CREATE Program

*Joint Webinar on Freight Planning*
USDOT’s Regional Models of Cooperation Initiative
&
*Talking Freight Series*

*October 19, 2016*
The Nation’s Freight Rail Hub

Note: Map not intended to be comprehensive. Only select flows displayed.
The U.S. Rail Network Depends on Chicago

- 25 percent of all U.S. rail traffic touches Chicago
- 44 percent of all intermodal units in the U.S. touch Chicago
- 68 percent of intermodal units to/from the ports of Seattle/Tacoma touch Chicago
- 45 percent of intermodal units to/from Los Angeles/Long Beach touch Chicago

Source: AAR analysis of Railinc data and 2014 STB carload waybill data
Top Global Container Ports, 2014

<table>
<thead>
<tr>
<th>Ports</th>
<th>Twenty Foot Equivalent Units (TEU) Millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shanghai, China</td>
<td>35.20</td>
</tr>
<tr>
<td>Singapore, Singapore</td>
<td>33.87</td>
</tr>
<tr>
<td>Shenzhen, China</td>
<td>23.80</td>
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<tr>
<td>Hong Kong, China</td>
<td>22.37</td>
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<tr>
<td>Ningbo, China</td>
<td>19.45</td>
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<tr>
<td>Busan, South Korea</td>
<td>18.42</td>
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<tr>
<td>Qingdao, China</td>
<td>16.62</td>
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<tr>
<td>Guangzhou, China</td>
<td>16.16</td>
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<tr>
<td>Chicago</td>
<td>15.40</td>
</tr>
<tr>
<td>Los Angeles/Long Beach</td>
<td>15.16</td>
</tr>
<tr>
<td>Dubai</td>
<td>14.75</td>
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</tbody>
</table>

Source: Chicago – Chicago Metropolitan Agency for Planning Freight Snapshot; American Association of Port Authorities, 2014
Top U.S. Container Ports, 2014

Source: Chicago – Chicago Metropolitan Agency for Planning Freight Snapshot; American Association of Port Authorities, 2014
East-West Freight Rail Gateways
Ranked by Loaded Railcars per year

1. Chicago
   1,343,000 railcars
   BNSF, CN, CPRS, CSXT, NS, UP

2. St. Louis
   645,000 railcars
   BNSF, CSXT, CN, KCS, NS, UP

3. New Orleans
   602,000 railcars
   BNSF, CN, CSXT, KCS, NS, UP

4. Kansas City
   478,000 railcars
   BNSF, CPRS, KCS, NS, UP

5. Memphis
   243,000 railcars
   BNSF, CSXT, CN, NS, UP

Source – U.S. DOT Freight Analysis Framework 3, 2010; includes freight originating and terminating at gateways – does not include through-freight
What is CREATE?

A $4.4 billion PPP program designed to improve transportation flow through Chicago focusing on:

• Increased capacity, speed, reliability for freight train traffic
• Separation of freight & commuter trains at 6 key junctions
• Elimination of 25 road/rail grade crossings (grade separations)

CREATE is a cooperative project involving:

• US Department of Transportation (FHWA & FRA)
• Illinois Department of Transportation (IDOT)
• Chicago Department of Transportation (CDOT)
• 6 major North American freight rail carriers and 2 switching RR
• 2 passenger carriers (Amtrak and Metra)
CREATE Partners

Illinois Department of Transportation

CDOT

Union Pacific

Metra

CSX

Building America

Association of American Railroads

BNSF Railway

Norfolk Southern

One line, infinite possibilities.

Amtrak

CN

Indiana Harbor Belt

Department of Transportation

The Belt Railway Co.

CREATE

Keeping the Go in Chicago
CREATE Program – 70 Projects

- 25 road/rail grade separations
- 6 passenger/freight rail grade separations
- 36 railroad projects to improve rail infrastructure and upgrade technologies
- Viaduct improvement program
- Grade crossing safety enhancements
- Rail operations and visibility improvements

Englewood P1 Grade Separation of Metra, Amtrak & NS
## Project Status

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
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</thead>
<tbody>
<tr>
<td>Completed Projects</td>
<td>27</td>
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<tr>
<td>Under Construction</td>
<td>7</td>
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<tr>
<td>Final Design</td>
<td>4</td>
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<tr>
<td>Environmental Review</td>
<td>13</td>
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<td>Remaining Projects</td>
<td>19</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>70</td>
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</tbody>
</table>
Project Status Summary

CREATE Program, Overall Project Status Summary

- Project Initiation Pending Funding Availability
- Projects in Phase I - Environmental + PE
- Projects in Phase II - Final Design (PS&E)
- Projects in Phase III - Construction
- Projects Completed

