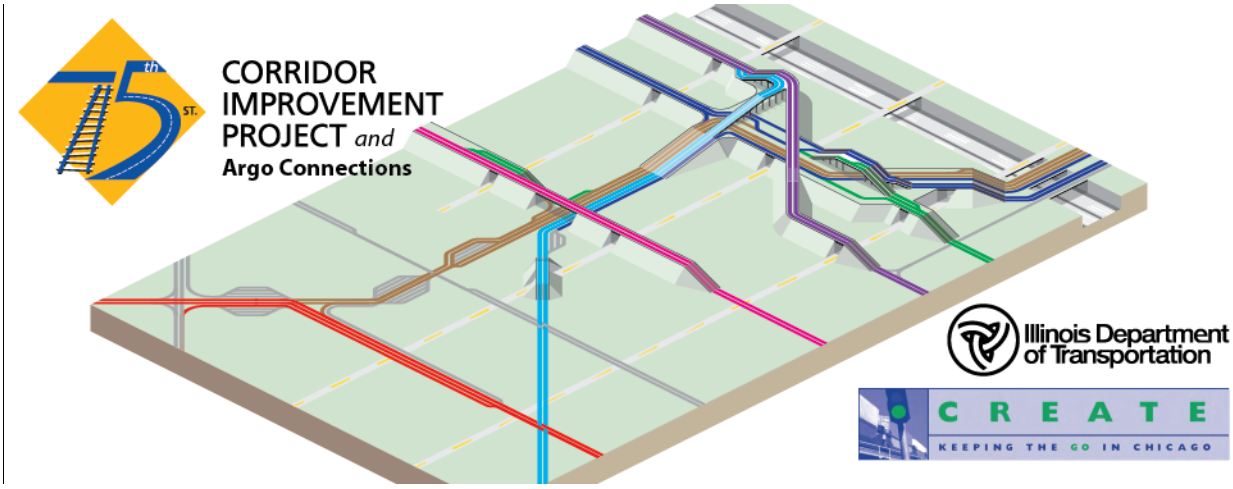

FASTLANE GRANT 2017

Project Name: 75th Street Corridor Improvement Project and Argo Connections		
Was a FASTLANE application for this project submitted previously?	No	
Previously Incurred Project Cost	$14,120,180	
Future Eligible Project Cost	$473,748,840	
Total Project Cost	$487,869,020	
FASTLANE Request	$160,000,000	
Total Federal Funding (including FASTLANE)	$164,800,000	
Are matching funds restricted to a specific project component?	Yes	($0.8 million CMAQ only)
Is the project or a portion of the project currently located on National Highway Freight Network?	Yes	
Is the project or a portion of the project located on the National Highway System?	Yes	
• Does the project add capacity to the Interstate system?	No	
• Is the project in a national scenic area?	No	
Do the project components include a railway-highway grade crossing or grade separation project?	Yes	(163446G)
Do the project components include an intermodal or freight rail project, or freight project within the boundaries of a public or private freight rail, water (including ports), or intermodal facility?	Yes	
If answered yes to either of the two component questions above, how much of requested FASTLANE funds will be spent on each of these projects components?	100%	
State(s) in which project is located	Illinois	
Small or large project	Large	
Urbanized Area in which project is located, if applicable	Chicago	
Population of Urbanized Area	9,461,105	(MSA, 2015)
Is the project currently programmed in the: TIP, STIP, MPO Long Range Transportation Plan, State Long Range Transportation Plan, State Freight Plan?	Yes	(all)

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EXECUTIVE SUMMARY

The Illinois Department of Transportation (IDOT), in cooperation with co-applicants the Chicago Department of Transportation (CDOT), the Cook County Department of Transportation and Highways (CCDOTH), and the Chicago Metropolitan Agency for Planning (CMAP), is pleased to submit this application for FASTLANE grant funding support on behalf of the Chicago Region Environmental and Transportation Efficiency (CREATE) Program. The Chicago Terminal is a complex rail hub where six Class I railroads converge and share track with ten Metra commuter rail lines and more than a dozen Amtrak passenger rail routes. This hub handles 1,300 freight and passenger trains per day and one-fourth of the nation's overall rail cargo. The CREATE Program is a first-of-its-kind multimodal public-private partnership to improve the rail and roadway transportation network within the Chicago region through the completion of 70 interrelated infrastructure projects.

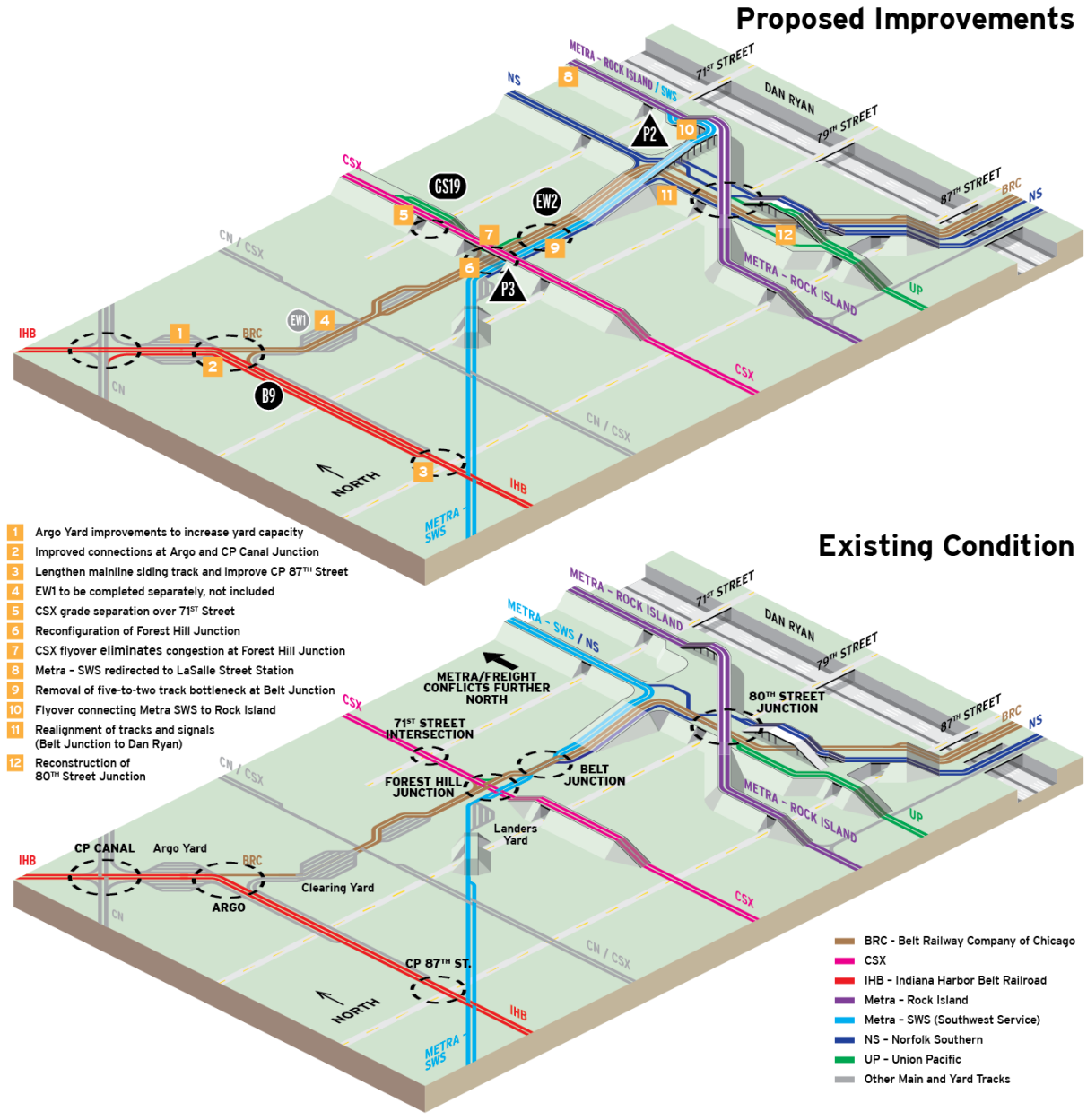
Initiated in 2003, CREATE represents a unique partnership between IDOT, CDOT, and the Association of American Railroads (AAR) representing ten of the freight, passenger, and commuter railroads serving the Chicago region. These railroads include freight carriers BNSF Railway, CN Railway, Canadian Pacific, CSX, Norfolk Southern, Union Pacific, Belt Railway of Chicago, and Indiana Harbor Belt Railroad, as well as the passenger railroad Amtrak and the commuter railroad Metra. As of December 2016, 27 individual CREATE projects have been completed, six are under construction, one is ready for construction, four are in final design, and another 13 are in the preliminary design and environmental review process. Both individually and collectively, the projects in the ***CREATE Program will significantly improve freight rail, passenger rail, and highway operations in the Chicago metropolitan area***, while also providing community mobility, safety, air quality, and economic benefits.

