall operate under U.S. Operating Rule No. 526 (Public Crossings), which provides that a public crossing must not be blocked longer than 10 minutes unless it cannot be avoided and that, if possible, rail cars, engines, and rail equipment may not stand closer than 200 feet from a highway/rail at-grade crossing when there is an adjacent track. If the blockage is likely to exceed this time frame, then the train shall then be promptly cut to clear the blocked crossing or crossings.

### **Rail Operations**

VM 7. CSXT shall work with Amtrak on transferring its relationship on the Elsdon Line from GTW to CSXT and incorporating such into CSXT's Operating Agreement with Amtrak.

VM 8. CSXT shall engage Metra in exploring all options for future service.

### **Rail Safety**

VM 9. CSXT shall coordinate with the appropriate state agencies, counties, and affected communities along the Elsdon Line to install temporary notification signs or message boards, where warranted, in railroad ROW at highway/rail at-grade crossings, clearly advising motorists of the increase in train traffic on affected rail line segments. The format and lettering of these signs shall comply with Federal Highway Administration's *Manual on Uniform Traffic Control Devices* (FHWA 2007) and shall be in place no less than 30 days before and 6 months after the acquisition by CSXT of the Easement over the Elsdon Line.

VM 10. CSXT shall cooperate with interested municipalities impacted by noise as a result of the Proposed Transaction to determine any improvements necessary for existing quiet zones (QZ) to maintain FRA compliance.

VM 11. CSXT shall cooperate with interested communities for the establishment of QZs and assist in identifying supplemental or alternative safety measures, practical operational methods, or technologies that may enable the community to establish QZs.

VM 12. Within six months of acquisition by CSXT of the easement over the Elsdon Line, in order to improve visibility at highway rail at-grade crossings, CSXT shall consult with affected communities about crossings where there are vegetation and other obstructions and take reasonable steps to clear the vegetation or other obstructions.

VM 13. Within six months of acquisition by CSXT of the easement over the Elsdon Line, CSXT shall coordinate with the Illinois Department of Transportation (IDOT), Indiana Department of Transportation (INDOT), and other appropriate local agencies to review corridors surrounding highway/rail at-grade crossings to examine safety and adequacy of the existing warning devices, and identify remedies to improve safety for highway vehicles.

VM 14. Where grade-crossing rehabilitation is mutually agreed to, CSXT shall assure that rehabilitated roadway approaches and rail line crossings meet or exceed the standards of the IDOT's and INDOT's rules, guidelines, or statutes, and the American Railway Engineering and Maintenance of Way Association (AREMA) standards, with a goal of eliminating rough or humped crossings to the extent reasonably practicable.

VM 15. For each of the public grade crossings on the Elsdon Line, CSXT shall provide and maintain permanent signs prominently displaying both a toll-free telephone number and a unique grade-crossing identification number in compliance with Federal Highway Regulations (23 C.F.R. Part 655). The toll-free number will enable drivers to report accidents, malfunctioning warning devices, stalled vehicles, or other dangerous conditions and will be answered 24 hours per day by CSXT personnel.

VM 16. Within six months of acquisition by CSXT of the easement over the Elsdon Line, CSXT shall cooperate with school and park districts to identify at-grade crossings where additional pedestrian warning devices may be warranted.

VM 17. CSXT shall continue ongoing efforts with community officials to identify elementary, middle, and high schools within 0.5 miles of the Elsdon Line's ROW and provide, upon request, informational materials concerning railroad safety to such identified schools.

VM 18. CSXT shall consult with IDOT, INDOT and other appropriate agencies and shall abide by the reasonable requirements of the Illinois Commerce Commission (ICC) or INDOT prior to constructing, relocating, upgrading, or modifying highway/rail at-grade crossing warning devices on the Elsdon Line.

VM 19. CSXT shall adhere to all applicable Occupational Safety and Health Administration, Federal Railroad Administration, and state construction and operational safety regulations to minimize the potential for accidents and incidents on the Elsdon Line.

### **Pedestrian and Bicycle Safety**

VM 20. CSXT shall make Operation Lifesaver programs available to communities, schools, and other appropriate organizations located along the affected segments.

VM 21. To supplement CSXT's VM 20, CSXT shall make Operation Lifesaver programs available to communities, schools, and other appropriate organizations located along the Elsdon Line for three years after the effective date of the Board's final decision granting the easement acquisition. The programs shall be designed and provided in coordination with ICC and INDOT.

### **Hazardous Materials Transportation**

VM 22. CSXT shall comply with the current Association of American Railroads (AAR) "key route" guidelines, found in AAR Circular No. OT-55-I (AAR 2006) and any subsequent revisions to minimize risks related to transportation of hazardous materials on the line.

VM 23. CSXT shall comply with the current AAR's "key train" guidelines, found in AAR Circular No. OT-55-I and any subsequent revisions to minimize risks related to transportation of hazardous materials on the line.

VM 24. To the extent permitted and subject to applicable confidentiality limitations, CSXT shall distribute to each local emergency response organization or coordinating body in the communities along the key routes a copy of CSXT's current Emergency Response Plan.

VM 25. CSXT shall incorporate the Elsdon Line into its existing Emergency Response Plan.

VM 26. CSXT shall comply with all hazardous materials regulations of the U.S. Department of Transportation (including the Federal Railroad Administration (FRA) and the U.S. Pipeline and Hazardous Materials Safety Administration) and Department of Homeland Security (including the Transportation Security Administration) in all operations on the Elsdon Line. CSXT shall dispose of all materials that cannot be reused in accordance with applicable law.

VM 27. Upon request from local emergency response organizations, CSXT shall implement real-time or desktop simulation emergency response drills with the voluntary participation of local emergency response organizations.

VM 28. CSXT shall continue its ongoing efforts with community officials to identify the public emergency response teams located along the Elsdon Line and provide, upon request, hazardous material training.

VM 29. CSXT shall, upon request, conduct Transportation Community Awareness and Emergency Response Program (TRANSCAER) workshops (training for communities through which dangerous goods are transported) in communities along the Elsdon Line.

VM 30. CSXT shall, upon request, assist in hazardous materials training for emergency responders for affected communities. CSXT shall support through funding or other means the training of one representative from each of the communities located along the Elsdon Line where the transportation of hazardous materials would increase. CSXT shall complete the training within three years from the date that CSXT initiates operational changes associated with the Proposed Transaction.

VM 31. CSXT shall develop internal emergency response plans to allow appropriate agencies to be notified in an emergency, and to locate and inventory the appropriate emergency equipment. CSXT shall provide the emergency response plans to the relevant state and local authorities within six months of acquisition by CSXT of the easement over the Elsdon Line.

VM 32. CSXT shall provide dedicated toll-free telephone number to the emergency response organizations or coordinating bodies responsible for communities located along the Elsdon Line. This telephone number will provide access to CSXT personnel 24 hours per day, seven days a week, enabling local emergency response personnel to obtain and provide information quickly regarding the transport of hazardous materials on a given train and appropriate emergency response procedures should a train accident or hazardous materials release occur.

VM 33. In accordance with the Emergency Response Plan, CSXT shall make the required notifications to the appropriate federal and state environmental agencies in the event of a reportable hazardous materials release. CSXT shall work with the appropriate agencies such as U.S. Fish and Wildlife Service, Illinois Environmental Protection Agency, and Indiana Department of Environmental Management to respond to and remediate hazardous materials releases with the potential to affect wetlands or wildlife habitat(s), particularly those of federally threatened or endangered species.

VM 34. In the event any construction is necessary, CSXT shall comply with any regulations as required in the preparation of a construction Stormwater Pollution Prevention Plan.

VM 35. To supplement CSXT's VM 29, CSXT shall conduct TRANSCAER workshops in English and Spanish upon request for 3 years from the effective date of the Board's final decision authorizing the Proposed Transaction.

VM 36. In addition to CSXT's VM 33, CSXT shall adhere to all U.S. Environmental Protection Agency regulations as described in 40 C.F.R. Part 263, Standards Applicable to Transporters of Hazardous Waste, and shall coordinate with U.S. Environmental Protection Agency (USEPA), and state and local agencies on spill responses.

### **Emergency Response**

VM 37. CSXT shall notify Emergency Services Dispatching Centers for communities along the affected segments of all crossings blocked by trains that are stopped and may be unable to move for a significant period of time. CSXT shall work with affected communities to minimize emergency vehicle delay by maintaining facilities for emergency communication with local Emergency Response Centers through a dedicated toll-free telephone number.

### **Air Quality and Climate**

VM 38. CSXT shall comply with any appropriate UEPA emissions standards for diesel-electric railroad locomotives (40 C.F.R. Part 92) when purchasing and rebuilding locomotives.

## **Noise and Vibration**

VM 39. CSXT shall work with affected communities with sensitive receptors that would experience an increase of at least 5 dBA and reach 70 dBA to mitigate train noise to levels as low as 70 dBA by cost effective means as agreed to by an affected community and CSXT. In the absence of such an agreement, CSXT shall implement cost effective mitigation that could include installing continuously welded rail, and constructing noise control devices such as noise barriers and installing vegetation or berming.

VM 40. CSXT shall lubricate curves where doing so would both be consistent with safe and efficient operating practices and significantly reduce noise for residential or other noise sensitive receptors. CSXT shall continue to employ safe and efficient operating procedures that, in lieu of, or as complement to, other noise mitigation measures could have the combined benefit of effectively reducing noise from train operations. Such procedures include:

- Inspecting rail car wheels to maintain wheels in good working order and minimize the development of wheel flats;
- Inspecting new and existing rail for rough surfaces and, where appropriate, grinding these surfaces to provide a smooth rail surface during operations;
- Regularly maintaining locomotives, and keeping mufflers in good working order; and
- Removing or consolidating switches determined by CSXT to no longer be needed.

VM 41. Upon request, CSXT shall consult with communities affected by wheel squeal at existing locations on the Elsdon Line, and cooperate in determining the most appropriate methods for implementing VM 40.

VM 42. To minimize noise and vibration, CSXT shall install and maintain rail and rail beds according to AREMA standards.

VM 43. CSXT shall comply with FRA regulations establishing decibel limits for train operations.

## **Environmental Justice**

VM 44. In addition to VM 17, all of CSXT's informational materials concerning railroad safety shall be provided to elementary, middle, and high schools within 0.5 miles of the Elsdon Line in both English and Spanish, upon request.

## **Monitoring and Enforcement**

VM 45. CSXT shall submit quarterly reports to the Board's Office of Environmental Analysis on the progress of, implementation of, and compliance with the mitigation measures for a period covering the first three years of operational changes associated with the Proposed Transaction.

VM 46. Within three years of the acquisition by CSXT, if there is a material change in the facts or circumstances upon which the Board relied in imposing specific environmental mitigation conditions, and upon petition by any party who demonstrates such material

change, the Board may review the continuing applicability of its final mitigation, if warranted.

### **OEA's Preliminary Environmental Mitigation**

Based on available project information and comments received during scoping, OEA considered preliminary recommended mitigation measures (MM #) to address the potential environmental impacts of the Proposed Transaction in the following resource areas: rail operations, safety, emergency response, noise and vibration, and environmental justice. These recommended mitigation measures would supplement CSXT's proposed voluntary mitigation. OEA emphasizes that these measures are preliminary and welcomes public and agency comment during the comment period on all aspects of this Draft EA, including the environmental analysis. In order for OEA to assess comments effectively, please be specific about any desired mitigation and the reasons why the suggested mitigation would be appropriate.

#### ***CSXT's Voluntary Mitigation***

MM 1. CSXT shall comply with all voluntary mitigation measures.

#### ***Emergency Response***

MM 2. In addition to VM 37, to further assist with the timely response of emergency service providers for the Advocate Christ Medical Center and the Little Company of Mary Hospital, CSXT shall consult with all appropriate agencies and hospitals to install a closed-circuit television system (CCTV) with video cameras (or another comparable system or acceptable option) so that the movement of trains can be predicted at the 95<sup>th</sup> Street highway/rail at-grade crossing. CSXT shall pay for the necessary equipment, the installation of the equipment, and equipment training for up to two individuals from each affected hospital. CSXT shall work with all appropriate agencies and hospitals to determine specifications and scheduling for the installation of the CCTV system. CSXT shall be responsible for the ongoing maintenance and operation of CCTV after the system is installed and operational.

#### ***Requested Consultation***

MM 3. In response to concerns raised by the South Suburban Mayors and Managers Association (SSMMA), the City of Blue Island (one of the many communities represented by SSMMA), the IDOT, and Metra on potential noise impacts and impacts to commuter train service as a result of the Proposed Transaction, CSXT shall negotiate with SSMMA, IDOT, and Metra with the goal of addressing these groups' concerns to the extent practicable regarding transaction-related noise and impacts to commuter rail service. In particular, negotiations should focus on transaction-related potential impacts to Metra's Rock Island District, Electric District, South-west Service (SWS) Line, and the proposed South-east Service (SES) Line; as well as the feasibility of establishing quiet zones in communities along the Elsdon Line that would be affected by noise as a result of the Proposed Transaction.

**Community Liaison**

MM 4. In response to concerns raised regarding noise, emergency response, and other issue areas, CSXT shall, prior to initiating the operational changes associated with the Proposed Transaction and for a period of one year following the startup of operations on the Elsdon Line, CSXT shall establish a Community Liaison to consult with affected communities, businesses, and appropriate agencies; develop cooperative solutions to local concerns; be available for public meetings; and conduct periodic outreach. CSXT shall provide the name and phone number of the Community Liaison to elected public officials and community leaders in each community through which the rail line passes, including segments GTW-01 through GTW-06 on the Elsdon Line.

Comments on this document are due by **November 9, 2012**. The Board expects to issue a Final EA completing the environmental review process on or before **January 14, 2013** and a final decision on **February 8, 2013**.

**Next Steps**

After considering all comments on this Draft EA, OEA will conduct any additional environmental analysis that might be warranted and make its final recommendations to the Board, including recommended mitigation measures, in the **Final EA**. The Board will then make its final decision regarding the Proposed Transaction and what environmental mitigation to impose. In making its decision, the Board will consider the evidence on the transportation merits, the Draft EA and the Final EA, public comments, and OEA's final environmental mitigation recommendations.

## 1.0 PURPOSE AND NEED

### 1.1 Introduction

On August 13, 2012, CSX Transportation, Inc. (CSXT) filed an application with the Surface Transportation Board (the Board) pursuant to 49 United States Code (U.S.C.) § 11323-11325 and 49 Code of Federal Regulations (C.F.R.) Part 1180. CSXT seeks Board authority to acquire from and jointly use with the Grand Trunk Western Railroad Company (GTW)<sup>18</sup> an exclusive, perpetual, non-assignable railroad operating easement<sup>19</sup> over GTW's 22.37-mile Elsdon Line between Munster, Indiana, milepost (MP) 31.07, and Elsdon, Illinois, MP 8.7, which is the southern end of the BNSF Railway Company (BNSF)'s Corwith Yard (the Proposed Transaction). GTW would retain trackage rights over the Elsdon Line in order to provide rail service to its existing customers.<sup>20</sup>

CSXT states that the Proposed Transaction would improve the efficiency of its rail service into, within and out of, the congested Chicago Terminal area (the Chicago Terminal). The efficiencies would enhance CSXT's ability to provide more consistent and reliable customer service, reduce emissions, and lower operating costs.

The Proposed Transaction would grant CSXT the right to operate, dispatch, and maintain the Elsdon Line, and to make capital improvements to the Line, increasing CSXT's ability to control the movement of its trains and traffic moving to, through, and from the Chicago Terminal. CSXT would integrate and manage the Elsdon Line as part of its rail network as if it were completely owned and operated by CSXT.

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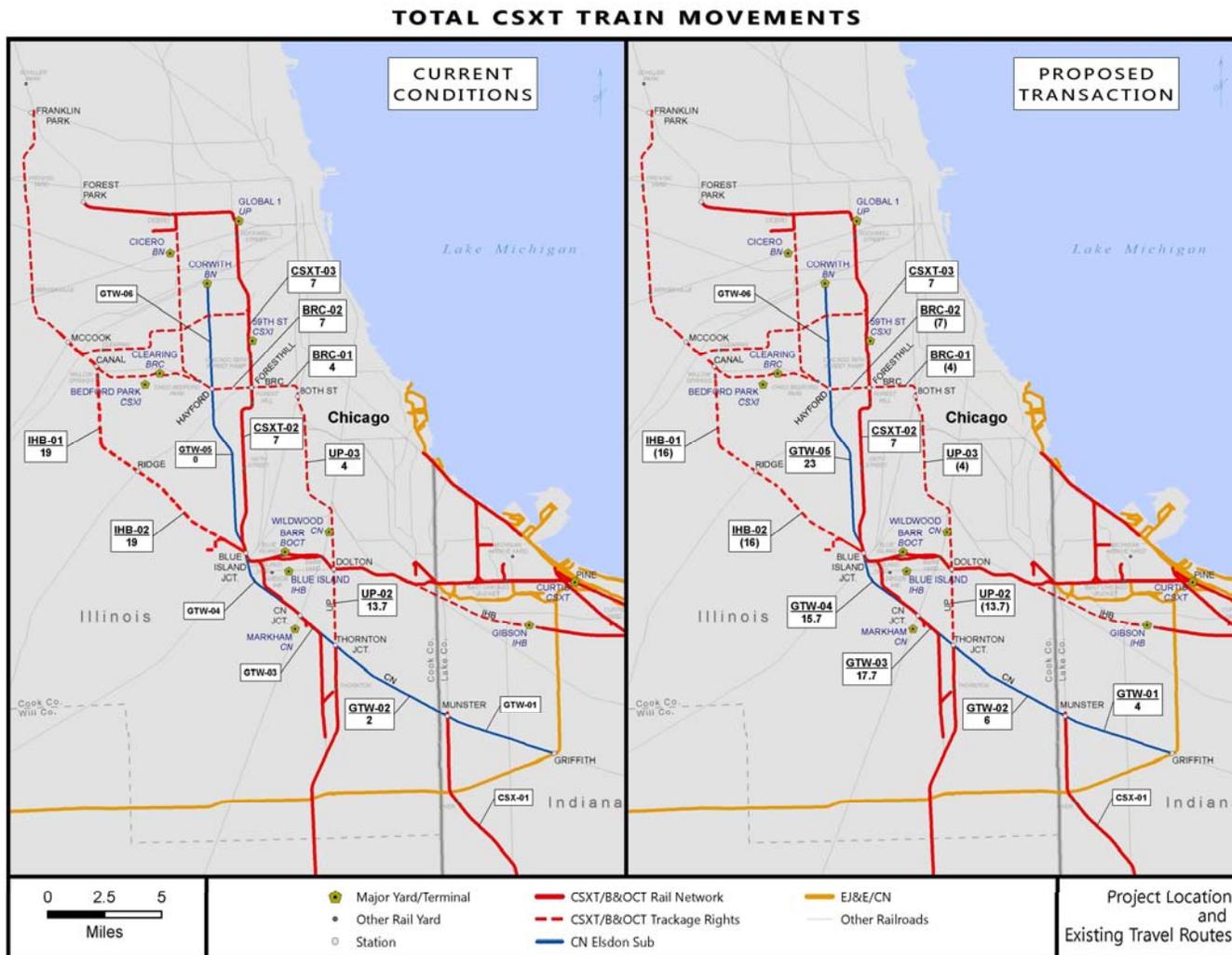
<sup>18</sup> GTW is a subsidiary of the Grand Trunk Corporation (GTC), which is a subsidiary of Canadian National Railway Company (CN).

<sup>19</sup> The railroad operating easement in this proceeding is an agreement between railroad companies that grants one railroad the right to operate over a rail line and includes dispatching authority, maintenance responsibilities, and the right to make capital expenditures, while the granting railroad, here GTW, continues to own the underlying land and operate over the Elsdon Line.

<sup>20</sup> Pursuant to an Agreement for Exchange of Perpetual Easements dated as of August 13, 2012, CSXT and GTW also have agreed to an easement swap, subject to Board approval, whereby GTW would obtain an exclusive, perpetual non-assignable railroad operating easement over approximately 2.1 miles of CSXT's Memphis Terminal Subdivision line, between Leewood, TN, milepost 00F371.4, and Aulon, TN, milepost 00F373.4 in order for GTW and its affiliates to have greater control of the operation of their north-south trains between the Gulf of Mexico and Chicago.

On August 13, 2012, GTW sought the Board's authority for that acquisition in Docket No. FD 35661. That proposed acquisition would not result in any operational changes that meet or exceed the Board's environmental thresholds and no environmental or historic documentation or review is necessary in that proceeding. Therefore the environmental review in this case encompasses only the Proposed Transaction.

Figure 1.1-1. Project Location and Existing Travel Routes



Note: Numbers in parenthesis indicate the number of CSXT trains being reduced in the Proposed Transaction as compared to existing conditions. Trains depicted in the figure are CSXT trains that would be impacted as a result of the Proposed Transaction.

CSXT's Application notes that GTW's use of the Elsdon Line has decreased since the Canadian National Railway Company (CN) acquired the Elgin, Joliet & Eastern Railway Company (EJ&E) rail line.<sup>21</sup> CN's acquisition allowed GTW and CN's subsidiary railroads to divert traffic from the Elsdon Line to the former EJ&E line. According to CSXT, the right to operate the Elsdon Line that CSXT would obtain under the Proposed Transaction would complement CSXT's operations in the Chicago Terminal and create routing flexibility and efficiencies for CSXT and its customers.

Currently, CSXT accesses major Chicago yards and facilities by operating to, from, across, and over the rail assets of numerous rail partners. Under the Proposed Transaction, CSXT would obtain control of dispatching and maintenance of the Elsdon Line that will enable CSXT to increase its direct control over the handling of many of its trains to, from, and through the Chicago Terminal, thus reducing CSXT's reliance on its rail partners, and enabling CSXT to operate more efficiently to, from, and through the Chicago Terminal. According to CSXT, increased control of train operations would improve the speed at which CSXT's trains operate within the Chicago Terminal, improve car utilization, and reduce fuel consumption. Improved operations within the Chicago Terminal would also yield network benefits, as CSXT currently incurs inefficiencies on its rail lines outside of the Chicago Terminal in terms of staging and holding trains because of Chicago congestion and operating challenges. Depending on the segment of the Elsdon Line, the number of trains per day would increase by as many as 10.1 and 19.5 trains per day, decrease, or stay the same (see Table 1.1-1 for projected rail traffic increases and decreases by segment). Congestion on other lines within the Chicago Terminal that CSXT is using today would generally decrease, with those areas seeing environmental benefits.

CSXT states that it anticipates operating existing trains on the Elsdon Line that would be diverted from other rail lines in the Chicago Terminal, and as such CSXT does not anticipate changes in train length, the commodities handled, or train tonnage.

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<sup>21</sup> *Canadian National Railway Company and Grand Trunk Corporation-Control-EJ&E West Company*, STB Finance Docket No. 35087 (STB served December 24, 2008).

<b>Table 1.1-1. Anticipated Changes in Train Volume Affecting the Elsdon Line and Other Nearby Corridors</b>						
<b>Segment No.</b>	<b>Length (miles)</b>	<b>Begin Station</b>	<b>End Station</b>	<b>Existing Trains (minus)</b>	<b>Proposed Trains (plus)</b>	<b>Change</b>
<b>Elsdon Subdivision</b>						
GTW-01	5.1	Griffith	Munster	9.7	6.8	-2.9
GTW-02	5.8	Munster	Thornton Jct	9.7	8.9	-0.8
GTW-03	2.0	Thornton Jct	CN Jct	8.6	18.7	+10.1
GTW-04	3.9	CN Jct	Blue Island Jct	6.0	16.7	+10.7
GTW-05	7.5	Blue Island Jct	Hayford	3.5	23.0	+19.5
GTW-06	3.1	Hayford	Elsdon (Corwith)	0.0	0.0	0.0
<b>Monon Subdivision</b>						
CSXT-01	3.4	Dyer	Munster	2.0	2.0	0.0
<b>Blue Island Subdivision</b>						
CSXT-02	7.4	Blue Island Jct	Forrest Hill	32.0	32.0	0.0
CSXT-03	0.5	Forrest Hill	59 <sup>th</sup> St Yard	32.0	32.0	0.0
<b>BRC Subdivision</b>						
BRC-01	2.6	80 <sup>th</sup> St	Forrest Hill	26.0	22.0	-4.0
BRC-02	1.7	Forrest Hill	Hayford	26.0	19.0	-7.0
<b>Villa Grove Subdivision</b>						
UP-02	3.4	Thornton Jct	Dolton	16.0	2.0	-13.7
UP-03	7.0	Dolton	80 <sup>th</sup> St	26.0	22.0	-4.0
<b>Barr Subdivision</b>						
IHB-01	6.0	Blue Island Jct	Ridge	22.0	6.0	-16.0
IHB-02	5.8	Ridge	Argo (CP Canal)	22.0	6.0	-16.0

Source: CSXT 2011, Elsdon Subdivision Information Request, April 19, 2011.

**Table 1.1-2A. Anticipated Changes in CSXT Train Volume Affecting the Elsdon Line and Other Corridors**

Segment No.	Length (miles)	Begin Station	End Station	Change
GTW-01	5.1	Griffith	Munster	+4
GTW-02	5.8	Munster	Thornton Jct	+4
GTW-03	2.0	Thornton Jct	CN Jct	+17.7
GTW-04	3.9	CN Jct	Blue Island Jct	+15.7
GTW-05	7.5	Blue Island Jct	Hayford	+19.5
GTW-06	3.1	Hayford	Elsdon (Corwith)	0.0
CSXT-01	3.4	Dyer	Munster	0.0
CSXT-02	7.4	Blue Island Jct	Forrest Hill	0.0
CSXT-03	0.5	Forrest Hill	59 <sup>th</sup> St Yard	0.0
BRC-01	2.6	80 <sup>th</sup> St	Forrest Hill	-4.0
BRC-02	1.7	Forrest Hill	Hayford	-7.0
UP-02	3.4	Thornton Jct	Dolton	-13.7
UP-03	7.0	Dolton	80 <sup>th</sup> St	-4.0
IHB-01	6.0	Blue Island Jct	Ridge	-16.0
IHB-02	5.8	Ridge	Argo (CP Canal)	-16.0

Table 1.1-1, shows the total amount of traffic on the different segments of the Elsdon Line both existing today and under the Proposed Transaction. Table 1.1-1a shows only the change in CSXT trains over the various segments.

## 1.2 Purpose and Need

Under the CEQ's NEPA regulations, specifically 40 C.F.R. § 1508.9(b), an agency's EA shall include a brief discussion of the proposed project's purpose and need. OEA notes that the analysis of a project's purpose and need depends upon the type of federal action that is involved in the particular project. Here, the proposed transaction involves an application by a rail carrier, CSXT, for a license or approval. The proposed transaction is not a federal government-proposed or sponsored project. In cases such as this, courts have held that the project's purpose and need should be defined by the private applicant's goals, in conjunction with the agency's enabling statute. *See, e.g., Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 196 (D.C. Cir. 1991); *see also Nat'l Parks & Conservation Assoc. v. BLM*, 606 F.3d 1058, 1070 (9th Cir. 2009).

In the Proposed Transaction, CSXT seeks to become the primary user of the Elsdon Line. As the primary user, CSXT would be responsible for dispatching and maintaining the Elsdon Line. CSXT would make any capital improvements on the Elsdon Line that it determines from time to time are necessary. CSXT would also control, among other locations, the Blue Island Jct. and Munster interlockings and certain route options at Thornton Jct. GTW would

continue to own the Elsdon Line and would retain trackage rights and the ability to serve local shippers.

CSXT states that, as a result of CSXT acquiring the easement over the Elsdon Line, CSXT would be able to take advantage of an underutilized freight line that affords CSXT unique operating benefits to more efficiently provide transportation service to its customers. Specifically, CSXT would be able to move trains off of the IHB's Franklin Park Branch, the BRC rail line east of Clearing Yard, the UP Villa Grove Subdivision north of Dolton, and a portion of the CSXT/UP Joint Line. According to CSXT, the Proposed Transaction would reduce freight train conflicts in the region and reduce congestion at Dolton, a major intersection of freight activity in the Chicago Terminal.

CSXT expects that the Proposed Transaction would enable CSXT to more efficiently move freight to, from, and through the Chicago Terminal, thereby benefiting CSXT, its rail partners, its customers, and the Chicago community. CSXT's operations beyond the Chicago Terminal would also improve because CSXT would be able to reduce its reliance on the rail lines of partner rail carriers within the Chicago Terminal and utilize more rail lines that it controls. CSXT states that this would enable CSXT to operate within the Chicago Terminal without waiting for approval of other carriers to traverse segments of their rail infrastructure.

CSXT explains that currently, it is not uncommon for CSXT to have to hold trains for two to four hours or more waiting for a clear route to move a train to, from, or through the Chicago Terminal on the Elsdon Line. This delay, which may appear small in absolute terms, creates CSXT network inefficiencies as trains outside the Chicago Terminal are delayed within the Chicago Terminal. Delays increase operating costs, reduce productivity, increase environmental impacts, and degrade the level of service CSXT can provide to its customers.

CSXT believes that the Proposed Transaction would give CSXT greater control over the handling of its trains to, from, and through the Chicago Terminal, reduce CSXT's reliance on other railroads, enable CSXT to operate more efficiently and consistently, and provide better services to its customers that route traffic through the Chicago Terminal. According to CSXT, improved asset utilization would reduce fuel consumption and emissions, resulting in reduced environmental impacts from the current operations.

CSXT's Application further states that the ability to control maintenance and dispatching, as a result of the Proposed Transaction, would allow CSXT to improve the fluidity of its trains operating in the Chicago Terminal. CSXT anticipates that after acquiring the Elsdon Line, it would reduce freight rail delays and air emissions into the airshed.

If the Proposed Transaction is authorized and implemented, CSXT plans to shift approximately twenty-five (25) trains per day from other lines that CSXT uses in the Chicago

Terminal to various segments of the Elsdon Line.<sup>22</sup> Currently, the Villa Grove Subdivision handles between 15 and 20 CSXT trains per day. If the Application is approved, CSXT would shift 13.7 trains per day from the Villa Grove Subdivision north of Thornton Jct. to the Elsdon Line. Shifting trains from the South would reduce CSXT's need to operate over the following rail lines that are controlled and dispatched by other railroads: a portion of the CSXT/UP Joint Line (between Thornton Jct. and Dolton), the UP Villa Grove Subdivision (north of Dolton), the IHB Franklin Park Branch (west of Blue Island Jct.), and the BRC line (west of 80<sup>th</sup> Street) in order to operate to and from Clearing Yard, Bedford Park, 59<sup>th</sup> Street Intermodal Terminal, and other rail and intermodal facilities in the Chicago Terminal.

According to CSXT, shifting trains currently moving from the South would enable CSXT to operate more quickly and more efficiently to and from terminals because it would avoid a) congestion at UP's Yard Center, a rail yard used by UP to process carload traffic, b) congestion at UP's Dolton intermodal facility, c) conflicts with passenger trains north of Thornton Jct., d) conflicts with other freight carriers at the Dolton interlocking, and e) the need to operate over track owned and controlled by other carriers north of Dolton and west of 80<sup>th</sup> Street. The changes in rail traffic that would occur under the Proposed Transaction would also alleviate some of the congestion at Dolton, which CSXT explains would lead to fewer street blockages. The Proposed Transaction is not expected to affect the number, frequency, or length of trains operating over CSXT's Monon Subdivision, on which CSXT routes trains to and from the south. However, CSXT currently operates some trains on the Elsdon Line pursuant to trackage rights. According to CSXT, the efficiency of CSXT's operations on the Elsdon Line would improve under the Proposed Transaction because CSXT trains currently moving to and from the southeast now must secure GTW dispatcher approval prior to entering the Elsdon Subdivision. Under the Proposed Transaction, CSXT would be in charge of dispatching the Elsdon Line. By dispatching both the Monon Subdivision and the Elsdon Line, CSXT would be able to integrate the use of the two lines to optimize efficiency.

If the Proposed Transaction is authorized, CSXT would use the Elsdon Line to route about 15.3 trains per day differently through the Chicago Terminal. Specifically, CSXT would shift trains from the IHB's Franklin Park Branch (which also operate over the Barr Subdivision via a connection at Blue Island Jct.) to the Elsdon Line, thus creating operational benefits for the IHB and for other carriers that utilize the IHB to operate trains through the Chicago Terminal.

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<sup>22</sup> The proposed train volumes that would shift as a result of the Proposed Transaction are expected to occur within twenty-four months of receiving Board authority to acquire the operating easement over the Elsdon Line. Prior to shifting any traffic, CREATE projects WA-10 (at Blue Island Jct.) and B-16 (at Thornton) also must be completed. CSXT expects WA-10 to be complete and in service by the early part of the second quarter of 2013, and B-16 to be complete and in service by the winter of 2013. Both connections are being made within the existing right-of-way and will not enable CSXT to access new markets. The connection at Thornton Jct. is a replacement of an inactive or previously removed connection. The connections at Blue Island Jct. are crossovers to improve efficiency and operating options.

CSXT plans to operate over the Elsdon Line without stopping. As a result, CSXT would not operate trains over the Elsdon Line unless the route and CSXT's partner railroad could accept the train without delay or interruption. For example, CSXT would not allow a train destined for Clearing Yard, via Hayford, that originates in Nashville to enter the Elsdon Line without knowing it can operate to Clearing Yard without delay. This would require coordination with NSR and METRA (for the Elsdon/METRA crossing at Ashburn Avenue) and the BRC for movement from Hayford onto the appropriate BRC rail line. As CSXT anticipates all trains operating over the Elsdon Line would be moving at about 40 miles per hour, this operation would minimize the amount of time at-grade-crossings are blocked between Elsdon and Munster to about three (3) minutes per CSXT train.

As noted above, the proposed transaction is not a federally-proposed or sponsored project; rather CSXT, a private rail carrier, is seeking the STB's approval, under 49 U.S.C. §§ 11323-11325, of its acquisition of an easement to operate over another carrier's line. Thus, the Board has no independent interest in the outcome of the Proposed Transaction.

In an acquisition proceeding such as this, which does not involve the merger or control of at least two large Class I railroads, the STB, under 49 U.S.C. § 11324(d), "shall approve . . . an application unless it finds that – (1) as a result of the transaction, there is likely to be substantial lessening of competition, creation of a monopoly, or restraint of trade in freight surface transportation in any region of the United States; and (2) the anticompetitive effects of the transaction outweigh the public interest in meeting significant transportation needs." Therefore, the STB must approve this transaction unless it makes specific statutory findings concerning possible anticompetitive effects from the transaction.

The Board has determined that the Proposed Transaction should be classified as "minor" under the agency's regulatory scheme because, based on a review of the Application, the transaction will not have any clear anticompetitive effects. The Board's findings regarding the anticompetitive impact are preliminary. In deciding whether to authorize the Proposed Transaction, the Board will give careful consideration to any claims that the Proposed Transaction would have on anticompetitive effects that are not apparent from the Application. In addition, the Board can impose environmental conditions on any decision authorizing the Proposed Transaction to minimize potential environmental effects. 49 U.S.C. §11324(c). The Board will consider this Draft EA, the Final EA and any comments received in deciding which conditions to impose, should the Board authorize the acquisition.

## 2.0 PROPOSED TRANSACTION AND NO-ACTION ALTERNATIVE

### 2.1 Proposed Transaction

Under the Proposed Transaction, CSXT would acquire from GTW an exclusive perpetual non-assignable railroad operating easement that would give CSXT the right to operate over the 22.37 mile Elsdon line. Approximately 0.22 miles of the Elsdon Line (in the Munster area) is within Lake County, Indiana, with the remainder of the Elsdon Line, approximately 22.0 miles, in Cook County, Illinois. CSXT already has existing trackage rights permitting it to operate over the Elsdon Line.<sup>23</sup>

Under the Proposed Transaction, CSXT would assume the responsibility for the maintenance, dispatching and capital improvements on the Elsdon Line. Under the Proposed Transaction, CSXT would shift approximately twenty-five (25) trains per day from other lines that CSXT uses in the Chicago Terminal to various segments of the Elsdon Line.<sup>24</sup> Table 1.1-1, shows the total amount of traffic on the different segments of the Elsdon Line both existing today and under the Proposed Transaction. Table 1.1-1a shows only the change in CSXT trains over the various segments.

GTW agreed to grant CSXT the easement that would be authorized under the Proposed Transaction in exchange for an exclusive, perpetual, non-assignable railroad operating easement between Aulon and Leewood, Tennessee. CSXT believes the Proposed Transaction would provide CSXT with operational and economic benefits that it lacks from only having access to the Elsdon Line via its existing trackage rights. Under the Proposed Transaction, CSXT would control the Elsdon Line in terms of maintenance, dispatch, and capital improvements. With this level of control over the Elsdon Line, CSXT would be better able to manage the operations of the Elsdon Line, which in turn would enable CSXT to more efficiently operate its trains through the Chicago Terminal.

Currently, GTW operates over the Elsdon Line and GTW's affiliates have trackage rights granted by GTW over the Elsdon Line. CSXT also operates over the Elsdon Line pursuant to trackage rights. CSXT has agreed to grant trackage rights over the Elsdon Line to the GTW Affiliates. Under the Proposed Transaction, GTW expects to operate between two and four trains a day between Elsdon and Munster, as it currently does. The Elsdon Line consists of a two-track main line between Munster, Indiana (MP 31.07) and Hayford, Illinois (MP 11.9) and then a single-track main line between Hayford (MP 11.9) and Elsdon, Illinois (MP 8.7). The rail line has 136-pound continuously welded rail (CWR) between Munster (MP 31.07)

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<sup>23</sup> See *CSX Transportation, Inc.-Trackage Rights Exemption-Grand Trunk Western Railroad Company*, STB Finance Docket No. 35326 (STB served February 12, 2010).

<sup>24</sup> The proposed train volumes that would shift as a result of the Proposed Transaction are expected to occur within twenty-four months of receiving Board authority to acquire the operating easement over the Elsdon Line.

and MP 19.6 just east of Blue Island Junction.<sup>25</sup> North of MP 19.6, the Elsdon Line is 115-pound bolted rail to the end of the Elsdon Subdivision at MP 8.7 at Elsdon, Illinois.<sup>26</sup>

The condition of the Elsdon Line is in compliance with Federal Railroad Administration (FRA) Class 4 track safety standards, with maximum allowable operating speeds of 60 miles per hour for freight trains and 80 miles per hour for passenger trains (see Table 3.1-12). The Elsdon Line is signalized and is currently operated under Centralized Traffic Control (CTC)<sup>27</sup> except for a 7.7-mile-long segment (MP 19.5 to MP 11.8) just east of Blue Island Junction and a 2.2-mile segment between Hayford and Elsdon, which operates under an Automatic Block System (ABS).<sup>28</sup> No changes or improvements to track or signals would be required for implementation of the Proposed Transaction.

Figure 2.1-4 and Table 1.1-1 show the anticipated changes in total train volume (both increases and decreases) on various segments of the Elsdon Line by both CSXT and GTW and its affiliates (no other railroads use the Line). Table 1.1-1a shows the anticipated changes for CSXT trains on the Elsdon Line and other lines in the Chicago Terminal.

Table 1.1-1 also shows CSXT decreases on other lines within the Chicago Terminal that would occur due to the Proposed Transaction. The volume of rerouted trains that would occur under the Proposed Transaction is based on CSXT's best estimate for the next five years. Actual train counts are always dependent on general economic conditions, market factors, competition, and the demand for railroad transportation of commodities.

It is estimated that the Proposed Transaction would result in an increase of train traffic on segments GTW-03 (+10.1 trains), GTW-04 (+10.7 trains), and GTW-05 (+19.5 trains). The Proposed Transaction would decrease train traffic on segments GTW-01 (-2.9 trains) and GTW-02 (-0.8 trains). Train volume on segment GTW-06 would remain the same. This change in traffic would reroute 15.3 trains per day to the Elsdon Line from the IHB Line between Blue Island Junction and the West End of Bedford Yard, and approximately 13.7 trains per day from the BRC line between Hayford and 80<sup>th</sup> Street to its connection with UP and then over the UP Lines between Thornton Junction and Dolton.

Under the Proposed Transaction, CSXT would not create any additional train traffic in the Chicago Terminal, nor would it diminish service for any existing shippers. All increases in rail traffic on the Elsdon Line would be a direct result of rerouting made possible by integrating the Elsdon Line into the CSXT network. The Proposed Transaction would not

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<sup>25</sup> 136-pound rail weighs 136 pounds per yard and is considered heavy duty rail section, which is the current standard weight rail used by North American railroads for main line trackage.

<sup>26</sup> 115-pound rail weighs 115 pounds per yard and is a medium duty rail. This type of rail is commonly used on secondary or branch lines.

<sup>27</sup> CTC is a dispatcher-controlled computer-assisted communication system that prevents conflicting movements between trains. It allows the dispatcher to control signals and power switches, and authorize train movements.

<sup>28</sup> ABS is a means to safeguard the train operations between stations.

result in the diversion of rail shipments that are currently handled by other railroads to CSXT.

CSXT's trains in the Chicago Terminal carry automobiles, bulk commodities, coal, intermodal, merchandise, and other commodities. The average length of CSXT's trains operating in the Chicago Terminal is 5,800 feet long and the average weight is 6,000 tons. This average length and average weight of trains is not expected to change under the Proposed Transaction. The longest trains that would be operated on the Elsdon Line as a result of the Proposed Transaction are auto trains from the CSXT's Barr Subdivision between Pine Junction and Dolton averaging 6,516 feet in length. The heaviest trains are coal trains operated on the same line segment averaging 9,527 tons.

Figure 2.1-1-3 depicts how existing CSXT trains that would be impacted as a result of the Proposed Transaction currently move (left portion of the figure) and how the same trains would be anticipated to move under the Proposed Transaction (right portion of the figure).

Figure 2.1-1 shows CSXT trains impacted by the Proposed Transaction that move in an east/west direction; Figure 2.1 -2 shows CSXT trains impacted by the Proposed Transaction that move in a north/south direction; Figure 2.1-3 depicts CSXT trains impacted by the Proposed Transaction including trains that would be transferred from the Monon and the Blue Island Subdivisions to the Elsdon Line and three additional trains that CSXT would operate in the Blue Island Subdivision instead of the three trains that would be transferred to the Elsdon Line.

CSXT generally operates in areas in the United States that are south and east of Chicago. CSXT enters the Chicago Terminal using several corridors located to the south, east, and west of the Chicago metropolitan area as shown in the Figure 2.1.1-3 and described below.

The routes CSXT uses are known as the Grand Rapids Subdivision, the Barr Subdivision, the Monon Subdivision, the Villa Grove Subdivision, the Porter Subdivision, and the New Rock Subdivision. The effects the Proposed Transaction would have on these routes are discussed below.

- **Grand Rapids Subdivision:** This is part of CSXT's route between Michigan and Chicago. The route consists of CSXT's trackage between Grand Rapids, MI and Porter, IN (the CSXT Grand Rapids Subdivision) and trackage rights over the Norfolk Southern Railway Company's ("NS") Chicago Line between Porter, IN and various connections to other rail lines in the Chicago Terminal. CSXT trains operating via the Grand Rapids Subdivision currently can switch between trackage rights on the NS Chicago Line and CSXT's Barr Subdivision<sup>29</sup> near Pine Jct., IN and between the NS Chicago Line and Belt Railway of Chicago ("BRC") trackage near 96th Street. The Grand Rapids Subdivision is an FRA Class 4 or lower line where freight train speed limits are between 15 to 50 mph. Amtrak's Pere Marquette train operates daily service over the Grand Rapids Subdivision

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<sup>29</sup> The Barr Subdivision is owned by the B&OCT west of Pine Jct. and owned by CSXT east of Pine Jct.

between Grand Rapids, MI, and Chicago, IL. CSXT currently operates four to six freight trains per day over this route.

The Proposed Transaction is not expected to affect CSXT's traffic over the Grand Rapids Subdivision. CSXT expects to continue to operate to and from the Grand Rapids Subdivision in the same manner with the same number of trains as it does today.

- **Barr Subdivision:** This is a route between Willow Creek, IN, and Blue Island Jct., IL that includes CSXT's trackage rights over the B&OCT, a wholly owned subsidiary of CSXT, between Pine Jct., IN and Blue Island Jct. The Barr Subdivision currently allows CSXT to operate between points east of Chicago and (a) B&OCT's Barr Yard (a major classification yard in Chicago), (b) the IHB's Blue Island Yard, (c) the Bedford Park Intermodal Facility, (d) the 59th Street Intermodal Terminal, (e) BRC's Clearing Yard, and (f) connections with other Chicago railroads. CSXT operates approximately 50 trains per day over this route. The Barr Subdivision extends through Dolton, IL, where it crosses the busy UP Villa Grove Subdivision at grade. The IHB, through an interlocking agreement, controls the movement of all trains through Dolton. The Dolton crossing is one of the most congested railroad intersections in the Chicago Terminal. CSXT must secure IHB approval prior to operating to or from Dolton on the Barr Subdivision. The track is operated at FRA Class 4 or lower, with speeds between 25 and 60 mph for freight trains.

Figure 2.1-1. depicts CSXT trains that would be impacted by the Proposed Transaction operating in an east/west direction into and out of the Chicago area via the Barr Subdivision. As a result of the Proposed Transaction, CSXT would move 15.3 trains operating in the IHB Subdivision to the Elsdon Line. The majority of trains would enter or exit the Elsdon Line at the Blue Island Junction. The Proposed Transaction would result in a reduced number of trains operating on the Barr Subdivision, specifically east of Dolton. In the future (perhaps 2014), CSXT would use trackage rights over GTW's South Bend Subdivision to divert four trains from the Barr Subdivision to the Elsdon Line. These trains would enter and exit GTW trackage at Wellsboro, IN (approximately 40 miles east of Chicago).

- **Monon Subdivision:** This CSXT route is between Indianapolis, IN and Munster, IN where it connects to the Elsdon Line.

The Proposed Transaction would have no effect on the number, frequency, or length of trains operating over CSXT's Monon Subdivision (generally two passenger and two freight trains per day).

- **Villa Grove Subdivision:** This line is jointly owned by CSXT and UP and runs between Danville, IL, and Woodland Junction, IL, through Dolton, IL. The Villa Grove Subdivision is primarily a north-south line that handles between 15 and 20 CSXT trains per day and approximately another 20 trains for UP per day. The portion of the Villa Grove Subdivision between Woodland Junction and Danville, a distance of approximately 66 miles, is jointly owned by CSXT and UP. UP is responsible for dispatching this

portion of the rail line. UP owns the Villa Grove Subdivision north of Dolton to a connection with the BRC.

Figure 2.1-2. depicts CSXT trains operating into and out of the Chicago area via the Villa Grove (UP)/CSXT joint line that would be impacted by the Proposed Transaction. CSXT, as a result of the Proposed Transaction, would reduce the number of trains per day that operate over the Villa Grove Subdivision north of Thornton Junction to Dolton by approximately 13.7. CSXT anticipates that these trains would diverge at Thornton Junction and Blue Island Junction. The Proposed Transaction would not reduce the number of trains that UP or any other railroad operates over the Villa Grove Subdivision.

- **Porter Subdivision:** This line extends between Porter, IN and Ivanhoe, IN – approximately two miles east of IHB’s Gibson Yard. The track extending west of Ivanhoe, IN is operated by the IHB. The Porter Subdivision operates at FRA Class 3 or lower with a freight train speed limit at or below 40 mph. The Porter Subdivision – in conjunction with the IHB-operated line west of Ivanhoe – provides CSXT access to IHB’s Gibson Yard and a route parallel to the Barr Subdivision that also provides access to and from (a) B&OCT’s Barr Yard, (b) IHB’s Blue Island Yard (c) the Bedford Park Intermodal Facility, (d) CSX’s 59th Street Intermodal Terminal, (e) BRC’s Clearing Yard, and (f) connections with other Chicago railroads. CSXT operates 2 to 4 trains a day over the Porter Subdivision. No trains would be rerouted to or from the Porter Subdivision as a result of the Proposed Transaction. Therefore, the Proposed Transaction would have no effect on the Porter Subdivision.
- **New Rock Subdivision:** This is a line between Pine Island Junction and Utica, IL. CSXT operates over a Metra line between Pine Island Junction and Joliet and on a CSXT line between Joliet and Utica. The New Rock Subdivision handles two CSXT trains per day and two Iowa Interstate Railroad trains per day. No trains would be routed to or from the New Rock Subdivision under the Proposed Transaction, therefore the Proposed Transaction would have no effect on the New Rock Subdivision.
- **The Franklin Park Branch** is part of the IHB belt line around Chicago that extends between Blue Island Jct., IL and Franklin Park, IL. The segment between Blue Island Jct., IL and McCook, IL is owned by the B&OCT and dispatched by the IHB under a joint facility agreement. While not a route to or from Chicago per se, it is part of a major corridor around Chicago that is used by most Chicago railroads. CSXT’s use of this route would be reduced at least for a while under the Proposed Transaction, which would in turn provide improved efficiency for all the railroads that use this route.

Figure 2.1-1. East/West CSXT Train Movements

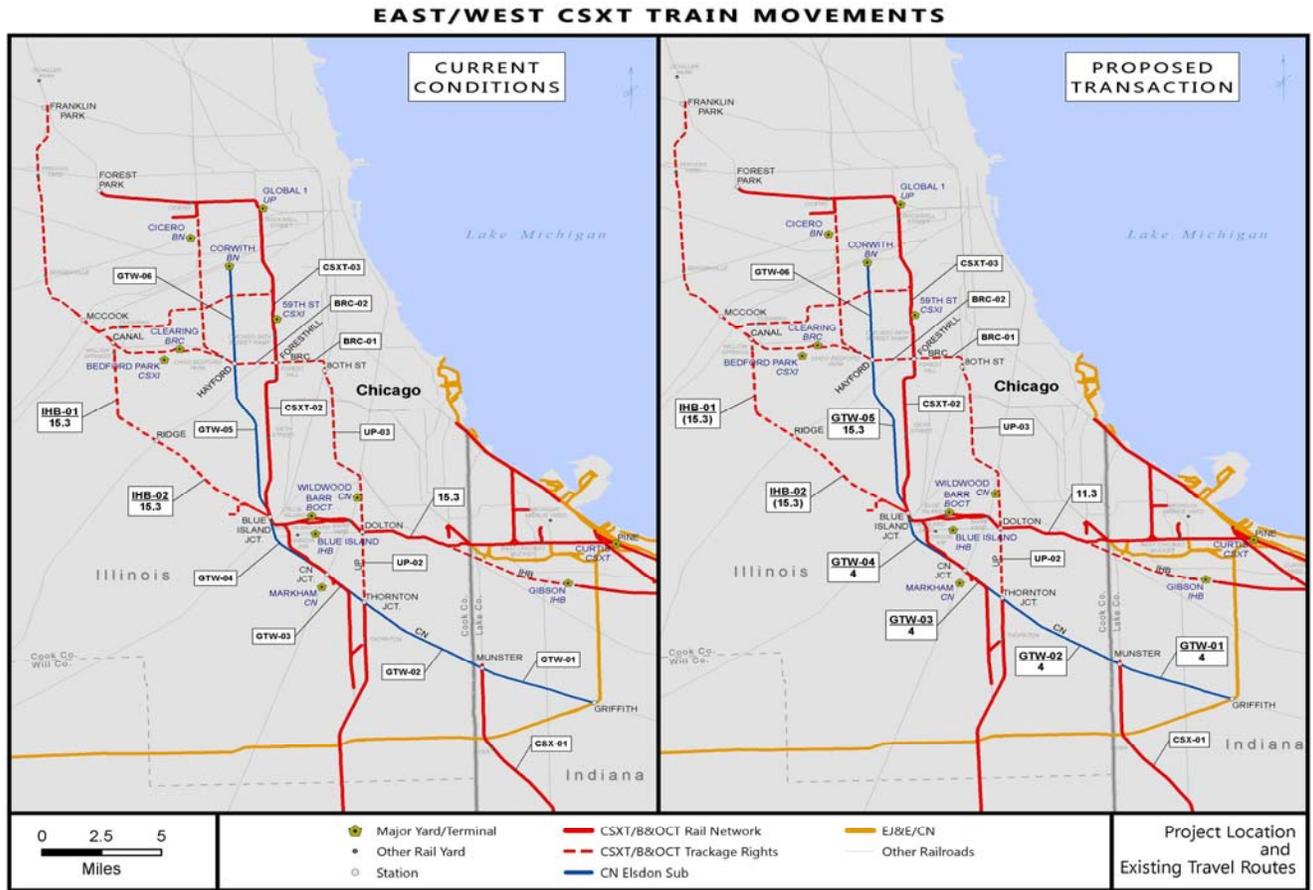


Figure 2.1-2 North/South CSXT Train Movement.

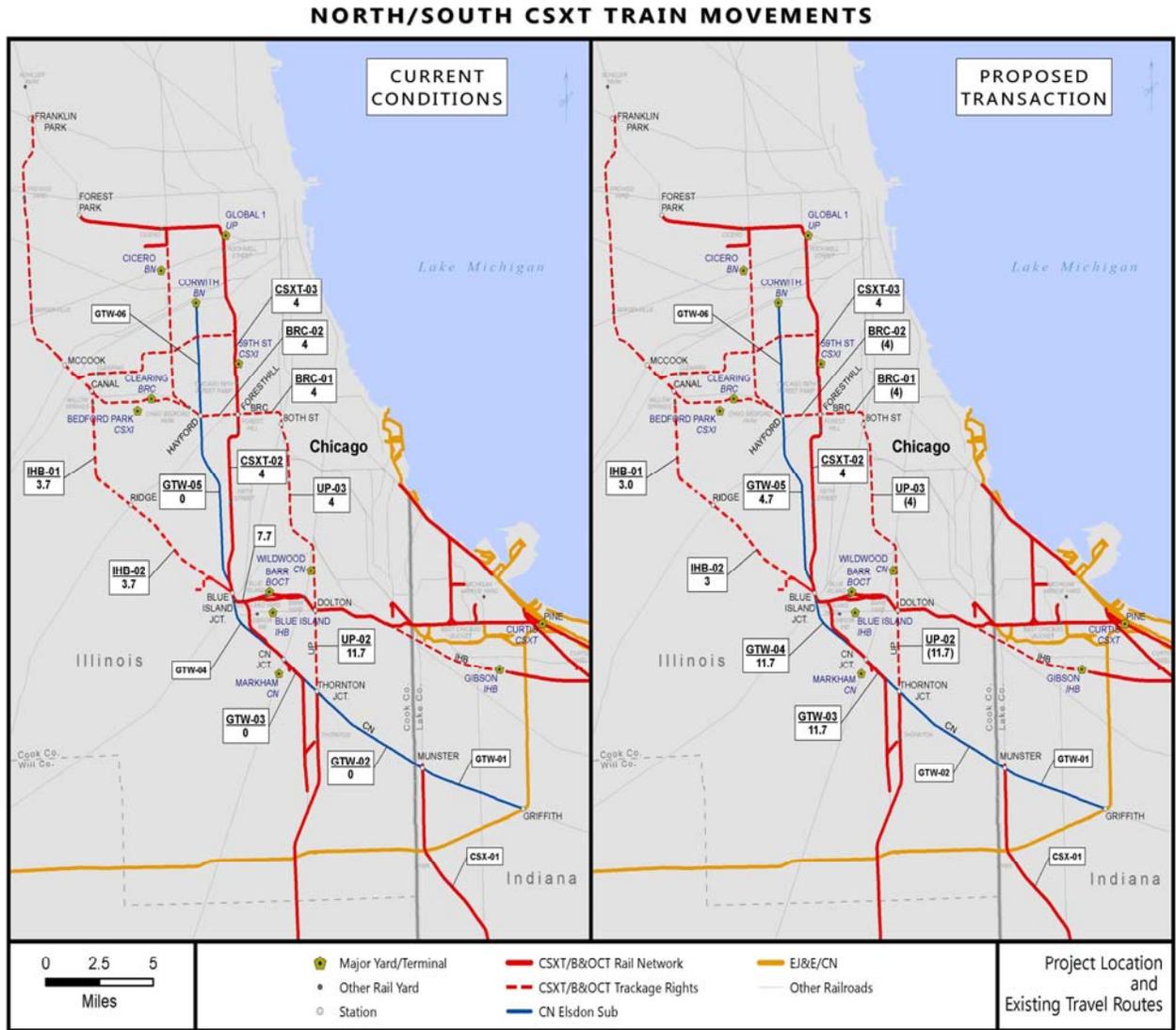
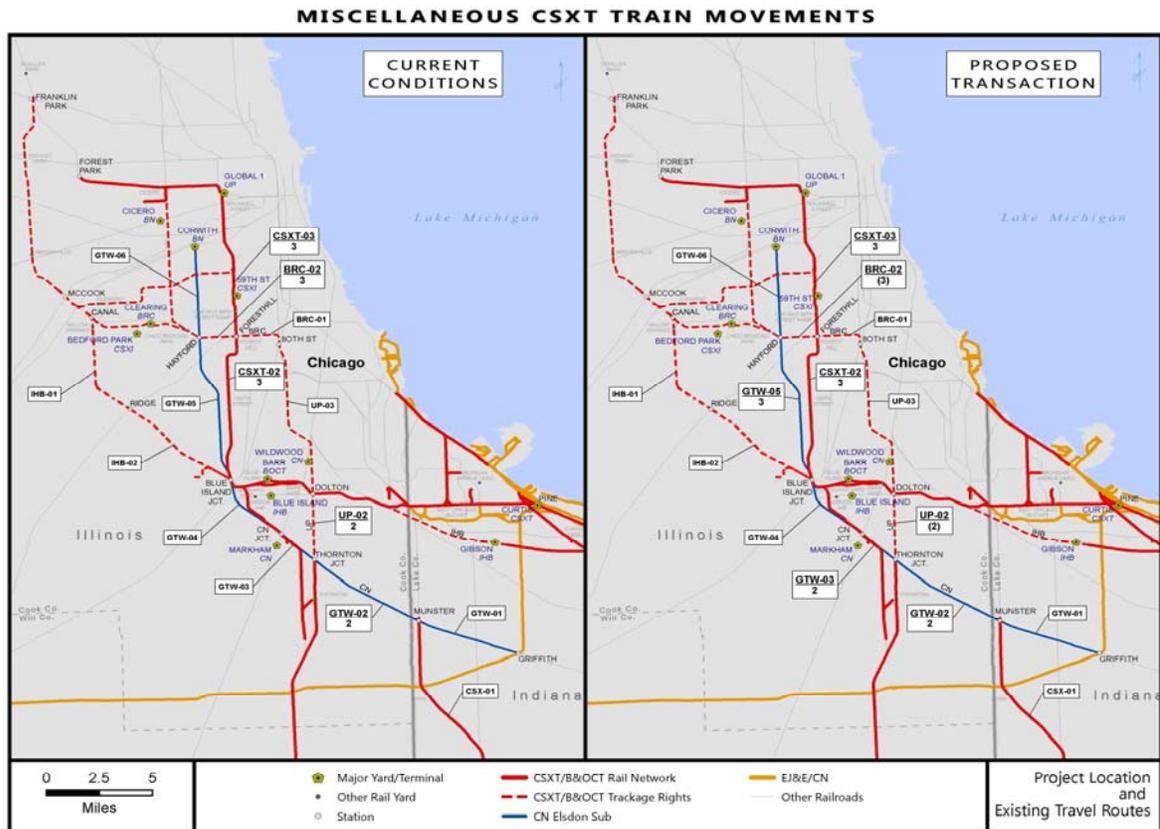


Figure 2.1-3 Other CSXT Train Movements



2.1.1 North South Reroutes

If the Proposed Transaction is authorized and implemented, CSXT anticipates rerouting trains from the Villa Grove Subdivision and the Barr Subdivision to the Elsdon Line. The reroute of trains from the Villa Grove Subdivision would affect traffic between the Chicago Terminal and the Southeast U.S. and the reroute of trains from the Barr Subdivision would affect traffic between BRC Clearing Yard and CSX Intermodal’s Bedford Park facility, on the one hand, and Thornton Junction, Il, on the other.

CSXT estimates that 12 trains per day that currently operate over the Villa Grove Subdivision south of Dolton (Figure 2.2-2) would be routed to the Elsdon Line between Thornton Junction and a connection with the BRC at Hayford, Il under the Proposed Transaction. CSXT’s existing route traverses approximately 16 miles of UP, IHB, and BRC rail lines between Thornton Junction and the BRC near 80<sup>th</sup> Street Junction, none of which is solely owned or controlled by CSXT. As such, today CSXT must secure permission from the railroads that dispatch the line – UP, IHB, and BRC – prior to operating over this route.

CSXT explains in its Application that because this route handles trains for many railroads in addition to those listed above, CSXT must compete with other priorities and operations of the

dispatching railroads prior to securing permission to operate over this line segment. The volume of traffic over this portion of the Villa Grove Subdivision creates delays and other inefficiencies for CSXT in the Chicago Terminal and elsewhere on its rail system.

Under the Proposed Transaction, CSXT would reroute 12 trains per day from the Villa Grove Subdivision. The rerouted trains would enter the Elsdon Line at Thornton Junction and move northwest through Blue Island Junction to Hayford. This reroute would be for approximately 13 miles, most of which would be the part of the Elsdon Line that would be under CSXT's dispatch control. While the new route proposed for CSXT trains would continue to require UP permission to access the Villa Grove Subdivision south of Thornton Junction, CSXT anticipates greater fluidity because CSXT's trains would enter and exit the Elsdon Line at Thornton Junction, south of two major sources of congestion: UP's Yard Center and Dolton, where three railroads tracks cross at grade. There are currently 8.6 GTW trains per day between Thornton Junction and the CN Junction, six GTW trains per day between CN Junction and Blue Island, and 3.5 GTW trains per day on the Elsdon Line between Blue Island and Hayford. In the near future, GTW plans to reduce the number of trains its moves between Blue Island Jct. and Hayford from 3.5 trains per day to 0.1 trains per day.

Thornton Junction is south of UP's Yard Center, which is located along the line segment that extends from Thornton Junction to 80<sup>th</sup> Street line. Yard Center is a location with significant freight congestion because of the yard and its related activity and its proximity to the operations at Dolton. As noted earlier, CREATE Project B16 would facilitate the reroute of CSXT trains to the Elsdon Line and benefit all railroads using the Villa Grove Subdivision by reducing the number of trains using the route, thereby improving the fluidity of rail operations north and south of Thornton Junction.

### 2.1.2 Partner Reroutes

Under the Proposed Transaction, an estimated 15 trains per day that currently operate over the (i) IHB rail line between the west end of Clearing Yard/Bedford Park and Dolton or (ii) via the BRC mainline between Clearing Yard and Dolton and the Villa Grove Subdivision at 80<sup>th</sup> Street would be rerouted over the Elsdon Line between Hayford and Blue Island, and then from Blue Island to Dolton via the Elsdon Line of the B&OCT. CSXT states that the Proposed Transaction would allow CSXT to reduce operating over the lines of other railroads, thus avoiding conflicting operational priorities and the challenges associated with handling multiple carriers' freight on a the same line segment.

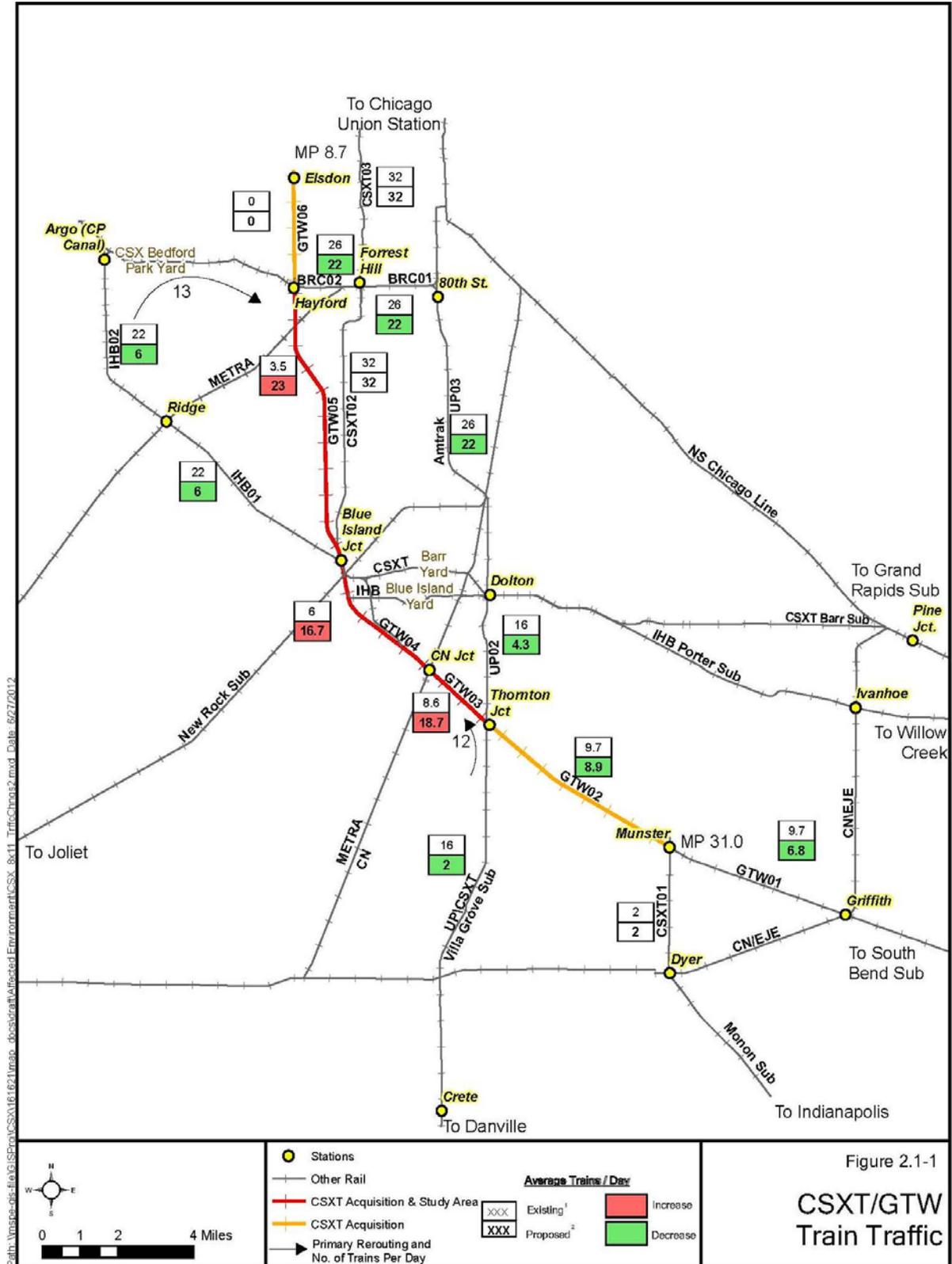
Of the 15 trains per day that would be rerouted from the BRC and IHB as a result of the Proposed Transaction, 3 of those trains are local trains that transfer freight between B&OCT's Barr Yard and Clearing Yard via B&OCT's Blue Island Subdivision. Currently, these trains operate over B&OCT's Blue Island Subdivision north towards CSXT's 59<sup>th</sup> Street Intermodal Terminal. These trains cross the BRC at a location referred to as Forest Hill. However, in order to operate west towards Clearing Yard, these trains must pull north of the B&OCT/BRC crossing until the entire train is north of the crossing. Once complete, the train crew uncouples the locomotives and runs around the train to the south end,

recouples the locomotives to the cars, and then proceeds over a connection between the Blue Island Subdivision and the BRC in the northwest quadrant of Forest Hill. According to CSXT, this “runaround” move consumes a significant amount of crew time and creates delays for trains operating in the Chicago Terminal. Not only does the crew have to secure BRC permission to cross at Forest Hill, but it must reacquire that permission when ready to proceed into Clearing Yard. CSXT states that it is a common occurrence for these trains to wait several hours to enter the BRC track at Forest Hill or to cross the BRC at Forest Hill.

CREATE Project WA-10 will connect B&OCT’s Blue Island Subdivision and the Elsdon Line, eliminating an inefficient move for B&OCT, CSXT’s subsidiary. B&OCT will be able to reroute its traffic to the Elsdon Line reducing train delay, not only for B&OCT operations, but for other railroads.

CSXT anticipates that the Proposed Transaction would allow CSXT to better serve its customer base by operating more efficiently within the Chicago Terminal. CSXT states that the Proposed Transaction would afford CSXT greater control over the routing and handling of its trains to, from, and through Chicago, thus reducing CSXT’s reliance over other carriers operating on rail routes it does not control and that are congested with the operations of other railroads. According to CSXT, the increased control of the Elsdon Line it would obtain under the Proposed Transaction would improve the speed at which CSXT’s trains operate within the Chicago Terminal, improve CSXT’s asset utilization, and reduce fuel consumption by reducing the number of and opportunity for train delays.

Figure 2.1-4 CSXT/GTW Train Traffic



### 2.1.3 Intercity Passenger Service

Passenger train service would not be adversely affected by the Proposed Transaction. Currently, Amtrak operates one train daily in each direction between Chicago Union Station and Indianapolis. These trains operate on the Elsdon Line between Munster, IN, and Thornton Junction, IL, a distance of 5.8 miles, and on the UP's Villa Grove Subdivision (on which CSXT currently operates and is a joint owner of the rail line between Thornton Junction and Dolton) from Thornton Junction to 80<sup>th</sup> Street (a distance of 10.4 miles) (See Table 2.1-1).

Segment No.	From	To	Distance	Freight Trains			Passenger Trains		
				Existing	Proposed	Change	Existing	Proposed	Change
CSXT-01	Dyer, IN	Munster, IN	3.4	2.0	2.0	0.0	2.0	2.0	0
GTW-02	Munster, IN	Thornton Jct, IL	5.8	9.7	8.9	-0.8	2.0	2.0	0
UP-02	Thornton Jct, IL	Dolton, IL	3.4	16.0	2.0	-14.0	2.0	2.0	0
UP-03	Dolton, IL	80 <sup>th</sup> St, IL	7.0	26.0	22.0	-4.0	2.0	2.0	0

Source: CSXT 2011, Elsdon Subdivision Information Request, April 19, 2011.

There are no intercity passenger trains operating elsewhere on line segments that would be affected by the Proposed Transaction. As Table 2.1-1 shows, the Proposed Transaction could benefit passenger train service because 18.8 freight trains would be removed from two rail line segments of which Amtrak currently operates.

### 2.1.4 Commuter Rail Service

Metra Southwest Service (SWS or Blue Line) now operates 30 trains per day on the shared Norfolk Southern Railway (NS)/Metra rail line, which crosses the IHB rail line between Blue Island Junction and Argo at Ridge on a level rail/rail crossing, and the Elsdon Line at Ashburn (south of Hayford on the Elsdon Line, segment GTW-05) at a level rail/rail crossing.

CSXT anticipates the number of CSXT freight trains per day crossing on the IHB rail line to decrease from 22.0 to 8.1 (a reduction of 13.9) and the number of CSXT trains on the Elsdon Line to increase from 3.5 to 23.0 (an increase of 19.5) (See Table 1.1-1).

Although there would be an increase in CSXT's train traffic at the Ashburn crossing, the Proposed Transaction is not expected to impact Metra's SWS as Metra's passenger trains enter and leave the crossing in under one minute and would be given priority over freight trains at this location. CSXT has indicated that it has a long standing working relationship with Metra and would be required to consult with Metra under CSXT's voluntary mitigation measure VM 8. In response to concerns raised regarding this and other transit-related issues, OEA is recommending mitigation measure MM 3, which would require CSXT to

work with Metra and other entities to resolve potential impacts as a result of the Proposed Transaction to Metra's Rock Island District, Electric District, SWS Line, and the proposed South-east Service (SES) Line.

#### **2.1.4.1 Proposed Upgrades to the Elsdon Line**

As noted above, CSXT would assume responsibility for capital improvements on the Elsdon Line under the Proposed Transaction. Although the Elsdon Line meets FRA Class 4 standards today, CSXT believes that the additional improvements would enhance the Line's efficiency.

CSXT has no plans to perform any type of construction activity on the Elsdon Line that would disturb existing ground, but does anticipate making the following physical changes:

- Install centralized traffic controls between Blue Island Junction and Hayford (within five years),
- Install additional cross-ties between Blue Island Junction and Hayford (within one year),
- Install additional cross-ties and rail between Hayford and Corwith (as train volumes warrant),
- Complete construction of CREATE-sponsored Project B-16 (which involves the installation of a connection in the southwest quadrant of Thornton Junction replacing a connection that was formerly located in the same quadrant), and
- Complete the construction of CREATE-sponsored Project WA-10 (which involves the installation of a universal crossover just north of the Cal-Sag Canal at Blue Island Junction, plus a crossover between the two-main-track of the Elsdon Line located near Burr Oak Avenue).

According to the Application, the installation of CTC would enable CSXT to more efficiently dispatch and operate trains over the rail line segment between Blue Island Junction and Hayford. Currently, portions of the double tracked Elsdon Line utilize directional running, which means that trains can only operate in one direction. The installation of CTC would allow for train movement in both directions and thus increase capacity and efficiency of train operations.

CSXT believes that construction of CREATE-sponsored Project B-16 at Thornton Junction will help CSXT maximize the benefits of the Proposed Transaction, specifically for trains operating to the south via Thornton Junction. Currently the UP/CSXT Joint Line and the Elsdon Line cross, but due to the lack of a connection, trains cannot operate between the two line segments west of Thornton Junction. CREATE Project B-16 will create a new connection between the UP/CSXT Joint Line and the Elsdon Line at Thornton Junction. The new connection will allow trains to switch between the lines and will provide increased flexibility for dispatchers routing trains throughout the Chicago Terminal.

Currently, the B&OCT and Elsdon Line run roughly parallel through the Blue Island Junction with no connection between them. According to CSXT, the CREATE-Sponsored WA-10 Project will improve connectivity via new crossovers between the Blue Island

Subdivision and the Elsdon Line to allow train movement in both directions and allow CSXT to more efficiently operate between Barr and Clearing Yards.

These CREATE projects are scheduled to be completed regardless of the Proposed Transaction. They are both scheduled to be completed by the end of 2013.

## **2.2 No-Action Alternative**

The No-Action Alternative would be to maintain the existing operations in the Chicago Terminal and not generate any of the benefits that CSXT anticipates would occur as a result of the Proposed Transaction. Even under the No-Action Alternative, CREATE B-16 and W-10 would be completed. Hence, the CREATE projects are independent of the Proposed Transaction.

Figure 2.2-1. Location of CREATE-Sponsored Projects B-16 and WA-10



Note: Does not include Viaduct Improvement Program locations, Safety Improvement Program or Common Operational Picture

2/1/2011



## 3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL IMPACTS

### 3.1 Transportation

This section discusses the affected environment within the study area as it relates to the local road network, railroad operations, safety, and hazardous materials transportation. For transportation purposes, the study area is defined as the Elsdon Line segments GTW-03, 04, and 05, where train traffic would increase as a result of the Proposed Transaction.

#### 3.1.1 Traffic and Grade Crossing Delay

This section discusses the affected environment as it relates to grade-crossing vehicular delay due to the Proposed Transaction. Changes in train frequency, length, or speed affect at-grade crossings.

##### 3.1.1.1 Affected Environment

#### 2012 Existing Conditions

A total of 60 crossings are located along the Elsdon Line between Munster, Indiana, and Elsdon, Illinois (GTW-01, GTW-02, GTW-03, GTW-04, GTW-05, and GTW-06). Of the 60 crossings, 16 are grade-separated and 43 are public, at-grade crossings. In addition, there is one pedestrian at-grade crossing located along the rail line in Blue Island, Illinois, at MP 18.8 (Figure 3.1-1 through Figure 3.1-4).<sup>30</sup> Figure 3.1-5 shows the 79<sup>th</sup> Street crossing which is discussed later in this section. The environmental analysis has focused on the at-grade crossings within the study area that the public uses and that would experience an increase in the number of trains per day as part of the Proposed Transaction. This would include line segments as shown in Figure 2.1.4 (GTW-03, GTW-04, and GTW-05). The Proposed Transaction does not involve construction activities that would modify or remove any at-grade crossings.

Table 3.1-1 summarizes the number of existing public at-grade crossings along the study area, where the number of trains is projected to increase. There are 31 at-grade crossings that would experience an increase in train traffic. All 31 public at-grade crossings are located in Illinois.

#### Vehicle Delay

To characterize the existing conditions along the Elsdon Line, the analysis estimated existing vehicular traffic delays due to the train movements at the public highway/rail at-grade crossings. The analysis focused on calculating delays for the highway/rail at-grade crossing on the Elsdon Line to characterize the existing effects on vehicular traffic from current train movements. The analysis did not include the pedestrian at-grade crossing due to the low traffic volumes. Vehicle delay calculations included the following measurements:

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<sup>30</sup> In Figures 3.1-1 through 3.1-4, grade-separated crossings are referred to as Pub-RRover and Pub-RRunder.

- Blocked crossing time per train, minutes (Dc)
- Average delay per delayed vehicle, minutes (Da)
- Total delayed vehicles per day (Td)
- Vehicle queue length, number of vehicles (Q)
- Average delay for all vehicles, minutes (Dv)
- Total vehicle delay for all vehicles in 24-hour period

For the existing roadways, delay was estimated using the existing number of trains (N), existing average train speed (V), length of trains (L), and the number traffic lanes (NL) at the highway/rail at-grade crossing. The calculation is based on the 2012 average daily traffic (ADT) volumes—number of vehicles per day (vpd).

The existing level of service (LOS) was also determined for each highway/rail at-grade crossing. LOS refers to the efficiency at which a highway/rail at-grade crossing operates when a train passes through. For this analysis, the LOS determination is based on Dv. LOS ranges from A to F, with LOS A indicating relatively free-flowing traffic and LOS F indicating extreme congestion.

To characterize the existing traffic and train delay at the 31 public highway/rail at-grade crossings, the following several data sources were used:

- FRA location and inventory databases for information about highway/rail at-grade crossings, including ADT data
- ICC database for existing traffic and train delay data
- CSXT company databases for train lengths and speeds
- State, regional, and local department of transportation databases for roadway ADT data

Out of 31 public at-grade crossings, the most current and available ADT ranges from 300 vpd at Union Street in Blue Island, Illinois, to 27,200 vpd at U.S. 6/162<sup>nd</sup> Street in South Holland. ADT volumes are from 2009 and 2010. A two-percent growth rate was applied in determining the existing ADT volumes. Table 3.1-1 presents the 31 public highway/rail at-grade crossings in geographic order from south to north (i.e., GTW-03 through GTW-05).