Number of Projects

Years: 2003 to 2017

Revised 19-Jul-16
70 CREATE Projects → 30-Year Benefits of $31.5 Billion

Rail Benefits

Economic Growth
Chicago can accommodate growth in passenger and freight trains

Fewer Delays
Reduced delay to passenger and freight trains

Cost Savings
Reduced shipping costs may be passed on to consumers

Roadway Benefits

Fewer Delays
Reduced delay to vehicles from eliminating 25 grade crossings

Sustainability
Reduced fuel consumption and emissions

Increased Safety
Elimination of rail–roadway conflicts at 25 grade crossing sites

Reduced Congestion
Fewer trucks on the roadways
CREATE Economic Benefits

• Passenger train delay reduced by over 1.3 million passenger hours annually
• 92,000 hours of truck delay and 230,000 hours of motorist and bus passenger delay will be saved
• 200 vehicle crashes with trains will be avoided
• 2,800 metric tons/year avoided emissions from idling vehicles
• Enable extra 50,000 freight trains to travel through the greater Chicago rail network annually
• 122 million tons of freight per year would travel by rail, avoiding 18,500 truck trips per day on highways

Source: CREATE economic benefits study conducted by Cambridge Systematics, 2015
CREATE Funding Received To Date

Federal - $452.1 Million
  • TIGER I & TIGER IV Grants
  • SAFETEA-LU PNRS Grant
  • ARRA High Speed Rail Grant
  • Railroad Relocation Grant
  • FRA STEP

State - $497.5 Million
  • Illinois DOT (Illinois Jobs Now!, ICC, PNRS/TIGER match, grade separations)

Railroad - $289 Million
  • Railroad partners (railroad infrastructure, grade separations)

Local Governments - $67.8 million
  • Chicago DOT & other local governments (viaduct improvements, grade separations, land acquisition)
CREATE Organization

- Stakeholders Committee
  - Advocacy Committee
  - Implementation Team
  - Finance & Budget Committee
- Management Committee
CREATE Stakeholders Committee

Composition

- Railroad – AAR represents all Class I railroads, Metra, Amtrak
- Illinois DOT – Secretary of Transportation
- Chicago DOT – Commissioner of Transportation
- USDOT (non-voting)

Responsibilities

- Set policy for CREATE Program
- Resolve all Program issues
- Represent the CREATE partnership
- Seek resources to build the CREATE Program
CREATE Management Committee

Composition
- IDOT, CDOT, FHWA (non-voting)
- BNSF, CN, CP, CSX, NS UP, Metra, CTCO, AAR
- Amtrak, BRC, IHB (all non-voting)
- Co-Chairs – Railroad Chicago Planning Group Co-Chairs

Responsibilities
- Review and approve project designs
- Review and approve project cost estimates
- Address program management issues
- Review and recommend program modifications
CREATE Implementation Team

Composition
- IDOT, CDOT, FHWA
- BNSF, CN, CP, CSX, NS, UP, Metra, Amtrak, BRC, IHB, CTCO, AAR
- Co-Chairs – Railroad (1) and Public (1)

Roles and Responsibilities
- Review engineering plans
- Recommend scope, schedule, budget changes to the Management Committee
- Provide engineering input to project engineers
- Establish project standards and policies
CREATE Advocacy Committee

Composition
- IDOT, CDOT
- BNSF, CN, CP, CSX, NS, UP, Metra, Amtrak, BRC, IHB, CTCO, AAR
- Co-Chairs – Railroad (1) and Public (2)

Responsibilities
- Identify and address community concerns
- Oversight of public outreach
- Develop and execute advocacy plan
CREATE Finance Committee

Composition
- IDOT, CDOT
- BNSF, CN, CP, CSX, NS, UP, Metra, Amtrak, BRC, IHB, CTCO, AAR
- Co-Chairs – Railroad (1) and Public (1)

Roles and Responsibilities
- Investigate and seek funding opportunities
- Monitor project cost estimates versus actual expenditures
- Track funding sources for each project
## Project Stages