This application seeks federal support to ***leverage a significant private funding commitment to fix the most complex and congested segment of railroad in North America***. CREATE's 75th Street Corridor Improvement Project (75th Street CIP) and Argo Connections project comprise ***five inter-related infrastructure improvements that are central, both geographically and functionally, to reducing rail and highway delays and expanding freight, commuter, and passenger railroad capacity in Chicago***. Although geographically centered in Chicago's South Side, these projects will affect six of the seven Class I railroads and bring operational benefits that extend nationwide. In the past, large infrastructure projects have generated adverse implications for nearby communities. This application also takes a major step towards reversing such outcomes. Through an extensive community involvement process and related environmental commitments, this project will also implement improvements rooted in bolstering safety and bringing quality of life benefits to adjacent neighborhoods.

75th Street CIP comprises four closely related individual project elements: the Forest Hill Flyover (CREATE Project P3), the 71st Street Grade Separation (GS19), the Metra Rock Island Connection (P2), and the Belt Junction and 80th Street Junction replacement (EW2). This grant request will allow projects P3 and GS19 to be fully funded for final design, utility relocation and construction. The Argo Connections project (also known as CREATE Project B9) has already substantially completed final design and will be fully funded for construction. At this time Projects P2 and EW2 will be fully funded for final design and utility relocation only in order to set the stage for their construction at the earliest future funding opportunity. Projects B9, P3 and GS19 must be completed prior to P2 and EW2 for operational reasons. Figure E.1 graphically depicts the

configuration and extents of the project elements. A larger version of the figure is available at this link.

Figure E.1: Schematic Diagram of Proposed 75th Street CIP/B9 Project



Due to significant private (22.5%) and state/local (41.7%) funding commitments, the 75th Street CIP/B9 project ***requires only a 34.8% Federal share to promptly move beyond the planning and design stage and into construction***. The total 75th Street CIP/B9 budget is $473.7 million and will be supported with $106.3 million in private funding committed from several Class I railroads, $20 million from Metra, $5 million from Amtrak, and $182.4 million from other state, regional, county, and municipal sources. ***The 75th Street CIP/B9 projects are the next critical path elements in completing the overall CREATE Program.*** $160 million in FASTLANE Grant funds will close the funding gap and allow these projects to quickly proceed to implementation.

As a result of reduced congestion and additional capacity to accommodate increasing freight traffic through the Chicago terminal, monetized benefits of 75th Street CIP/B9, including travel time, shipping cost savings, safety, and emissions, will greatly exceed costs; ***the composite benefit-cost ratio for all project components is 3:1 or better***. The project also generates significant non-monetized benefits, including ***local economic development, improved service reliability, increased community access and mobility, and community-based quality of life and health benefits***.

APPLICANT ELIGIBILITY

The primary applicant for this grant is the Illinois Department of Transportation (IDOT), a CREATE partner and unit of local government. The DUNS number for IDOT is 133600754.

Each element of the 75th Street CIP/B9 project is eligible per Section 3.i. of the Notice of Funding Opportunity (NOFO) as they are either freight rail grade separation projects or freight rail network improvement projects that will significantly improve freight movement on the National Highway Freight Network.

The contact for this application is:

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Illinois Department of Transportation
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Chicago, Illinois 60602-3134
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beth.mccluskey@illinois.gov

This application is submitted with full support of the CREATE partners and with CDOT, CCDOTH and the Chicago Metropolitan Agency for Planning (CMAP, a metropolitan planning organization serving an Urbanized Area) as co-applicants.

I. PROJECT DESCRIPTION

The 75th Street Corridor Improvement Project (75th Street CIP) will fix the most complex and congested part of the Chicago Terminal and is the next critical path element in completing the overall CREATE Program. As illustrated in Figure I.1 on the following page, CREATE encompasses improvements along four rail corridors: 1) East-West Corridor (NS/BRC); 2) Western Avenue Corridor (BNSF/UP/CSX/NS); 3) Beltway Corridor (CSX/IHB); and 4) Passenger Corridor (Various Metra Services and freight railroads). ***The projects included in this request are collectively located at the confluence of all four Corridors.***

I.1 Project Size and Elements

The 75th Street CIP was developed to address outdated track configurations that now create conflicts between Metra, Amtrak, the Belt Railway of Chicago (BRC), CSX Transportation (CSX), Union Pacific (UP), and Norfolk Southern (NS) trains. The project will separate conflicting train movements by reconfiguring the BRC mainline tracks and creating flyover tracks at key locations. Associated signals, tracks, crossovers, and bridge work are included. By connecting Metra's fast-growing SouthWest Service with Metra's nearby Rock Island District mainline tracks, the project

Figure I.1 CREATE Program Projects in a Regional Context

will also free up capacity for Amtrak at Chicago Union Station by allowing these Metra trains to use the less congested LaSalle Street Station as their downtown terminal instead.

75th Street CIP comprises four closely related individual project elements: the Forest Hill Flyover (CREATE Project P3), the 71st Street Grade Separation (GS19), the Metra Rock Island Connection

(P2), and the Belt Junction and 80th Street Junction replacement (EW2). This grant request will allow projects P3 and GS19 to be fully funded for final design, utility relocation and construction. The Argo Connections project (B9) has already completed final design and will be fully funded for construction. Projects P2 and EW2 will be fully funded for final design and utility relocation only in order to set the stage for their construction at the earliest future funding opportunity. More than ***$14 million has already been invested by the CREATE partners*** advancing these elements through environmental review and design and construction. The four 75th Street CIP projects (P2, P3, EW2 and GS19) had previously been linked for purposes of environmental review. Two Argo Connections projects (B9 and EW1) had also been linked for purposes of environmental review. Project EW1 is currently undergoing a value engineering evaluation and will then proceed to construction separately using non-FASTLANE funding. The project phasing approach will complete north-south mobility elements first, allowing east-west track reconfiguration and expansion to proceed next. For this reason, the six projects are logically linked for purposes of phased implementation, with five included in this funding request.

When these inter-related projects are completed, ***a significant regional and national freight rail bottleneck will be eliminated***, and regional passenger and commuter rail operations will also be improved. Please click here to view an Amtrak video that graphically explains the anticipated operational benefits of the proposed 75th Street CIP improvements.

Construction of Argo Connections (B9)

Project B9 will link the CREATE Beltway and East-West Corridors with a new double track connection and crossovers between the BRC and IHB/CSX railroads near Archer Avenue and 63rd Street in the suburban municipalities of Bedford Park, Bridgeview, and Summit. The project will upgrade mainline crossovers to accommodate higher speeds, from 10 mph to 25 mph. It also includes restoring nearby yard capacity lost as a result of installing the new main line tracks and crossovers. In addition to providing an improved connection to Clearing Yard and the western access to the East-West Corridor, B9 will be the final project to complete construction of the overall Beltway Corridor. It will improve operations for CSX, BRC, Amtrak, and Metra trains. Phase II final design is substantially complete, and construction will be led by CSX.

Design and Construction of Forest Hill Flyover (P3)

Project P3 consists of a new CSX-BOCT north-south rail flyover structure to separate the north-south and east-west train movements at Forest Hill Junction. This bridge will also allow for planned EW2 track realignments to be built below. The project will require use of 1.2 acres of former railroad right-of-way now owned by the City of Chicago. Because of the change in railroad grades for the flyover, P3 must be constructed in conjunction with GS19. Phase I environmental and preliminary engineering are complete and the next phases will be led by CSX. The project is located entirely within the City of Chicago, and will improve Metra, BRC, and NS train operations.

Design and Construction of 71st Street Grade Separation (GS19)

Project GS19 consists of a road-rail grade separation of 71st Street and the CSX-BOCT freight line. Because of their physical proximity, GS19 must be designed and built in conjunction with P3. Phase I environmental and preliminary engineering are complete and the next phases will be led by CSX in close coordination with CDOT. This project is located entirely within the City of Chicago.

Design of Belt Junction and 80th Street Junction Replacements (EW2)

Project EW2 will reconfigure the east-west tracks at Forest Hill Junction, remove the five-to-two track bottleneck at Belt Junction, realign track and signal systems between Belt Junction and the Dan Ryan Expressway overpass, reconstruct 80th Street Junction, relocate UP to a currently unused NS alignment, and add PTC along this stretch of tracks. This project also includes adding a new Metra mainline track adjacent to Landers Yard between Wrightwood Station and Forest Hill Junction, and improvements to several existing viaducts over city streets. Phase I environmental and preliminary engineering are complete and the next phase will be led by BRC and NS. This project is located entirely within the City of Chicago, and will improve BRC, CP, CSX, UP, NS, Amtrak, and Metra train operations by eliminating or reducing conflicting train movements at Belt and 80th Street Junctions. Although final design of this project will be done together with P3 and P2, EW2 cannot be completed until P3 is complete, and portions of the construction of EW2 must proceed in conjunction with P2.