All of the crossings analyzed exhibit some level of delay under existing 2012 conditions. The time required for a train to enter an intersection and clear the at-grade crossing ranges from 1.9 to 4.0 minutes. The average delay per delayed vehicle ranges from 1.2 to 2.6 minutes. The queue analysis results showed the longest vehicular queues are at the at-grade crossings of 127<sup>th</sup> and 111<sup>th</sup> Streets (30 vehicles), 119<sup>th</sup> Street (32 vehicles), and 79<sup>th</sup> Street (48 vehicles). Each roadway crossing was analyzed on the three segments in order to determine the effects of the queue lengths. When a queue is so long that it blocks a major roadway, the mobility of the community is considered to be affected. On the other hand, when a queue blocks no roadways or a local roadway only, the mobility of the community is not considered to be affected.

Under existing 2012 conditions, the 95<sup>th</sup> Street vehicle queue blocks Kedzie Avenue and vice versa. In addition, the 79<sup>th</sup> Street vehicle queue blocks South Lawndale and South Hamlin Avenues. The following parameters are used in Table 3.1-1, below:

- L = length of trains
- V = existing average train speed
- Dc = blocked crossing time per train, minutes
- Da = average delay per delayed vehicle, minutes
- N = existing number of trains
- Td = total delayed vehicles per day (vpd)
- NL = number traffic lanes
- Q = vehicle queue length, number of vehicles
- Dv = average delay for all vehicles, minutes
- Total vehicle traffic delay (24-hour), minutes

**Table 3.1-1. Existing (2012) Vehicle Delays at Highway/Rail At-Grade Crossings**

Segment No.	Street	ADT	L (feet)	V (mph)	Dc (min)	Da (min)	N (# trains)	Td (# veh)	NL (# lanes)	Q (# veh)	Dv (min)	Crossing LOS	Total Vehicle Traffic Delay (24 hour) (min)
GTW-03	U.S. 6 / 162 <sup>nd</sup> St	27,200	6,200	50	1.9	1.2	8.6	310	4	26	0.028	A	384
GTW-03	Vincennes Rd/Thornton-Blue Island Rd	4,600	6,200	50	1.9	1.2	8.6	52	2	9	0.028	A	65
GTW-03	155 <sup>th</sup> St	3,000	6,200	50	1.9	1.2	8.6	34	2	6	0.028	A	42
GTW-03	Halsted St (IL 1)	13,500	6,200	50	1.9	1.2	8.6	154	4	13	0.028	A	191
GTW-04	Park Ave	5,600	6,200	50	1.9	1.2	6.0	44	4	5	0.020	A	54
GTW-04	Broadway Ave	1,700	6,200	50	1.9	1.2	6.0	13	4	2	0.020	A	16
GTW-04	Center Ave	8,400	6,200	50	1.9	1.2	6.0	66	2	16	0.020	A	82
GTW-04	150 <sup>th</sup> St	2,800	6,200	50	1.9	1.2	6.0	22	2	5	0.020	A	27
GTW-04	Ashland Ave	1,100	6,200	50	1.9	1.2	6.0	9	2	2	0.020	A	11
GTW-04	IL 83/Sibley Blvd	25,900	6,200	50	1.9	1.2	6.0	206	4	25	0.020	A	256
GTW-04	Wood St	16,300	6,200	50	1.9	1.2	6.0	129	4	15	0.020	A	160
GTW-04	Lincoln Ave	900	6,200	50	1.9	1.2	6.0	7	2	2	0.020	A	8
GTW-04	Robey St	700	6,200	50	1.9	1.2	6.0	5	2	1	0.020	A	6
GTW-04	Western Ave	8,600	6,200	40	2.3	1.5	6.0	80	4	10	0.028	A	118
GTW-04	Broadway St	4,500	6,200	30	2.8	1.9	6.0	53	2	13	0.044	A	98
GTW-05	Union St	300	6,200	30	2.8	1.9	3.5	1	2	1	0.026	A	3
GTW-05	127 <sup>th</sup> St	23,700	6,200	35	2.5	1.6	3.5	144	4	30	0.020	A	236
GTW-05	123 <sup>rd</sup> St	5,000	6,200	35	2.5	1.6	3.5	30	2	13	0.020	A	50
GTW-05	119 <sup>th</sup> St	12,600	6,200	35	2.5	1.6	3.5	77	2	32	0.020	A	126
GTW-05	115 <sup>th</sup> St	12,000	6,200	35	2.5	1.6	3.5	73	4	15	0.020	A	119
GTW-05	111 <sup>th</sup> St	23,800	6,200	35	2.5	1.6	3.5	145	4	30	0.020	A	237
GTW-05	103 <sup>rd</sup> St	21,500	6,200	35	2.5	1.6	3.5	131	4	27	0.020	A	214
GTW-05	99 <sup>th</sup> St	8,700	6,200	35	2.5	1.6	3.5	53	2	22	0.020	A	86

**Table 3.1-1. Existing (2012) Vehicle Delays at Highway/Rail At-Grade Crossings**

Segment No.	Street	ADT	L (feet)	V (mph)	Dc (min)	Da (min)	N (# trains)	Td (# veh)	NL (# lanes)	Q (# veh)	Dv (min)	Crossing LOS	Total Vehicle Traffic Delay (24 hour) (min)
GTW-05	95 <sup>th</sup> St (U.S. 12/U.S. 20)	24,500	6,200	35	2.5	1.6	3.5	149	6	20	0.020	A	244
GTW-05	Kedzie Ave	22,200	6,200	35	2.5	1.6	3.5	135	4	28	0.020	A	221
GTW-05	94 <sup>th</sup> St	1,200	6,200	35	2.5	1.6	3.5	7	4	2	0.020	A	12
GTW-05	91 <sup>st</sup> St	3,200	6,200	35	2.5	1.6	3.5	19	2	8	0.020	A	32
GTW-05	87 <sup>th</sup> St	21,500	6,200	35	2.5	1.6	3.5	131	6	18	0.020	A	214
GTW-05	83 <sup>rd</sup> Pl	1,300	6,200	30	2.8	1.9	3.5	9	2	4	0.026	A	16
GTW-05	Columbus Ave (IL 7)	16,200	6,200	30	2.8	1.9	3.5	112	4	23	0.026	A	207
GTW-05	79 <sup>th</sup> St	24,100	6,200	20	4.0	2.6	3.5	235	4	48	0.051	A	614

Sources: Chicago Department of Transportation (CDOT) 2011, City of Chicago Traffic Information, <http://webapps.cityofchicago.org/traffic/>;

FRA 2011, Crossing Inventory Reports, <http://safetydata.fra.dot.gov/OfficeofSafety/publicsite/crossing/crossing.aspx>;

ICC 2011, Grade Crossing Search Results, <http://www.icc.illinois.gov/railroad/results.aspx?v=t&county=C031&s=O&g=A&t=PUB>;

IDOT 2011a, Statistical Maps of Illinois, Average Daily Traffic Counts, <http://www.gettingaroundillinois.com/mapviewer.aspx>;

STB 2008, Draft Environmental Impact Statement for the Proposed Canadian National Railway Company Acquisition of the Elgin, Joliet, and Eastern Railway Company, Finance Docket No. 35087. STB served July 25, 2008. <http://www.stb.dot.gov/Decisions/readingroom.nsf/WEBUNID/61898F9CAD3C7508525748E006688AC?OpenDocument>.

Figure 3.1-1. Highway/Rail At-Grade Crossings

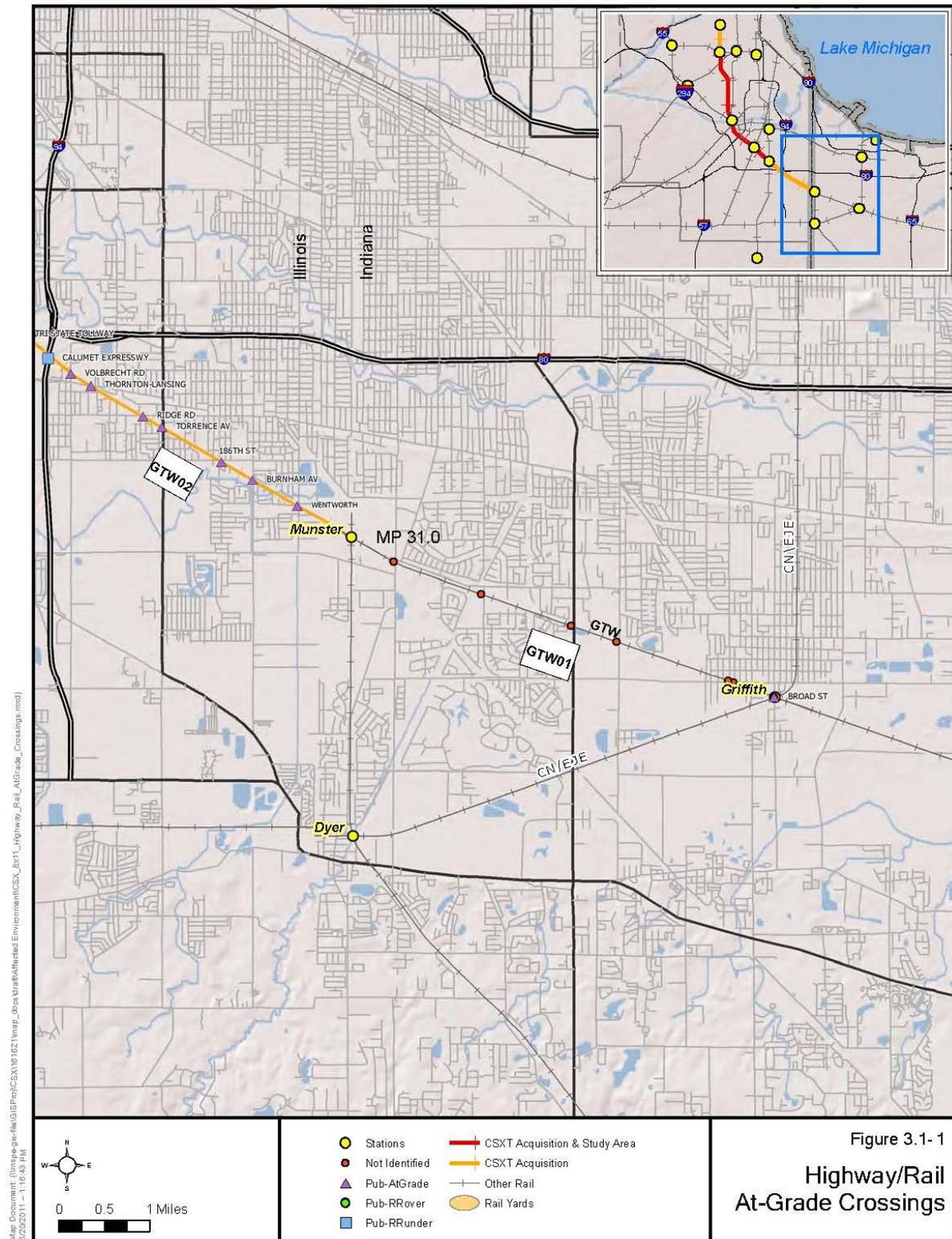


Figure 3.1- 1  
Highway/Rail  
At-Grade Crossings

Figure 3.1-2. Highway/Rail At-Grade Crossings

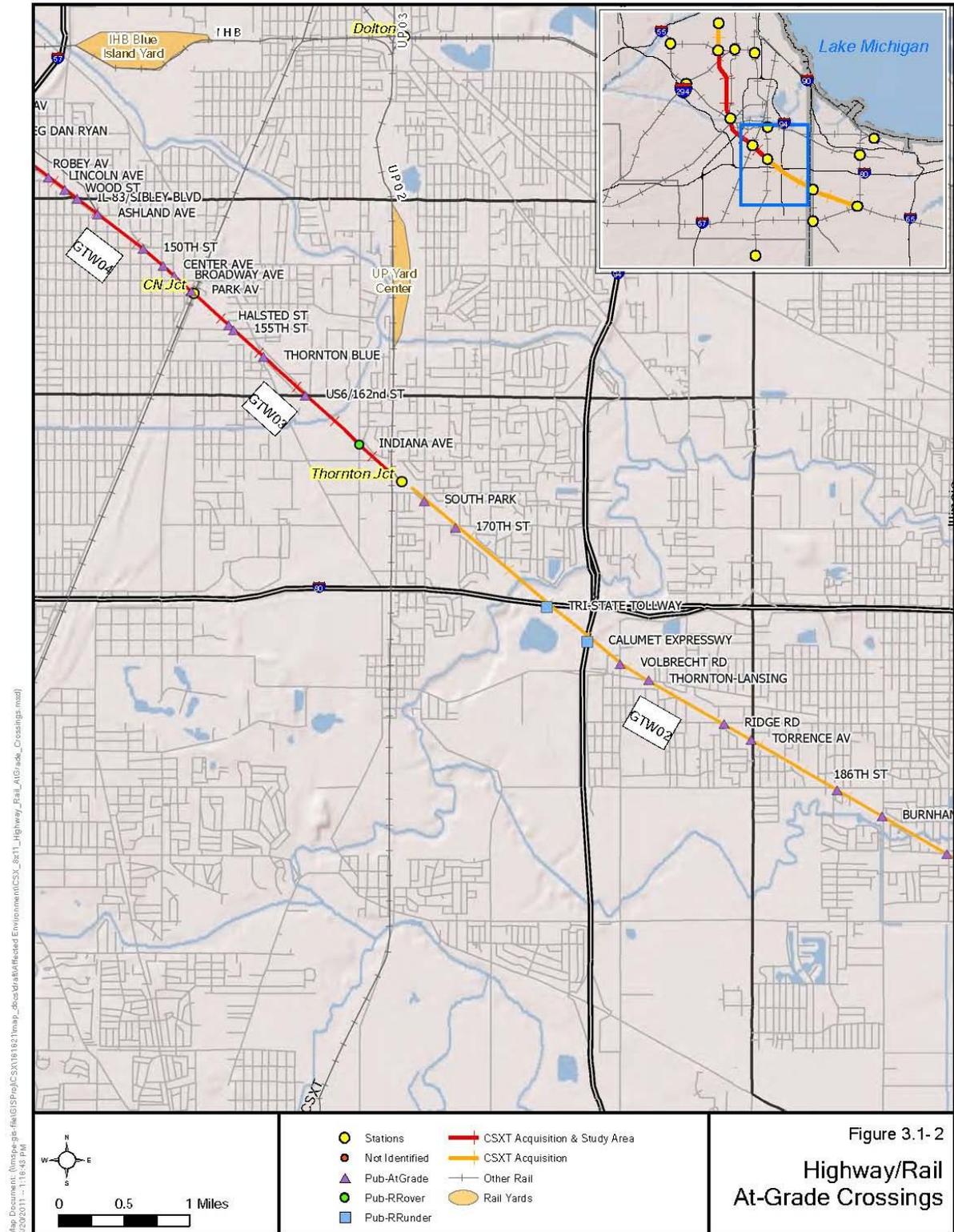
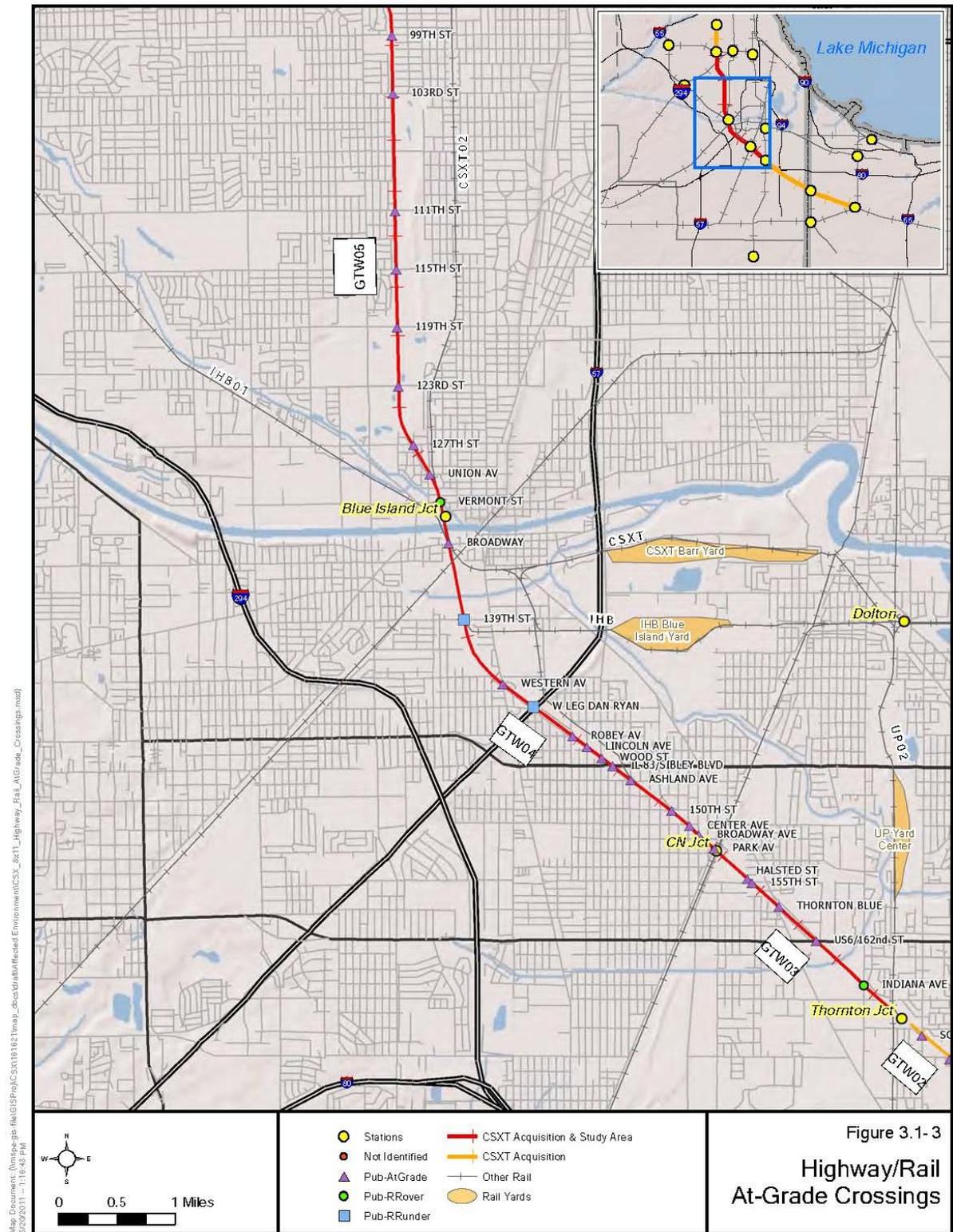


Figure 3.1-2  
Highway/Rail  
At-Grade Crossings

Figure 3.1-3. Highway/Rail At-Grade Crossings



Map Document: (ms:page-fld)GISProj\CSXT\181821\map\_docs\dr\Bkfile\Env\Environment\CSXT\_0611\_Highway\_Rail\_AIG\06\_01\_Crossings.mxd 5/20/2011 1:18:48 PM

Figure 3.1-4. Highway/Rail At-Grade Crossings

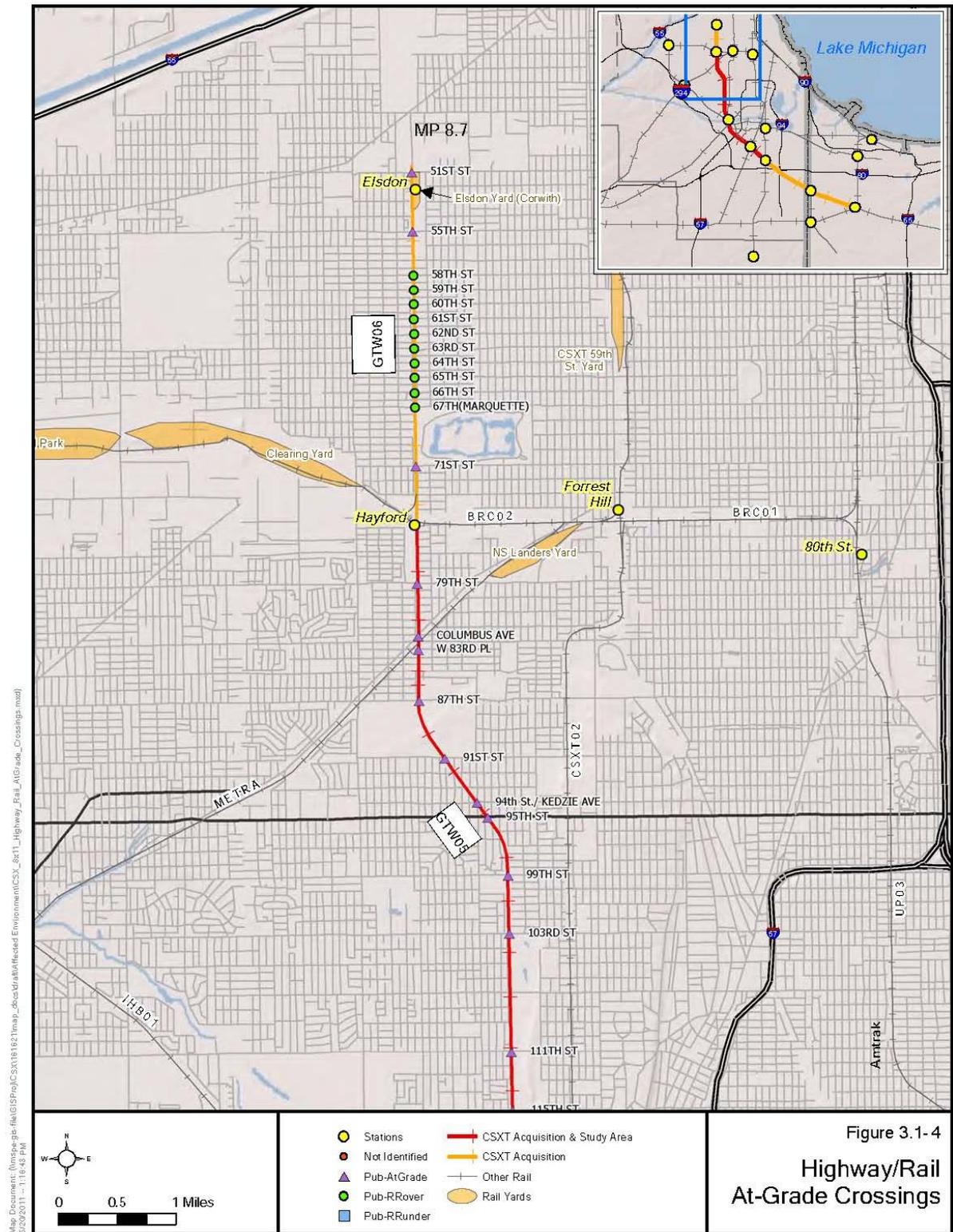
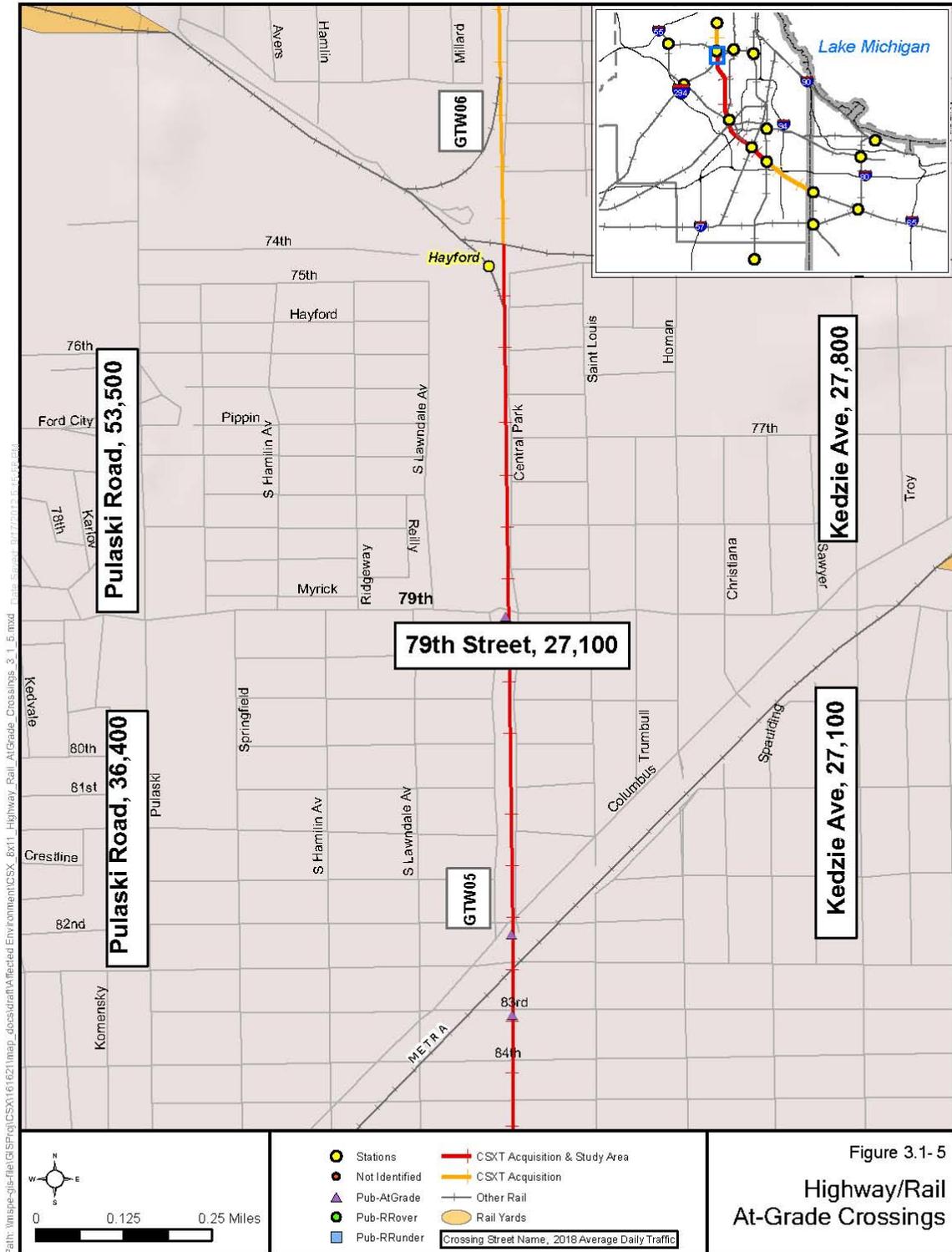


Figure 3.1-5 The 79th Street Highway/Rail AT-Grade Crossing



### 3.1.1.2 Environmental Impacts

#### Proposed Transaction

The analysis of the Elsdon Line includes potential effects of the Proposed Transaction on roadway traffic and transportation. The analysis thresholds listed in Table 3.1-2 below were used to evaluate the potential traffic and transportation effects of the No-Action Alternative and the Proposed Transaction for 2018 conditions<sup>31</sup>. The analysis included determining the effects on local and regional roadway systems resulting from projected increases in train traffic as a result of the Proposed Transaction.

The effects of the No-Action Alternative and Proposed Transaction were evaluated on the at-grade crossings by determining the vehicle delay at the highway/rail at-grade crossings and then assessing how increased delays from the Proposed Transaction would affect delay and overall operations for segments with projected increases in train traffic as a result of the Proposed Transaction.

<b>Table 3.1-2. Transportation Analysis Thresholds</b>	
<b>Transportation Impact Area</b>	<b>Analysis Thresholds</b>
Highway/Rail At-Grade Crossings	Expected 2018 traffic volumes greater than 2,500 ADT on intersecting roadways; or
	Change of 3 or more trains per day on roadways with traffic volumes greater than 2,500 ADT.
	Crossings closer than 800 feet apart

Source: STB 2008, Draft Environmental Impact Statement for the Proposed Canadian National Acquisition of the Elgin, Joliet & Eastern Railway Company, Finance Docket No. 35087.

The threshold of 2,500 ADT is based on general traffic engineering standards, field observations, and thresholds used in previous rail mergers and acquisitions including the CN/EJ&E merger, and therefore, is reasonable and conservative. Impacts on roadways with average daily traffic volumes below 2,500, the additional vehicular delay that would result from Transaction-related increased train traffic, would be minimal.

In summary, the Proposed Transaction only affects the total delay over a 24-hour period rather than on a per train event because train length and speed remain constant between the No-Action and Proposed Transaction Alternatives. The only difference between the two alternatives is the number of trains per day. Therefore, the crossing LOS and vehicle queue per train movement is the same under the No-Action and Proposed Transaction conditions.

Only one highway/rail at-grade crossing, 79<sup>th</sup> Street, has a total vehicle delay that exceeds 40 hours in a 24-hour period, as shown in Figure 3.1.5 and further discussed later in this section. This required further analysis of the 79<sup>th</sup> Street highway/rail at-grade crossing. The

<sup>31</sup> Railroads typically use five-year projections in their planning forecasts. See *Canadian National Railway Company and Grand Trunk Corporation—Control EJ&E West Company*, STB Finance Docket No. 35087.

additional analysis looked at the mobility of the area surrounding 79<sup>th</sup> Street and an hourly traffic distribution at the crossing. The analysis determined that the queue during peak hours might block the signalized intersection of South Lansdale Ave, a local road, but that the crossing did not exceed any other threshold criteria. Thus, the mobility on the local roadway network is not considered to be impacted.

### 3.1.1.3 Methodology

Train crossing events interrupt roadway traffic flow for a period of time, depending on the speed and length of the train. The proposed changes in train volume as a result of the Proposed Transaction would cause vehicle delay at the at-grade crossings on rail line segments where the train traffic increases. As part of the Proposed Transaction, segments GTW-03, GTW-04, and GTW-05 would experience an increase of three or more trains per day. Therefore, the at-grade crossings in these three segments have been analyzed under the 2018 conditions.

Factors in the vehicle delay analysis include:

- The number of trains per day before and after the Proposed Transaction
- The estimated time it takes for a train to pass the highway/rail at-grade crossing
- Existing and projected roadway traffic volumes

Several values were calculated for each highway/rail at-grade crossing and are as follows for the existing, No-Action, and Proposed Transaction Alternatives:

- Blocked crossing time per train (Dc)
- Average delay per delayed roadway vehicle (Da)
- Vehicle queue length (Q)
- Average delay for all vehicles (Dv)
- Total vehicle traffic delay (Td)
- Crossing level of service (LOS)

The following sections describe the methodology used to measure roadway vehicle delay at highway/rail at-grade crossings.

#### **Blocked Crossing Time per Train (Dc)**

The analysis included an estimate of the time required for a train to cross the intersecting roadway. This time is called the blocked crossing time and is used in later calculations to determine the length of time motorists wait when trains pass through a highway/rail at-grade crossing.

Average train speed is a major factor in this calculation. This speed is dependent on track conditions, train operating characteristics, and on intersecting commuter and freight rail traffic.

The following equation, developed by Stanford Research Institute was used<sup>32</sup> to estimate blocked crossing time for the highway/rail at-grade crossings:

$$Dc = \frac{L}{V \times 88} + 0.50$$

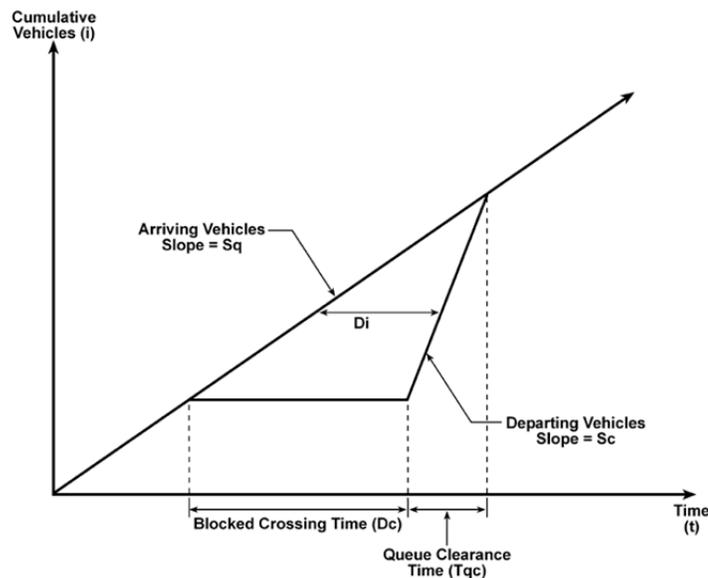
Where:

- $Dc$  = Blocked crossing time per train (minutes). Time required for the train to pass the highway/rail at-grade crossing (minutes). It includes time for gate closing and opening and is also referred to as the total time the crossing indication is activated or the blocked crossing time per train.
- $L$  = Length of the train (ft.)
- $V$  = Average train speed (mph)
- 88 = Conversion factor from mph to feet per minute
- 0.50 = Time required for gate closing and opening prior to and after the passage of the train (minutes)

### Average Delay per Delayed Vehicle ( $D_a$ )

The average delay per delayed vehicle is the average amount of time that a driver would be delayed at a highway/rail at-grade crossing as a result of a single train event. It assumes a uniform arrival of vehicles. Figure 3.1-6 illustrates the relationship between arriving and departing vehicles.

**Figure 3.1-6. Vehicle Delay Analysis (Single Train Event)**



<sup>32</sup> Prepared for FRA and the Federal Highway Administration. August 1974, RP-31, Volume 3, Appendix C.

Vehicles arrive at a constant rate of  $Sq$  as shown by the constant slope of the arrival curve. When the blocked crossing period begins, vehicles begin to queue because none are being discharged. When the blocked crossing period ends, queued vehicles begin to depart at the constant vehicle departure rate of  $Sc$ . The departure rate continues until the departure curve intersects the arrival curve, signifying the dissipation of the queue. The arrival and departure curves then coincide until the next train event. From this model:

- The delay for vehicles ( $i$ ), noted as  $Di$ , is given by the time scale (horizontal) difference between the arrival and departure curves.
- The aggregate delay for all vehicles passing through the crossing is the area between the arrival and departure curves.
- The number of vehicles that incur delay as a result of the train is equal to the number of vehicles that arrive when the crossing is blocked ( $Dc$ ) and the queue is clearing ( $Tqc$ ).
- The average delay per delayed vehicle ( $Da$ ) is equal to the aggregate delay divided by the number of vehicles that are delayed. Assuming uniform arrivals, the equation for the average delay per delayed vehicle can be derived as follows:

$$\begin{aligned} Da &= \frac{\text{Aggregate Delay}}{\text{Delayed Vehicles}} \times 1.3 \\ &= \frac{0.5 \times Sq \times Dc \times (Dc + Tqc)}{Sq \times (Dc + Tqc)} \times 1.3 \\ &= 0.5 \times Dc \times 1.3 \end{aligned}$$

Where:

$Da$	=	Average delay per delayed vehicle (minutes)
$Sq$	=	Average arrival rate of traffic (vehicles per minute per lane)
$Dc$	=	Blocked crossing time per train (minutes)
$Tqc$	=	Queue clearance time (minutes)
0.5	=	Factor used in the calculation of the area of a triangle
1.3	=	Factor which is widely used in the traffic engineering profession to account for initial deceleration, queue move-up time, and final acceleration of vehicles that are delayed

### Vehicle Queue Length (Q)

The vehicle queue is the estimated number of vehicles in line at the end of the blocked crossing time of a single train event. The vehicle queue is equal to the number of vehicles that arrive during the blocked crossing time ( $Dc$ ). The vehicle queue was estimated during the peak hour of roadway traffic. The peak-hour of roadway traffic was assumed to be 10 percent of the ADT volume—a typical assumption that traffic engineers use.

The following equation was used to calculate the vehicle queue at the end of the blocked crossing time:

$$Q = ADT \times 0.1 \times \frac{0.6}{60} \times \frac{Dc}{NL/2}$$

Where:

$Q$	=	Vehicle queue (number of vehicles)
$ADT$	=	Average daily traffic for highway/rail at-grade crossing
0.1	=	10-percent factor to convert ADT to peak-hour traffic
0.6	=	60-percent factor to convert 2-way traffic to peak-direction traffic
60	=	Factor to convert traffic volume per hour to traffic volume per minute
$Dc$	=	Time required for the train to pass the highway/rail at-grade crossing, including time for gate closing and opening, in minutes
$NL$	=	Highway lanes at the highway/rail at-grade crossing as reported by the FRA database
2	=	Factor to convert total number of roadway lanes to number of lanes in peak direction

#### Average delay for all vehicles ( $D_v$ )

The average delay per vehicle is the average amount of time that a vehicle is delayed at that intersection.

$$D_v = T_d \times D_a \times 2 / ADT$$

Where:

$D_v$	=	Average delay for all vehicles (minutes per vehicle)
$T_d$	=	Vehicles delayed per day
$D_a$	=	Average delay per delayed vehicle (minutes)
2	=	Factor to account for both directions of traffic
$ADT$	=	Average daily traffic for highway/rail at-grade crossing

#### Average Number of Vehicles Delayed Per Day ( $T_d$ )

The average number of vehicles delayed per day equals the number of motorists in a 24-hour period that would be stopped for trains at highway/rail at-grade crossings. The following equation was used to determine the average number of vehicles delayed per day per crossing:

$$T_d = \frac{Dc \times N \times ADT}{1,440}$$

Where:

$T_D$	=	Total delayed vehicles per day
$Dc$	=	Blocked crossing time per train (in minutes)
1,440	=	Minutes per day
$N$	=	Trains per day
$ADT$	=	Average daily traffic for highway/rail at-grade crossing

**Traffic Level of Service (LOS)**

The vehicle delay effects were estimated at highway/rail at-grade crossings using the LOS concept at signalized intersections, as documented in the 2010 *Highway Capacity Manual* (HCM) (Transportation Research Board [TRB] 2010). Use of the HCM procedures for signalized intersections is acceptable for the following reasons:

- the absence of a similar measure of efficiency for highway/rail at-grade crossings, and
- similarities between signalized intersection operation and highway/rail at-grade crossing operation

The red phase of a traffic signal represents the blocked crossing time at a highway/rail at-grade crossing operation. When the blocked crossing period begins, vehicles begin to queue. When the blocked crossing period ends, queued vehicles begin to depart at the constant vehicle departure rate until the queue dissipates.

The LOS for signalized intersections is defined in terms of delay and is expressed as a letter grade ranging from LOS A (free flowing) to F (severely congested). Specifically, the HCM uses average control delay per vehicle. Control delay includes delay associated with vehicles slowing in advance of the crossing, the time spent stopped on the approach to the crossing, the time spent as vehicles move up in the queue, and the time needed for vehicles to accelerate to their desired speed.

Table 3.1-3 presents the range of control delay for each LOS.

<b>Table 3.1-3. Control Delay for Each LOS</b>	
<b>LOS</b>	<b>Control Delay per Vehicle (Seconds)</b>
A	≤ 10.0
B	> 10.0 - 20.0
C	> 20.0 - 35.0
D	> 35.0 - 55.0
E	> 55.0 - 80.0
F	> 80.0

*Source: TRB 2010, Highway Capacity Manual, Fifth Edition, TRB 209, Washington D.C.*

The average delay per delayed vehicle and average delay for all vehicles was calculated and then directly compared to the LOS thresholds from the HCM.

**Total Vehicle Traffic Delay**

The average delay per delayed vehicle was multiplied by the number of vehicles delayed to determine the total vehicle delay for each crossing over a 24-hour period.

All of the above factors were derived from existing and proposed values for the number of trains (N), average train speed (V), length of trains (L), and the number of traffic lanes (NL) for the highway/rail at-grade crossing. The calculation was based on projected 2012 ADT

volumes for the existing roadway. The existing LOS was determined for each highway/rail at-grade crossing. As previously indicated, LOS refers to the efficiency at which a highway/rail at-grade crossing operates when a train passes through. Letters from A to F represent the LOS, with LOS A indicating relatively free flowing traffic and LOS F indicating extreme congestion.

To analyze the existing traffic delays under the No-Action Alternatives and compare them to traffic delays projected to occur under the Proposed Transaction at highway/rail at-grade crossings, the analysis used data from several sources, including:

- FRA location and inventory databases, which include information about highway/rail at-grade crossings, such as ADT data
- ICC database for existing traffic and train delay data
- CSXT company databases for train lengths and speeds
- State and local department of transportation databases for roadway ADT data
- CSXT's Operating Plan

The 2012 ADTs were used to calculate existing traffic delays on segments where train traffic would increase and then used a two-percent growth factor to develop the ADT for 2018.

Along the Elsdon Line, 24 out of 31 at-grade crossings where train traffic would increase met the 2,500 ADT threshold. Although Broadway Avenue (GTW-04), Lincoln Avenue (GTW-04), 94<sup>th</sup> Street (GTW-05), and 83<sup>rd</sup> Place (GTW-05) are estimated to carry fewer than 2,500 vpd under existing conditions (Table 3.1-1), these crossings were included in the analysis because they are within 800 feet of an adjacent crossing. The remaining three at-grade crossings [Ashland Avenue (GTW-04), Robey Street (GTW-04), and Union Street (GTW-05)] are estimated to carry fewer than 2,500 vpd under proposed conditions (Table 3.1-1). In addition, they are not within 800 feet of an adjacent crossing. Therefore, these crossings were not analyzed under 2018 conditions. Detailed analyses were prepared for a total of 28 crossings (Table 3.1-4).

The two alternatives were analyzed under 2018 conditions: 2018 No-Action Alternative and 2018 Proposed Transaction. Other variables used in the analysis included projected number of trains on the Elsdon Line, average train speed, and average length of trains. Similar to the 2012 existing conditions analysis, the average train length is assumed to remain consistent at 6,200 feet. As part of the 2018 Proposed Transaction, an increase in traffic is anticipated along segments GTW-03, GTW-04, and GTW-05, between MP 24.3 and MP12.3. The Blue Island Junction to Hayford rail segment, GTW-05, is projected to experience the largest increase in train traffic at 19.5 trains per day, for a total of 23.0 trains per day. The train speeds at the crossings vary throughout the segments, but remain constant with existing conditions. Table 3.1-4 presents train length, train speed, and number of trains per day.

Table 3.1-4. 2018 Train Data					
Segment No.	Street	Speed (mph)	L (ft.)	N (2018 No-Action)	N (2018 Proposed Transaction)
GTW-03	U.S. 6 / 162 <sup>nd</sup> St	50	6,200	8.6	18.7
	Vincennes Rd / Thornton-Blue Island Rd	50	6,200	8.6	18.7
	155 <sup>th</sup> St	50	6,200	8.6	18.7
	Halsted St (IL 1)	50	6,200	8.6	18.7
GTW-04	Park Ave	50	6,200	6.0	16.7
	Broadway Ave	50	6,200	6.0	16.7
	Center Ave	50	6,200	6.0	16.7
	150 <sup>th</sup> St	50	6,200	6.0	16.7
	IL 83/Sibley Blvd	50	6,200	6.0	16.7
	Wood St	50	6,200	6.0	16.7
	Lincoln Ave	50	6,200	6.0	16.7
	Western Ave	40	6,200	6.0	16.7
GTW-05	Broadway St	30	6,200	6.0	16.7
	127 <sup>th</sup> St	35	6,200	3.5	23.0
	123 <sup>rd</sup> St	35	6,200	3.5	23.0
	119 <sup>th</sup> St	35	6,200	3.5	23.0
	115 <sup>th</sup> St	35	6,200	3.5	23.0
	111 <sup>th</sup> St	35	6,200	3.5	23.0
	103 <sup>rd</sup> St	35	6,200	3.5	23.0
	99 <sup>th</sup> St	35	6,200	3.5	23.0
	95 <sup>th</sup> St (U.S. 12 / U.S. 20)	35	6,200	3.5	23.0
	Kedzie Ave	35	6,200	3.5	23.0
	94 <sup>th</sup> St	35	6,200	3.5	23.0
	91 <sup>st</sup> St	35	6,200	3.5	23.0
	87 <sup>th</sup> St	35	6,200	3.5	23.0
	83 <sup>rd</sup> Pl	30	6,200	3.5	23.0
	Columbus Ave (IL 7)	30	6,200	3.5	23.0
79 <sup>th</sup> St	20	6,200	3.5	23.0	

Source: CSXT 2011, Elsdon Subdivision Information Request, April 19, 2011.

**2018 No-Action Alternative**

For the purposes of the 2018 No-Action Alternative analysis, the number of trains per day operating on the Elsdon Line would remain constant, whereas the only difference between the 2012 No-Action and the 2012 existing conditions analysis is the increase in ADT reflecting a two-percent compounded increase to 2018. The analyzed at-grade crossings

exhibit a minimal increase in the number of vehicles delayed from the 2012 existing conditions due to the increase in traffic along the roadway.

### **2018 Proposed Transaction**

As part of the 2018 Proposed Transaction, the number of trains per day operating on the Elsdon Line is anticipated to increase to 18.7 trains along GTW-03, 16.7 trains along GTW-04, and 23.0 trains along segment GTW-05. The two-percent compounded growth rate reflects an increase from the 2012 existing ADT.

The analysis took into account the LOS, queue lengths (feet), average delay per delayed vehicle (min), and total vehicle traffic delay in a 24-hour period (min) for the approaching roadways and crossings at each of the 28 highway/rail at-grade crossings on segments that would see an increase in train traffic that met the thresholds in Table 3.1-2 for analysis. In addition, roadway crossing locations in each community along the Elsdon Line were analyzed to determine the potential effects of the Proposed Transaction. Table 3.1-5 shows results of the highway/rail at-grade crossing analysis for the Elsdon Line. An increase in average train length train speed, and the average number of trains expected per day would directly affect the extent of increase in motorist delay and vehicle queues. Under the Proposed Transaction, the average train length and train speed would remain the same and the average number of trains expected per day would increase.

CSXT has indicated that under the Proposed Transaction, it would move its trains uninterrupted and straight through the Elsdon Line without stopping because the Elsdon Line has no sidings or the capability of chambering most trains south of Hayford, IL. As a result CSXT would not operate trains into or out of the Chicago Terminal over the Elsdon Line unless the route and CSXT's partners can accept the train without delay or interruption. For example, CSXT would not allow a train destined for the Clearing Yard, via Hayford, that originates in Nashville to enter the Elsdon Line without knowing that it can operate to the Clearing Yard without delay. CSXT would also hold a train off of the Elsdon Line long enough to allow a Metra train to safely cross the Elsdon Line at Ashburn. This would require coordination with Metra and CSXT's other partner railroads.

**Table 3.1-5. 2018 Proposed Transaction/No-Action Alternative Average Delay and LOS**

Segment No.	Street	2018 ADT (vpd)	Trains per Day		2018 Crossing LOS		Queue Length (Feet)		Average Delay per Delayed Vehicle (Minutes)		Total Vehicle Traffic Delay (24-Hr) (Minutes)	
			No-Action	Proposed Transaction	No-Action	Proposed Transaction	No-Action	Proposed Transaction	No-Action	Proposed Transaction	No-Action	Proposed Transaction
GTW-03	U.S. 6 / 162 <sup>nd</sup> St	30,600	8.6	18.7	A	A	730	730	1.2	1.2	433	941
GTW-03	Vincennes Rd / Thornton-Blue Island Rd	5,200	8.6	18.7	A	A	246	246	1.2	1.2	73	159
GTW-03	155 <sup>th</sup> St	3,400	8.6	18.7	A	A	159	159	1.2	1.2	47	103
GTW-03	Halsted St (IL 1)	15,200	8.6	18.7	A	A	362	362	1.2	1.2	215	467
GTW-04	Park Ave	6,300	6.0	16.7	A	A	148	148	1.2	1.2	61	171
GTW-04	Broadway Ave	1,900	6.0	16.7	A	A	43	43	1.2	1.2	18	50
GTW-04	Center Ave	9,400	6.0	16.7	A	A	447	447	1.2	1.2	92	257
GTW-04	150 <sup>th</sup> St	3,100	6.0	16.7	A	A	146	146	1.2	1.2	30	84
GTW-04	IL 83/Sibley Blvd	29,200	6.0	16.7	A	A	696	696	1.2	1.2	288	801
GTW-04	Wood St	18,300	6.0	16.7	A	A	436	436	1.2	1.2	180	502
GTW-04	Lincoln Ave	1,000	6.0	16.7	A	A	45	45	1.2	1.2	9	26
GTW-04	Western Ave	9,700	6.0	16.7	A	A	272	272	1.5	1.5	133	370
GTW-04	Broadway St	5,100	6.0	16.7	A	A	358	358	1.9	1.9	111	308
GTW-05	127 <sup>th</sup> St	26,600	3.5	23.0	A	A	836	836	1.6	1.6	265	1,744
GTW-05	123 <sup>rd</sup> St	5,700	3.5	23.0	A	A	353	353	1.6	1.6	56	368
GTW-05	119 <sup>th</sup> St	14,200	3.5	23.0	A	A	891	891	1.6	1.6	141	930
GTW-05	115 <sup>th</sup> St	13,500	3.5	23.0	A	A	423	423	1.6	1.6	134	883
GTW-05	111 <sup>th</sup> St	26,800	3.5	23.0	A	A	839	839	1.6	1.6	266	1,751
GTW-05	103 <sup>rd</sup> St	24,200	3.5	23.0	A	A	758	758	1.6	1.6	241	1,582
GTW-05	99 <sup>th</sup> St	9,800	3.5	23.0	A	A	611	611	1.6	1.6	97	638

**Table 3.1-5. 2018 Proposed Transaction/No-Action Alternative Average Delay and LOS**

Segment No.	Street	2018 ADT (vpd)	Trains per Day		2018 Crossing LOS		Queue Length (Feet)		Average Delay per Delayed Vehicle (Minutes)		Total Vehicle Traffic Delay (24-Hr) (Minutes)	
			No-Action	Proposed Transaction	No-Action	Proposed Transaction	No-Action	Proposed Transaction	No-Action	Proposed Transaction	No-Action	Proposed Transaction
GTW-05	95 <sup>th</sup> St (U.S. 12 / U.S. 20)	27,500	3.5	23.0	A	A	576	576	1.6	1.6	274	1,802
GTW-05	Kedzie Ave	25,000	3.5	23.0	A	A	784	784	1.6	1.6	249	1,636
GTW-05	94 <sup>th</sup> St	1,400	3.5	23.0	A	A	42	42	1.6	1.6	13	89
GTW-05	91 <sup>st</sup> St	3,600	3.5	23.0	A	A	224	224	1.6	1.6	36	234
GTW-05	87 <sup>th</sup> St	24,200	3.5	23.0	A	A	505	505	1.6	1.6	241	1,582
GTW-05	83 <sup>rd</sup> Pl	1,400	3.5	23.0	A	B	99	99	1.9	1.9	18	117
GTW-05	Columbus Ave (IL 7)	18,200	3.5	23.0	A	B	647	647	1.9	1.9	233	1,530
GTW-05	79 <sup>th</sup> St	27,100	3.5	23.0	A	C	1,361	1,361	2.6	2.6	692	4,546

Under the Proposed Transaction, the only input that differs from the analysis for the No-Action Alternative is the number of trains per day. Vehicle queue and the average delay per delayed vehicle would remain the same under both conditions because these values are based on a single train event. However, the total vehicle traffic delay in a 24-hour period, which is the cumulative delay for all train events in that period, and the crossing LOS would change as a result of the Proposed Transaction.

The analysis indicates that there would be some effects on each crossing due to the Proposed Transaction, but the greatest effect would occur in segment GTW-05, at 79<sup>th</sup> Street. Here, the number of trains would increase from 3.5 to 23.0 per day and the average delay per delayed vehicles over a 24-hour period would increase to 4,546 minutes or 76 hours

This 76 hours of delay over a 24-hour period would exceed the 40-hour delay threshold, which is one of the 11 criteria listed below from the Federal Highway Administration's (FHWA) 2002 *Guidance On Traffic Control Devices At Highway-Rail Grade Crossings*. As the guidance suggests, when one or more of the criteria are met or exceeded, highway/rail grade crossings should be considered for grade separation or otherwise eliminated across the railroad right-of-way.

- The highway is a part of the designated Interstate Highway System
- The highway is otherwise designed to have full controlled access
- The posted highway speed equals or exceeds 113 kilometers per hour (km/h) (70 mph)
- Annual Average Daily Traffic (AADT) exceeds 100,000 in urban areas or 50,000 in rural areas
- Maximum authorized train speed exceeds 177 km/h (110 mph)
- An average of 150 or more trains per day or 300 million gross tons per year
- An average of 75 or more passenger trains per day in urban areas or 30 or more passenger trains per day in rural areas
- Crossing exposure (the product of the number of trains per day and AADT) exceeds 1,000,000 in urban areas or 250,000 in rural areas; or
- Passenger train crossing exposure (the product of the number of passenger trains per day and AADT) exceeds 800,000 in urban areas or 200,000 in rural areas
- The expected accident frequency for active devices with gates, as calculated by the U.S. Department of Transportation (USDOT) Accident Prediction Formula including 5-year accident history, exceeds 0.5;
- Vehicle delay exceeds 40 vehicle hours per day (2,400 minutes)

Thus, the type of impact, whether it's minimal, moderate, or substantial would be dependent on the above criteria as well as other factors such as queue length, LOS, blocked roadways, and whether alternate routes exist. The impacts are described below<sup>33</sup>:

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<sup>33</sup> See CN/EJ&E EIS.

- Minimal: when the Proposed Transaction calculated queue length blocks no roadways and the crossing LOS is D or better.
- Moderate: when the Proposed Transaction calculated queue length blocks a roadway that is also blocked under the No-Action Alternative and the crossing LOS is D or better.
- Substantial: when the Proposed Transaction queue length blocks a roadway that is not blocked under the No-Action Alternative or the crossing LOS is reduced to E-F, or the Total Vehicle Traffic Delay in a 24-hour period exceeds 40 hours (2,400 minutes).

The 79<sup>th</sup> Street highway/rail at-grade crossing would have a delay over 40-hours, meaning that this crossing would be substantially affected. The “substantially affected” designation indicates that the increased crossing delays and/or queue lengths and/or Total Vehicle Traffic Delays in a 24-hour period have reached a threshold requiring examination for mitigation. This crossing did not exceed any other threshold criteria as described above.

Additional analysis of this crossing was prepared as discussed below. This analysis determined the roadway LOS by examining vpd on the roadways that cross the rail lines at highway/rail at-grade crossings. The daily capacity per lane was derived using the methodology in the 2010 *Highway Capacity Manual* (TRB 2010). Table 3.1-6 presents roadway capacities for different types of roadways based on the area type and classification of the roadway. “Area type” refers to the existing development adjacent to the rail line, which is an indicator of the type of vehicles using nearby roadways, the expected traffic volumes, and the presence of traffic generators such as industries, offices, shopping centers, or residences, and the density of development.

This analysis also looked at mobility and LOS on area roads around the 79<sup>th</sup> Street crossing. Both are a function of the number of vehicles traveling on a roadway and its daily capacity, or its ability to handle the traffic load in a given area. The daily capacity per lane was derived using the methodology in the 2010 *Highway Capacity Manual* (TRB 2010). Table 3.1-6 presents roadway capacities for different types of roadways based on the area type and classification of the roadway

Area Type	Classification	Capacity (vpd/lane)
Urban/Suburban	Arterial <sup>a</sup>	9,800
Urban/Suburban	Collector <sup>b</sup>	6,800

Source: TRB 2010 “Highway Capacity Manual”, Fifth Edition, TRB 209, Washington D.C.

Notes:

<sup>a</sup> An arterial is a class of street that allows significant traffic movements for travel between major points and provides regional connectivity.

<sup>b</sup> A collector is a class of street that collects and distributes traffic from local streets to the arterial road network

The daily capacity of a roadway is calculated by multiplying the number of lanes on the roadway by the capacity values shown in Table 3.1-6, above. For example, if a roadway has four lanes and is classified as an urban arterial, the daily capacity is 4 lanes x 9,800 vpd/lane = 39,200 vpd.

LOS is determined by calculating the volume to capacity ratio (V/C), which is the daily volume on the roadway divided by the total capacity. For example, if a roadway accommodates 42,000 vpd and the capacity is 39,200 vpd, then the V/C would be  $42,000 \text{ vpd} / 39,200 \text{ vpd} = 1.07$ . According to the HCM standards shown in Table 3.1-7, below, the example roadway would exhibit a LOS F because the V/C ratio is greater than 1.0.

<b>Table 3.1-7. V/C Thresholds per LOS</b>					
<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>
0.3	0.45	0.65	0.85	1.0	>1.0

Source: TRB 2010, Highway Capacity Manual, Fifth Edition., TRB 209, Washington D.C.

Existing and future LOS conditions were evaluated for major roadways to the east and west of the at-grade crossing on 79<sup>th</sup> Street to determine the impact of the delay on the existing traffic network and thus the degree of mobility in the area.<sup>34</sup> Figure 3.1-5 shows the roadway network surrounding 79<sup>th</sup> Street. Table 3.1-8 presents the results of this analysis. LOS of the roadway network is expected to be poor, with roadways having a LOS of B, D or E in the 2018 condition.

The analysis also included evaluating the queue lengths of train movements as they occupy the 79<sup>th</sup> Street crossing. It assumed a vehicle length of 25 feet, which includes the vehicle length and vehicle headway or the area in front of the vehicle. The effects of the queue lengths were determined by analyzing each major roadway near the 79<sup>th</sup> Street at-grade crossing. Mobility is considered to be acceptable when

- 1) all roadways operate at LOS D or better;
- 2) queue lengths do not block a major roadway or block a local roadway only; and,
- 3) roadways operating at LOS E and F have an alternate route.

As Table 3.1-8 shows, 79<sup>th</sup> Street is a minor east/west arterial that conveys traffic to other arterials, such as Pulaski Road and Kedzie Avenue, the two north/south arterials located west and east (respectively) of the Elsdon Line. The LOS on Kedzie Avenue would change from C to D and the LOS on Pulaski Road would change from D to E in 2018.

<sup>34</sup> Mobility is the ease of moving people and goods within a transportation network.

Roadway	Functional Classification	2012 LOS	2018 LOS
79 <sup>th</sup> St	Minor East/west Arterial	C	D
Pulaski Road	Principal North/South Arterial to the west of the Elsdon Line	D	E
Kedzie Ave	Principal North/South Arterial to the east of the Elsdon Line	C	D
Columbus Ave (IL 7)	Urban Collector Runs Diagonal in a north/south direction to the east of the Elsdon Line	B	B

Source: IDOT 2011, 5-year Functional Classification Maps,  
<http://www.dot.state.il.us/maps/fiveyear/fiveyrmaps.html>.

The queue on 79<sup>th</sup> Street, at an estimated length of 1,361 feet (Table 3.1-5), would not block Kedzie Avenue or Pulaski Road, but would, however, block three signalized intersections at local roads to the west of the crossing: South Lawndale Avenue (two signalized intersections) and South Hamlin Avenue. LOS could not be determined for South Lawndale Avenue or South Hamlin Avenue because ADT data were not available from the Chicago Department of Transportation. However, the mobility of the community is not considered to be substantially affected because South Lawndale and South Hamlin Avenues are local streets, not major roadways, there are numerous collectors and arterials in the area to carry traffic from the blocked local roads, and LOS for 79<sup>th</sup> Street in the 2018 condition is D.

With regard to Kedzie Avenue and 95<sup>th</sup> Street, these two roads would operate at LOS D and C, respectively under 2018 conditions. Kedzie Avenue would not be blocked by the Proposed Transaction, however, the vehicle queues at Kedzie Avenue and 95<sup>th</sup> Street would block each other. Kedzie Avenue and 95<sup>th</sup> Street are major roadways that are also blocked by each other in the existing condition. Mobility in the area would remain consistent with existing conditions and is therefore considered acceptable in the proposed 2018 condition.

Additional analysis for 79<sup>th</sup> Street was conducted because this crossing exhibited 76 hours of delay (4,546 minutes) in a 24-hour period (Table 3.1-5). The delay is based on an average distribution of traffic over the 24-hour period. For the additional analysis, an hourly traffic distribution was calculated from the existing ADT by using a factor defined by IDOT in its *2010 Illinois Travel Statistics* (IDOT 2010). The percentage of the ADT on an hourly basis was determined from the Northeastern Illinois Non-Interstate (Urban) Traffic Patterns information identified in the *2010 Illinois Travel Statistics* (IDOT 2010). Table 3.1-9 shows the percentage of ADT during an hourly period. The hourly distribution of train traffic was determined from operational information provided by CSXT and the arrival and departure times for trains within segment GTW-05. Table 3.1-9 shows the hourly distribution of train traffic. The total vehicles

delayed per hour were calculated using the same methodology as before except the delay is based on one hour. The total hourly delay for all delayed vehicles is shown in Table 3.1-9. The longest delay of 12.5 hours is from 6:00 to 7:00 p.m. The total delay for the 24-hour period, when vehicle and train traffic are taken into consideration, is 66 hours of delay. While the crossing at 79<sup>th</sup> Street would experience a high total delay of 66 hours in a 24-hour period, it is primarily attributed to the high volume of vehicular traffic (both existing and future).

The vehicle queue length for 79<sup>th</sup> Street would not block the adjacent major signalized intersections of Kedzie Avenue or Pulaski Road, and 79<sup>th</sup> Street would operate at LOS D in the 2018 condition (see Table 3.1-8). The queue length would not block any major roads (South Lawndale and Hamlin Avenues are local streets), but may block the signalized intersection of South Lawndale Avenue. This crossing did not exceed any of the other threshold criteria listed in Table 3.1-2 (i.e., expected 2018 traffic volumes greater than 2,500 ADT on intersecting roadways, change of three or more trains per day on roadways with traffic volumes greater than 2,500 ADT, crossings are closer than 800 feet apart). As an alternate route to 79<sup>th</sup> Street and to avoid Pulaski Road, motorists could take South Hamlin or Lawndale Avenues south to 83<sup>rd</sup> Place to get to Columbus Avenue (IL 7), which would operate at LOS B in the 2018 condition. Therefore, the mobility on the major roadway network would not be significantly impacted as a result of the Proposed Transaction.

Time of Day		Percentage of ADT during an Hourly Period	2018 ADT	Number of Trains	Time Required for Train to Cross (min)	Total Vehicles Delayed per Hour	Total Hourly Delay for all Delayed Vehicles (hours)
12:00 AM	1:00 AM	1.2	325.2	0	4.0	0	0.0
1:00 AM	2:00 AM	1.8	487.8	4	4.0	131	5.7
2:00 AM	3:00 AM	0.5	135.5	2	4.0	18	0.8
3:00 AM	4:00 AM	0.4	108.4	1	4.0	7	0.3
4:00 AM	5:00 AM	0.6	162.6	2	4.0	22	1.0
5:00 AM	6:00 AM	1.2	325.2	0	4.0	0	0.0
6:00 AM	7:00 AM	2.8	758.8	0	4.0	0	0.0
7:00 AM	8:00 AM	5.2	1,409.2	1	4.0	94	4.1
8:00 AM	9:00 AM	6.8	1,842.8	0	4.0	0	0.0
9:00 AM	10:00 AM	6.1	1,653.1	2	4.0	222	9.7
10:00 AM	11:00 AM	4.9	1,327.9	2	4.0	178	7.8
11:00 AM	12:00 PM	4.5	1,219.5	1	4.0	82	3.6
12:00 PM	1:00 PM	5.1	1,382.1	0	4.0	0	0.0
1:00 PM	2:00 PM	5.5	1,490.5	1	4.0	100	4.4
2:00 PM	3:00 PM	5.5	1,490.5	0	4.0	0	0.0
3:00 PM	4:00 PM	6.2	1,680.2	1	4.0	113	4.9
4:00 PM	5:00 PM	7.2	1,951.2	1	4.0	131	5.7
5:00 PM	6:00 PM	7.9	2,140.9	0	4.0	0	0.0
6:00 PM	7:00 PM	7.9	2,140.9	2	4.0	287	12.5
7:00 PM	8:00 PM	6.1	1,653.1	0	4.0	0	0.0
8:00 PM	9:00 PM	4.3	1,165.3	0	4.0	0	0.0
9:00 PM	10:00 PM	3.5	948.5	0	4.0	0	0.0
10:00 PM	11:00 PM	2.8	758.8	1	4.0	51	2.2
11:00 PM	12:00 AM	2.0	542.0	2	4.0	73	3.2

Sources: IDOT 2010, 2010 Illinois Travel Statistics, [http://www.dot.il.gov/travelstats/2010\\_ITS.pdf](http://www.dot.il.gov/travelstats/2010_ITS.pdf).

### **Mitigation Measures**

Although no grade crossings have been identified that would require mitigation under the established criteria, CSXT has volunteered several transportation-related mitigation measures to reduce the impacts associated with traffic delay and mobility. CSXT will, upon request, cooperate with municipalities and counties in support of their efforts to secure funding, in conjunction with appropriate state agencies, for grade separations where they may be appropriate

under criteria established by relevant state Department of Transportation (VM 1).<sup>35</sup> In order to reduce highway/rail at-grade crossing blockages, CSXT will examine train operations and will work with other railroads to establish reasonable and effective policies and procedures to prevent other railroads' trains from interfering with CSXT's trains on the Elsdon Line (VM 2 and 4).

Under VM 3, CSXT will cooperate with the appropriate state and local agencies and municipalities to:

- Evaluate the possibility that 1 or more roadways listed in Table 3.1-1 could be closed at the point where it crosses the Elsdon Line, in order to eliminate the at-grade crossing.
- Improve or identify modifications to roadways that would reduce vehicle delays by improving roadway capacity over the crossing by construction of additional lanes.
- Assist in a survey of highway/rail at-grade crossings for a determination of the adequacy of existing grade crossing signal systems, signage, roadway striping, traffic signaling inter-ties, and curbs and medians.
- Identify conditions and roadway, signal, and warning device configuration to prevent vehicles from becoming stranded between warning device gates on or near the highway/rail at-grade crossing.

Furthermore, CSXT's voluntary mitigation provides that its design for wayside signaling systems will be configured and implemented to minimize the length of time that trains or maintenance-of-way vehicles or activities occupy at-grade crossings or unnecessarily activate grade-crossing warning devices (VM 5). In addition, CSXT would operate under U.S. Operating Rule No. 526 (Public Crossings), which regulates how long a public crossing can be blocked (VM 6).

### 3.1.2 Rail Operations and Safety

#### 3.1.2.1 Operations

##### Train Speed

Existing train speeds on the Elsdon Line are between 30 and 60 mph and are appropriate for integration within the CSXT system. Current timetable speeds are anticipated to remain and as there are no sidings or locations for stopping of trains without blocking at-grade crossings between Thornton Junction and Hayford, once trains begin to move they are anticipated to operate without stopping enroute following implementation of the Proposed Transaction.

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<sup>35</sup> CSXT states that its willingness to undertake this proposed voluntary mitigation measure and all other proposed voluntary mitigation measures is not intended to commit CSXT to expend funds on a physical project.

<b>From</b>	<b>MP</b>	<b>To</b>	<b>MP</b>	<b>Intermodal (mph)</b>	<b>Freight (mph)</b>
Munster	31.07	Western Ave	20.8	60	60
Western Ave	20.8	Broadway St	19.7	45	45
Broadway St	19.7	Blue Island Jct	19.3	30	30
Blue Island Jct	19.3	Ashburn	12.3	40	40
Ashburn	12.3	Hayford	11.8	30	30
Hayford	11.8	Elsdon Yard (Corwith)	8.7	40	40

Source: CN 2009, Timetable No. 5, Chicago Division, April 5, 2009.

### **Dispatch of Trains**

For the purposes of controlling train access to a line segment and to provide for the safe and efficient movement of trains over a line segment, a single railroad governs and authorizes the movement of trains and serves as the central communications center for the line segment. This is generally conducted from a train dispatch center. If the Proposed Transaction is approved by the Board and implemented, GTW would no longer dispatch trains between Munster and Hayford on the Elsdon Line. Under the Proposed Transaction, dispatch would be handled from CSXT's Chicago Dispatch Center at Calumet City, Illinois.

To accomplish this, CSXT plans to redirect all of GTW control points to CSXT's dispatch center in Calumet City. CSXT also plans to automate all of GTW's responsibilities at the Blue Island Junction interlocking, including the road crossings at Broadway Street.

### **Proposed Upgrades in the Chicago Terminal**

While CSXT does not anticipate any infrastructural changes in the physical plant of the Elsdon Line or construction on the Elsdon Line, its current plans include:

- Complete the construction of CREATE-sponsored Project B-16 (which involves the installation of a connection in the southwest quadrant of Thornton Junction, replacing a connection that was formerly located in the same quadrant), and complete the construction of CREATE-sponsored Project WA-10 (which involves the installation of a universal crossover just north of the Cal-Sag Canal at Blue Island Junction, plus a crossover between the two main tracks of the Elsdon Subdivision located near Burr Oak Avenue). The completion of the separately funded and sponsored CREATE Project B-16 would allow more efficient movement of trains between crossing line segments, whereas the completion of the WA-10 project would allow safer and more efficient movement of trains between parallel line segments. B-16 and WA-10 will be completed regardless of whether the Proposed Transaction occurs.
- Install CTC between Blue Island Junction and Hayford (within 5 years).

For the purposes of the Proposed Transaction, CSXT assumes that both B-16 and WA-10 CREATE projects will be completed. Both projects are anticipated to be completed and in service by the first quarter of 2013.

CSXT has explained that the Proposed Transaction is consistent with, and complementary to the CREATE program. WA-10 and B-16 contemplate and support increased CSXT train activity over the Elsdon Line. Even prior to the CN/EJ&E transaction, CREATE partners proposed and supported both connections as valuable opportunities to more efficiently move freight to, from, and through the Chicago Terminal.

### **Intercity Passenger Service**

Passenger train service should not be negatively affected by the Proposed Transaction. Currently, Amtrak operates only one train daily in each direction between Chicago Union Station and Indianapolis. As Table 3.1-11 shows, these trains operate on the Elsdon Line between Munster, Indiana, and Thornton Junction, Illinois, a distance of 5.8 miles. These trains then proceed on the UP's Villa Grove Subdivision (which CSXT currently operates on) from Thornton Junction to 80<sup>th</sup> Street (a distance of 10.4 miles), and then north to Chicago Union Station. CSXT intends to work with Amtrak on transferring its relationship on the Elsdon Line from GTW to CSXT and incorporating such into CSXT's Operating Agreement with Amtrak, and has proposed voluntary mitigation measures to that effect.

In a June 30, 2011 letter, Amtrak wrote that the decrease in CSXT train traffic as a result of the Proposed Transaction could have a beneficial effect on Amtrak's service to the degree that reduced service delays could result in an increase in ridership and thus, frequency of service. Amtrak requests that CSXT maintain the Elsdon Line at its current FRA Class 4 status and that it be given priority dispatching and operational protocols. CSXT has indicated that it would maintain the Elsdon Line at its current FRA Class 4 status and that the Elsdon Line will be governed by the terms of the CSXT master agreement with Amtrak.

**Table 3.1-11. Proposed Changes in Freight and Passenger Train Service**

Segment No.	From	To	Distance	Freight Trains			Passenger Trains		
				Existing	Proposed	Change	Existing	Proposed	Change
CSXT-01	Dyer	Munster	3.4	2.0	2.0	0	2.0	2.0	0
GTW-02	Munster	Thornton Jct	5.8	9.7	8.9	-0.8	2.0	2.0	0
UP-02	Thornton Jct	Dolton	3.4	16.0	2.0	-14.0	2.0	2.0	0
UP-03	Dolton	80 <sup>th</sup> St	7.0	26.0	22.0	-4.0	2.0	2.0	0

Source: CSXT 2011, Elsdon Subdivision Information Request, April 19, 2011.

#### **3.1.2.2 Proposed Transaction**

### **Commuter Rail Service**

Metra Southwest Service operates 30 trains per day (Monday through Friday) on the NS/Metra line, which crosses the IHB line between Blue Island Junction and Argo at Ridge at a level

Rail/Rail crossing, and at Ashburn (south of Hayford on the Elsdon Line, segment GTW-05) at a level Rail/Rail crossing. Although the number of Metra trains would remain the same, the number of freight trains per day would decrease from 22.0 to 8.1 (a reduction of 13.9) at the Ridge crossing and the number at the Ashburn crossing would increase from 3.5 to 23.0 (an increase of 19.5) under the Proposed Transaction.

No impacts to commuter rail service are expected at the Ridge crossing as a result of the Proposed Transaction. Although the number of freight trains at the Ashburn crossing would increase, the reduction in freight train movements at Ridge and the fact that Metra trains are given priority movement over these rail/rail crossings would enable Metra to continue operating its trains through both interlockings in uninterrupted movements; therefore, commuter rail service should not be affected. However, CSXT has proposed voluntary mitigation measure requiring that it engage Metra in exploring all options for future service (VM 8), and OEA has recommended mitigation measure MM3, which would require CSXT to negotiate these and other service-related issues with Metra and other stakeholders. CSXT would then be required to report the status of these discussions back to OEA in its quarterly monitoring reports over a period of three years.

### 3.1.3 Rail Safety

#### 3.1.3.1 Existing Track Conditions and Speed

FRA regulations specify minimum safety requirements for rolling stock, track, signals, operating practices, and the transport of hazardous materials. Safety requirements address the design and inspection of railroad cars, tracks, and signal systems.

FRA reviews railroad inspection records for accuracy and thoroughness and are verified during inspections. Each railroad's operating rules must comply with FRA requirements and are reviewed by FRA inspectors. FRA enforces USDOT regulations that require shippers to transport hazardous materials in rail cars designed for that purpose (49 C.F.R. Parts 171 - 180).

Railroad track safety standards (49 C.F.R. Part 213) are based on classifications of track that determine maximum allowable operating speed limits, inspection frequencies, and standards of maintenance, among other issues. Table 3.1-12 shows the relationship between FRA track classification and maximum allowable operating speed. The higher the class of track, the more stringent the maintenance standards and the faster the allowable maximum operating speed. Higher class track can be operated at lower speeds, so posted train speeds are not an entirely accurate indication of track class. Track class should not be construed to indicate the relative physical condition of the track.

Speeds on a railroad line segment are not based solely on condition of the track, but are more a function of the optimal speed based on local conditions within the communities in which they operate, fuel efficiency, urgency of moving the commodity, and best use of labor and equipment. Railroads set their desired operating speeds for segments of track through published timetables or train orders, and are required to maintain track segments according to FRA geometric and structural standards. For example, lines that are maintained to Class 3 standards allow a

maximum operating speed of 40 mph for freight trains and require track segments to be inspected at least weekly to verify that they comply with FRA regulations. The number of daily trains or commodities carried is not a factor in establishing track class. Railroads may construct the track with timber ties, concrete ties, jointed rail, or welded rail, provided that they are maintained within the FRA regulations.

Both GTW and CSXT maintain their rail lines to comply with FRA's Track Safety Standards (49 C.F.R. Part 213). FRA's classifications for freight tracks include the categories as shown in Table 3.1-12. These classifications determine maximum operating speed limits, inspection frequencies, maintenance tolerances, record keeping, and other requirements. Both GTW and CSXT lines are maintained and inspected to comply with these standards.

Table 3.1-12 shows that passenger trains are allowed to operate at higher speeds than freight trains over the same track. These maximum speed allowances are based on minimum track standards. This is primarily due to the lighter axle loads, shorter (and therefore easier to control) train lengths, and more advanced wheels and suspension systems of cars on the passenger trains.

Classification Of Track	Maximum Allowable Operating Speed (mph)	
	Freight Trains	Passenger Trains
Excepted track	10	NA
Class 1 track	10	15
Class 2 track	25	30
Class 3 track	40	60
Class 4 track	60	80
Class 5 track	80	90

*Source: 49 C.F.R. § 213.9, Classes of Track: Operating Speed Limits.*

GTW's Elsdon Subdivision is FRA class 4 track with a maximum time table speed of 60 mph for freight. Maximum speeds are not always in effect for an entire subdivision. Both permanent and temporary speed restrictions are in effect at some locations due to track curvature, crossing diamonds, grade crossings, and other physical or operating conditions.

The Elsdon Line is a two-track main line between Munster, Indiana (MP 31.07), and Hayford, Illinois (MP 11.9), and then a single-track main line between Hayford (MP 11.9) and Elsdon, Illinois (MP 8.7). Track condition is good, and is in compliance with FRA standards. Rail consists of 136-pound CWR between Munster (MP 31.07) and MP 19.6 just east of Blue Island Junction. North of MP 19.6, the line is 115-pound bolted rail to the end of the Elsdon Line at MP 8.7 at Elsdon, Illinois. The condition of the Elsdon Line is in compliance with FRA track safety standards for both the existing and the proposed traffic and speeds at which CSXT intends to operate. The Elsdon Line is signalized and operated under CTC except for a 7.7-mile-long segment (MP 19.5 to MP 11.8) between just east of Blue Island Junction and Hayford, which

operates under ABS. No changes or improvements to track or signals are required for implementation of the Proposed Transaction.

### **3.1.3.2 Highway/Rail Crossings**

Because the Proposed Transaction would alter train routing within the Chicago Terminal, the forecasted number of accidents at at-grade highway and rail crossings is expected to be affected. As listed in the Table 3.1-13, there are 31 public at-grade highway/rail crossings on the Elsdon Line between Thornton Junction and Hayford that would experience an increase of more than three trains per day, and thus, a greater probability of predicted accidents.

All crossings have a unique USDOT/FRA identification number that defines the location and the name of the railroad and roadway. FRA established and maintains a centralized database that provides specific information regarding each of these crossings. This unique identification number and centralized database allow communities, railroads, states, and the federal government to evaluate, analyze, plan for, and implement safety improvements. Information in the FRA database includes the number of tracks, the number of vehicle travel lanes, the type of safety warning devices, the number of trains, the average daily traffic count, and the posted speed of the roadway and tracks.