<table>
<thead>
<tr>
<th>Project Selection</th>
<th>Environmental Assessment &amp; Preliminary Engineering</th>
<th>Final Engineering</th>
<th>Land Acquisition (If applicable)</th>
<th>Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>2.0</td>
<td>3.0</td>
<td>4.0</td>
<td>5.0</td>
</tr>
<tr>
<td><strong>Environmental</strong></td>
<td><strong>Final Engr. (Remaining 70%)</strong></td>
<td><strong>Land Acquisition</strong></td>
<td></td>
<td><strong>Construction</strong></td>
</tr>
<tr>
<td>• ECAD or EIS (SPEED Process)</td>
<td>• Scope Review</td>
<td>• State Rail Agreement for Land Acquisition &amp; Fund Obligation</td>
<td>• State Rail Agreement for Construction &amp; Obligation</td>
<td>• Bids and Award</td>
</tr>
<tr>
<td>- ESR Limits</td>
<td>• State Rail Agreement for Design &amp; Fund Obligation</td>
<td>• Uniform Act</td>
<td>• Contracts</td>
<td>• Contracts</td>
</tr>
<tr>
<td>- Special Waste, Noise &amp; Vibration, Other</td>
<td>• RFP &amp; Award Option</td>
<td>• Schedule &amp; Budget / Estimate</td>
<td>• Public Information, Permits</td>
<td>• Public Information, Permits</td>
</tr>
<tr>
<td>• Environmental Commitment</td>
<td>• Environmental</td>
<td>• Final Geometric</td>
<td>• Operations Coordination (CTCO)</td>
<td>• Operations Coordination (CTCO)</td>
</tr>
<tr>
<td>• Environmental Approval</td>
<td>- PS&amp;E &amp; PSI</td>
<td>- Final Design of Track, Signal, Civil &amp; Structures</td>
<td>• Construction Management</td>
<td>• Construction Management</td>
</tr>
<tr>
<td><strong>Preliminary Engr.(~30%)</strong></td>
<td>• Schedule &amp; Budget / Estimate</td>
<td>- Detail Construction Plans &amp; Specifications</td>
<td>• Civil, Structures, Track and Signal Construction</td>
<td>• Civil, Structures, Track and Signal Construction</td>
</tr>
<tr>
<td>• Scope Review</td>
<td>• Final Geometric</td>
<td>• Soil Analysis</td>
<td>• Invoicing &amp; De-obligation</td>
<td>• Invoicing &amp; De-obligation</td>
</tr>
<tr>
<td>• Preliminary Design of Track, Signal, Civil &amp; Structures Initial Geometrics</td>
<td>• Final Design of Track, Signal, Civil &amp; Structures</td>
<td>• Segment Analysis</td>
<td>• State and Federal Audit</td>
<td>• State and Federal Audit</td>
</tr>
<tr>
<td>• Schematics &amp; Initial Geometrics</td>
<td>- Detail Construction Plans &amp; Specifications</td>
<td>• Segment, Staging, Sequencing and Track Outage Windows</td>
<td>• Construction Audit</td>
<td>• Construction Audit</td>
</tr>
<tr>
<td>• Right of Way &amp; Utility</td>
<td>• Soil Analysis</td>
<td>• Rail Agreement for Design &amp; Fund Obligation</td>
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</tr>
</tbody>
</table>
MAJOR PROJECTS
Englewood Flyover (P1)

Before 2011

After October 2014
Completion of first flyover structure
Union Pacific Third Mainline (B2)

• Location: Melrose Park, IL
• 60 freight trains & 59 Union Pacific Metra trains affected
• Actions
  ▪ Constructed 3.5-mile third main track on UP Geneva Subdivision
  ▪ Constructed railroad bridge over Addison Creek
  ▪ Constructed flyover connection from the Indiana Harbor Belt to the UP
  ▪ Control points reconfigured
  ▪ Track between the UP and IHB upgraded
  ▪ The Metra Berkeley and Bellwood passenger stations improved; pedestrian underpasses constructed
Union Pacific Third Mainline (B2)

• Benefits
  - Freight trains have additional track during Metra rush hour to avoid standing delays of 3 to 4 hours
  - Metra trains can operate unimpeded on two main tracks
  - Pedestrian underpasses at the Bellwood and Berkeley Metra stations facilitate safe and efficient movement of commuters
• Status: Completed Sept 2013

New UP 3rd Mainline connection to IHB
WA3, WA2, WA7 & WA4
Ash St. signals near 31st St.
Ship Canal South Approach spans  

Ship Canal South Approach finished
Project Purpose

75th Street CIP

Improve mobility for:

- Rail passengers
- Freight traffic
- Motorists
75th Street Benefits

• Decrease train idling & improve air quality
• Replace/Rehab 36 viaducts
  ➢ Improves mobility, safety & security
• Increase capacity at Union Station
  ➢ Shift to another downtown terminal
• Eliminate rail/roadway grade crossing
  ➢ Reducing congestion
  ➢ Improving safety
• Remove freight/commuter train conflicts
  ➢ Eliminating 18,500 annual passenger hours of delay
  ➢ Increasing freight and passenger train reliability, speed & capacity

Forest Hill diamonds of CSX, BRC, NS & Metra
75th St. CIP – Existing Conditions

Existing Conditions

Forest Hill Junction & 71st Street Grade Crossing
- North-south CSX tracks cross east-west tracks of three other railroads and one city street

Belt Junction
- Five tracks cross paths and converge into two tracks
- Multiple freight & passenger routes cross paths

80th Street Junction
- Six tracks cross paths and converge into two tracks
Next Steps

• Secure funding for 75th St. CIP

• Complete remaining Rail Corridor Projects

• Complete remaining Passenger-Freight Rail Flyover Projects

• Complete remaining Grade Separation Projects

• Continue cooperation and integration with Midwest High Speed Rail initiatives
Contact Us

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