Design of Metra Rock Island Connection (P2)

Project P2 will build a flyover structure to connect the Metra SouthWest Service mainline tracks to the Rock Island Line just southeast of Hamilton Park. This will eliminate conflicts between Metra and BRC trains at Belt Junction, while also allowing the SouthWest Service trains to terminate at LaSalle St Station rather than Union Station, freeing capacity for expanded intercity rail services at Union Station. Phase I environmental and preliminary engineering are complete and the next phases will be led by Metra. This project is located entirely within the City of Chicago. Although final design of this project will be done together with P3 and EW2, its construction cannot be completed until P3 is complete, and portions of the construction of P2 must proceed in conjunction with EW2.

More detailed information on all five of the projects can be found at the links below:

Scopes of Work	Budgets
Schedules	Project Information

I.2 National and Regional Significance

The Chicago region contains an estimated 3,865 track-miles of rail – greater mileage than nearly 40 states – as well as both passenger and freight rail facilities including more than 50 freight rail yards. ***The density of the rail network in Chicago provides unparalleled opportunities to make connections among the railroads, as well as connections to trucking and other modes***. Six of the seven Class I freight railroads converge in Chicago, and ***one-fourth of the nation's freight rail traffic originates, terminates, or passes through metropolitan Chicago***. Currently, approximately 37,500 rail cars are in route to Chicago daily from throughout North America, with approximately 11,500-12,000 rail cars passing through the Chicago Terminal on a daily basis. These volumes are expected to more than double between 2012 and 2045, with over 21,000 cars needing to be interchanged on a daily basis by 2035. Chicago is also Amtrak's primary intercity rail hub outside the Northeast Corridor. Nearly all of Amtrak's long-distance and intercity passenger rail services in the Midwest terminate at downtown Chicago's Union Station, serving 3.2 million annual passengers.

However, most of these rail lines were built more than a century ago and were not configured for the volumes, flow patterns, and types of freight being carried currently. As the nation's rail hub,

congestion problems in the Chicago Terminal cause nationwide ripple effects in the supply chain and rail passenger movements. The CREATE Program represents a longstanding recognition among federal, state, and local transportation officials, as well as national and regional freight and passenger railroads, of the need for coordinated rail infrastructure improvements in the Chicago Terminal. The CREATE Program's corridors handle rail freight valued at approximately $350 billion annually. The effects of these trade flows are estimated to support approximately 5 million jobs, $782 billion in economic output, and $217 billion in wages nationwide. Without the CREATE Program's planned improvements, national and regional economic activity and growth will be negatively impacted. Implementation of the overall CREATE Program would result in ***national economic benefits estimated at approximately $31.5 billion over a 30-year period*** related to reduced travel times for rail passengers, reduced motorist delays, improved rail and highway safety, air quality improvements, and construction related-benefits.

The railroads within the project area for this FASTLANE grant application are especially important components of the region's passenger and freight rail network. ***Six major railroads, including four freight and two passenger railroads, converge in the 75th Street corridor alone***. Metra's fast-growing SouthWest Service commuter rail line carries 2.6 million annual passengers through the 75th Street Corridor, further exacerbating capacity and congestion issues in this area. Currently, Metra operates on a single track from Wrightwood Station west of Kedzie Avenue to Western Avenue and must cross rail tracks that handle 98 freight trains per day at Forest Hill and Belt Junctions. The freight railroads are generally scheduled to avoid operating through Forest Hill and Belt Junctions at times of Metra service, which significantly reduces freight capacity and operational efficiency. There are also instances when congestion and operational issues cause freight trains to delay Metra service. Amtrak also runs two daily trains on the Cardinal/Hoosier State route through the 75th Street corridor. State-led initiatives to improve passenger rail services to and from Chicago are causing passenger demand to increase. In addition to operational impacts of inadequate rail capacity, inefficient routing, and the resulting delays, congestion within the region's rail network and the 75th Street Corridor in particular results in a range of adverse impacts for adjacent communities. These impacts include noise, safety concerns, and reduced air quality. Additional information regarding these impacts can be reviewed here.

I.3 Transportation Challenges Addressed

The growing demand for both freight and passenger rail service, coupled with the limitations of the existing infrastructure, drive the need for many CREATE projects, including those in this funding request. A FASTLANE grant will leverage significant private and local funding resources committed to the 75th Street CIP/B9 and allow the entire CREATE Program to advance in a timely and logical manner, eventually unlocking the full benefits of the Program. ***The 75th Street CIP/B9 project will contribute directly to fulfilling the national and regional goals of CREATE***.

Several major rail lines come together at ***rail-rail crossings in the project area that will be alleviated by the project***. Since many of the desired train movements through these junctions must currently cross paths, often only one train can pass through each of these crossings at any given time. The crossings thus become choke points, causing long delays for many trains attempting to pass through the area. Due to the length of the trains and the location of junctions, conflicts within the project area can cause delays throughout the entire region. In addition to conflicts at these junctions, there are also conflicts for Metra trains on their current route north of the study area,

where NS operations to the 47th Street Intermodal Yard and Ashland Avenue Yard can block Metra SWS trains heading north to Union Station.

As described in Section I.2, the project ***also improves passenger rail travel time and reliability for more than 2.6 million annual passengers on the Metra SWS commuter rail service and Amtrak's Cardinal and Hoosier routes***.

The 71st Street highway-rail grade crossing currently has gates down more than two hours per day. The estimated economic cost of lost time to drivers and passengers in the vehicles is approximately $200,000 per year. This is a conservative estimate as it does not include delays to pedestrians and bicyclists on 71st Street, or the costs of accidents that would be avoided as a result of the grade separation. Delays to traffic and train horn noise were also cited as problems by local elected officials. Because the crossing gates are down such a large percentage of the time, 71st Street is also an unreliable emergency vehicle access route.

The rail lines within the project area create barriers to vehicular, bicycle, and pedestrian transportation. Within the approximately 14 miles of rail corridor, there are seven stretches of more than a half mile where it is impossible to cross. In other areas, travel is not completely blocked, but the presence of the railroads makes travel through the area more difficult, particularly for pedestrians and bicyclists. There are a total of 44 underpasses in the project area. Many of these underpasses were originally built nearly a century ago, and their aging appearance was noted by both elected officials and community members as local concerns.

Project B9 will construct a new double track connection and crossovers between the BRC and IHB/CSX line at Archer Avenue and 63rd Street in Summit, Illinois to connect the CREATE Beltway and East-West Corridors. Project B9 will upgrade mainline crossovers to accommodate 25mph train speeds and create Argo Yard capacity to replace that lost as a result of the new mainline crossovers. The current single track configuration results in delays to trains waiting for other slow moving traffic to clear the connection. Increased freight speeds and improved fluidity on the IHB will allow trains to clear nearby Canal Interlocking more quickly, reducing the potential for freight conflicts with Amtrak and Metra operations on that cross route just north of the B9 project.

I.4 Expected Users and Beneficiaries

The project will ***eliminate all major rail line at-grade conflicts at Forest Hill Junction, Belt Junction, and 80th Street Junction, as well as rail conflicts between Metra SWS and freight operations north of the project area***. This project will eliminate the most congested rail chokepoint in the Chicago Terminal, Belt Junction, where 30 Metra and 98 freight trains per day cross each other's paths. Users and beneficiaries will include freight operators and their customers, commuter and inter-city rail passengers, the motoring public, and residents of the region. Modeling for the BCA analysis indicates that the projects will ***reduce freight delay by more than 20,000 train-hours per year by 2030.***

Resulting additional capacity of the East-West Corridor will more evenly distribute trains throughout the regional freight rail network and reduce the burden on congested existing corridors (Beltway and Western Avenue). In addition, the East-West corridor will provide critical redundancy in the regional rail network by providing a new mainline route. In the event of maintenance work or service disruptions along the existing corridors, this route will allow freight train flows to be maintained.

By eliminating rail conflict points and providing additional through tracks, the project will allow the corridor to carry significantly more freight trains per day through the study area than the No-Build Alternative. The 75th Street CIP project will ***increase capacity to allow the number of freight rail cars to increase by 23% by 2029***, as documented in the FEIS.