**Table 3.1-13. Predicted Accidents at Public At-Grade Highway/Rail Crossings between Thornton Junction and Hayford**

USDOT/FRA Crossing No.	Segment No.	Street	MP	Existing ADT	Existing Trains per Day	Proposed Trains per Day	Max Timetable Speed	Accidents within Last 5 Years	Existing Predicted Accidents per Year	Proposed Predicted Accidents per Year	Change in Predicted Accidents per Year
283180F	GTW-03	U.S. 6/ 162 <sup>nd</sup> St	24.3	26,700	8.6	18.7	60	0	0.0310	0.0390	0.0080
283179L	GTW-03	Vincennes Rd/ Thornton-Blue Island Rd	23.8	4,500	8.6	18.7	60	0	0.0170	0.0227	0.0057
283178E	GTW-03	155 <sup>th</sup> St	23.5	3,000	8.6	18.7	60	0	0.0153	0.0206	0.0053
283177X	GTW-03	Halsted St (IL 1)	23.5	13,300	8.6	18.7	60	1	0.0792	0.0804	0.0012
283174C	GTW-04	Park Ave	23.1	5,500	6.0	16.7	60	1	0.0777	0.0688	0.0090
283173V	GTW-04	Broadway Ave	22.9	1,600	6.0	16.7	60	0	0.0145	0.0214	0.0069
283172N	GTW-04	Center Ave	22.8	8,200	6.0	16.7	60	0	0.0171	0.0249	0.0078
283171G	GTW-04	150 <sup>th</sup> St	22.6	2,700	6.0	16.7	60	0	0.0130	0.0193	0.0064
283170A	GTW-04	Ashland Ave	22.2	1,100	6.0	16.7	60	1	0.0759	0.0465	0.0294
283169F	GTW-04	IL 83/Sibley Blvd	22.0	25,400	6.0	16.7	60	1	0.0793	0.0860	0.0067
283168Y	GTW-04	Wood St	21.8	16,000	6.0	16.7	60	0	0.0248	0.0345	0.0097
283167S	GTW-04	Lincoln Ave	21.7	900	6.0	16.7	60	0	0.0096	0.0146	0.0050
283166K	GTW-04	Robey St	21.5	700	6.0	16.7	60	0	0.0088	0.0135	0.0047
283164W	GTW-04	Western Ave	20.8	8,400	6.0	16.7	60	0	0.0215	0.0305	0.0090
283162H	GTW-04	Broadway St	19.4	4,400	6.0	16.7	30	0	0.0147	0.0217	0.0070
283160U	GTW-05	Union St	18.8	200	3.5	23.0	40	0	0.0052	0.0119	0.0067
283158T	GTW-05	127 <sup>th</sup> St	18.5	23,200	3.5	23.0	40	0	0.0224	0.0410	0.0186
283157L	GTW-05	123 <sup>rd</sup> St	18.0	4,900	3.5	23.0	40	0	0.0122	0.0254	0.0132
283156E	GTW-05	119 <sup>th</sup> St	17.5	12,400	3.5	23.0	40	0	0.0154	0.0307	0.0153
283155X	GTW-05	115 <sup>th</sup> St	17.0	11,800	3.5	23.0	40	0	0.0192	0.0365	0.0173
283154R	GTW-05	111 <sup>th</sup> St	16.5	23,300	3.5	23.0	40	0	0.0224	0.0410	0.0186

**Table 3.1-13. Predicted Accidents at Public At-Grade Highway/Rail Crossings between Thornton Junction and Hayford**

USDOT/FRA Crossing No.	Segment No.	Street	MP	Existing ADT	Existing Trains per Day	Proposed Trains per Day	Max Timetable Speed	Accidents within Last 5 Years	Existing Predicted Accidents per Year	Proposed Predicted Accidents per Year	Change in Predicted Accidents per Year
283153J	GTW-05	103 <sup>rd</sup> St	15.5	21,100	3.5	23.0	40	0	0.0219	0.0403	0.0184
283152C	GTW-05	99 <sup>th</sup> St	15.0	8,500	3.5	23.0	40	0	0.0141	0.0285	0.0145
283151V	GTW-05	95 <sup>th</sup> St (U.S. 12/U.S. 20)	14.4	24,000	3.5	23.0	40	0	0.0278	0.0477	0.0200
283149U	GTW-05	Kedzie Ave	14.3	21,800	3.5	23.0	40	0	0.0221	0.0405	0.0185
283150N	GTW-05	94 <sup>th</sup> St	14.3	1,200	3.5	23.0	40	0	0.0108	0.0230	0.0121
283148M	GTW-05	91 <sup>st</sup> St	13.8	3,200	3.5	23.0	40	0	0.0109	0.0230	0.0122
283147F	GTW-05	87 <sup>th</sup> St	13.3	21,100	3.5	23.0	40	1	0.0792	0.1028	0.0235
283146Y	GTW-05	83 <sup>rd</sup> Pl	12.8	1,300	3.5	23.0	40	0	0.0085	0.0186	0.0101
283145S	GTW-05	Columbus Ave (IL 7)	12.7	15,900	3.5	23.0	40	0	0.0206	0.0384	0.0179
283144K	GTW-05	79 <sup>th</sup> St	12.3	23,600	3.5	23.0	20	0	0.0225	0.0411	0.0186

Sources:

IDOT 2011, *Statistical Maps of Illinois, Average Daily Traffic Counts*, <http://www.gettingaroundillinois.com/mapviewer.aspx>;  
 FRA 2011a, *Railroad Safety Data*, <http://safetydata.fra.dot.gov/officeofsafety/publicsite/Query/statsSas.aspx>;  
 FRA 2011b, *Crossing Inventory Reports*, <http://safetydata.fra.dot.gov/OfficeofSafety/publicsite/crossing/crossing.aspx>.

All of the at-grade highway/rail crossings for segments GTW-03, GTW-04, and GTW-05 listed in table 3.1-13 have active warning protection.

Section 3.8.3, Existing Quiet Zones, addresses locomotive horn quiet zones (QZ). The at-grade highway/rail crossings within segment GTW-05 are located within already established QZs. The improvements, signage, and warning devices in place are expected to remain in place. Therefore, the Proposed Transaction would not impact the status of the existing QZs. CSXT has offered proposed mitigation measures VM 10 and VM 11 as a means to cooperate with interested communities to determine any necessary improvements for QZs that might be needed to maintain FRA compliance and to identify supplemental safety measures or technologies that might enable the community to establish additional QZs. In OEA's recommended mitigation measure MM 4, CSXT would be required to establish a community liaison to consult with affected communities and develop cooperative solutions to local concerns.

All public at-grade crossings on the Elsdon Line were analyzed using FRA and USDOT guidelines, in addition to several additional data sources:

- FRA's grade crossing database and Public Crossing Accident Prediction System
- CSXT information on train traffic
- ICC data
- Current ADT information from roadway authorities
- Forecasted ADT information

### **High Accident Frequency Crossings**

Further analysis was conducted to identify those crossings that would have a predicted accident frequency of greater than 0.15 accidents per year. This is equivalent to one accident every seven years, which indicates the crossing should be considered for either warning device upgrading, or, if the warning devices already are sufficient, additional measures such as median barriers, active advance signing, removal of sight obstructions, nighttime illumination, geometric modifications to the roadway approaches, special signing, or other measures that can be predicted to lower the frequency of accidents. This frequency of predicted accident rate is consistent with past STB analysis, most recently the *Canadian National Railway Company and Grand Trunk Corporation-Control-EJ&E West Company*, STB Finance Docket No. 35087 (STB served December 24, 2008) (the *CN December 24 Decision*). This is not an indicator that shows the change due to the Proposed Action but rather shows crossings that are predicted to have a high accident frequency.

As shown in Table 3.1-13, no crossings met or exceeded the predicted accident frequency of greater than 0.15 accidents per year under either existing or proposed conditions.

### **Significantly Changed Accident Frequency Crossings**

An analysis of the predicted accidents at each crossing for this Draft EA identified specific crossings that would have a change in predicted accident frequency of 0.05 accidents per year, which is the equivalent of one accident every 20 years. Crossings that show greater

than 0.05 accident prediction indicate where the Proposed Transaction warranted detailed evaluation. Use of this change in predicted accident rate is consistent with past STB analysis, most recently the *CN December 24 Decision*. The analysis of significantly changed predicted accidents is intended to highlight those crossings that would experience a significant increase in predicted accidents because of the Proposed Transaction. A significant change in accident prediction is an indicator of where the Proposed Transaction is likely to make a significant change on safety.

As described in Table 3.1-13 no crossings met or exceeded the significant impact of increase in accident frequencies with changes in predicted collisions greater than 0.05 accidents per year.

### **Findings**

The analysis considered only line segments that were expected to have an increase of three or more trains per day and did not include other line segments where train traffic is expected to decrease, remain the same, or increase less than three trains per day. The potential for accidents should decrease on all line segments affected by the Proposed Transaction where train traffic is expected to decrease, which could fully, or partially, offset the increase in predicted accidents on the GTW-03, GTW-04, and GTW-05 segments.

This analysis concludes that the Proposed Transaction would not have a significant impact on highway/rail at-grade crossing safety because no crossings met or exceeded the predicted accident frequency of 0.15 or the predicted collisions of 0.05. Nevertheless, CSXT has offered proposed voluntary mitigation measures (VM 9, VM 12-15, and VM 17-19), which among other things, would keep the public informed and focused on additional train traffic as a result of the Proposed Transaction.

Under the voluntary mitigation measures, CSXT would coordinate with the appropriate state agencies, counties, and affected communities along the Elsdon Line to install temporary notification signs or message boards, where warranted, in railroad ROW at highway/rail at-grade crossings, clearly advising motorists of the increase in train traffic on affected rail line segments. The format and lettering of these signs will comply with the Federal Highway Administration's (FHWA) *Manual on Uniform Traffic Control Devices* (FHWA 2007) and would be in place no less than 30 days before and six months after the acquisition by CSXT of the easement over the Elsdon Line. To improve visibility at highway rail at-grade crossings, CSXT would consult with affected communities about crossings where there are vegetation and other obstructions and take reasonable steps to clear the vegetation or other obstructions. Also, CSXT would cooperate with IDOT, the Indiana Department of Transportation (INDOT), and other appropriate local agencies to coordinate a review of corridors surrounding highway/rail at-grade crossings to examine safety and adequacy of the existing warning devices, and identify remedies to improve safety for highway vehicles. Where grade-crossing rehabilitation is mutually agreed to, CSXT would assure that rehabilitated roadway approaches and rail line crossings meet or exceed the standards of the State rules, guidelines, or statutes, and the American Railway Engineering and Maintenance

of Way Association (AREMA) standards, with a goal of eliminating rough or humped crossings to the extent reasonably practicable. For each of the public grade crossings on the Elsdon Line, CSXT would provide and maintain permanent signs prominently displaying both a toll-free telephone number and a unique grade-crossing identification number in compliance with Federal Highway Regulations (23 C.F.R. Part 655). The toll-free number will enable drivers to report accidents, malfunctioning warning devices, stalled vehicles, or other dangerous conditions and will be answered 24 hours per day by CSXT's personnel. CSXT would continue ongoing efforts with community officials to identify elementary, middle, and high schools within 0.5 miles of the Elsdon Line's ROW and provide, upon request, informational materials concerning railroad safety to such identified schools. CSXT would consult with state agencies and other appropriate agencies and will abide by the reasonable requirements of Illinois Commerce Commission (ICC) or INDOT prior to constructing, relocating, upgrading, or modifying highway/rail at-grade crossing warning devices on the Elsdon Line. CSXT will adhere to all applicable Federal Occupational Safety and Health Administration (OSHA), FRA, and state construction and operational safety regulations to minimize the potential for accidents and incidents on the Elsdon Line. In addition, in mitigation measure MM 4, OEA has recommended that CSXT establish a community liaison to address any concerns that may arise regarding crossing safety and accident frequency.

#### **3.1.3.3 Pedestrian Crossings**

There is one pedestrian crossing located in segment GTW-05, at MP 18.8, on Walnut Street, in Blue Island, Illinois. Safety at pedestrian crossings is primarily evaluated based on visibility for pedestrians to see approaching trains and the existence of safe locations for those pedestrians waiting for the train to pass. The pedestrian crossing is located on tangent or straight track, which allows pedestrians to see trains and assess the speed of the approaching trains before deciding to cross. Because this crossing is not immediately adjacent to parallel roadways, pedestrians can wait for the train to pass without concern of being struck by roadway vehicles. In addition, trains will not be stopping at this location. The visibility at this crossing is good and there are safe locations for pedestrians to wait; therefore, the risk to pedestrians using this crossing as a result of the increased train traffic in segment GTW-05 would be minor.

Although the Proposed Transaction would not have a significant impact on this pedestrian crossing, CSXT has offered proposed mitigation measures (VM 16, 20, and 21). Within 6 months of acquisition by CSXT of the easement over the Elsdon Line, CSXT agrees to cooperate with school and park districts to identify at-grade crossings where additional pedestrian warning devices may be warranted. In addition, CSXT would make Operation Lifesaver programs available to communities, schools, and other appropriate organizations located along the affected segments. CSXT would also make these programs available to communities, schools, and other appropriate organizations located along the Elsdon Line for three years after the effective date of the Board's final decision approving the Proposed

Transaction. The programs would be designed and provided in coordination with ICC and INDOT.

The Village of Evergreen Park commented that the increase in the number of trains operating over the rail line as a result of the Proposed Transaction would have an adverse impact on pedestrian safety, both at the 95<sup>th</sup> Street grade crossing and along the entire rail line. In addition to what has already been noted, OEA has recommended mitigation measure MM 4, which would require CSXT to establish a community liaison to address any concerns that may arise regarding pedestrian safety.

### 3.1.3.4 Train Accidents and Incidents

FRA collects accident statistics for all railroads operating within the U.S. FRA uses the terms “accident” or “incident” to refer to events that must be reported by the railroads. Reportable accidents or incidents include fatalities, injuries, illnesses, collisions, derailments, and accidents or incidents involving the operation of on-track equipment causing damage above an established threshold; and impacts between railroad on-track equipment and highway users at crossings. FRA further categorizes accidents and incidents depending on whether casualties occurred and whether movement of on-track equipment (for example, locomotives and railcars) was involved in the event.

### 3.1.3.5 Train Accident and Incident Comparison

Table 3.1-14 shows how both CSXT and CN compare with their peer group among U.S. railroads for the most current five-year period, years 2006 through 2010. It is difficult to draw conclusions based on specific geographic areas as to the effects that the Proposed Transaction would have on future occurrences of train accidents and incidents. The data do, however, suggest that CSXT, on average, has lower accidents per million train miles operated than CN’s U.S. lines, and that they are in line with the Class 1 railroad industry averages. In any case as discussed above, the Proposed Transaction is not likely to result in an increase in accident and incident rates overall. To the extent CSXT averages reflect future operations, accidents and incident rates might improve.

Accidents and Incidents	Year					Average
	2006	2007	2008	2009	2010	
Class 1 Railroad Average	12.8	12.8	12.1	11.6	10.6	12.0
CSXT (system wide)	14.3	12.4	11.6	12.0	11.2	12.3
CN (U.S. lines only- includes GTW)	21.7	23.2	22.2	19.8	18.7	21.1

Source: FRA 2011a, Railroad Safety Data, <http://safetydata.fra.dot.gov/officeofsafety/publicsite/Query/statsSas.aspx>.

In an August 1, 2011 letter, the City of Greenwood, Indiana commented that the Proposed Transaction could impact safety, traffic delay, the environment (including noise), and the regional transit plan. Specifically, the City requests that CSXT: upgrade all at-grade road crossings; install noise and pedestrian barriers; coordinate its train schedule with the City;

include certain design elements into the Elsdon Line; include a provision for passenger rail; and construct a rail spur to serve the industrial shippers in the southern part of the City. Although CSXT's train traffic is projected to decrease in the portion of line in Indiana, OEA believes that the City's request would be addressed in voluntary mitigation VM 18, which would require CSXT to consult with state Departments of Transportation, or other appropriate agencies, and abide by their reasonable requirements prior to constructing, upgrading, relocating, or modifying highway/rail at grade warning devices on the Elsdon Line. In addition, CSXT would be required to provide a liaison to support community concerns such as the ones raised here, in mitigation measure MM 4.

The Village of Lansing commented that it has concerns about the poor condition of several crossings that could pose a hazard to motorists. The crossings have not been maintained and are littered with garbage and other debris. To address this issue, CSXT has proposed voluntary mitigation number 14 that would rehabilitate certain grade-crossings in conformance with the state Department of Transportation's rules and AREMA's guidelines for affected roadway approaches and rail line crossings. CSXT would also provide and maintain permanent signs for each of the public crossings on the Elsdon Line that would prominently display both a toll-free telephone number and a unique grade-crossing identification number. The toll-free number would enable motorists to report accidents, malfunctioning warning devices, stalled vehicles, or other dangerous conditions and would be answered 24 hours per day by CSXT's personnel. In mitigation measure MM 4, CSXT would be required to provide a community liaison for a period of one year following the start up of operations on the Elsdon Line to address community concerns, such as the ones raised here. These measures should address the Village of Lansing's concerns.

#### **3.1.3.6 Hazardous Materials Transportation Safety**

Several federal agencies have established requirements for the transportation of hazardous materials on rail lines, including procedures for planning for transportation incidents (releases) and responding to them. These agencies include USDOT, the U.S. Environmental Protection Agency (USEPA), and the Occupational Safety and Health Administration (OSHA). FRA has authority to ensure the safe movement of rail traffic. USDOT regulates the transportation of hazardous materials through controls and practices. It focuses on the source of the risk, regulating the types of containers that contain hazardous materials, such as rail cars, and the way these containers are managed. It also oversees signaling, train control, and track safety. The objective is to maximize safety and minimize risks to human health and the environment generally. Federal regulations do not include requirements to buffer corridors or to provide safe distances along rail lines with respect to particular types of structures, such as residences, schools, or hospitals. Moreover, hazardous materials are routinely transported along rail lines and highways across the U.S., through areas with many types of land uses, including industrial, commercial, and residential, as well as through environmentally sensitive regions.

Freight railroads have established recommended operating practices for the transportation of hazardous materials pursuant to Association of American Railroads (AAR) *Recommended Railroad Operating Practices for Transportation of Hazardous Materials*, Circular No. OT-55-I (CPC-1174, Supplement No. 1) (AAR 2006). Among the operating practices is the designation of “key trains” and “key routes.” A key train is any train with either 1) 5 or more tank car loads of toxic inhalation hazard compounds (TIH); 2) 20 or more car loads with a combination of TIH and other referenced chemicals; or 3) 1 or more carloads of radioactive material. A key route is a route with annual volumes of either 10,000 car loads of hazardous materials or 4,000 car loads of TIH and other referenced materials. Key trains and key routes must meet safety requirements defined in AAR Circular No. OT-55-I.

USEPA regulations address spill prevention and cleanup. Most USEPA regulations address fixed facilities rather than transport activities. USEPA regulations in 40 C.F.R. Part 263, Standards Applicable to Transporters of Hazardous Waste, however, specify immediate response actions, discharge cleanup, and other requirements for transporters of hazardous waste. Finally, OSHA regulations in 29 C.F.R. § 1910.120, Hazardous Waste Operations and Emergency Response, specify emergency response and cleanup operations for releases of hazardous substances and substantial threats of such releases.

#### **3.1.3.7 Affected Environment**

##### **Existing Hazardous Materials—Rail Traffic**

Information regarding existing rail traffic carrying hazardous materials from the *CN EIS* was used to assess existing hazardous materials rail traffic on the Elsdon Line. Table 3.1-15 presents the carloads of hazardous materials that were transported on the GTW Line in 2006 and what was expected to be transported after 2008, after CN acquired the former EJ&E line and began to move traffic from the Elsdon Line to the EJ&E line. To assess the current conditions, the number of carloads post-acquisition was considered to be the existing conditions for the Proposed Transaction. Prior to the CN acquisition of the EJ&E line, the entire Elsdon Line was a Key Route.

CSXT currently transports hazardous materials on the Barr, Monon, and Villa Grove Subdivisions. Hazardous materials include the transportation of TIH materials. The table below presents a summary of the proposed hazardous materials carloads on the Elsdon Line and the other lines CSXT uses in the Chicago Terminal.

Segment No.	From Station	To Station	Cars per Day (2006)	Cars per Day (after 2008)
GTW-01 and GTW-02	Griffith	Thornton Jct	280.6	9.0
GTW-03	Thornton Jct	CN Jct	272.9	8.9
GTW-04	CN Jct	Blue Island	160.2	8.9
GTW-05	Blue Island	Hayford	38.8	0.0

Source: STB 2008, Draft Environmental Impact Statement for the Proposed Canadian National Railway Company Acquisition of the Elgin, Joliet, and Eastern Railway Company, Finance Docket No. 35087. STB served July 25, 2008. <http://www.stb.dot.gov/Decisions/readingroom.nsf/WEBUNID/61898F9CAD3C7508525748E006688AC?OpenDocument>.

**3.1.3.8 Environmental Impacts**

**Proposed Transaction**

As a result of the Proposed Transaction, CSXT would reroute trains from the Barr, Villa Grove, and Monon subdivisions to the Elsdon Line. The result would be an increase in carloads of hazardous materials transported over the Elsdon Line. Table 3.1-16 summarizes the amount of hazardous materials that would be diverted from the CSXT lines to the Elsdon Line, including the number of carload of hazardous materials CSXT currently moves over the Elsdon Line under its trackage rights agreement with GTW.

Subdivision	Proposed Carloads per Day	Proposed Carloads per Year
Barr	255.96	93,425
Villa Grove	95.49	34,854
Monon	6.21	2,266
Elsdon Line	9.00 <sup>a</sup>	3,285
<b>Total Cars per Day - Proposed Transaction</b>	<b>366.66</b>	<b>133,831</b>

Sources: CSXT 2011, Elsdon Subdivision Information Request, April 19, 2011; STB 2008, Draft Environmental Impact Statement for the Proposed Canadian National Railway Company Acquisition of the Elgin, Joliet, and Eastern Railway Company, Finance Docket No. 35087. STB served July 25, 2008. <http://www.stb.dot.gov/Decisions/readingroom.nsf/WEBUNID/61898F9CAD3C7508525748E006688AC?OpenDocument>.

Notes:

<sup>a</sup> This is the maximum number of carloads on Elsdon Line under the trackage rights agreement.

**Key Route Analysis**

As previously noted, the entire Elsdon Line was considered a key route prior to 2008. A key route is an AAR designation developed to identify routes that carry more than 10,000 carloads of hazardous materials per year and thus warrant additional safety measures. Key

route practices include requirements to place defective-bearing detectors a maximum of 40 miles apart (or an equivalent level of protection), the use of rail defect detection cars to inspect main track and sidings (or perform an equivalent level of inspection) no less than twice a year, use of track-geometry inspection cars to inspect main track and sidings (or perform an equivalent level of inspection) no less than once per year, and use of FRA Class 2 or better track for meeting and passing key trains.

After CN's acquisition of the former EJ&E line, the amount of hazardous materials moving on the Elsdon Line was reduced and the Elsdon Line was no longer considered a key route. CSXT anticipates that the movement of hazardous materials on the Elsdon Line under the Proposed Transaction would be similar to what GTW handled on the Elsdon Line prior to CN acquiring the EJ&E line. See Table 3.1-17. Assuming that the increase in hazardous materials carloads would come from the diversion of trains from existing CSXT routes in the Chicago Terminal, the Elsdon Line likely would again become a key route based on the cumulative amount of hazardous materials carloads transported. CSXT anticipates that up to 133,831 carloads of hazardous materials would be transported on the Elsdon Line per year.

GTW has stated that no modifications have been made to the Elsdon Line that would impact the safety measures required for a key route.

CSXT complies with the laws and regulations pertaining to hazardous materials transportation. Section 3.1.3.4 lists the agencies responsible for overseeing hazardous materials transportation. All rail cars are properly identified with the appropriate placards for the type of materials they carry. In addition, CSXT employs specially trained emergency responders. The hazardous materials department responds to environmental and hazardous materials incidents. The hazardous materials team (the Team) is dispatched by a 24/7 Public Safety Communication Center. Upon deployment, the hazardous materials manager directs all remediation operations of the incident by oversight of contractors and consultants and is the CSXT liaison to emergency responders. CSXT also allows public emergency and security agencies direct access to detailed train consist information for emergencies through a secure Network Operating Workstation. This partnership with select agencies provides the ability to determine 24 hours a day what is in a rail car and emergency information for hazardous materials.

All CSXT hazardous materials contractors and consultants responding to emergency incidents undergo a comprehensive Financial Operation Safety and Training (FOST) review by a third party before a Master Service Agreement (MSA) is issued. Once an MSA is established, random FOST reviews are conducted to ensure consistency and the highest level of responder capabilities.

The hazardous materials managers are strategically located throughout the CSXT system and supported by specially trained hazardous materials sentinels. In addition, each hazardous materials manager is equipped with an emergency response vehicle and specialized tools to affect repairs or provide air monitoring and detect the presence of a chemical.

The Team makes all required agency notifications and works with these groups to gain closure of the project. The hazardous materials managers are responsible for compliance quality throughout the railroad and provide emergency response training for CSXT employees and public responders. To assist agencies in preplanning for emergencies, CSXT distributes Community Awareness and Emergency Planning Guides to many emergency management agencies and local emergency planning committees throughout the system.

CSXT has stated that from 2008 to 2012 in Cook County, IL, there has been one derailment with a hazardous materials release. This occurred in 2009, in Riverdale, IL in the BRC Yard and did not require any form of evacuation. CSXT has not had a derailment with a hazardous materials release on a mainline in the Chicago Terminal for at least the last five years.

The potential for a release of hazardous materials has historically been, and should continue to be, extremely rare because of the existing regulatory requirements and best management practices that help prevent circumstances that might result in a release. CSXT has not had a hazardous materials release on a mainline in the Chicago Terminal in the last five years and has not had any hazardous materials release in the Chicago Terminal since 2009.

The Proposed Transaction would result in an increase of potential for a release to occur; however, there would be a reduction in the risk for a release on other lines in the Chicago Terminal as a result of the redistribution of railroad traffic. To ensure that appropriate safeguards are taken to minimize potential risk, CSXT has offered voluntary mitigation measures related to hazardous materials (VM 22-36). These mitigation measures also address the change in status of the Elsdon Line to a “key route” and include assisting in hazardous materials training for emergency responders for affected communities that express an interest in training, providing a dedicated toll-free telephone number to the emergency response organizations located along the Elsdon Line, and conducting Transportation Community Awareness and Emergency Response Program workshops. With the recommended mitigation measures, these impacts would be reduced below the level of significance.

In a June 14, 2011 letter, the Village of Evergreen Park commented that it is concerned that the Proposed Transaction could increase the possibility of a hazardous materials spill, which could impact the entire community. While the risk of an accident cannot be totally eliminated, the statutory and regulatory framework currently in place is designed to reduce the likelihood of an accident or release of hazardous materials from occurring to the extent possible. Under the Proposed Transaction, CSXT would be required to adhere to all USEPA regulations as described in 40 C.F.R. Part 263. CSXT would also need to coordinate its compliance efforts with federal, state and local agencies, and other entities on spill responses. In addition, CSXT has outlined its hazardous materials spill protocols and has proposed a number of mitigation measures to ensure that all safeguards are put into place as part of the Proposed Transaction. CSXT has indicated that the potential for a release to occur would be minimal, given its history of handling this product through the Chicago Terminal over other railroad lines. In addition, OEA has recommended mitigation measure MM4, which would

require CSXT to provide a liaison in support of community concerns such as the one raised here.

### **No-Action Alternative**

Under the No-Action Alternative, shipments of hazardous materials would continue as they have in the past on both the Elsdon Line and the lines that CSXT currently uses in the Chicago Terminal. The likelihood of a release would be similar to past events and would be minimal.

#### **3.1.4 Emergency Response**

##### **3.1.4.1 Affected Environment**

Emergency service providers include police, fire departments, and emergency medical services. This section describes emergency vehicle delay at at-grade crossings in the area of the Elsdon Line and the potential impacts to emergency response as a result of the Proposed Transaction.

Vehicle responders could potentially be delayed if a train is present at a given crossing. The delay time would depend on the emergency vehicle arrival time relative to the train arrival time as well as the length and speed of the train.

##### **3.1.4.2 Environmental Impacts**

### **Proposed Transaction**

There are 60 crossings along the Elsdon Line. This Draft EA analyzes the 31 public at-grade crossings that would experience an increase in train traffic as a result of the Proposed Transaction (See Section 3.1.1.1, Affected Environment). CSXT estimates that trains would block public at-grade crossings located on the Elsdon Line between 1.9 and 4.0 minutes under the Proposed Transaction (Table 3.1-1). The at-grade crossing the Proposed Transaction would block the longest would be that at 79<sup>th</sup> Street (4.0 minutes). However, emergency response vehicles could use the grade separation located at 67<sup>th</sup> Street as an alternate route.

Four hospitals have been identified that are located close to the Elsdon Line where trains blocking at-grade crossings could delay ambulances as a result of the Proposed Transaction. Table 3.1-17 lists these hospitals. Figure 3.1-7 shows the locations of the hospitals in the vicinity of the Proposed Transaction.

<b>Hospital</b>	<b>Location</b>	<b>Distance from the Line (miles)</b>
Holy Cross	2701 W 68 <sup>th</sup> St Chicago, IL 60629	1.1
Advocate Christ Medical Center	44440 W 95 <sup>th</sup> St, Oak Lawn, IL 60453	1.2
Little Company of Mary Hospital	2800 W 95 <sup>th</sup> St, Evergreen Park, IL 60805	0.3
Metro South Medical Center	12935 Gregory St, Blue Island, IL 60406	0.5

Source: Google 2011, <http://maps.google.com/maps?hl=en&tab=wl>.

Figure 3.1-7. Locations of Hospitals

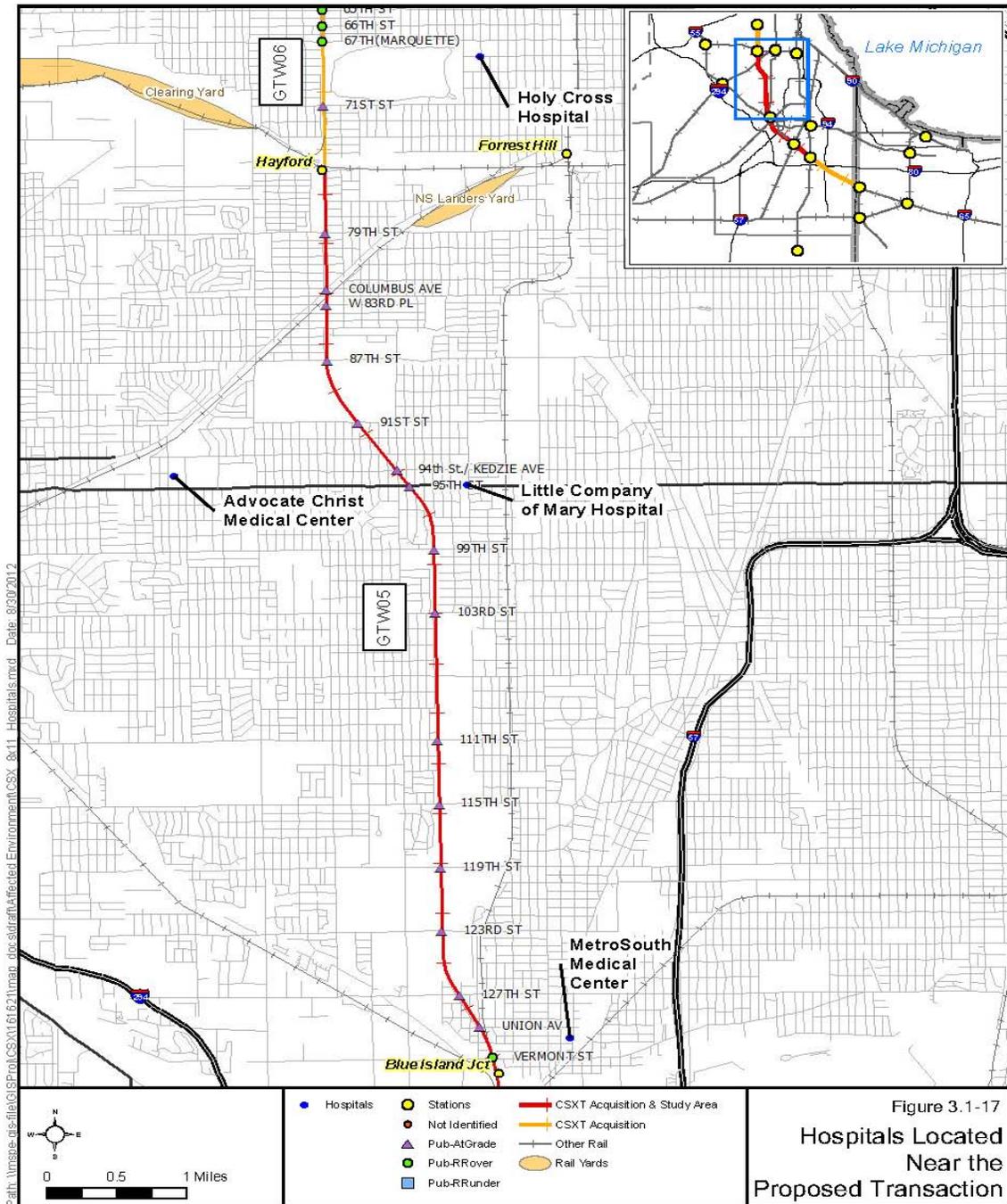


Figure 3.1-17  
Hospitals Located  
Near the  
Proposed Transaction

The Proposed Transaction could affect access to Holy Cross Hospital. However, there is a grade separation at 67<sup>th</sup> Street which ambulances could use to avoid any trains that occupy the at-grade crossings at 79<sup>th</sup> Street, Columbus Avenue, or 83<sup>rd</sup> Place. However, the Proposed Transaction would affect access to Advocate Christ Medical Center and Little

Company of Mary Hospital, which are both located on 95<sup>th</sup> Street, because there is no grade separation near these hospitals. As the analysis presented earlier indicates, the longest the Proposed Transaction would block the at-grade crossing at 95<sup>th</sup> Street would be 2.5 minutes. Any delay as a result of trains blocking the crossing at 95<sup>th</sup> Street would be limited as no trains would stop at an at-grade crossing as a result of the Proposed Transaction. Metro South Medical Center is located at 129<sup>th</sup> Street in Blue Island. Although trains could potentially block the at-grade crossing at 127<sup>th</sup> Street up to 2.5 minutes, this hospital is also located close to the grade separation at Vermont Street. Therefore, the Proposed Transaction would not affect emergency responders heading to or from Metro South Medical Center.

Although the Proposed Transaction could potentially affect emergency access for police and fire vehicles, the communities along the Elsdon Line maintain mutual aid agreements and other forms of intergovernmental agreements to contact each other in the event of blocked at-grade crossings.

Because the City of Chicago is the busiest portion of the Elsdon Line, public at-grade crossings in the city were analyzed. The City of Chicago has defined certain at-grade crossings as 911 crossings (i.e., primary routes for emergency responders). The City of Chicago and several railroads, including CSXT, signed a Memorandum of Understanding (MOU) on January 17, 2002, which is currently in effect. Under this MOU, CSXT calls the Office of Emergency Communications when a train will block a 911 crossing for 10 minutes or more and again when the train has cleared the at-grade crossing. In addition, CSXT and the Office of Emergency Communications prepare and submit four summaries per year to the Commissioner describing the location and cause of each obstruction. Based on this information, the Commissioner can add or delete crossings identified as primary routes for emergency responders. Additionally, CSXT has proposed voluntary mitigation (VM 37) where CSXT would notify Emergency Services Dispatching Centers for communities along the affected segments of all crossings blocked by trains that are stopped and may be unable to move for a significant period of time for reasons beyond CSXT’s control. CSXT has agreed to work with affected communities to minimize emergency vehicle delay by maintaining facilities for emergency communication with local Emergency Response Centers through a dedicated toll-free telephone number.

Table 3.1-18 lists the CSXT public at-grade crossings on the Elsdon Subdivision in the City of Chicago and defined as 911 crossings. Figure 3.1-3 and Figure 3.1-4 show CSXT 911 at-grade crossings in the City of Chicago.

<b>Table 3.1-18. CSXT 911 Public At-Grade Crossings in the City of Chicago</b>		
<b>USDOT/FRA Crossing No.</b>	<b>Segment No.</b>	<b>At-Grade Roadway Locations</b>
283147F	GTW-05	87 <sup>th</sup> St
283151V	GTW-05	95 <sup>th</sup> St (U.S. 12/U.S. 20)

283153J	GTW-05	103 <sup>rd</sup> St
283154R	GTW-05	111 <sup>th</sup> St
283155X	GTW-05	115 <sup>th</sup> St

Sources: CSXT 2011, Elsdon Subdivision Information Request, April 19, 2011;

FRA 2011, Crossing Inventory Reports, <http://safetydata.fra.dot.gov/OfficeofSafety/publicsite/crossing/crossing.aspx>.

Under the Proposed Transaction, trains would not stop on the Elsdon Line, which reduces the potential for blocked at-grade crossings. In the most congested region, the City of Chicago, CSXT has 911-designated at-grade crossings, further reducing the potential for blocking the roadways for emergency responders. The only at-grade crossing that would experience some effects on delay (79<sup>th</sup> Street) has not been identified as a primary route for emergency responders.

The Village of Evergreen expressed concern that the increased train traffic associated with the Proposed Transaction would have an adverse effect on emergency responders traveling to area hospitals. The Village of Evergreen also notes that Christ Hospital is one of only two Level 1 trauma centers located in Southern Cook County and that delayed access at the 95<sup>th</sup> Street grade crossing would affect those in need of prompt attention. The Village of Evergreen has requested that the Board require that a grade separation (underpass) be constructed at this crossing to mitigate the emergency response time delays. OEA has not recommended an underpass at this location because the traffic delay section concluded that the 95<sup>th</sup> Street crossing does not meet FHWA's criteria for grade separation as discussed in section 3.1.1.3. However, CSXT has proposed a number of reasonable voluntary mitigation measures that would minimize the delay to the extent possible. Among other things, CSXT has indicated that it has agreements in place with emergency responders in the area; that its trains would not block the crossing any longer than the 2.5 minutes that it would take for a CSXT train to clear the crossing and that in unforeseen circumstances, it would cut its train if there was a blockage lasting longer than 10 minutes and notify Emergency Services Dispatching Centers; and that it would work with affected communities to minimize emergency vehicle delay by maintaining facilities for emergency communication with local Emergency Response Centers through a dedicated toll-free telephone number. In addition to CSXT's voluntary mitigation, OEA has developed a mitigation measure that would assist emergency responders in obtaining information instantly. In mitigation measure MM2, OEA is recommending the installation of a closed circuit television (CCTV) or other similar system that would enhance communication and provide advanced information to emergency service providers. CCTV and other similar technologies have the capability of providing real-time data on grade crossing blockages to emergency responders so that an alternate route may be used. CSXT would be responsible for installing and maintaining the CCTV or other comparable device. In addition, mitigation measure MM4 would require CSXT to provide a liaison to support the communities affected by the Proposed Transaction. Therefore, with the proposed mitigation measures, these impacts would be reduced below the level of significance.

### **No-Action Alternative**

Under the No-Action Alternative, there would be no change in train traffic and thus, there would be no change in delay due to train traffic at at-grade crossings. The No-Action Alternative would not affect existing emergency service response.

### 3.2 Community Resources and Land Use

According to the FHWA's *Community Impact Assessment: Quick Reference for Transportation* guide (FHWA 1996), there are several key issues in assessing and addressing community effects including safety/health, sociocultural, sensory/aesthetic, population displacement, economics, land use, and mobility/accessibility. This section describes the environmental setting and potential environmental impacts to community resources and land use as a result of the Proposed Transaction. The study area for community resources and land use includes 0.25 miles on either side of the Elsdon Line within segments for which an increase in traffic would occur (GTW-03, GTW-04, and GTW-05). The 0.25-mile buffer also encompasses sensitive receptors within the 65-A-weighted decibel (dBA) noise contour and was used in the noise analysis in section 3.8 for the Proposed Transaction.

Section 3.11 discusses potential sociocultural impacts to socioeconomic and environmental justice populations, Section 3.3 discusses potential socioeconomic impacts, Section 3.1 discusses rail and transportation safety and mobility, and Section 3.8 discusses noise and vibration. The Proposed Transaction would not require any construction or displacements of population or public facilities; therefore, displacements are not discussed in this evaluation. This evaluation describes potential impacts to community resources such as public facilities and land use as a result of the Proposed Transaction.

Community resources within the Proposed Transaction area were evaluated using aerial photography and information from the municipalities crossed by the Proposed Transaction (Table 3.2-1). Figure 3.3-1 also shows these municipalities.

<b>Table 3.2-1. Municipalities Crossed by the Proposed Transaction</b>						
<b>Segment No.</b>	<b>Length (miles)</b>	<b>Station</b>	<b>Existing Trains</b>	<b>Proposed Trains</b>	<b>Change</b>	<b>Municipalities</b>
<b>Elsdon Subdivision (MP 36.1 to 8.7)</b>						
GTW-01	5.1	Griffith to Munster (Indiana)	9.7	6.8	-2.9	Town of Griffith Calumet Township Town of Highland Town of Munster North Township Lake County
GTW-02	5.8	Munster to Thornton Jct (Indiana and Illinois)	9.7	8.9	-0.8	Town of Munster North Township Lake County, Indiana; Village of Lansing Thornton Township Bloom Township Cook County, Illinois
GTW-03	2.0	Thornton Jct to CN Jct (Illinois)	8.6	18.7	+10.1	Village of Phoenix Bremen Township

<b>Table 3.2-1. Municipalities Crossed by the Proposed Transaction</b>						
<b>Segment No.</b>	<b>Length (miles)</b>	<b>Station</b>	<b>Existing Trains</b>	<b>Proposed Trains</b>	<b>Change</b>	<b>Municipalities</b>
						Cook County
GTW-04	3.9	CN Jct to Blue Island Junction (Illinois)	6.0	16.7	+10.7	Village of Posen Bremen Township City of Harvey Bremen and Thornton Township Village of Phoenix Village of Dixmoor Thornton Township Cook County
GTW-05	7.5	Blue Island Jct to Hayford (Illinois)	3.5	23.0	+19.5	Village of Evergreen Park City of Blue Island Village of Merrionette Park Worth Township Cook County City of Chicago
GTW-06	3.1	Hayford to Elsdon (Corwith) (Illinois)	0.0	0.0	0.0	City of Chicago Cook County
<b>Monon Subdivision</b>						
CSXT-01	3.4	Dyer to Munster (Indiana)	2.0	2.0	0.0	Town of Dyer St. John Township Town of Munster North Township Lake County
<b>Blue Island Subdivision (MP 23.0 to 15.1)</b>						
CSXT-02	7.4	Blue Island Jct to Forrest Hill (Illinois)	32.0	32.0	0.0	Village of Dixmoor Thornton Township City of Chicago Cook County
CSXT-03	0.5	Forrest Hill to 59 <sup>th</sup> St Yard (Illinois)	32.0	32.0	0.0	City of Chicago Cook County
<b>BRC Subdivision</b>						
BRC-01	2.6	80 <sup>th</sup> St to Forest Hill (Illinois)	26.0	22.0	-4.0	City of Chicago Cook County
BRC-02	1.7	Forrest Hill to Hayford (Illinois)	26.0	22.0	-4.0	City of Chicago Cook County

<b>Table 3.2-1. Municipalities Crossed by the Proposed Transaction</b>						
<b>Segment No.</b>	<b>Length (miles)</b>	<b>Station</b>	<b>Existing Trains</b>	<b>Proposed Trains</b>	<b>Change</b>	<b>Municipalities</b>
<b>Villa Grove Subdivision (MP 30.4 to 9.7)</b>						
UP-01	10.3	Crete to Thornton Jct (Illinois)	16.0	16.0	0.0	Village of Crete Village of Steger South Chicago Heights Chicago Heights Village of Glenwood Village of Thornton Cook County
UP-02	3.4	Thornton Jct to Dolton (Illinois)	16.0	2.0	-14.0	Village of Thornton Village of South Holland Village of Dolton Cook County
UP-03	7.0	Dolton to 81 <sup>st</sup> St (Illinois)	26.0	22.0	-4.0	Village of Dolton Cook County
<b>IHB Subdivision (MP 27.0 to 15.2)</b>						
IHB-01	6.0	Blue Island Jct to Ridge (Illinois)	22.0	6.0	-16.0	City of Blue Island Village of Chicago Ridge Village of Alsip Cook County
IHB-02	5.8	Ridge to Argo (CP Canal) (Illinois)	22.0	6.0	-16.0	Village of Chicago Ridge Village of Bridgeview Cook County

Source: CSXT 2011, Elsdon Subdivision Information Request, April 19, 2011.

In addition to researching these municipalities, a limited field investigation was conducted, including a hi-rail<sup>36</sup> trip in April 2011 along the Proposed Transaction area.

### 3.2.1 Public Facilities

Community resources include public facilities such as fire stations, police stations, churches, cemeteries, parks, day care centers, schools, municipal buildings, retirement homes, hospitals, and libraries. Public transportation services such as commuter rail, roadways, bike paths, pedestrian sidewalks, and trails are also considered community resources.

<sup>36</sup> A hi-rail is a self-propelled road-rail vehicle that can be legally used on both roads and rails. Sometimes referred to as a "HyRail" or "HiRail," they are normally converted rubber-tired road vehicles that have additional steel wheels for running on rails.

### 3.2.1.1 Affected Environment

The Proposed Transaction would be implemented on the existing Elsdon Line traversing several municipalities in a well-developed urbanized area (Table 3.2-1). In addition to the municipalities, there are other community programs and initiatives such as the CREATE Program and Modern Schools Across Chicago (MSAC) that are important to public facility planning along the Elsdon Line.

The boundaries of the CREATE Program encompass the Proposed Transaction (Refer to Section 2.1.2, Commuter Rail Service for a description of the CREATE Program). CREATE is intended to reduce traffic delays, provide shorter commute times, improve air quality, and increase public safety for the Chicago area by investing billions in critically needed capital improvements including 25 new roadway overpasses or underpasses where traffic currently crosses at grade level, 6 new rail overpasses or underpasses to separate passenger and freight train tracks, 37 rail projects including extensive upgrades of track, switches and signal systems, grade crossing safety enhancements, and other projects (CREATE 2011).

The MSAC initiative supports a capital program to bring new school facilities and major renovation projects to fruition through an innovative funding strategy. This initiative has given the Public Building Commission of Chicago (PBC) the authority to fund 19 MSAC projects. These projects represent 17 new schools and two major school renovations. Of these projects, one is located near the Proposed Transaction—Southwest Area High School located at 7651 South Homan Avenue in Chicago is near Hayford Station. This new school is currently under construction and is scheduled to open for students in the fall of 2012 (PBC 2011).

Table 3.2-2 shows existing public facility and service types within the study area that would experience an increase in train traffic (GTW-03 through GTW-05) as a result of the Proposed Transaction. The existing and proposed public facilities along the segments of the Proposed Transaction that would experience a decrease, or no change, in train traffic would not be negatively affected by the Proposed Transaction; therefore, Table 3.2-2 does not list them.

<b>Segment No.</b>	<b>Facility Location</b>	<b>Facility Name</b>
GTW-03	240 E 166 <sup>th</sup> St, South Holland, IL 60473	Willowbrook Park
GTW-03	168 <sup>th</sup> Pl and Louis Ct, South Holland IL 60473	Dahlenberg Park
GTW-03	15800 State St, South Holland, IL 60473-1270	South Suburban College
GTW-03	15500 7 <sup>th</sup> Ave, Phoenix, IL 60426-2578	South Holland School District 151 Coolidge Middle School
GTW-03	E 162 <sup>nd</sup> St and Union Ave, Harvey, IL 60426	Taft Park
GTW-03	16300 S State St, South Holland, IL 60473	Calvary Academy Christian School
GTW-03	E 164 <sup>th</sup> St and Wabash Ave, South Holland, IL 60473	Hollandale Park
GTW-03	E 166 <sup>th</sup> and Wausau Ave, South Holland, IL 60473	Willowbrook Park
GTW-03	E. 168 <sup>th</sup> Pl and Louis Ct, South Holland, IL 60473	Dahlenburg Park

ID	Address	Facility
GTW-03/04	15441 Turlington Ave, Harvey, IL 60426-3683	Harvey Public Library
GTW-04	15001 Broadway Ave, Harvey, IL 60426-2272	Thornton Township High School
GTW-04	71 E 152 <sup>nd</sup> St, Harvey, IL 60426-3199	Whittier Elementary School
GTW-04	15441 Center Ave, Harvey, IL 60426-3656	U.S. Post Office
GTW-04	14100 S Harrison Ave, Posen, IL 60406	Gordon Elementary School
GTW-04	Near 143 <sup>rd</sup> St and McKinney Ave, Blue Island, IL 60406	Memorial Park
GTW-04	I-57 and Thornton Rd, Riverdale, IL 60827	Kickapoo Meadows (Cook County Forest Preserve)
GTW-04	14601 Seeley Ave, Dixmoor, IL 60426	Martin L. King Elementary School
GTW-04	14700 Robey Ave, Dixmoor, IL 60426	Rosa Parks Middle School
GTW-04	166 W 145 <sup>th</sup> St, Dixmoor, IL 60426	Dixmoor Village Fire Department
GTW-04	E 149 <sup>th</sup> St and Ashland Ave, Harvey, IL 60426	Ashland Park
GTW-04	Lexington Ave and E 151 <sup>st</sup> St, Harvey, IL 60426	Lexington Park
GTW-04	E 148 <sup>th</sup> St and Broadway Ave, Harvey, IL 60426	Harmon Park
GTW-04	15147 Myrtle Ave, Harvey, IL 60426-3121	Sandburg Elementary School
GTW-04/05	2521 Grove St, Blue Island, IL 60406-2309	Southeast CEDA Head Start
GTW-05	Corner of S Homan Ave and W 77 <sup>th</sup> St, Chicago, IL 60652	Dooley Park
GTW-05	Along W 103 <sup>rd</sup> St, from S Vincennes Ave to S Kedzie Ave	Recommended bike route
GTW-05	Along W 83 <sup>rd</sup> St from S Homan Ave to S Springfield Ave	Recommended bike route
GTW-05	Along W 111 <sup>th</sup> St from S Western Ave to S Kedzie Ave	Proposed on-street bikeway
GTW-05	3401 W 87 <sup>th</sup> St Evergreen Park, IL 60805	Evergreen Cemetery
GTW-05	91 <sup>st</sup> St and S Polanski Rd Chicago, IL 60652	St. Mary's Cemetery
GTW-05	2900 W 111 <sup>th</sup> St Chicago, IL 60655	Mt. Greenwood Cemetery
GTW-05	2755 W 111 <sup>th</sup> St Chicago, IL 60655	Mt. Olivet Cemetery
GTW-05	3473 W Columbus Ave, Chicago, IL 60652-2537	Teddy Bear Day Care II
GTW-05	3639 W 79 <sup>th</sup> St, Chicago, IL 60652-9998	U.S. Post Office
GTW-05	7651 S Homan Ave, Chicago, IL 60652	Southwest Area High School
GTW-05	3434 W 77 <sup>th</sup> St, Chicago, IL 60652-1453	Lionel Hampton Elementary School
GTW-05	Corner of S Lawndale Ave and W 87 <sup>th</sup> St, Chicago, IL	Lee Park
GTW-05	Corner of 92 <sup>nd</sup> St and S Homan Ave, Evergreen Park, IL 60805	Mini Park
GTW-05	Corner of 91 <sup>st</sup> St and Ridgeway Ave, Evergreen Park, IL 60805	Northwest Park
GTW-05	2900 W 99 <sup>th</sup> Pl, Evergreen Park, IL 60805	Southeast Park
GTW-05	2800 W 95 <sup>th</sup> St, Evergreen Park, IL 60805-2701	Little Company of Mary Hospital and Health Care Centers
GTW-05	3939 W 79 <sup>th</sup> St, Chicago, IL 60652-2301	Bogan High school
GTW-05	3939 W 79 <sup>th</sup> St, Chicago, IL 60652-2301	Bogan Park

GTW-05	Address	Facility
GTW-05	3810 W 81 <sup>st</sup> Pl, Chicago, IL 60652-2404	Dawes Elementary School
GTW-05	10200 S Washtenaw Ave, Chicago, IL 60655-3899	St. John Fisher School
GTW-05	10522 S California Ave, Chicago, IL 60655-1799	Ridge Country Club
GTW-05	8300 S St Louis Ave, Chicago, IL 60652	Ashburn Elementary School
GTW-05	3020 W 108 <sup>th</sup> St, Chicago, IL 60655	Keller Elementary School
GTW-05	10714 S Sawyer Ave, Chicago, IL 60655-2632	Mckiernan Park
GTW-05	11800 S Meadow Lane Dr, Merrionette Park, IL 60803-5824	Meadow Lane Elementary School
GTW-05	12915 Maple Ave, Blue Island, IL 60406	Everett F. Kerr Middle School
GTW-05	11500 S Homan Ave, Merrionette Park, IL 60803	Merrionette Park Shopping Center
GTW-05	11720 S Kedzie Ave, Merrionette Park, IL 60803	Merrionette Park Village Hall
GTW-05	11750 S Kedzie Ave, Merrionette Park, IL 60803	Merrionette Park Police Station
GTW-05	11500 S Fairfield Ave, Chicago, IL 60655	Mt. Hope/Meadows Cemetery
GTW-05	12000 Kedzie Ave, Alsip, IL 60803	Beverly Memorial Park Cemetery
GTW-05	11900 Kedzie Ave, Alsip, IL 60803	Oak Hill Cemetery
GTW-05	12601 S Kedzie Ave, Alsip, IL 60803	Fountain Hills Golf Club
GTW-05	S Kedzie Ave and 127 <sup>th</sup> St, Alsip IL 60803	Commissioners Park
GTW-05	11900 Kedzie Ave, Alsip, IL 60803	Lincoln Cemetery
GTW-05	12700 Sacramento Ave, Blue Island, IL 60406-1899	Dwight D. Eisenhower High school
GTW-05	Corner of Highland Ave and Walnut St, Blue Island, IL 60406	Memorial Park
GTW-05	2844 Burr Oak Ave, Blue Island, IL 60406-1934	TLC Learning Center
GTW-05	92 <sup>nd</sup> St & Millard, Evergreen Park, IL 60805	Evergreen Park Northwest School
GTW-05	94 <sup>th</sup> St & Sawyer , Evergreen Park, IL 60805	Evergreen Park Central Jr. High school
GTW-05	98 <sup>th</sup> St & Francisco , Evergreen Park, IL 60805	Evergreen Park Southeast Elementary School
GTW-05	9901 S Kedzie Ave, Evergreen Park, IL 60805	Evergreen Park High school
GTW-05	7831 S Lawndale Ave, Chicago IL 60652	Infiniti School of Chicago South
GTW-05	3700 W 87 <sup>th</sup> St , Chicago, IL 60652	Lee (John) Park

Sources: Bing 2011, <http://www.bing.com/maps/?FORM=Z9LH4>; Google 2011, <http://maps.google.com/maps?hl=en&tab=wl>.

### **3.2.1.2 Environmental Impacts**

#### **Proposed Transaction**

Analysis of community resources and public facilities considers existing and proposed traffic attributed to the Proposed Transaction and noise within the study area. Residents would continue to use existing pedestrian and vehicular crossings along the Proposed Transaction (Table 3.1-1) to access the public facilities listed in Table 3.2-2. Section 3.1 discusses existing and proposed traffic along these crossings within the study area. Section 3.8 discusses the noise analysis for the Proposed Transaction.

The Proposed Transaction would involve diverting existing CSXT train traffic to the existing Elsdon Line that serves as a boundary between neighborhoods and communities. The Proposed Transaction would not affect, separate, or isolate any distinct neighborhoods. The Proposed Transaction and the CREATE program share the goal of improving the efficiency of the region's freight rail.

#### **No-Action Alternative**

Under the No-Action Alternative, there would be no adverse effects to public facilities or services.

### **3.2.2 Compatibility with Land Use Plans**

NEPA regulations at 40 C.F.R. §1502.16(c) require an analysis of the effects of the Proposed Transaction on land use and the consistency of the proposed project with existing land use plans. This section addresses existing land use, future land use and zoning, planned development, development trends, and special land use designations along the Elsdon Line in the study area described in Section 3.2.1 (segments GTW-03, GTW-04, and GTW-05).

There are two regional planning agencies that manage and plan for different land use aspects within the study area: the Chicago Metropolitan Agency for Planning (CMAP) and the Cook County's Bureau of Community Development. In addition, the study area lies within the CREATE program area. CREATE invests in needed improvements to increase the efficiency of the region's passenger and freight rail infrastructure and enhance the quality of life for Chicago-area residents.

This analysis used CMAP, the Cook County's Bureau of Community Development, the CREATE program, digital land use maps, and information from the municipalities listed in Table 3.2-1 to determine existing and proposed land use plans for the Proposed Transaction study area.

#### **3.2.2.1 Affected Environment**

According to local municipality land use inventory data and aerial photographs, land use within the study area primarily consists of developed land (commercial/retail, institutional, transportation, and residential), utility ROW, parks and recreational areas, vacant parcels, and water.

Figure 3.6-1 shows conservation and recreation lands and Figure 3.5-1 shows water resources. Table 3.2-2 lists existing parks, recreational areas, and institutional facilities within the study area.

The CMAP GO TO 2040 comprehensive metropolitan plan (CMAP 2011) and Cook County Comprehensive Economic Development Strategy (CEDs) Report (CEDs 2009) discuss freight rail's important role in the local community. CMAP 2011 and CEDs 2009 both state that the Proposed Transaction area has been in the past, and will continue to be, an important rail center. In addition, and as discussed in Section 3.2.1, the Proposed Transaction and the CREATE program share the goal of improving the efficiency of the region's freight rail. CMAP 2011 and CEDs 2009 discuss the region's recent loss of jobs and are responding with goals to encourage economic growth. Both the plan and the report call for supporting and retaining existing industry and infrastructure, including rail transportation facilities. The report and plan also share the goal of encouraging additional growth through promoting the region's strong rail infrastructure and existing resources. The Chicago region is the truck and rail freight center of North America, with major distribution centers and intermodal hubs that integrate trucking and rail.

#### **3.2.2.2 Environmental Impacts**

##### **Proposed Transaction**

The Elsdon Line is an existing rail facility within a heavily developed area. There is no construction associated with the Proposed Transaction; therefore, it would not require any land to be directly converted to transportation use. The Proposed Transaction accommodates continuing freight rail use in a more efficient manner and is consistent with historic, current, and future land uses, CMAP 2011, CEDs 2009, and the CREATE Program. Therefore, the Proposed Transaction would not affect land use in the study area.

##### **No-Action Alternative**

Under the No-Action Alternative, no changes to land use would occur. The No-Action Alternative would not require any land to be converted to transportation use.

### 3.3 Socioeconomics

CEQ NEPA implementing regulations state that human environment “shall be interpreted comprehensively to include the natural and physical environment and the relationship of people with that environment” (40 C.F.R. § 1508.14). The same regulations state that, although “economic or social effects are not intended by themselves to require preparation of an environmental impact statement,” when “economic or social and natural or physical environmental effects are interrelated, then the environmental document will discuss all of these effects on the human environment.” The Proposed Transaction would not result in direct socioeconomic effects, as it would not generate increased expenditures in the local economy or generate increased labor demand in the local economy.

This section describes the socioeconomic setting and potential socioeconomic impacts of the Elsdon Line where the Proposed Transaction contemplates new or changed activity. This analysis considered socioeconomic conditions for the portion of the Elsdon Line on which train traffic would increase. The study area for socioeconomic conditions is made up of census block groups adjacent to the portion of the Elsdon Line ROW from Thornton Junction to Hayford (segments GTW 03, 04, and 05) (Figure 3.3-1). This analysis also compared the socioeconomic conditions of the study area to those of the corresponding municipalities.

The analysis shows there would be no displacement of population as a result of the activities contemplated by the Proposed Transaction. The Proposed Transaction would not involve construction of new rail lines or abandonment of existing rail lines.

Socioeconomic impacts generally depend on the extent to which increased expenditure and/or labor demand of a proposed project stimulate migration to an area and create increased demands for housing and public services. Given the fact that this proposal involves an easement over an existing rail line, the Proposed Transaction should not significantly impact socioeconomics.



### 3.3.1 Affected Environment

The study area lies in Cook County, Illinois. Table 3.3-1 shows the population change from 2000 to 2010 for the municipalities traversed by or adjacent to the portion of the rail line that would experience an increase in daily train traffic as a result of the Proposed Transaction.

<b>Municipality</b>	<b>2000 Total Population</b>	<b>2010 Total Population</b>	<b>Change in Population</b>
City of Chicago	2,896,016	2,695,598	-6.9%
Village of Evergreen Park	20,821	19,852	-4.7%
Village of Merrionette Park	1,999	1,900	-5.0%
Village of Alsip	19,725	19,277	-2.3%
City of Blue Island	23,463	23,706	1.0%
Village of Robbins	6,635	5,337	-19.6%
Village of Posen	4,730	5,987	26.6%
Village of Dixmoor	3,934	3,644	-7.4%
Village of Riverdale	15,055	13,549	-10.0%
City of Harvey	30,000	25,282	-15.7%
Village of Phoenix	2,157	1,964	-8.9%
Village of South Holland	22,147	22,030	-0.5%
Village of Thornton	2,582	2,338	-9.5%
Cook County	5,376,741	5,194,675	-3.4%

Source: U.S. Census Bureau 2000b, 2010b, Table P1, Total Population, <http://factfinder2.census.gov/main.html>.

The census data generally show population decreases in the study area, with the exception of the City of Blue Island and the Village of Posen, which experienced increases of 1.0 percent and 26.6 percent, respectively.

In 2010, the civilian labor force in Cook County, Illinois, was 2,604,300, and the unemployment rate was 10.5 percent (U.S. Department of Labor 2010). As of March 2011, the unemployment rate for the Chicago-Joliet-Naperville, IL-IN-WI Metropolitan Statistical Area was 8.9 percent, which is slightly below the average unemployment rate for the U.S. (9.2 percent) (U.S. Department of Labor 2011).

### 3.3.2 Environmental Impacts

#### 3.3.2.1 Proposed Transaction

The Proposed Transaction would not involve construction of new rail lines or abandonment of existing rail lines. Under the Proposed Transaction, the number of trains moving over the already existing Elsdon Line will increase in some locations and decrease in others. The change in rail operations associated with the Proposed Transaction would not change the socioeconomic conditions within the study area. Employment opportunities would not change as a result of the Proposed Transaction. As such, the Proposed Transaction would not

generate any pressure on housing or public services that could not be absorbed by the existing infrastructure.

### **3.3.2.2 No-Action Alternative**

Under the No-Action Alternative, there would be no construction of new rail lines or abandonment of existing rail lines. Current operations by CSXT, GTW, and its associated railroads, would continue, and no substantive increase or decrease in train traffic would occur. Socioeconomic conditions would not change as a result of the No-Action Alternative.

### 3.4 Geology and Soils

This section describes the geologic conditions, soils, and hazardous waste sites within the study area. The study area for this section is the Elsdon Line (segments GTW-01 through 06).

#### 3.4.1 Affected Environment

##### 3.4.1.1 Geology

Glacially derived sediments of Pleistocene Age, 1.8 million years before present (BP) to 10,000 BP cover Cook County, Illinois, and Lake County, Indiana. The Park Ridge moraine, a Wisconsinan (70,000 to 10,000 BP) age end moraine complex, is present (Illinois State Geological Survey [ISGS] 1991). This moraine trends north-south and is approximately 1 mile wide and 4.5 miles long. The Park Ridge end moraine is a till with numerous interbedded deposits of outwash gravel, sand, silt and slump block deposits. Glacial material associated with the end moraine is approximately 25 to 100 feet thick. The surficial deposits are classified as the Equality Formation. The Equality Formation is primarily fine grained sediment of brown, to gray, to red bedded silt and clay. These deposits were deposited in the former glacial lake (ISGS 2011). This formation thickness ranges between 5 to 20 feet. Flat topography characterizes the area.

The uppermost bedrock unit in the study area is of the undifferentiated (0 to 150 ft. thick) Siurian System. This is a dolomite that is brownish-gray in color. Some beds contain a white chert. The study area does not include areas of geologic instability (e.g., fault zones, karst topography).

There are no known coal seams present beneath the study area. No coal mines or other mining operations are present in the study area (ISGS 2008).

The Proposed Transaction would not result in impacts on geologic resources. The Illinois Department of Natural Resources (ILDNR) database for abandoned mines was accessed. There is no record of pre-existing coal mines in the footprint of the Proposed Transaction.

##### 3.4.1.2 Soils Associations

A soil association is a distinctive pattern of soils, relief, and drainage, and is a unique natural landscape. Typically, an association consists of one or more major soils and additional minor soils. The soil association is named for the major soil series which characterize it. There are nine soils associations found within the study area.

- **The Saybrook-Parr-Drummer-Dana Association** is a fine-silty and fine-loamy calcareous till found on till plains. They are typically deep to very deep and poor to moderately well drained. The slope ranges from 0 to 20 percent. Use of most soils in this association includes cultivation. Native vegetation is generally tall prairie grasses with some hydrophytic grasses, reeds, and sedges (U.S. Department of Agriculture-Natural Resources Conservation Service [USDA-NRCS] 2011).

- **The Milford-Martinton Association** is very deep, ranging from very poorly to somewhat poorly drained soils. They formed in lacustrine sediments on glacial lake plains which would be typical of Glacial Lake Michigan. The slope ranges from 0 to 6 percent. Use of most soils in this association includes cultivation. The native vegetation is prairie grasses, marsh grasses, and sedges (USDA-NRCS 2011).
- **The Rockton-Joliet-Faxon-Channahon Association** consists of moderately deep, well drained soils that overlay limestone or dolostone bedrock, rock-cored terraces, or structural benches. They formed on lake plains, outwash plains, and stream terraces. The slope ranges from 0 to 25 percent. Uses of the soils in this association include general farming or pasture grazing. The native vegetation is short and tall prairie grasses (USDA-NRCS 2011).
- **The Morley-Markham-Beecher-Ashkum Association** are very deep, moderately well drained soils that formed in a thick layer of silty material and in the underlying silty clay loam of glacial moraines and till plains. The slope ranges from 0 to 20 percent. Use of the soils in this association includes cropland. Native vegetation is a mix of hardwood forest, prairie grasses, and marsh grasses and sedges (USDA-NRCS 2011).
- **The Urban land-Milford Association** is a combination of unassociated urban land and the Milford series that consists of very deep, poorly to very poorly drained soils, which are formed in lacustrine sediments. These soils are on glacial lake plains and have a slope range from 0 to 2 percent. Uses of the soils for this area include urban surroundings or cultivation. The native vegetation is marsh grasses and sedges (USDA-NRCS 2011).
- **The Urban land-Markham-Ashkum Association** is a mix of urban land and very deep, moderately well drained soils that formed in a thick layer of silty material and in the underlying silty clay loam of glacial moraines and till plains. The slope ranges from 0 to 20 percent. Use of the soils in this association includes cultivation. Native vegetation is a mix of hardwood forest, prairie grasses, and marsh grasses and sedges (USDA-NRCS 2011).
- **The Urban land-Selma-Oakville Association** is a mix of urban land and very deep, poorly drained soils formed in loamy outwash. They reside on nearly level or slightly depressional parts of outwash plains, stream terraces, or lake plains. The slope ranges from 0 to 2 percent. Use of the soils in this association includes cultivation. The native vegetation is hydrophytic grasses, reeds, and sedges (USDA-NRCS 2011).
- **The Sparta-Maumee-Gilford Association** is very deep, excessively drained to very poorly drained soils formed in sandy outwash and reworked by the wind. These soils are level to very steep treads and risers on stream terraces in river valleys, outwash terraces, outwash plains, and dune fields. The slope ranges from 0 to 40 percent. Use of most of these soils includes cultivation. The native vegetation is mixed large and small grasses with widely spaced deciduous trees, which is characteristic of a dominantly herbaceous wetland (USDA-NRCS 2011).

- **The Spinks-Coloma Association** is very deep, well to excessively drained soils that formed in sandy eolian or outwash material. They are on dunes, moraines, till plains, outwash plains, beach ridges, and lake plains, which is consistent with the location of the Proposed Transaction. The slope ranges from 0 to 70 percent. Use of these soils includes hay production or pasture with some crop production and forage production. The native vegetation is hardwood forest (USDA-NRCS 2011).

### 3.4.1.3 Hazardous Waste Sites

CSXT indicates that it identified hazardous waste and hazardous material spill sites near or on the Elsdon Line using USEPA and IEPA environmental databases. In addition, it assessed the reported releases on the Elsdon Line to determine the potential effects. Hazardous waste sites are expected in areas where the land use is predominantly industrial. However, other uses such as commercial or retail properties may also use hazardous materials. The analysis included a review of reported releases of hazardous materials on railroad properties from 2000 to 2010 in the Chicago area. Reported incidents did not list the Elsdon Line. The incidents that the GTW reported took place predominantly within the Glenn Yard or in areas that would not be connected to the Elsdon Line.

The USEPA EnvironMapper program was used to look for sites that are being tracked through USEPA under the Brownfields, Resource Conservation and Recovery Act (RCRA), Superfund, Federal Facilities and Recovery Act sites. There were no databases that listed the Elsdon Line itself. Table 3.4-1 lists sites located adjacent to the Elsdon Line that were tracked through USEPA. The status of these facilities is unknown.

<b>Table 3.4-1. USEPA-Listed Sites Adjacent to the Elsdon Line</b>				
<b>Segment No.</b>	<b>Site Name</b>	<b>Address</b>	<b>City and State</b>	<b>Zip</b>
GTW-02	American Bus Co	17727 Volbrecht Rd	Lansing, IL	60438
GTW-02	Calumet Transit Co	17805 Volbrecht	Lansing, IL	60438
GTW-02	Classic Collision Inc	17931 Chappel	Lansing, IL	60438
GTW-02	Douglas Cleaners Inc	17865 Chappel Ave	Lansing, IL	60438
GTW-02	Scot Lad Foods	17725 Volbrecht Rd	Lansing, IL	60438
GTW-02	William C Haak Trucking	179 <sup>th</sup> St & Stony Island	Lansing, IL	60438
GTW-03	Finish Line Automotive	150 E 168 <sup>th</sup> St	South Holland, IL	60473
GTW-03	Gibraltar Chemical Works Inc	114 E 168 <sup>th</sup> St	South Holland, IL	60473
GTW-03	Rotaskipper Corp	130 E 168 <sup>th</sup> St	South Holland, IL	60473
GTW-03	Stremstra, Donald	160 E 168 <sup>th</sup> St	South Holland, IL	60473
GTW-03	Vanderbilt Garage	160 E 168 <sup>th</sup> St	South Holland, IL	60473
GTW-03	Chicago Air Power	16545 State St	South Holland, IL	60473
GTW-03	Hoekstra Uniform Rental Service	16618 State St	South Holland, IL	60473
GTW-03	Ability Engineering	16140 S Vincennes Rd	South Holland, IL	60473
GTW-03	Car Craft Bodyshop	16148 Vandustrial Ln	South Holland, IL	60473

<b>Table 3.4-1. USEPA-Listed Sites Adjacent to the Elsdon Line</b>				
<b>Segment No.</b>	<b>Site Name</b>	<b>Address</b>	<b>City and State</b>	<b>Zip</b>
GTW-03	Ct Chemical Corp	16100 Vandustrial Dr	South Holland, IL	60473
GTW-03	Goodyear	239 W 162 <sup>nd</sup> St	South Holland, IL	60473
GTW-03	Jats Drive Shaft Inc	16104 S Vandustrial Dr	South Holland, IL	60473
GTW-03	Sgs Control Svcs Inc	16130 Van Drunen Rd-B	South Holland, IL	60473
GTW-03	Silloriquiez, Bert	16130 Van Drunen Rd	South Holland, IL	60473
GTW-03	South Chicago Disposal Corp	16055 Van Drunen Rd	South Holland, IL	60473
GTW-03	West Side Tractor Sales Co	310 W 162 <sup>nd</sup> St	South Holland, IL	60473
GTW-04	Voss Equipment Inc	15241 S Commercial Ave	Harvey, IL	60426
GTW-04	Thornton High School	151 <sup>st</sup> St & Broadway	Harvey, IL	60426
GTW-04	Falkner Bumper Inc	14810 S Myrtle Ave	Harvey, IL	60426
GTW-04	Harvey Park District	149 <sup>th</sup> St and Vine	Harvey, IL	60426
GTW-04	Harvey Photo Engravers Inc	14819 Loomis Ave	Harvey, IL	60426
GTW-04	Weltmeyer Auto	14752 Spaulding	Harvey, IL	60426
GTW-04	Harvey Site 1 (Former Wyman-Gordon Facility)	14500 S Wood St	Harvey, IL	60426
GTW-04	Harvey Site 2 (Former Wyman-Gordon Facility)	14500 S Wood St	Harvey, IL	60426
GTW-04	Harvey Site 3 (Former Wyman-Gordon Facility)	14500 S Wood St	Harvey, IL	60426
GTW-04	Harvey Site 4 (Former Wyman-Gordon Facility)	14500 S Wood St	Harvey, IL	60426
GTW-04	Harvey Site 5 (Former Wyman-Gordon Facility)	14500 S Wood St	Harvey, IL	60426
GTW-04	Harvey Site 6 (Former Wyman-Gordon Facility)	14500 S Wood St	Harvey, IL	60426
GTW-04	Harvey Site 7 (Former Wyman-Gordon Facility)	14500 S Wood St	Harvey, IL	60426
GTW-04	Weldon Industries Inc	14527 S Lincoln Ave	Harvey, IL	60426
GTW-04	Wyman Gordon Co/Midwest Division	14600 S Wood St	Harvey, IL	60426
GTW-04	National Railway Equipment Co	14400 S Robey St	Dixmoor, IL	60426
GTW-04	Brule C E & E Inc	13920 S Western Ave	Posen, IL	60469
GTW-04	M & O Environmental Co	14101 S Western Ave	Dixmoor, IL	60406
GTW-04	Meiser G H And Co	2407 W 140 <sup>th</sup> Pl	Posen, IL	60469
GTW-04	Posen Chemical Fire	2437 W 139 <sup>th</sup> Pl	Posen, IL	60469
GTW-05	Allied Building Products	13601 S Western Ave	Blue Island, IL	60406
GTW-05	Designing And Railroad	13636 S Western Ave Site B	Blue Island, IL	60406
GTW-05	Ludlow Industrial Realities Inc Site A	13636 S Western Ave	Blue Island, IL	60406
GTW-05	Modern Drop Forge Co	13810 S Western Ave	Blue Island, IL	60406
GTW-05	Namaste Labs Llc	13636 S Western Ave	Blue Island, IL	60406
GTW-05	Van Dyck Construction	2750 York St	Blue Island, IL	60406
GTW-05	Blue Island Service Center Inc	2940-B W 127 <sup>th</sup> St	Blue Island, IL	60406
GTW-05	Broadway Auto Rebuilders	2940 W Minnesota Ave	Blue Island, IL	60406
GTW-05	Napleton Lincoln Mercury	2950 W 127 <sup>th</sup> St	Blue Island, IL	60406

<b>Table 3.4-1. USEPA-Listed Sites Adjacent to the Elsdon Line</b>				
<b>Segment No.</b>	<b>Site Name</b>	<b>Address</b>	<b>City and State</b>	<b>Zip</b>
GTW-05	Gsf Energy Inc	2940 W 123 <sup>rd</sup> St	Blue Island, IL	60406
GTW-05	Annie Keller Magnet	3020 W 108 <sup>th</sup> St	Chicago, IL	60655
GTW-05	Ridge Country Club	10522 S California	Chicago, IL	60655
GTW-05	Shell Oil Co	3158 W 95 <sup>th</sup> St	Evergreen Park, IL	60805
GTW-05	M & D Flexographic Printers Inc	3600 W 83 <sup>rd</sup> Pl	Chicago, IL	60652
GTW-05	73 <sup>rd</sup> St Station	3625 W 73 <sup>rd</sup> St	Chicago, IL	60629
GTW-05	Illinois Bell DbA AT&T II	3605 W 63 <sup>rd</sup> St	Chicago, IL	60629
GTW-05	Lang Ice Company	3600 W 59 <sup>th</sup> St	Chicago, IL	60629

Source: USEPA 2011, EnviroMapper, <http://www.epa.gov/envirofw/emef/>.

### 3.4.2 Environmental Impacts

#### 3.4.2.1 Proposed Transaction

There is no construction associated with the Proposed Transaction. Therefore, no activities would disturb soils within the study area. The Proposed Transaction would not result in adverse impacts to geologic or soil resources or hazardous waste sites.

#### 3.4.2.2 No-Action Alternative

Under the No-Action Alternative, no impacts to geologic or soil resources or hazardous waste sites would occur.

### 3.5 Water Resources

This section discusses the affected environment and potential environmental effects of the Proposed Transaction on water resources in the study area. The study area for water resources is the Elsdon Line (segments GTW-01 through 06). Water resources are natural and manmade sources of water that are available for use by, and for the benefit of, humans and the environment. This analysis includes groundwater, surface water, floodplains, wetlands, and water quality. Water resources were identified using the U.S. Geological Survey (USGS) 7.5-minute series quadrangle topographic maps, local USGS National Hydraulic Datasets, U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI), Natural Resources Conservation Service (NRCS) soil surveys, Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM), lists of impaired waters for Illinois and Indiana prepared under the Clean Water Act (CWA) section 303(d), and publicly available aerial photographs. The review of water resources examined areas immediately adjacent to the project right-of-way.

Operational activities that may have potential impacts on water resources may be regulated by several state and federal agencies, including the following:

#### **USEPA:**

- Section 402 of the CWA – National Pollutant Discharge Elimination System (NPDES) authorizes storm water discharges to waters of the U.S.
- Section 404 of the CWA – USEPA reviews and comments on U.S. Army Corps of Engineers (USACE) Section 404 permit applications for compliance with the Section 404(b)(1) guidelines and other statutes and authorities within its jurisdiction.
- Safe Drinking Water Act (42 U.S.C] § 300f *et seq.*) protects the quality of public drinking water and its sources.

#### **USACE:**

- Section 10 of the Rivers and Harbors Act regulates placement of structures over, under, or within navigable waters of the U.S.
- Section 404 of the CWA regulates discharge of fill material to waters of the U.S.
- EO 11990, Protection of Wetlands (24 May 1977)
- EO 11988, Floodplain Management (24 May 1977)

#### **IEPA and IDEM:**

- Section 401 of the CWA – Water Quality Certification
- Section 402 of the CWA – General NPDES permit for construction-related storm water discharges

#### 3.5.1 Affected Environment

The Proposed Transaction lies within the USGS 8-digit Hydraulic Unit Code (HUC) 07120003, the Chicago/Calumet basin. The Chicago/Calumet basin is part of the Upper

Illinois basin (HUC 071200) which drains to the Illinois River and ultimately the Gulf of Mexico via the Mississippi River.

### 3.5.1.1 Surface Water

The Proposed Transaction occurs within the Chicago metro area, including areas in both Illinois and Indiana. Surface water in the study area shows significant alterations, as is typical for large urban environments. Surface water resources include lakes, ponds, and surface flows (rivers and streams) adjacent to the Proposed Transaction. The study area crosses seven surface flows (Table 3.5-1).

<b>Surface Flow Name</b>	<b>Flow Type</b>
North Creek	Perennial
Hart Ditch	Perennial
Thorn Creek	Perennial
Calumet Union Drainage Ditch	Perennial
Midlothian Creek	Perennial
Calumet-Saganashkee (Cal-Sag) Channel	Perennial
Unnamed Drainage Ditch Tributary to the Cal-Sag Channel	Perennial

Source: USGS 2011, National Hydrography Dataset, <http://nhd.usgs.gov/>.