The project will ***improve Metra SWS reliability*** by providing Metra an uninterrupted double track through the corridor, and by eliminating potential conflicts with freight rail operations at Forest Hill Junction, Belt Junction, and along the line north of the study area. The project will also ***increase capacity at Chicago Union Station*** by shifting Metra SWS operations to the LaSalle Street Station via the Rock Island Line and ***improve service reliability for the Amtrak Cardinal/Hoosier State route*** by eliminating conflicts at 80th Street Junction. Total delay for Amtrak passengers due to freight rail interference in the project area ***will be substantially reduced from the current estimate of 38,000 passenger-hours per year***.

The project will also eliminate one of the major highway-rail grade crossings in the study area. The 71st Street crossing of the CSX tracks north of Forest Hill Junction currently carries an average annual daily traffic (AADT) volume of over 11,000 vehicles and has the crossing gates down for over two hours of each day, resulting in more than ***10,000 hours of driver delay per year***. ***The grade-separated crossing will eliminate this vehicle delay, while also eliminating the possibility of automobile-train crashes*** at the grade crossing.

Improvements to 36 existing viaducts in the project area will improve local mobility by repairing or replacing roadway paving and drainage, repairing sidewalks and access ramps, and replacing lighting. This work will ***improve mobility for pedestrians, bicyclists, and vehicles*** and make local travel within the study area safer and more inviting.

Implementation of the project will result in additional benefits for those who live in and travel through the project area, including:

- A decrease in noise impacts in nearby neighborhoods due to the flyover and up to five feasible and reasonable noise barriers. These barriers would benefit 239 residences and Leland Giants Park.
- An improvement in air quality due to reduced train idling while awaiting clearance to proceed, and a resulting reduction in locomotive emissions.

Additional practicable mitigation and enhancement measures that provide offsetting benefits to the local communities are under investigation for potential inclusion in the project as design efforts advance, subject to additional planning and public input, including:

- Upgrades to up to 20 bus stops near the project limits, and installation of up to 10 additional bus shelters.
- Sidewalk improvements at viaduct approaches, in addition to viaduct upgrades.
- Construction of bike routes and installation of streetscape elements in the project area.
- Improvements to 1.39 acres of remnant parcels south of Hamilton Park and other nearby vacant parcels.

The minority population of the 75th Street CIP demographic study area was 92.9% according to the 2010 Census. Approximately 80.9% of the population identifies as Black or African-American, comprising the largest racial group across the area. The area exhibits a greater percentage of minority population than the City of Chicago (at 68.3 percent) or Cook County (at 56.1%) overall. The percentage of families living below the poverty level within the area is 22.1%,

which is higher than the City of Chicago's overall rate of 17.2% and notably higher than the County average of 11.9%.

The project will have a beneficial economic effect on employment and income in the region during construction that should benefit local community members. The project will generate temporary direct construction jobs for workers who are building the facilities. In addition to direct construction jobs, additional indirect and induced jobs would be created by firms that produce materials, equipment, and services needed for the construction project. The wages that these workers receive will turn over into the local economy when workers purchase goods and services, resulting in additional local job creation.

II. PROJECT LOCATION

Chicago is the ***rail transportation hub of the nation*** and also the ***third largest metropolitan area*** in the U.S. It is critical to not only ensure that goods and products can traverse the region safely, efficiently and reliably but also to mitigate any negative impacts of freight rail on the communities through which it passes. The 75th Street CIP is located in the City of Chicago, Illinois. Project B9 extends into the neighboring municipalities of Bedford Park, Bridgeview and Summit, Illinois.

II.1 Urbanized Area Context

Figure I.1 depicts the locations of the project elements at a regional level and in the context of the entire CREATE Program. All project elements are within the Chicago IL-IN Urbanized Area. The 75th Street CIP projects fall within an area generally bounded by 69th Street on the north, 100th Street on the south, Central Park Avenue on the west, and the Dan Ryan Expressway (I-90/94) on the east. The B9 project is generally bounded by 63rd Street on the north, 71st Street on the south, Archer Road on the west, and Sayre Avenue on the east.

II.2 Project Maps and Geospatial Data

To supplement the project descriptions provided in Section I.1 above, geospatial reference data is provided for each project element on Figure I.1 above. More detailed projects maps depicting the general extents and context of each project element can be found here.

III. PROJECT PARTIES

This application is noteworthy for its ***unprecedented level of private sector cooperation and financial commitment***. The project participants are stakeholders that have been engaged in earlier phases of the multi-year CREATE Program implementation process, and will continue to be engaged in later phases.

The lead applicant for this FASTLANE grant funding request is IDOT, with CDOT, CCDOTH and CMAP as co-applicants. There is overwhelming support for this project, as demonstrated by the numerous letters of support received from a variety of community and business stakeholders, both public and private. FHWA is the CREATE Program's lead Federal oversight agency.

Each CREATE project is managed by an individual project sponsor, which leads procurement and manages engineering and construction activities. All projects have followed FHWA guidelines through Phase I and II, as appropriate, to ensure Federal eligibility. The grantee, IDOT, shall perform all tasks required for the project through a coordinated process, which will involve affected railroad owners, operators, and funding partners including:

- CSX – lead entity for construction of B9, and design and construction of P3; co-lead for design and construction of GS19;
- BRC, NS and UP – lead entities for design of EW2;
- Metra – lead agency for design of P2; and
- CDOT – co-lead agency for design and construction of GS19.

IV. SOURCES AND USES OF ALL PROJECT FUNDING

A summary of sources and uses of project funding is provided below, presenting both a cost breakdown by project phase and a project budget by funding source. An evaluation of the funding plan is also provided that describes funding commitments, contingency reserves, and the financial condition and administrative capabilities of the project sponsor (IDOT). Including approximately $760,000 in previously incurred project costs funded by Federal sources, the project's ***Federal share is in compliance with FASTLANE funding constraints.***

Multiple funding sources are utilized throughout to balance project needs against the broader fiscal constraints of the State of Illinois, and the funding needs of the CREATE Program as a whole. A significant portion of project support consists of ***funding commitments from private Class I railroads and Amtrak fare revenues (23.6%). The local share for this grant request is not counted as the matching requirement for another Federal program***. Table IV-1 shows planned sources and uses of funds, including the requested FASTLANE grant.

Table IV.1: Overall Project Funding Sources and Uses

Sources	Total	%
Federal		
FASTLANE Grant	$160.0	33.8%
CDOT STP	$4.0	0.8%
CDOT CMAQ	$0.8	0.2%
State		
Illinois Jobs Now	$101.4	21.4%
Regional / Local		
Metra	$20.0	4.2%
CCDOTH	$75.0	15.8%
City of Chicago	$1.2	0.3%
Private/Amtrak		
Amtrak	$5.0	1.1%
Class I Railroads	$106.4	22.5%
Totals		
FASTLANE	**$160.0**	**33.8%**
Other Federal	**$4.8**	**1.0%**
CREATE Partners	**$308.9**	**65.2%**
TOTAL	**$473.7**	**100.0%**

Uses	FASTLANE	Other Federal	CREATE Partners	Total	%
P2 Phase II Design	$1.7	$4.0	$23.1	**$28.8**	6.1%
EW2 Phase II Design	$11.2	$0.0	$20.2	**$31.5**	6.6%
P3 Phase II Design	$12.2	$0.0	$21.9	**$34.1**	7.2%
GS19 Phase II Design	$0.1	$0.8	$0.4	**$1.3**	0.3%
P3 Phase III Const.	$116.0	$0.0	$208.7	**$324.8**	68.5%
GS19 Phase III Const.	$6.4	$0.0	$12.6	**$19.0**	4.0%
B9 Phase III Const.	$12.2	$0.0	$22.0	**$34.3**	7.2%
TOTAL	**$160.0**	**$4.8**	**$308.9**	**$473.7**	**100.0%**

Note: Amounts in millions of dollars. Due to rounding, individual totals may not sum correctly. For further details, see attached Detailed Sources and Uses Table.

IV.1 Evaluation of Funding Plan

Reasonableness of the Cost Estimate

The CREATE partners are experienced at procurement, project management and collaboration to ensure successful project delivery and have a strong history of delivering projects on or under budget. A reliable and reasonable cost estimate for the 75th Street CIP was developed during Phase I preliminary engineering and environmental review.

In accordance with FHWA's Major Project requirements, a Cost Estimate Review (CER) was held for the 75th Street CIP in June of 2014. The CER was conducted by FHWA and participants included IDOT, CDOT, and AAR. This unbiased, risk-based review was completed to verify the accuracy and reasonableness of the current cost estimate and project schedule. The final report from the CER is located here.

For B9, CSX has substantially completed the Phase II design in house and has prepared a cost estimate for Phase III construction. The construction estimate was prepared in accordance with the CREATE partner approval process. The CER-based cost estimate was updated for this funding request to reflect changes in the project schedule since 2014 and to include B9, and is reflected in the budgets.