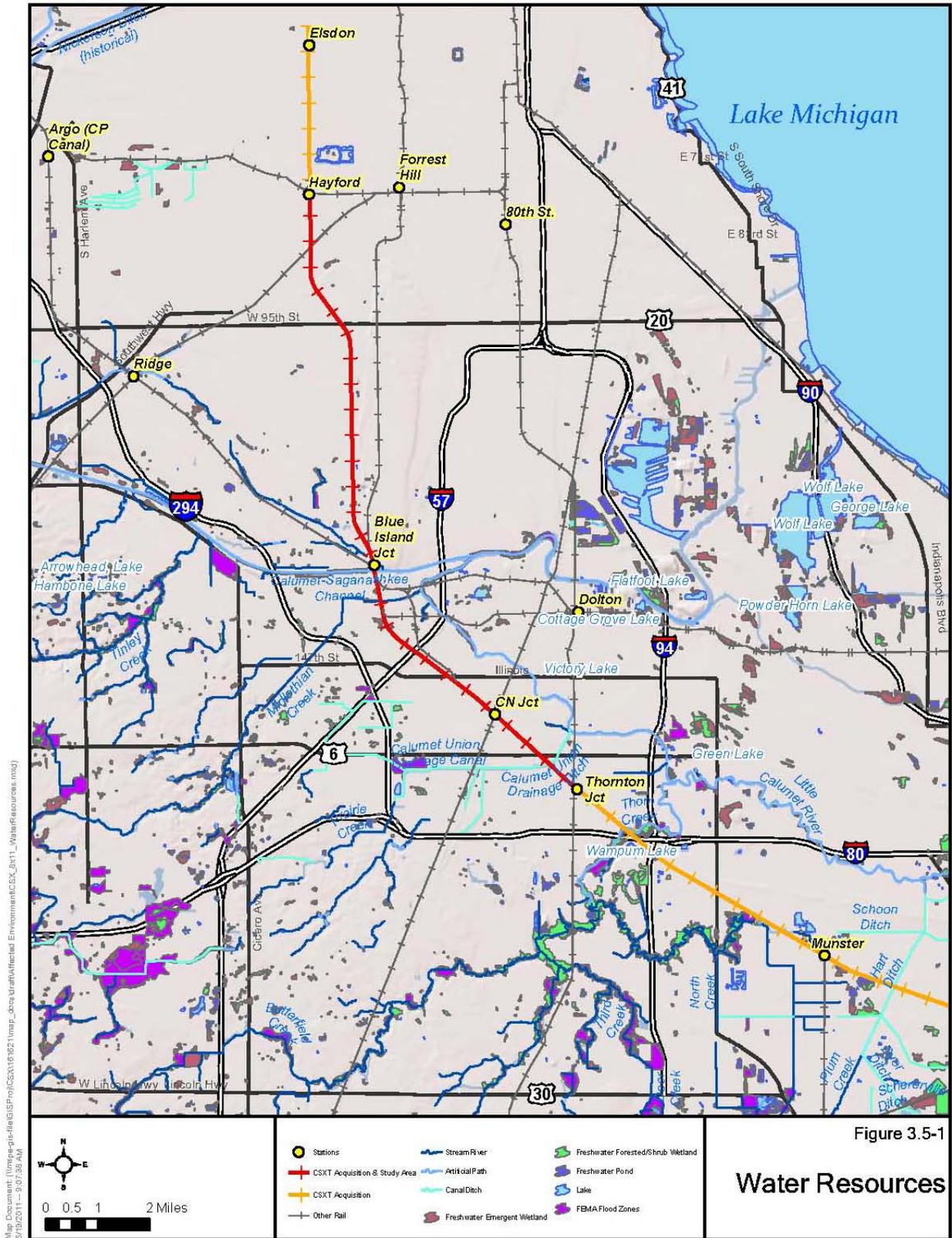
Figure 3.5-1 shows surface flow water features associated with the Proposed Transaction. There are six pond features, per USFWS NWI definition, adjacent to the study area.

### 3.5.1.2 Groundwater

The groundwater system in the project area consists mainly of water-yielding sand and gravel deposits of glacial drift varying from less than one foot to more than 400 feet thick (Suter et al. 1959).

Across the region several sources use groundwater, including public water supplies (community and non-community systems), domestic supplies (where public water supplies are unavailable), and industry. There is limited access to and display of information on public water supplies for purposes of homeland security. Designation of wellhead protection areas required under the Illinois Groundwater Protection Act of 1987 protects public water supplies by applying land-use controls in the vicinity of public water supply wells (415 Illinois Compiled Statutes [ILCS] 55). The wellhead protection program of the IEPA limits new potential sources and potential routes of contamination within fixed radii around public water supply wells. Illinois state law defines sources and routes of contamination as fixed facilities (415 ILCS 55). As such, the controls of the wellhead protection program do not apply to rail lines, highways, pipelines, or other transportation corridors.

Figure 3.5-1. Water Resources



### 3.5.1.3 Floodplains

Floodplains are the low, flat, periodically flooded lands adjacent to rivers, lakes, and oceans and subject to geomorphic (land-shaping) and hydrologic (water flow) processes. State and federal laws regulate floodplains to promote and ensure sound land-use development in floodplain areas.

FEMA has mapped floodplains nationwide. FEMA defines a 100-year flood zone as “the flood elevation that has a one-percent chance of being equaled or exceeded each year. The 100-year flood is that standard used by most federal and state agencies and is used by the National Flood Insurance Program as the standard for floodplain management and determination of flood insurance” (FEMA 2010).

FEMA maps were reviewed to determine the presence of any floodplains adjacent to or crossed by the Proposed Transaction. This search identified seven floodplains: Thorn Creek, North Creek, Midlothian Creek, Cal-Sag Canal, Calumet Drainage Canal, Hart Ditch, and an unnamed drainage ditch tributary to the Little Calumet River. All have floodplain zones classified as 100-year elevations. The Proposed Transaction would cross all seven floodplains.

### 3.5.1.4 Wetlands

Wetlands are areas where water is at or near the surface for all or some part of the year, including the growing season. Under normal conditions, which refer to areas not filled, developed, drained, or tiled, three conditions define wetlands: 1) a predominance of plant species adapted to prolonged presence of water (hydrophytes); 2) the presence of hydric soils that develop in wetland conditions; and 3) water at or near the surface for a defined portion of the growing season.

USFWS NWI mapping was used to identify wetlands located adjacent to the Elsdon Line that might be affected by the Proposed Transaction. Starting in the 1970s, USFWS produced NWI maps based on aerial photographs and NRCS soil survey maps. Because land use has changed since the 1970s, wetlands in the NWI maps sometimes do not reflect all current wetland conditions; however, NWIs are the most accurate and readily available database of wetland resources. NWIs show that there are four palustrine emergent wetlands and four palustrine forested wetlands adjacent to the Elsdon Line. Figure 3.5-1 shows wetlands in the study area. Some of these wetland areas are part of a larger wetland complex and/or wetland areas associated with major waterways. Furthermore, these wetlands are habitat for a variety of plants and animals. Section 3.6, Biological Resources, addresses habitat considerations for these wetland areas.

### 3.5.1.5 Water Quality

Section 303(d) of the Clean Water Act (CWA) requires states to publish a list of streams and lakes every two years that are not meeting their designated uses because of excess pollutants. These are referred to as impaired waters. The list, known as the 303(d) list, is based on

violations of water quality standards. In Illinois and in Indiana, IEPA and IDEM, respectively, have jurisdiction to determine each state's respective 303(d) waters. Out of the 7 surface flows crossed by the Elsdon Line, three are impaired. All of the impaired waters that the Elsdon Line crosses occur within the State of Illinois. Table presents the impaired waters the Elsdon Line crosses and their respective 303(d) listed impairment.

<b>Table 3.5-2. Section 303(d)-Listed Water Resources</b>		
<b>Resource Name</b>	<b>Designated Use</b>	<b>Impairment</b>
North Creek	Aquatic Life	Hexachlorobenzene, Sedimentation/Siltation
Thorn Creek	Aquatic Life, Primary Contact Recreation	Aldrin, Chlordane, Chloride, DDT, Deildrin, Endrin, Hexachlorobenzene, Polychlorinated Biphenyls, Phosphorus (Total), Fecal Coliform
Cal-Sag Canal	Fish Consumption	Mercury, Polychlorinated Biphenyls

Source: IEPA 2010, Illinois Integrated Water Quality Report and Section 303(d) List – 2010, <http://www.epa.state.il.us/water/tmdl/303d-list.html>.

### 3.5.2 Environmental Impacts

#### 3.5.2.1 Proposed Transaction

There is no construction associated with the Proposed Transaction. Under the Proposed Transaction, the number of trains moving over the already existing Elsdon Line will increase in some locations and decrease in others. This shift in train traffic around the Chicago Terminal will not impact water resources. Given the fact that this proposal involves an easement over an existing rail line, and that there is no construction associated with the Proposed Transaction the Proposed Transaction would have minimal impacts on water resources.

#### 3.5.2.2 No-Action Alternative

The No-Action Alternative would not impact water resources.

## 3.6 Biological Resources

### 3.6.1 Affected Environment

This section describes the affected environment and potential impacts to vegetation, wildlife, and threatened and endangered species resulting from the Proposed Transaction. The study area was defined as the 0.25-mile buffer around the Elsdon Line. USFWS regulates, through the Endangered Species Act (ESA) of 1973 (16 U.S.C. §§ 1531–1544), operational activities that could potentially impact biological resources. ESA protects federally designated endangered or threatened species and critical habitat. The following state and federal laws also may apply to the Proposed Transaction:

- Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. §§ 703–712, as amended)
- Fish and Wildlife Coordination Act of 1934 (FWCA), as amended in 1946, 1958 and 1977 (16 U.S.C. §§ 661–667c)
- Illinois ESA (520 ICS § 10)
- Illinois Natural Areas Protection Act (ILNAPA) (525 ICS § 30)
- Indiana Nongame and Endangered Species Act of 1973 (INNESA) (Indiana Code [IC] 14 22 34)
- Indiana Nature Preserves Act (INNPA) (IC 14 31 1)
- INDNR Fish and Wildlife Administrative Rules (312 Indiana Administrative Code § 9)

Existing biological resources in the study area were identified using aerial photography, USGS topographic maps, and geographic information systems files. Information was also reviewed on biological resources that could potentially be impacted by the Proposed Transaction from the following organizations:

- USFWS (Illinois and Indiana offices)
- The Nature Conservancy (TNC) (Illinois and Indiana offices)
- Chicago Wilderness (CW)
- ILDNR
- Illinois Natural History Survey
- INDNR
- Forest Preserve District of Cook County
- Lake County (Indiana) Parks and Recreation District
- Chicago Metropolitan Agency for Planning, formerly Northeastern Illinois Planning Commission

In addition, OEA conducted its own limited field investigation, including a hi-rail<sup>37</sup> trip, in April 2011, near public roads and rights-of-way within the study area.

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<sup>37</sup> A hi-rail is a self-propelled road-rail vehicle that can be legally used on both roads and rails. Sometimes referred to as a “Hyrail” or “HiRail,” HiRails are normally converted rubber-tired road vehicles that have additional steel wheels for running on rails.

Table 3.6-1 shows the change in train traffic for each segment of the Elsdon Line and what county that segment is located in.

<b>Table 3.6-1. Proposed Transaction Traffic Changes</b>						
<b>Segment No.</b>	<b>Length (miles)</b>	<b>Station</b>	<b>Existing Trains</b>	<b>Proposed Trains</b>	<b>Change</b>	<b>Location<sup>a</sup></b>
<b>Elsdon Subdivision (MP 36.1 to 8.7)</b>						
GTW-01	5.1	Griffith to Munster	9.7	6.8	-2.9	Lake County, Indiana <sup>b</sup>
GTW-02	5.8	Munster to Thornton Jct	9.7	8.9	-0.8	Lake County Indiana, and Cook County, Illinois <sup>c</sup>
GTW-03	2.0	Thornton Jct to CN Jct	8.6	18.7	+10.1	Cook County, Illinois <sup>d</sup>
GTW-04	3.9	CN Jct to Blue Island Jct	6.0	16.7	+10.7	Cook County, Illinois <sup>d</sup>
GTW-05	7.5	Blue Island Jct to Hayford	3.5	23.0	+19.5	Cook County, Illinois <sup>d</sup>
GTW-06	3.1	Hayford to Elsdon (Corwith)	0.0	0.0	0.0	Cook County, Illinois <sup>d</sup>
<b>Monon Subdivision</b>						
CSXT-01	3.4	Dyer to Munster	2.0	2.0	0.0	Lake County, Indiana <sup>b</sup>
<b>Blue Island Subdivision (MP 23.0 to 15.1)</b>						
CSXT-02	7.4	Blue Island Junction to Forrest Hill	32.0	32.0	0.0	Cook County, Illinois <sup>d</sup>
CSXT-03	0.5	Forrest Hill to 59 <sup>th</sup> St Yard	32.0	32.0	0.0	Cook County, Illinois <sup>d</sup>
<b>BRC Subdivision</b>						
BRC-01	2.6	80 <sup>th</sup> St to Forest Hill	26.0	22.0	-4.0	Cook County, Illinois <sup>d</sup>
BRC-02	1.7	Forrest Hill to Hayford	26.0	22.0	-4.0	Cook County, Illinois <sup>d</sup>
<b>Villa Grove Subdivision (MP 30.4 to 9.7)</b>						
UP-01	10.3	Crete to Thornton Jct	16.0	16.0	0.0	Cook County, Illinois <sup>d</sup>
UP-02	3.4	Thornton Jct to Dolton	16.0	2.0	-11.7	Cook County, Illinois <sup>d</sup>
UP-03	7.0	Dolton to 81 <sup>st</sup> St	26.0	22.0	-4.0	Cook County, Illinois <sup>d</sup>
<b>IHB Subdivision (MP 27.0 to 15.2)</b>						
IHB-01	6.0	Blue Island Jct to Ridge	22.0	6.0	-16.0	Cook County, Illinois <sup>d</sup>
IHB-02	5.8	Ridge to Argo (CP Canal)	22.0	6.0	-16.0	Cook County, Illinois <sup>d</sup>

<sup>b</sup> USFWS (ESA), MBTA, FWCA, INNESA, INNPA, INDNR.

<sup>c</sup> USFWS (ESA), MBTA, FWCA, ILESA, ILNAPA, INNESA, INNPA, INDNR.

<sup>d</sup> USFWS (ESA), MBTA, FWCA, ILESA, ILNAPA

### 3.6.1.1 Vegetation

The entire study area is within the Chicago Wilderness (CW) region.<sup>38</sup> Local and state government agencies generally recognize the CW plant community classification system as authoritative. Therefore, vegetation descriptions within the study area are based on this system.

The CW is a regional nature reserve that includes more than 225,000 acres of protected natural lands. The CW region stretches from southeastern Wisconsin, through northeastern Illinois, and into northwestern Indiana. The protected lands within the CW include forest preserves, state parks, federal lands, county preserves, and privately owned lands. In addition, many unprotected natural areas exist within the CW that offer refuge to native wildlife. This network of wild spaces contains globally significant natural communities (Sullivan 1997; CW 2006).

The CW consortium has studied and classified plant communities in the CW region (Sullivan 1997; CW 2006). According to the CW plant community classification system, large portions of the land that the Proposed Transaction crosses once contained native plant communities. Land conversion to crop (corn, soybeans and wheat), industrial, commercial, and residential use have displaced many of these native plant communities. Currently, the remaining native plant communities vary from high-quality to highly impacted. Reviewed literature found several species of invasive and non-native plants throughout the study area. Where vegetation is present, plant communities found in the study area include forests, prairies, savannas, and wetlands.

Within the study area, four forest types occur (upland, floodplain, flatland, or woodland). Sparse, open-grown trees, with or without shrubs, and a continuous herbaceous ground cover typically dominated by grasses, sedges, and other herbaceous forbs are characteristics of savannas. Herbaceous plants, especially grasses, dominate prairie communities. Trees are either absent, or widely scattered on the landscape. The CW region of Illinois and Indiana contains several prairie subclasses such as 1) fine-textured soil prairies, 2) sand prairies, 3) gravel prairies, and 4) dolomite prairies. Wetland communities have saturated or flooded soils for all or most of the year. CW contains numerous wetland communities, including marshes, bogs, fens, sedge meadows, and seeps and springs. As discussed in Section 3.5, Water Resources, the Elsdon Line study area includes six ponds and seven streams. The Elsdon Line also crosses seven floodplains. The USFWS NWI mapping was used to identify wetlands located adjacent to the Elsdon Line; four palustrine emergent wetlands and four palustrine forested wetlands were identified. Figure 3.5-1 shows wetlands in the study area. Some of these wetland areas are part of a larger wetland complex and/or wetland areas

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<sup>38</sup> The Chicago Wilderness Region is one of North America's largest metropolitan regions and stretching from southeastern Wisconsin, through northeastern Illinois, into northwestern Indiana and southwestern Michigan is a network of natural areas that includes nearly 370,000 acres of protected lands and waters.

associated with major waterways. These wetland areas are habitat for a variety of plants and animals.

Over the years, various human disturbances in the Proposed Transaction study area have introduced invasive or non-native plant species. These activities include road construction and clearing of native vegetation for agricultural, commercial, industrial, and residential land uses. Invasive species threaten almost every type of natural community in the CW. They potentially dominate and out-compete native species communities and greatly decrease the biodiversity of the ecosystems they invade (Chicago Department of Environment 2009). Table 3.6-2 lists common invasive plant species in the Elsdon Line area. Native Threatened & Endangered plant species are listed in Table 3.6-4.

<b>Table 3.6-2. Common Invasive Plants Found in the Study Area</b>	
<b>Common Name</b>	<b>Scientific Name</b>
Privet	<i>Ligustrum spp.</i>
Japanese knotweed	<i>Polygonum cuspidatum</i>
Garlic mustard	<i>Alliaria petiolata</i>
Canada thistle	<i>Cirsium arvense</i>
Crown vetch	<i>Coronilla varia</i>
Cut-leaved teasel	<i>Dipsacus laciniatus</i>
Common teasel	<i>Dipsacus sylvestris</i>
Exotic honeysuckle	<i>Lonicera spp.</i>
Purple loosestrife	<i>Lythrum salicaria</i>
Reed canary grass	<i>Phalaris arundinacea</i>
Exotic buckthorns	<i>Rhamnus spp.</i>
Multiflora rose	<i>Rosa multiflora</i>

Source: Chicago Department of Environment 2009, City of Chicago Guide to Land-Based Invasive Plant, [http://www.cityofchicago.org/content/dam/city/depts/doe/general/NaturalResourcesAndWaterConservation\\_PDFs/InvasiveSpecies/LandbasedInvasivePlantBrochure2009.pdf](http://www.cityofchicago.org/content/dam/city/depts/doe/general/NaturalResourcesAndWaterConservation_PDFs/InvasiveSpecies/LandbasedInvasivePlantBrochure2009.pdf).

Application of herbicides and brush cutting or mowing where spraying is ineffective are the techniques currently used to manage vegetation within the ROW of the Elsdon Line. Control programs are designed and herbicides vary according to the particular species being controlled. All herbicide applicators are qualified by USEPA.

### **3.6.1.2 Wildlife Habitat**

ILDNR and INDNR, along with other state departments, federal agencies, and county and local agencies manage the parks, preserves, and natural areas in the Proposed Transaction study area.

In 1967, the General Assembly of Indiana established, through an act, the Indiana Nature Preserves. INDNR administers these lands through the Division of Nature Preserves.

Preserves do not need to be state-owned, but once designated, are protected by the state in perpetuity from development that would alter their natural character.

Nature Preserves provide permanent protection to significant natural areas. Natural features afforded protection under the Preserves system are those that have “retained or re-established natural character, or have unusual flora or fauna, or [have] biotic, geological, scenic or paleontological features of scientific or educational value” (INDNR 2011a).

Hoosier Prairie, near Griffith, Indiana, is located near the Proposed Transaction study area (

Figure 3.6-1). Hoosier Prairie is a large (approximately 600-acre) remnant of the prairie landscape once common in northwestern Indiana. The National Park Service administers the site as a National Natural Landmark as a part of the Indiana Dunes National Lakeshore. INDNR Division of Nature Preserves owns and manages the site. This tract preserves the topographic and biotic diversity of the sand plains north of the Valparaiso Moraine. Plant diversity is exceptionally high, owing to a wide range of moisture conditions. Sand rises support dry black oak savannas. The preserve depressions and flats contain wet prairies, sedge meadows and marshes. Its size and plant diversity make Hoosier Prairie an excellent place to see native birds and other animals in their natural surroundings. Many of these animals are now rare in Indiana because their native habitats have disappeared. Controlled burns help manage and suppress woody prairie invasive species (INDNR 2011b; TNC 2011).

The Forest Preserve District of Cook County, Illinois, owns and manages the local forest preserves near the study area. The District protects these dynamic and unique systems and develops various educational, recreational, and cultural opportunities related to them.

The study area crosses Wampum Lake Cook County Forest Preserve (

Figure 3.6-1). This 375-acre preserve is situated between the towns of Thornton and Lansing. “The sandy soils around Wampum Lake Woods foster trees, shrubs, wildflowers, and other plants uncommon in this region”. Skunk cabbage, wild geraniums, cinnamon ferns, phlox, and toothwort scatter color among the trees in warmer weather” (Larys 2003).

Lake County Illinois Parks and Recreation owns and operates a variety of parks for the purposes of recreation and conservation. This local government agency protects a variety of unique ecosystems and provides opportunities for a range of education, conservation, and recreation activities.

In addition to Hoosier Prairie, Wampum Lake Forest Preserve, and Lake County Illinois Parks and Recreation, there are several other county parks, city parks, trails, and golf courses which provide habitat for wildlife within the Proposed Transaction study area. Although wildlife occurs within the study area, habitat within the ROW is of low suitability because of lack of habitat diversity and cover due to vegetation control management. Table 3.6-3 lists some of the more common wildlife species known to occur in the study area.

<b>Table 3.6-3. Common Wildlife Species Found in the Study Area</b>	
<b>Common Name</b>	<b>Scientific Name</b>
<b>Mammals</b>	
Eastern cottontail	<i>Sylvilagus floridanus</i>
Eastern chipmunk	<i>Tamias striatus</i>
Gray squirrel	<i>Sciurus carolinensis</i>
Fox squirrel	<i>Sciurus niger</i>
White-footed mouse	<i>Peromyscus leucopus</i>
Coyote	<i>Canis latrans</i>
Red fox	<i>Vulpes vulpes</i>
Raccoon	<i>Procyon lotor</i>
White tailed deer	<i>Odocoileus virginianus</i>
<b>Birds</b>	
Northern oriole	<i>Icterus glabula</i>
Red-headed woodpecker	<i>Melanerpes erythrocephalus</i>
Red-bellied woodpecker	<i>Lelanerpes carolinus</i>
Eastern towhee	<i>Pipilo erythrophthalmus</i>
Yellow-billed cuckoo	<i>Coccyzus americanus</i>
Great horned owl	<i>Bubo virginianus</i>
Barred owl	<i>Strix varia</i>
Eastern meadowlark	<i>Sturnella magna</i>
Downy woodpecker	<i>Picoides pubescens</i>
Eastern bluebird	<i>Sialia sialis</i>
Copper's hawk	<i>Accipiter cooperii</i>
Red-tailed hawk	<i>Buteo jamaicensis</i>
Red-winged black bird	<i>Agelaius phoeniceus</i>
Canada goose	<i>Branta Canadensis</i>
<b>Reptiles</b>	
Common garter snake	<i>Thamnophis sirtalis</i>
Eastern hognose snake	<i>Hetrodon platirhinos</i>
Painted turtle	<i>Chrysemys picta</i>
<b>Amphibians</b>	
Western chorus frog	<i>Pseudacris triseriata</i>
Spring peeper	<i>Pseudacris crucifer</i>
Northern leopard frog	<i>Rana pipiens</i>
American toad	<i>Bufo americanus</i>
Gray tree frog	<i>Hyla versicolor</i>

Source: CW 2011, Chicago Wilderness Atlas of Biodiversity,  
[http://www.chicagowilderness.org/pdf/CW%20Atlas%20of%20Biodiversity\\_2011.pdf](http://www.chicagowilderness.org/pdf/CW%20Atlas%20of%20Biodiversity_2011.pdf).

Large portions of the Proposed Transaction study area that once had native plant communities have been converted to agricultural pastures and/or croplands. The construction of commercial businesses and residential homes, paved and unpaved roads/highway corridors, and irrigation canals, also have contributed to the fragmentation of once-contiguous plant communities. These prior land use changes have disrupted the continuity and function of the original wildlife habitat by affecting the foraging and reproductive habits and migratory movement of many species.

### 3.6.1.3 Threatened, Endangered, and Rare Species

#### Federally-listed Species

The USFWS determines whether a proposed federal action would be likely to adversely affect, harm, or jeopardize the continued existence of any threatened, endangered, or candidate species or its habitat. Table 3.6-4 lists the federally listed species for Cook and Lake Counties that could be impacted in the Proposed Transaction study area.

<b>Table 3.6-4. Federally-listed Threatened &amp; Endangered Species in Cook County, Illinois, &amp; Lake County, Indiana</b>			
<b>Common and Scientific Names</b>	<b>Federal Status</b>	<b>State</b>	<b>Preferred Habitat</b>
<b>Mammals</b>			
Indiana bat <i>Myotis sodalis</i>	E	Indiana	Hibernates during winter in caves or, occasionally, in abandoned mines. For hibernation, they require cool, humid caves with stable temperatures, between 32° F to 50° F.
<b>Birds</b>			
Piping plover <i>Charadrius melodus</i>	E	Illinois	Utilize the open, sandy beaches, barrier islands, and sand spits along the Great Lakes' perimeters. They prefer sparsely vegetated open sand, gravel, or cobble for a nest site.
<b>Insects</b>			
Hine's emerald dragonfly <i>Somatochlora hineana</i>	E	Illinois	Slow moving, shallow waters, spring-fed marshes and sedge meadows
Karner blue butterfly <i>Lycaeides melissa samuelis</i>	E	Indiana	Always occurs in close association with larval host plant wild blue lupine ( <i>Lupinus perennis</i> ). Sandy barrens and oak savanna with periodic fire to retain open character
<b>Flowering Plants</b>			
Mead's milkweed <i>Asclepias meadii</i>	T	Illinois and Indiana	Essentially restricted to sites that have never been plowed and only lightly grazed, and hay meadows that are cropped annually for hay.

<b>Table 3.6-4. Federally-listed Threatened &amp; Endangered Species in Cook County, Illinois, &amp; Lake County, Indiana</b>			
<b>Common and Scientific Names</b>	<b>Federal Status</b>	<b>State</b>	<b>Preferred Habitat</b>
Leafy prairie-clover <i>Dalea foliosa</i>	E	Illinois	Requires full sun and low competition in thin-soiled mesic and wet-mesic dolomite prairie, limestone cedar glades, and limestone barrens.
Pitcher's thistle <i>Cirsium pitcher</i>	T	Indiana	Sand dunes around lakes Michigan, Huron, and eastern Lake Superior
Prairie bush-clover <i>Lespedeza leptostachya</i>	T	Illinois	Grows only in the tallgrass prairie, mainly in dry areas
Eastern prairie fringed orchid (in Illinois) Prairie white-fringed orchid (in Indiana) <i>Platanthera leucophaea</i>	T	Illinois	Open, calcium rich wet meadows and low prairie; occasionally in sedge meadows and on floating bog mats

Source: USFWS 2011a, *Endangered Species by County*, <http://www.fws.gov/endangered/>.

Notes: T- Threatened

E- Endangered

Figure 3.6-1 shows critical or priority habitat mapped areas that are available for these federally listed species near the Proposed Transaction.

### **Indiana Bat**

The USFWS designated critical habitat for the Indiana bat on September 24, 1976. The critical habitat included 11 caves and two mines in six states where the Indiana bat was known to hibernate—three of those caves are in Illinois and Indiana. Blackball Mine (LaSalle County, Illinois), Big Wyandotte Cave (Crawford County, Indiana), and Ray's Cave (Green County, Indiana) are all located more than 50 miles from the Proposed Transaction study area. Indiana bats hibernate during winter in caves or, occasionally, in abandoned mines. For hibernation, they require cool, humid caves with stable temperatures, under 50°F but above freezing. Very few caves within the range of the species have these conditions. The 2009 population estimate (surveys for Indiana bats take place in hibernation caves every two years) was 417,185, a 10.8-percent decrease from the 2007 estimate (USFWS 2011b). This species population estimate had experienced a population increase from 2001 until 2007. The recent decrease in population is likely attributed to deaths caused by white-nosed

syndrome<sup>39</sup> (USFWS 2011c). Because the critical habitat for this species is outside of the Proposed Transaction study area, the Proposed Transaction would not result in any impact.

### **Piping Plover**

USFWS listed the Great Lakes population of piping plovers as endangered on January 10, 1986. In addition, USFWS designated critical habitat on the Great Lakes breeding grounds on May 7, 2001. The Great Lakes population had declined from several hundred breeding pairs to 17 at the time of listing. In the Great Lakes region, piping plovers breed and raise young mainly on sparsely vegetated beaches, cobble pans, and sand spits of glacially formed sand dune ecosystems along the Great Lakes shoreline. On the wintering grounds, piping plovers forage and roost along barrier and mainland beaches; sand, mud, and algal flats; washover passes; salt marshes; and coastal lagoons. Major threats to the Great Lake piping plover population, which currently numbers only 71 breeding pairs, include habitat degradation, predation, and human disturbance (USFWS 2003a). Critical habitat for this species is mapped in Illinois and Indiana outside of the Proposed Transaction study area in Illinois Beach State Park and Indiana Dunes National Lakeshore. Because the critical habitat for this species is outside of the Proposed Transaction study area, the Proposed Transaction would not result in any impact.

### **Hine's Emerald Dragonfly**

The Hine's emerald dragonfly (HED) is the most endangered dragonfly in the U.S. Larval habitat is restricted to marshes, sedge meadows, and seeps fed by calcareous groundwater, underlain by dolomite bedrock. Critical habitat for the HED is mapped within Cook County, Illinois, along Crooked Creek and Saganashkee Slough west of Highway 45. This portion of HED critical habitat is located about five miles west of segment IHB-01 and IHB-02 (USFWS 2011d). The larval stage extends from two to four years depending on local weather conditions. The flight season for HED extends from late May to early October, during which feeding adults fly over open areas including meadows, fields, and shrub lands near suitable breeding habitat. Loss of this species' already rare and restricted habitat to agricultural, commercial, and industrial development is the primary cause of its decline. Loss of remaining habitat from the same pressures, combined with successional change in the existing habitats and disruption of ecological and hydrological processes, are potential threats to surviving populations (USFWS 2001).

Under the Proposed Transaction, fewer CSXT trains will move over the segments IHB-01 and IHB-02. Both of these segments are approximately five miles west of the HED's critical habitat. Therefore, it is unlikely that the Proposed Transaction would result in any impact to the HED.

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<sup>39</sup> A disease affecting hibernating bats.

Figure 3.6-1. Priority Habitat For Federal Listed Species in the Vicinity of the Proposed Project

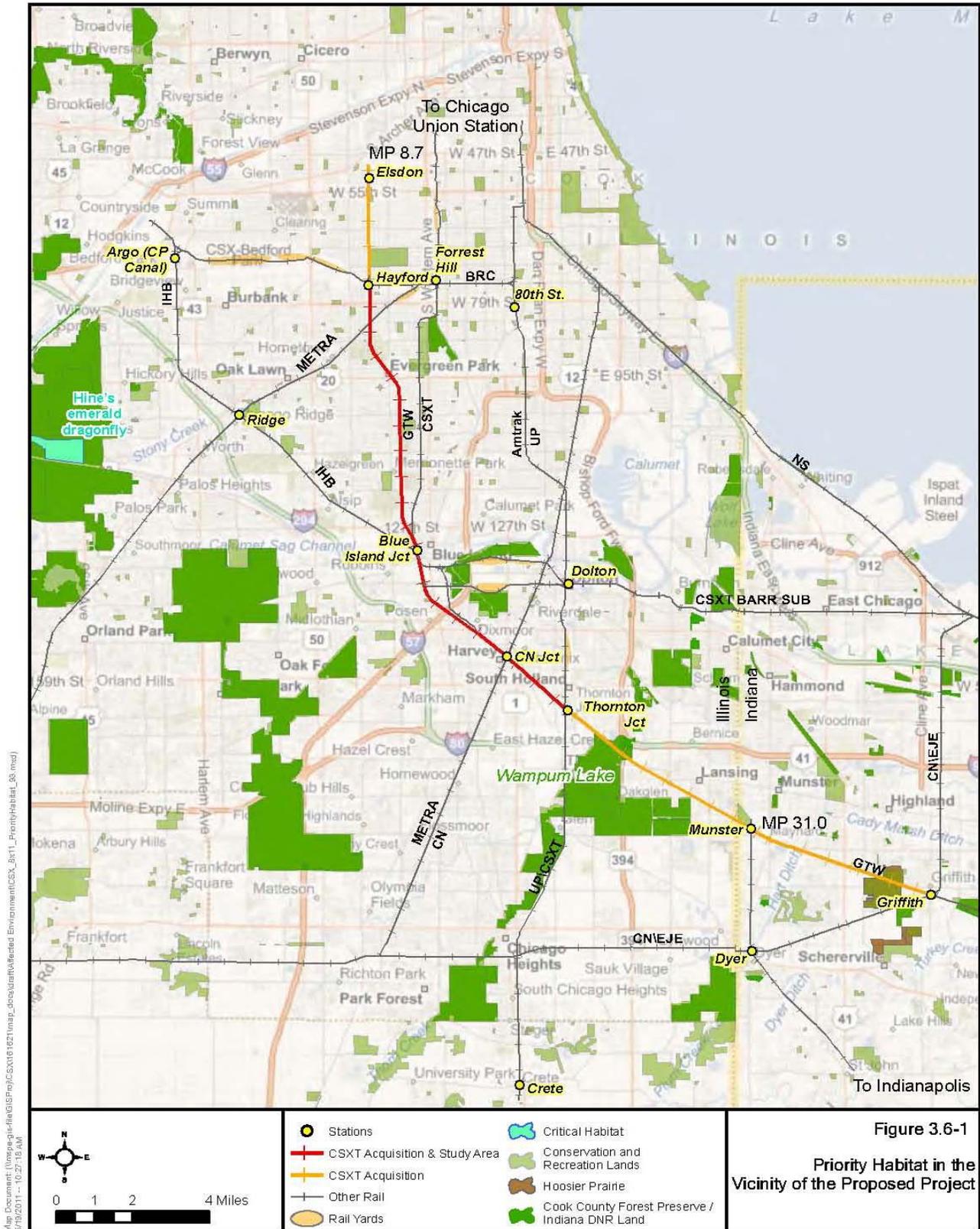


Figure 3.6-1  
Priority Habitat in the Vicinity of the Proposed Project

### **Karner Blue Butterfly**

The Karner blue butterfly (KBB) occupies oak barrens/savanna habitat where wild blue lupine (*Lupinus perennis*) grows. Wild lupine serves as host for several of the insect's larval stages. Occurrence of the plant is recognized as a requirement for occurrence of the butterfly. Decline of the species is attributed to loss of habitat due to wildfire suppression and urban developments. USFWS and The Nature Conservancy (TNC) have entered into a Safe Harbor Agreement for the West Gary Recovery Unit, allowing TNC to collect and release KBB on lands managed as habitat for this species. No designated critical habitat area for KBB exists in the Proposed Transaction study area. However, there have been records of KBBs in Ivanhoe Dune Preserve and the Indian Boundary Prairies Preserve near the Proposed Transaction (USFWS 2011e). The rail segment from Griffith to Pine Junction is located approximately 0.3 miles east of the Ivanhoe Dune Preserve. The Proposed Transaction would not result in traffic changes on that segment. Segments GTW-03 and GTW-04, with proposed train traffic increases, are located approximately two miles north of the Indian Boundary Prairie Preserve. Therefore, it is unlikely that the Proposed Transaction would result in any impact to the KBB.

### **Mead's Milkweed**

Mead's milkweed is listed in 47 counties including Cook County, Illinois, and Lake County, Indiana. Mead's milkweed occurs primarily in tallgrass prairie with a late successional bunch-grass structure, but also occurs in hay meadows and in thin soil glades or barrens. This plant is essentially restricted to sites that have never been plowed and only lightly grazed, and hay meadows that are cropped annually for hay. As with other native milkweeds, Mead's is either self-incompatible or subject to severe inbreeding depression (USFWS 2003b). The Mead's milkweed is currently known to persist in eastern Kansas, Missouri, south-central Iowa, and southern Illinois. Populations no longer occur in Wisconsin and Indiana and this species has been extirpated from several counties including Cook County, Illinois (USFWS 2003b). Therefore, it is unlikely that the Proposed Transaction would result in any impact on Mead's milkweed.

### **Leafy Prairie-Clover**

There are 29 known populations of leafy prairie-clover in three states: Alabama, Illinois, and Tennessee. In Illinois, habitats are restricted to mesic dolomite prairies and rocky riverbanks. The foliage of leafy prairie clover is highly palatable to mammalian herbivores, including deer, rabbits, groundhogs, cattle, horses, and others. In Illinois, rabbits have been a major cause of plant mortality for this species. No critical habitat for this species is found near the study area or within Cook County, Illinois. Today, it is restricted to two to three small colonies in Will County; the populations of the remaining colonies have been extirpated by

development or over-collection (Illinois Wildflowers 2011). Therefore, it is unlikely that the Proposed Transaction would result in any impact to the leafy prairie-clover.

### **Pitcher's Thistle**

Pitcher's thistle, or dune thistle, grows on the open sand dunes and low open beach ridges of the Great Lakes' shores. It is most often found in near-shore plant communities but it can grow in all nonforested areas of a dune system. Residential, condominium, and marina development, along with associated landscaping, directly eliminates Pitcher's thistle and its habitat within the footprint of the development (*Cirsium pitcheri* Restoration Project 2010). The thistle is recorded in both counties that would be crossed by the Proposed Transaction. The Lake County, Indiana, populations are managed by Indiana Dunes National Lakeshore Research Subdivisions and Indiana Dunes State Park in Porter and Lake Counties, Indiana. The Cook County, Illinois, populations are found on land managed by ILDNR within Illinois Beach State Park. It is unlikely that there would be any impacts to the pitcher's thistle due to the lack of ground-disturbance activities that would occur as a result of the Proposed Transaction.

### **Prairie Bush Clover**

Prairie bush clover (*Lespedeza leptostachya*) is a federally threatened prairie plant found only in the tallgrass prairie region of four Midwestern states. Prairie bush clover's rarity is probably best explained by the loss of its tallgrass prairie habitat. At the time of white settlement, native prairie covered almost all of Illinois and Iowa, a third of Minnesota and six percent of Wisconsin. Mesic, moderately damp to dry prairie favored by prairie bush clover was also prime cropland, and today only scattered remnants of prairie bush clover can be found in the four states. Many of today's prairie bush clover populations occur in sites that escaped the plow because they were too steep or rocky (Minnesota Department of Natural Resources 1990). The prairie bush clover is recorded in Cook County, Illinois. It is unlikely that there would be any impacts to the prairie bush clover due to the lack of ground-disturbance activities that would occur as a result of the Proposed Transaction.

### **Eastern Prairie Fringed Orchid and Prairie White-Fringed Orchid**

The eastern prairie fringed orchid grows in tallgrass silt-loam or sand prairies, sedge meadows, fens, and occasionally sphagnum bogs. Long-term population maintenance requires reproduction from seed, which is accomplished only with pollination by hawkmoths. Seedling establishment requires development of mycorrhizae with soil-inhabiting fungi, and maintenance of graminoid habitat, usually by fire. Increasing pesticide use may impact both pollinators and fungi (USWFS 2011f). The prairie white-fringed orchid is recorded in Cook County, Illinois. It is unlikely that there would be any impacts to the eastern prairie fringed orchid and the prairie white-fringed orchid due to the lack of ground-disturbance activities that would occur as a result of the Proposed Transaction.

**State-listed Species**

ILDNR and INDNR also designate state-listed threatened and endangered species. Table 3.6-5 shows state-listed threatened and endangered species for Cook County, Illinois, and Lake County, Indiana, that could occur within the Proposed Transaction study area. Appendix D includes the complete list of state-protected species. Habitat descriptions, project area photos, and aerial maps along the Proposed Transaction were reviewed to determine potential habitat within the study area.

**Table 3.6-5. State-listed Threatened & Endangered Species that  
Could Potentially Occur in the Study Area**

Common and Scientific Names	State Status	Preferred Habitat
<b>Indiana</b>		
<b>Mammals</b>		
Franklin's ground squirrel <i>Spermophilus franklinii</i>	E	Tall grasslands and is often found along forest-prairie borders and marsh edges
<b>Birds</b>		
American bittern <i>Botaurus lentiginosus</i>	E	Bogs, wet meadows, and hayfields
Barn Owl <i>Tyto alba</i>	E	Generally found at low elevations in open habitats, such as grasslands, deserts, marshes and agricultural fields and require cavities for nesting
Black rail <i>Laterallus jamaicensis</i>	E	Usually frequent wet areas where dense but not necessarily tall growths of rushes, sedges or grasses are present
Black tern <i>Chlidonias niger</i>	E	Wetlands with dense emergent vegetation with open water for breeding
Black-crowned night heron <i>Nycticorax nycticorax</i>	E	Marshes, swamps, ponds, lakes, lagoons, occasionally grasslands.
Common moorhen <i>Gallinula chloropus</i>	E	Freshwater cattail-bulrush marshes with patches of Phragmites, Carex, and Sparganium
Henslow's sparrow <i>Ammodramus henslowii</i>	E	Uncultivated grasslands, wet meadows, and overgrown fields, somewhat weedy or shrubby
King rail <i>Rallus elegans</i>	E	Shallow, freshwater marshes; small potholes.
Least bittern <i>Ixobrychus exilis</i>	E	Emergent vegetation in wetlands.
Loggerhead Shrike <i>Lanius ludovicianus</i>	E	Prefers a field bordered with trees or replete with brush / thickets to almost any other
Marsh wren <i>Cistothorus palustris</i>	E	Breed in fresh and brackish water marshes with abundant reeds
Peregrine Falcon <i>Falco peregrines</i>	E	Prefers open habitats, such as grasslands, tundra, and meadows
Piping plover <i>Charadrius melodus</i>	E	Open sandy beaches or rocky shores, often in high, dry sections away from water
Sedge Wren <i>Cistothorus platensis</i>	E	Drier transitional edges of freshwater marshes, bogs and wet meadows
Upland sandpiper <i>Bartramia longicauda</i>	E	Grasslands
Virginia rail <i>Rallus limicola</i>	E	Freshwater marshes

**Table 3.6-5. State-listed Threatened & Endangered Species that Could Potentially Occur in the Study Area**

Common and Scientific Names	State Status	Preferred Habitat
Yellow-crowned Night-Heron <i>Nyctanassa violacea</i>	E	Marshes, swamps, lakes, lagoons, and mangroves; chiefly coastal
Yellow-headed blackbird <i>Xanthocephalus xanthocephalus</i>	E	Requires freshwater marshes for breeding. Nest over water in emergent vegetation
<b>Insects</b>		
A Cicadellid moth <i>Cicadula straminea</i>	T	A grass and sedge feeder found in marshes
A Cicadellid moth <i>Dorydiella kansana</i>	T	Found on its host plant, nut-rush ( <i>Scleria sp.</i> ) and may occur in a wide variety of habitats that support nut-rush.
A Cicadellid moth <i>Limotettix divaricatus</i>	T	Bogs, alvars and sandy areas
A Cicadellid moth <i>Paraphlepsius lobatus</i>	T	Found on host plant, <i>Andropogon scoparius</i>
A Noctuid moth <i>Apamea burgessi</i>	T	Sparsely vegetated sand and gravel and sandplain and other warm season grasslands
A Noctuid moth <i>Eucoptocnemis fimbriaris</i>	T	Sand prairies
A Noctuid moth <i>Agrotis stigmosa</i>	T	Larvae are found on yarrow ( <i>Achillea millfolium</i> )
A Noctuid moth <i>Archanara laeta</i>	T	The larvae are known to feed on bur-reed.
A Noctuid moth <i>Loxagratia acclivis</i>	T	The larvae feed on seeds of <i>Panicum virgatum</i>
A Noctuid moth (unnamed) <i>Capis curvata</i>	T	Prairie
A Noctuid moth (unnamed) <i>Oligia obtusa</i>	E	Found on host plants, sedges
A Tortricid moth <i>Aethes patricia</i>	E	Feeds on apple, feeding on fruit, buds, leaves and shoots
American Burying Beetle <i>Nicrophorus americanus</i>	E	Habitat generalists, occurring in both forested and grassland areas, but require soils suitable for digging
Aureolaria seed borer <i>Rhodoecia aurantiago</i>	T	Larva feed on seedpods of gerardia ( <i>Agalinis sp.</i> ). Moth appears in August.
Barrens Metarranthis moth <i>Metarranthis apiciaria</i>	E	Larvae found on host plants in various vegetated habitats

**Table 3.6-5. State-listed Threatened & Endangered Species that Could Potentially Occur in the Study Area**

Common and Scientific Names	State Status	Preferred Habitat
Beer's blazing star borer moth <i>Papaipema beeriana</i>	T	Mesic tall grass prairie
Big broad-winged skipper <i>Poanes viator viator</i>	T	Bog/fen, herbaceous wetland, riparian, scrub shrub wetland habitats
Bunchgrass skipper <i>Problema byssus</i>	T	Grassland/herbaceous, savanna, woodland - conifer, woodland – hardwood
Columbine borer <i>Papaipema leucostigma</i>	T	Grassland, prairie and savanna habitats, though not exclusive to these. Larvae feed on <i>columbine sp.</i>
Culver's root borer <i>Papaipema sciata</i>	T	The Culver's root borer occurs with its larval host plant, Culver's root ( <i>Veronicastrum virginicum</i> ).
Dune locust <i>Trimerotropis maritime</i>	T	Beach sand along the Atlantic Coast and the Great Lakes
Dune Oncocnemis moth <i>Oncocnemis riparia</i>	T	Prairie dunes
Dusted skipper <i>Atrytonopsis hianna</i>	T	Open dry fields, open woodlands, barrens, mid grass and tall grass prairies, foothills and prairie gulches, and outcrops and glades
Ernestine's moth <i>Phytometra ernestinana</i>	E	Native grasslands, prairie, and savanna
Giant Sunflower Borer moth <i>Papaipema maritime</i>	T	The species is restricted to mesic and wet-mesic prairies and prairie fens. The larvae bore into the stalks of <i>Helianthus giganteus</i> .
Golden Borer moth <i>Papaipema cerina</i>	T	Associated with 2 primary habitat types: dry-mesic forests and hydric grasslands, this species also is associated with large contiguous natural landscapes.
Grasshopper (unnamed) <i>Paroxya atlantica</i>	T	Grasslands
Great copper <i>Lycaena xanthoides</i>	E	Prairie swamps, marshes, weedy fields, and meadows.
Grote's black-tipped quaker <i>Dichagyris grotei</i>	T	Xeric prairie
Included cordgrass borer <i>Spartiniphaga includens</i>	T	Wet meadows and edges of wetlands; adults are nocturnal and come to light
Indiangrass flexamia <i>Flexamia reflexus</i>	T	Hay pastures, ROW, and savannas. Host plant Indian grass
Kansas Prairie Leafhopper <i>Prairiana kansana</i>	E	Sand prairies and grasslands

**Table 3.6-5. State-listed Threatened & Endangered Species that  
Could Potentially Occur in the Study Area**

Common and Scientific Names	State Status	Preferred Habitat
Karner blue butterfly <i>Lycaeides melissa samuelis</i>	E	Occurs in association with larval host plant wild blue lupine ( <i>Lupinus perennis</i> ). Sandy barrens and oak savanna with periodic fire
Large-headed grasshopper <i>Phoetaliotes nebrascensis</i>	T	Occurs in a wide variety of habitats and on a variety of soil types. Feeds on a diverse mix of grasses and forbs.
Louisiana macrochilo moth <i>Macrochilo louisiana</i>	T	Wet meadows, fens, wetland edges
Many-lined Cordgrass moth <i>Chortodes enervate</i>	T	Feeds on <i>Spartina pectinata</i>
Marked Noctuid moth <i>Tricholita notata</i>	T	Mesic prairie
Marsh Fern moth <i>Fagitana littera</i>	T	Bogs, acidic shrub swamps, wet pine barrens, wetlands
Mottled Duskywing <i>Erynnis martialis</i>	T	Open woodland, barrens, prairie hills, open brushy fields, chaparral
Multicolored Huckleberry moth <i>Pangrapta decoralis</i>	T	Presumably woodlands, shrubby areas near hostplant (blueberries)
Newman's brocade <i>Meropleon ambifuscum</i>	T	Prairie species that tolerates a variety of open and wooded areas
Olympia Marble <i>Euchloe olympia</i>	T	Various open areas including prairies, foothills, lakeshore dunes, shale barrens, meadows, and open woodlands
Ottoo skipper <i>Hesperia ottoe</i>	E	Well-drained native grasslands, dunes, sandy barrens, limestone, bluff prairie and shortgrass prairie
Pearly Indigo Borer <i>Sitochroa dasconalis</i>	T	Fields and other places where food plant grows
Peppered Paraphlepsius <i>Paraphlepsius maculosus</i>	T	Dry prairie, oak savanna, barrens
Persius Dusky Wing <i>Erynnis persius persius</i>	E	Pine barrens and oak savannas
Pink streak moth <i>Faronta rubripennis</i>	T	Sandy grassy situations such as prairies and dunes
Plox moth <i>Schinia indiana</i>	E	Sandy dry to dry-mesic savannas (black/Hill's oak or jack pine barrens) and small dry-mesic prairie openings with an abundance of <i>Phlox pilosa</i>
Prairie Panic Grass Leafhopper <i>Polyamia herbida</i>	T	Occurs in a variety of grassland types, including glaciated, dry sand prairie-barrens, and unglaciated barrens and hill prairie

**Table 3.6-5. State-listed Threatened & Endangered Species that  
Could Potentially Occur in the Study Area**

<b>Common and Scientific Names</b>	<b>State Status</b>	<b>Preferred Habitat</b>
Prairie Sedge moth <i>Crambus murellus</i>	T	Xeric prairie
Rare Sand Quaker <i>Platyperigea meralis</i>	T	Sandy grassland areas
Regal fritillary <i>Speyeria idalia</i>	E	Grassland areas with prairie remnants or lightly grazed pasture, where topography often includes hills and valleys
Royal fern borer moth <i>Papaipema speciosissima</i>	T	Grassland, prairie and savanna habitats, though not exclusive to these. Larvae feed on <i>osmunda regalis</i> and <i>osmunda cinnamomea</i>
Silphium Borer moth <i>Papaipema silphii</i>	T	Occurs in a variety of prairie habitats including mesic prairie, prairie fen, and lakeplain mesic prairie
Silver-bordered fritillary <i>Boloria selene myrina</i>	T	Marshy or boggy areas with violets
Silvery blue <i>Glaucopsyche lygdamus couperi</i>	E	Open woodland, flowery meadows, and roadsides, sometimes in small waste areas in cities.
Spittle bug <i>Paraphilaenus parallelus</i>	T	Bogs in mixed sugar maple-oak-hemlock forests of Ontario and Wisconsin. Adults feed on <i>Carex spp.</i>
Starry Campion Moth <i>Hadena ectypa</i>	T	Forest understory near host plant <i>Silene stellata</i>
Sweet Fern Underwing <i>Catocala antinympha</i>	E	Pine-shrubby oak-heath barrens or other xeric open pine woodland
Tufted Sedge Moth <i>Chortodes inquinata</i>	T	Areas near hostplant <i>Carex comosa</i>
Two-lined cosmotettix <i>Cosmotettix bilineatus</i>	T	Wet prairie
Two-spotted Skipper <i>Euphyes bimacula</i>	T	Bogs, sedge meadows, sedge marshes along streams and sometimes openings in swamps
<b>Reptiles</b>		
Blanding's Turtle <i>Emydoidea blaningii</i>	E	Wetland habitats with permanent shallow water and emergent vegetation. Extensive use of terrestrial habitats for nesting and travel
Eastern Massasauga <i>Sistrurus catenatus catenatus</i>	E	Strongly associated with floodplain habitats along medium to large rivers
Kirtland's Snake <i>Clonophis kirtlandi</i>	E	Inhabits prairie fens, wet meadows, lakeplain wet prairies and associated open and wooded wetlands, seasonal marshes, open swamps
Ornate Box Turtle <i>Terrapene ornate ornate</i>	E	Inhabit prairie grassland, pasture, fields, sandhills, and open woodland

<b>Table 3.6-5. State-listed Threatened &amp; Endangered Species that Could Potentially Occur in the Study Area</b>		
<b>Common and Scientific Names</b>	<b>State Status</b>	<b>Preferred Habitat</b>
Smooth Green Snake <i>Liochlorophis vernalis</i>	E	Meadows, grassy marshes, moist grassy fields at forest edges, mountain shrublands, stream borders, bogs, open moist woodland, abandoned farmland, and vacant lots
Spotted Turtle <i>Clemmys guttata</i>	E	Mostly unpolluted, shallow bodies of water with a soft bottom and aquatic vegetation; in some areas they occur in brackish tidal streams
<b>Illinois</b>		
<b>Mammals</b>		
Franklin's ground squirrel <i>Spermophilus franklinii</i>	T	Tall grasslands and is often found along forest-prairie borders and marsh edges
<b>Birds</b>		
Black-crowned night heron <i>Nycticorax nycticorax</i>	E	Marshes, swamps, ponds, lakes, lagoons, occasionally grasslands.
Common moorhen <i>Gallinula chloropus</i>	E	Freshwater cattail-bulrush marshes with patches of Phragmites, Carex, and Sparganium
King rail <i>Rallus elegans</i>	E	Shallow, freshwater marshes; small potholes.
Least bittern <i>Ixobrychus exilis</i>	T	Emergent vegetation in wetlands.
Little Blue Heron <i>Egretta caerulea</i>	E	Prefers freshwater areas such as ponds, lakes, marshes, swamps, and lagoons, sometimes occupy flooded and dry grasslands, or marine coastlines
Osprey <i>Pandion haliaetus</i>	E	Forested areas in association with water, primarily near lakes, rivers, and along coastal waters
Peregrine Falcon <i>Falco peregrines</i>	T	Prefers open habitats, such as grasslands, tundra, and meadows
Snowy Egret <i>Egretta thula</i>	E	Marshes, lakes, ponds, lagoons, mangroves, and shallow coastal habitats
Wilson's Phalarope <i>Phalaropus tricolor</i>	E	Shallow freshwater and saline ponds, marshes and wet meadows
Yellow-headed blackbird <i>Xanthocephalus xanthocephalus</i>	E	Requires freshwater marshes for breeding. Nest over water in emergent vegetation
<b>Insects</b>		
Elfin Skimmer <i>Nannothemis bella</i>	T	Found in bogs and fens
Eryngium Stem Borer <i>Papaipema eryngii</i>	E	Mesic and wet-mesic prairie, associated with moderately disturbed to relatively undisturbed prairie

Table 3.6-5. State-listed Threatened & Endangered Species that Could Potentially Occur in the Study Area		
Common and Scientific Names	State Status	Preferred Habitat
Hine’s emerald dragonfly <i>Somatochlora hineana</i>	E	Slow moving, shallow waters, spring-fed marshes and sedge meadows.
<b>Reptiles</b>		
Blanding’s Turtle <i>Emydoidea blaningii</i>	E	Wetland habitats with permanent shallow water and emergent vegetation. Extensive use of terrestrial habitats for nesting and travel
Eastern Massasauga <i>Sistrurus catenatus catenatus</i>	E	Strongly associated with floodplain habitats along medium to large rivers
Kirtland’s Snake <i>Clonophis kirtlandi</i>	T	Inhabits prairie fens, wet meadows, lakeplain wet prairies and associated open and wooded wetlands, seasonal marshes, open swamps

Sources: INDNR 2011c, Indiana County Endangered, Threatened and Rare Species List, County: Lake, [http://www.in.gov/dnr/naturepreserve/files/np\\_lake.pdf](http://www.in.gov/dnr/naturepreserve/files/np_lake.pdf);  
 ILDNR 2011, Illinois Threatened and Endangered Species by County, [http://www.dnr.state.il.us/conservation/naturalheritage/pdfs/et\\_by\\_county.pdf](http://www.dnr.state.il.us/conservation/naturalheritage/pdfs/et_by_county.pdf);  
 NatureServe 2010, NatureServe Explorer: An Online Encyclopedia of Life, <http://www.natureserve.org/explorer>.

**Migratory Birds**

Forest, savanna, prairie, and wetland habitats associated with the Proposed Transaction study area provide important habitat for migrating bird species. These various habitats support critical flyways for migratory birds as part of the Mississippi flyway. Table 3.6-6 lists some of the species that typically use these varying habitats in the Proposed Transaction study area as a migratory stopover.

Table 3.6-6. Common Migratory Birds in Proposed Transaction Study Area		
	Common Name	Scientific Name
Waterbody Birds	Black-crowned night heron	<i>Nycticorax nycticorax</i>
	Belted kingfisher	<i>Megaceryle alcyon</i>
	Canada goose	<i>Branta Canadensis</i>
	Common snipe	<i>Gallinago gallinago</i>
Forest and Woodland Birds	Yellow-bellied sapsucker	<i>Sphyrapicus varius</i>
	Ruby-throated hummingbird	<i>Archilochus colubris</i>
	Cedar waxwing	<i>Bombycilla cedrorum</i>
	White-throated sparrow	<i>Zonotrichia albicollis</i>
	Baltimore oriole	<i>Icterus galbula</i>

Source: CW 2011, Chicago Wilderness Atlas of Biodiversity, [http://www.chicagowilderness.org/pdf/CW%20Atlas%20of%20Biodiversity\\_2011.pdf](http://www.chicagowilderness.org/pdf/CW%20Atlas%20of%20Biodiversity_2011.pdf).

The preserves, parks, and open space within the CW are composed of a heterogeneous patchwork of important bird habitat for maintaining both migratory and breeding bird populations. Migrants use the large preserves to find diverse food resources, such as native seeds, fruits, and insects, while finding resting habitat sufficient to protect them from predation and inclement weather. Together, the collection of large, natural areas is vital to the survival of many migratory birds. There is one preserve within the Proposed Transaction study area, Wampum Lake Woods Cook County Forest Preserve, which is considered important breeding habitat for grassland, wetland, and shrubland birds.

### 3.6.2 Environmental Impacts

#### 3.6.2.1 Proposed Transaction

The primary changes that CSXT proposes would divert the traffic volume now operating on the IHB between Blue Island Junction and the West End of Bedford Yard to the Elsdon Line. The Proposed Transaction would not create any additional train traffic in the Chicago Terminal, nor would it diminish service for any existing shippers. However, the segments on the Elsdon Line that would incur an increase in traffic (GTW-03, GTW-04, and GTW-05) were examined for potential impacts to vegetation, wildlife habitat, and threatened and endangered species (Table 3.6-1). Segments within the Elsdon Line that would experience a decrease in train traffic would also experience a decrease in impacts to these biological resources. Train segments within the Elsdon Line with no change in train traffic would have no change in impacts to these biological resources.

#### **Vegetation**

The Proposed Transaction does not include plans for new construction or ground disturbance; therefore, the Proposed Transaction would not impact vegetation resources. Vegetation maintenance practices along the existing rail line would continue as required by existing maintenance and CSXT safety plans.

#### **Wildlife**

In addition to natural causes of death such as predation and disease, rail cars and vehicles on existing rail lines and roads in the Proposed Transaction study area can strike and kill wildlife. Wildlife mortality from vehicles and rail cars is most apparent when it involves big game animals and the predators and scavengers that feed on the carcasses. CSXT does not track animal strikes/kills on its lines, nor has it ever tracked such occurrences on the Elsdon Line.

It is possible that the increase in rail traffic between Thornton Junction and Hayford (segments GTW-03, GTW-04, and GTW-05) that would occur under the Proposed Transaction could result in an increase in wildlife strikes along the Elsdon Line. The Proposed Transaction could also decrease wildlife strikes along rail segments where train traffic would be reduced. However, it is unlikely that the Proposed Transaction would have any significant impacts on wildlife.

### **Threatened, Endangered, and Rare Species**

It is possible that the increase in rail traffic between Thornton Junction and Hayford (segments GTW-03, GTW-04, and GTW-05) that would result under the Proposed Transaction could result in an increase in protected species strikes along the Elsdon Line. However, the Elsdon Line does not cross any mapped critical habitat for any federally listed species. The presence or absence of suitable habitat does not confirm the presence or absence of a listed species. A decrease in protected species strikes could be experienced along rail segments where train traffic would be reduced as a result of the Proposed Transaction (i.e. HED's on segments IHB-01 and IHB-02). The Proposed Transaction would not create any additional train traffic in the Chicago Terminal. Because the increase in traffic within the study area would be only a shift of trains from one segment to another and because of the lack of critical habitat in the study area, the Proposed Transaction should not affect any federally-listed species or impact any state-listed species.

In a June 2, 2011 letter, the USFWS's Bloomington Field Office commented that it concurs with this finding for the portion of rail line right-of-way located in Indiana, and accordingly concludes that the Proposed Transaction is not likely to adversely affect any endangered or threatened species under Section 7 of the Endangered Species Act.

#### **3.6.2.2 No-Action Alternative**

##### **Vegetation**

Under the No-Action Alternative, vegetation maintenance practices along the existing rail line would continue as required by existing maintenance and safety plans, and therefore, there would be no change to impacts.

##### **Wildlife**

The No-Action Alternative would not result in a change in wildlife impacts along the existing Elsdon Line because there would not be a change in traffic.

##### **Threatened, Endangered, and Rare Species**

The No-Action Alternative would not result in impacts to protected species along the existing Elsdon Line because there would not be a change in traffic.

### 3.7 Air Quality and Climate

This section discusses the air quality and climate in the Proposed Transaction study area. For this discussion, the study area is defined as Cook County, Illinois, and Lake County, Indiana.

The Clean Air Act (CAA) established two types of National Ambient Air Quality Standards (NAAQS): primary standards set limits to protect public health and secondary standards set limits to protect public welfare (42 U.S.C. 7409). USEPA Office of Air Quality Planning and Standards has set NAAQS for the following six criteria pollutants: ozone (O<sub>3</sub>), nitrogen dioxide (NO<sub>2</sub>), carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), respirable particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), and lead (Pb). Ambient air quality standards adopted by Illinois and Indiana are no more stringent than the national standards.

Table 3.7-1 shows the NAAQS for these pollutants expressed in parts per million (ppm) by volume, milligrams per cubic meter of air (mg/m<sup>3</sup>), or micrograms per cubic meter of air (µg/m<sup>3</sup>), as applicable. To determine compliance with NAAQS, concentrations of pollutants are measured hourly at a given location and then averaged over a specified duration (ranging from one hour to one year, depending on the pollutant and standard) for comparison with the applicable standard.

<b>Pollutant</b>	<b>Primary Standards</b>	<b>Averaging Times</b>	<b>Secondary Standards</b>
Carbon Monoxide (CO)	9 ppm (10 mg/m <sup>3</sup> )	8-hour <sup>a</sup>	None
	35 ppm (40 mg/m <sup>3</sup> )	1-hour <sup>a</sup>	None
Lead (Pb)	0.15 µg /m <sup>3b</sup>	Rolling 3-month average	Same as primary
Nitrogen Dioxide (NO <sub>2</sub> )	53 ppb (100 µg /m <sup>3c</sup> )	Annual (arithmetic mean)	Same as primary
	100 ppb	1-hour <sup>d</sup>	None
Particulate Matter (PM <sub>10</sub> )	50 µg /m <sup>3e</sup>	Annual (Arithmetic Mean)	50 µg/m <sup>3e</sup>
	150 µg /m <sup>3</sup>	24-hour <sup>f</sup>	Same as primary
Particulate Matter (PM <sub>2.5</sub> )	15.0 µg /m <sup>3g</sup>	Annual <sup>g</sup> (arithmetic mean)	Same as primary
	35 µg /m <sup>3</sup>	24-hour <sup>h</sup>	Same as primary
Ozone (O <sub>3</sub> )	0.075 ppm (2008 standard)	8-hour <sup>i</sup>	Same as primary
	0.08 ppm (1997 standard)	8-hour <sup>j</sup>	Same as primary
	0.12 ppm	1-hour <sup>k</sup> (Applies only in limited areas)	Same as primary
Sulfur Dioxide (SO <sub>2</sub> )	0.03 ppm	Annual (arithmetic mean)	0.5 ppm 3-hour <sup>a</sup>
	0.14 ppm	24-hour <sup>a</sup>	
	75 ppb	1-hour <sup>l</sup>	None

Source: USEPA 2011, National Ambient Air Quality Standards, <http://www.epa.gov/air/criteria.html>. Notes:

- a Not to be exceeded more than once per year.
- b Final rule signed October 15, 2008. The 1978 lead standard (1.5 µg/m<sup>3</sup> as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved. No county in the study area is designated nonattainment relative to the 1978 standard.
- c The official level of the annual NO<sub>2</sub> standard is 0.053 ppm, equal to 53 parts per billion (ppb), which is shown here for the purpose of clearer comparison to the 1-hour standard.
- d To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 100 ppb (effective January 22, 2010).
- e Because of a lack of evidence linking health problems to long-term exposure to coarse particle pollution, USEPA revoked the annual PM<sub>10</sub> standard in 2006 (effective December 17, 2006). Standard listed is a state (Illinois and Indiana) standard only.
- f Not to be exceeded more than once per year on average over 3 years.
- g To attain this standard, the 3-year average of the weighted annual mean PM<sub>2.5</sub> concentrations from single or multiple community-oriented monitors must not exceed 15.0 µg/m<sup>3</sup>.
- h To attain this standard, the 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed 35 µg/m<sup>3</sup> (effective December 17, 2006).
- i To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.075 ppm (effective May 27, 2008).
- j To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.08 ppm. The 1997 standard—and the implementation rules for that standard—will remain in place for implementation purposes as USEPA undertakes rulemaking to address the transition from the 1997 ozone standard to the 2008 ozone standard. EPA is in the process of reconsidering these standards (set in March 2008).
- k The 1-hour ozone standard does not apply to the study area.
- l Final rule signed June 2, 2010. To attain this standard, the 3-year average of the 99th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 75 ppb.

### 3.7.1 Criteria Pollutant Emissions

#### 3.7.1.1 Affected Environment

##### **Air Quality**

This section presents a discussion of the existing air quality and attainment status of the study area. In addition, this section presents information on ambient air monitoring for this area.

Throughout the study area, numerous air monitoring stations measure pollutants. IEPA or the Cook County Department of Environmental Control operates the official (for NAAQS attainment determination) air monitoring stations in Cook County, Illinois (IEPA 2007). IDEM operates the monitors in Lake County, Indiana (IDEM 2007). These monitoring stations are used, in part, to determine attainment status for the criteria pollutants included in Table 3.7-1, above.

The following discussion includes a summary of the attainment status of the study area for each of the criteria pollutants and a summary of the monitoring data for these pollutants for 2005 through 2007. Unless otherwise noted, the area attainment status information is from the USEPA Green Book website (USEPA 2008a).

##### **Ozone**

Ozone is a photochemical oxidant and the major component of smog. While ozone in the upper atmosphere benefits life by shielding the Earth from harmful ultraviolet radiation from the sun, high concentrations of ozone at ground level are a major health and environmental concern. Ozone is not emitted directly into the air, but forms through complex chemical reactions between precursor emissions of volatile organic compounds (VOC) and oxides of nitrogen (NO<sub>x</sub>) in the presence of sunlight. Sunlight and temperatures stimulate these reactions and, therefore, peak ozone levels typically occur during warmer times of the year. Transportation and industrial sources emit both VOCs and NO<sub>x</sub>. Diverse sources emit VOCs such as motor vehicle traffic, chemical manufacturing, dry cleaners, paint shops, and other sources using solvents (USEPA 2008b).

USEPA designated the Chicago-Gary-Lake County, Illinois-Indiana area, which includes the study area, as a moderate nonattainment area for the 8-hour ozone standard on June 15, 2004. On May 11, 2010, USEPA re-classified Lake County as attainment (maintenance), which required the entire area to achieve attainment status by June 2010. To date, Cook County, Illinois, remains as a nonattainment area for ozone along with the rest of the Illinois counties in the originally designated area.

USEPA has not yet made attainment/nonattainment redesignations with respect to the 0.075 ppm ozone NAAQS, apparently because USEPA is focusing on tightening this standard even further. In January 2010, USEPA proposed to tighten the standard to somewhere within the range of 0.06 to 0.07 ppm. Based on USEPA's projections at that time, both Cook and Lake Counties would become nonattainment, regardless of whether the standard was set at the higher or the lower end of this concentration range. USEPA is currently expected to set a

final standard sometime in 2014-2015. USEPA would make designations of attainment/nonattainment status for all counties across the U.S. approximately one year after a rule effectiveness date. For any counties designated nonattainment, General Conformity requirements of 40 C.F.R. Part 93, Subpart B, could apply in 2013, after a one-year grace period following nonattainment designation.

The actions needed to address the issues associated with attainment of the 8-hour ozone standard are ongoing. However, the USEPA proposal described above illustrates the progress in reducing ozone levels in the Chicago metropolitan area over the last few years.

### **Nitrogen Oxides**

The counties in the study area are in attainment or are unclassifiable<sup>40</sup> for the annual NO<sub>2</sub> NAAQS. Nitrogen oxides, considered a precursor to ozone, are treated as a nonattainment pollutant for ozone nonattainment areas. USEPA has not yet made attainment/nonattainment redesignations with respect to the new 1-hour NO<sub>2</sub> NAAQS. However, USEPA has identified Cook County, or a portion of it, as a potential nonattainment area with respect to the 1-hour NO<sub>2</sub> NAAQS.

### **Carbon Monoxide**

The counties in the study area are in attainment or are unclassifiable for all CO NAAQS. USEPA classified a portion of Lake County, Indiana, nonattainment for CO from 1992 through 1999. The area is described as part of the City of East Chicago (an area bounded by Columbus Drive on the north, the Indiana Harbor Canal on the west, 148<sup>th</sup> Street if extended on the south, and Euclid Avenue on the east). Redesignation of this area as attainment for CO was effective March 20, 2000. This area is considered a CO maintenance area. The Proposed Transaction project area does not include this area.

### **Sulfur Dioxide**

The counties in the study area are in attainment or are unclassifiable for all SO<sub>2</sub> NAAQS, except that USEPA has not yet made attainment/nonattainment redesignations with respect to the new 1-hour SO<sub>2</sub> NAAQS. USEPA classified a part of Lake County, Indiana, nonattainment for SO<sub>2</sub> from 1992 through 2005, but redesignated it attainment effective October 26, 2005 (Federal Register [FR] 2005a). This area, which is now considered an SO<sub>2</sub> maintenance area, is bounded on the north by Lake Michigan, on the west by the Indiana-Illinois state line, on the south by U.S. 30 from the state line to the intersection of I-65, then following I-65 to the intersection of I-94, then following I-94 to the Lake-Porter county line, and on the east by the Lake-Porter county line. The Proposed Transaction project area includes this maintenance area.

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<sup>40</sup> Unclassifiable- any area that cannot be classified on the basis of available information as meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant. *See* 42 U.S.C. 7407.

**Particulate Matter (PM<sub>10</sub>)**

The counties in the study area are in attainment or are unclassifiable for the PM<sub>10</sub> NAAQS. Furthermore, statewide, all counties in Illinois and Indiana are designated attainment or unclassifiable for PM<sub>10</sub>. USEPA designated 2 areas of Cook County, Illinois, nonattainment for PM<sub>10</sub> from 1992 through 2005. These areas are labeled Southeast Chicago (Calumet Lake Area) and Lyons Township. USEPA redesignated both of these areas attainment effective November 21, 2005. USEPA classified a portion of Lake County, Indiana, that includes the cities of East Chicago, Hammond, Whiting, and Gary nonattainment for PM<sub>10</sub> for 1992 through 2002. USEPA redesignated this area attainment for PM<sub>10</sub> effective March 11, 2003. As part of the redesignation process for these former nonattainment areas, USEPA approved the maintenance plan for each area (FR 2003, 2005b, 2005c). Southeast Chicago is defined as the area bounded by 79<sup>th</sup> Street on the north, by I-57 between Sibley Boulevard and I-94 and by I-94 between I-57 and 79<sup>th</sup> Street on the west, by Sibley Boulevard on the south, and by the Illinois-Indiana state line on the east. The Proposed Transaction project area includes a portion of one of the PM<sub>10</sub> maintenance areas in Cook County, but not the other, and does not include the maintenance area in Lake County.

**Particulate Matter (PM<sub>2.5</sub>)**

USEPA classified both counties in the study area nonattainment for the annual PM<sub>2.5</sub> standard and both are included in the Chicago-Gary-Lake County annual PM<sub>2.5</sub> nonattainment area, which also includes several other counties.

**Air Toxics**

In addition to the criteria air pollutants for which there are NAAQS, USEPA also regulates emission of so-called air toxics, some of which are also classified as hazardous air pollutants (HAPs) under the CAA. Most air toxics originate from human-made sources, including on-road mobile sources, non-road mobile sources, area sources (such as dry cleaners), and stationary sources (such as factories or refineries). FHWA has prepared guidance on the analysis of mobile source air toxics (MSAT) for highway projects (FHWA 2006). In this guidance, FHWA recommends no analysis, qualitative analysis, or quantitative analysis, depending on the magnitude of project-related traffic.

MSATs are a subset of the 187 HAPs identified under the CAA plus diesel particulate matter (DPM). MSATs are compounds emitted from highway vehicles and non-road equipment. Some toxic compounds present in fuel are emitted to the air when the fuel evaporates or passes through the engine unburned. Other toxics are emitted from the incomplete combustion of fuels or as secondary combustion products. Metal air toxics also result from engine wear or impurities in oil or gasoline (FHWA 2006). The principal air toxics emitted from mobile sources are acetaldehyde, acrolein, benzene, 1,3-butadiene, formaldehyde, and DPM.

USEPA is the lead federal agency for administering the CAA and has certain responsibilities regarding the health effects of MSATs. USEPA issued a Final Rule for the Control of HAPs from Mobile Sources (FR 2007), in which it examined the impact of existing and newly

promulgated mobile source emission control and fuel quality programs on emissions of MSATs. USEPA projects that between 1999 and 2030, even with a 57-percent increase in highway vehicle miles traveled (vmt) and higher levels for other sectors, emissions control programs will reduce MSATs substantially nationwide.

According to USEPA estimates, the lifetime cancer risk from all sources of air pollution ranges from one to 25 cases per million people in rural areas, and from 25 to 50 cases per million people in urban areas. These risks compare with an overall lifetime cancer risk from all causes of 333,000 cases per million people. Although little is known about the existing levels of MSATs in the study area, it is apparent, based on the nationwide reductions forecast by USEPA, that MSAT concentrations and associated risks generally should decline in the coming decades, even with substantial growth in mobile and stationary source activity.

### **Climate**

Both Illinois and northern Indiana have relatively temperate climates with cold, snowy winters and hot, wet summers. Summers are dominated by warm, humid air with highs generally in the low 80s. Summer also is the wettest season of the year, with about 3 to 4 inches of rainfall per month. Winters generally are dominated by Pacific air, but occasionally arctic air moves in, causing much colder temperatures. The average highs in the winter months typically are in the low 30s. Winter months generally see 1.5 to 2 inches per month of precipitation as a mixture of rain and snow (Wendland 2005).

At the Midway Airport meteorological station in Chicago, the average annual temperature from 1971 to 2000 was 51°F, and the average annual precipitation was 38.35 inches. The average annual snowfall for these same years was 43.1 inches. Also at the Midway Airport meteorological station, the one-day maximum and minimum temperatures for 1928 through 2006 are 107°F and -25°F, respectively. The average number of days with a high temperature greater than 90°F was approximately 21 days per year, and approximately eight days per year had a low temperature below 0°F. The highest one-day precipitation for the period was 6.16 inches, and the highest one-day snowfall was 17.6 inches (Angel 2008).

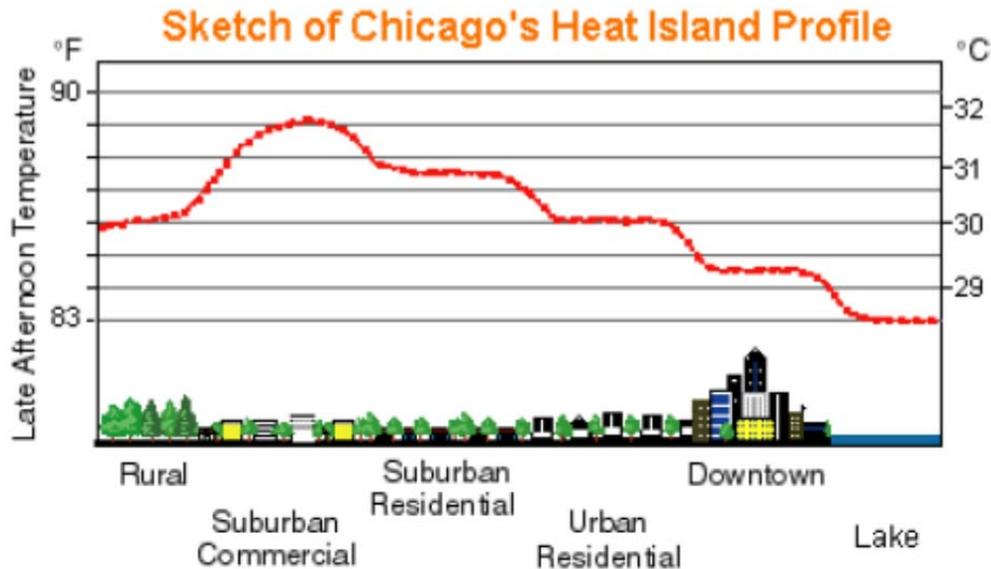
### **Urban Heat Island Effect (UHI)**

In larger metropolitan areas there is a recognized urban heat island (UHI) effect. The UHI effect is used to describe situations in which urban and suburban areas are 2°F to 10°F warmer than the surrounding area (USEPA 2008c). Heat islands form when cities replace natural land cover with pavement, buildings, and other infrastructure. These changes can contribute to higher urban temperatures in the following ways (USEPA 2008c):

- The displacement of trees and vegetation minimizes the natural cooling effect of shading and evaporation of water from soil and leaves
- Tall buildings, roads, and parking ramps absorb and reradiate heat
- Waste heat from vehicles, factories, and air conditioners may add warmth to their surroundings

Because roads, buildings, and other structures retain heat longer than surrounding rural areas, the UHI effect often is greatest about 3 to 5 hours after sunset (USEPA 2008c). For example, a study of the Chicago UHI effect showed that the effect consistently appeared in the western suburbs. Figure 3.7-1, below, shows a sketch of the UHI effect in Chicago. The fact that the downtown area is not the core of the Chicago heat island probably is due to the moderating influence of Lake Michigan (Gray and Finster 2000).