Viability and Completeness of the Project's Financing

The funding package for the project includes an unprecedented commitment of more than $100 million in private funds from the Class I railroads, as well as a mix of federal resources in the form of both FASTLANE funds and CDOT CMAQ funds, Metra funds, County funds, and $101.4 million in state funds dedicated to CREATE by the *Illinois Jobs Now!* bill in 2014. Should the project not receive the requested amount of FASTLANE funds, the projects would be delayed for the foreseeable future until additional funding can be identified.

Funding Stability

Since its announcement in 2003, the CREATE partners have made considerable progress in securing funding and implementing the Program. The partnership framework and management processes are detailed in Partnerships and Management Practices. Each of the partners has played a significant role in the advancement of CREATE, with most investing funds in projects within and outside of the formal CREATE process. ***As part of this funding request, IDOT, CDOT, Metra, CCDOTH, Amtrak, and the affected railroads commit to providing matching funds to complement the FASTLANE grant.***

The only restrictions on the funds committed by the project partners are as follows: CDOT's CMAQ funds are committed to GS19. The CMAQ funding source is not time-limited.

Ongoing Maintenance

The private railroad companies will provide continued ongoing maintenance to the additional and upgraded rail components.

Contingency Reserves

Despite the strong funding plan that is in place, and the Management Reserve and Contingency amounts included in the cost estimate, the CREATE partners recognize the need for contingency funding in the event of normal funding interruptions. The possibility of Federal, state or private (railroad) funds being unavailable for project expenditures is remote. Historically, periodic

interruptions in state or federal reimbursements have been successfully overcome through cash management practices. A recently approved amendment to the Illinois Constitution requires transportation funds to be expended only on transportation projects, and for no other purpose, which can further reduce the risk of funding interruptions.

In the unlikely event that Federal, state or private (railroad) funds are unavailable, CREATE partners have a variety of contingency solutions available depending upon the duration of the unavailability of funds, ranging from short term cash management techniques to longer term access to credit and capital markets.

Financial Condition of the Project Sponsor

IDOT's roots can be traced back over a century, while the CREATE Program was established in 2003. Together, IDOT and the other CREATE partners have the financial capacity and stability to see the project through to completion.

IDOT is an agency of the executive branch of Illinois state government. The agency's core mission is to provide safe and cost-effective transportation options throughout the state, which serves as the transportation hub of North America. In the 2015 fiscal year, IDOT's operating budget was nearly $2.8 billion during which time the agency programmed more than $3.2 billion in capital projects, improved 1,379 miles of pavement and 188 bridges, and completed 121 safety improvements. IDOT also awarded and managed a total of $3 billion in highway contracts and obligations, including construction, engineering and land acquisition. As an agency of the state government, IDOT is able to access capital markets by selling general obligation debt backed by the full faith and credit of the government.

Ability to Manage Grants

As previously noted, each CREATE project is managed by an individual project sponsor. The facility owners, namely the BRC, CDOT, CSX Transportation, IDOT, Metra, Norfolk Southern and Union Pacific, will work closely together to manage and deliver the project. The CREATE Program has a demonstrated history of successfully managing grant funding through its obligation of all PNRS funds and construction of TIGER-funded projects. For example, TIGER I funds were released by USDOT on July 22, 2010 and construction initiated the week of August 2, 2010. For TIGER IV, funds were obligated October 2, 2012 and construction was initiated June 12, 2013.

To date, CREATE has received funding commitments totaling $1.341 billion:

- **Federal funds totaling $435 million**, including TIGER I and TIGER IV Grants, SAFETEA-LU PNRS Grant, ARRA High Speed Rail Grant, Railroad Relocation Grant, and FRA Railroad safety grant for the Safe Transportation of Energy Products by Rail Program;
- **State funds totaling $480 million**, including *Illinois Jobs Now!*, PNRS/TIGER match, grade separations;
- **Local Government funds totaling $61 million**, including local funds for viaduct improvements, grade separations, and land acquisition; and
- **Railroad funds totaling $365 million**, including private freight company, Metra, or Amtrak funds for railroad infrastructure and grade separations.

The CREATE partners are well prepared and experienced at delivering projects. At the present time, 27 of CREATE's 70 projects have been completed, seven are under construction, and four

are in the final design phase. Since 2004, the railroads have invested an additional approximately $4 billion in infrastructure improvements outside the CREATE program. A key CREATE strategy has been to establish a pipeline of projects that have completed preliminary engineering and environmental review so they are ready to advance to the final design and construction phases as soon as funding is secured. A FASTLANE grant award would also complement previous USDOT investments in CREATE by continuing improvements to the Chicago Terminal while mitigating community impacts.

IV.2 Federal Funding Status

The ***FASTLANE request of 34% falls well below the allowable 60% maximum.*** The FASTLANE funds requested total $160 million, with 100% of this to be invested in freight intermodal project components. Approximately $760,000 in Federal funds were previously used for right-of-way acquisition for B9 with the local match coming from IDOT. In 2015, CCDOTH applied, on behalf of the CREATE partners, but did not receive funding for a $56.2 million TIGER VII grant for B9 and EW1.

V. MERIT CRITERIA

The project is expected to result in positive outcomes for the Chicago community areas of Auburn Gresham, Chatham, Englewood, Greater Grand Crossing, Chicago Lawn, West Englewood, Roseland, and Washington Heights, Ashburn, Clearing, and West Lawn. B9 will also benefit the adjacent suburban municipalities of Summit, Bedford Park and Bridgeview. At a broader scale, the projects will improve freight and passenger rail service and conditions in communities along the Metra SouthWest Service and Heritage Corridor lines in Cook and Will counties, as well as communities along Amtrak's Cardinal (to Washington and New York), Hoosier State (to Indianapolis), Lincoln Service (to St. Louis) and Texas Eagle Service (to San Antonio, TX) routes.

The economic, mobility, safety, community and environmental outcomes discussed below are qualitative in nature. This discussion is supplemented by the discussion of monetized benefits in Section VII: Cost-Effectiveness. As the design process advances, community input will continue to be solicited to identify and achieve positive local outcomes wherever feasible.

V.1 Economic Outcomes

The project will improve reliability and reduce delay, eliminating bottleneck conditions and causing a ripple effect of improved travel times. In addition to a monetized benefit related primarily to the value of reduced delays for freight and passenger rail and for vehicles at grade crossings as a result of the project (Section VII.2.1), the following more localized economic outcomes are anticipated:

- Reduced barriers to travel for personal and delivery vehicles, bicycles and pedestrians will enhance the attractiveness of the local area for economic development, effectively expanding the "marketshed" for potential business activity through improved local accessibility. This will increase commercial and job creation opportunities in neighborhoods that are currently economically distressed.
- The job creation commitment as documented in the Record of Decision for the 75th Street CIP will be honored during project implementation.
- This Chicago region is one of 24 metropolitan areas designated as an Investing in Manufacturing Communities Partnership. Chicago is the country's principal trader in machinery and metals, supporting over 4,000 firms, 110,000 employees and $25 billion in

revenues. The Chicago Metro Metal Consortium works to support these market sectors, which will benefit from improved rail capacity and accessibility.

- Working with the City of Chicago, who conducted a comprehensive Citywide Retail Market Analysis in 2013 that included the project area within a South Side submarket, CREATE will seek ongoing community input to maximize the potential economic development opportunities in affected local neighborhoods. For example, specific opportunities to enhance non-motorized connections to the existing Walmart on Ashland Avenue just south of the 75th Street Corridor will be explored during the design phase.

V.2 Mobility Outcomes

The project will improve both regional and national freight and passenger rail mobility, and local mobility for all modes of travel. In addition to a monetized benefit related to reductions in pavement damage as diversion of freight to trucks is avoided (Section VII.2.2), the following additional positive mobility outcomes are anticipated:

- **Rail:** Reliability and travel time will be improved for over 200 freight trains representing seven railroads, over 30 Metra commuter trains, and over 10 Amtrak trains that traverse the project area every day.
- **Motorized:** The reliability of local general traffic, truck traffic, and public transit will improve due to improved viaduct clearance and roadway pavement conditions at 36 viaduct locations, impacting a significant number of travelers daily.
- **Bike/Ped:** Multi-modal mobility will be enhanced by improved sidewalk conditions under and at approaches to viaducts. This will serve to support eventual expansion of the City of Chicago's Divvy bike sharing program further west and south from an existing station at 73rd and Normal, just north of Hamilton Park.
- **Commuter Rail:** Metra ridership growth will be supported via the provision of additional line capacity, improved reliability for the Metra SouthWest Service (SWS), and additional boarding capacity at Union Station. The additional Union Station capacity is achieved by enabling the rerouting of Metra SWS from Union Station to join Metra Rock Island service in terminating at the LaSalle Street Station.
- **Intercity Passenger Rail:** Amtrak conflicts with Metra and freight trains will be reduced, and overall Amtrak capacity increased, as a result of rail capacity improvements and route streamlining, including the relocation of Metra SWS from Union Station to LaSalle Street Station. The Midwest Regional Rail Initiative (MWRRI) high speed rail program will be supported as a result of rail capacity increases and enabling the relocation of some Metra services to LaSalle Street Station to create additional boarding capacity at Union Station.