**Figure 3.7-1. Sketch of Chicago's Heat Island Profile**



Source: Gray and Finster 2000, "The Urban Heat Island, Photochemical Smog, and Chicago: Local Features of the Problem and Solution," Northwestern University, Department of Civil Engineering submitted to Atmospheric Pollution Prevention Division, U.S. Environmental Protection Agency, pp. 83, [http://www.epa.gov/heatisland/resources/pdf/the\\_urban\\_heat\\_island.pdf](http://www.epa.gov/heatisland/resources/pdf/the_urban_heat_island.pdf).

## **Global Climate Change**

In contrast to the localized temperature differences the UHI effect causes, global climate change is a term used to describe the gradual increase or decrease in worldwide average surface temperatures, or changes in precipitation, wind, or other climate variables. While the level of human vs. natural contribution to global climate change is the subject of much debate, the reality is that global climate change has become one of today's primary environmental issues. The main human contributions to global climate change are attributed to the emissions of what are commonly referred to as greenhouse gases (GHGs), such as carbon dioxide, and to changes in land cover and land use that can affect the amount of carbon dioxide the land surface takes up or releases. There are currently no GHG rules that would potentially affect the Proposed Transaction.

### **3.7.2 Environmental Impacts**

#### **3.7.2.1 Proposed Transaction**

**Air Quality**

The air emissions analysis focuses on the decrease in emissions due to the Proposed Transaction as compared to the No-Action Alternative, and is based on the fuel savings calculated and discussed in Section 3.9, Energy. As such, a portion of the analysis is quantitative while the remainder is qualitative.

**Decrease in Emissions Due To Fuel Savings From Mileage Reductions**

Table 3.7-2, below, summarizes the estimates of decreases in locomotive emissions due to fuel savings from mileage reductions related to the Proposed Transaction as compared to the No-Action Alternative. Emissions related to the Proposed Transaction in future years would be less than shown here for NO<sub>x</sub>, PM<sub>10</sub> (and PM<sub>2.5</sub>), VOC, and CO as newer locomotives designed to meet more stringent emission standards enter the fleet (See VM 38). A system-wide reduction in overall locomotive emissions in future years would also occur for CSXT and all rail operations for the same reason.

**Table 3.7-2. CSXT Transaction-Related Decrease in Emissions  
Due to Fuel Savings from Mileage Reductions**

Fuel Saved	2012 Emission Factors and Decrease in Emissions											
	NO <sub>x</sub>		PM <sub>10</sub> <sup>a</sup>		VOC		CO <sub>2</sub>		SO <sub>2</sub>		CO	
(gal) <sup>b</sup>	g/gal <sup>c</sup>	tpy <sup>d</sup>	g/gal <sup>e</sup>	tpy	g/gal <sup>f</sup>	tpy	g/gal <sup>g</sup>	tpy	g/gal <sup>h</sup>	tpy	g/gal <sup>i</sup>	tpy
524,902	144	83.3	4.1	2.4	7.5	4.3	10,217	5,911.6	1.88	1.1	26.6	15.4

Sources: CSXT 2011a, Routing Changes – Runtime;

CSXT 2011b, Elsdon Subdivision Information Request, April 19, 2011;

USEPA 2009, Emission Factors for Locomotives, Office of Transportation and Air Quality, EPA-420-F-09-025, April 2009, <http://www.epa.gov/nonroad/locomotiv/420f09025.pdf>.

Notes:

<sup>a</sup> PM<sub>2.5</sub> emissions are not listed, but can be assumed to be 97 percent of PM<sub>10</sub> emissions per note on page 4,

"Emission Factors for Locomotives," Office of Transportation and Air Quality, EPA-420-F-09-025, April 2009.

<sup>b</sup> U.S. gallon.

<sup>c</sup> grams/U.S. gallon. NO<sub>x</sub> emission factor taken from Table 5 on page 7, "Emission Factors for Locomotives," Office of Transportation and Air Quality, EPA-420-F-09-025, April 2009.

<sup>d</sup> Tons per year.

<sup>e</sup> PM<sub>10</sub> emission factor taken from Table 6 on page 8, "Emission Factors for Locomotives," Office of Transportation and Air Quality, EPA-420-F-09-025, April 2009.

<sup>f</sup> VOC emission factor taken from Table 7 (for Hydrocarbons) on page 9 multiplied by 1.053 per note on page 4, "Emission Factors for Locomotives," Office of Transportation and Air Quality, EPA-420-F-09-025, April 2009.

<sup>g</sup> CO<sub>2</sub> emission factor calculated as follows: (3200) x (3.67) x (0.87) = 10,217 g/gal, page 5, "Emission Factors for Locomotives," Office of Transportation and Air Quality, EPA-420-F-09-025, April 2009.

<sup>h</sup> SO<sub>2</sub> emission factor calculated as follows: (3200) x (0.978) x (2.00) x (300x10E-6) = 1.88 g/gal, page 5, "Emission Factors for Locomotives," Office of Transportation and Air Quality, EPA-420-F-09-025, April 2009.

<sup>i</sup> CO emission factor calculated as follows: 1.28 g/bhp-hr x 20.8 bhp/gal = 26.6 g/gal. Because USEPA's CO emission standards were intended to cap CO emissions at pre-control levels (which were relatively low), USEPA did not project any reductions in CO emission factors for future years. However, recent testing indicates that emission controls designed to reduce PM and HC emissions are also reducing CO emissions. Thus, the CO emission rate used here may be too high. See page 2, "Emission Factors for Locomotives," Office of Transportation and Air Quality, EPA-420-F-09-025, April 2009.

### **Decrease in Emissions from Fuel Savings From Idling Reductions**

Section 3.9 does not include calculations of fuel savings due to reductions in idling time, but any reduction in idling time would reduce fuel usage, and is expected as part of the overall efficiency improvements anticipated as part of the Proposed Transaction. Any reduction in fuel usage would directly reduce air emissions.

### **Emissions from Fuel Consumed by Delayed Vehicles**

Some rail segments that the Proposed Transaction would affect would show increases in vehicle delay and in corresponding emissions, while other rail segments would show decreases in vehicle delay. Given that the new routings under the Proposed Transaction would generally move trains over shorter distances compared to the existing routing, and with generally greater speeds, the overall fuel consumption by delayed vehicles would tend to decrease slightly. However, any changes in emissions due to decreases in vehicle delay would not have a significant impact on pollutants, as decreases are regional in nature, such as

NO<sub>x</sub> and VOC (as precursors to Ozone), CO<sub>2</sub>, and SO<sub>2</sub>. For pollutants that have a more localized impact, such as CO, PM<sub>10</sub>, PM<sub>2.5</sub>, and air toxics, at-grade crossings that experience an increase in vehicle delay as a result of the Proposed Transaction could also experience an increase in the impact to air quality compared to the impact caused by existing vehicle delay.

The potential for localized air quality impacts is greatest at at-grade crossings with the highest vehicle volumes (creating the longest queues when delayed). USEPA guidance specifies criteria based on traffic LOS for screening the roadway intersections affected by a project and selecting intersections, if necessary, for detailed air quality analysis (USEPA 1992) (See Section 3.1, Transportation, for further discussion of LOS). USEPA guidance considers signalized intersections (i.e., intersections with traffic lights) that operate at LOS D, E, or F to have sufficient traffic congestion that the associated vehicle emissions might cause or contribute to local CO and particulate concentrations that might exceed the NAAQS within maintenance and nonattainment areas. Such intersections are subject to further air quality analysis. USEPA considers signalized intersections that operate at LOS A, B, or C not to have sufficient traffic congestion to cause or contribute to local CO concentrations that might exceed the NAAQS. USEPA considers unsignalized intersections (i.e., intersections without traffic lights) not to have sufficient traffic congestion to cause or contribute to local CO or particulate concentrations that might exceed the NAAQS and does not require air quality analysis for unsignalized intersections.

As described in Section 3.7, none of the rail segments involved in the Proposed Transaction goes through the portion of the study area that is a maintenance area for CO. But the Proposed Transaction does go through nonattainment areas for PM<sub>10</sub> and PM<sub>2.5</sub>. However, as Table 3.1-5 shows, all of the at-grade crossings reviewed are predicted to have LOS A for the No-Action Alternative. Under the Proposed Transaction, the at-grade crossings at 83<sup>rd</sup> Place and Columbus Avenue (IL 7) would change to LOS B and the at-grade crossing at 79<sup>th</sup> Street would change to LOS C. Based on LOS levels, these intersections do not have sufficient traffic congestion to cause or contribute to local particulate concentrations that might exceed the NAAQS. Therefore, air quality impacts resulting from delayed vehicle at crossings is expected to be minimal as a result of the Proposed Transaction.

The Village of Evergreen commented that the increased train traffic from the Proposed Transaction may have an adverse effect on air quality in its community. OEA notes that, as described in Section 3.7, none of the rail segments involved in the Proposed Transaction goes through the portion of the study area that is a maintenance area for CO, but does go through nonattainment areas for PM<sub>10</sub> and PM<sub>2.5</sub>. However, as discussed above there are no at-grade crossings that have sufficient traffic congestion based on LOS to cause or contribute to local particulate concentrations that might exceed the NAAQS. As stated above, air quality impacts are expected to be minimal as a result of the Proposed Transaction.

## **Climate**

### **Urban Heat Island Effect**

Larger metropolitan areas experience a recognized Urban Heat Island (UHI) effect, which occurs when cities replace natural land cover with pavement, buildings, and other infrastructure. Urban sources of fuel combustion also release heat to the urban environment, thus contributing to the urban heat island. The Proposed Transaction does not include any new construction of track, and is expected to reduce fuel use in the urban area compared to the No-Action Alternative because routing trains over the Elsdon Line would move trains over shorter distances and generally reduce overall fuel consumption. Therefore, the Proposed Transaction would not have an impact on the local UHI.

### **Global Climate Change**

Many factors can affect global climate, including changes in atmospheric composition due to greenhouse gas (GHG) emissions. Other factors include solar variation, volcanic activity, ocean current cycles, variations in earth orbit, and orientation of the earth on its rotational axis. It is thought that a reduction in solar activity caused the Little Ice Age, for example, given the observation that during the core of the Little Ice Age there was much lower sunspot activity. Concerns expressed in recent years are that mankind's emissions of greenhouse gases may warm the climate, possibly affecting precipitation patterns as well.

Any impact to global climate change resulting from the Proposed Transaction would be through the emissions of GHG, primarily carbon dioxide (CO<sub>2</sub>). However, as Section 3.9 discusses, locomotive engine fuel use would decrease due to the Proposed Transaction because of expected improvements to the efficiency, consistency, and reliability of CSXT's Chicago operations. In addition, CSXT will comply with USEPA emissions standards for diesel-electric railroad locomotives (40 C.F.R. Part 92) when purchasing and rebuilding locomotives (see VM 38). A reduction of fuel usage and compliance with USEPA emission standards for diesel-electric locomotives would result in a reduction of GHG emissions, primarily CO<sub>2</sub>; however, this would be too minor to affect climate change.

#### **3.7.2.2 No-Action Alternative**

Impacts to air quality and climate would not change as a result of the No-Action Alternative.

## 3.8 Noise and Vibration

### 3.8.1 Noise

This section discusses existing noise levels in the study area and describes the actions undertaken to document those conditions. It also identifies the basic acoustical concepts used in the noise analysis, the Board's noise regulations, and QZs. For this discussion, the study area comprises the Elsdon Line segments that would experience an increase in train traffic (i.e., segments GTW-03, 04, and 05). The Proposed Transaction would involve no construction of new facilities or rail lines. Therefore, this analysis does not include any construction related noise and vibration studies.

### 3.8.2 Human Perception Levels

Sound is what humans hear when exposed to small pressure fluctuations in the air; noise generally is considered to be unwanted or undesirable sound. In general, sound waves travel away from the source as an expanding spherical surface. The energy contained in a sound wave is spread over an increasing area as it travels, resulting in a decrease in loudness as it moves further from the source.

A sound's intensity is determined by how much its pressure fluctuates above and below that of the atmosphere and is expressed in units of decibels (dB). Sound is described in a logarithmic dB scale that takes into account the wide range of sound pressure levels in the environment. By using this scale, the range of normally encountered sound can be expressed in values between 0 and about 140 dB.

Sound-level meters measure pressure fluctuations caused by sound waves and record separate measurements for different frequency ranges; most sounds consist of a broad range of frequencies. Since the human ear does not respond equally to all frequencies (or pitches), measured sound levels (in dB at standard frequency bands) often are adjusted or weighted to correspond to the frequency response of human hearing and human perception of loudness. The A-weighted decibel (dBA) scale is most widely used for this purpose. Typical A-weighted noise levels for various types of sound sources are summarized in Table 3.8-1.

The sound exposure level, or SEL, is the cumulative exposure from a single-noise event. SEL represents the total amount of sound energy that enters a receiver's ears (or the measurement microphone) during the locomotive or railcar pass-by. SEL is a cumulative measure, which means that louder events have greater SEL values than quiet events, and events that last longer also have greater SEL values than shorter events. SEL values are used in the analysis to calculate hour equivalent sound level ( $L_{eq}$ ) and day-night noise level ( $L_{dn}$ ) values (see below) associated with freight trains traveling in the study area.

Varying noise levels are often described in terms of  $L_{eq}$ . Equivalent sound levels are used to develop single-value descriptions of average noise exposure over stated periods of time. The 1-hour  $L_{eq}$  values over a 24-hour period are often used to calculate cumulative noise exposure, which can be expressed using  $L_{dn}$ .  $L_{dn}$  is the A-weighted  $L_{eq}$  for a 24-hour period; an added

10 dBA penalty is imposed on nighttime noise (between 10 p.m. and 7 a.m.) since sleep interference could be an issue.  $L_{dn}$  is a metric that is often used to characterize a community's response to noise because of the nighttime-noise penalty.

<b>Table 3.8-1. Weighted-Noise Levels and Human Response</b>		
<b>Sound Source</b>	<b>dBA</b>	<b>Response Descriptor</b>
Carrier deck jet operation	140	Limit of amplified speech
	130	Painfully loud
Jet takeoff (200 feet) Auto horn (3 feet)	120	Threshold of feeling and pain
Riveting machine Jet takeoff (2,000 feet)	110	
Shout (0.5 foot) New York subway station	100	Very annoying
Heavy truck (50 feet) Pneumatic drill (50 feet)	90	Hearing damage (8-hour exposure)
Passenger train (100 feet) Helicopter (in flight, 500 feet) Freight train (50 feet)	80	Annoying
Freeway traffic (50 feet)	70	Intrusive
Air conditioning unit (20 feet) Light auto traffic (50 feet)	60	
Normal speech (15 feet)	50	Quiet
Living room, bedroom, library	40	
Soft whisper (15 feet)	30	Very quiet
Broadcasting studio	20	
	10	Just audible
	0	Threshold of hearing

Source: CEQ 1970, *Environmental Quality: the First Annual Report of the Council on Environmental Quality*, Washington, DC: U.S. Government Printing Office.

The logarithmic nature of dB scales is such that individual sound pressure levels for different noise sources cannot be added directly to produce the level for the combined sources. For example, two sources that produce equal dB levels at a given location will produce a combined level that is 3 dBA greater than either sound on its own. When two sources differ by 10 dBA, the combined level will be no greater than the louder source alone. People generally cannot detect differences of 1 dBA to 2 dBA between sources. Under ideal listening conditions, differences of 2 dBA or 3 dBA can be detected by some individuals. A 5-dBA change probably would be perceived by most people under normal listening conditions. People generally perceive a 10-dBA increase in a particular noise level as a doubling of loudness. For example, the average person will perceive a 70-dBA sound to be twice as loud as one of 60 dBA.

When distance is the only factor considered, sound levels from isolated point sources typically decrease by about 6 dBA each time the distance from the source is doubled. When the source is a continuous line (for example, vehicle traffic on a highway), sound levels decrease by about half as much (3 dBA) each time the distance from the source is doubled.

Sound levels can be affected by factors other than distance. Topographic features and structural barriers (including buildings) that absorb, reflect, or scatter sound waves can increase or decrease sound levels. In particular, buildings in developed urban areas block train sound from traveling directly into adjacent neighborhoods. This is called shielding. To assess noise here, the Federal Transit Administration (FTA)/FRA methods to account for shielding from buildings adjacent to the rail lines were used. Atmospheric conditions (wind speed and direction, humidity level, and temperature) also can affect the degree to which sound is attenuated over distance. However, this noise analysis did not account for these atmospheric effects.

The Board's rules specify that additional analysis is warranted if the Proposed Transaction would cause an incremental increase of rail traffic by at least 100 percent as measured by annual gross ton miles, by 8 or more trains per day, or if carload activity at rail yards would increase by at least 100 percent. *See* 49 C.F.R. § 1105.7(e)(6), Noise. Noise analyses are required at intermodal facilities if truck traffic would increase by 50 trucks per day or 10 percent of the average daily traffic. *See* 49 C.F.R. § 1105.7(e)(6), Noise. If these activity thresholds are exceeded, the Board requires a determination as to whether the proposed transaction would cause an incremental noise-level increase of at least 3 dB on an  $L_{dn}$  basis, or whether the noise level would rise to 65 dB ( $L_{dn}$ ) or more. If either of these thresholds is met, the Board requires that sensitive receptors (e.g., schools, libraries, hospitals, residences, retirement communities, and nursing homes) in the area be identified, and the projected noise increase for these receptors be determined. A 3-dBA increase in  $L_{dn}$  could result from a 100-percent rise in train traffic, a substantial change in operating conditions, changed equipment, or a shift of operations from daytime to nighttime. Nighttime noise often dominates the  $L_{dn}$  because of the 10-dB penalty. The threshold guidelines for noise in the Board's environmental rules are summarized in Table 3.8-2.

<b>System Component</b>	<b>Noise Analysis Threshold</b>
Rail Line Segments	Increase of 8 trains per day, or 100-percent increase in annual gross ton-miles
Rail Yards, Facilities	100-percent increase in carload activity per day
Truck Traffic	Increase of 50 trucks per day, or 10-percent increase in average daily traffic volumes on any affected road segment

*Source: 49 C.F.R. § 1105.7(e)(6), Noise.*

Typically, train activities can produce noise from a variety of sources, including operations, rail yards, increased auto and bus traffic near stations, and noise from wheels and horns. The noise a train generates when it travels along a rail line is referred to as wayside noise. Wayside train noise includes locomotive engine noise, wheel/rail contact, braking, and coupling/uncoupling

operations. Conversely, the noise emitted by locomotive horns is referred to as grade crossing noise (because locomotive horns often are used where public roads cross rail lines at grade).

### 3.8.3 Existing Quiet Zones

A quiet zone (QZ) is a railroad grade crossing at which trains are prohibited from sounding their horns in order to minimize the noise level for nearby residents. The horns can be silenced only when other safety measures compensate for their absence.

The FRA regulation (49 C.F.R. Parts 222 and 229), *Use of Locomotive Horns at Highway-Rail Grade Crossings*, took effect on June 24, 2005 (FRA 2005a). This rule requires that locomotive horns be sounded upon approaching every “unsealed” public grade crossing. An unsealed public grade crossing is defined as a train and road crossing without grade separation, quad gating, or crossing guard with median barrier. At QZs established in accordance with the rule, trains are required to sound their horns 15 to 20 seconds before arrival at the crossings, rather than for a quarter mile (as required by most applicable state laws) regardless of speed. This results in horns sounding over a shorter distance and/or for a reduced duration at many locations. The rule also prescribes both a minimum and maximum volume level for the train horn, further reducing noise levels.

QZs are evaluated using FRA’s quiet zone calculator on the basis of Quiet Zone Risk Index (QZRI). This measure averages the risk index for the crossing within the zone. In addition to a number or minimum requirements, a zone must satisfy the requirement that the QZRI fall below one of two thresholds: the National Safety Risk Threshold or the Risk Index with Horns.

The federal rule pre-empts all applicable state laws. Communities wishing to establish QZs must equip proposed grade crossings with adequate safety measures to compensate for the decreased safety created by the elimination of horn use. The additional safety measures must be implemented at the community’s expense and must meet federal specifications. Existing QZs are addressed in the following sections.

Based on the finding in the incident/accident frequency analysis that the Proposed Transaction would not have a significant impact on highway/rail at-grade crossing safety, it does not appear that the QZs on segment GTW-05 would change in status. Also based on the incident/accident frequency analysis, it appears that QZs could be added to segments GTW-03 and GTW-04.

#### 3.8.3.1 Affected Environment

This analysis utilizes existing noise level information that was collected in 2010 by IDOT as part of the environmental review of the CREATE B16 project. This CREATE project is a related, but separate proposed project, and environmental review and approval were completed by IDOT and FHWA under the CREATE program. However, some of the existing noise measurements in the CREATE B16 project coincide with the study area of the Proposed Transaction. Table 3.8-3 presents measurement results expressed as both hourly  $L_{eq}$  and  $L_{dn}$ .

Table 3.8-3. Measured Noise Levels						
Segment No.	Location	Parcel Address	Receptor	Measured $L_{eq}$ (h)	Measurement Period (hour of the day)	Converted $L_{dn}$ <sup>a</sup>
GTW-03, GTW-04	Northwest quadrant of CN railroad junction; athletic fields and school	15125 Main St	Thornton Township High School	56 dBA	16	54 dBA
GTW-03	North of railroad tracks and south of E 155 <sup>th</sup> St, along Vincennes Rd	15536 Vincennes Rd	Residence	64 dBA	10	62 dBA
GTW-03	South of railroad tracks and east of Vincennes Rd, along W 162 <sup>nd</sup> St	447 W 162 <sup>nd</sup> St	Residence	70 dBA	12	68 dBA
GTW-02, GTW-03	East of railroad tracks and west of Wausau Ave; playground along E 166 <sup>th</sup> St	240 E 166 <sup>th</sup> St	Willowbrook Park	55 dBA	15	53 dBA
GTW-02	North of railroad tracks and south of 169 <sup>th</sup> St, along Cottage Grove Ave	16949 Cottage Grove Ave	McKinley Junior High School	53 dBA	11	51 dBA
GTW-02	North of railroad tracks and east of Drexel Ave; ballpark along E 172 <sup>nd</sup> St	17201 Ingleside Ave	Thorn Creek Park	55 dBA	17	53 dBA
GTW-02	South of railroad tracks and west of Volbrecht Rd, along E 180 <sup>th</sup> St	1548 E 180 <sup>th</sup> St	Residence	53 dBA	13	51 dBA
GTW-02	South of railroad tracks between Louis Ct and Park Ave, along E 168 <sup>th</sup> Pl	168 <sup>th</sup> Pl and Louis Ct	Dahlenberg Park	55 dBA	15	53 dBA

Notes:

<sup>a</sup>  $L_{eq}$  to  $L_{dn}$  conversion performed using FTA/FRA guidelines (FTA 2006, *Transit Noise and Vibration Impact Assessment*, FTA-VA-90-1003-03, [http://www.fta.dot.gov/documents/FTA\\_Noise\\_and\\_Vibration\\_Manual.pdf](http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf); FRA 2005b, *High-Speed Ground Transportation Noise and Vibration Impact Assessment*, [http://www.fra.dot.gov/downloads/RRDev/final\\_nv.pdf](http://www.fra.dot.gov/downloads/RRDev/final_nv.pdf).)

The measurements occurred along segments GTW-02 and GTW-03, and the southern end of GTW-04. The measurements were performed according to CREATE methodology, where the measurement did not include the noise of existing trains. Therefore, the measurements characterize the existing noise levels in the immediate neighborhoods due to non-train noise sources (i.e., background noise).

This analysis assumes that the measurements are representative of sound levels without trains in neighborhoods throughout the affected study area. Some neighborhoods in the study area already approach or exceed the 65 dBA level even without the existing trains because of background traffic and noise associated with normal intercity activities. The day-night levels ( $L_{dn}$ ) ranged from 51 dBA to 68 dBA. Some neighborhoods in the study area can be expected to already approach or exceed the 65 dBA criterion even without existing trains or proposed trains. Noise levels due to existing non-train noise sources in a majority of neighborhoods would be 10 dBA or more below the criterion level of 65 dBA, assuming these measurements are representative.

When two noise levels differ by 10 dBA or more, the influence of the lesser noise level is negligible and the greater noise level becomes the resulting combined noise level. Therefore, in many neighborhoods within the 65-dBA  $L_{dn}$  contours (see Appendix C), the noise due to non-train noise sources would have minimal influence on the overall noise level.

The sections below, however, take into account the existing trains on the Elsdon Line when determining whether the Proposed Transaction will create the potential for an increase in noise exposure as measured by an  $L_{dn}$  of 3 dBA or more or an increase to a noise level of 65  $L_{dn}$  or greater.

### 3.8.3.2 Environmental Impacts

#### Proposed Transaction

Chapter 2 describes the Proposed Transaction, and identifies the existing and the proposed number of trains per day on the affected rail line segments. Based on that information, Table 3.8-4 presents the rail line segments that are projected to experience operational changes as a result of the Proposed Transaction that meet or exceed a threshold for noise analyses, shown in Table 3.8-2 above.

Segment No.	Length miles	Begin		End		Trains/Day		Change
		Station	Milepost	Station	Milepost	Existing	Proposed	
GTW-03	2.0	Thornton Jct	25.2	CN Jct	23.2	8.6	18.7	+10.1
GTW-04	3.9	CN Jct	23.2	Blue Island Jct	19.3	6.0	16.7	+10.7
GTW-05	7.5	Blue Island Jct	19.3	Hayford	11.8	3.5	23	+19.5

Source: CSXT 2011, Elsdon Subdivision Information Request, April 19, 2011.

The three rail segments shown above are projected to experience an increase in rail traffic in excess of eight trains per day, which exceeds the Board's threshold for noise analyses. The projected traffic changes on the three rail segments were evaluated with respect to the Board's noise thresholds. In addition, this analysis included the potential for the following conditions to occur:

- An increase in noise exposure as measured by an  $L_{dn}$  of 3 dBA or more
- An increase to a noise level of 65  $L_{dn}$  or greater

In previous cases (i.e., Conrail Final Environmental Impact Statement [EIS], CN/EJ&E Final EIS)<sup>41</sup>, the Board determined that quantifying noise-sensitive receptors in the existing and Proposed Transaction 65 dBA  $L_{dn}$  noise contour should be used to determine noise effects (STB 2003, 2008). Therefore, the method used to determine potential noise effects from the Proposed Transaction first determined if the three Elsdon Line segments where rail traffic would increase as a result of the Proposed Transaction would experience an increase of 3 dBA on an  $L_{dn}$  basis due to the shifting of train traffic to the Elsdon Line from other CSXT subdivisions. Table 3.8-5 shows the results of this assessment.

<b>Table 3.8-5. Projected Increase in <math>L_{dn}</math></b>				
<b>Segment No.</b>	<b>Trains/Day</b>		<b>Change</b>	<b>Increase in <math>L_{dn}</math> (dBA)</b>
	<b>Existing</b>	<b>Proposed</b>		
GTW-03	8.6	18.7	+10.1	3
GTW-04	6.0	16.7	+10.7	5
GTW-05	3.5	23.0	+19.5	9

Source: CSXT 2011, Elsdon Subdivision Information Request, April 19, 2011.

Traffic changes on these three segments are projected to contribute to an increase of 3 dBA or more in the  $L_{dn}$ . Therefore, on these segments, this analysis quantified the number of noise-sensitive receptors in the Proposed Transaction that would be within the 65 dBA  $L_{dn}$  noise contours. The Board defines affected receptors to include schools, libraries, residences, retirement communities, and nursing homes (49 C.F.R. § 1105.7e(6)).

### **Noise Modeling Methodology**

The analysis used a train noise model to evaluate the  $L_{dn}$  that might result from the Proposed Transaction, and identify receptors where the  $L_{dn}$  is anticipated to be 65 dBA or greater. The noise modeling methodology consisted of several steps including the following:

- Calculating sound emission levels of train sound sources
- Calculating sound propagation from train noise sources

<sup>41</sup> STB 2003, *CSX Corporation and CSX Transportation Inc., Norfolk Southern Corporation and Norfolk Southern Railway Company-Control and Operating Leases/Agreements-Conrail Inc. and Consolidated Rail Corporation*, Finance Docket No. 33388 (STB served November 5, 2003).

STB 2008, *CN December 24 Decision*.

- Calculating the shielding due to intervening obstructions
- Identify receptors affected by  $L_{dn} \geq 65$  dBA

The tools employed for the noise modeling included the FTA fixed-guideway source calculations, a 3-dimensional acoustical analysis software package, and a geographic information system (GIS) database created for this project.

The sound propagation modeling occurred in Cadna-A, a 3-dimensional acoustical analysis software package designed for evaluating environmental noise from stationary and mobile sources. Cadna A uses as the basis for its models the International Organization for Standardization (ISO) standard 9613-2, "Acoustics – Attenuation of sound during propagation outdoors – Part 2: General method of calculation," adopted by the ISO in 1996 (ISO 1996). This standard provides a widely accepted engineering method for the calculation of outdoor environmental noise levels.

FTA’s *Transit Noise and Vibration Assessment* (FTA 2006) provides a method for the computation of sound levels from fixed-guideway (train) sources. These calculation methods were mathematically manipulated to derive input data which is compatible with the Cadna-A software package. The trains were entered as moving point sources in Cadna-A with a Sound Power Level (symbol:  $L_W$ ; abbreviation: SWL) calculated for each track segment and sub-segment.

Table 3.8-6 shows the parameters which were derived for use in train noise source modeling. These parameters were validated in abstract model scenarios and compared with hand calculations using the FTA propagation equations. The Cadna-A results were found to under-predict levels by 0.1 to 1.0 dBA, therefore a conservative 2 dBA was added to compensate.

<b>Table 3.8-6. Train Noise Source Modeling Parameters</b>		
<b>Train Noise Source</b>	<b>Point-Source SWL (dBA)<sup>a</sup></b>	<b>SWL Adjustment (dBA)<sup>b</sup></b>
Diesel-electric locomotives	$120 + 2 = 122$	$+ 10 \log(N_{loco}) + C_{throttle}$
Railcars	$97 + 2 = 99$	$+ 10 \log(N_{cars}) + 30 \log(S/S_{ref}) + C_{track}$
Locomotive warning horns	$142 + 2 = 144$	+ 0

Where:

$N_{loco}$  = Number of locomotives per train.

$N_{cars}$  = Number of railcars per train.

$S$  = Average speed of train.

$S_{ref}$  = Reference speed of 50 mph [80.5 km/h].

$C_{throttle}$  = Adjustment for throttle setting: 0 to 5 = 0 dBA; 6 = 2 dBA; 7 = 4 dBA; 8 = 6 dBA.

$C_{track}$  = Adjustment for track conditions: CWR = 0 dBA; jointed track = 5 dBA.

Source: FTA 2006, "Transit Noise and Vibration Impact Assessment," FTA-VA-90-1003-03, [http://www.fta.dot.gov/documents/FTA\\_Noise\\_and\\_Vibration\\_Manual.pdf](http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf).

Notes:

<sup>a</sup> Sound Power Level (SWL) derived from values in FTA (FTA 2006, *Transit Noise and Vibration Impact Assessment*, FTA-VA-90-1003-03, [http://www.fta.dot.gov/documents/FTA\\_Noise\\_and\\_Vibration\\_Manual.pdf](http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf)).

The +2 is to compensate for under-predicting levels by 0.1 to 1.0 dBA when computer model is validated against hand-calculations.

<sup>b</sup> Adjustment formulas derived from detailed noise assessment formulas in FTA (2006). These are the remaining terms after accounting for using a point-source SWL instead of a passby SEL, and accounting for the moving-point-source formula in the computer model.

Table 3.8-7 shows the modeling data by track segment. Under the Proposed Transaction track segments were divided into sub-segments where speed changes would occur due to tract constraint limitations. Then, the number of trains per day was divided into the average number of trains per hour. This evenly distributes the train traffic through the daytime and nighttime hours. The day-night average sound level ( $L_{dn}$ ) rating adds 10 dBA to noise levels during the hours from 10:00 PM to 7:00 AM to account for typical increased sensitivity to noise during the nighttime.

Segment No.	Average Hourly Train Traffic				Speed (mph)	At-Grade Crossings		Track Condition <sup>d</sup>	Shielding Condition <sup>e</sup>
	Volume (hour <sup>-1</sup> )		Consist <sup>a</sup>			Quantity	QZ <sup>c</sup>		
	Exist.	Prop.	Loco.	Cars <sup>b</sup>					
GTW-03	0.4	0.8	2.0	86.6	50.0	5	No	CWR	Dense Suburban
GTW-04	0.3	0.7	2.0	86.6	50.0	11	No	CWR	Dense Suburban
	0.3	0.7	2.0	86.6	40.0	1	No	CWR	Dense Suburban
	0.3	0.7	2.0	86.6	30.0	1	No	CWR	Dense Suburban
GTW-05	0.1	1.1	2.0	86.6	30.0	2	Yes	Jointed	Dense Urban
	0.1	1.1	2.0	86.6	35.0	12	Yes	Jointed	Dense Urban
	0.1	1.1	2.0	86.6	30.0	2	Yes	Jointed	Dense Urban
	0.1	1.1	2.0	86.6	20.0	1	Yes	Jointed	Dense Urban

Sources: CSXT 2011, Elsdon Subdivision Information Request, April 19, 2011.

Notes:

<sup>a</sup> Existing and proposed trains differ in hourly volumes but have identical consists and speeds between existing and proposed train traffic.

<sup>b</sup> Derived from total length of train and each car is assumed to be 70 feet.

<sup>c</sup> Quiet Zone

<sup>d</sup> Continuously welded rail or jointed rail

<sup>e</sup> Shielding Conditions described below

Table 3.8-8 lists the specific at-grade crossings associated with each segment of the Elsdon Line. Horn noise was modeled where at-grade crossings were not in a QZ. QZs do not exist on either GTW-03 or GTW-04 and locomotive horn use was modeled on those two segments. According to the FRA *Highway-Rail Crossing Inventory Data*, public at-grade crossings on the GTW-05 rail line segment have been QZs since 2008 (FRA 2011a); therefore locomotive horn use was not modeled at public at-grade crossings on GTW-05. Track condition adjustments were applied as indicated in the table.

<b>Table 3.8-8. At-Grade Highway/Rail Crossings</b>			
<b>Segment No.</b>	<b>Street</b>	<b>Speed (mph)</b>	<b>QZ</b>
GTW-03	U.S. 6 / 162 <sup>nd</sup> St	50	No
	Vincennes Rd / Thornton-		
	Blue Island Rd		
	155 <sup>th</sup> St Halsted St (IL 1)		
GTW-04	Park Ave	50	No
	Broadway Ave		
	Center Ave 150 <sup>st</sup> St Ashland Ave IL 83/Sibley Blvd Wood St Lincoln Ave Robey St		
	Western Ave	40	No
	Broadway St	30	No
GTW-05	Union St	30	Yes
	127 <sup>th</sup> St	35	Yes
	123 <sup>rd</sup> St		
	119 <sup>th</sup> St		
	115 <sup>th</sup> St		
	111 <sup>st</sup> St		
	103 <sup>rd</sup> St		
	99 <sup>th</sup> St		
	95 <sup>th</sup> St (U.S. 12 / U.S. 20)		
	Kedzie Ave		
94 <sup>th</sup> St			
91 <sup>st</sup> St			
87 <sup>th</sup> St			
	83 <sup>rd</sup> Pl	30	Yes
	Columbus Ave (IL 7)		
	79 <sup>th</sup> St	20	Yes

Sources: CDOT 2011, City of Chicago Traffic Information, <http://webapps.cityofchicago.org/traffic/>;

FRA 2011a, Crossing Inventory Reports,

<http://safetydata.fra.dot.gov/OfficeofSafety/publicsite/crossing/crossing.aspx>;

ICC 2011, Grade Crossing Search Results,

<http://www.icc.illinois.gov/railroad/results.aspx?v=t&county=C031&s=O&g=A&t=PUB>;

With the input data identified in the tables above, the sound propagation model calculated the sound levels due to train sound sources. These results were incorporated into the GIS database to apply shielding effects due to intervening buildings.

Obstructions which interrupt the line-of-sight to train sound sources provide a measure of shielding and correspondingly reduce sound levels. The *FRA Horn Noise Model* uses generalized shielding conditions, rather than calculating the shielding due to particular obstructions (FRA 2011b). The noise modeling made use of the FRA shielding conditions and their assumptions. In this way, the analysis can generally account for shielding without having to model the shielding effects of every building, garage, fence, and shed. FRA identifies the following shielding conditions:

- Dense Urban
- Light Urban
- Dense Suburban
- Light Suburban
- Rural
- No Shielding

Aerial photographs were used to identify the most appropriate shielding condition, by segment. The “Dense Suburban” and “Dense Urban” assumptions were applied to this analysis. Table 3.8-9 shows the shielding condition assumption for each segment. The noise contour figures (Appendix C) include aerial photographs.

Table 3.8-9 shows the assumptions associated with the above shielding conditions. This analysis used the assumptions associated with the corresponding shielding condition to apply shielding values to the sound propagation model results.

<b>Table 3.8-9. Shielding Condition<sup>a</sup> Parameters</b>				
<b>Building Density</b>		<b>Building Environment</b>		
<b>Dense</b>	<b>Light</b>	<b>Urban</b>	<b>Suburban</b>	<b>Rural<sup>b</sup></b>
<b>Shielding Value (dBA)</b>		<b>Shielding Distance (ft.)</b>		
None	None	< 100	< 200	< 300
5.0	3.0	100 to 300	200 to 400	300 to 500
6.5	4.5	300 to 500	400 to 600	500 to 700
8.0	6.0	500 to 700	600 to 800	700 to 900
9.5	7.5	700 to 900	800 to 1,000	900 to 1,100
11.0	9.0	> 900	> 1,000	> 1,100

Notes:

<sup>a</sup> Shielding condition is a combination of building density and building environment; for example, the shielding condition “Dense Suburban.”

<sup>b</sup> Rural shielding conditions only use “Light” building density (i.e., there is no “Dense Rural” shielding condition).

Finally, the receptors were identified where the  $L_{dn}$  due to the proposed trains is predicted to be 65 dBA or greater. The 65 dBA  $L_{dn}$  contour was plotted in GIS, based upon the calculated noise levels from the proposed trains. The receptors which were within the contour were considered to be affected by the noise from the proposed trains.

For the three segments of track that met the Board's threshold for noise analysis, the modeling parameters can be summarized as:

- The proposed number of trains per day would increase from the existing number
- The proposed number of rail cars, locomotives, and train speeds would be the same as the existing.
- The track conditions and at-grade crossings would not change.
- The shielding conditions and QZs would not change.

### **Noise Model Results**

Table 3.8-10 shows the number of receptors expected to experience 65 dBA or greater when measured as an  $L_{dn}$ . This table is based upon results of the noise models for the three segments that meet the Board's threshold for noise analysis, and is summarized by segment.

Table 3.8-10 also shows the number of receptors expected to experience an  $L_{dn}$  of 70 dBA or greater under the Proposed Transaction. Noise-sensitive receptors within the 70 dBA  $L_{dn}$  noise contour are considered potentially eligible for train noise mitigation opportunities, as discussed below. In addition, Table 3.8-10 shows that the Proposed Transaction may result in an additional 684 noise-sensitive receptors being exposed to an  $L_{dn}$  of 65 dBA or more (the difference between the existing 330 and the projected 1,014). This equates to approximately 94, 84, and 67 project-related effects per mile on the respective rail line segments. Appendix C includes figures showing the 65-dBA  $L_{dn}$  contour.

<b>Table 3.8-10. Noise Analysis Results</b>			
<b>Segment No.</b>	<b>Existing</b>	<b>Proposed Transaction</b>	
	<b>65 dBA <math>L_{dn}</math></b>	<b>65 dBA <math>L_{dn}</math></b>	<b>70 dBA <math>L_{dn}</math></b>
GTW-03	103	188	77
GTW-04	150	327	129
GTW-05	77	499	82
<b>Total</b>	<b>330</b>	<b>1,014</b>	<b>288</b>

Most of the affected receptors are near GTW-04 and GTW-05. The dominant noise source for many of these receptors is locomotive horn noise as trains approach at-grade crossings. Some receptors located between at-grade crossings would experience less locomotive horn noise; a combination of locomotive engine noise and the wheel/rail noise may contribute more noise at these receptors. Locomotive engine noise is mainly the diesel engine and the cooling fans, whereas wheel/rail noise is simply the inherent noise of a steel wheel rolling along a steel track.

The rail line segment with the largest potential incremental increase in trains per day is GTW-05. The density of residential development is higher in this portion of the project area than in other areas. Horn noise is not a factor at public at-grade crossings in GTW-05; these crossings have been QZs since 2008 (FRA 2011a). The train noise sources which are

contributing to the noise level at receptors near GTW-05 are a combination of the locomotive engine noise and the wheel/rail noise. For a list of all municipalities crossed by the Proposed Transaction see Table 3.8-1.

Table 3.8-10 shows that segment GTW-03, which includes the municipalities of the Village of Phoenix, Bremen Township and Cook County, IL, would experience the lowest increase in noise as described above.

The municipalities in segments GTW-04 and GTW-05 affected by an increase in noise level include the Village of Posen, Bremen Township, City of Harvey, Village of Phoenix, Village of Dixmoor, Thornton Township, Village of Evergreen Park, City of Blue Island Village of Merrionette Park, Worth Township, City of Chicago and Cook County, IL. These communities would experience the highest increases in noise. In separate letters, the South Suburban Mayors and Managers Association (SSMMA), the Village of Lansing, and the City of Blue Island commented that the Proposed Transaction would increase noise in their communities, and together with IDOT (in a separate letter), asked whether new QZs could be established in areas where QZs do not currently exist. In addition, the Village of Evergreen Park, which is located in an existing QZ, commented that the Proposed Transaction would result in an increase in noise to residences immediately adjacent to the rail line. The section below, which responds to these concerns, examines opportunities for mitigating these potentially adverse impacts.

### **Potential Mitigation to Minimize Noise Effects**

The projected increase in daily train traffic is expected to increase train noise levels in the areas immediately adjacent to the Elsdon Line. Historically, the Board has treated noise-sensitive land uses within the 70-dBA  $L_{dn}$  noise contour as being potentially eligible for mitigation to lessen the impacts of transaction-related train noise. *See CN December 24 Decision and Alaska Railroad Corporation Construction and Operation of a Rail Line Extension to Port MacKenzie, Alaska*, STB Finance Docket No. 35095 (STB served March 25, 2011). Accordingly, CSXT has proposed voluntary mitigation that would require compliance with FRA regulations establishing decibel limits for train operations (VM 42). Under another voluntary mitigation measure (VM 39), CSXT would negotiate opportunities to reduce train noise with affected communities that have noise sensitive receptors that would experience an increase of at least 5 dBA and reach 70 dBA to mitigate train noise to levels as low as 70 dBA by cost effective means as agreed to by an affected community and CSXT. In the absence of such an agreement, CSXT would implement cost effective mitigation measures such as constructing noise control devices that would include but are not limited to installing continuously welded rail (CWR), noise barriers, vegetation and berming. Additionally, CSXT would consider lubricating curves where doing so would be consistent with safe and efficient operating practices which would significantly reduce noise for residential or other noise sensitive receptors (VM 40). In mitigation measures MM 3 and 4, CSXT would also consult with communities affected by wheel squeal and other railroad noise at locations on the Elsdon Line, and work with the affected communities to ensure their concerns are addressed.

The noise analysis showed that locomotive horn use would increase on segments GTW-03 and GTW-04. Therefore, one potential opportunity to reduce train noise levels would be to implement QZs on these two segments (segment GTW-05 is already a QZ), which as shown in Table 3.8-10, would reduce horn noise. Another potential way to reduce projected increases in train noise levels would be to install CWR in place of bolted rail. GTW-05 has bolted rail, so this potential opportunity would be limited to this segment only. The benefits of implementing CWR on segment GTW-05 are shown in Table 3.8-10. For comparison, Table 3.8-11 shows that the potential adverse noise effects associated with the Proposed Transaction would be substantially reduced if the recommended noise mitigation measures are implemented

Segment No.	Proposed Transaction		As Mitigated	
	65 dBA $L_{dn}$	70 dBA $L_{dn}$	65 dBA $L_{dn}$	70 dBA $L_{dn}$
GWT-03	188	77	31	1
GWT-04	327	129	48	0
GWT-05	499	82	349	77
Total	1,014	288	428	78

In a June 14, 2011 letter, SSMMA raised three concerns regarding the Proposed Transaction. The first concern is about increased noise associated with horn noise and requests that CSXT work with affected communities to establish additional quiet zones to minimize impacts to these communities. SSMMA's other two concerns are addressed in the other appropriate resource areas of this Draft EA. The City of Blue Island (in a letter dated June 10, 2011) and IDOT (in a letter dated June 22, 2011) echo the concerns raised by SSMMA, discussed above.

Regarding transaction-related potential increases to noise and impacts to commuter rail, OEA is recommending that CSXT work closely with SSMMA (and thus, with the communities represented by SSMMA), IDOT, and others to resolve this and other concerns.

### **Vibration**

Vibration impact criteria for freight train traffic generally follow the guidance given by the FTA. The FTA discusses the application of the transit criteria to freight trains. The frequency of train vibration events for the existing line-haul freight-train traffic is classified as "frequent events", the highest event-frequency classification. With the Proposed Transaction, the frequency of events on the Elsdon Line would remain classified as frequent.

Vibration from freight train traffic is generally assessed in terms of the maximum vibration caused by any one train. The maximum vibration level of the train is compared to the criteria, irrespective of the number of vibration events. The vibration level of an event is affected by track conditions, the location of special track work, train speed, and the ground propagation conditions between the tracks and the receiver. All these parameters are

identical between the existing train traffic and the Proposed Transaction. The track would remain in the same location, even if it is replaced in various sections with CWR, so ground propagation conditions between the tracks and the receiver would not change. Track conditions and train speeds are not anticipated to change, therefore, the magnitude of vibration events would likewise not change from the existing train traffic to the proposed train traffic. The only parameter that would change is the number of trains per day, but that does not affect the vibration level of an event.

The FTA criterion for ground-borne vibration impact levels at a residence or other buildings where people sleep is 72 VdB (vibration decibels) (referenced to one microinch per second on a root-mean-square velocity basis). The magnitude of a vibration event can be estimated using tables and graphs in the FTA *Transit Noise and Vibration Impact Assessment* (FTA 2006). Table 3.8-12 shows the distance to residences or other buildings that are in the 72-VdB vibration level. As discussed above, the Proposed Transaction would not increase the vibration level of a passby event; therefore, the distance to the existing contour and the distance to the proposed contour would be identical.

Segment No.	Speed (mph)	Existing Contour Distance (ft.)	Proposed Contour Distance (ft.)
GWT-03	50	190	190
GWT-04	50	190	190
GWT-04	40	160	160
GWT-04	30	125	125
GWT-05	30	200	200
GWT-05	35	230	230
GWT-05	20	145	145

Source: FTA 2006, *Transit Noise and Vibration Impact Assessment*, FTA-VA-90-1003-03, [http://www.fta.dot.gov/documents/FTA\\_Noise\\_and\\_Vibration\\_Manual.pdf](http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf).

On this basis, there would be no vibration effects associated with the Proposed Transaction. Nevertheless, CSXT has proposed voluntary mitigation that would require it to install and maintain rail and rail beds according to AREMA standards (VM 43).

The Village of Evergreen commented that the Proposed Transaction would increase vibration to homeowners abutting and living within close proximity to the Elsdon Line. As discussed above, the magnitude of vibration events would not change from the existing traffic. CSXT has indicated that it will install and maintain rail and rail beds according to AREMA standards (VM 43). In addition, mitigation measure MM 4 would require CSXT to provide a community liaison to ensure that any concerns are addressed.

#### 3.8.4 Construction Noise and Vibration

The Proposed Transaction would not have any construction-associated new or refurbished facilities or rail lines. Therefore, this draft EA does not consider construction noise or vibration.

### 3.8.5 **No-Action Alternative**

The No-Action Alternative would not involve any changes to existing train traffic. Therefore, the No-Action Alternative would not result in noise or vibration impacts.

### 3.9 Energy Resources

The Board's environmental regulations require that the energy and conservation potential be considered for a proposed action. Specifically, the Board must consider the effect that the Proposed Transaction would have on energy resources, the transportation of recyclable commodities, and the potential for the Proposed Transaction to result in an increase or decrease in overall energy efficiency.

This section discusses the environmental setting and potential environmental impacts to energy resources resulting from the Proposed Transaction. Fuel consumption was evaluated. The Proposed Transaction would not affect the amount or route of energy-producing and recyclable commodities transported through the study area. Therefore, these items were not quantified.

#### 3.9.1 Affected Environment

CSXT's current energy use across its entire system of U.S. rail lines was calculated. It was estimated that CSXT currently uses 490 million U.S. gallons (gallons) of diesel fuel per year, including fuel for freight trains and for yard switching trains. Assuming 365 days of activity per year, CSXT's system-wide fuel use on current routes is approximately 1.3 million gallons per day (Table 3.9-1).

<b>Table 3.9-1. CSXT Energy Use for Existing Conditions – System Wide</b>		
<b>Type of Locomotive</b>	<b>Annual Fuel Use (gal)</b>	<b>Daily Fuel Use (gal)<sup>a</sup></b>
Freight	441,779,849	1,210,356
Yard Switching	48,269,900	132,246
<b>Total</b>	<b>490,049,749</b>	<b>1,342,602</b>

Source: STB 2011, *Class I Railroad Annual Report to the Surface Transportation Board for the Year Ending December 31, 2010*, <http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9ODgzMzh8Q2hpbGRJRjRD0tMXxUeXBIPtM=&t=1>.

Notes:

<sup>a</sup> Assumes fuel use is spread evenly over 365 days per year.

CSXT's 2010 annual report submitted to the Board lists a total of approximately 455.7 billion gross-ton-miles (GTM) of freight hauling. Dividing this value by the annual freight-related fuel use in Table 3.9-1 gives a system-wide fuel efficiency of 1,031 GTM per gallon of diesel fuel.

#### 3.9.2 Environmental Impacts

##### 3.9.2.1 Proposed Transaction

##### Fuel Consumption

The Proposed Transaction would improve the efficiency, consistency, and reliability of CSXT's Chicago operations. Currently, CSXT accesses major Chicago terminals by operating to, from, across, and over the rail assets of numerous rail partners. Acquisition of an exclusive, perpetual, non-assignable railroad operating easement over the Elsdon Line

would enable CSXT to have greater control over the handling of its trains to, from, and through Chicago, thus reducing CSXT's reliance on its rail partners and enabling it to operate more efficiently. This increased control would allow CSXT to improve the speed at which its trains operate within the Chicago Terminal to improve asset utilization and to reduce fuel consumption. Fuel reductions would result from decreases in total miles traveled by CSXT trains and from reductions in idling time.

### **Fuel Savings from Mileage Reductions**

Table 3.9-2 shows estimated fuel savings of 0.5 million gallons of diesel fuel per year due to reductions in train mileage under the Proposed Transaction.

<b>Table 3.9-2. CSXT Transaction-Related Fuel Savings from Mileage Reductions</b>					
<b>Route</b>	<b>Mileage Saved Per Train</b>	<b>Trains Per Day</b>	<b>GTM Saved Per Day<sup>a</sup></b>	<b>Fuel Savings Per Day (gal)</b>	<b>Fuel Savings Per Year (gal)<sup>b</sup></b>
East/West Routings via the IHB	4.6	13	407,836	396	144,384
East/West Routings via the BRC	4.1	8	223,696	217	79,194
North/South Routings (to BRC)	10.3	8	561,968	545	198,951
North/South Routings (59 <sup>th</sup> Street)	6.2	4	169,136	164	59,878
East/West Routings via the IHB	4.4	4	120,032	116	42,494
<b>Total</b>			<b>1,482,668</b>	<b>1,438</b>	<b>524,902</b>

Source: STB 2011, *Class I Railroad Annual Report to the Surface Transportation Board for the Year Ending December 31, 2010*, <http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9ODgzMzh8Q2hpbGRJRDR0tMXxUeXBIPtM=&t=1>.

Notes:

<sup>a</sup> Assumes a fuel efficiency of 1,031 GTM per gallon of diesel fuel, as calculated from Table 3.9-1.

<sup>b</sup> Assumes fuel savings on 365 days per year.

<sup>c</sup> Compared to South Bend Trackage Rights.

### **Fuel Savings from Idling Reductions**

Because the Proposed Transaction would give CSXT greater control over the handling of its trains to, from, and through the Chicago Terminal, reductions in idling times are anticipated for each of the routes shown in Table 3.9-2, with the exception of North/South Routings (59<sup>th</sup> Street). Idling reductions were not estimated for this route because the 59<sup>th</sup> Street Terminal and its connecting route are already under CSXT's direct control. Fuel savings were not calculated due to reductions in idling time. However, any reduction in idling time would reduce fuel usage. Therefore, the Proposed Transaction would result in fuel savings due to anticipated overall efficiency improvements. In general, rail companies attempt to limit idling times as good business practice, and there is an industry-wide movement to increase the use of anti-idling technology, which limits fuel usage for stopped trains. The anti-idling technology includes the use of smaller engines to keep the locomotive systems warm, allowing the larger diesel locomotive engines to be shut off until the train needs to move again.

### **Fuel Consumption by Delayed Vehicles**

Motor vehicles are currently, and would continue to be, delayed at highway/rail at-grade crossings on rail segments that the Proposed Transaction would affect. Detailed calculations of vehicle delay at public, at-grade crossings that would experience an increased number of trains per day as part of the Proposed Transaction can be found in Section 3.1, Transportation. While these at-grade crossings show increases in vehicle delay, other at-grade crossings which were not analyzed for vehicle delay—because they would experience decreases in train traffic—would show decreases in vehicle delay. The total daily change in delay for segments GTW-03, GTW-04, and GTW-05 is 305 hours (Table 3.1-5). Assuming a fuel consumption rate of 0.5 gallons per hour of idling, 305 hours of delay equates to 152.5 gallons of fuel (Clark et al. 2005; Gaines et al. 2006), which would be somewhat offset by decreases at non-analyzed crossings. The change in fuel consumption by delayed vehicles would be minimal. The Proposed Transaction would improve efficiency, which would allow trains to clear at-grade crossings more quickly on a system-wide average.

### **Utilities**

The Proposed Transaction would not involve construction or modifications of utilities. Therefore, the Proposed Transaction would not disrupt or impact transmission lines, or gas or oil pipelines.

### **Transportation of Commodities**

Commodities that are currently transported along the rail line segments involved in the Proposed Transaction would not change as a result of the Proposed Transaction. In addition, current transport of commodities is expected to be more efficient as part of overall expected efficiency improvements. Therefore, the Proposed Transaction is not expected to have any adverse impact on the transportation of commodities.

### **No-Action Alternative**

Under the No-Action Alternative, energy use would not change from its existing use. Therefore, the No-Action Alternative would not impact energy use. However, unlike the Proposed Transaction, the No-Action Alternative would not result in fuel savings from mileage and idling reductions.

### **Cultural Resources**

This section describes the potential impacts to cultural resources, including archaeological and historical resources, resulting from the Proposed Transaction. The study area or area of potential effect, for Cultural Resources is the Elsdon Line (segments GTW-01 through 06).

Historic Property is any district, site, building, structure, or object listed or eligible for listing on the National Register of Historic Places (National Register). Eligibility for listing on the National Register requires a property to demonstrate integrity and significance as outlined in the National Park Service guidelines. Historic properties are subject to compliance with Section 106 of the National Historic Preservation Act.

Section 106 of the National Historic Preservation Act of 1966 (as amended) requires a federal agency to consider potential adverse effects to a historic property as a result of an agency permit or other approval. In order to fully achieve compliance with Section 106 requirements, the federal agency must consult with the state historic preservation office (SHPO) on the scope of the review and on any adverse effects to historic properties. The Illinois Historic Preservation Agency (IHPA) and Indiana Department of Natural Resources (INDNR), Division of Historic Preservation & Archaeology were consulted. Information about the Proposed Transaction was submitted to these agencies on May 25, 2011.

### 3.10.1 Affected Environment

The Proposed Transaction was reviewed for potential effects on historic properties. In Cook County alone, the National Register lists approximately 520 potentially historic properties. It is assumed that many more eligible properties—those that meet the criteria, but have not formally been nominated and listed—exist in the county, and could be adjacent to the project limits.

### 3.10.2 Environmental Impacts

#### 3.10.2.1 Proposed Transaction

Increases in train volume as a result of the Proposed Transaction would not adversely affect historic property. Routine repair or maintenance of railroad structures, buildings, or equipment that would occur regardless of the Proposed Transaction are not part of the Section 106 undertaking. Instead, Section 106 review involves an evaluation of any proposed new construction, building demolition, or repair/replacement of railroad structures directly related to the Proposed Transaction.

Since no construction activities, demolition or modification of existing facilities are associated with the Proposed Transaction, the study area was not surveyed for historic properties. In addition, since the Proposed Transaction does not entail ground disturbance, an archaeological survey has not been completed for the study area.

In letters dated June 24, 2011 and June 28, 2011, the IHPA and the INDNR (collectively SHPOs), respectively, commented that no historic properties would be affected as a result of the Proposed Transaction. Therefore, pursuant to the Section 106 regulations at 36 C.F.R. § 800.5(b), the Draft EA concludes that the Proposed Transaction would not affect historic properties listed in or eligible for inclusion in the National Register. The SHPOs also commented that they would want to be immediately notified if any unmarked graves or human remains are discovered, pursuant to the Illinois Human Skeletal Remains Protection Act (20 ILCS § 3441) and Indiana Code 14-21-1-27, respectively. However, the Draft EA explains that these provisions do not apply here because the rail line is fully operational and no no new rail line construction would take place under the Proposed Transaction. Therefore, the Draft EA concludes that, based on the information available to date, there is no need for further review of cultural and historic resources and no need to impose a Section

106 process in this case.

### 3.10.2.2 No-Action Alternative

Under the No-Action Alternative, there would be no construction activities. Operation and use of the Elsdon Line would not change. Therefore, the No-Action Alternative would not impact cultural resources.

## 3.11 Environmental Justice

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations*, directs each federal agency to “make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.” CEQ, which oversees the federal government’s compliance with EO 12898 and NEPA, developed guidelines (CEQ 1997) to assist federal agencies in incorporating the goals of EO 12898 into the NEPA process. The CEQ guidance does not provide a standard approach or formula for identifying and addressing environmental justice issues. Instead, it offers federal agencies general principles for conducting an environmental justice analysis under NEPA, including that federal agencies should consider the population structure within the affected area to determine whether minority populations, low-income populations, or Indian tribes are present and, if so, whether there may be disproportionately high and adverse human health or environmental effects on any of these groups.

CEQ guidance defines “minority” and “low income” in the context of environmental justice analysis. Minority individuals are members of the following population groups: American Indian or Alaska Native; Asian or Pacific Islander; Black, not of Hispanic origin; or Hispanic. CEQ identifies these groups as minority populations when either:

- the minority population of the affected area exceeds 50 percent, or
- the minority population percentage in the affected area is meaningfully greater than the minority population percentage in the general population or appropriate unit of geographical analysis (CEQ 1997).

This Draft EA uses the first option for identifying minority populations in the affected area. Therefore, minority populations were identified as census block groups where the minority population is greater than 50 percent.

A low-income household is one where the household income is below the U.S. Department of Health and Human Services’ poverty guidelines as reported by the Bureau of the Census. The 2011 poverty guideline for a family of 4 is \$22,350 (U.S. Department of Health and Human Services 2011). A potential low-income population exists when the median household income of a block group is less than the 2011 poverty guideline.

To evaluate potential environmental justice impacts, the Draft EA followed a sequential, 4-step methodology:

1. Identify the potential environmental justice populations located in the study area using the definitions described above.
2. Assess whether any potential impacts would be high and adverse.
3. Assess whether any high and adverse effects would be borne by environmental justice populations.
4. Determine whether any potentially high and adverse effects would be disproportionately borne by environmental justice populations.

This section describes the environmental setting and potential environmental impacts to environmental justice populations under the Proposed Transaction. The following environmental justice analysis for the socioeconomic conditions study area includes the census block groups within the portion of the Elsdon Line ROW from Thornton Junction to Hayford (MP 25.2 to 11.8) (Figure 3.3-1).

#### 3.11.1 Affected Environment

Step 1 of the analysis involved identifying demographic data for the population in the study area. Table 3.11-1 includes the demographic information for the census block groups within the study area as well as information for Cook County, Illinois. The study area includes 55 census block groups containing 66,663 people, 74.6 percent of who classify themselves as a racial or ethnic minority (U.S. Census Bureau 2010a). Minorities make up approximately 56.1 percent of the population in Cook County. Census block groups were identified as having minority populations if minorities made up more than 50 percent of the population. Based on this criterion, 39 of the 55 census block groups contain minority populations (Figure 3.11-1). This figure shows that the census block groups containing minority populations are clustered from Thornton Junction to Blue Island Junction (GTW-03 and GTW-04), and adjacent to and immediately north of Hayford (GTW-06).

**Table 3.11-1. Race and Ethnicity by Census Block Group**

Segment No.	Geographic Area		Total Population	Population by Race / Not Hispanic or Latino														Hispanic or Latino of Any Race		Percent Total Minority Population	Potential Minority Population <sup>a</sup>
	Census Tract	Block Group		White		Black or African American		American Indian/ Alaska Native		Asian		Pacific Islander		Some Other Race		2 or More Races		No.	%		
				No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%				
GTW-06	6504	3	1,667	106	6.4	193	11.6	1	0.1	17	1.0	0	0.0	0	0.0	1	0.1	1,349	80.9	93.6	Yes
GTW-06	6611	2	896	75	8.4	538	60.0	1	0.1	4	0.4	0	0.0	0	0.0	5	0.6	273	30.5	91.6	Yes
GTW-06	6611	5	1,832	151	8.2	321	17.5	0	0.0	5	0.3	0	0.0	1	0.1	2	0.1	1,352	73.8	91.8	Yes
GTW-05	7001	1	2,203	118	5.4	1,231	55.9	6	0.3	1	0.0	0	0.0	2	0.1	21	1.0	824	37.4	94.6	Yes
GTW-05	7002	1	1,518	146	9.6	218	14.4	0	0.0	18	1.2	0	0.0	0	0.0	12	0.8	1,124	74.0	90.4	Yes
GTW-05	7002	3	1,857	174	9.4	364	19.6	0	0.0	10	0.5	0	0.0	0	0.0	13	0.7	1,296	69.8	90.6	Yes
GTW-05	7004.01	1	2,042	141	6.9	1,468	71.9	5	0.2	4	0.2	0	0.0	0	0.0	27	1.3	397	19.4	93.1	Yes
GTW-05	7004.01	2	1,559	169	10.8	664	42.6	4	0.3	7	0.4	0	0.0	1	0.1	5	0.3	709	45.5	89.2	Yes
GTW-05	7004.01	3	1,551	253	16.3	489	31.5	0	0.0	13	0.8	0	0.0	2	0.1	6	0.4	788	50.8	83.7	Yes
GTW-05	7004.02	1	1,039	144	13.9	458	44.1	0	0.0	12	1.2	0	0.0	1	0.1	7	0.7	417	40.1	86.1	Yes
GTW-05	7004.02	2	1,248	196	15.7	670	53.7	1	0.1	2	0.2	0	0.0	1	0.1	8	0.6	370	29.6	84.3	Yes
GTW-05	7004.02	3	1,627	120	7.4	1,355	83.3	2	0.1	14	0.9	0	0.0	0	0.0	18	1.1	118	7.3	92.6	Yes
GTW-05	7205	1	743	687	92.5	15	2.0	0	0.0	3	0.4	0	0.0	1	0.1	2	0.3	35	4.7	7.5	No
GTW-05	7401	1	609	570	93.6	6	1.0	0	0.0	1	0.2	0	0.0	0	0.0	0	0.0	32	5.3	6.4	No
GTW-05	7401	2	621	547	88.1	10	1.6	3	0.5	4	0.6	0	0.0	0	0.0	5	0.8	52	8.4	11.9	No
GTW-05	7401	3	694	584	84.1	4	0.6	0	0.0	7	1.0	0	0.0	0	0.0	9	1.3	90	13.0	15.9	No
GTW-05	7401	4	1,124	991	88.2	22	2.0	0	0.0	2	0.2	0	0.0	0	0.0	8	0.7	101	.0	11.8	No
GTW-05	8216	4	1,295	690	53.3	404	31.2	1	0.1	13	1.0	0	0.0	8	0.6	26	2.0	153	11.8	46.7	No
GTW-05	8217	1	708	546	77.1	73	10.3	0	0.0	2	0.3	0	0.0	0	0.0	11	1.6	76	10.7	22.9	No
GTW-05	8218	2	868	544	62.7	189	21.8	2	0.2	8	0.9	0	0.0	2	0.2	10	1.2	113	13.0	37.3	No
GTW-05	8218	3	719	469	65.2	128	17.8	0	0.0	11	1.5	0	0.0	0	0.0	14	1.9	97	13.5	34.8	No
GTW-05	8218	4	1,034	651	63.0	208	20.1	10	1.0	30	2.9	1	0.1	1	0.1	11	1.1	122	11.8	37.0	No
GTW-05	8218	6	763	614	80.5	50	6.6	0	0.0	12	1.6	0	0.0	0	0.0	7	0.9	80	10.5	19.5	No
GTW-05	8219	2	1,004	711	70.8	136	13.5	6	0.6	11	1.1	0	0.0	6	0.6	14	1.4	120	12.0	29.2	No
GTW-05	8219	3	1,286	957	74.4	174	13.5	1	0.1	11	0.9	0	0.0	0	0.0	15	1.2	128	10.0	25.6	No
GTW-05	8233.04	1	627	508	81.0	24	3.8	0	0.0	10	1.6	0	0.0	0	0.0	9	1.4	76	12.1	19.0	No
GTW-05	8233.04	2	971	661	68.1	161	16.6	2	0.2	5	0.5	0	0.0	0	0.0	12	1.2	130	13.4	31.9	No
GTW-05	8234	1	1,018	363	35.7	93	9.1	0	0.0	1	0.1	0	0.0	5	0.5	2	0.2	554	54.4	64.3	Yes
GTW-05	8234	2	1,472	365	24.8	437	29.7	2	0.1	21	1.4	4	0.3	2	0.1	22	1.5	619	42.1	75.2	Yes
GTW-04, GTW-05	8234	3	746	188	25.2	134	18.0	1	0.1	4	0.5	0	0.0	0	0.0	14	1.9	405	54.3	74.8	Yes
GTW-05	8234	4	1,816	574	31.6	462	25.4	6	0.3	30	1.7	3	0.2	12	0.7	30	1.7	699	38.5	68.4	Yes
GTW-05	8235	3	1,174	485	41.3	256	21.8	0	0.0	1	0.1	0	0.0	0	0.0	4	0.3	428	36.5	58.7	Yes

**Table 3.11-1. Race and Ethnicity by Census Block Group**

Segment No.	Geographic Area		Total Population	Population by Race / Not Hispanic or Latino														Hispanic or Latino of Any Race		Percent Total Minority Population	Potential Minority Population <sup>a</sup>
	Census Tract	Block Group		White		Black or African American		American Indian/ Alaska Native		Asian		Pacific Islander		Some Other Race		2 or More Races					
				No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%		
GTW-05	8235	4	785	400	51.0	126	16.1	2	0.3	5	0.6	0	0.0	0	0.0	15	1.9	237	30.2	49.0	No
GTW-04	8236.03	1	1,740	112	6.4	397	22.8	3	0.2	3	0.2	0	0.0	3	0.2	6	0.3	1,216	69.9	93.6	Yes
GTW-04	8243	1	1,334	36	2.7	1,007	75.5	1	0.1	0	0.0	0	0.0	1	0.1	13	1.0	276	20.7	97.3	Yes
GTW-04	8248	1	1,728	402	23.3	514	29.7	11	0.6	3	0.2	2	0.1	0	0.0	20	1.2	776	44.9	76.7	Yes
GTW-04	8248	2	2,141	655	30.6	180	8.4	2	0.1	3	0.1	4	0.2	1	0.0	13	0.6	1,283	59.9	69.4	Yes
GTW-04	8268	1	1,144	58	5.1	872	76.2	3	0.3	0	0.0	0	0.0	0	0.0	9	0.8	202	17.7	94.9	Yes
GTW-04	8268	2	2,176	377	17.3	526	24.2	3	0.1	1	0.0	0	0.0	2	0.1	22	1.0	1,245	57.2	82.7	Yes
GTW-04	8268	3	1,179	217	18.4	339	28.8	6	0.5	2	0.2	0	0.0	0	0.0	23	2.0	592	50.2	81.6	Yes
GTW-04	8268	4	937	28	3.0	815	87.0	2	0.2	0	0.0	0	0.0	0	0.0	8	0.9	84	9.0	97.0	Yes
GTW-04	8269.01	1	1,894	16	0.8	1,694	89.4	2	0.1	0	0.0	0	0.0	4	0.2	36	1.9	142	7.5	99.2	Yes
GTW-04	8270	3	1,093	8	0.7	1,041	95.2	0	0.0	1	0.1	0	0.0	0	0.0	20	1.8	23	2.1	99.3	Yes
GTW-04	8271	1	862	33	3.8	792	91.9	1	0.1	6	0.7	0	0.0	0	0.0	1	0.1	29	3.4	96.2	Yes
GTW-04	8271	2	969	15	1.5	822	84.8	0	0.0	44	4.5	0	0.0	0	0.0	4	0.4	84	8.7	98.5	Yes
GTW-04	8271	3	885	15	1.7	820	92.7	1	0.1	7	0.8	0	0.0	0	0.0	21	2.4	21	2.4	98.3	Yes
GTW-03	8272	2	836	8	1.0	777	92.9	1	0.1	0	0.0	0	0.0	0	0.0	15	1.8	35	4.2	99.0	Yes
GTW-03	8272	3	910	20	2.2	807	88.7	5	0.5	2	0.2	0	0.0	0	0.0	13	1.4	63	6.9	97.8	Yes
GTW-03	8272	4	853	82	9.6	119	14.0	2	0.2	15	1.8	0	0.0	0	0.0	3	0.4	632	74.1	90.4	Yes
GTW-03, GTW-04	8273	1	453	7	1.5	271	59.8	2	0.4	83	18.3	0	0.0	0	0.0	7	1.5	83	18.3	98.5	Yes
GTW-04	8273	2	1,232	34	2.8	996	80.8	0	0.0	16	1.3	0	0.0	5	0.4	13	1.1	168	13.6	97.2	Yes
GTW-03	8275	2	2,616	214	8.2	891	34.1	5	0.2	4	0.2	0	0.0	1	0.0	14	0.5	1,487	56.8	91.8	Yes
GTW-02	8278.01	1	868	424	48.8	357	41.1	0	0.0	4	0.5	0	0.0	1	0.1	7	0.8	75	8.6	51.2	Yes
GTW-03	8278.01	2	687	106	15.4	528	76.9	0	0.0	6	0.9	0	0.0	2	0.3	9	1.3	36	5.2	84.6	Yes
GTW-02, GTW-03	8278.05	1	1,010	168	16.6	746	73.9	0	0.0	4	0.4	0	0.0	0	0.0	6	0.6	86	8.5	83.4	Yes
Total			66,663	16,933	25.4	26,392	39.6	106	0.2	503	0.8	14	0.0	65	0.1	648	1.0	22,002	33.0	74.6	-
Cook County, Illinois			5,194,675	2,278,358	43.9	1,265,778	24.4	6,682	0.1	318,869	6.1	1,043	0.0	7,751	0.1	71,432	1.4	1,244,762	24.0	56.1	-

Source: U.S. Census Bureau 2010, Table P2, Hispanic or Latino, and Not Hispanic or Latino by Race, <http://factfinder2.census.gov/main.html>.

Notes:

<sup>a</sup> OEA identified minority populations as census block groups where the minority population is greater than 50 percent. In addition, minorities are all non-white persons and white persons who identify themselves as Hispanic.

Figure 3.11-1. Potential Minority and Low-Income Populations

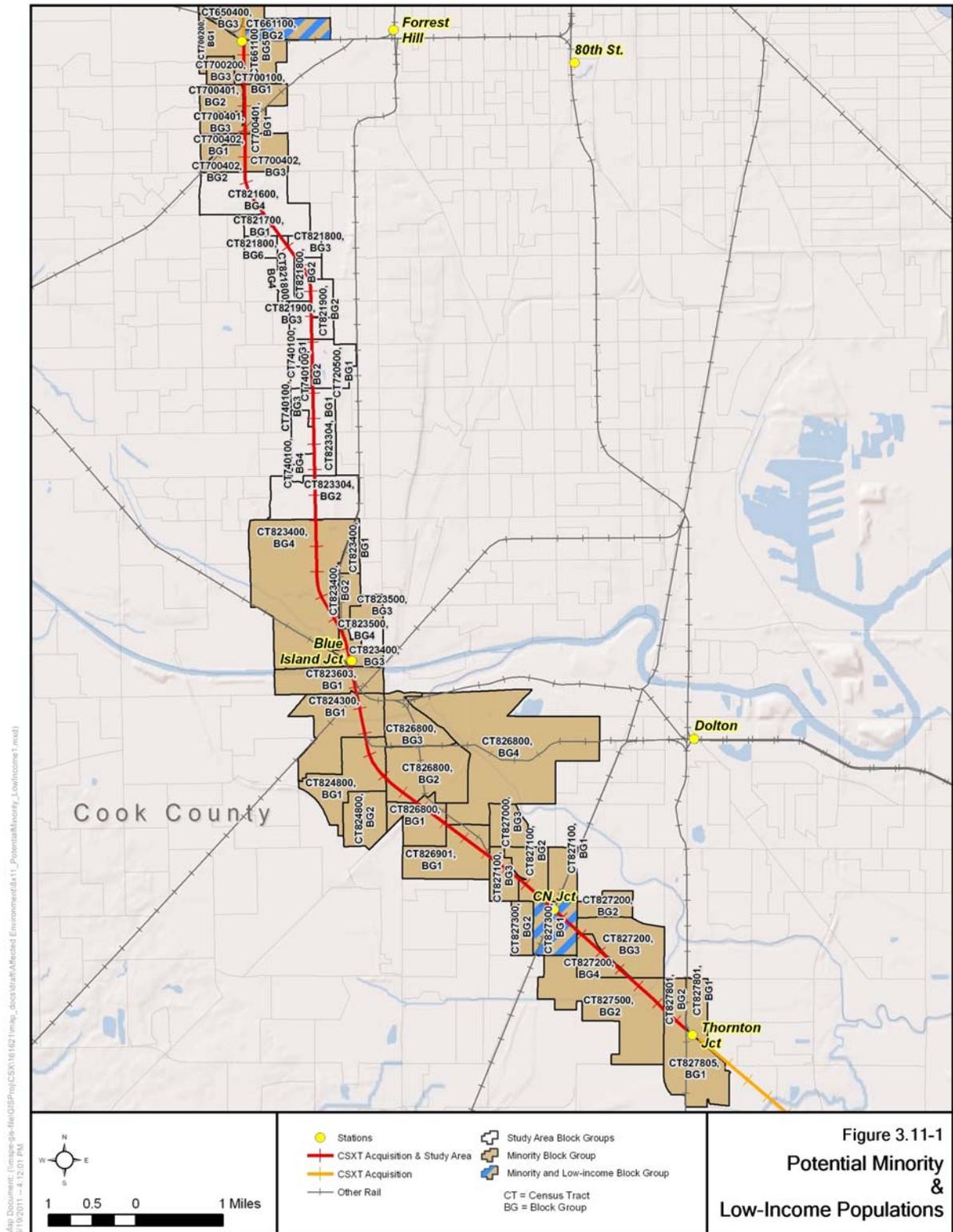


Table 3.11-2 shows the median household income for the census block groups within the study area as well as information for Cook County, Illinois. The annual median household income of the census block groups ranges from \$16,020 to \$68,750 (U.S. Census Bureau 2000a). Potential low-income populations were identified where the census block groups have a median household income below the 2011 poverty guideline for a family of four (\$22,350). Based on this criterion, two of the 55 census block groups<sup>42</sup> contain low-income populations (Figure 3.11-1). As Figure 3.11-1 shows, the census block groups containing low-income populations also contain minority populations. There is one minority and low-income block group adjacent to Hayford (GTW-06), and one minority and low-income block group adjacent to CN Junction (GTW-03, GTW-04).

Segment No.	Geographic Area <sup>a</sup>		Median Household Income (USD) <sup>b</sup>	Potential Low-income Population <sup>c</sup>
	Census Tract	Block Group		
GTW-06	6504	3	\$42,045	No
GTW-06	6611	2	\$16,771	Yes
GTW-06	6611	5	\$46,083	No
GTW-05	7001	1	\$42,188	No
GTW-05	7002	1	\$49,816	No
GTW-05	7002	3	\$53,750	No
GTW-05	7004	1	\$57,935	No
GTW-05	7004	2	\$53,813	No
GTW-05	7004	3	\$61,833	No
GTW-05	7205	1	\$68,750	No
GTW-05	7401	1	\$61,023	No
GTW-05	7401	2	\$53,173	No
GTW-05	7401	3	\$47,228	No
GTW-05	7401	4	\$47,723	No
GTW-05	8216	4	\$43,125	No
GTW-05	8217	1	\$46,071	No
GTW-05	8218	2	\$47,750	No
GTW-05	8218	3	\$53,438	No
GTW-05	8218	4	\$43,900	No
GTW-05	8218	6	\$57,100	No
GTW-05	8219	2	\$52,763	No
GTW-05	8219	3	\$55,833	No
GTW-05	8233.04	1	\$42,019	No

<sup>42</sup> Current version of Summary File 3 does not provide Block Group 2, Census Tract 8268, Cook County, Illinois. In addition, the current version of Summary File 3 lists Census Tracts 7004.01 and 7004.02 as 7004.