V.3 Safety Outcomes

The project will reduce rail-to-rail conflicts in six locations and eliminate one grade crossing. In addition to a monetized benefit related to reductions in highway crashes projected as a result of the project (Section VII.2), the following additional positive safety outcomes are anticipated:

- Reduced potential for crashes between trains, and reduced potential for crashes between trains and vehicles, due to reduced conflict points.
- Enhanced safety in the transport of certain potentially hazardous commodity types.
- Reduced potential for rail derailments due to improved track configurations.
- Enhanced reliability in emergency vehicle response times in affected local neighborhoods.

V.4 Community and Environmental Outcomes

The rail lines within the 75th Street corridor create barriers to vehicular, bicycle, and pedestrian transportation, with a total of 44 rail underpasses in the project area. The project will result in improvements to 36 viaducts and the construction of one new viaduct, in addition to streamlining rail movements and thus reducing delays through the project area that result in idling trains. In addition to a monetized benefit related to improved regional air quality due to the reduction in emissions projected as a result of the project (Section VII.2), the following additional positive community and environmental outcomes are anticipated:

- **Air Quality:** Reduced train idling in the project area will result in localized improvements to air quality and a reduction in noise pollution in affected local neighborhoods.
- **Stormwater Management:** Viaduct improvements will incorporate drainage improvements that will improve stormwater management and likely reduce incidents of basement flooding that currently negatively impact local neighborhoods. CREATE will work closely with the City of Chicago to align design efforts with a holistic City approach to addressing stormwater concerns in a sustainable and coordinated manner through the ongoing Resilient Neighborhoods initiative, including the potential incorporation of "green infrastructure."
- **Community Mobility and Access:** Viaduct improvements to address existing poor visibility, crumbling concrete and damaged pavement will improve lighting and pedestrian/bicycle conditions, enhancing community cohesion and accessibility. Mitigating physical barriers between the "quadrants" of the community surrounding the project area will improve community access to and between many local destinations, including (but not limited to): Simeon Career Academy, Westcott Elementary School, Stagg Elementary School, Harvard Elementary School, Thurgood Marshall Library, Hamilton Park and King (MLK Jr.) Park. For example, the catchment areas for Stagg and Harvard Elementary Schools are split by existing rail embankments, requiring students to traverse the viaducts to and from school.
- **Public Safety:** Viaduct improvements will improve community policing efforts. The 75th Street embankment is a dividing line between the 6th and 7th Districts of the Chicago Police Department, with the 6th District station located just south of the rail line on Halsted Street. Improved mobility throughout the area will improve public safety efforts, including a "Safe Passages" initiative area north of the 80th Street Junction.

V.5 Other Criteria

Innovation

This package of projects will continue the innovative tradition of the CREATE Program, which has developed ***processes and procedures unique to this type of multi-modal investment*** in the areas of engineering, design and project procurement. For example, the CREATE Partners utilize a secure interface for integrating information from all major railroad dispatch systems into a single display, called the Common Operational Picture (COP), improving the efficiency of overall rail operations. They have also developed a systematic CREATE decision-making policy referred to as the Systematic, Project Expediting, Environmental Decision-Making (SPEED) Strategy. A detailed description of the SPEED strategy is available here.

The project will require a significant amount of coordination and phasing to ensure that rail network capacity and access for both freight and passenger rail traffic is not hindered for extended

periods of time by implementing project elements in a logical and minimally disruptive sequence. As the CREATE Program has to date, this project will demonstrate a unique and effective approach to balancing the needs of multiple stakeholders and users, as detailed in the CREATE Program Partnerships and Management Practices guidelines.

Partnership

CREATE is a groundbreaking public-private partnership involving fourteen (14) public and private agencies that have been working together for more than a decade to advance more than two dozen multimodal infrastructure projects in the Chicago region. The project will continue this innovative tradition. Several CREATE partners – CSX Transportation, IDOT, Metra, BRC, Norfolk Southern and CDOT – will collaborate closely to bring the project to fruition. This funding request is submitted by IDOT on behalf of all of the CREATE partners (listed below). More information is available on each partner via the links below.

USDOT*	BNSF Railway
CCDOTH*	Canadian National
IDOT	Canadian Pacific
CDOT	CSX Transportation
Amtrak	Indiana Harbor Belt
Metra	Norfolk Southern
Belt Railway of Chicago	Union Pacific

Note: *nonvoting member

Cost Share – 65% Funding Match

The significant ***65% funding match*** from IDOT, CCDOTH, CDOT, Metra, Amtrak, and the participating private railroads ***is committed, stable and dependable*** per the parameters outlined in Section C.2 of the NOFO. The project and related projects being funded separately cannot be efficiently completed without the Federal funding requested in this application. Letters of support from the agencies and railroads are provided here.

VI. LARGE / SMALL PROJECT REQUIREMENTS

The 75th Street CIP/B9 project meets the project size requirement to qualify as a ***large project*** for purposes of this grant application. The minimum project size requirement for the State of Illinois is $100 million, per Section C.3.iii of the NOFO.

- Does the project generate national or regional economic, mobility, and/or safety benefits? ***Yes***, *as described in Section V: Merit Criteria*
- Is the project cost-effective? ***Yes***, *as demonstrated in Section VII: Cost-Effectiveness*
- Does the project contribute to one or more Goals listed under 23 USC 150?
  - Safety? ***Yes***, *as described in Section V.3: Safety Outcomes*
  - Infrastructure condition? ***Yes***, *as described in Section I: Project Description*
  - Congestion reduction? ***Yes***, *as described in Section V.2: Mobility Outcomes*
  - System reliability? ***Yes***, *as described in Section V.2: Mobility Outcomes*
  - Freight movement and economic vitality? ***Yes***, *as described in Section V.1: Economic Outcomes*

  - Environmental sustainability? ***Yes***, *as described in Section V.4: Community and Environmental Outcomes*
  - Reduced project delivery delays? ***Yes***, *as described in Section V.5: Other Criteria*
- Is the project based on the results of preliminary engineering? ***Yes***, *all project elements have progressed through preliminary engineering and received environmental approval. In addition, FHWA has reviewed the 75th Street CIP through its CER process.*
- With respect to non-Federal financial commitments, does the project have one or more stable and dependable funding or financing sources to construct, maintain, and operate the project? ***Yes***, *as discussed in Section IV.1 Evaluation of Funding Plan*
- Are contingency amounts available to cover unanticipated cost increases? ***Yes***, *as discussed in Section IV.1: Evaluation of Funding Plan*
- Is it the case that the project cannot be easily and efficiently completed without other Federal funding or financial assistance available to the project sponsor? ***No***, *the project can proceed with the FASTLANE grant requested; no additional Federal funding is required for the project elements included in this request*
- Is the project reasonably expected to begin construction not later than 18 months after the date of obligation of funds for the project? ***Yes***, *as discussed in Section VIII.1 Project Schedule*

VII. COST-EFFECTIVENESS

This section provides summary documentation of the Benefit-Cost Analysis (BCA) performed to evaluate the public benefits generated by the proposed projects, and the resulting benefit-cost (B/C) ratios. A BCA was prepared for the entire group of project elements. In addition, BCAs were prepared for the elements which may be constructed separately or in advance of the full project, in order to demonstrate that each element with independent utility has benefits in excess of costs. Complete documentation of BCA inputs, methodology and results can be found in the separate Benefit-Cost Analysis Technical Memorandum and Benefit-Cost Analysis Model.

VII.1 Projects Evaluated

The following project elements and combinations thereof were evaluated for cost effectiveness:

- Argo Connections (B9) Only
- Forest Hill Flyover (P3) / 71st Street Grade Separation (GS19) Only
- B9 + P3/GS19 (Full buildout of FASTLANE construction elements)
- B9 + P3/GS19 + P2/EW2 (Full buildout including FASTLANE design elements)

P3 and GS19 were evaluated in combination, because these two elements cannot be implemented independently. During the alternatives screening process conducted as part of the 75th Street CIP Final Environmental Impact Statement (FEIS), it was determined that the only feasible approach to completing the P3 project (Forest Hill Junction flyover) was to construct a single flyover structure that would include both P3 and GS19 (71st Street Grade Separation). These two components have advanced to final design as a single project.