Segment No.	Geographic Area <sup>a</sup>		Median Household Income (USD) <sup>b</sup>	Potential Low-income Population <sup>c</sup>
	Census Tract	Block Group		
GTW-05	8233.04	2	\$42,629	No
GTW-05	8234	1	\$50,777	No
GTW-05	8234	2	\$32,391	No
GTW-04, GTW-05	8234	3	\$36,188	No
GTW-05	8234	4	\$41,628	No
GTW-05	8235	3	\$40,143	No
GTW-05	8235	4	\$48,750	No
GTW-04	8236.03	1	\$53,750	No
GTW-04	8243	1	\$26,938	No
GTW-04	8248	1	\$52,292	No
GTW-04	8248	2	\$47,227	No
GTW-04	8268	1	\$32,250	No
GTW-04	8268	2	-	-
GTW-04	8268	3	\$26,746	No
GTW-04	8268	4	\$31,736	No
GTW-04	8269.01	1	\$24,375	No
GTW-04	8270	3	\$38,409	No
GTW-04	8271	1	\$31,321	No
GTW-04	8271	2	\$40,658	No
GTW-04	8271	3	\$35,774	No
GTW-03	8272	2	\$31,417	No
GTW-03	8272	3	\$34,375	No
GTW-03	8272	4	\$30,263	No
GTW-03, GTW-04	8273	1	\$16,020	Yes
GTW-04	8273	2	\$27,721	No
GTW-03	8275	2	\$52,969	No
GTW-02	8278.01	1	\$34,453	No
GTW-03	8278.01	2	\$50,714	No
GTW-02, GTW-03	8278.05	1	\$57,135	No
Cook County, Illinois			\$45,922	-

Source: U.S. Census Bureau 2000, Table P53, Median Household Income in 1999 (Dollars),  
<http://factfinder2.census.gov/main.html>.

Notes:

<sup>a</sup> Current version of Summary File 3 does not provide Block Group 2, Census Tract 8268, Cook County, Illinois. In addition, the current version of Summary File 3 lists Census Tracts 7004.01 and 7004.02 as 7004.

<sup>b</sup> USD = U.S. Dollars. As of May 2, 2010, 2010 data for median household income are not available.

<sup>c</sup> OEA identified low-income populations as census block groups where the median household income is less than the U.S. Department of Health and Human Services' 2011 poverty guideline.

Based on the analysis, there are minority and low-income populations within the study area. The following section includes an evaluation of potential environmental consequences of the increase in train traffic on the Elsdon Line between Thornton Junction and Hayford.

### 3.11.2 Environmental Impacts

#### 3.11.2.1 Proposed Transaction

The Proposed Transaction would not involve construction of new rail lines or abandonment of existing rail lines. The change in rail operations associated with the Proposed Transaction would result in an increase in average daily train traffic between Thornton Junction and Hayford (Table 3.11-3).

Segment No.	Length (miles)	Stations	Mileposts	Existing Trains/Day	Proposed Trains/Day	Increase (Trains/Day)
GTW-03	2.0	Thornton Jct - CN Jct	MP 25.2-23.2	8.6	18.7	10.1
GTW-04	3.9	CN Jct - Blue Island Jct	MP 23.2-19.3	6.0	16.7	10.7
GTW-05	7.5	Blue Island Jct - Hayford	MP 19.3-11.8	3.5	23.0	19.5

Source: CSXT 2011, Elsdon Subdivision Information Request, April 19, 2011.

As Step 2 of the analysis, potential impacts were assessed to determine whether high and adverse health or environmental impacts to human populations would occur as a result of the Proposed Transaction. As Table 3.11-3 shows, the Proposed Transaction would result in an increase in daily train traffic in the study area. Potential effects to traffic delay and mobility in the area as a result of the queue length at the 79<sup>th</sup> Street crossing were not considered to be significant. Mobility at and in the vicinity of the 79<sup>th</sup> Street crossing would continue to be acceptable. As Sections 3.7 and 3.8 discuss, potential effects to air quality are anticipated to be minor and negligible, and would not result in high and adverse health or environmental impacts to human populations. Potential effects to ambient noise conditions vary among the three segments as a function of the increase in trains per day. The larger the incremental increase in traffic, the larger the incremental increase in predicted noise levels. The detailed analysis in Section 3.8 shows that the projected noise increases for segments GTW-03, GTW-04, and GTW-05 are +3 dBA, +5 dBA, and +9dBA, respectively. Although any increase in noise can be considered an adverse effect, this analysis did not consider the increases in segments GTW-03 and GTW-04 to be high and adverse based on the relatively limited increase in noise levels. An increase of +3 dBA is generally barely perceptible to normal-hearing adults. The increase of +5 dBA is considered perceptible to normal-hearing adults, but is still not a great increase. The +9-dBA increase along GTW-05 is considered a high and adverse effect, as a normal-hearing adult would perceive a +10-dBA increase as a doubling of the noise level.

Step 3 of the analysis assessed potential impacts to determine whether environmental justice populations would bear high and adverse health or environmental impacts. Segment GTW-05 runs from Blue Island Junction to Hayford. Table 3.11-1 shows that there are minority populations within segment GTW-05 that would experience the high and adverse increase in noise levels.

Step 4 of the analysis evaluated potential impacts to determine whether environmental justice populations would disproportionately bear any potentially high and adverse effects. In this case, the increase in noise associated with segment GTW-05 would be experienced along the entire segment, much of which does not contain minority or low-income populations. In addition, public at-grade crossings in GTW-05 are all located within QZs. Therefore, environmental justice populations would not disproportionately bear any potentially high and adverse effects associated with noise.

Voluntary mitigation measure VM 44 would provide that CSXT continue its ongoing efforts with community officials to identify elementary, middle, and high schools within 0.5 miles of the Elsdon Line's ROW and provide, upon request, informational materials in both English and Spanish concerning railroad safety to such identified schools. In addition, mitigation measure MM 4, would require CSXT to provide a liaison to support community concerns.

In a June 14, 2011 letter, SSMMA expressed interest in working with CSXT to maximize economic development and job creation in the surrounding communities, particularly in economically disadvantaged areas. These concerns are noted by OEA; however, any mitigation to require CSXT to work with SSMMA on economic development and job creation would be beyond the Board's ability. The Board's practice consistently has been to consider mitigation for only those impacts that result directly from a proposed action. The Board therefore could not impose any conditions on CSXT relating to SSMMA's concern for economic development and job growth. 49 C.F.R. §1180.1(d).

### **3.11.2.2 No-Action Alternative**

Under the No-Action Alternative, there would be no construction of new rail lines or abandonment of existing rail lines. Current operations would be anticipated to continue, and no substantive increase or decrease in train traffic is anticipated to occur. No high or adverse impacts to human populations would occur under the No-Action Alternative. Therefore, Steps 3 and 4 of the impact assessment were not conducted.

## **3.12 Cumulative Effects**

CEQ regulations that implement the procedural provisions of NEPA define cumulative effects as "The impact on the environment which results from the incremental consequences of an action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions"(40 C.F.R. § 1508.7).

Cumulative effects include both direct and indirect, or induced, effects that would result from the proposed project, as well as the effects from other projects (past, present, and reasonably

foreseeable future actions) not related to or caused by the proposed project. The cumulative effects analysis includes the direct effects and indirect effects of the proposed project and effects of other past, present, and reasonably foreseeable actions. The cumulative effects analysis also evaluates the magnitude of the cumulative effect on resource health. Health refers to the general overall condition, stability, or vitality of the resource and the trend of that condition. The resource health and trend are key components of the cumulative effects analysis. This Draft EA analyzed laws, regulations, policies, or other factors that may change or sustain the resource trend to determine if more or less stress on the resource is likely in the foreseeable future.

In addition to the limited direct effects attributable to the Proposed Transaction that this Draft EA identifies, the cumulative effects analysis considered whether the approval of the Proposed Transaction would result in any indirect effects.

CEQ defines indirect effects as "...effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems"(40 C.F.R. § 1508.8).

In many cases, these indirect effects would occur outside of a specific project area. As to the cause and effect relationship between the proposed project and the indirect impact, CEQ states that indirect effects may include induced changes to land use resulting in resource impacts. Other indirect effects include the potential alteration of or encroachment on the affected environment. Examples of this include fragmentation of a habitat and functional effects to water resources.

The Proposed Transaction would not involve construction of new rail lines or abandonment of existing rail lines. The change in rail operations associated with the Proposed Transaction would result in an increase in average daily train traffic between Thornton Junction and Hayford, and this change in operations would not result in indirect impacts to resources analyzed in this Draft EA.

As described in this Draft EA, the Proposed Transaction would result in no or only negligible impacts to transportation, community resources and land use, socioeconomics, geology and soils, water resources, biological resources, air quality and climate, cultural resources, environmental justice population, or vibration; therefore, these resources were not considered in the cumulative effects analysis.

The Proposed Transaction would result in impacts to noise, and this section addresses cumulative effects to these conditions by identifying reasonable foreseeable future actions that may interact with the Proposed Transaction and result in cumulative effects to ambient noise levels. The geographic area for the cumulative effects analysis for noise is 0.5 miles from the portion of the Elsdon Line that would experience an increase in train traffic as a result of the Proposed Transaction. A 0.5-mile buffer is a conservative distance that would

identify and encompass past, present, and reasonably foreseeable future actions that may interact with the Proposed Transaction to result in cumulative effects to ambient noise levels.

The potential cumulative effects of the existing and reasonably foreseeable projects to take place within 0.5-mile of the segments of the Elsdon Line that would experience an increase in train traffic were evaluated. They are as follows:

- *Metra SouthWest Service (SWS)* – Metra provides service on an existing line that crosses the Elsdon Subdivision at Ashburn. Metra operates approximately 30 trains per day as part of the SWS on this line that runs from Union Station to Manhattan (Metra 2011a).
- *Metra Proposed SouthEast Service (SES)* – Metra is currently studying the potential to provide future service from downtown Chicago, out of the LaSalle Street Station. Metra proposes to run the 33-mile SES along existing freight and passenger railroad tracks, along the UP line crossing the Elsdon Line at Thornton Junction. The proposed SES would enhance Metra's commuter rail service between the south suburbs and downtown Chicago. The SES line would link close to 20 communities in south Suburban Cook and Will counties (Metra 2011b).
- *75<sup>th</sup> Street Corridor Improvement Project (CIP)* – six major railroads, two passenger (Metra and Amtrak) and four freight (NS, CSXT, UP, and BRC), pass through the Chicago neighborhoods of Ashburn, Englewood, Auburn Gresham, and Chatham. These railroads cross at several points within the area, which results in congestion and delays. To relieve resulting congestion, a unique public-private partnership is developing the "75<sup>th</sup> Street Corridor Improvement Project" under the CREATE Program (IDOT 2011a). A Draft EIS is currently ongoing for the proposed CIP. The CIP would reduce rail congestion and delays by eliminating conflicts between four freight railroads and two passenger railroads operating in the corridor, improve roadway safety by eliminating an existing at-grade roadway crossing, and allow passenger rail access from the Metra's SWS to the LaSalle Street Station, thereby reducing congestion at Union Station (FR 2010).
- *159<sup>th</sup> Street Viaduct Reconstruction* – IDOT is currently reconstructing the viaduct that carries Metra and the CN lines over 159<sup>th</sup> Street in Harvey, Illinois. The project is generally between Halsted (IL Route 1) and Park Avenue. Some parts of the current viaduct were constructed in the early 1900s, and there is only sufficient room for one lane of traffic in each direction under the viaduct in its current configuration. This major improvement will reconstruct the two main railroad bridges over 159<sup>th</sup> Street to allow for two through lanes of traffic in each direction under the railroad along with left turn lanes. This is the major local route connecting I-294 with I-94 through the towns of Harvey and South Holland. Upon completion, the project will provide significant congestion relief and reduce travel times along this local route. IDOT lists the project as 75 percent complete (IDOT 2001).
- *159<sup>th</sup> Street Roadway Reconstruction* – In conjunction with the 159<sup>th</sup> Street Viaduct Reconstruction, IDOT will reconstruct the 159<sup>th</sup> Street roadway between the Tristate Tollway (I-294) and Halsted Street (IL Route 1) in Harvey, Illinois. The completed

project will provide two lanes of traffic in each direction, medians and dual left turn lanes at select intersections. Improved traffic flow will also be aided by interconnected traffic signals, improved lighting and new drainage (IDOT 2011b).

- *CREATE Project B16* – The B16 project is located in South Holland, Illinois, north of I-80/I-294 and west of I-94 at Thornton Junction. Thornton Junction consists of two tracks where UP's line connecting Chicago with rail lines traveling to and from St. Louis and southwestern Illinois crosses with the Elsdon Line connecting Chicago with Michigan destinations. The current layout of Thornton Junction does not allow for the full movement of trains between the two lines (UP/CSXT and GTW). The project is needed to address the inefficient routing due to the limited directional availability of the current layout of Thornton Junction. The Build Alternative proposes a new interlocked connection from the northwest/southeast GTW double track rail line to the north/south UP/CSXT double track rail line. This proposed interlocked connection would be located in the southwest quadrant of the rail/rail crossing at Thornton Junction (CREATE 2011).
- *CREATE Project WA10* – The WA-10 Project involves the installation of a series of interlocked crossovers between the B&OCT (CSXT) Blue Island Subdivision and the GTW Elsdon Subdivision with associated signal work including new home signals on both the CSXT and GTW lines at the Blue Island Junction. The proposed signal work will include the installation of new train control signals on both the CSXT and GTW lines.

### 3.12.1 Noise

As Section 3.8 explains, the Proposed Transaction may result in an additional 684 noise-sensitive receptors being exposed to an  $L_{dn}$  of 65 dBA or more. Most of the affected receptors are near GTW-05, the rail line segment with the largest potential incremental increase in trains per day. The density of residential development is higher in this portion of the project area than in other areas, and the slower train speeds on GTW-05 result in more exposure to train noise. Wheel-rail noise is the dominant noise source; public at-grade crossings in GTW-05 are all located within QZs.

Metra's SWS crosses the Elsdon Line in the GTW-05 segment and is an existing noise source that would not change as a result of the Proposed Transaction. The increase in noise associated with the Proposed Transaction would contribute to the cumulative noise impact near GTW-05. The proposed SES would cross the Elsdon Line at Thornton Junction, which is at the southeast terminus of GTW-03. Any potential noise impacts associated with SES would be identified and, if required, mitigated as a part of the planning process; however, it is possible that the proposed SES could result in cumulative noise impacts near GTW-03. To resolve this issue and others related to Metra's service, OEA has recommended mitigation measure MM3, which would require CSXT to consult with Metra on its current and planned service.

It is unlikely that the 75<sup>th</sup> Street and 159<sup>th</sup> Street roadway improvements would contribute to a cumulative noise effect, as they are intended to improve traffic flow and reduce congestion.

CREATE Projects B-16 and WA-10 have been modeled, and CREATE increases capacity on various corridors throughout Chicago to improve train flow and efficiency of train operations throughout the Chicago area. It is possible that B-16 and WA-10 could contribute to a cumulative noise effect near the Elsdon Line.

In a June 14, 2011 letter, SSMMA raised several concerns regarding the Proposed Transaction. Specifically, SSMMA requests that CSXT work with Metra, SSMMA and the communities that SSMMA represents to determine the potential impacts on both existing and proposed commuter lines in the area, with specific interest in the Rock Island District, the Metra Electric District and the proposed SouthEast Commuter (SES) Rail line. SSMMA indicates that these lines, which are critical to the surrounding communities, may be impacted either positively or negatively by the Proposed Transaction.

The City of Blue Island (in a letter dated June 10, 2011) and IDOT (in a letter dated June 22, 2011) echo the concerns raised by SSMMA, discussed above. Metra (in a letter dated July 15, 2011) added its support to concerns that the Proposed Transaction would affect its existing weekday operations on the SouthWest Service (SWS) Line.

Regarding transaction-related potential impacts to commuter rail, OEA has recommended a mitigation measure that would require CSXT to work closely with SSMMA (and thus, with the communities represented by SSMMA), IDOT, and Metra to resolve these groups' concerns. In addition, OEA has recommended mitigation measure MM 4, which would require CSXT to establish a community liaison to consult with affected communities and agencies and develop cooperative solutions that resolve concerns.

## 4.0 MITIGATION

Chapter 4 presents a discussion of mitigation measures that would help avoid or minimize environmental impacts resulting from the Proposed Transaction.

### **Overview of OEA's Approach**

In conducting the environmental review, OEA has taken a hard look at the environmental consequences of the Proposed Transaction and alternatives as required by NEPA. The potential environmental effects that OEA identified would be both beneficial and result in some increased noise and highway congestion. Chapter 3 discusses in detail the affected environment and potential environmental impacts. CSXT submitted voluntary mitigation measures to address potential effects arising from the transaction. The Final EA will contain all of the mitigation options OEA recommends the Board impose should the Proposed Transaction be approved. OEA's environmental analysis and its resulting preliminary environmental mitigation recommendations reflect the variety and complexity of the environmental issues and offer a reasonable and feasible way of minimizing some of the environmental impacts. As discussed below, OEA encourages negotiations between CSXT and potentially affected communities, or others, to reach mutually acceptable solutions to address their concerns. Negotiated solutions can sometimes be more far-reaching than mitigation the Board could unilaterally impose.

### **Limits of Conditioning Power**

The Board has authority to impose conditions to mitigate potential environmental impacts, but that authority is not limitless. As a government agency, the Board can only impose conditions that are consistent with its statutory authority. Any conditions the Board imposes must relate directly to a specific transaction, must be reasonable, and must be supported by the record before the Board. The Board's practice consistently has been to consider mitigation for only those impacts that result directly from a proposed action.

### **Voluntary Mitigation and Negotiated Agreements**

OEA encourages applicants to propose voluntary mitigation. In some situations, voluntary mitigation could be far more reaching than the mitigation that the Board could unilaterally otherwise impose. Voluntary mitigation also can supplement or replace mitigation that the Board might itself impose. Because applicants seeking Board authority may gain substantial knowledge about local community or other issues involved during project planning, and because they consult with other regulatory agencies and communities during the regulatory process, applicants can often propose relevant voluntary mitigation. For the Proposed Transaction, CSXT has proposed 46 voluntary mitigation measures and OEA has recommended four additional mitigation measures, as discussed in detail in Section 4.2, below.

As an alternative to the mitigation that the Board might unilaterally impose upon applicants, OEA encourages applicants to negotiate mutually acceptable agreements with affected communities and other government entities to address potential environmental impacts, if appropriate. Negotiated agreements can be with neighborhoods, communities, cities, counties, regional coalitions, states, or other entities.

If CSXT submits any negotiated agreements with communities or other entities to the Board, the Board would then require compliance with the terms of any such agreements as environmental conditions in any final decision approving the Proposed Transaction. These negotiated agreements would supersede any environmental conditions for that particular community or other entity that the Board would otherwise impose (that is, site-specific or local mitigation).

### **Preliminary Nature of Environmental Mitigation**

OEA emphasizes that the recommended environmental mitigation measures in this Draft EA are preliminary, and welcomes public and agency comment on those measures. In order for OEA to assess the comments effectively, the public must be specific about any desired mitigation and the reasons why the suggested mitigation would be appropriate. OEA should receive any requests for mitigation by the close of the public comment period for the Draft EA. Based on public comment and agency input, OEA will consider all mitigation measures carefully before making its final recommendations to the Board.

OEA requests that the freight and passenger railroads serving the Chicago metropolitan area, communities, and other interested parties advise OEA of the status of any negotiations that address environmental concerns during the comment period for the Draft EA, if appropriate. If the parties execute a mutually acceptable, negotiated agreement, they should immediately advise OEA in writing. OEA also requests that CSXT reports to OEA the results of any consultations by the close of the public comment period for the Draft EA. These negotiated agreements would supersede any environmental conditions for that particular community or other entity that the Board would otherwise impose.

After considering all public comments on the Draft EA, OEA will issue a Final EA responding to any comments on the Draft EA (including any suggestions related to mitigation) and presenting any additional environmental analysis. The Final EA will contain OEA's final recommendations to the Board, including final recommended environmental mitigation. The Board will then make its final decision regarding the Proposed Transaction. As previously noted the Board weighs only potential competitive effects in deciding whether to authorize this type of transaction 49 U.S.C §11324 (c).

### **CSXT's Voluntary Mitigation Measures**

As part of its application, CSXT submitted their proposed voluntary mitigation measures to OEA for the Board to consider in issuing its final decision. OEA has reviewed the voluntary mitigation measures and should the Proposed Transaction be approved, OEA would recommend that the Board require CSXT to comply with all of the voluntary mitigation measures submitted. Below, OEA presents CSXT's voluntary mitigation measures

(identified by CSXT as VM-#). CSXT organized the individual mitigation measures by categories.

## **Transportation**

### **Traffic and Grade Crossing Delay**

VM 1. CSXT shall, upon request, cooperate with municipalities and counties in support of their efforts to secure funding, in conjunction with appropriate state agencies, for grade separations where they may be appropriate under criteria established by relevant state Department of Transportation.

VM 2. CSXT shall examine train operations for ways of reducing highway/rail at-grade crossing blockages.

VM 3. CSXT shall cooperate with the appropriate state and local agencies and municipalities to:

- Evaluate the possibility that one or more roadways listed in Table 3.1-1 could be closed at the point where it crosses the Elsdon Line, in order to eliminate the at-grade crossing.
- Improve or identify modifications to roadways that would reduce vehicle delays by improving roadway capacity over the crossing by construction of additional lanes.
- Assist in a survey of highway/rail at-grade crossings for a determination of the adequacy of existing grade crossing signal systems, signage, roadway striping, traffic signaling inter-ties, and curbs and medians.
- Identify conditions and roadway, signal, and warning device configuration that may trap vehicles between warning device gates on or near the highway/rail at-grade crossing.

VM 4. In order to minimize the number of trains being stopped by operators at locations that block grade crossings on the Elsdon Line, CSXT shall work with other railroads to establish reasonable and effective policies and procedures to prevent other railroads' trains from interfering with CSXT's trains on the Elsdon Line.

VM 5. CSXT's design for wayside signaling systems shall be configured and implemented to minimize the length of time that trains or maintenance-of-way vehicles or activities block at-grade crossings or unnecessarily activate grade-crossing warning devices.

VM 6. CSXT shall operate under U.S. Operating Rule No. 526 (Public Crossings), which provides that a public crossing must not be blocked longer than 10 minutes unless it cannot be avoided and that, if possible, rail cars, engines, and rail equipment may not stand closer than 200 feet from a highway/rail at-grade crossing when there is an adjacent track. If the blockage is likely to exceed this time frame, then the train shall then be promptly cut to clear the blocked crossing or crossings.

**Rail Operations**

VM 7. CSXT shall work with Amtrak on transferring its relationship on the Elsdon Line from GTW to CSXT and incorporating such into CSXT's Operating Agreement with Amtrak.

VM 8. CSXT shall engage Metra in exploring all options for future service.

**Rail Safety**

VM 9. CSXT shall coordinate with the appropriate state agencies, counties, and affected communities along the Elsdon Line to install temporary notification signs or message boards, where warranted, in railroad ROW at highway/rail at-grade crossings, clearly advising motorists of the increase in train traffic on affected rail line segments. The format and lettering of these signs shall comply with Federal Highway Administration's *Manual on Uniform Traffic Control Devices* (FHWA 2007) and shall be in place no less than 30 days before and 6 months after the acquisition by CSXT of the Easement over the Elsdon Line.

VM 10. CSXT shall cooperate with interested municipalities impacted by noise as a result of the Proposed Transaction to determine any improvements necessary for existing quiet zones (QZ) to maintain FRA compliance.

VM 11. CSXT shall cooperate with interested communities for the establishment of QZs and assist in identifying supplemental or alternative safety measures, practical operational methods, or technologies that may enable the community to establish QZs.

VM 12. Within six months of acquisition by CSXT of the easement over the Elsdon Line, in order to improve visibility at highway rail at-grade crossings, CSXT shall consult with affected communities about crossings where there are vegetation and other obstructions and take reasonable steps to clear the vegetation or other obstructions.

VM 13. Within six months of acquisition by CSXT of the easement over the Elsdon Line, CSXT shall coordinate with the Illinois Department of Transportation (IDOT), Indiana Department of Transportation (INDOT), and other appropriate local agencies to review corridors surrounding highway/rail at-grade crossings to examine safety and adequacy of the existing warning devices, and identify remedies to improve safety for highway vehicles.

VM 14. Where grade-crossing rehabilitation is mutually agreed to, CSXT shall assure that rehabilitated roadway approaches and rail line crossings meet or exceed the standards of the IDOT's and INDOT's rules, guidelines, or statutes, and the American Railway Engineering and Maintenance of Way Association (AREMA) standards, with a goal of eliminating rough or humped crossings to the extent reasonably practicable.

VM 15. For each of the public grade crossings on the Elsdon Line, CSXT shall provide and maintain permanent signs prominently displaying both a toll-free telephone number and a unique grade-crossing identification number in compliance with Federal Highway Regulations (23 C.F.R. Part 655). The toll-free number will enable drivers to report

accidents, malfunctioning warning devices, stalled vehicles, or other dangerous conditions and will be answered 24 hours per day by CSXT personnel.

VM 16. Within six months of acquisition by CSXT of the easement over the Elsdon Line, CSXT shall cooperate with school and park districts to identify at-grade crossings where additional pedestrian warning devices may be warranted.

VM 17. CSXT shall continue ongoing efforts with community officials to identify elementary, middle, and high schools within 0.5 miles of the Elsdon Line's ROW and provide, upon request, informational materials concerning railroad safety to such identified schools.

VM 18. CSXT shall consult with IDOT, INDOT and other appropriate agencies and shall abide by the reasonable requirements of the Illinois Commerce Commission (ICC) or INDOT prior to constructing, relocating, upgrading, or modifying highway/rail at-grade crossing warning devices on the Elsdon Line.

VM 19. CSXT shall adhere to all applicable Occupational Safety and Health Administration, Federal Railroad Administration, and state construction and operational safety regulations to minimize the potential for accidents and incidents on the Elsdon Line.

### **Pedestrian and Bicycle Safety**

VM 20. CSXT shall make Operation Lifesaver programs available to communities, schools, and other appropriate organizations located along the affected segments.

VM 21. To supplement CSXT's VM 20, CSXT shall make Operation Lifesaver programs available to communities, schools, and other appropriate organizations located along the Elsdon Line for three years after the effective date of the Board's final decision granting the easement acquisition. The programs shall be designed and provided in coordination with ICC and INDOT.

### **Hazardous Materials Transportation**

VM 22. CSXT shall comply with the current Association of American Railroads (AAR) "key route" guidelines, found in AAR Circular No. OT-55-I (AAR 2006) and any subsequent revisions to minimize risks related to transportation of hazardous materials on the line.

VM 23. CSXT shall comply with the current AAR's "key train" guidelines, found in AAR Circular No. OT-55-I and any subsequent revisions to minimize risks related to transportation of hazardous materials on the line.

VM 24. To the extent permitted and subject to applicable confidentiality limitations, CSXT shall distribute to each local emergency response organization or coordinating body in the communities along the key routes a copy of CSXT's current Emergency Response Plan.

VM 25. CSXT shall incorporate the Elsdon Line into its existing Emergency Response Plan.

VM 26. CSXT shall comply with all hazardous materials regulations of the U.S. Department of Transportation (including the Federal Railroad Administration (FRA) and the U.S.

Pipeline and Hazardous Materials Safety Administration) and Department of Homeland Security (including the Transportation Security Administration) in all operations on the Elsdon Line. CSXT shall dispose of all materials that cannot be reused in accordance with applicable law.

VM 27. Upon request from local emergency response organizations, CSXT shall implement real-time or desktop simulation emergency response drills with the voluntary participation of local emergency response organizations.

VM 28. CSXT shall continue its ongoing efforts with community officials to identify the public emergency response teams located along the Elsdon Line and provide, upon request, hazardous material training.

VM 29. CSXT shall, upon request, conduct Transportation Community Awareness and Emergency Response Program (TRANSCAER) workshops (training for communities through which dangerous goods are transported) in communities along the Elsdon Line.

VM 30. CSXT shall, upon request, assist in hazardous materials training for emergency responders for affected communities. CSXT shall support through funding or other means the training of one representative from each of the communities located along the Elsdon Line where the transportation of hazardous materials would increase. CSXT shall complete the training within three years from the date that CSXT initiates operational changes associated with the Proposed Transaction.

VM 31. CSXT shall develop internal emergency response plans to allow appropriate agencies to be notified in an emergency, and to locate and inventory the appropriate emergency equipment. CSXT shall provide the emergency response plans to the relevant state and local authorities within six months of acquisition by CSXT of the easement over the Elsdon Line.

VM 32. CSXT shall provide dedicated toll-free telephone number to the emergency response organizations or coordinating bodies responsible for communities located along the Elsdon Line. This telephone number will provide access to CSXT personnel 24 hours per day, seven days a week, enabling local emergency response personnel to obtain and provide information quickly regarding the transport of hazardous materials on a given train and appropriate emergency response procedures should a train accident or hazardous materials release occur.

VM 33. In accordance with the Emergency Response Plan, CSXT shall make the required notifications to the appropriate federal and state environmental agencies in the event of a reportable hazardous materials release. CSXT shall work with the appropriate agencies such as U.S. Fish and Wildlife Service, Illinois Environmental Protection Agency, and Indiana Department of Environmental Management to respond to and remediate hazardous materials releases with the potential to affect wetlands or wildlife habitat(s), particularly those of federally threatened or endangered species.

VM 34. In the event any construction is necessary, CSXT shall comply with any regulations as required in the preparation of a construction Stormwater Pollution Prevention Plan.

VM 35. To supplement CSXT's VM 29, CSXT shall conduct TRANSCAER workshops in English and Spanish upon request for 3 years from the effective date of the Board's final decision authorizing the Proposed Transaction.

VM 36. In addition to CSXT's VM 33, CSXT shall adhere to all U.S. Environmental Protection Agency regulations as described in 40 C.F.R. Part 263, Standards Applicable to Transporters of Hazardous Waste, and shall coordinate with U.S. Environmental Protection Agency (USEPA), and state and local agencies on spill responses.

### **Emergency Response**

VM 37. CSXT shall notify Emergency Services Dispatching Centers for communities along the affected segments of all crossings blocked by trains that are stopped and may be unable to move for a significant period of time. CSXT shall work with affected communities to minimize emergency vehicle delay by maintaining facilities for emergency communication with local Emergency Response Centers through a dedicated toll-free telephone number.

### **Air Quality and Climate**

VM 38. CSXT shall comply with any appropriate UEPA emissions standards for diesel-electric railroad locomotives (40 C.F.R. Part 92) when purchasing and rebuilding locomotives.

### **Noise and Vibration**

VM 39. CSXT shall work with affected communities with sensitive receptors that would experience an increase of at least 5 dBA and reach 70 dBA to mitigate train noise to levels as low as 70 dBA by cost effective means as agreed to by an affected community and CSXT. In the absence of such an agreement, CSXT shall implement cost effective mitigation that could include installing continuously welded rail, and constructing noise control devices such as noise barriers and installing vegetation or berming.

VM 40. CSXT shall lubricate curves where doing so would both be consistent with safe and efficient operating practices and significantly reduce noise for residential or other noise sensitive receptors. CSXT shall continue to employ safe and efficient operating procedures that, in lieu of, or as complement to, other noise mitigation measures could have the combined benefit of effectively reducing noise from train operations. Such procedures include:

- Inspecting rail car wheels to maintain wheels in good working order and minimize the development of wheel flats;
- Inspecting new and existing rail for rough surfaces and, where appropriate, grinding these surfaces to provide a smooth rail surface during operations;
- Regularly maintaining locomotives, and keeping mufflers in good working order; and
- Removing or consolidating switches determined by CSXT to no longer be needed.

VM 41. Upon request, CSXT shall consult with communities affected by wheel squeal at existing locations on the Elsdon Line, and cooperate in determining the most appropriate methods for implementing VM 40.

VM 42. To minimize noise and vibration, CSXT shall install and maintain rail and rail beds according to AREMA standards.

VM 43. CSXT shall comply with FRA regulations establishing decibel limits for train operations.

### **Environmental Justice**

VM 44. In addition to VM 17, all of CSXT's informational materials concerning railroad safety shall be provided to elementary, middle, and high schools within 0.5 miles of the Elsdon Line in both English and Spanish, upon request.

### **Monitoring and Enforcement**

VM 45. CSXT shall submit quarterly reports to the Board's Office of Environmental Analysis on the progress of, implementation of, and compliance with the mitigation measures for a period covering the first three years of operational changes associated with the Proposed Transaction.

VM 46. Within three years of the acquisition by CSXT, if there is a material change in the facts or circumstances upon which the Board relied in imposing specific environmental mitigation conditions, and upon petition by any party who demonstrates such material change, the Board may review the continuing applicability of its final mitigation, if warranted.

### **OEA's Preliminary Environmental Mitigation**

Based on available project information and comments received during scoping, OEA considered preliminary recommended mitigation measures (MM #) to address the potential environmental impacts of the Proposed Transaction in the following resource areas: rail operations, safety, emergency response, noise and vibration, and environmental justice. These recommended mitigation measures would supplement CSXT's proposed voluntary mitigation. OEA emphasizes that these measures are preliminary and welcomes public and agency comment during the comment period on all aspects of this Draft EA, including the environmental analysis. In order for OEA to assess comments effectively, please be specific about any desired mitigation and the reasons why the suggested mitigation would be appropriate.

### ***CSXT's Voluntary Mitigation***

MM 1. CSXT shall comply with all voluntary mitigation measures.

### ***Emergency Response***

MM 2. In addition to VM 37, to further assist with the timely response of emergency service providers for the Advocate Christ Medical Center and the Little Company of Mary Hospital, CSXT shall consult with all appropriate agencies and hospitals to install a closed-circuit

television system (CCTV) with video cameras (or another comparable system or acceptable option) so that the movement of trains can be predicted at the 95<sup>th</sup> Street highway/rail at-grade crossing. CSXT shall pay for the necessary equipment, the installation of the equipment, and equipment training for up to two individuals from each affected hospital. CSXT shall work with all appropriate agencies and hospitals to determine specifications and scheduling for the installation of the CCTV system. CSXT shall be responsible for the ongoing maintenance and operation of CCTV after the system is installed and operational.

***Requested Consultation***

MM 3. In response to concerns raised by the South Suburban Mayors and Managers Association (SSMMA), the City of Blue Island (one of the many communities represented by SSMMA), the IDOT, and Metra on potential noise impacts and impacts to commuter train service as a result of the Proposed Transaction, CSXT shall negotiate with SSMMA, IDOT, and Metra with the goal of addressing these groups' concerns to the extent practicable regarding transaction-related noise and impacts to commuter rail service. In particular, negotiations should focus on transaction-related potential impacts to Metra's Rock Island District, Electric District, South-west Service (SWS) Line, and the proposed South-east Service (SES) Line; as well as the feasibility of establishing quiet zones in communities along the Elsdon Line that would be affected by noise as a result of the Proposed Transaction.

***Community Liaison***

MM 4. In response to concerns raised regarding noise, emergency response, and other issue areas, CSXT shall, prior to initiating the operational changes associated with the Proposed Transaction and for a period of one year following the startup of operations on the Elsdon Line, CSXT shall establish a Community Liaison to consult with affected communities, businesses, and appropriate agencies; develop cooperative solutions to local concerns; be available for public meetings; and conduct periodic outreach. CSXT shall provide the name and phone number of the Community Liaison to elected public officials and community leaders in each community through which the rail line passes, including segments GTW-01 through GTW-06 on the Elsdon Line.



## 5.0 LIST OF PREPARERS

### Surface Transportation Board

The following members of Board staff were responsible for overall project management, technical direction, and writing, reviewing, and editing the draft document.

Name	Background	Title/Role
Diana F. Wood	M.S. Environmental Science B.S. Soil Science Twenty-seven years in interdisciplinary environmental and engineering projects, including, NEPA, facilities management, site remediation and compliance	Environmental Project Manager

### HDR Engineering, Inc.

Name and Firm	Background	Project Role
<b>Project Management</b>		
Kevin Keller, PG, CGWP HDR	M.S. Hydrogeology B.S. Geology Twenty-nine years in management and supervision of large, interdisciplinary environmental and engineering projects, including NEPA studies, remediation and closure of regulated sites, and diverse services for the rail industry	Project Manager
John H. Morton, P.E. HDR	M.S. Engineering Management B.S. Civil/Environmental Engineering Thirty-seven years in the design, permitting, and approval of civil engineering structures; NEPA and other environmental compliance; mitigation design; public involvement, interagency coordination, and management of interdisciplinary teams on large, complex projects	Project Manager
Mark L. Wollschlager, J.D. HDR	J.D. B.S. Biological/Life Sciences Thirty-two years in environmental law, impact analysis, permitting, and quality control Responsible for strategy, coordination, guidance, review, analysis, and interpretation of federal and state environmental and energy laws and regulations affecting various types of projects and facilities	Technical and Quality Control Manager  Technical Team Leader
<b>Technical Analysis</b>		
William D. Burgel, RPG HDR	M.S. Geology B.S. Engineering Thirty-nine years in railroad engineering and	Technical Lead – Rail Operations

Name and Firm	Background	Project Role
	<p>operations as a project engineer and project manager for railway and transportation engineering projects and NEPA studies</p> <p>Expertise in light rail, commuter rail, and freight rail interface and capacity issues</p>	
<p>Timothy G. Casey, INCE</p> <p>HDR</p>	<p>B.S. Biological/Life Sciences</p> <p>Twenty five years performing and managing noise and vibration analyses for projects involving stationary and mobile sources, including combustion turbines, wind farms, and other noise sources associated with the power and energy industries</p>	<p>Technical Lead – Noise and Vibration</p>
<p>Richard A. Christopher, J.D.</p> <p>HDR</p>	<p>J.D.</p> <p>B.A. English Language and Literature</p> <p>Thirty-five years practicing law, including 30 years devoted to environmental law and 25 years at the Illinois Department of Transportation as Deputy Chief Counsel specializing in project development</p>	<p>Quality Control/Quality Assurance Manager</p>
<p>Elliott B. Dick</p> <p>HDR</p>	<p>B.S. Noise and Vibration Control</p> <p>Seventeen years in environmental noise and architectural acoustics, commercial building design, and noise modeling methods for rail and road transportation noise</p>	<p>Resource Specialist – Noise and Vibration</p>
<p>Jacqueline D. Hamilton, P.G., GISP</p> <p>HDR</p>	<p>M.S. GIS</p> <p>B.S. Geology</p> <p>Twenty years as a GIS specialist and hydrogeologist developing GIS databases, and conducting spatial analysis, land cover classification practices, Phase I Environmental Site Assessments, soil sampling, groundwater and surface water sampling, and monitoring</p>	<p>Technical Lead – Geology and Soils, GIS</p>
<p>Edward J. Liebsch, V.P.</p> <p>HDR</p>	<p>M.S. Meteorology</p> <p>B.S. Earth Science</p> <p>Thirty-three years as an air quality specialist, project manager, and group leader for air quality impact analysis and permitting, including dispersion modeling of air pollution, regulatory evaluations, and air quality analyses under NEPA and state environmental review programs</p>	<p>Technical Lead – Air Quality and Climate, Energy Resources</p>
<p>Michael J. Madson, RPA</p> <p>HDR</p>	<p>M.S. Industrial Archeology</p> <p>B.A. Liberal Arts/Sciences</p> <p>Thirteen years in cultural resources investigations including survey, testing, and data recovery at historic and prehistoric archaeological sites; historic structure inventories and evaluations, tribal and agency</p>	<p>Technical Lead – Cultural Resources</p>

Name and Firm	Background	Project Role
	consultations	
Christine M. Magers, AWB  HDR	B.S. Wildlife and Fishery Sciences Four years conducting surveys of rangeland and wildlife system and environmental analysis; Section 404/401 permitting; feasibility studies; and wetland delineation	Technical Lead – Biological Resources, Community Resources and Land Use
Robin S. Martel, LEED AP  HDR	B.S. Geology Seventeen years in environmental and transportation engineering, transportation planning, NEPA documentation for public improvement and redevelopment projects, and environmental site assessments	Technical Lead – Traffic and Grade Crossing Delay, Hazardous Materials Transportation Safety
Mukul Pal, E.I.  HDR	M.S. Transportation Engineering B.S. Civil Engineering Seven years of extensive experience in transportation engineering and planning with a strong background in the following relevant software: MicroStation, AUTOCAD, ArcView 3.3, Arc Explorer, Arc GIS 9, GPS, GIS, HCS, and traffic noise modeling	Resource Specialist – Traffic and Grade Crossing Delay
Adriana M. Servinsky  HDR	B.S. Civil Engineering Seven years in traffic engineering and transportation planning, including project development reports, environmental studies, combined design reports, traffic impact studies, and railroad-related studies	Resource Specialist – Traffic and Grade Crossing Delay
Kerri P. Snyder, AICP  HDR	B.S. Environmental Sciences M.S. Ecology Eleven years in environmental analysis and documentation under NEPA; Section 404/401 permitting; U.S. Coast Guard permitting; feasibility studies; and wetland delineations	Technical Lead – Socioeconomics, Environmental Justice, and Cumulative Effects
Nicholas K. Stadem, P.E.  HDR	B.S. Civil Engineering Seven years in rail engineering including track design, highway/rail grade crossing analysis, construction observation, and survey	Resource Specialist – Rail Operations
Michael J. Swenson  HDR	B.A. Biological Sciences Five years in Clean Water Act permitting, water quality assessment and monitoring, environmental analysis and documentation under NEPA, biological assessment and monitoring, GIS, remote sensing via GPS, wetland and stream mitigation, and wetland delineations	Technical Lead – Water Resources

Name and Firm	Background	Project Role
Leif J. Thorson, P.E.  HDR	B.S. Civil Engineering Thirty-four years as a project engineer and senior project manager in the railroad and consulting industries Twenty-one years with Class I and regional railroads Experienced in railroad operations; inspection; maintenance; and design and construction of tracks, bridges, grade crossings, and other railroad facilities	Technical Lead – Rail Operations, Rail Safety
Scott P. Zilka  HDR	B.S. Meteorology Seventeen years in dispersion modeling analyses for stationary and mobile emissions sources quality assessment of meteorological data; preparation of source, receptor, emissions and other dispersion model input data; and dispersion modeling of air pollutant emissions	Resource Specialist – Air Quality and Climate, Energy Resources
<b>Document Production</b>		
Margaret G. Desmond  HDR	B.A. English and Literature Thirty-four years in journalism, in-house communications, and business development Focus in the last 17 years on editing technical documents and preparing marketing proposals for engineering firms	Senior Technical Editor
Sara Merchán Paniagua  HDR	M.S. Soil and Environmental Sciences B.S. Biological/Environmental Sciences Five years in editing of technical documents; writing NEPA documentation and U.S. Army Corps of Engineers project implementation reports; Section 404/401 permitting; wetland delineations; biological assessments; and environmental monitoring	Editor and Technical Writer – List of Preparers, References

**APPENDIX A:  
CSXT's Outreach Efforts to Inform Affected Communities**

## CSXT's Outreach Efforts to Inform Affected Communities

Appendix A provides information on CSXT's outreach efforts and agency coordination activities that CSXT conducted in advance of its application to the OEA. These outreach activities were intended to inform potentially affected communities and organizations about the Proposed Transaction and understand their concerns.

### *Meetings with Local Representatives*

CSXT conducted 27 outreach meetings at the dates identified in Table A - 1. CSXT met with mayors and aldermen as well as with state senators and representatives. At the meetings, CSXT distributed education materials on the Proposed Transaction and discussed the Board's environmental review process. These materials are included at the end of this appendix in Attachment 1.

<b>Table A - 1. Outreach Meetings</b>	
<b>Date</b>	<b>Primary Contact</b>
May 4, 2011	Mayor Norman Abbott
May 4, 2011	Mayor Don De Graff
May 4, 2011	Mayor Don Peloquin
May 4, 2011	Mayor Eric J. Kellogg
May 5, 2011	Alderman Ed Burke
May 5, 2011	Mayor Jim Sexton and Public Works, Bill Lorenz
May 5, 2011	Alderman Lona Lane
May 10, 2011	Alderman-elect Matt O'Shea
May 10, 2011	Reps. Will Davis, Andre Thepedi, Bob Rita, and Monique Davis
May 11, 2011	Reps. Kelly Burke and Bill Cunningham
May 11, 2011	Sen. Ed Maloney, Jacqueline Collins, and Emil Jones III
May 18, 2011	Mayor Norman Abbott
May 24, 2011	Mr. Rick Bryant and Washington staff (Rep. Jesse Jackson Jr.'s staff)
May 27, 2011	Mr. Rick Bryant (Rep. Jesse Jackson's Office)
June 13, 2011	Sen. Ed Maloney, Rep. Kelly Burke, and Rep. Bill Cunningham
June 17, 2011	Rep. Dan Lipinski
June 16, 2011	Reps. Thadeus Jones and Bob Rita
June 7, 2011	Ms. Clarisol Duque (Senator Durbin's staff)
June 2011	Mr. Jeffrey Sriver, Mr. Joe Alonzo, and Ms. Luanne Hamilton (City of Chicago Department of Transportation)
June 2011	Mr. Randy Blankenhorn, Chicago Metropolitan Agency for Planning
July 5, 2011	Luanner Peters (Rep. Bobby Rush's Office)
July 11, 2011	Commissioners Andrew Mooney and Gabe Klein, City of Chicago Department of Transportation, Department of Economic Development)
September 8, 2011	Evergreen Park High School District

<b>Table A - 1. Outreach Meetings</b>	
<b>Date</b>	<b>Primary Contact</b>

Source: CSXT 2011.

**Agency Coordination**

CSXT invited agencies with jurisdiction, expertise, or interest in the Proposed Transaction to participate in the environmental review process. CSXT asked the agencies identified in the following sections to help identify potential environmental issues and concerns within the study area.

Federal Agencies

Table A - 2 below identifies the key federal agencies which were contacted by the CSXT in advance of its application. CSXT invited the federal agencies to help identify potential environmental issues that CSXT should consider in the development of its application. Attachment 2 includes response letters received from federal agencies.

<b>Table A - 2. Federal Agencies</b>	
<b>Agency</b>	<b>Agency Jurisdiction or Area of Expertise</b>
U.S. Army Corps of Engineers (USACE), Chicago District	Under Section 404 of the Clean Water Act of 1977 (33 C.F.R. § 1344), USACE has jurisdiction over activities that result in the discharge of dredge or fill material into U.S. waters, including lakes, rivers, streams, oxbows, ponds, and wetlands. Activities that affect these systems require a permit from USACE.
U.S. Coast Guard, Ninth District	Section 9 of the Rivers and Harbors Act of 1899 (33 U.S.C. 401) requires approval of the location of, and plans for, bridges over navigable waters of the U.S. before construction begins. This requirement is administered by the U.S. Coast Guard.
U.S. Department of Agriculture- Natural Resources Conservation Service (USDA-NRCS), New Lenox Field Office and Crown Point Service Center	USDA-NRCS oversees how activities would potentially affect prime farmland and farmland of statewide importance under 7 C.F.R. Part 657, "Prime and Unique Farmlands".
U.S. Environmental Protection Agency (USEPA), Region 5	USEPA oversees and implements Federal environmental laws. USEPA also provides guidance on compliance with certain Executive Orders that involve environmental considerations. Under Section 309 of the Clean Air Act (42 U.S.C. 7609), USEPA reviews and comments on the environmental impacts of major federal actions for which an EA is prepared under NEPA.
U.S. Fish and Wildlife Service (USFWS), Chicago Field Office and the Northern Indiana Ecological Services Sub-	USFWS implements the Endangered Species Act (ESA). Under Section 7 of the ESA (16 U.S.C. 1536), USFWS reviews Federal agency actions and expected impacts to threatened or endangered species. USFWS can issue a determination, in the form of a biological opinion, which details the expected impacts to threatened or endangered species. The Board is responsible for initiating Section 7 consultation

<b>Table A - 2. Federal Agencies</b>	
<b>Agency</b>	<b>Agency Jurisdiction or Area of Expertise</b>
Office	with USFWS.

***Other Agencies and Groups***

CSXT also coordinated with state and local agencies as well as other groups.

Native American Groups

CSXT invited the following Native American groups to participate in the environmental review process:

- Citizen Potawatomi Nation
- Hannahville Indian Community Council
- Prairie Band of Potawatomi Nation

State and Local Agencies

Table A - 3 lists the state and local agencies CSXT invited to provide input on potential effects as a result of the Proposed Transaction. Attachment 2 includes agency letters received.

<b>Table A - 3. State and Local Agencies</b>	
<b>Agency</b>	<b>Agency Jurisdiction or Area of Expertise</b>
<b>Illinois State Agencies</b>	
Illinois Commerce Commission (ICC), Transportation Bureau	ICC is the state agency with regulatory authority over Illinois railroads. Its rail safety staff responds to inquiries and complaints and conducts specialized inspections of railroad tracks, rail operations, hazardous material transportation, and grade crossing signal systems. The commission also monitors railroad ROW and grade crossing surface conditions, as well as visibility obstructions at rail crossings.
Illinois Department of Transportation (IDOT)	IDOT’s mission is to provide safe, cost-effective transportation for Illinois that enhances quality of life, promotes economic prosperity, and demonstrates respect for the environment.
Illinois Environmental Protection Agency (IEPA)	IEPA’s mission is to safeguard environmental air and water quality and to protect human health and the environment by ensuring that hazardous and solid waste is managed in a sound manner.
Illinois Historic Preservation Agency (IHPA)	IHPA is responsible for protecting historic, architectural, and archeological sites as part of the public planning process and administering federally and state-mandated legislation.
State of Illinois, Office of the Governor	Mr. Pat Quinn is the governor of the State of Illinois.

<b>Table A - 3. State and Local Agencies</b>	
<b>Agency</b>	<b>Agency Jurisdiction or Area of Expertise</b>
<b>Illinois State Agencies</b>	
<b>Indiana State Agencies</b>	
Indiana Department of Environmental Management (IDEM)	IDEM’s mission is to implement federal and state environmental regulations. Through compliance assistance, incentive programs, and educational outreach, the agency encourages and aids businesses and citizens in protecting and improving Indiana's environment.
Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology	The Division of Historic Preservation and Archaeology promotes the conservation of Indiana's cultural resources through public education efforts; financial incentives, including several grant and tax credit programs; and the administration of federal and state legislation.
Indiana Department of Natural resources, Lake Michigan Coastal Program	The purpose of the Indiana Lake Michigan Coastal Program is to enhance the state’s role in planning for and managing natural and cultural resources in the coastal region.
Indiana Department of Transportation (INDOT)	INDOT’s mission is to plan, build, maintain, and operate a superior transportation system that enhances safety, mobility, and economic growth.
State of Indiana Government - Intergovernmental Affairs	The Director of Intergovernmental Affairs informs and provides advice to the Governor on initiatives from state, local, and tribal governments.
<b>County Governments</b>	
Cook County, Illinois	The county government is currently run by the Democratic Party. County seat is Chicago. Contains 32 Townships. Board President is Toni Preckwinkle
Lake County, Indiana	The county government is a constitutional body, and is granted powers by the Constitution of Indiana, and by the Indiana Code. County seat is Crown Point. Contains 11 Townships
<b>Regional Governments</b>	
Northern Indiana Commuter Transportation District	Established in 1977 by and act of the Indiana General Assembly. It was created to maintain and preserve commuter rail service between South Bend and Chicago.
Northern Indiana Regional Planning Commission	NIRPC is a regional council of local governments serving the three counties of northwestern Indiana.
South Suburban Mayors and Managers Association	The South Suburban Mayors and Managers Association is an intergovernmental agency providing technical assistance and joint services to 42 municipalities representing a population of more than 650,000 in Cook and Will counties.

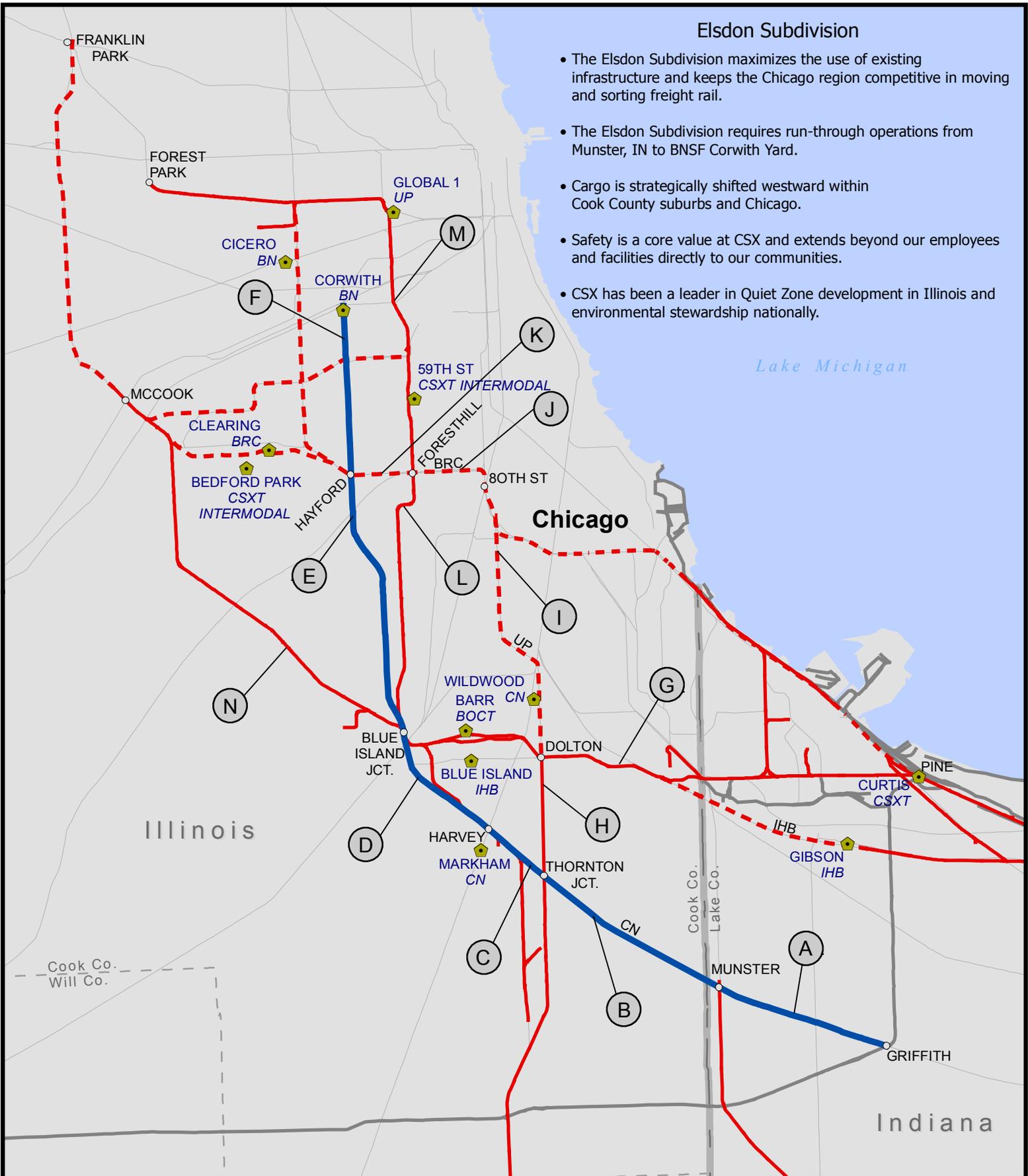
<b>Table A - 3. State and Local Agencies</b>	
<b>Agency</b>	<b>Agency Jurisdiction or Area of Expertise</b>
<b>Illinois State Agencies</b>	
<b>Forest Preserves</b>	
Forest Preserve District of Cook County	The Forest Preserve District of Cook County's mission is to acquire lands containing natural forests and to preserve forests for the education, pleasure, and recreation of the public.
<b>Local Governments</b>	
City of Chicago	The City of Chicago's government is divided into executive and legislative branches. The legislative branch is the City Council which enacts local ordinances and approves the city budget.
Village of Evergreen Park	The Village of Evergreen Park is the governing body of Evergreen Park which is in Illinois 1st congressional district.
Village of Merrionette Park	The Village of Merrionette Park is the governing body of Merrionette Park, located in Illinois' 3rd congressional district
City of Blue Island	The City of Blue Island is the governing body of Blue Island located in Cook County Illinois. The City of Blue Island is in Illinois 1st and 2nd congressional districts.
City of Harvey	The City of Harvey is the governing body of Harvey, located in Cook County, Illinois. Harvey is in Illinois' 2nd congressional district.
Village of Posen	The Village of Posen is the governing body of Posen Illinois. It sits in Illinois' 1st congressional district. It operates under a Mayor-Trustee form of government with elected officials
Village of Phoenix	The Village of Phoenix is the governing body of Phoenix, Illinois. It sits in Illinois' 2nd congressional district.
Village of South Holland	The Village of South Holland is the governing body of South Holland, Illinois. It sits in Illinois' 2nd congressional district.
Village of Thornton	The Village of Thornton is the governing body of Thornton, Illinois. It is in the Illinois' 2nd congressional district.
Village of Lansing	The Village of Lansing is the governing body of Lansing, Illinois. Lansing is in Illinois' 2nd congressional district and is considered a home rule community.
Town of Munster	The Town of Munster is the governing body of Munster, Indiana. It is governed by a five person Town Council.
<b>Other</b>	
Chicago Metropolitan Agency for Planning	CMAA integrates planning for land use and transportation in the 7 counties of northeastern Illinois.
Metra	Metra is a commuter rail system serving northeastern Illinois, with 228 stations in a six-county area. Metra connects downtown Chicago and its surrounding areas.
PACE	Pace is a suburban transit provider in Chicago's suburbs. Pace serves riders with fixed bus routes, van pools, and Dial-a-Ride programs. Pace covers 3,500 square miles and is one of North America's largest bus services.
Regional Transportation	RTA is the financial oversight and regional planning body for the three public transit operators in northeastern Illinois-the Chicago Transit Authority (CTA), Metra, and Pace.

<b>Table A - 3. State and Local Agencies</b>	
<b>Agency</b>	<b>Agency Jurisdiction or Area of Expertise</b>
<b>Illinois State Agencies</b>	
Authority	
Amtrak	Amtrak is a commuter and passenger rail system that serves Illinois and Indiana with both long-distance and corridor services. Amtrak is also known as the National Railroad Passenger Corporation.

**Attachment 1**  
**Local Meeting Materials**

## Eldson Subdivision

- The Eldson Subdivision maximizes the use of existing infrastructure and keeps the Chicago region competitive in moving and sorting freight rail.
- The Eldson Subdivision requires run-through operations from Munster, IN to BNSF Corwith Yard.
- Cargo is strategically shifted westward within Cook County suburbs and Chicago.
- Safety is a core value at CSX and extends beyond our employees and facilities directly to our communities.
- CSX has been a leader in Quiet Zone development in Illinois and environmental stewardship nationally.



How Tomorrow Moves  
Eldson Subdivision

### Legend

- Major Yards/Terminals
- Stations
- GTW Eldson Subdivision
- CSXT/B&OCT Rail Network
- CSXT/B&OCT Trackage Rights
- Other Railroads



**Attachment 2**  
**Federal and Other Agency and Group Letters**



June 30, 2011

Mr. Kevin Keller  
HDR Engineering, Inc.  
4435 Main Street  
Suite 1000  
Kansas City, Missouri 64111

Dear Mr. Keller:

This refers to your letter of May 25, 2011 regarding the proposed CSX Transportation, Inc. ("CSXT") acquisition of a 22.3-mile portion of Canadian National Railway's ("CN")/Grand Trunk Western Railroad Company's ("GTW") Elsdon Subdivision rail line between Munster, IN, milepost 31.0, and Elsdon, IL, milepost 8.7 (the "Elsdon Sub"), Finance Docket No. 35522. Amtrak would like to offer the following information on current passenger operations on the Elsdon Sub as related to the economic, social, and environmental effects of the proposed transaction:

Currently, Amtrak operates passenger service on a segment of the line between Munster, IN (MP 31.0) and Thornton Jct, IL (MP 25.2), a total of 5.8 miles. The trains are the *Cardinal* passenger service 3 days per week between New York and Chicago and the *Hoosier State* passenger service the remaining 4 days per week between Indianapolis and Chicago. The combined service consists of one train each way per day on this segment, currently scheduled to operate westbound from 8:37am to 8:46am Central time and eastbound from 6:40pm to 6:48pm Central time.

Amtrak's long range plans include up to 5 additional roundtrips between Chicago and Cincinnati via Indianapolis via portions of the Elsdon Sub. These plans are part of the Midwest Regional Rail Initiative.

In calendar 2010, the *Cardinal*/*Hoosier State* service on this segment experienced 2,768 minutes of host responsible delays per 10,000 train miles, and over 60% of those delays due to Freight Train Interference. The proposed transaction indicates that the daily amount of freight trains on the Munster-Thornton Jct segment would decrease by almost 1 train per day. In addition the proposal includes elimination of 12 daily trains on the Joint UP/CSXT segment between Thornton Jct and 80<sup>th</sup> Street, Chicago, which also currently hosts the *Cardinal*/*Hoosier State* service.

To the degree that delays to Amtrak trains are reduced and additional Amtrak frequencies are accommodated as a result of this proposal, Amtrak ridership may potentially increase due to people switching from other modes to train travel, thereby providing environmental benefits.

We believe that attaining these potential benefits would require CSXT to maintain the current condition of the infrastructure (FRA Class 4) as well as provide priority dispatching and operating protocols for Amtrak trains.

Sincerely,

A handwritten signature in blue ink, appearing to read "P. Vilter".

Paul Vilter  
*AVP Host Railroads*

Cc: Mike Franke

# CITY OF BLUE ISLAND

13051 GREENWOOD  
BLUE ISLAND, ILLINOIS 60406

OFFICE OF THE MAYOR  
**DONALD E. PELOQUIN**

[708] 597-8602 • [708] 396-7030  
Fax [708] 597-1221

June 10, 2011

Mr. Kevin Keller  
HDR Engineering, Inc.  
4435 Main Street  
Suite 1000  
Kansas City, Missouri 64111

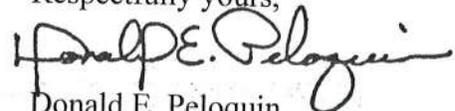
Re: Finance Docket No. 35522  
CSX Transportation, Inc. – Acquisition – Grand Trunk Western Railroad Co.

Dear Mr. Keller:

I am writing regarding the proposed CSXT acquisition of the Grand Trunk Western Railroad. Blue Island has always been a railroad town and realizes the benefits of the rail industry. Unfortunately, the City and its residents have seen no real economic benefits to counter the negatives. The railroads in our town have 23 grade crossings and a speed limit of about 15 m.p.h. at the Broadway interlocking. Blue Island under the new federal law also has roughly 1200 train whistles a day. This new rule is creating a great hardship on our residents and the community.

I would like to see the CSXT work with the local municipality to reduce the number of train whistles blown in our community. We would also like to work with CSXT to help develop old industrial sites with existing rail spurs to become new intermodal hubs. Many of the local elected officials believe that the intermodal traffic generated by the railroads could become our new manufacturing industry in this region. I can better explain the opportunities in person if you feel the need. Please feel free to call me at City Hall, 708-396-7030 or on my cell 708-878-5425 to answer any of your questions.

Respectfully yours,



Donald E. Peloquin  
Mayor

DEP:ls



# Indiana Department of Environmental Management

*We make Indiana a cleaner, healthier place to live.*

---

Mitchell E. Daniels, Jr.  
Governor

100 North Senate Avenue  
Indianapolis , Indiana 46206

Thomas W. Easterly  
Commissioner

(317) 232-8603  
800) 451-6027  
[www.IN.gov/idem](http://www.IN.gov/idem)

CSX Transportation  
Chris Maffet  
500 Water St.  
C900  
Jacksonville, FL, IN 32202

CSX Transportation  
Chris Maffet  
500 Water St.  
C900  
Jacksonville, FL 32202

Tuesday, August 16, 2011

Dear Grant Administrator or Other Finance Approval Authority:

RE: CSX Transportation, Inc. (CSXT) submitted an application to the Surface Transportation Board (Board) pursuant to 49 U.S.C. §§ 11323 and 49 C.F.R. Part 1180. CSXT proposes Board authority to acquire from the Grand Trunk Western Railroad Company (GTW) an exclusive, perpetual, non-assignable railroad operating easement over a 22.3-mile portion of Canadian National Railway's Elsdon Subdivision rail line between Munster, Indiana and Elsdon, Illinois.

The Indiana Department of Environmental Management (IDEM) is aware that many local government or not-for-profit entities are seeking grant monies, a bond issuance, or another public funding mechanism to cover some portion of the cost of a public works, infrastructure, or community development project. IDEM also is aware that in order to be eligible for such funding assistance, applicants are required to first evaluate the potential impacts that their particular project may have on the environment. In order to assist applicants seeking such financial assistance and to ensure that such projects do not have an adverse impact on the environment, IDEM has prepared the following list of environmental issues that each applicant must consider in order to minimize environmental impacts in compliance with all relevant state laws.

IDEM recommends that each applicant consider the following issues when moving forward with their project. IDEM also requests that, in addition to submitting the information requested above, each applicant also sign the attached certification, attesting to the fact that they have read the letter in its entirety, agree to abide by the recommendations of the letter, and to apply for any permits required from IDEM for the completion of their project.

IDEM recommends that any person(s) intending to complete a public works, infrastructure, or community development project using any public funding consider each of the following applicable recommendations and requirements:

## **WATER AND BIOTIC QUALITY**

1. Section 404 of the Clean Water Act requires that you obtain a permit from the U.S. Army Corps of Engineers (USACE) before discharging dredged or fill materials into any wetlands or other waters, such as rivers, lakes, streams, and ditches. Other activities regulated include the relocation, channelization, widening, or other such alteration of a stream, and the mechanical clearing (use of heavy construction equipment) of wetlands. Thus, as a project owner or sponsor, it is your responsibility to ensure that no wetlands are disturbed without the proper permit. Although you may initially refer to the U.S. Fish and Wildlife Service National Wetland Inventory maps as a means of identifying potential areas of concern, please be mindful that those maps do not depict jurisdictional wetlands regulated by the USACE or the Department of Environmental Management. A valid jurisdictional wetlands determination can only be made by the USACE, using the 1987 Wetland Delineation Manual.

USACE recommends that you have a consultant check to determine whether your project will abut, or lie within, a wetland area. To view a list of consultants that have requested to be included on a list posted by the USACE on their Web site, see USACE Permits and Public Notices (<http://www.lrl.usace.army.mil/orf/default.asp>) and then click on "Information" from the menu on the right-hand side of that page. Their "Consultant List" is the fourth entry down on the "Information" page. Please note that the USACE posts all consultants that request to appear on the list, and that inclusion of any particular consultant on the list does not represent an endorsement of that consultant by the USACE, or by IDEM.

Much of northern Indiana (Newton, Lake, Porter, LaPorte, St. Joseph, Elkhart, LaGrange, Steuben, and Dekalb counties; large portions of Jasper, Starke, Marshall, Noble, Allen, and Adams counties; and lesser portions of Benton, White, Pulaski, Kosciusko, and Wells counties) is served by the USACE District Office in Detroit (313-226-6812). The central and southern portions of the state (large portions of Benton, White, Pulaski, Kosciusko, and Wells counties; smaller portions of Jasper, Starke, Marshall, Noble, Allen, and Adams counties; and all other Indiana counties located in north-central, central, and southern Indiana) are served by the USACE Louisville District Office (502-315-6733).

Additional information on contacting these U.S. Army Corps of Engineers (USACE) District Offices, government agencies with jurisdiction over wetlands, and other water quality issues, can be found at <http://www.in.gov/idem/4396.htm>. IDEM recommends that impacts to wetlands and other water resources be avoided to the fullest extent.

2. In the event a Section 404 wetlands permit is required from the USACE, you also must obtain a Section 401 Water Quality Certification from the IDEM Office of Water Quality. To learn more about the water quality certification program, visit: <http://www.in.gov/idem/4384.htm>.
3. If the USACE determines that a wetland or other body of water is isolated and not subject to Clean Water Act regulation, it is still regulated by the state of Indiana. A state isolated wetland permit from IDEM's Office of Water Quality is required for any activity that results in the discharge of dredged or fill materials into isolated wetlands. To learn more about isolated wetlands, contact the Office of Water Quality at 317-233-8488.
4. If your project will impact more than 0.5 acres of wetland, stream relocation, or other large-scale alterations to bodies of water such as the creation of a dam or a water diversion, you should seek additional input from the Office of Water Quality, Wetlands staff at 317-233-8488.
5. Work within the one-hundred year floodway of a given body of water is regulated by the Department of Natural Resources, Division of Water. Contact this agency at 317-232-4160 for further information.
6. The physical disturbance of the stream and riparian vegetation, especially large trees overhanging any affected water bodies should be limited to only that which is absolutely necessary to complete the project. The shade provided by the large overhanging trees helps maintain proper stream temperatures and dissolved oxygen for aquatic life.
7. For projects involving construction activity (which includes clearing, grading, excavation and other land

disturbing activities) that result in the disturbance of one (1), or more, acres of total land area, contact the Office of Water Quality – Watershed Planning Branch (317/233-1864) regarding the need for of a Rule 5 Storm Water Runoff Permit. Visit the following Web page

- <http://www.in.gov/idem/4902.htm>

To obtain, and operate under, a Rule 5 permit you will first need to develop a Construction Plan (<http://www.in.gov/idem/4917.htm#constreq>), and as described in 327 IAC 15-5-6.5 (<http://www.in.gov/legislative/iac/T03270/A00150> [PDF], pages 16 through 19). Before you may apply for a Rule 5 Permit, or begin construction, you must submit your Construction Plan to your county Soil and Water Conservation District (SWCD) (<http://www.in.gov/isda/soil/contacts/map.html>).

Upon receipt of the construction plan, personnel of the SWCD or the Indiana Department of Environmental Management will review the plan to determine if it meets the requirements of 327 IAC 15-5. Plans that are deemed deficient will require re-submittal. If the plan is sufficient you will be notified and instructed to submit the verification to IDEM as part of the Rule 5 Notice of Intent (NOI) submittal. Once construction begins, staff of the SWCD or Indiana Department of Environmental Management will perform inspections of activities at the site for compliance with the regulation.

Please be mindful that approximately 149 Municipal Separate Storm Sewer System (MS4) areas are now being established by various local governmental entities throughout the state as part of the implementation of Phase II federal storm water requirements. All of these MS4 areas will eventually take responsibility for Construction Plan review, inspection, and enforcement. As these MS4 areas obtain program approval from IDEM, they will be added to a list of MS4 areas posted on the IDEM Website at: <http://www.in.gov/idem/4900.htm>.

If your project is located in an IDEM-approved MS4 area, please contact the local MS4 program about meeting their storm water requirements. Once the MS4 approves the plan, the NOI can be submitted to IDEM.

Regardless of the size of your project, or which agency you work with to meet storm water requirements, IDEM recommends that appropriate structures and techniques be utilized both during the construction phase, and after completion of the project, to minimize the impacts associated with storm water runoff. The use of appropriate planning and site development and appropriate storm water quality measures are recommended to prevent soil from leaving the construction site during active land disturbance and for post construction water quality concerns. Information and assistance regarding storm water related to construction activities are available from the Soil and Water Conservation District (SWCD) offices in each county or from IDEM.

8. For projects involving impacts to fish and botanical resources, contact the Department of Natural Resources - Division of Fish and Wildlife (317-232-4080) for additional project input.
9. For projects involving water main construction, water main extensions, and new public water supplies, contact the Office of Water Quality - Drinking Water Branch (317-308-3299) regarding the need for permits.
10. For projects involving effluent discharges to waters of the State of Indiana , contact the Office of Water Quality - Permits Branch (317-233-0468) regarding the need for a National Pollutant Discharge Elimination System (NPDES) permit.
11. For projects involving the construction of wastewater facilities and sewer lines, contact the Office of Water Quality - Permits Branch (317-232-8675) regarding the need for permits.

## AIR QUALITY

The above-noted project (see page 1) should be designed to minimize any impact on ambient air quality in, or near, the project area. The project must comply with all federal and state air pollution regulations. Consideration should be given to the following:

1. Regarding open burning, and disposing of organic debris generated by land clearing activities; some types of open burning are allowed under specific conditions (<http://www.in.gov/idem/4148.htm>). You also can seek an open burning variance from IDEM.

IDEM generally recommends that you take vegetative wastes to a registered yard waste composting facility or that the waste be chipped or shredded with composting on-site. You must register with IDEM if more than 2,000 pounds is to be composted; contact 317-232-0066). The finished compost can then be used as a mulch or soil amendment. You also may bury any vegetative wastes (such as leaves, twigs, branches, limbs, tree trunks and stumps) on-site, although burying large quantities of such material can lead to subsidence problems.

2. Reasonable precautions must be taken to minimize fugitive dust emissions from construction and demolition activities. For example, wetting the area with water, constructing wind barriers, or treating dusty areas with chemical stabilizers (such as calcium chloride or several other commercial products). Dirt tracked onto paved roads from unpaved areas should be minimized.

If construction or demolition is conducted in a wooded area where blackbirds have roosted or abandoned buildings or building sections in which pigeons or bats have roosted for three to five years, precautionary measures should be taken to avoid an outbreak of histoplasmosis. This disease is caused by the fungus *Histoplasma capsulatum*, which stems from bird or bat droppings that have accumulated in one area for three to five years. The spores from this fungus become airborne when the area is disturbed and can cause infections over an entire community downwind of the site. The area should be wetted down prior to cleanup or demolition of the project site. For more detailed information on histoplasmosis prevention and control, please contact the Acute Disease Control Division of the Indiana State Department of Health at 317-233-7272.

3. The U.S. EPA and the U.S. Surgeon General recommend that people not have long-term exposure to radon at levels above 4 pCi/L. For a county-by-county map of predicted radon levels in Indiana, visit <http://www.in.gov/idem/4267.htm>.

The U.S. EPA further recommends that all homes and apartments (within three stories of ground level) be tested for radon. If in-home radon levels are determined to be 4 pCi/L or higher, then U.S. EPA recommends a follow-up test. If the second test confirms that radon levels are 4 pCi/L or higher, then U.S. EPA recommends the installation of radon-reduction measures. For a list of qualified radon testers and radon mitigation (or reduction) specialists, visit [http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon\\_testers\\_mitigators\\_list.pdf](http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon_testers_mitigators_list.pdf). Also, is recommended that radon reduction measures be built into all new homes, particularly in areas like Indiana that have moderate to high predicted radon levels.

To learn more about radon, radon risks, and ways to reduce exposure, visit <http://www.in.gov/isdh/regsvcs/radhealth/radon.htm>, <http://www.in.gov/idem/4145.htm>, or <http://www.epa.gov/radon/index.html>.

4. With respect to asbestos removal, all facilities slated for renovation or demolition (except residential buildings that have four (4) or fewer dwelling units and which will not be used for commercial purposes) must be inspected by an Indiana-licensed asbestos inspector prior to the commencement of any renovation or demolition activities. If regulated asbestos-containing material (RACM) that may become airborne is found, any subsequent demolition, renovation, or asbestos removal activities must be performed in accordance with the proper notification and emission control requirements.

If no asbestos is found where a renovation activity will occur, or if the renovation involves removal of less than 260 linear feet of RACM off of pipes, less than 160 square feet of RACM off of other facility components, or less than 35 cubic feet of RACM off of all facility components, the owner or operator of the project does not need to notify IDEM before beginning the renovation activity.

For questions on asbestos demolition and renovation activities, you can also call IDEM's Lead/Asbestos section at 1-888-574-8150.

In all cases where a demolition activity will occur (even if no asbestos is found), the owner or operator must still notify IDEM 10 working days prior to the demolition, using the form found at [www.in.gov/icpr/webfile/formsdiv/44593.pdf](http://www.in.gov/icpr/webfile/formsdiv/44593.pdf).

Anyone submitting a renovation/demolition notification form will be billed a notification fee based upon the amount of friable asbestos containing material to be removed or demolished. Projects that involve the removal of more than 2,600 linear feet of friable asbestos containing materials on pipes, or 1,600 square feet or 400 cubic feet of friable asbestos containing material on other facility components, will be billed a fee of \$150 per project; projects below these amounts will be billed a fee of \$50 per project. Billings will occur on a quarterly basis.

For more information about IDEM policy regarding asbestos removal and disposal, visit: <http://www.in.gov/idem/4983.htm>.

5. With respect to lead-based paint removal, IDEM encourages all efforts to minimize human exposure to lead-based paint chips and dust. IDEM is particularly concerned that young children exposed to lead can suffer from learning disabilities. Although lead-based paint abatement efforts are not mandatory, any abatement that is conducted within housing built before January 1, 1978, or a child-occupied facility is required to comply with all lead-based paint work practice standards, licensing and notification requirements. For more information about lead-based paint removal, visit <http://www.in.gov/idem/permits/guide/waste/leadabatement.html>.
6. Ensure that asphalt paving plants are permitted and operate properly. The use of cutback asphalt, or asphalt emulsion containing more than seven percent (7%) oil distillate, is prohibited during the months of April through October. See 326 IAC 8-5-2, Asphalt Paving Rule (<http://www.ai.org/legislative/iac/T03260/A00080.PDF>).
7. If your project involves the construction of a new source of air emissions or the modification of an existing source of air emissions or air pollution control equipment, it will need to be reviewed by the IDEM Office of Air Quality (OAQ). A registration or permit may be required under 326 IAC 2 ([www.ai.org/legislative/iac/t03260/a00020.pdf](http://www.ai.org/legislative/iac/t03260/a00020.pdf)). New sources that use or emit hazardous air pollutants may be subject to Section 112 of the Clean Air Act and corresponding state air regulations governing hazardous air pollutants.
8. For more information on air permits, visit <http://www.in.gov/idem/4223.htm>, or to initiate the IDEM air permitting process, please contact the Office of Air Quality Permit Reviewer of the Day at (317) 233-0178 or oamprod at idem.in.gov.

## LAND QUALITY

In order to maintain compliance with all applicable laws regarding contamination and/or proper waste disposal, IDEM recommends that:

1. If the site is found to contain any areas used to dispose of solid or hazardous waste, you need to contact the Office of Land Quality (OLQ) at 317-308-3103.
2. All solid wastes generated by the project, or removed from the project site, need to be taken to a properly permitted solid waste processing or disposal facility. For more information, visit <http://www.in.gov/idem/4998.htm>.
3. If any contaminated soils are discovered during this project, they may be subject to disposal as hazardous waste. Please contact the OLQ at 317-308-3103 to obtain information on proper disposal procedures.
4. If Polychlorinated Biphenyls (PCBs) are found at this site, please contact the Industrial Waste Section of OLQ at 317-308-3103 for information regarding management of any PCB wastes from this site.
5. If there are any asbestos disposal issues related to this site, please contact the Industrial Waste Section of OLQ at 317-308-3103 for information regarding the management of asbestos wastes. (Asbestos removal is addressed

above, under Air Quality.)

6. If the project involves the installation or removal of an underground storage tank, or involves contamination from an underground storage tank, you must contact the IDEM Underground Storage Tank program at 317-308-3039( <http://www.in.gov/idem/4999.htm>).

## FINAL REMARKS

Should the applicant need to obtain any environmental permits in association with this proposed project, please be mindful that IC 13-15-8 requires that they notify all adjoining property owners and/or occupants within ten days of your submittal of each permit application. Applicants seeking multiple permits, may still meet the notification requirement with a single notice if all required permit applications are submitted with the same ten day period.

Please note that this letter does not constitutes a permit, license, endorsement, or any other form of approval on the part of either the Indiana Department of Environmental Management or any other Indiana state agency.

Should you have any questions relating to the content or recommendations of this letter, or if you have additional questions about whether a more complete environmental review of your project should be conducted, please feel free to contact Brad Baughn at (317) 234-3386, Bbaughn@idem.in.gov.

Sincerely,



Thomas W. Easterly  
Commissioner

---

## Signature(s) of the Applicant

I acknowledge that I am seeking grant monies, a bond issuance, or other public funding mechanism to cover some portion of the cost of the public works, infrastructure, or community development project as described herein, which I am working (possibly with others) to complete.

## Project Description

CSX Transportation, Inc. (CSXT) submitted an application to the Surface Transportation Board (Board) pursuant to 49 U.S.C. §§ 11323 and 49 C.F.R. Part 1180. CSXT proposes Board authority to acquire from the Grand Trunk Western Railroad Company (GTW) an exclusive, perpetual, non-assignable railroad operating easement over a 22.3-mile portion of Canadian National Railway's Elsdon Subdivision rail line between Munster, Indiana and Elsdon, Illinois.

With my signature, I do hereby affirm that I have read the letter from the Indiana Department of Environmental Management that appears directly above. In addition, I understand that in order to complete the project in which I am interested, with a minimum impact to the environment, I must consider all the issues addressed in the aforementioned letter, and further, that I must obtain any required permits.

Dated Signature of the Public Owner

Contact/Responsible Elected Official \_\_\_\_\_

Chris Maffet

Dated Signature of the Project  
Planner/Consultant Contact Person \_\_\_\_\_

Chris Maffet



**Illinois Historic  
Preservation Agency**

FAX (217) 782-8161

1 Old State Capitol Plaza • Springfield, Illinois 62701-1512 • [www.illinois-history.gov](http://www.illinois-history.gov)

Cook County

Elsdon to Munster, IN

Acquisition of Rail Line, CSX Transportation, Inc.

From Elsdon Milepost 8.7 to Munster, IN Milepost 31.0

STB-35522

IHPA Log #027053111

June 24, 2011

Kevin Keller

HDR Engineering, Inc.

4435 Main St., Suite 1000

Kansas City, MO 64111

Dear Mr. Keller:

We have reviewed the documentation submitted for the referenced project(s) in accordance with 36 CFR Part 800.4. Based upon the information provided, no historic properties are affected. We, therefore, have no objection to the undertaking proceeding as planned.

Please retain this letter in your files as evidence of compliance with section 106 of the National Historic Preservation Act of 1966, as amended. This clearance remains in effect for two years from date of issuance. It does not pertain to any discovery during construction, nor is it a clearance for purposes of the Illinois Human Skeletal Remains Protection Act (20 ILCS 3440).

If you have any further questions, please contact me at 217/785-5027.

Sincerely,

*Anne E. Haaker*

Anne E. Haaker

Deputy State Historic

Preservation Officer



# Illinois Department of Transportation

Office of the Secretary  
2300 South Dirksen Parkway / Springfield, Illinois / 62764  
Telephone 217/782-5597

June 22, 2011

Mr. Kevin Keller, Project Manager  
HDR Engineering, Inc.  
4435 Main Street, Suite 1000  
Kansas City, Missouri 64111

Dear Mr. Keller:

Thank you for your letter of May 25, 2011 to Governor Pat Quinn regarding CSX Transportation, Inc's expected filing with the Surface Transportation Board (STB) seeking the STB's approval of CSX's acquisition of control over a 22.3 mile rail line from the Grand Trunk Western Railroad Company (GTW) between Munster, Indiana and Elsdon, Illinois. Governor Quinn has asked that we respond.

You wrote that CSX's application for STB approval will include a Preliminary Draft Environmental Assessment. If the STB's Office of Environmental Analysis (OEA) is preparing the Environmental Assessment (EA) for this proposed transaction pursuant to the National Environmental Policy Act (NEPA), the information you are soliciting from the state now will be presented during the NEPA process.

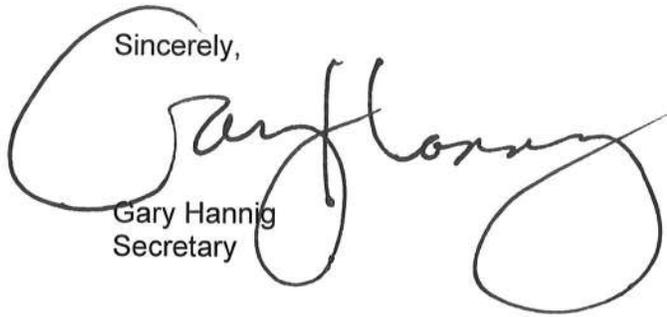
It appears that CSX's acquisition of the GTW rail line contemplates changes in freight volumes in some areas of the line. Therefore, I request that you coordinate the grade crossing impacts of the acquisition with the Illinois Department of Transportation (IDOT) Division of Highways, or local authority, based on the jurisdiction of the roadway. The area you currently operate over north of 127<sup>th</sup> Street is located in a Quiet Zone. Based upon the new traffic volumes on the GTW rail line, are you considering implementing a Quiet Zone there as well?

IDOT is also involved in the process of preparing a Tier 1 Environmental Impact Statement for the Chicago to St. Louis passenger corridor. I have attached the "Notice of Intent" for this project for your use as you begin your analysis. I also ask that you consider the proposed Southeast Commuter Service and the additional conflicts that CSX's proposed new freight volumes will have on Metra's Southwest Service when preparing your EA.

Mr. Kevin Keller  
Page 2  
June 22, 2011

Thank you for the opportunity to comment on this matter. If you have any questions or need additional information, please contact Joseph E. Shacter, Director of Public and Intermodal Transportation, located at the James R. Thompson Center, 100 W. Randolph Street, Suite 6-600, Chicago, Illinois, 60601, or telephone him at (312) 793-2116.

Sincerely,

A handwritten signature in black ink, appearing to read "Gary Hannig". The signature is fluid and cursive, with a large initial "G" and a long, sweeping underline.

Gary Hannig  
Secretary

Attachment

cc: Governor Pat Quinn

**DEPARTMENT OF TRANSPORTATION****Federal Railroad Administration****Environmental Impact Statement for the Chicago, IL to St. Louis, MO High Speed Rail Program Corridor**

**AGENCY:** Federal Railroad Administration (FRA), U.S. Department of Transportation (DOT).

**ACTION:** Notice of Intent to Prepare an Environmental Impact Statement.

**SUMMARY:** FRA is issuing this notice to advise the public that FRA with the Illinois Department of Transportation (IDOT) will jointly prepare a Tier 1 Environmental Impact Statement (EIS) for the Chicago, IL to St. Louis, MO High Speed Rail Corridor Program in compliance with the National Environmental Policy Act of 1969 (NEPA). This study will analyze a range of reasonable corridor-level route alternatives between Chicago and Joliet, and will examine additional improvements between Joliet and St. Louis to support additional passenger trains. The EIS will consider increasing the number of frequencies of high-speed passenger rail service, as well as increasing the currently planned maximum speed of such service, in the Chicago to St. Louis Corridor (Corridor). FRA is issuing this notice to solicit public and agency input into the development of the scope of the EIS and to advise the public that outreach activities conducted by FRA and IDOT will be considered in the preparation of the EIS. Alternatives under consideration include taking no action, as well as several build alternatives between Chicago and Joliet, IL, through the City of Springfield, and for the approach to St. Louis, MO.

**DATES:** Two agency scoping meetings and five public scoping meetings will be held during March, 2011. Public scoping meetings will be advertised locally and are scheduled for the following cities on the dates indicated below from 4 p.m.–7 p.m.

- March 1, 2011: Joliet, IL
- March 2, 2011: Bloomington-Normal, IL
- March 3, 2011: Springfield, IL
- March 8, 2011: Carlinville, IL
- March 9, 2011: Alton, IL

Agency scoping meetings will be held March 1, 2011 in Joliet, IL and March 3, 2011 in Springfield, IL at 10 a.m. Detailed information on the meeting locations is available on the following Web site: <http://www.idothsr.org>. Persons interested in providing written comments on the scope of the EIS should do so by March 18, 2011.

Written comments on the scope of the EIS should be provided to IDOT by March 18, 2011 at the address below.

**ADDRESSES:** Written comments on the scope of this study should be sent to Mr. George Weber, Acting Deputy Director, Department of Intermodal and Public Transit, Illinois Department of Transportation, 100 West Randolph Street, Suite 6–600, Chicago, Illinois 60601, telephone (312) 793–4222.

**FOR FURTHER INFORMATION CONTACT:** Ms. Wendy Messenger, Office of Railroad Development, Federal Railroad Administration, 1200 New Jersey Avenue, SE., (Mail Stop 20), Washington, DC 20590, telephone (202) 493–6396; or Mr. George Weber, telephone (312) 793–4222 at the above address. Information and documents regarding the environmental review process will be made available through the following Web site: <http://www.idothsr.org>.

**SUPPLEMENTARY INFORMATION:** FRA, in cooperation with IDOT, will prepare a Tier 1 EIS for the High Speed Rail program from Chicago, IL to St. Louis, MO. The objectives of the proposed Project are to meet current and future regional travel needs through significant improvements to the level and quality of passenger rail service along the Corridor. Specifically, the EIS will consider increasing the frequency of high-speed passenger trains between Chicago and St. Louis and will consider increasing train speeds above the 110 mph maximum speed currently planned in the Corridor. The proposed service improvements examined in this EIS will build upon the approximately \$1.1 billion of improvements currently being completed in the Corridor by IDOT and FRA pursuant to a grant/cooperative agreement funded by the American Recovery and Reinvestment Act (ARRA) (this work is based upon a 2003 EIS for the Corridor and a 2004 Record of Decision). Those improvements, which include infrastructure improvements, communications and signaling installation, stations improvements, and rolling stock equipment procurement, will increase passenger rail speeds from 79 mph to 110 mph for the existing Corridor services.

The proposed Tier 1 EIS described in this notice will examine a range of reasonable corridor-level alternative routes between Chicago and Joliet, and will examine additional improvements between Joliet and St. Louis to support additional passenger trains while accommodating the anticipated growth in freight rail traffic. The EIS will assess: Changing the existing rail corridor from one track to two tracks; increasing the

number of high-speed passenger trains; potential corridor route alternatives between Chicago and Joliet, IL, through the City of Springfield, and for the approach to St. Louis, MO; and the associated transportation and environmental impacts. Train speed increases above the 110 mph maximum speed currently planned in the Corridor may be considered in the alternatives analysis. It is anticipated that the EIS will examine the viability of Chicago-Joliet corridors utilizing the Canadian National (CN) and Metra Rock Island District (RID), as well as other reasonable corridors between Chicago and Joliet that could support high speed rail passenger service.

IDOT and FRA propose to not examine the Norfolk Southern-Canadian National alignment between Dwight and Chicago in the Tier 1 EIS. This alignment was considered in the 2003 EIS for the Corridor to serve a proposed South Suburban Airport. IDOT and FRA propose to not examine this alignment because it would divert intercity passenger rail service from the larger populations currently served in the Chicago-Joliet corridor, and the South Suburban Airport area is served by an existing commuter rail service to Chicago. Additionally, the Norfolk Southern Railroad does not support the introduction of high-speed passenger rail to its facilities because of limited existing infrastructure and a limited ability to expand capacity in the corridor. The agencies have concluded that it is not a reasonable alternative for meeting the Project purpose and need. Elimination of the Norfolk Southern-Canadian National alignment will result in a single corridor to be studied between Dwight and Joliet utilizing the Union Pacific (UP) Railroad.

The No-Build Alternative will represent the no action alternative and will be used as a baseline for comparison of all alternatives. The No-Build Alternative represents other transportation modes, such as auto, air travel, intercity bus, and existing rail, and the physical characteristics and capacities as they exist at the time of the Tier 1 EIS, with planned and funded improvements that will be in place at the time the Project would become operational.

**Environmental Review Process:** The EIS will be developed in accordance with Council on Environmental Quality (CEQ) regulations (40 CFR part 1500 *et seq.*) implementing the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321 *et seq.*), and FRA's Procedures for Considering Environmental Impacts (64 FR 28545; May 26, 1999). The FRA and IDOT will

use a tiered process, as provided for in 40 CFR 1508.28 and in accordance with FRA guidance, in the completion of the environmental review of the Project. "Tiering" is a staged environmental review process applied to environmental reviews for complex projects. The Tier 1 EIS will address broad corridor-level issues and alternatives. Subsequent phases or tiers will analyze site-specific component projects and alternatives based on the decisions made in Tier 1.

**Tier 1:** The Tier 1 assessment will result in a NEPA document with the appropriate level of detail for corridor-level decisions and will address broad overall issues of concern, including but not limited to:

- Confirm the purpose and need for the proposed action.
- Define the study area appropriate to assess reasonable alternatives.
- Identify a comprehensive set of goals and objectives for the corridor in conjunction with Project stakeholders. These goals and objectives will be crafted to allow comprehensive evaluation of all aspects of the Project necessary to achieve the goals, including train operations, vehicles, and infrastructure.
- Identify the range of reasonable alternatives to be considered, consistent with the current and planned use of the corridor and the existing services within and adjacent to the study area, including changing the existing rail corridor from one track to two tracks, considering alternative corridors between Chicago and Joliet and in the St. Louis area, and considering a no action/no build alternative.
- Develop alternatives evaluation criteria to identify alternatives that meet the purpose and need of the proposed action and those that do not.
- Identify the general alignment(s) of the reasonable alternatives.
- Identify right-of-way requirements for the reasonable alternatives.
- Identify the infrastructure and equipment investment requirements for the reasonable alternatives.
- Identify the operational changes required for the reasonable alternatives.
- Describe the environmental impacts associated with the proposed changes in passenger rail train frequency, speed, and on-time performance.
- Characterize the environmental consequences of the reasonable alternatives.
- Establish the timing and sequencing of independent actions to maintain a state of good repair and to implement the proposed action.

- Evaluate and consider the potential for environmental impacts associated with the reasonable alternatives.

- Identify a preferred alternative for corridor route alignment.

- Address component projects for Tier 2 NEPA documentation as described below.

**Tier 2:** The second tier assessment(s) will address component projects to be implemented within the overall rail corridor improvement alternative selected in the Tier 1 EIS, and will incorporate by reference the data and evaluations included in the Tier 1 EIS. The Springfield Rail Corridor is the only current activity presently identified as a Tier 2 level evaluation to be included in this Tier 1 EIS; it will be combined with the Tier 1 EIS but may be separately actionable to determine site-specific as well as corridor-level improvements within its study limits and is described below.

**Springfield Railroad Corridor:** Freight traffic through Springfield is expected to increase significantly over the next several years, and IDOT's plans for increasing the number of frequencies of high-speed passenger train service between Chicago and St. Louis as well as the maximum speed of the passenger train service would also have an impact on Springfield. This study will analyze alternatives for accommodating the growing freight and passenger rail traffic through Springfield.

There are currently three north-south railroad corridors through Springfield. Generally, these corridors exist along Third Street (Union Pacific), Tenth Street (primarily Norfolk Southern), and Nineteenth Street (primarily Canadian National). There are 73 at-grade crossings along these three corridors in the study area, which create traffic congestion and safety issues when trains traverse the city. The Union Pacific Railroad is constructing a new intermodal rail yard near Joliet, Illinois, which is anticipated to generate increased freight traffic on the Third Street corridor. The combination of increased passenger trains and increased Union Pacific freight trains would likely require a second track on the Third Street corridor to accommodate the greater number of trains per day.

Build alternatives to accommodate this increase in rail traffic will be studied. In addition, the No-Build Alternative will represent the no action alternative and will be used as a baseline for comparison of all alternatives. One build alternative involves adding a second track on the Third Street corridor to handle up to 40 freight and passenger trains per day.

Another build alternative will consider moving the Third Street corridor trains, and possibly the Nineteenth Street corridor trains, to the Tenth Street corridor, where additional tracks would be built, which would consolidate Springfield's rail traffic into one corridor. Other reasonable alternatives will also be considered, such as relocating rail traffic to other or new corridors.

**Related Projects:** There are three ongoing rail improvement programs that relate to the Project being studied in this EIS and may be considered for indirect or cumulative impacts on the region.

The Chicago Region Environmental and Transportation Efficiency Program (CREATE) is a cooperative effort between the U.S. Department of Transportation, the State of Illinois, the City of Chicago, the Metropolitan Rail Corporation (Metra), the National Railroad Passenger Corporation (Amtrak), and six freight railroads to improve freight and passenger rail efficiency and to reduce rail/highway traffic conflicts. There are six projects specifically identified by CREATE (P1, P2, P3, EW2, P5 and P6) that may involve and affect high speed rail service within the Chicago-Joliet portion of the corridor, depending on the corridor recommendations of this EIS study. More information is available at the CREATE Web site at <http://www.createprogram.org/>.

The Chicago-St. Louis 220 mph High Speed Rail Express is a project concept being pursued by IDOT. This service, at speeds up to 220 mph, may utilize existing rail corridors, a new corridor, or a combination of both, and could serve different travel markets. The 220 mph concept is intended as a complementary service to the Chicago-St. Louis high speed rail service that is being evaluated by this EIS. A feasibility study was prepared in 2009 by the Midwest High Speed Rail Association; this study indicated that a completely grade-separated route could be established by modifying existing rail corridors to connect Chicago, Champaign, Decatur and Springfield, Illinois with St. Louis, Missouri, with a one-way terminal-to-terminal trip time of approximately two hours, utilizing a maximum speed of 220 mph. Also in 2009, an Expression of Interest was prepared by the French National Railways (SNCF) in response to the FRA's Request for Expression of Interest dated December 11, 2008. The SNCF proposed a high-speed rail route to be located adjacent to existing rail corridors and sharing existing rail corridors in urban approaches at lower speeds. IDOT intends to further study the 220 mph project concept, including

development of an investment-grade business plan and the preparation of a separate Tier 1 EIS.

The Midwest Regional Rail Initiative (MWRRI) is an effort led by the Wisconsin Department of Transportation and supported by eight other Midwestern States to upgrade Amtrak service in those States, with maximum speeds of 79 to 110 mph depending on the level of improvements made. A Chicago-St. Louis corridor is included in MWRRI's September 2004 Executive Report and November 2006 Benefit Cost and Economic Analysis. Additional corridors proposed by MWRRI include: Chicago-Green Bay, Wisconsin; Chicago-Minneapolis, Minnesota; St. Louis-Kansas City, Missouri; Chicago-Cincinnati, Ohio; Chicago-Cleveland, Ohio; Chicago-Detroit, Michigan; Chicago-Port Huron, Michigan; Chicago-Carbondale, Illinois; Chicago-Quincy, Illinois; and Chicago-Omaha, Nebraska. Several other feeder corridors connecting smaller municipalities to the primary corridors are also included. More information is available at <http://www.dot.wisconsin.gov/projects/rail.htm>.

**Public Involvement:** Letters describing the proposed action and soliciting comments will be sent to appropriate Federal, State, and local agencies, and to private organizations and citizens who have previously expressed or are known to have interest in this proposal. A minimum of two public informational meetings will be held during the study. In addition, a public hearing will be held on the Draft EIS. Public notice will be given of the time and place of the meetings and of the hearing. The Draft EIS will be available for public and agency review and comment prior to the public hearing.

To ensure that the full range of issues related to this proposed action are addressed and that all significant issues are identified, comments and suggestions are invited from all interested parties. Comments or questions concerning this proposed action and the EIS should be directed to IDOT or FRA at the addresses provided above.

**Scoping and Comments:** FRA encourages broad participation in the EIS process during scoping and review of the resulting environmental documents. Comments are invited from all interested agencies and the public to ensure the full range of issues related to the proposed action, and the reasonable alternatives, are addressed and all significant issues are identified. In particular, FRA is interested in identifying areas of environmental

concern where there might be a potential for significant impacts. Public agencies with jurisdiction are requested to advise FRA and IDOT of the applicable permit and environmental review requirements of each agency, and the scope and content of the environmental information that is germane to the agency's statutory responsibilities in connection with the proposed Project. Public agencies are requested to advise FRA if they anticipate taking a major action in connection with the proposed Project and if they wish to cooperate in the preparation of the EIS. Public scoping meetings have been scheduled as an important component of the scoping process for both the State and Federal environmental review. The scoping meetings described in this Notice will also be the subject of additional public notification.

FRA is seeking participation and input of all interested Federal, State, and local agencies, Native American groups, and other concerned private organizations and individuals on the scope of the EIS. This Project is a federal undertaking with the potential to affect historic properties. As such, it is subject to the requirements of section 106 of the National Historic Preservation Act of 1966 (NHPA) (16 U.S.C. 470(f)). In accordance with regulations issued by the Advisory Council on Historic Preservation, 36 CFR part 800, FRA intends to coordinate compliance with section 106 of the NHPA with the preparation of the EIS, beginning with the identification of consulting parties through the scoping process, in a manner consistent with the standards set out in 36 CFR 800.8.

Issued in Washington, DC, on February 9, 2011.

**Mark E. Yachmetz,**

*Associate Administrator for Railroad Policy and Development.*

[FR Doc. 2011-3248 Filed 2-11-11; 8:45 am]

**BILLING CODE 4910-06-P**

## DEPARTMENT OF TRANSPORTATION

### National Highway Traffic Safety Administration

#### Reports, Forms and Record Keeping Requirements; Agency Information Collection Activity Under OMB Review

**AGENCY:** National Highway Traffic Safety Administration, DOT.

**ACTION:** Notice.

**SUMMARY:** In compliance with the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*), this notice

announces that the Information Collection Request (ICR) abstracted below has been forwarded to the Office of Management and Budget (OMB) for review and comment. The ICR describes the nature of the information collections and their expected burden. The **Federal Register** Notice with a 60-day comment period was published on September 2, 2010 (75 FR 54000). The agency received no comments.

**DATES:** Comments must be submitted on or before March 16, 2011.

**ADDRESSES:** Send comments, within 30 days, to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725-17th Street, NW., Washington, DC 20503, Attention NHTSA Desk Officer.

*Comments are invited on:* Whether the proposed collection of information is necessary for the proper performance of the functions of the Department, including whether the information will have practical utility; the accuracy of the Department's estimate of the burden of the proposed information collection; ways to enhance the quality, utility and clarity of the information to be collected; and ways to minimize the burden of the collection of information on respondents, including the use of automated collection techniques or other forms of information technology. A comment to OMB is most effective if OMB receives it within 30 days of publication.

**FOR FURTHER INFORMATION CONTACT:** Ms. Deborah Mazyck at the National Highway Traffic Safety Administration, Office of International Policy, Fuel Economy and Consumer Programs, 1200 New Jersey Avenue, SE., West Building, Room W43-443, Washington, DC 20590. Ms. Mazyck's telephone number is (202-366-4139).

#### SUPPLEMENTARY INFORMATION:

### National Highway Traffic Safety Administration

*Title:* 49 CFR Part 583—Automobile Parts Content Labeling.

*OMB Number:* 2127-0573.

*Type of Request:* Request for public comment on a previously approved collection of information.

*Abstract:* Part 583 establishes requirements for the disclosure of information relating to the countries of origin of the equipment of new passenger motor vehicles. This information will be used by NHTSA to determine whether manufacturers are complying with the American Automobile Labeling Act (49 U.S.C. 32304). The American Automobile Labeling Act requires all new passenger motor vehicles (including passenger



# ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276 • (217) 782-2829  
James R. Thompson Center, 100 West Randolph, Suite 11-300, Chicago, IL 60601 • (312) 814-6026

PAT QUINN, GOVERNOR

DOUGLAS P. SCOTT, DIRECTOR

217-782-0547

June 2, 2011

Mr. Kevin Keller  
HDR Engineering, Inc  
4435 Main Street  
Suite 1000  
Kansas City, Missouri 64111

Dear Mr. Keller:

We have had an opportunity to review the proposed acquisition for Grand Trunk Western Railroad Company.

The Agency has no objections to the project; however if one or more acres are disturbed, a construction site activity stormwater NPDES permit will be required from the Division of Water Pollution Control. Please contact Al Keller at 217-782-0610 for additional information.

If any demolition is necessary, demolition/asbestos notification will be required at least 10 working days prior to the start of the project. You may contact Alan Grimm with questions, 217-557-1438.

Solid and hazardous waste must be properly disposed of or recycled.

Sincerely,

Lisa Bonnett  
Interim Director

Rockford • 4302 N. Main St., Rockford, IL 61103 • (815) 987-7760

Elgin • 595 S. State, Elgin, IL 60123 • (847) 608-3131

Bureau of Land – Peoria • 7620 N. University St., Peoria, IL 61614 • (309) 693-5462

Collinsville • 2009 Mall Street, Collinsville, IL 62234 • (618) 346-5120

Des Plaines • 9511 W. Harrison St., Des Plaines, IL 60016 • (847) 294-4000

Peoria • 5415 N. University St., Peoria, IL 61614 • (309) 693-5463

Champaign • 2125 S. First St., Champaign, IL 61820 • (217) 278-5800

Marion • 2309 W. Main St., Suite 116, Marion, IL 62959 • (618) 993-7200

Division of Historic Preservation & Archaeology • 402 W. Washington Street, W274 • Indianapolis, IN 46204-2739  
Phone 317-232-1646 • Fax 317-232-0693 • dhpa@dnr.IN.gov



June 28, 2011

Kevin Keller  
HDR Engineering, Inc.  
4435 Main Street, Suite 1000  
Kansas City, Missouri 64111

Federal Agency: Surface Transportation Board

Re: Project information regarding the acquisition of a 22.3-mile rail line from the Grand Trunk Western Railroad Company between Munster, Indiana (Milepost 31.0) and Elsdon, Illinois (Milepost 8.7) (Docket no. 35522; DHPA #11780)

Dear Mr. Keller:

Pursuant to Section 106 of the National Historic Preservation Act (16 U.S.C. § 470f) and 36 C.F.R. Part 800, the staff of the Indiana State Historic Preservation Officer ("Indiana SHPO") has conducted an analysis of the materials dated May 25, 2011 and received on May 31, 2011 for the above indicated project in Munster, Lake County, Indiana.

Based upon the documentation available to the staff of the Indiana SHPO, we have not identified any historic buildings, structures, districts, or objects listed in or eligible for inclusion in the National Register of Historic Places within the probable area of potential effects.

In terms of archaeology, no currently known archaeological resources eligible for inclusion in the National Register of Historic Places have been recorded within the proposed project area.

However, it is our understanding that this review is in regards to acquisition only. If construction activities are proposed in the future that involve a Federal undertaking, we will resume identification and evaluation procedures.

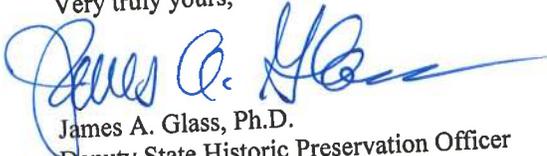
If any archaeological artifacts or human remains are uncovered during earthmoving activities, state law (Indiana Code 14-21-1-27 and 29) requires that the discovery must be reported to the Department of Natural Resources within two (2) business days. In that event, please call (317) 232-1646. Be advised that adherence to Indiana Code 14-21-1-27 and 29 does not obviate the need to adhere to applicable federal statutes and regulations.

At this time, it would be appropriate for the Surface Transportation Board to analyze the information that has been gathered from the Indiana SHPO, the general public, and any other consulting parties and make the necessary determinations and findings. Please refer to the following comments for guidance:

- 1) If the Surface Transportation Board believes that a determination of "no historic properties affected" accurately reflects its assessment, then it shall provide documentation of its finding as set forth in 36 C.F.R. § 800.11 to the Indiana SHPO, notify all consulting parties, and make the documentation available for public inspection (36 C.F.R. §§ 800.4[d][1] and 800.2[d][2]).
- 2) If, on the other hand, the Surface Transportation Board finds that an historic property may be affected, then it shall notify the Indiana SHPO, the public and all consulting parties of its finding and seek views on effects in accordance with 36 C.F.R. §§ 800.4(d)(2) and 800.2(d)(2). Thereafter, the Surface Transportation Board may proceed to apply the criteria of adverse effect and determine whether the project will result in a "no adverse effect" or an "adverse effect" in accordance with 36 C.F.R. § 800.5.

*A copy of the revised 36 C.F.R. Part 800 that went into effect on August 5, 2004, may be found on the Internet at [www.achp.gov](http://www.achp.gov) for your reference. If you have questions about archaeological issues please contact Cathy Draeger-Williams at (317) 234-3791 or [cdraeger-williams@dnr.IN.gov](mailto:cdraeger-williams@dnr.IN.gov). If you have questions about buildings or structures please contact Chad Slider at (317) 234-5366 or [cslider@dnr.IN.gov](mailto:cslider@dnr.IN.gov). Additionally, in all future correspondence regarding the above indicated project, please refer to DHPA #11780.*

Very truly yours,



James A. Glass, Ph.D.  
Deputy State Historic Preservation Officer

JAG:CWS:CDW:cdw

cc: David C. Navecky, Environmental Protection Specialist, Surface Transportation Board



*Mayor*  
Norm Abbott

*Clerk*  
Patricia L. Eidam

*Trustees*  
Julie Butler  
Anthony DeLaurentis  
Terry Kapteyn  
Daniel Lyzenga  
Michael Skrbina  
Mikal Stole

June 2, 2011

Mr. Kevin Keller  
HDR Engineering, Inc.  
4435 Main Street, Suite 100  
Kansas City, MO 64111

RE: CSX Transportation, Inc. Acquisition of Grand Trunk Western Railroad

Dear Mr. Keller,

I am in receipt of your letter requesting input to assist you with identification of possible economic, social or environmental effects that should be considered with regard to the above reference acquisition. I met recently with representatives from CSX to discuss the acquisition and what it would mean for our Village.

The only concerns I have at this time are the condition of several of the crossings located within Lansing. These crossings are in extremely poor condition and are severely in need of attention. They are a hazard to the vehicles when driving over them and are very unsightly with tall weeds and garbage strewn about. It is my hope that CSXT will be more cooperative than GTW Railroad has been in getting our crossings repaired and maintained. It is also my hope that CSXT will consider making one of the crossings located in a residential area a quiet zone crossing. This would definitely improve the quality of life for some of the residents in our Village.

I appreciate the fact that you are seeking the input of local community leaders and look forward to working with everyone toward a smooth transition. Please let me know if you have any questions or concerns.

Sincerely,

Norman F. Abbott  
Mayor

LAW OFFICES

LOUIS F. CAINKAR, LTD.

30 NORTH LA SALLE STREET-SUITE 3922

CHICAGO, ILLINOIS 60602-3333

312/236-3985

FACSIMILE 312/236-3989

SUBURBAN OFFICE:

6215 WEST 79TH STREET-SUITE 2A

BURBANK, ILLINOIS 60459-1102

708/430-3988

LOUIS F. CAINKAR  
VINCENT CAINKAR  
MICHAEL G. CAINKAR  
GARY S. PERLMAN  
JOSEPH CAINKAR

*VIA REGULAR MAIL AND E-MAIL*

June 14, 2011

Mr. Kevin Keller  
HDR Engineering, Inc.  
4435 Main Street, Suite 1000  
Kansas City, MI 64111

Re: Finance Docket No. 35522, CSX Transportation, Inc. – Acquisition – Grand Trunk  
Western Railroad Company

Dear Mr. Keller:

Please be advised that this office represents the Village of Evergreen Park (“Village”). Mayor Sexton has directed me to respond to your request for input from the Village relative to CSX’s proposed acquisition of the 22.3 mile rail line from the Grand Trunk Western Railroad Company.

Based upon the information provided to the Village, it is anticipated that CSX’s proposed acquisition will ultimately result in an increase in train volume from an average of 3.5 trains per day to 25 trains per day. The area surrounding the train line is densely populated. The aforementioned increase in train volume will impose a substantial burden on the homeowners abutting and living in close proximity to the train line as a result of increased noise and vibration. The additional number of trains will also heighten the threat of hazardous materials spills and have an adverse impact on air quality. In short, an approximate six-fold increase in train volume will have a substantial (and palpable) negative environmental impact on the residents of the Village.

The substantial increase in the number of trains will also have an adverse effect on traffic congestion and delays. For example, Ninety-Fifth Street is a heavily traveled thoroughfare. The congestion attending the closure of the 95<sup>th</sup> Street grade crossing to allow for the significant increase in train volume will exasperate an existing traffic problem. The added train volume will also adversely impact upon pedestrian safety issues both at the grade crossing and along the train line generally.

Mr. Kevin Keller

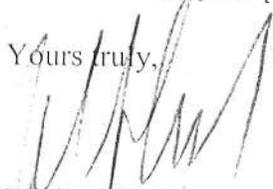
June 14, 2011

- Page 2 -

Finally, the congestion at the 95<sup>th</sup> Street grade crossing due to increased train operations will have a significant adverse effect on emergency responders. The train line essentially bisects the Village. Accordingly, a substantial portion of the Village's residents will experience a delayed response from the Village's Police and Fire Departments. The delayed access to emergency services will not only affect Village's residents, but will also have an area wide impact. Christ Hospital is located on 95<sup>th</sup> Street in the Village of Oak Lawn, approximately 1 ½ miles west of the grade crossing. Christ Hospital is one of only two Level I trauma centers located in southern Cook County (the other being Stroger Hospital). Delayed access to Christ Hospital will affect those who need prompt and critical medical treatment the most. The installation of an underpass at the 95<sup>th</sup> Street grade crossing would mitigate the emergency response time delays.

Thank you for your professional courtesy.

Yours truly,



Michael G. Cainkar

MGC:se

cc: Hon. James J. Sexton, Mayor

LAW OFFICES

**LOUIS F. CAINKAR, LTD.**

30 NORTH LA SALLE STREET-SUITE 3922

**CHICAGO, ILLINOIS 60602-3333**

312 / 236-3985

FACSIMILE 312 / 236-3989

LOUIS F. CAINKAR  
VINCENT CAINKAR  
MICHAEL G. CAINKAR  
GARY S. PERLMAN  
JOSEPH CAINKAR

SUBURBAN OFFICE:  
6215 WEST 79TH STREET-SUITE 2A  
BURBANK, ILLINOIS 60459-1102  
708 / 430-3988

June 15, 2011

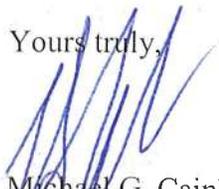
Mr. Kevin Keller  
HDR Engineering, Inc.  
4435 Main Street, Suite 1000  
Kansas City, MI 64111

Re: Finance Docket No. 35522, CSX Transportation, Inc. – Acquisition – Grand Trunk  
Western Railroad Company

Dear Mr. Keller:

As you know, this office represents the Village of Evergreen Park. My correspondence dated June 14, 2011, indicated that it was sent by both regular mail and e-mail. However, I have unsuccessfully attempted to e-mail the correspondence to you at the e-mail address provided in your May 25, 2011 correspondence to Mayor Sexton. Accordingly, you only received the correspondence via regular mail. Thank you.

Yours truly,

  
Michael G. Cainkar  
MGC:se

July 15, 2011

Mr. Kevin Keller  
HDR Engineering, Inc.  
4435 Main Street, Suite 1000  
Kansas City, Missouri 64111  
csxtgrandtrunk@hdrinc.com

Dear Mr. Keller:

Thank you for the opportunity to review and provide comment on the proposed CSX Transportation Acquisition of the "Elsdon Sub" of the Grant Trunk Western Railroad Company (STB Finance Docket No. 35522). We have several questions and concerns related to this acquisition:

Questions:

1. Does this transaction constitute a transfer of ownership rights or only rights to operate service over the line (i.e. trackage rights)?
2. Does this transaction transfer operational control of the entire Elsdon Subdivision to CSX or simply the line from Munster to Elsdon?
3. What is the overall impact of traffic routing in the region?
4. Will additional traffic need to operate on or cross Metra's Milwaukee West Line or other Metra lines as a result of this transaction?
5. Will interchange with the BNSF at Corwith be increased as a result of this transaction?
6. Will additional traffic on or crossing the BNSF result from this transaction?

Concerns:

The Chicago Terminal is the most congested in the country, and small changes can have large impacts to operations. Close day-to-day coordination is needed between all railroads to continue a smooth traffic flow. Metra has concerns regarding the impacts of the proposed acquisition on Metra existing and proposed future commuter rail service. As the accompanying documentation accurately states, Metra currently operates 30 trains per weekday over the SouthWest Service (SWS) Line. The proposed acquisition would increase the number of trains crossing this line by 37% going from a total of 25.5 crossing trains to 36.0 crossing trains between the Ridge and Ashburn Interlockings. This may have a negative impact on Metra's ability to operate on-time service. In addition, the queuing of freight traffic north of the Ashburn Interlocking may be a concern. It is not clear whether sufficient track length exists to queue a freight train north of the crossing, which may result in challenges coordinating movements through Ashburn Crossing.

As a condition of the approval of this transaction, Metra requests that CSXT negotiate in good faith with NS to transfer operational control of the Ashburn Interlocking to Metra in order to ensure that passenger operations are given priority over freight operations through the crossing. In the absence of this result, control of the Ashburn Interlocking should remain with NS. We do not believe that commuter rail traffic in this area is best served with the Ashburn Interlocking controlled by CSXT.

In addition to the Impacts on the SWS, Metra has proposed initiating commuter operations on the UP/CSX Villa Grove Sub as part of its SouthEast Service (SES) project. The proposed SES Line has completed Alternatives Analysis and is awaiting a request to begin Preliminary Engineering. If trains that previously operated straight through the Thornton Junction will now be switching from the Villa Grove Sub to the Eldson Sub, this will slow operations, making it more difficult to operate passenger service on this segment. Metra requests that as a condition of the approval of this transaction a commitment be made to evaluate and mitigate any reduced capacity to operate commuter service on the Villa Grove Sub that results from this transaction.

We appreciate the opportunity to provide feedback on this proposed transaction, and we look forward to working with the CSX and the Grand Trunk as the evaluation of this transaction proceeds.

Sincerely,



Alexander D. Clifford  
Executive Director/CEO

cc: Lynnette Ciavarella  
George Hardwidge



June 14, 2011

Blue Island  
Burnham  
Calumet City  
Calumet Park  
Chicago Heights  
Country Club Hills  
Crete  
Dixmoor  
Dolton  
East Hazel Crest  
Flossmoor  
Ford Heights  
Glenwood  
Harvey  
Hazel Crest  
Homewood  
Lansing  
Lynwood  
Markham  
Matteson  
Midlothian  
Mokena  
Monee  
New Lenox  
Oak Forest  
Olympia Fields  
Orland Hills  
Orland Park  
Palos Heights  
Park Forest  
Phoenix  
Posen  
Richton Park  
Riverdale  
Robbins  
Sauk Village  
South Chicago Heights  
South Holland  
Steger  
Thornton  
Tinley Park  
University Park

Mr. Kevin Keller  
HDR Engineering, Inc.  
4435 Main Street, Suite 1000  
Kansas City, MO 64111

RE: Finance Docket No. 35522, CSX Transportation Inc.  
Acquisition – Grand Trunk Western Railroad Company

Dear Mr. Keller:

On behalf of the South Suburban Mayors and Managers Association (SSMMA), representing 42 communities in southern Cook and Will Counties in Illinois, thank you for the opportunity to comment briefly on the matter referenced above.

SSMMA and our sister economic development agency, the Chicago Southland Economic Development Corporation, have been very active in numerous transportation and economic development projects and activities in the south suburban area. We look forward to working with you on a continuing basis as you examine the various potential impacts of the proposed acquisition.

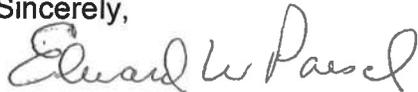
In general, we have three major areas of interest and concern.

- 1) Whistle blowing and noise impacts to adjacent communities - We need to explore the potential of establishing "quiet zones" along the line to minimize these impacts.
- 2) We would be quite interested to work with CSX to explore ways to maximize potential economic development and job creation opportunities created by this acquisition. We believe that there could be many opportunities to achieve redevelopment or development of industrial sites that could be served by CSX. Many of the communities along the line are economically disadvantaged and desperately need these development opportunities.
- 3) We strongly suggest that you work with Metra, SSMMA and our communities to determine the potential impacts on both existing and proposed commuter rail lines in our area. As you are aware, the Rock Island District, the Metra Electric District and the proposed Southeast Commuter Rail Line may be impacted either positively or negatively by this acquisition. This is a critical issue for our communities and our area.

Mr. Kevin Keller  
HDR Engineering  
RE: Finance Docket 35522  
June 14, 2011  
Page 2

Please feel free to contact me if you need additional information in this matter and we look forward to actively working with you as this analysis moves forward.

Sincerely,



Edward W. Paesel  
Executive Director

EWP/rak

cc: Mayor Don DeGraff, SE Commuter Rail Board  
Mayor Rich Hofeld, President SSMMA  
Mayor Dave Owen, Transportation Chair, SSMMA  
Congressman Jesse Jackson, Jr.  
Congressman Bobby Rush  
Mike Scholefield, Southland EDC  
Bud Fleming, SSMMA  
Reggie Greenwood, SSMMA



# United States Department of the Interior

## Fish and Wildlife Service



Bloomington Field Office (ES)  
620 South Walker Street  
Bloomington, IN 47403-2121  
Phone: (812) 334-4261 Fax: (812) 334-4273

June 2, 2011

Mr. Kevin Keller  
HDR Engineering, Inc.  
4435 Main Street, Suite 1000  
Kansas City, Missouri 64111

Project No.: Finance Docket No. 35522  
Project: CSX Transportation, Inc. Proposed Acquisition of Grand Trunk Western Railroad  
Location: Munster, Lake County, Indiana

Dear Mr. Keller:

This responds to your letter dated May 25, 2011, requesting our comments on the aforementioned project.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.) and are consistent with the intent of the National Environmental Policy Act of 1969, the Endangered Species Act of 1973, and the U. S. Fish and Wildlife Service's Mitigation Policy.

CSX Transportation, Inc. (CSXT) is proposing to acquire the right to operate over a 22.3 mile portion of the Grand Trunk Western (GTW) Railroad Company's Elsdon Subdivision track between Munster, Indiana, Mile Post 31.0, and Elsdon, Illinois, MP 8.7; the Canadian National Railway Company (CN) owns the GTW and therefore is the other party in this proposed transaction. These comments refer only to the section of GTW track within Indiana, about 0.27 mile.

The existing CSXT Monon Subdivision connects with the GTW Elsdon Subdivision at MP 31 in Munster, just north of 45<sup>th</sup> Street and about 0.27 mile east of the Indiana-Illinois State Line. Commercial/industrial properties are to the south and a golf course is along the north side of the GTW at this interconnection and west to the State Line; northeast of the connection is an electric substation. Therefore, there are no wetlands or other significant habitats within the small section of track that would be affected by the proposed purchase.

However, we are confused about information on the proposed transaction provided with your letter, primarily Chapter 2 of the Working Draft Environmental Assessment. It is stated several times that the proposed acquisition of track would be from MP 31 west into Illinois, but additional information provided in the discussion, on Figure 1.2-1, Figure 2.1-1, and in Table 2.1-1, seem to indicate that the proposed acquisition actually extends east 5.1 miles to Griffith. Both Figure 1.2-1 and Figure 2.1-1 depict the "CSXT Acquisition" beginning at Griffith.

The GTW track between Griffith and Munster passes through Hoosier Prairie State Nature Preserve, owned by the Indiana Division of Nature Preserves. DNP has been working with CN about management concerns along the section of track through the nature preserve, including use of herbicides along the tracks by CN and access for prescribed burning by DNP. Therefore, if ownership or management of this length of track through Hoosier Prairie is going to change, DNP will need to be informed and coordinated with. Clarification about what is proposed between Griffith and Munster is therefore necessary.

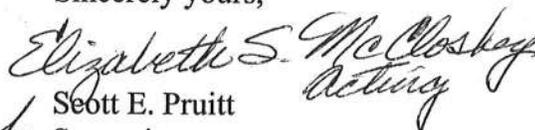
#### ENDANGERED SPECIES

The proposed project is within the range of the Federally endangered Indiana bat (*Myotis sodalis*) and Karner blue butterfly (*Lycaeides melissa samuelis*) and the threatened Pitcher's thistle (*Cirsium pitcheri*) and Mead's milkweed (*Asclepias meadii*). The Karner blue butterfly was once present at Hoosier Prairie but is no longer extant. There is no known habitat for any of the other species within the general project area. Therefore, we concur that the proposed project is not likely to adversely affect these endangered and threatened species.

This precludes the need for further consultation on this project as required under Section 7 of the Endangered Species Act of 1973, as amended. However, should new information arise pertaining to project plans or a revised species list be published, it will be necessary for the Federal agency to reinitiate consultation.

We appreciate the opportunity to comment at this early stage of project planning. For further discussion, please contact Elizabeth McCloskey at (219) 983-9753 or [elizabeth\\_mccloskey@fws.gov](mailto:elizabeth_mccloskey@fws.gov).

Sincerely yours,

  
for Scott E. Pruitt  
Supervisor

cc: Christie Stanifer, Environmental Coordinator, Division of Water, Indianapolis, IN  
Tom Post, Indiana Division of Nature Preserves, Medaryville, IN

**APPENDIX B:  
References**

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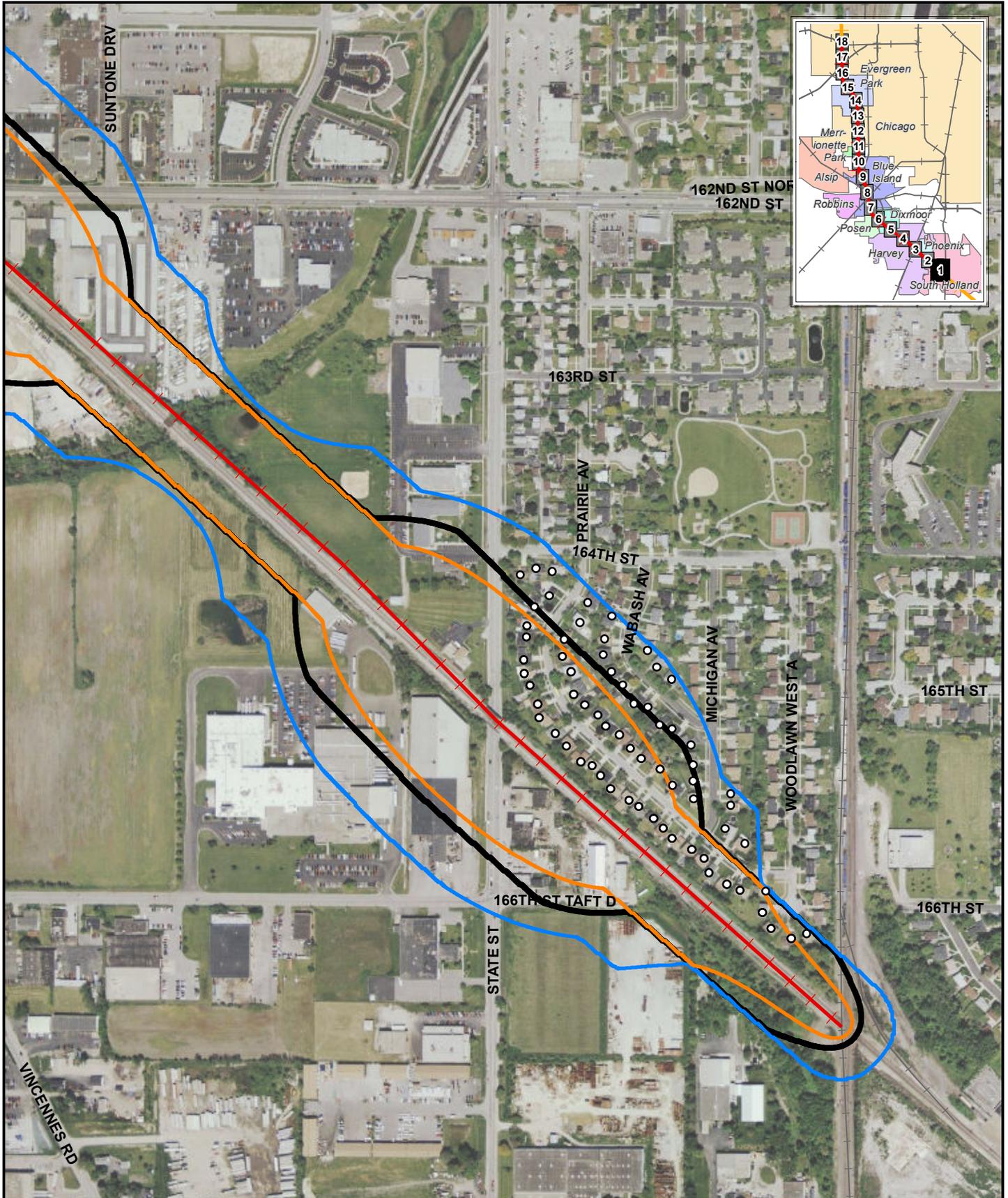
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## **Appendix A**

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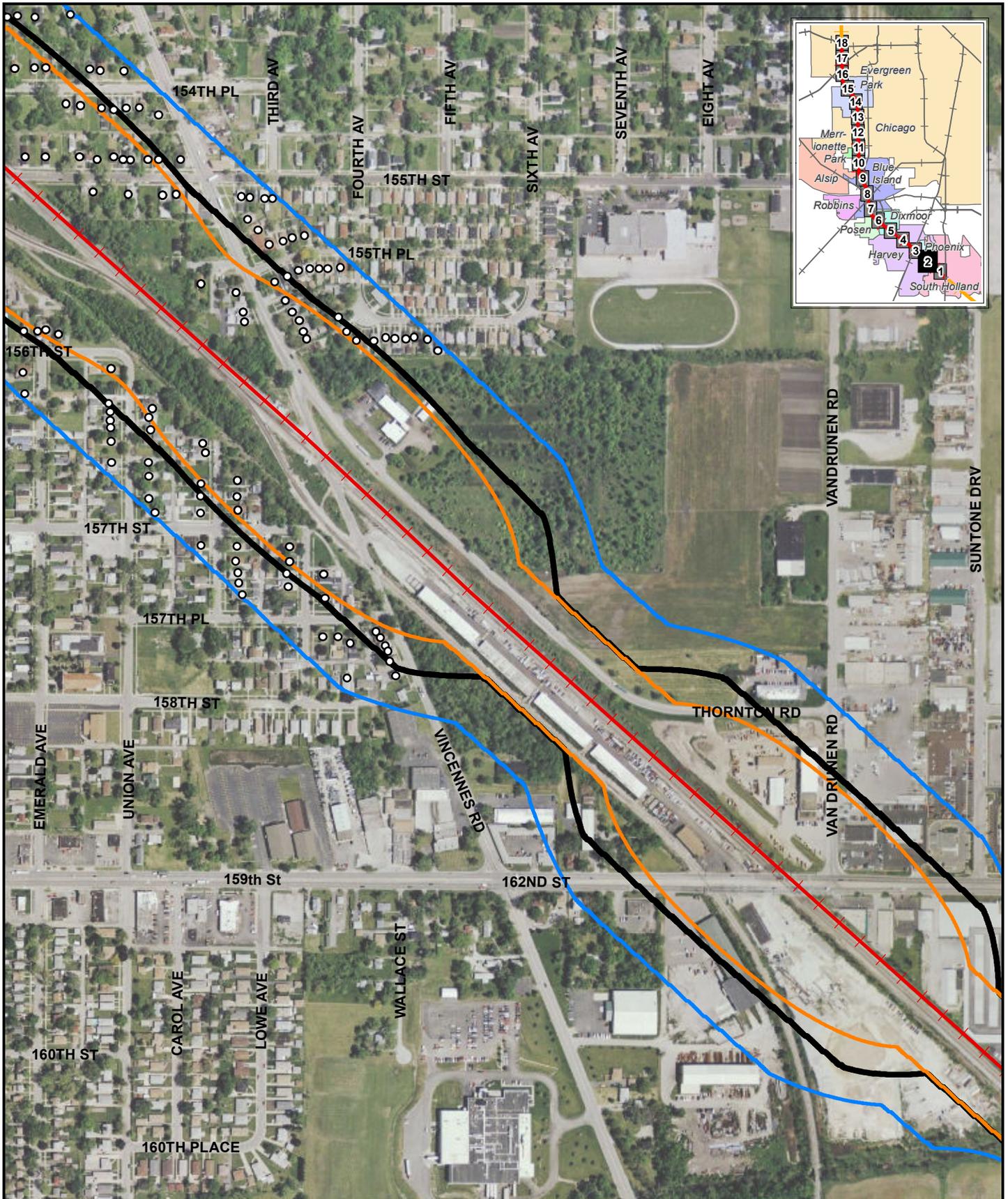
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**APPENDIX C:  
Noise Mitigation Figures**



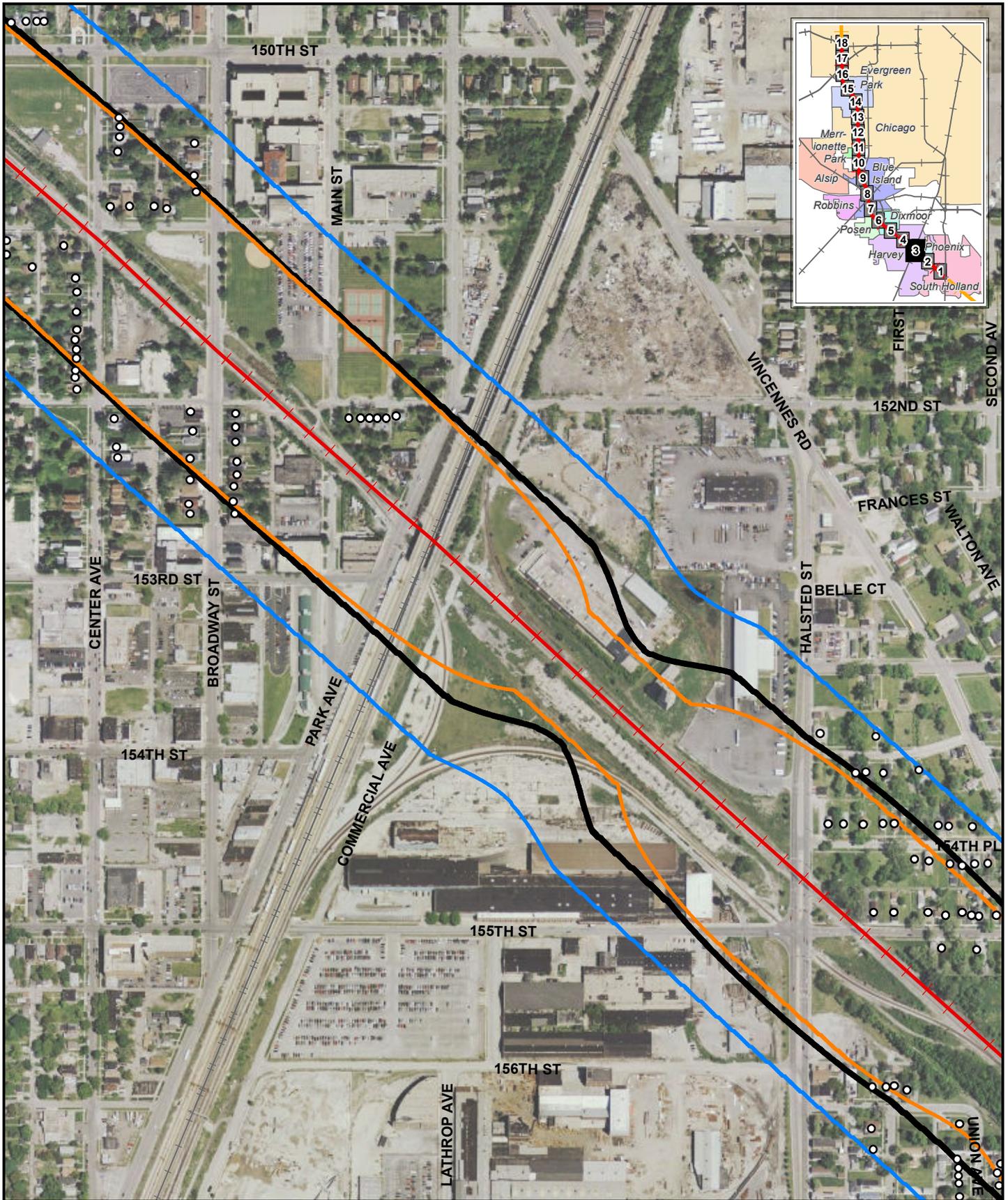
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- Proposed 70 dBA Contour
- Proposed 65 dBA Contour
- CSXT Acquisition
- CSXT Acquisition & Study Area
- Other Rail



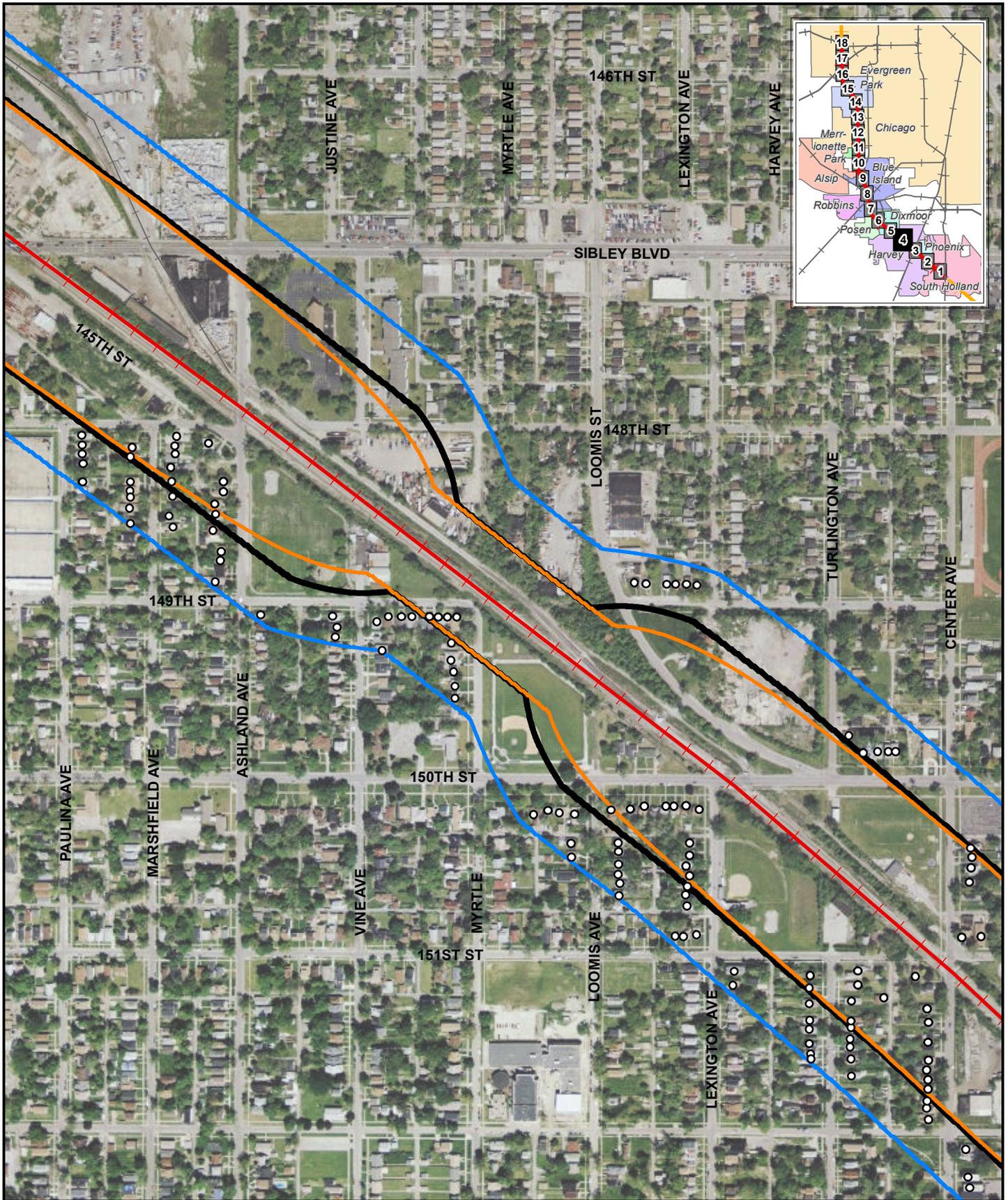
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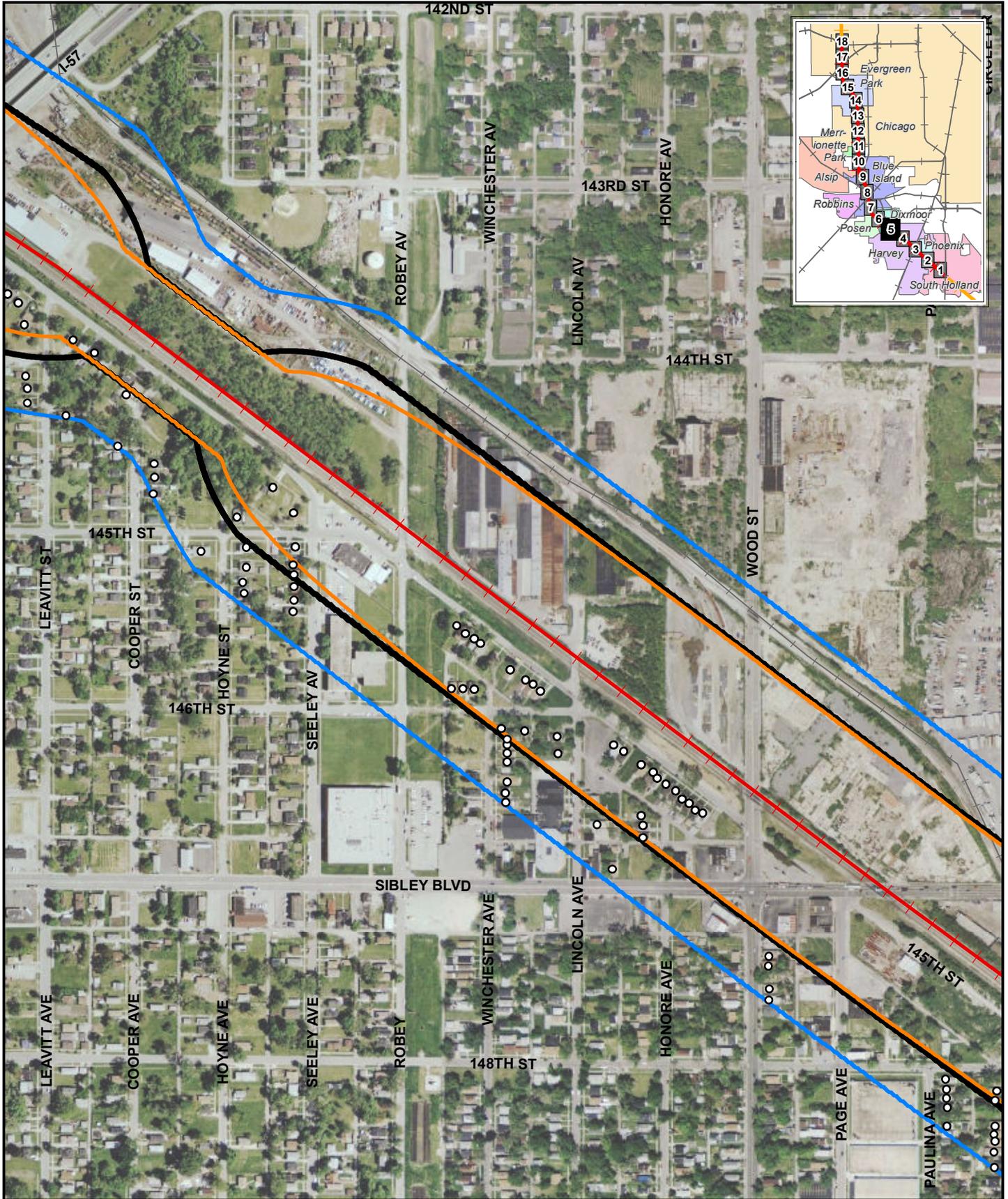
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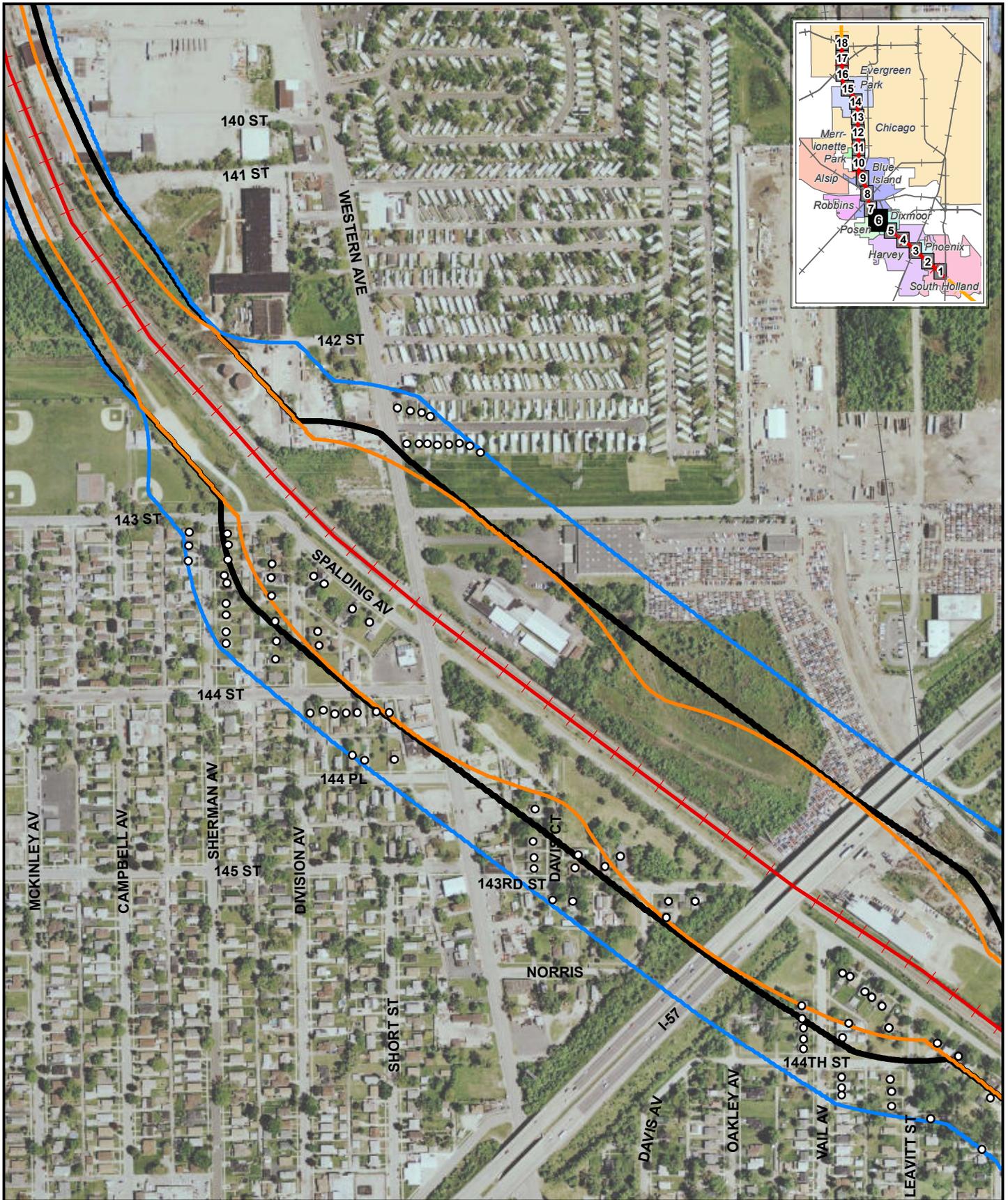
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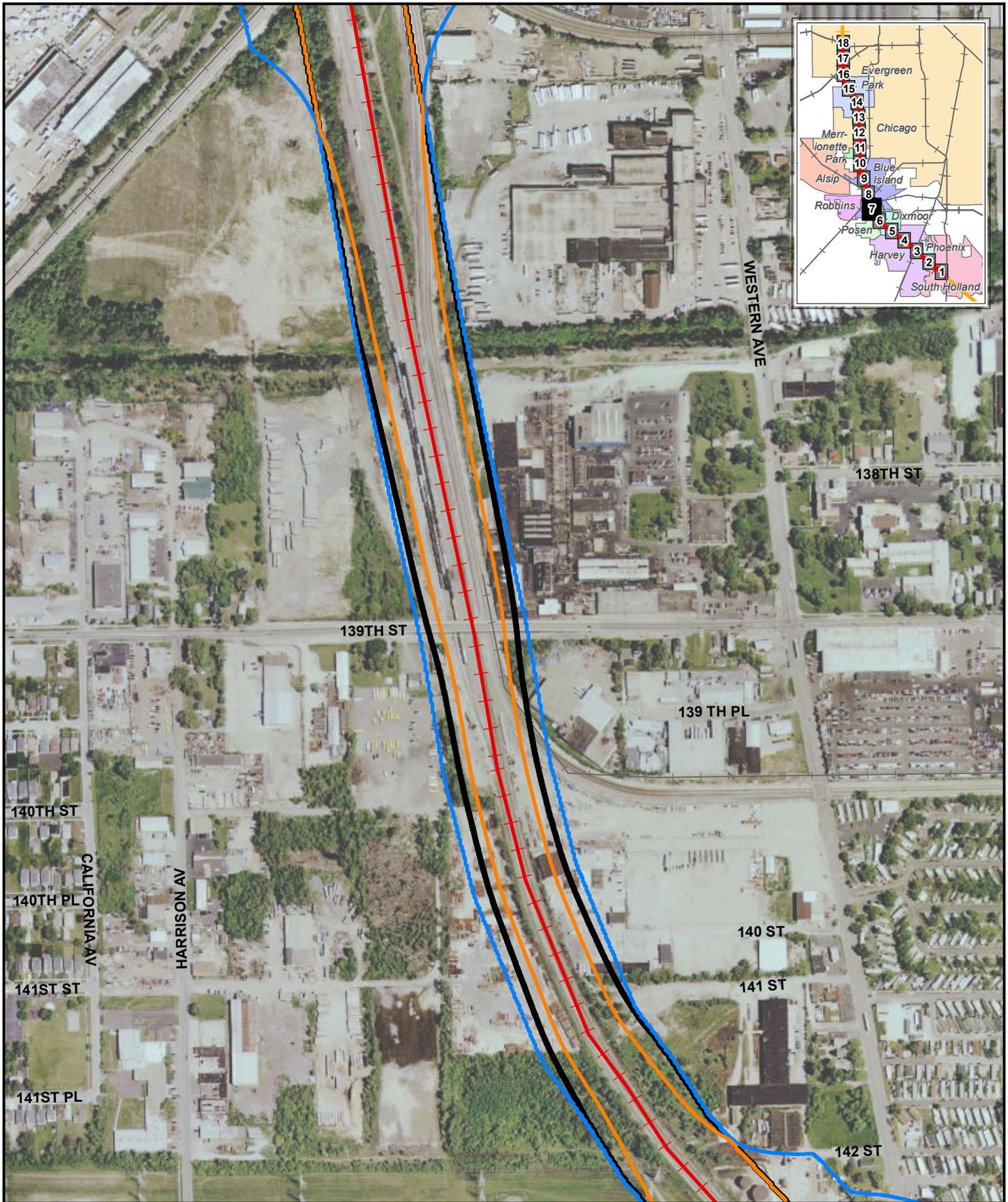
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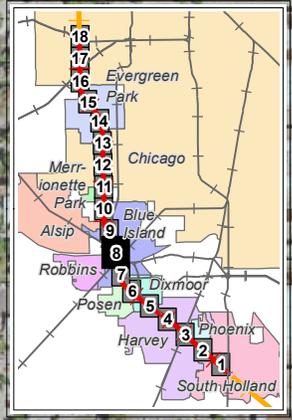
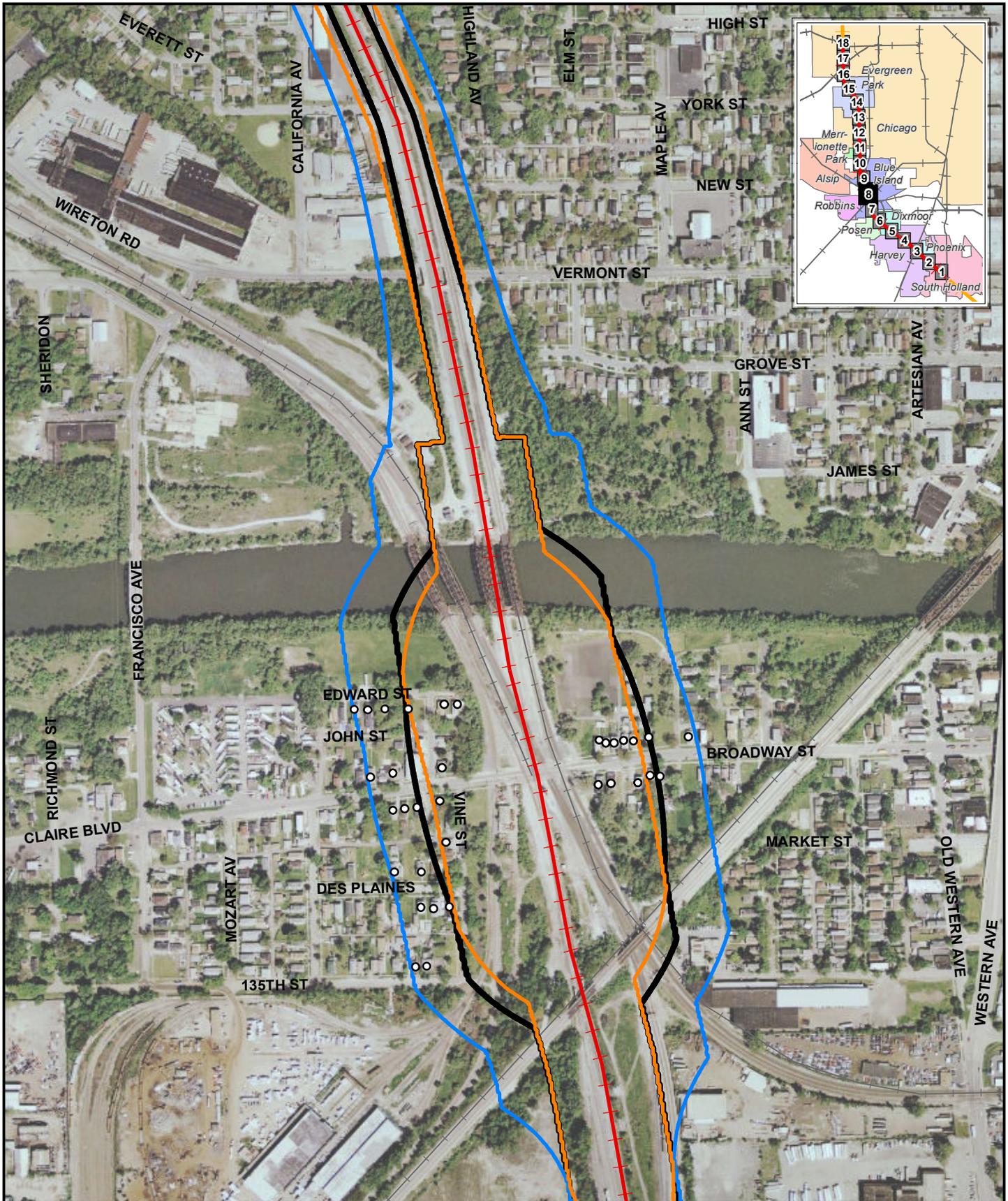
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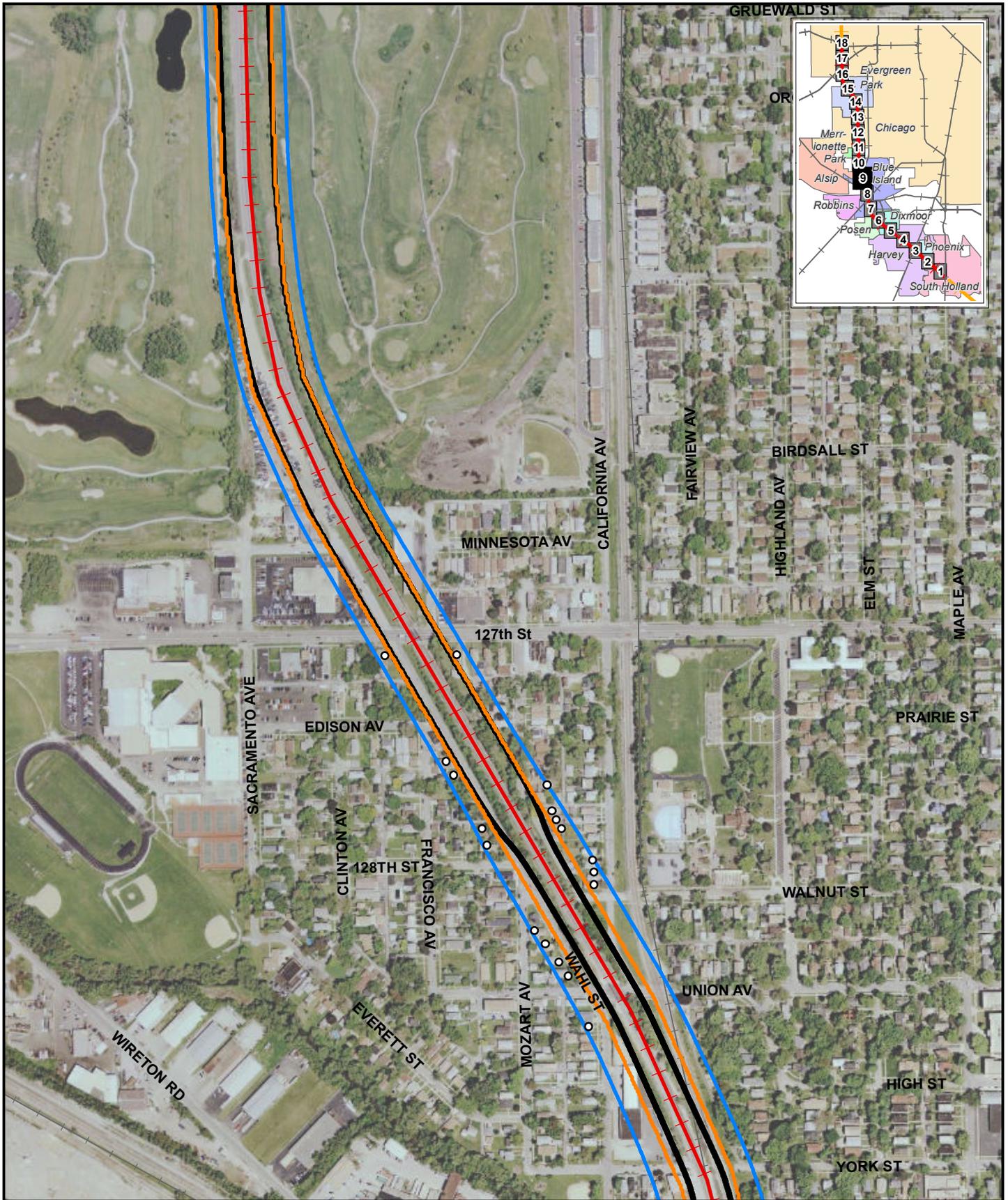
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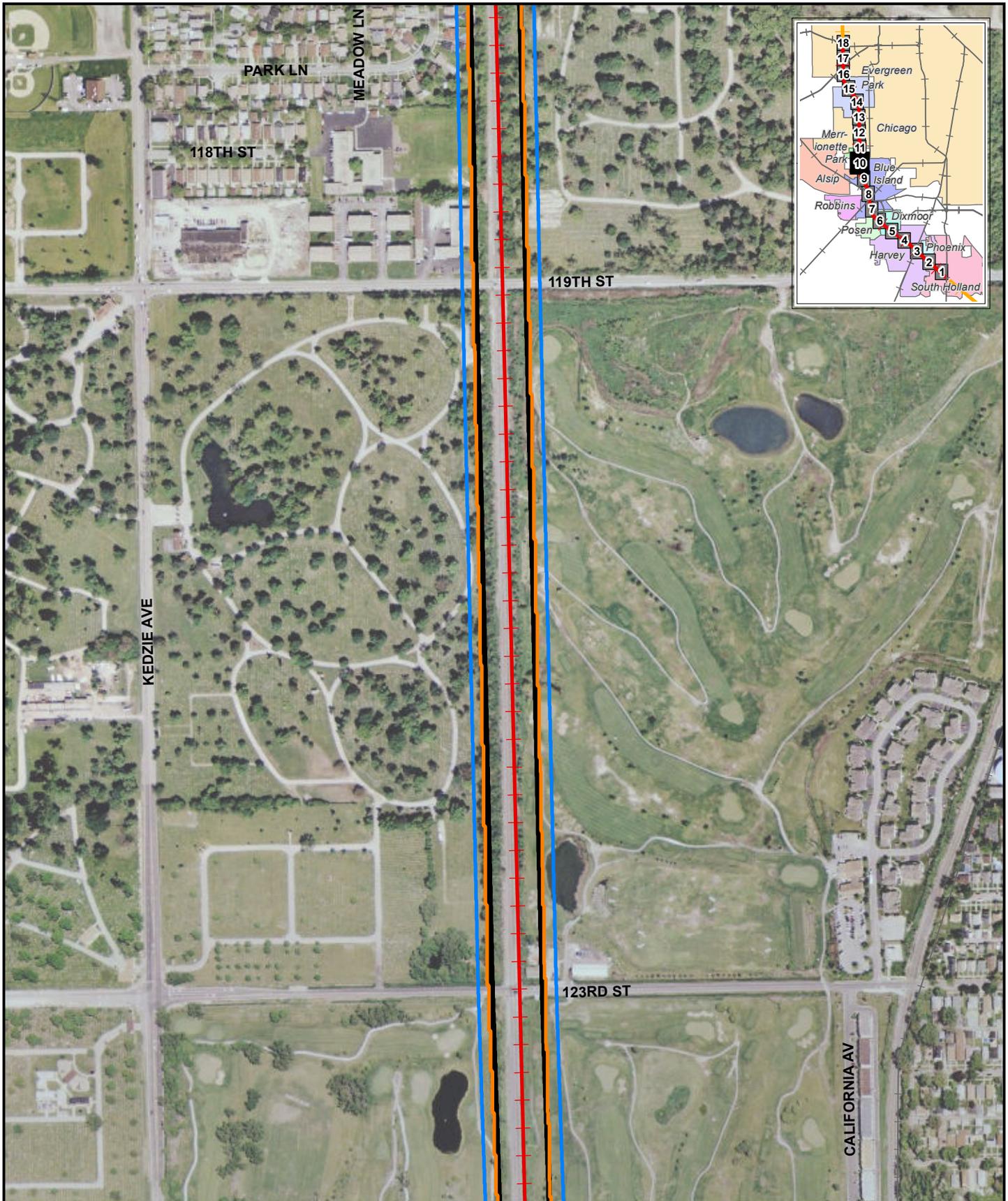
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**Appendix C**  
 Sheet 8 of 18  
**Noise**  
 Illinois