The additional projects that comprise the full 75th Street CIP (EW2 and P2) were not evaluated separately from P3/GS19 and B9 because these projects cannot be completed without substantial completion of the P3/GS19 and B9 projects, which are further along in project development. As discussed in the 75th Street CIP FEIS, phasing is necessary due to the complexity of the 75th Street

CIP, and the work above the East-West Corridor roadbed (P3/GS19) must be completed prior to track work below (EW2 and P2). P2 and EW2 are also evaluated in combination because of their environmental and construction phasing linkages.

VII.2 Benefit Classes Evaluated

The following classes of project benefits were evaluated and monetized as part of this analysis. The benefits have been grouped according to the four Merit Criteria categories presented in Section V. Benefits are expressed as a 20-year aggregate present value following the completion of the project, and are monetized in 2016 dollars with a 7% discount rate.

Economic Outcomes

The primary benefit of the project is improved reliability and reduced delay through the East-West Corridor, as well as on the rail network that connects and intersects with this corridor. The elimination of multiple rail bottlenecks will result in significant delay reduction and idling fuel consumption savings for Metra, Amtrak, and freight trains, which now must stop and wait at these intersections while other trains pass.

In addition, because of the ripple effect of delayed trains through the entire Chicago Terminal, the project will result in an overall increase in the capacity of the rail network and accommodate additional years of projected traffic growth, avoiding the need to eventually divert this growth to other modes, primarily trucks. This results in significant logistics cost savings.

Finally, the 71st Street grade separation will result in reduced travel times for motorists and trucks traveling on that corridor.

Mobility Outcomes

In addition to the mobility improvements described above, the reduction in rail shipments that divert to trucks due to network capacity constraints will result in reduced pavement damage.

Safety Outcomes

The reduction in rail shipments diverted to truck described above can also be expected to result in reduced fatalities and injuries from highway crashes.

Community and Environmental Outcomes

Reduced fuel consumption will result in reduced emissions of Volatile Organic Compounds (VOC), Nitrogen Oxides (NO_x), Particulate Matter (PM), and Carbon Dioxide (CO_2).

VII.3 Benefit Cost Analysis Results

Table VII.1 on the following page presents a summary of the four BCAs that were prepared for this funding request. As shown, both of the construction phase projects (B9 and P3/GS19) have benefits well in excess of costs, both individually and in combination. Furthermore, inclusion of the design-phase projects to complete the full 75th Street CIP/B9 project significantly increases the benefits, justifying the additional costs of those projects.

It should be noted that the costs shown in Table VII.1 are different than those shown in Section IV because they include costs already incurred, they include ongoing maintenance expenses, and they are shown in constant 2016 dollars, with future expenditures discounted at a rate of 7%.

Complete documentation of BCA inputs, methodology and results can be found in the separate Benefit-Cost Analysis Technical Memorandum.

Table VII.1 Benefit-Cost Summary

Benefits / Costs *(NPV at 7%, 2016$, millions)*	B9 Only	P3/GS19 Only	B9+ P3/GS19	B9 + P3/GS19 + P2/EW2
Economic Outcomes				
Freight Train Delay Savings	$10,432,000	$30,424,000	$39,109,000	$49,854,000
Passenger Train Delay Savings	$1,707,000	$5,845,000	$12,233,000	$18,906,000
Grade Crossing Delay Savings	N/A	$1,623,000	$1,623,000	$1,623,000
Fuel Cost Savings	$43,509,000	$102,180,000	$146,115,000	$206,171,000
Logistics Cost Savings	$53,461,000	$126,892,000	$182,521,000	$254,384,000
Mobility Outcomes				
Pavement Maintenance Cost Savings	$16,574,000	$39,339,000	$56,586,000	$78,865,000
Safety Outcomes				
Fatalities Avoided	$12,841,000	$30,478,000	$43,840,000	$61,101,000
Injuries Avoided	$170,451,000	$404,572,000	$581,937,000	$811,060,000
Community and Environmental Outcomes				
Emissions Avoided	$98,748,000	$239,469,000	$346,348,0000	$496,605,000
SUMMARY RESULTS				
Total Benefits	**$405,723,000**	**$980,822,000**	**$1,410,312,000**	**$1,978,569,000**
Total Costs	**$35,288,000**	**$240,153,000**	**$275,441,000**	**$637,620,000**
Benefit Cost Ratio	**11.5**	**4.1**	**5.1**	**3.1**

VIII. PROJECT READINESS

This section provides the detailed project schedule that serves as the basis of the funding plan, discusses technical feasibility, and ***describes the "critical path" relationship of the proposed work to the overall CREATE initiative***. Summary documentation of secured approvals and the status of state and local planning support is also provided. Project risks - including potential process-related and financial delays- are identified, and mitigation strategies outlined.

VIII.1 Project Schedule

Because of the varied nature of the work, and in order to foster participation by both large and small contractors, including local disadvantaged businesses, it is likely that each of the major project phases will consist of a number of separate contracts. In addition, railroad track and signal construction will typically be completed by the specific owning railroads (except BRC) using their internal force account personnel and equipment. The current schedule for projects and phases for which funding is being requested is summarized in Table VIII-1 on the following page. The detailed schedules for the projects are provided here, including estimated timeframes for property acquisition where required and illustrating initiation of construction phase activities within the requisite 18 months of obligation, which is assumed to be in July 2017. B9 property acquisition is expected to be complete in June 2017, while construction phase efforts will begin in September 2017 with the procurement of track, civil and signal construction, for which activities will begin in earnest at the end of the procurement phase in February 2018. Design work for P2, EW2, P3

and GS19 will commence in Fall 2017, and construction on P3 and GS19 is slated for February 2020.

Table VIII-1: Project Schedules

Project	Phase II Design	Phase III Construction
P2	November 2017 to October 2019	November 2020 to November 2022 (Phase III is not in funding request)
EW2	November 2017 to October 2019	April 2020 to April 2025 (Phase III is not in funding request)
P3 & GS19	September 2017 to August 2019	February 2020 to February 2023
B9	Substantially complete	September 2017 to September 2019

VIII.2 Technical Feasibility

All CREATE projects are documented in the Feasibility Plan as amended in 2011, which supports the tiered environmental process for the overall program, serves as the foundation for CREATE projects and details their general and conceptual information, including the project descriptions, problems being addressed, impacts on train speed and volume, benefits and conceptual cost estimates. As established in the Feasibility Plan and detailed in the project description in Section I.1, the 75th Street CIP was developed to address ongoing conflicts between CSX, BRC, UP, NS, Amtrak and Metra. The work includes new track construction and track relocation, rail flyover structures, new rail bridges and replacements and rehabilitation of existing rail bridges, a highway-rail grade separation, new track crossovers, track yard relocation, and property acquisition. Phase I Design has been completed for all components of these projects to establish their technical feasibility. In addition, the Final Environmental Impact Statement (FEIS) and Record of Decision (ROD) were issued concurrently for the 75th Street CIP in September 2014, which determined impacts to environmentally sensitive areas, right-of-way (ROW), existing infrastructure, drainage, and design exceptions/variances/deviations required to achieve the scopes. Similar elements for B9 are documented in the Categorical Exclusion Environmental Class of Action Determination (ECAD) issued in July 2010, subsequently updated via two technical memorandums.

There are some restrictions on the extent and locations of work that can be carried on simultaneously in order to achieve minimal disruption of railroad operations during the construction period. Based on these considerations, a construction phasing plan was developed to design and construct projects P3 and GS19 simultaneously. Although final design of EW2 will be done together with P3 and P2, EW2 cannot be completed until P3 is complete, and portions of the construction of EW2 must proceed in conjunction with P2. Project B9 can be constructed independently of the 75th Street CIP. As documented in Section IV.1.1, a CER was conducted to verify the accuracy and reasonableness of the 75th Street CIP cost estimate and project schedule. For B9, CSX has substantially completed the Phase II design and has prepared a cost estimate for Phase III construction. As described in Section IV.1, cost estimates for the project include contingencies and management reserves to mitigate project risks in accordance with the CREATE Partners' Estimates and Contingency Plan.

The CREATE Partners will let all RFPs for design and bids for construction using the established FHWA approved process. The projects and all respective components will adhere to FHWA,

IDOT, CDOT and Railroad standards, along with all other Federally recognized guidelines pertaining to the project, and the CREATE Partnerships and Management Practices.

VIII.3 Previous Related Work

Since its inception in 2003, 27 CREATE projects have been completed, six are under construction, one is ready for construction, and four are in final design phase. EW1, a project closely related to B9, is currently undergoing a value engineering evaluation and will then proceed to construction separately as a parallel project.

VIII.4 Required Approvals

FHWA determined that a tiered environmental review process would be required for the CREATE Program prior to analyzing project-specific proposals and the Feasibility Plan was prepared in lieu of a Tier 1 Environmental Impact Statement. The FEIS and Record of Decision (ROD) were issued concurrently for the 75th Street CIP in September 2014. The B9 project was processed as a Categorical Exclusion, which was documented in the July 2010 ECAD and updated in January 2013 and June 2014.

Both the CREATE projects are vetted through CREATE partners, including IDOT and CDOT and other stakeholder and permitting agencies. Copies of letters to/from cooperating and participating agencies are documented in the FEIS in Appendix C, including, among others, correspondence with the U.S. Army Corps of Engineers, the U.S. Fish & Wildlife Service, the U.S. Environmental Protection Agency, the U.S. Department of the Interior, the U.S. Department of Transportation - Federal Railroad Administration (FRA). Agency review comments on the 75th Street CIP, including those provided by the FRA are documented and summarized in Appendix J.

For B9, FHWA signed off on the ECAD. Sign-offs from various agencies on the Biological, Wetland, Cultural, and Preliminary Environmental Site Assessment are included in Appendix A of the ECAD and as updated in the July 2014 Technical Memorandum. The CREATE Partners will adhere to the environmental commitments made during the environmental review process. Permits for the project will be the responsibility of IDOT and the lead participating railroad and will be incorporated into the Plans Specifications and Estimates (PSE) during Phase II. Permits will be required from the City of Chicago, the Chicago Park District, the Illinois Department of Natural Resources as well as permits for compliance with Section 404, Section 401 and National Pollutant Discharge Elimination System (NPDES). Permits for the 75th Street CIP are documented in Chapter 3 of the FEIS, as are the environmental commitments. For B9, permits and environmental commitments are indicated in the ECAD, and updated in the Technical Memorandums.

Public involvement efforts and public comments for the 75th Street CIP are documented in the FEIS and were addressed through the environmental commitments. The Stakeholder Involvement Plan is contained in Appendix C while public comments are documented in Appendix J. Public Involvement efforts for B9 are documented in Exhibit I of the January 2013 Technical Memorandum.

VIII.5 State and Local Planning Support

State Transportation Plans

The IDOT State Rail Plan adopted in 2012 supports the CREATE Program and is a component of the State's Freight Mobility Plan, including the 75th Street CIP and B9. Likewise, IDOT's 2012 Long Range Transportation Plan (LRTP) supported the CREATE Program and projects. The 2017 update to the State LRTP is underway.

Cook County Transportation Plan

The 2016 Cook County LRTP identified CREATE as a successful "pathbreaking effort" and supported its continued fiscal backing as a means of improving train traffic and maintaining the region's role as North America's freight capital.

Metropolitan Planning Organization

The CREATE Program is consistent with the freight element of the Chicago Metropolitan Agency for Planning (CMAP) GO TO 2040 Comprehensive Regional Plan. The federal government designated CMAP as the Chicago region's Metropolitan Planning Organization (MPO), responsible for reviewing and approving projects that use federal transportation funds.

GO TO 2040 calls for the full funding and implementation of the CREATE Program in order to support the plan's goal of "creating a more efficient freight network," one of its 12 high-priority recommendation areas. The plan states that implementation of the CREATE Program should be a top priority to support the efficiency and effectiveness of mobility throughout the region.

The FFY 2014-19 Transportation Improvement Program (TIP) is one of the short-term implementation tools for the GO TO 2040 Plan update. The TIP is metropolitan Chicago's agenda of surface transportation projects, listing all federally funded projects and regionally significant, non-federally funded projects programmed for implementation. The TIP is updated and amended regularly through the CMAP Transportation Committee. The 2014-2019 TIP includes the "CREATE East-West Corridor from Argo Interlocking to CP509," which encompasses the entire project area, to address freight movement, with the IDOT Division of Public and Intermodal Transportation (DPIT) as the lead agency. The TIP reflects an estimated budget of $519,384,000 to be funded with a combination of Federal and "other" funds.

Letters of Support

This grant application is supported by a broad range of transportation agencies and units of government. Copies of letters of support for this FASTLANE application are available here. Letters have been received from the stakeholders are listed below:

- Alliance for Regional Development
- Amtrak
- Association of American Railroads
- Bedford Park Clearing Industrial Association
- Calumet Area Industrial Commission
- Center for Neighborhood Technology
- Chicago Area LECET
- Chicago Metro Metal Consortium (CMMC)
- Chicago Metropolitan Agency for Planning
- Chicago Neighborhood Initiatives
- Chicagoland Chamber of Commerce
- City of Chicago, Mayor Rahm Emanuel

- Coalition of America's Gateway and Trade Corridors
- Congressional Delegation
- Construction & General Laborers' District Council
- Cook County
- CSX Transportation
- Environmental Law and Policy Center
- Greater Auburn-Gresham Development Corporation
- Hispanic American Construction Industry Association
- Illinois Chamber of Commerce
- Illinois Department of Transportation
- Illinois Farm Bureau
- Illinois Manufacturers' Association
- Illinois Road Transportation Builders Association
- Illinois Soybean Association
- Indiana Department of Transportation
- International Union of Operating Engineers
- Iowa Department of Transportation
- Metra
- Metropolitan Mayors Caucus
- Metropolitan Planning Council
- Michigan Department of Transportation
- Midwest Interstate Passenger Rail Commission
- Minnesota Department of Transportation
- Missouri Department of Transportation
- Norfolk Southern
- Northwestern Indiana Regional Planning Commission
- Ohio Department of Transportation
- Port of Long Beach
- Regional Board Chairs
- SMART - Transportation Division (UTU)
- Southwest Michigan Planning Commission
- Supply Chain Innovation Network of Chicago
- Transportation for Illinois Coalition
- Union Pacific
- United Parcel Service
- Village of Bedford Park
- Ward 6, City of Chicago, Alderman Roderick Sawyer
- Ward 17, City of Chicago, Alderman David Moore
- Ward 18, City of Chicago, Alderman Derrick Curtis

VIII.6 Project Risks and Mitigation Strategies

CREATE Partners manage project risks in accordance with the Estimates and Contingency Plan. This document outlines processes for use of management reserve funds for changes to scope; procedures for the use of contingency funds associated with addressing design errors, requests by other agencies, unidentified utilities, added property costs, unanticipated conditions or commitments, and force majeure; and the process for approving change orders and their payment method. In addition, the CER conducted in 2014 for the 75th Street CIP included a risk-based review of the project cost estimate to confirm the reasonableness of the cost estimate and project schedule. The final report from the CER is located here. Chapter 3 of the CER documents the risk analysis and Appendix B includes a risk register. The risks documented in the register include: 1) those considered to have a reasonable chance of occurrence and included in the Probability Model, and 2) those considered to have a low probability and not included in the Probability Model.

The most significant of the documented cost risks that could impact the project included the following: structures superstructure cost increases; structures substructure cost increases; and potential change orders during construction.

Currently the design for the project is at a conceptual design level consistent with Phase I preliminary engineering. As final design proceeds, costs may increase as information is acquired and requirements are established. An allowance for cost increases is included in the contingency amount in the CER cost estimate. Mitigation of any cost increases will be addressed in the design process.

The most significant threats that could delay the project schedule include the following:

- Delay to right of way acquisition: The current schedule includes two years for completion of final design and right-of-way acquisition for projects P2 and EW2, which could be considered aggressive. During the CER process there was discussion of IDOT requesting legislative approval for "quick take" authority to mitigate this potential schedule threat.
- Existing railroad operations delaying construction: Mitigation of this threat will require close coordination between the railroads and the contractor related to peak time needs and potential conflicts.
- Bridge structure material delivery delays: The advanced scheduling and coordination of any long lead-time materials will mitigate this potential delay.
- Bridge structure construction delays: This threat can be mitigated through close coordination, and scheduling of bridge construction well in advance to minimize local maintenance of traffic.
- Utility relocation delays: Communication and coordination with the utility companies will mitigate much of this delay, although the threat of encountering unknown utilities could still have an impact.
- Avoiding weather impacts: The construction schedule assumes four months per year of slowed or inactive construction due to the impact of inclement weather. This schedule could be improved should the region experience mild winters and/or the contractor is able to schedule specific construction activities during winter months.

The results of the CER demonstrate that the contingency amount in the pre-CER cost estimate was sufficient to cover the risks identified during the CER. There are major risks for the team to manage, including the initial schedule threats to right-of-way acquisition and utility relocation. There are also opportunities during the design stage to avoid some of the major cost threats, and during the construction stage by aggressively managing scope changes, to potentially reduce the overall project costs.

The potential for unknown environmental risks is mitigated by the fact that the project elements have obtained the requisite environmental approvals. Further, the CREATE Program has a history of delivering projects under budget and on-time. To monitor, manage, and drive cost and schedule performance, CREATE utilizes a program management consultant (PMC). The partnership framework and management processes for CREATE detailed in Partnerships and Management Practices guide the management and mitigation activities used by the PMC and the CREATE partners.