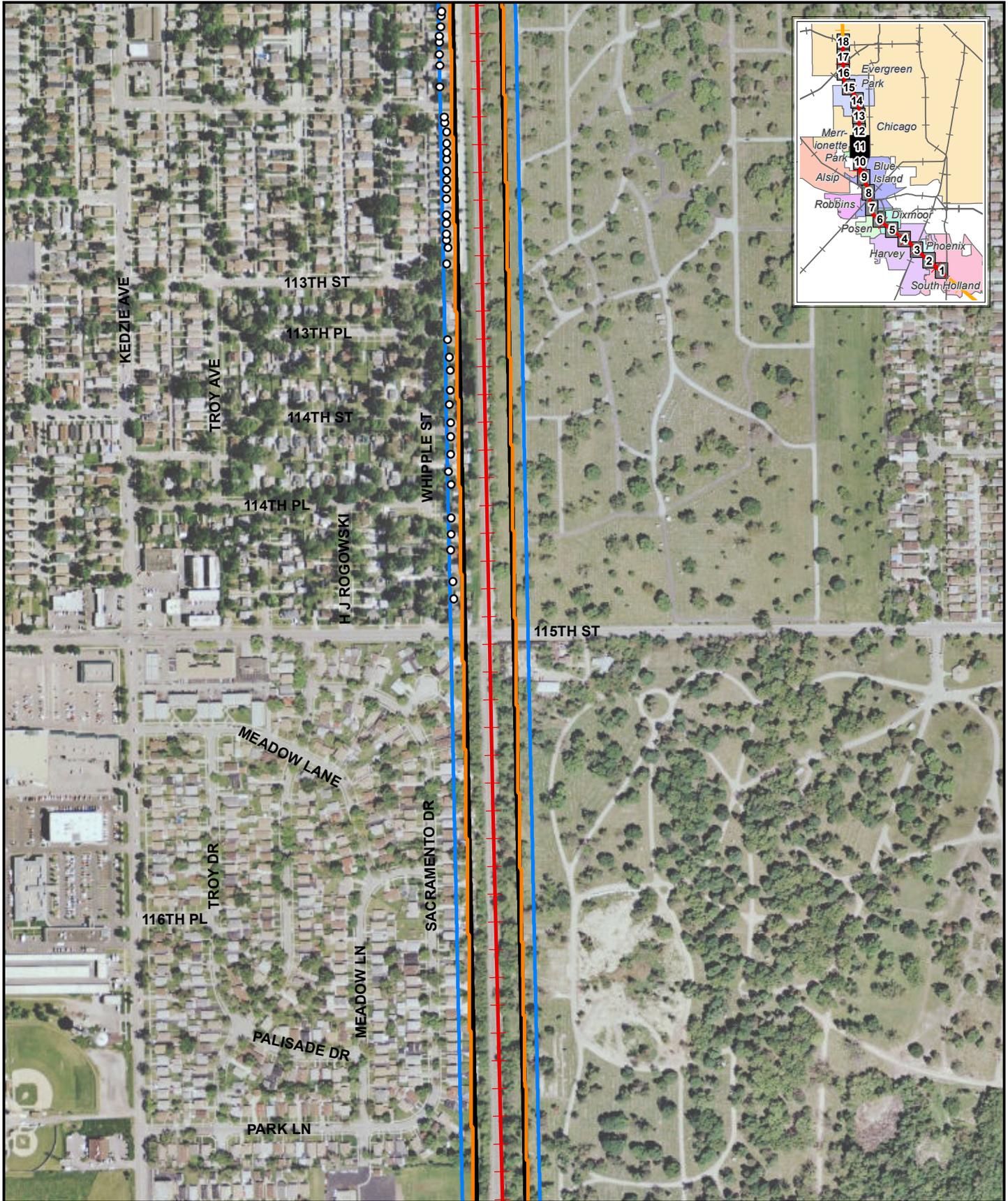
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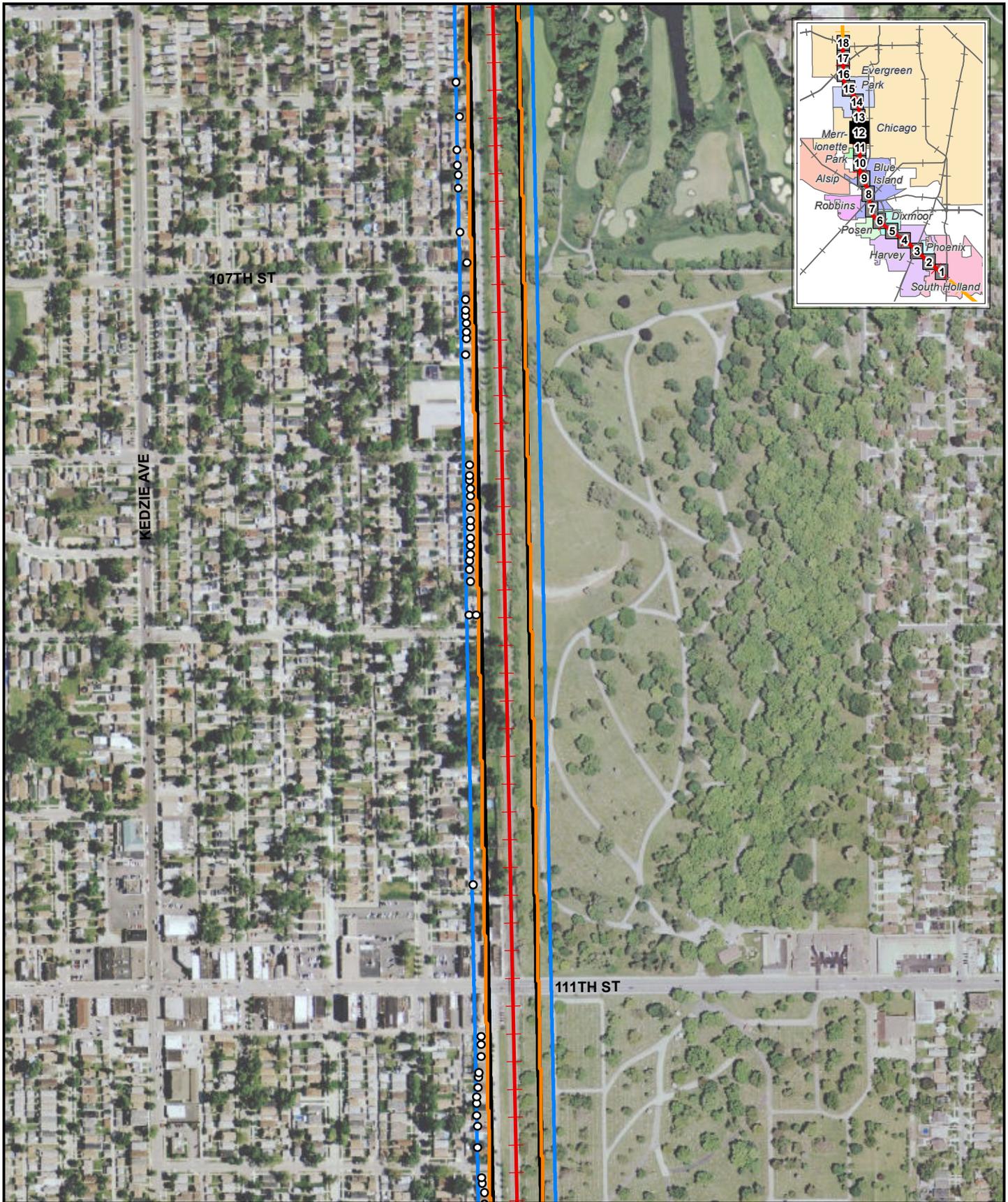
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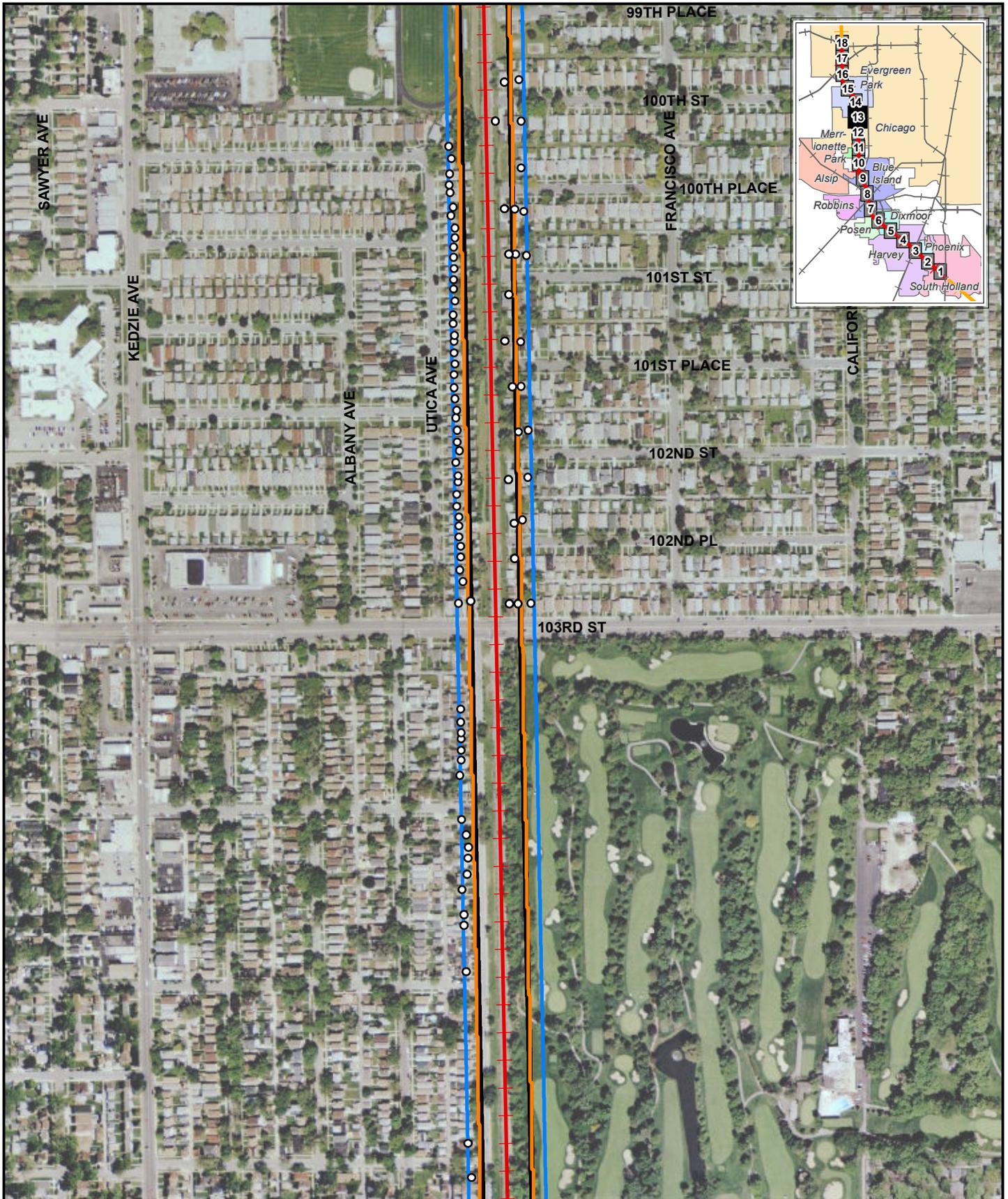
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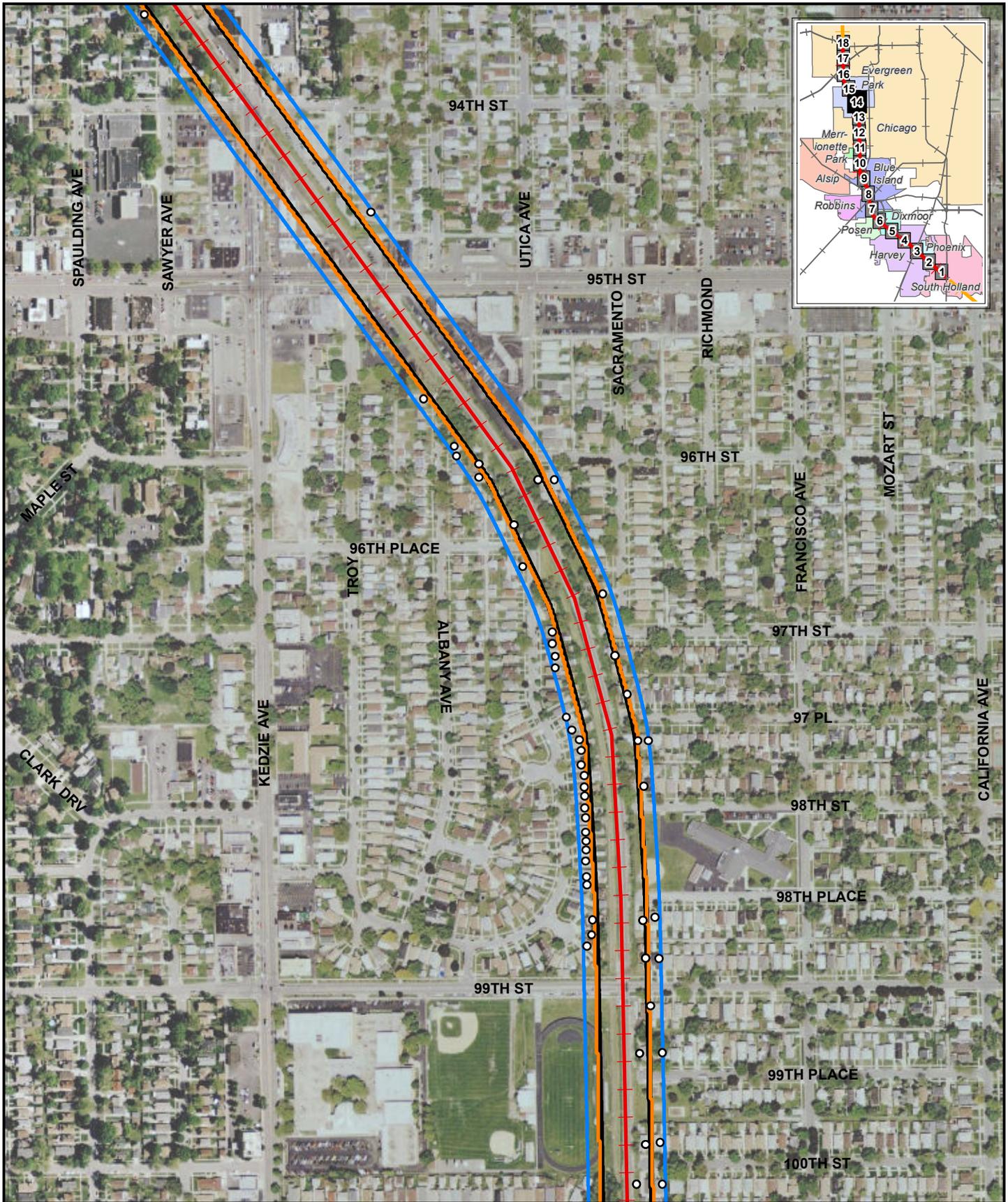
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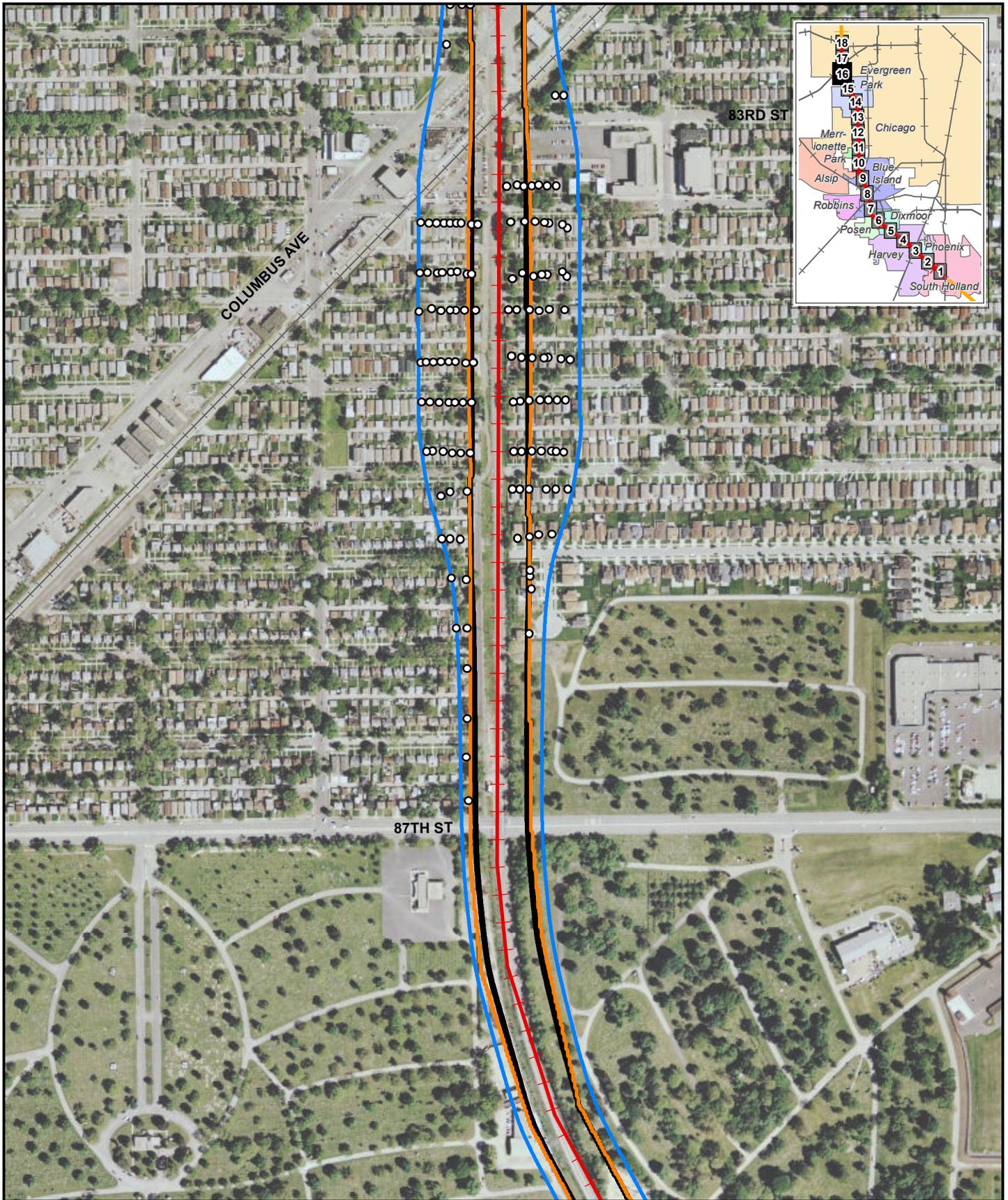
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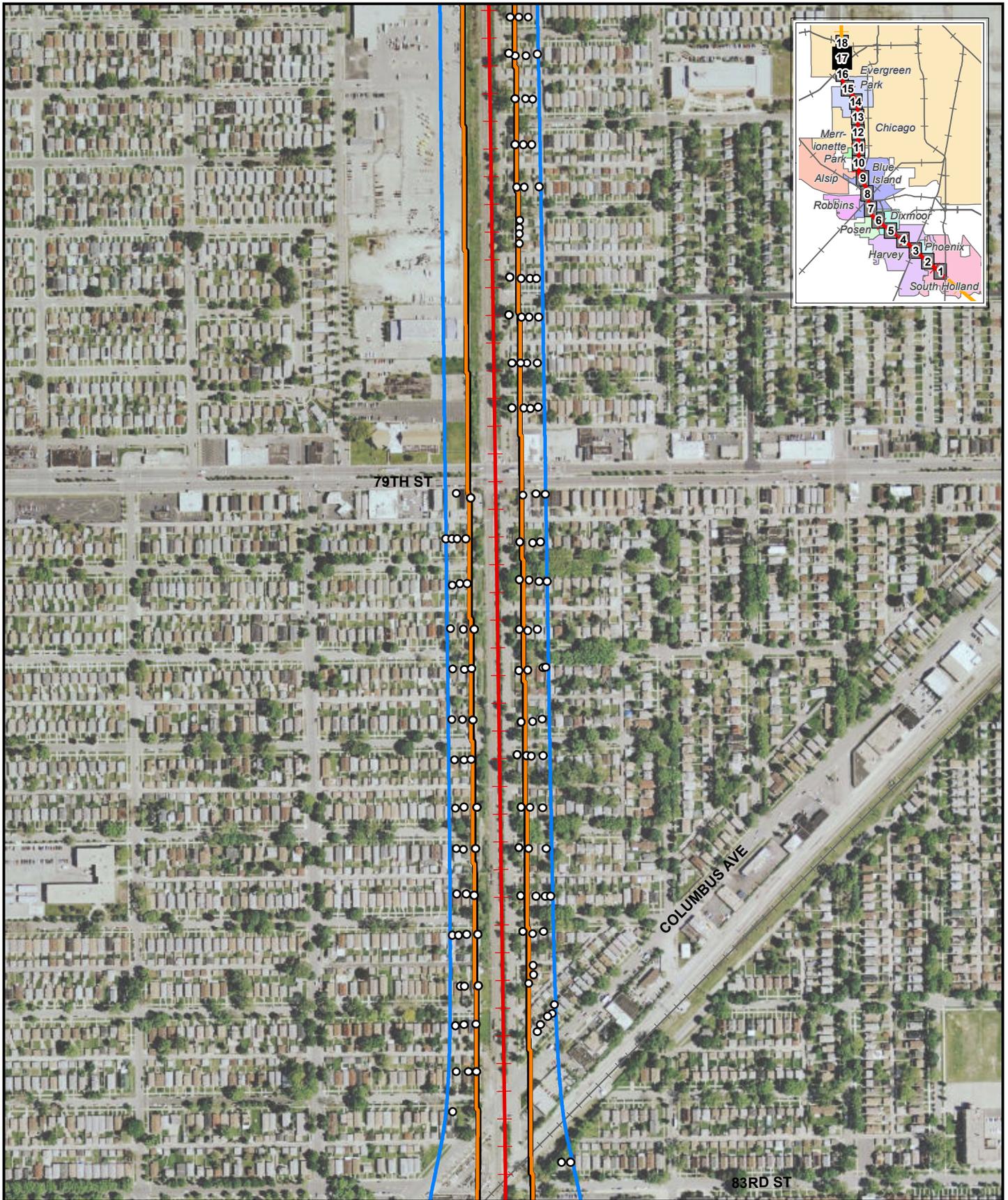
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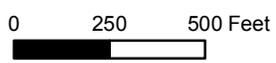
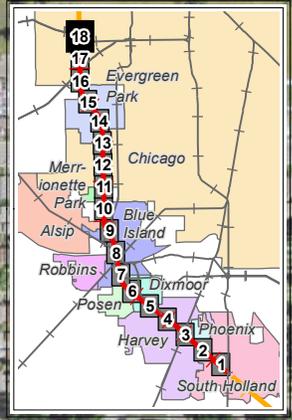
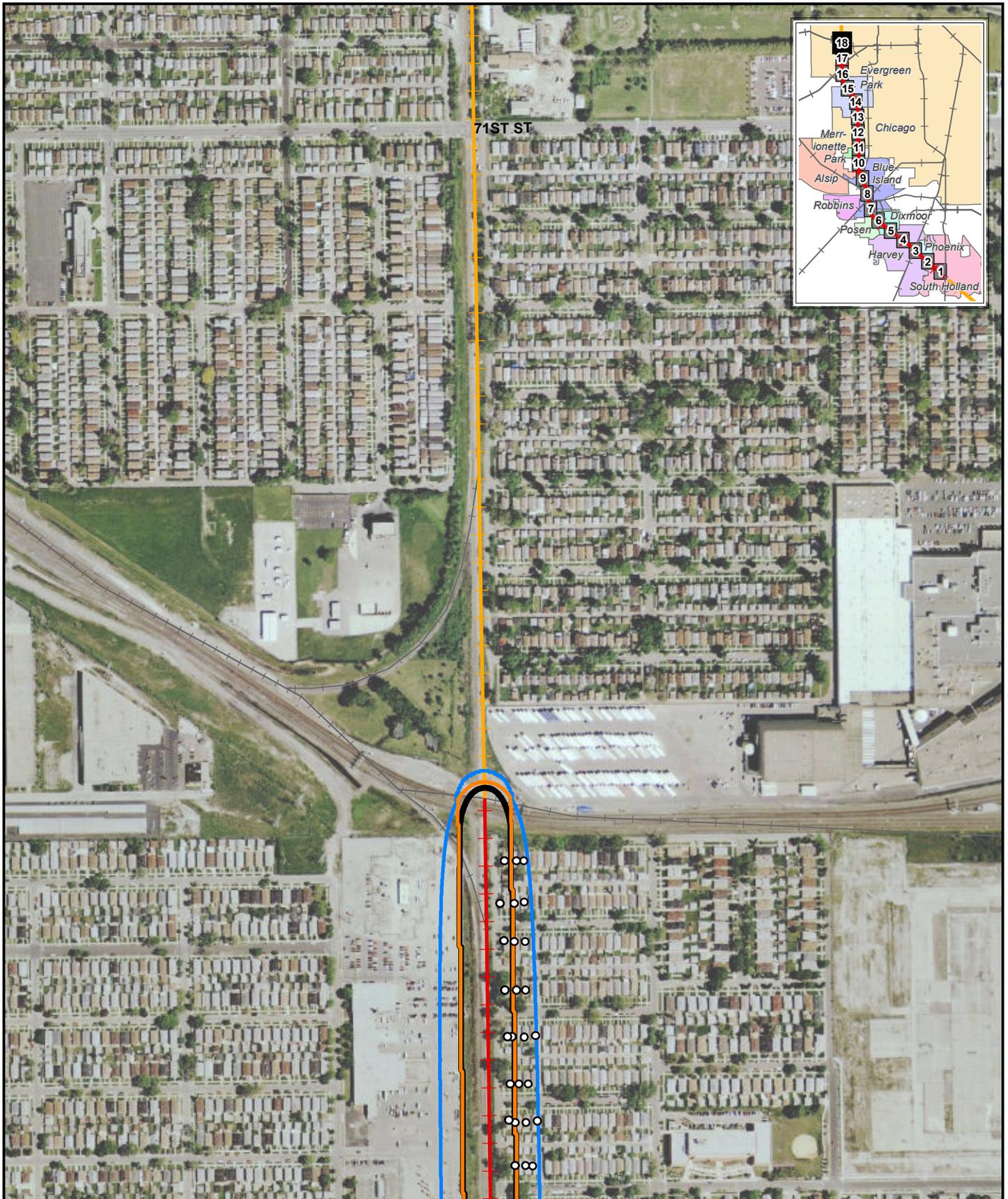
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- ▭ Proposed 65 dBA Contour
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- Other Rail

**APPENDIX D:  
State-Protected Species**

# Illinois Threatened and Endangered Species by County

## Illinois Natural Heritage Database

as of April 12, 2011

**Important Note:** The Illinois Natural Heritage Database is updated daily with data pertaining to threatened and endangered species occurrences in Illinois. Please check this website quarterly for updates to this list or contact Database staff directly at tara.kieninger@illinois.gov.

Please note that because many birds observed in the state are merely migrants passing through, we typically only track those sightings which have evidence of breeding (nest with young, breeding and/or nesting behavior in adults, juveniles observed, etc.). We normally do not track instances where a bird is observed perched on a tree branch, flying in the air, or feeding unless other evidence of breeding is witnessed or there is an existing breeding record for the species in the area.

### **State Status:**

LE - listed as endangered

LT - listed as threatened

<u>Scientific Name</u>	<u>Common Name</u>	<u>State Status</u>	<u># of Occurrences</u>	<u>Last Observed</u>
<b>Adams</b>				
<i>Acipenser fulvescens</i>	Lake Sturgeon	LE	1	1966-09-28
<i>Carex prasina</i>	Drooping Sedge	LT	1	1989-06-15
<i>Cumberlandia monodonta</i>	Spectaclecase	LE	1	1987-07-19
<i>Delphinium carolinianum</i>	Wild Blue Larkspur	LT	2	1971-05-20
<i>Dendroica cerulea</i>	Cerulean Warbler	LT	2	2007-06-30
<i>Ellipsaria lineolata</i>	Butterfly	LT	2	2008-10-06
<i>Elliptio crassidens</i>	Elephant-ear	LT	1	1987-06-18
<i>Fusconaia ebena</i>	Ebonyshell	LT	2	2008-10-06
<i>Hybognathus hayi</i>	Cypress Minnow	LE	1	2004-09-16
<i>Ictinia mississippiensis</i>	Mississippi Kite	LT	1	1990-07-13
<i>Lanius ludovicianus</i>	Loggerhead Shrike	LE	2	1989
<i>Liatris scariosa</i> var. <i>nieuwlandii</i>	Blazing Star	LT	4	2005-03-15
<i>Ligumia recta</i>	Black Sandshell	LT	1	2008-10-06
<i>Melanthium virginicum</i>	Bunchflower	LT	1	1944-06-29
<i>Myotis grisescens</i>	Gray Bat	LE	1	2000-02-08
<i>Myotis sodalis</i>	Indiana Bat	LE	8	2010-07-28
<i>Pandion haliaetus</i>	Osprey	LE	1	1986-SUM
<i>Plethobasus cyphus</i>	Sheepnose	LE	1	1987-07-19
<i>Poa wolfii</i>	Wolf's Bluegrass	LE	1	2003-05-22
<i>Scirpus polyphyllus</i>	Bulrush	LT	1	1989-06-15
<i>Thryomanes bewickii</i>	Bewick's Wren	LE	1	1998-07
<i>Tomanthera auriculata</i>	Ear-leafed Foxglove	LT	1	1943-08-29
<i>Trifolium reflexum</i>	Buffalo Clover	LT	1	2003-05-22
<i>Trillium viride</i>	Green Trillium	LE	1	2002-04-15
<i>Viburnum molle</i>	Arrowwood	LT	3	2004-11-06

<u>Scientific Name</u>	<u>Common Name</u>	<u>State Status</u>	<u># of Occurrences</u>	<u>Last Observed</u>
<i>Gallinula chloropus</i>	Common Moorhen	LE	1	2004-06-02
<i>Ixobrychus exilis</i>	Least Bittern	LT	1	1981-06-26
<i>Lanius ludovicianus</i>	Loggerhead Shrike	LE	1	1991-06-29
<i>Notropis boops</i>	Bigeye Shiner	LE	1	1962-07-10
<i>Orobancha ludoviciana</i>	Broomrape	LT	1	1994-02-17
<i>Ptychobranhus fasciolaris</i>	Kidneyshell	LE	3	2008-08-28
<i>Tyto alba</i>	Barn Owl	LE	2	2009-10-28
<i>Villosa lienosa</i>	Little Spectaclecase	LT	3	2009-09-03
<b><u>Total # of Species</u></b>			<b><u>18</u></b>	

<b>Cook</b>				
<i>Alasmidonta viridis</i>	Slippershell	LT	1	2000-09-07
<i>Amelanchier interior</i>	Shadbush	LT	2	2009-05-03
<i>Amelanchier sanguinea</i>	Shadbush	LE	2	2009-05-22
<i>Ammophila breviligulata</i>	Marram Grass	LE	6	2009-09-23
<i>Asclepias lanuginosa</i>	Woolly Milkweed	LE	2	2009-07-10
<i>Asclepias ovalifolia</i>	Oval Milkweed	LE	1	2009-06-15
<i>Aster furcatus</i>	Forked Aster	LT	3	2009-08-22
<i>Bartramia longicauda</i>	Upland Sandpiper	LE	3	1995-06-14
<i>Beckmannia syzigachne</i>	American Slough Grass	LE	4	2009-07-31
<i>Besseyia bullii</i>	Kittentails	LT	1	2009-06-01
<i>Botrychium multifidum</i>	Northern Grape Fern	LE	1	1992-05-06
<i>Botrychium simplex</i>	Dwarf Grape Fern	LE	1	1976-07-09
<i>Cakile edentula</i>	Sea Rocket	LT	7	2009-08-16
<i>Calopogon tuberosus</i>	Grass Pink Orchid	LE	4	2009-07-10
<i>Carex aurea</i>	Golden Sedge	LT	4	2009-07-05
<i>Carex bromoides</i>	Sedge	LT	3	2009-05-31
<i>Carex echinata</i>	Sedge	LE	1	2002-06-17
<i>Carex formosa</i>	Sedge	LE	4	2009-07-03
<i>Carex garberi</i>	Sedge	LE	1	2000-05-24
<i>Carex intumescens</i>	Swollen Sedge	LT	2	1995-07-10
<i>Carex tuckermanii</i>	Tuckerman's Sedge	LE	1	2000-08-29
<i>Carex viridula</i>	Little Green Sedge	LT	2	2009-07-12
<i>Carex woodii</i>	Pretty Sedge	LT	2	2009-06-06
<i>Catostomus catostomus</i>	Longnose Sucker	LT	1	1991
<i>Chamaedaphne calyculata</i>	Leatherleaf	LT	1	1987-03-28
<i>Chamaesyce polygonifolia</i>	Seaside Spurge	LE	3	2009-09-23
<i>Chimaphila maculata</i>	Spotted Wintergreen	LE	1	1981-11-13
<i>Chlidonias niger</i>	Black Tern	LE	5	1996-07-22
<i>Cirsium pitcheri</i>	Pitcher's (Dune) Thistle	LT	1	2009-06-21

<u>Scientific Name</u>	<u>Common Name</u>	<u>State Status</u>	<u># of Occurrences</u>	<u>Last Observed</u>
<i>Clonophis kirtlandi</i>	Kirtland's Snake	LT	5	1998-05-25
<i>Comptonia peregrina</i>	Sweetfern	LE	1	2009-08-18
<i>Corallorhiza maculata</i>	Spotted Coral-root Orchid	LT	1	1999-07-03
<i>Cypripedium candidum</i>	White Lady's Slipper	LT	15	2009-08-03
<i>Dalea foliosa</i>	Leafy Prairie Clover	LE	2	2010-07-17
<i>Deschampsia flexuosa</i>	Hairgrass	LE	1	2003
<i>Dichanthelium boreale</i>	Northern Panic Grass	LE	2	2008-06-14
<i>Drosera intermedia</i>	Narrow-leaved Sundew	LT	4	2001-07
<i>Drosera rotundifolia</i>	Round-leaved Sundew	LE	1	1976-07-06
<i>Egretta caerulea</i>	Little Blue Heron	LE	3	2002
<i>Egretta thula</i>	Snowy Egret	LE	1	1987
<i>Eleocharis olivacea</i>	Capitate Spikerush	LE	1	1991-08-01
<i>Eleocharis pauciflora</i>	Few-flowered Spikerush	LE	1	2002-06
<i>Eleocharis rostellata</i>	Spike Rush	LT	1	2000-06-18
<i>Elymus trachycaulus</i>	Bearded Wheat Grass	LT	1	2000-06-29
<i>Emydoidea blandingii</i>	Blanding's Turtle	LE	16	2010-04-04
<i>Etheostoma exile</i>	Iowa Darter	LT	2	2002-SUM
<i>Falco peregrinus</i>	Peregrine Falcon	LT	21	2010-07-08
<i>Filipendula rubra</i>	Queen-of-the-prairie	LE	2	2009-08-25
<i>Fundulus diaphanus</i>	Banded Killifish	LT	3	2010-03-10
<i>Gallinula chloropus</i>	Common Moorhen	LE	7	2008
<i>Geranium bicknellii</i>	Northern Cranesbill	LE	2	2009-07-31
<i>Helianthus giganteus</i>	Tall Sunflower	LE	1	1999-09-12
<i>Hypericum kalmianum</i>	Kalm's St. John's Wort	LE	2	2009-09-05
<i>Ixobrychus exilis</i>	Least Bittern	LT	4	2008
<i>Juncus alpinus</i>	Richardson's Rush	LE	2	2009-08-08
<i>Juniperus communis</i>	Ground Juniper	LT	2	2009-05-22
<i>Lathyrus ochroleucus</i>	Pale Vetchling	LT	1	2009-05-23
<i>Lespedeza leptostachya</i>	Prairie Bush Clover	LE	1	1995-08-30
<i>Liatis scariosa</i> var. <i>nieuwlandii</i>	Blazing Star	LT	6	2009-09-05
<i>Medeola virginiana</i>	Indian Cucumber Root	LE	1	2009-05-31
<i>Minuartia patula</i>	Slender Sandwort	LT	2	2009-06-10
<i>Nannothemis bella</i>	Elfin Skimmer	LT	1	2004
<i>Necturus maculosus</i>	Mudpuppy	LT	6	1998-03-21
<i>Notropis heterodon</i>	Blackchin Shiner	LT	1	1967-07-10
<i>Nyctanassa violacea</i>	Yellow-crowned Night-Heron	LE	3	2000
<i>Nycticorax nycticorax</i>	Black-crowned Night-Heron	LE	13	2010-07
<i>Oenothera perennis</i>	Small Sundrops	LT	10	2009-06-29
<i>Pandion haliaetus</i>	Osprey	LE	2	2010-09
<i>Papaipema eryngii</i>	Eryngium Stem Borer	LE	1	2003

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<i>Phalaropus tricolor</i>	Wilson's Phalarope	LE	1	1981
<i>Plantago cordata</i>	Heart-leaved Plantain	LE	1	2008-06-21
<i>Platanthera ciliaris</i>	Orange Fringed Orchid	LE	1	2001-07
<i>Platanthera clavellata</i>	Wood Orchid	LE	2	2000-07-20
<i>Platanthera flava var. herbiola</i>	Tuberclad Orchid	LT	2	1999-06
<i>Platanthera leucophaea</i>	Eastern Prairie Fringed Orchid	LE	12	2010
<i>Platanthera psycodes</i>	Purple Fringed Orchid	LE	1	2008-07-30
<i>Poa languida</i>	Weak Bluegrass	LE	1	2005
<i>Pogonia ophioglossoides</i>	Snake-mouth	LE	2	2000-06-20
<i>Polygonatum pubescens</i>	Downy Solomon's Seal	LE	7	2009-06-06
<i>Polygonum careyi</i>	Carey's Heartsease	LE	1	1986
<i>Populus balsamifera</i>	Balsam Poplar	LE	1	2004-04-28
<i>Potamogeton gramineus</i>	Grass-leaved Pondweed	LT	1	2002-06-01
<i>Potamogeton robbinsii</i>	Fern Pondweed	LE	1	1987-08-27
<i>Rallus elegans</i>	King Rail	LE	2	1990-06-16
<i>Rhynchospora alba</i>	Beaked Rush	LT	1	1976
<i>Rubus odoratus</i>	Purple-flowering Raspberry	LE	1	2009-08-10
<i>Rubus pubescens</i>	Dwarf Raspberry	LT	5	2009-05-31
<i>Rubus schneideri</i>	Bristly Blackberry	LT	1	1996
<i>Scirpus hattorianus</i>	Bulrush	LE	1	2002-2007
<i>Silene regia</i>	Royal Catchfly	LE	1	2009-08-02
<i>Sistrurus catenatus catenatus</i>	Eastern Massasauga	LE	5	2006-05-24
<i>Sisyrinchium montanum</i>	Mountain Blue-eyed Grass	LE	8	2009-06-11
<i>Somatochlora hineana</i>	Hine's Emerald Dragonfly	LE	2	2008
<i>Sparganium emersum</i>	Green-fruited Burreed	LE	1	2010-08-20
<i>Spermophilus franklinii</i>	Franklin's Ground Squirrel	LT	2	2006-08-05
<i>Spiranthes lucida</i>	Yellow-lipped Ladies' Tresses	LE	2	2009-06-08
<i>Stellaria pubera</i>	Great Chickweed	LE	1	2009-05-29
<i>Tetraneuris herbacea</i>	Lakeside Daisy	LE	2	2010-05-02
<i>Tofieldia glutinosa</i>	False Asphodel	LT	1	2009-07-13
<i>Tomanthera auriculata</i>	Ear-leafed Foxglove	LT	10	2009-09-03
<i>Trientalis borealis</i>	Star-flower	LE	2	2008-05-29
<i>Triglochin palustris</i>	Slender Bog Arrow Grass	LT	1	2009-07-21
<i>Trillium cernuum</i>	Nodding Trillium	LE	1	2009-05-03
<i>Utricularia intermedia</i>	Flat-leaved Bladderwort	LT	2	2009-08-26
<i>Utricularia minor</i>	Small Bladderwort	LE	1	1990
<i>Vaccinium macrocarpon</i>	Large Cranberry	LE	1	1987-03-28
<i>Vaccinium oxycoccos</i>	Small Cranberry	LE	1	1999-11-02
<i>Veronica scutellata</i>	Marsh Speedwell	LT	7	2009-07-31
<i>Viola blanda</i>	Hairy White Violet	LE	2	1999-04

<u>Scientific Name</u>	<u>Common Name</u>	<u>State Status</u>	<u># of Occurrences</u>	<u>Last Observed</u>
<i>Viola canadensis</i>	Canada Violet	LE	1	2008-05-10
<i>Viola conspersa</i>	Dog Violet	LT	7	2009-05-15
<i>Xanthocephalus xanthocephalus</i>	Yellow-headed Blackbird	LE	7	2008

**Total # of Species    112**

### **Crawford**

<i>Ambystoma platineum</i>	Silvery Salamander	LE	1	2010-03-17
<i>Ammocrypta pellucidum</i>	Eastern Sand Darter	LT	3	2007-09-25
<i>Coccyzus erythrophthalmus</i>	Black-billed Cuckoo	LT	1	1999-06
<i>Dendroica cerulea</i>	Cerulean Warbler	LT	1	2009-04-25
<i>Fusconaia ebena</i>	Ebonysnail	LT	1	1999-06
<i>Iresine rhizomatosa</i>	Bloodleaf	LE	1	1999-09-27
<i>Lanius ludovicianus</i>	Loggerhead Shrike	LE	2	1998-06-15
<i>Styrax americana</i>	Storax	LT	1	2007-07-10
<i>Thamnophis sauritus</i>	Eastern Ribbon Snake	LT	2	2010-08-16

**Total # of Species    9**

### **Cumberland**

<i>Ammocrypta pellucidum</i>	Eastern Sand Darter	LT	6	2007-09-24
<i>Apalone mutica</i>	Smooth Softshell	LE	1	2007-07-05
<i>Emydoidea blandingii</i>	Blanding's Turtle	LE	1	1947-07-03
<i>Etheostoma histrio</i>	Harlequin Darter	LE	3	1968-10-19
<i>Hybopsis amblops</i>	Bigeye Chub	LE	2	1950-07-23
<i>Lanius ludovicianus</i>	Loggerhead Shrike	LE	2	2008-06-30
<i>Penstemon tubaeflorus</i>	Tube Beard Tongue	LE	1	1997-06-27
<i>Pleurobema clava</i>	Clubshell	LE	1	1998-10-30

**Total # of Species    8**

### **De Witt**

<i>Alasmidonta viridis</i>	Slippershell	LT	1	2010-08-15
<i>Clonophis kirtlandi</i>	Kirtland's Snake	LT	1	2010-04-30
<i>Elliptio dilatata</i>	Spike	LT	1	2009-10-01

**Total # of Species    3**

### **DeKalb**

<i>Alasmidonta viridis</i>	Slippershell	LT	5	2010-08-24
<i>Asclepias lanuginosa</i>	Woolly Milkweed	LE	1	1976-08-23
<i>Carex echinata</i>	Sedge	LE	1	1971-06-09
<i>Emydoidea blandingii</i>	Blanding's Turtle	LE	2	1993-06-11

## Indiana County Endangered, Threatened and Rare Species List

**County: Lake**

Species Name	Common Name	FED	STATE	GRANK	SRANK
<b>Crustacean: Malacostraca</b>					
Procambarus gracilis	Prairie Crayfish		ST	G5	S1S2
<b>Mollusk: Bivalvia (Mussels)</b>					
Plethobasus cyphus	Sheepnose	C	SE	G3	S1
Venustaconcha ellipsiformis	Ellipse		SSC	G4	S2
<b>Insect: Coleoptera (Beetles)</b>					
Nicrophorus americanus	American Burying Beetle	LE	SX	G2G3	SH
<b>Insect: Homoptera</b>					
Bruchomorpha dorsata			SR	GNR	S2
Bruchomorpha extensa	The Long-nosed Elephant Hopper		SR	GNR	S2S3
Bruchomorpha oculata			SR	GNR	SNR
Chlorotettix fallax	A Leafhopper		SR	GNR	S2
Cicadula straminea			ST	GNR	SNR
Cosmotettix bilineatus	Two-lined cosmotettix		ST	GNR	S1S2
Dorydiella kansana			ST	GNR	S1
Flexamia pyrops	The Long-nose Three-awn Leafhopper		SR	GNR	S1S3
Flexamia reflexus	Indiangrass Flexamia		ST	GNR	S2S3
Graminella mohri			SR	GNR	SNR
Laevincephalus acus			SR	GNR	S2S3
Limotettix divaricatus			ST	GNR	SNR
Mesamia nigradorsum	A Leafhopper		SR	GNR	S2S3
Paraphilaenus parallelus	A Spittle Bug		ST	GNR	S1
Paraphlepsius lobatus			ST	GNR	S1S2
Paraphlepsius maculosus	Peppered Paraphlepsius Leafhopper		ST	GNR	S1
Philaenarcys killa	Great Lakes dune spittlebug		SR	GNR	S2S3
Polyamia caperata	Little Bluestem Polyamia		SR	GNR	SNR
Polyamia herbida	The Prairie Panic Grass Leafhopper		ST	GNR	S1S3
Prairiana kansana	The Kansas Prairie Leafhopper		SE	GNR	S1S2
Prosapia ignipectus	Red-legged Spittle Bug		SR	G4	S2
<b>Insect: Lepidoptera (Butterflies &amp; Moths)</b>					
Acronicta dactylina			SR	G5	SNR
Acronicta funeralis	Funerary Dagger Moth		SR	G4G5	SNR
Aethes patricia			SE	G3G4	S1
Agrotis stigmata			ST	G4	S1S2
Agrotis vetusta	A Moth		SR	G5	S2
Ancylis semiovana			SR	GNR	S2S3
Anepia capsularis	The Starry Campion Capsule Moth		SR	G5	S1S2

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Indiana County Endangered, Threatened and Rare Species List

County: Lake

Species Name	Common Name	FED	STATE	GRANK	SRANK
Apamea burgessi	A Noctuid Moth		ST	G4	S1
Apamea indocilis	The spastic apamea			GNR	S1S3
Apamea nigrior	Black-dashed Apamea		SR	G5	S2S3
Archanara laeta			ST	G4	S1S2
Atrytonopsis hianna	Dusted Skipper		ST	G4G5	S1S2
Boloria selene myrina	Silver-bordered Fritillary		ST	G5T5	S2
Capis curvata	A Noctuid Moth		ST	G4	S2S3
Catocala antinympha	The Sweet Fern Underwing		SE	G5	S1
Catocala gracilis	Graceful Underwing		SR	G5	S2S3
Catocala praeclara	Praeclara Underwing		SR	G5	S2S3
Chortodes enervata	The Many-lined Cordgrass Moth		ST	G4	S1
Chortodes inquinata	Tufted Sedge Moth		ST	GNR	S1S2
Coenochroa illibella	Dune Panic Grass Moth		SR	GNR	S2S3
Crambus bidens			SR	GNR	SNR
Crambus murellus	Prairie Sedge Moth		ST	GNR	S1
Croesia semipurpurana			SR	GNR	SNR
Cyclophora penduliniaria	Sweetfern Geometer		SR	G5	SNR
Cyrcia inopinatus	The Unexpected Milkweed Moth		SR	G4	S2S3
Dichomeris aleatrix	Aleatrix dichomeris			GNR	S1S2
Erynnis martialis	Mottled Duskywing		ST	G3	S2S3
Erynnis persius persius	Persius Dusky Wing		SE	G5T1T3	S1S2
Euchloe olympia	Olympia Marble		ST	G4G5	S2
Eucrotopcnemis fimbriaris	A Noctuid Moth		ST	G4	S1
Eucosma bilineana			SR	GNR	S1S2
Eucosma bipunctella	A Moth		SR	GNR	S1S2
Eucosma fulminana			SR	GNR	S1S2
Eucosma giganteana			SR	GNR	S1S2
Euphydryas phaeton	Baltimore		SR	G4	S2
Euphyes bimacula	Two-spotted Skipper		ST	G4	S2
Euphyes dion	Sedge Skipper		SR	G4	S2S3
Fagitana littera	The Marsh Fern Moth		ST	G4	S1S2
Faronta rubripennis	The Pine Streak		ST	G3G4	S1
Gabara pulverosalis				G4	SNR
Gabara subnivosella	A Noctuid Moth		SR	G4	S1S2
Glaucopsyche lygdamus couperi	Silvery Blue		SE	G5T5	S1
Grammia figurata	The Figured Grammia		SR	G5	S2S3
Grammia phyllira	The Sand Barrens Grammia		SR	G4	S2S3
Grammia virguncula			SR	G5	S1S2
Hadena ectypa	The Starry Champion Moth		ST	G3G4	S1S3
Hemaris gracilis	The Blueberry Clearwing Sphinx		SR	G3G4	S1S2

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Indiana County Endangered, Threatened and Rare Species List

County: Lake

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Hesperia leonardus	Leonard's Skipper	No Status	SR	G4	S2
Hesperia ottoe	Ottoe Skipper		SE	G3G4	S1
Hyenodes caducus	Large Hyenodes		SR	GNR	SNR
Hyperaeschra georgica	A Prominent Moth			G5	S2
Iodopepla u-album	A Noctuid Moth		SR	G5	S2
Lemmeria digitalis	A Noctuid Moth		SR	G4	S1S2
Lesmone detrahens	A Moth		SR	G5	S2
Leucania inermis	A Moth		SR	G4	S2S3
Leucania linita	Salt Marsh Wainscot		SR	GNR	S2
Leucania multilinea			SR	G5	S1S2
Loxagrotis acclivis	A Noctuid Moth		ST	G4G5	S2
Loxagrotis grotei	Grote's Black-tipped Quaker		ST	G4	S2
Lycaeides melissa samuelis	Karner Blue	LE	SE	G5T2	S1
Lycaena helloides	Purplish Copper		SR	G5	S2S4
Lycaena xanthoides	Great Copper		SE	G5	S1
Macrochilo absorptalis	A Moth		SR	G4G5	S2S3
Macrochilo hypocriticalis	A Noctuid Moth		SR	G4	S2
Macrochilo louisiana			ST	G4	S1S2
Melanomma auricinctaria	Huckleberry Eye-spot Moth		SR	G4	S2S3
Melipotis jucunda	A Noctuid Moth		SR	G5	S1S3
Meropleon ambifuscum	Newman's Brocade		ST	G3G4	S1S2
Meropleon diversicolor	A Noctuid Moth		SR	G4	S2S3
Metanema determinata	Dark Metanema		SR	GNR	SNR
Metanema inatomaria	Pale Metanema		SR	GNR	SNR
Metarranthis apiciaria	Barrens Metarranthis Moth		SE	G1G3	SH
Nola cilicoides			SR	G4	SNR
Notodonta scitipennis	A Notodontid Moth			G4	S1S2
Odontosia elegans	Elegant Prominent		SR	G5	S1S2
Oligia obtusa	A Noctuid Moth		SE	G4	S1
Oncocnemis riparia	The Dune Oncocnemis Moth		ST	G4	S1S2
Pangrapta decoralis	The Multicolored Huckleberry Moth		ST	G5	S2
Papaipema beeriana	Beer's Blazing Star Borer Moth		ST	G2G3	S1S3
Papaipema cerina	Golden Borer Moth		ST	G2G4	S1
Papaipema leucostigma	Columbine Borer		ST	G4	S1S2
Papaipema lysimachiae	The St. John'Swort Borer Moth		SR	G4	S1S3
Papaipema maritima	The Giant Sunflower Borer Moth		ST	G3	S2
Papaipema pterisii	Bracken Borer Moth		WL	G5	SNR
Papaipema rigida	A Borer Moth		SR	G5	S2S3
Papaipema sciata	The Culver's Root Borer		ST	G3G4	S1S2

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Papaipema speciosissima	The Royal Fern Borer Moth		ST	G4	S2S3
Parasa indetermina	A Moth		SR	G4	S1S2
Peoria gemmatella	Gemmed Cordgrass Borer		SR	GNR	S1
Peoria tetradella			SR	GNR	SNR
Phaneta ochroterminana			SR	GNR	SNR
Phaneta olivaceana			SR	GNR	S1S2
Phaneta raracana			SR	GNR	SNR
Phaneta striatana			SR	GNR	SNR
Phaneta umbrastriana			SR	GNR	SNR
Phytometra ernestiana	Ernestine's Moth		SE	G4	S1
Platyperigea meralis	The Rare Sand Quaker		ST	G4	S2
Poanes massasoit	Mulberry Wing Skipper		SR	G4	S3
Poanes viator viator	Big Broad-winged Skipper		ST	G5T4	S2
Polites mystic	Long Dash Skipper		SR	G5	S4
Polygonia progne	Gray Comma		SR	G4G5	S2
Problema byssus	Bunchgrass Skipper		ST	G3G4	S2
Protorthodes incincta	Saturn quaker		SR	GNR	S2
Pygarctia spraguei	Sprague's Pygartic		SR	G5	S1S2
Pyrausta laticlavata	The Southern Purple Mint Moth		SR	GNR	S1S2
Rhodoecia aurantiago	Aureolaria Seed Borer		ST	G3G4	S1S2
Satyrodes eurydice	Eyed Brown		SR	G4	S2S3
Schinia indiana	Phlox Moth		SE	G2G4	S1
Schinia sanguinea	Bleeding Flower Moth			G4	S2S3
Schinia septentrionalis	A Noctuid Moth		SR	G3G4	S2S3
Scirpophaga perstrialis			SR	GNR	SNR
Semiothisa eremiata	The Goat's Rue Looper		SR	G4	S2S3
Semiothisa mellistrigata	A Geometrid Moth		SR	G4G5	SNR
Semiothisa multilineata			SR	G4	SNR
Sitochroa dasconalis	Pearly Indigo Borer		ST	GNR	S1S2
Spartiniphaga includens	The Included Cordgrass Borer		ST	G4	S1
Spartiniphaga inops	Spartina Borer Moth		SR	G3G4	S2S3
Speyeria aphrodite	Aphrodite Fritillary		WL	G5	S3
Speyeria idalia	Regal Fritillary		SE	G3	S1
Sphinx luscitiosa	The Luscious Willow Sphinx		SR	G4	S1S2
Spilosoma latipennis	The Red-legged Tussock Moth		SR	G4	S2S3
Tarachidia binocula	Prairie tarachidia			GNR	S1S2
Thorybes pylades	Northern Cloudywing		SR	G5	S2S3
Tricholita notata	Marked Noctuid		ST	G5	S1S2
Trichosilia manifesta	The Record Keeper Moth		SR	G4	S3S4

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Indiana County Endangered, Threatened and Rare Species List

County: Lake

Species Name	Common Name	FED	STATE	GRANK	SRANK
Zomaria interruptolinea			SR	GNR	SNR
<b>Insect: Odonata (Dragonflies &amp; Damselflies)</b>					
Somatochlora hineana	Hine's Emerald	LE	SX	G2G3	SX
Sympetrum semicinctum	Band-winged Meadowhawk		SR	G5	S2S3
<b>Insect: Orthoptera</b>					
Chloealtis conspersa	Sprinkled Locust		SR	G5	S2S3
Conocephalus saltans	Prairie Meadow Katydid		SR	GNR	S1S2
Hesperotettix viridis pratensis	A Grasshopper		SR	G5T5	S1S2
Melanoplus fasciatus	Huckleberry Spur-throat Grasshopper		SR	G5	S2
Melanoplus keeleri luridus	Keeler's Spur-throated Grasshopper		SR	G5T5	S1S2
Neoconocephalus nebrascensis	A Katydid		SR	GNR	S1S2
Orphulella pelidna	Green Desert Grasshopper		SR	G5	S1S2
Pardalophora phoenicoptera	Orange-winged Grasshopper		SR	G5	S1S2
Paroxya atlantica	A Grasshopper		ST	GU	S1S2
Phoetaliotes nebrascensis	Large-headed Grasshopper		ST	G5	S1
Psinidia fenestralis	Sand Locust		SR	G5	S1S2
Trimerotropis maritima	The Dune Locust		ST	G5	S2
<b>Fish</b>					
Acipenser fulvescens	Lake Sturgeon		SE	G3G4	S1
<b>Amphibian</b>					
Acris crepitans blanchardi	Northern Cricket Frog		SSC	G5	S4
Ambystoma laterale	Blue-spotted Salamander		SSC	G5	S2
Necturus maculosus	Common mudpuppy		SSC	G5	S2
Rana pipiens	Northern Leopard Frog		SSC	G5	S2
<b>Reptile</b>					
Clemmys guttata	Spotted Turtle		SE	G5	S2
Clonophis kirtlandii	Kirtland's Snake		SE	G2	S2
Emydoidea blandingii	Blanding's Turtle		SE	G4	S2
Liochlorophis vernalis	Smooth Green Snake		SE	G5	S2
Sistrurus catenatus catenatus	Eastern Massasauga	C	SE	G3G4T3T4Q	S2
Terrapene ornata ornata	Ornate Box Turtle		SE	G5T5	S1
Thamnophis proximus proximus	Western Ribbon Snake		SSC	G5T5	S3
<b>Bird</b>					
Ammodramus henslowii	Henslow's Sparrow		SE	G4	S3B
Ardea alba	Great Egret		SSC	G5	S1B
Bartramia longicauda	Upland Sandpiper		SE	G5	S3B
Botaurus lentiginosus	American Bittern		SE	G4	S2B
Buteo lineatus	Red-shouldered Hawk		SSC	G5	S3

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Charadrius melodus	Piping Plover	LE	SE	G3	SXB
Chlidonias niger	Black Tern		SE	G4	S1B
Cistothorus palustris	Marsh Wren		SE	G5	S3B
Cistothorus platensis	Sedge Wren		SE	G5	S3B
Falco peregrinus	Peregrine Falcon	No Status	SE	G4	S2B
Gallinula chloropus	Common Moorhen	No Status	SE	G5	S3B
Ixobrychus exilis	Least Bittern		SE	G5	S3B
Lanius ludovicianus	Loggerhead Shrike	No Status	SE	G4	S3B
Laterallus jamaicensis	Black Rail		SE	G4	SHB
Nyctanassa violacea	Yellow-crowned Night-heron		SE	G5	S2B
Nycticorax nycticorax	Black-crowned Night-heron		SE	G5	S1B
Phalaropus tricolor	Wilson's Phalarope		SSC	G5	SHB
Rallus elegans	King Rail		SE	G4	S1B
Rallus limicola	Virginia Rail		SE	G5	S3B
Tyto alba	Barn Owl		SE	G5	S2
Xanthocephalus xanthocephalus	Yellow-headed Blackbird		SE	G5	S1B
<b>Mammal</b>					
Lasiurus borealis	Eastern Red Bat		SSC	G5	S4
Lasiurus cinereus	Hoary Bat	No Status	SSC	G5	S4
Lutra canadensis	Northern River Otter		SSC	G5	S2
Spermophilus franklinii	Franklin's Ground Squirrel		SE	G5	S2
Taxidea taxus	American Badger		SSC	G5	S2
<b>Vascular Plant</b>					
Agalinis auriculata	Earleaf Foxglove		ST	G3	S1
Agalinis skinneriana	Pale False Foxglove		ST	G3G4	S1
Alnus rugosa	Speckled Alder		WL	G5T5	S3
Amelanchier humilis	Running Serviceberry		SE	G5	S1
Androsace occidentalis	Western Rockjasmine		ST	G5	S2
Aralia hispida	Bristly Sarsaparilla		SE	G5	S1
Arctostaphylos uva-ursi	Bearberry		SR	G5	S2
Arenaria stricta	Michaux's Stitchwort		SR	G5	S2
Arethusa bulbosa	Swamp-pink		SX	G4	SX
Aristida intermedia	Slim-spike Three-awn Grass		SR	GNR	S2
Aristida tuberculosa	Seabeach Needlegrass		SR	G5	S2
Armoracia aquatica	Lake Cress		SE	G4?	S1
Asclepias meadii	Mead's Milkweed	LT	SRE	G2	SX
Aster borealis	Rushlike Aster		SR	G5	S2
Aster furcatus	Forked Aster		SR	G3	S2
Aster sericeus	Western Silvery Aster		SR	G5	S2
Aureolaria grandiflora var. pulchra	Large-flower False-foxglove		SX	G4G5T4T5	SX

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<i>Betula populifolia</i>	Gray Birch		SE	G5	S1
<i>Bidens beckii</i>	Beck Water-marigold		ST	G4G5	S1
<i>Botrychium matricariifolium</i>	Chamomile Grape-fern		SR	G5	S2
<i>Botrychium simplex</i>	Least Grape-fern		SE	G5	S1
<i>Buchnera americana</i>	Bluehearts		SE	G5?	S1
<i>Carex aurea</i>	Golden-fruited Sedge		SR	G5	S2
<i>Carex bebbii</i>	Bebb's Sedge		ST	G5	S2
<i>Carex brunnescens</i>	Brownish Sedge		SE	G5	S1
<i>Carex conoidea</i>	Prairie Gray Sedge		ST	G5	S1
<i>Carex crawei</i>	Crawe Sedge		ST	G5	S2
<i>Carex eburnea</i>	Ebony Sedge		SR	G5	S2
<i>Carex echinata</i>	Little Prickly Sedge		SE	G5	S1
<i>Carex garberi</i>	Elk Sedge		ST	G5	S2
<i>Carex limosa</i>	Mud Sedge		SE	G5	S1
<i>Carex richardsonii</i>	Richardson Sedge		ST	G4	S1
<i>Carex straminea</i>	Straw Sedge		ST	G5	S2
<i>Ceanothus herbaceus</i>	Prairie Redroot		SE	G5	S1
<i>Cirsium hillii</i>	Hill's Thistle		SE	G3	S1
<i>Cirsium pitcheri</i>	Dune Thistle	LT	ST	G3	S2
<i>Clintonia borealis</i>	Clinton Lily		SE	G5	S1
<i>Coeloglossum viride</i> var. <i>virescens</i>	Long-bract Green Orchis		ST	G5T5	S2
<i>Cornus amomum</i> ssp. <i>amomum</i>	Silky Dogwood		SE	G5T5	S1
<i>Cornus canadensis</i>	Bunchberry		SE	G5	S1
<i>Cornus rugosa</i>	Roundleaf Dogwood		SR	G5	S2
<i>Corydalis sempervirens</i>	Pale Corydalis		ST	G4G5	S1
<i>Cyperus dentatus</i>	Toothed Sedge		SE	G4	S1
<i>Cypripedium calceolus</i> var. <i>parviflorum</i>	Small Yellow Lady's-slipper		SR	G5	S2
<i>Cypripedium candidum</i>	Small White Lady's-slipper		WL	G4	S2
<i>Dichanthelium sabulorum</i> var. <i>thinium</i>	Hemlock Panic-grass		SR	G5T5	S2
<i>Diervilla lonicera</i>	Northern Bush-honeysuckle		SR	G5	S2
<i>Drosera intermedia</i>	Spoon-leaved Sundew		SR	G5	S2
<i>Eleocharis geniculata</i>	Capitate Spike-rush		ST	G5	S2
<i>Eleocharis melanocarpa</i>	Black-fruited Spike-rush		ST	G4	S2
<i>Eleocharis wolfii</i>	Wolf Spikerush		SR	G3G4	S2
<i>Epigaea repens</i>	Trailing Arbutus		WL	G5	S3
<i>Equisetum variegatum</i>	Variegated Horsetail		SE	G5	S1
<i>Eriophorum angustifolium</i>	Narrow-leaved Cotton-grass		SR	G5	S2
<i>Eriophorum gracile</i>	Slender Cotton-grass		ST	G5	S2
<i>Gentiana alba</i>	Yellow Gentian		SR	G4	S2
<i>Gentiana puberulenta</i>	Downy Gentian		ST	G4G5	S2

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County: Lake

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Geranium bicknellii	Bicknell Northern Crane's-bill		SE	G5	S1
Glyceria borealis	Small Floating Manna-grass		SE	G5	S1
Hemicarpha drummondii	Drummond Hemicarpha		se	G4G5	S1
Hudsonia tomentosa	Sand-heather		ST	G5	S2
Hydrastis canadensis	Golden Seal		WL	G4	S3
Juglans cinerea	Butternut		WL	G4	S3
Juncus articulatus	Jointed Rush		SE	G5	S1
Juncus balticus var. littoralis	Baltic Rush		SR	G5T5	S2
Juncus pelocarpus	Brown-fruited Rush		SE	G5	S2
Juncus scirpoides	Scirpus-like Rush		ST	G5	S2
Juniperus communis	Ground Juniper		SR	G5	S2
Lathyrus maritimus var. glaber	Beach Peavine		SE	G5T4T5	S1
Lathyrus venosus	Smooth Veiny Pea		ST	G5	S2
Lechea stricta	Upright Pinweed		SX	G4?	SX
Liatris pycnostachya	Cattail Gay-feather		ST	G5	S2
Linnaea borealis	Twinflower		SX	G5	SX
Linum sulcatum	Grooved Yellow Flax		SR	G5	S2
Ludwigia sphaerocarpa	Globe-fruited False-loosestrife		SE	G5	S1
Lycopodiella inundata	Northern Bog Clubmoss		SE	G5	S1
Malaxis unifolia	Green Adder's-mouth		SE	G5	S1
Matteuccia struthiopteris	Ostrich Fern		SR	G5	S2
Melampyrum lineare	American Cow-wheat		SR	G5	S2
Mikania scandens	Climbing Hempweed		SE	G5	S1
Myosotis laxa	Smaller Forget-me-not		ST	G5	S1
Myriophyllum verticillatum	Whorled Water-milfoil		SR	G5	S2
Oenothera perennis	Small Sundrops		SR	G5	S2
Orobanche fasciculata	Clustered Broomrape		SE	G4	S1
Panax quinquefolius	American Ginseng		WL	G3G4	S3
Panicum boreale	Northern Witchgrass		SR	G5	S2
Panicum leibergii	Leiberg's Witchgrass		ST	G5	S2
Perideridia americana	Eastern Eulophus		SE	G4	S1
Pinus banksiana	Jack Pine		SR	G5	S2
Pinus strobus	Eastern White Pine		SR	G5	S2
Plantago cordata	Heart-leaved Plantain		SE	G4	S1
Platanthera ciliaris	Yellow-fringe Orchis		SE	G5	S1
Platanthera flava var. herbiola	Pale Green Orchis		WL	G4?T4Q	S3
Platanthera hookeri	Hooker Orchis		SX	G4	SX
Platanthera hyperborea	Leafy Northern Green Orchis		ST	G5	S2
Platanthera lacera	Green-fringe Orchis		WL	G5	S3
Platanthera leucophaea	Prairie White-fringed Orchid	LT	SE	G2G3	S1

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<i>Platanthera psycodes</i>	Small Purple-fringe Orchis		SR	G5	S2
<i>Polygonella articulata</i>	Eastern Jointweed		SR	G5	S2
<i>Polygonum careyi</i>	Carey's Smartweed		ST	G4	S2
<i>Polytaenia nuttallii</i>	Prairie Parsley		SE	G5	S1
<i>Populus balsamifera</i>	Balsam Poplar		SX	G5	SX
<i>Potamogeton pulcher</i>	Spotted Pondweed		SE	G5	S1
<i>Potamogeton pusillus</i>	Slender Pondweed		WL	G5	S2
<i>Potamogeton richardsonii</i>	Redheadgrass		SR	G5	S2
<i>Potamogeton robbinsii</i>	Flatleaf Pondweed		SR	G5	S2
<i>Potamogeton strictifolius</i>	Straight-leaf Pondweed		ST	G5	S1
<i>Potentilla anserina</i>	Silverweed		ST	G5	S2
<i>Prenanthes aspera</i>	Rough Rattlesnake-root		SR	G4?	S2
<i>Prunus pensylvanica</i>	Fire Cherry		SR	G5	S2
<i>Pyrola secunda</i>	One-sided Wintergreen		SX	G5	SX
<i>Rhus aromatica</i> var. <i>arenaria</i>	Beach Sumac		SR	G5T3Q	S2
<i>Rhynchospora macrostachya</i>	Tall Beaked-rush		SR	G4	S2
<i>Rhynchospora recognita</i>	Globe Beaked-rush		SE	G5?	S1
<i>Rubus enslenii</i>	Southern Dewberry		SE	G4G5Q	S1
<i>Rubus setosus</i>	Small Bristleberry		SE	G5	S1
<i>Salix cordata</i>	Heartleaf Willow		ST	G4	S2
<i>Satureja glabella</i> var. <i>angustifolia</i>	Calamint		SE	G5	S1
<i>Schoenoplectus hallii</i>	Hall's Bulrush		SE	G2G3	S1
<i>Scirpus smithii</i>	Smith's Bulrush		SE	G5?	S1
<i>Scirpus subterminalis</i>	Water Bulrush		SR	G4G5	S2
<i>Scleria reticularis</i>	Reticulated Nutrush		ST	G4	S2
<i>Selaginella apoda</i>	Meadow Spike-moss		WL	G5	S1
<i>Selaginella rupestris</i>	Ledge Spike-moss		ST	G5	S2
<i>Shepherdia canadensis</i>	Canada Buffalo-berry		SX	G5	SX
<i>Sisyrinchium montanum</i>	Strict Blue-eyed-grass		SE	G5	S1
<i>Solidago ptarmicoides</i>	Prairie Goldenrod		SR	G5	S2
<i>Solidago simplex</i> var. <i>gillmanii</i>	Sticky Goldenrod		ST	G5T3?	S2
<i>Spiranthes lucida</i>	Shining Ladies'-tresses		SR	G5	S2
<i>Spiranthes magnicamporum</i>	Great Plains Ladies'-tresses		SE	G4	S1
<i>Strophostyles leiosperma</i>	Slick-seed Wild-bean		ST	G5	S2
<i>Talinum rugospermum</i>	Prairie Fame-flower		ST	G3G4	S2
<i>Thuja occidentalis</i>	Northern White Cedar		SE	G5	S1
<i>Tofieldia glutinosa</i>	False Asphodel		SR	G4G5	S2
<i>Trichostema dichotomum</i>	Forked Bluecurl		SR	G5	S2
<i>Triglochin palustris</i>	Marsh Arrow-grass		SR	G5	S2
<i>Utricularia cornuta</i>	Horned Bladderwort		ST	G5	S2

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Species Name	Common Name	FED	STATE	GRANK	SRANK
Utricularia minor	Lesser Bladderwort		ST	G5	S1
Utricularia purpurea	Purple Bladderwort		SR	G5	S2
Utricularia resupinata	Northeastern Bladderwort		SE	G4	S1
Utricularia subulata	Zigzag Bladderwort		ST	G5	S2
Vaccinium myrtilloides	Velvetleaf Blueberry		SE	G5	S1
Viburnum opulus var. americanum	Highbush-cranberry		SE	G5T5	S1
Viola pedatifida	Prairie Violet		ST	G5	S2
Zannichellia palustris	Horned Pondweed		SR	G5	S2
<b>High Quality Natural Community</b>					
Forest - floodplain wet	Wet Floodplain Forest		SG	G3?	S3
Forest - floodplain wet-mesic	Wet-mesic Floodplain Forest		SG	G3?	S3
Forest - upland dry	Dry Upland Forest		SG	G4	S4
Forest - upland dry-mesic	Dry-mesic Upland Forest		SG	G4	S4
Forest - upland mesic	Mesic Upland Forest		SG	G3?	S3
Lake - pond	Pond		SG	GNR	SNR
Prairie - dry-mesic	Dry-mesic Prairie		SG	G3	S2
Prairie - mesic	Mesic Prairie		SG	G2	S2
Prairie - sand dry	Dry Sand Prairie		SG	G3	S2
Prairie - sand dry-mesic	Dry-mesic Sand Prairie		SG	G3	S3
Prairie - sand mesic	Mesic Sand Prairie		SG	GNR	SNR
Prairie - sand wet	Wet Sand Prairie		SG	G3	S3
Prairie - sand wet-mesic	Wet-mesic Sand Prairie		SG	G1?	S2
Primary - dune lake	Foredune		SG	G3	S1
Savanna - mesic	Mesic Savanna		SG	GNR	SNR
Savanna - sand dry	Dry Sand Savanna		SG	G2?	S2
Savanna - sand dry-mesic	Dry-mesic Sand Savanna		SG	G2?	S2S3
Savanna - sand mesic	Mesic Sand Savanna		SG	GNR	SNR
Wetland - fen	Fen		SG	G3	S3
Wetland - marsh	Marsh		SG	GU	S4
Wetland - meadow sedge	Sedge Meadow		SG	G3?	S1
Wetland - panne	Panne		SG	G2	S1
Wetland - swamp shrub	Shrub Swamp		SG	GU	S2
<b>Other</b>					
Migratory Bird Concentration Area	Migratory Bird Concentration Site		SG	G3	SNR

Indiana Natural Heritage Data Center  
Division of Nature Preserves  
Indiana Department of Natural Resources  
This data is not the result of comprehensive county surveys.

Fed: LE = Endangered; LT = Threatened; C = candidate; PDL = proposed for delisting  
State: SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern; SX = state extirpated; SG = state significant; WL = watch list  
GRANK: Global Heritage Rank: G1 = critically imperiled globally; G2 = imperiled globally; G3 = rare or uncommon globally; G4 = widespread and abundant globally but with long term concerns; G5 = widespread and abundant globally; G? = unranked; GX = extinct; Q = uncertain rank; T = taxonomic subunit rank  
SRANK: State Heritage Rank: S1 = critically imperiled in state; S2 = imperiled in state; S3 = rare or uncommon in state; G4 = widespread and abundant in state but with long term concern; SG = state significant; SH = historical in state; SX = state extirpated; B = breeding status; S? = unranked; SNR = unranked; SNA = nonbreeding status unranked