

2.0 ALTERNATIVES

2.1 Introduction

The alternatives selected for evaluation in this Environmental Assessment (EA) include the No Build Alternative and a Build Alternative that provides for increased HSR service levels through double-tracking of the Union Pacific (UP) Railroad/Amtrak routing between Dwight, Illinois and St. Louis, Missouri. Three alternative routings and associated improvements (such as new double-tracking, crossovers, and sidings) between Dwight and Chicago were examined and two alternative routings through Springfield, Illinois were examined.

2.2 No Build Alternative

The No Build Alternative includes existing and expected near-term freight and Amtrak services between Chicago and St. Louis and the proposed improvements to implement HSR contained in the Chicago – St. Louis High Speed Rail Project Environmental Impact Statement (EIS), completed in January 2003, with the Record of Decision (ROD) signed in January 2004. The EIS and ROD included the upgrade of the existing single track and 22 miles of siding, 12 miles of second track, one grade-separated highway-railroad grade crossing, and the installation of enhanced warning devices at 174 grade crossings, along the UP/Amtrak route between Dwight and St. Louis to allow 110-mile per hour (mph) operation for three round trips per day.

With the opening of the new Joliet intermodal terminal, the number of freight trains is expected to double in the next year from six per day to 12 per day. Additional growth in freight trains is also expected beyond the 12 trains per day with the potential of up to 22 trains per day by 2017. The number of Amtrak trains has increased to 10 trains per day.

The majority of intercity automobile travel in the Chicago – St. Louis Corridor is concentrated on Interstate 55 (I-55), which primarily runs parallel to the Chicago – St. Louis Amtrak route. With the No Build Alternative, normal maintenance and minor highway improvements would continue. A proposed new four-lane I-70 Mississippi River bridge would provide additional highway capacity between Missouri and Illinois in the St. Louis metropolitan area, providing some congestion relief to I-55.

Intercity bus service is provided by Greyhound Lines and Megabus. With the No Build Alternative, it is assumed that the number of bus trips would increase proportionately with the projected growth of bus travel demand in the corridor. It is also assumed that the number of corridor air service flights would increase proportionately to the projected air travel demand growth in the corridor.

The No Build Alternative would not meet the purpose and need of the project. It would not improve the modal balance in the Chicago – St. Louis Corridor, it would not ensure reliable four hour overall travel time between Chicago and St. Louis, and it would not alleviate

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conflicts with freight traffic or operating costs. The single main track with sidings and 12 miles of additional second track could not accommodate the additional frequency of high speed passenger service and would not provide the operating flexibility required in view of the growing rail freight traffic. As a result, on-time performance for the additional frequency of high speed passenger trains would be adversely affected.

The proposed project would result in major improvements in terms of travel times and on-time performance over the No Build conditions. An increase in rail passenger ridership would occur as a result of the project, as the dual mainline tracks are expected to result in an overall reduction in rail travel times meeting the four hour time between the corridor end points, plus improvements in the reliability and safety of rail service. The dual mainline tracks are also expected to avoid the operating conflicts for intercity passenger services resulting from the increased rail freight traffic anticipated to serve new intermodal freight facilities currently being constructed.

With the No Build Alternative, if additional rail capacity is needed in the future to accommodate projected overall travel growth of the Chicago – St. Louis Corridor, it is assumed that cars would be added to existing trains rather than adding additional trains.

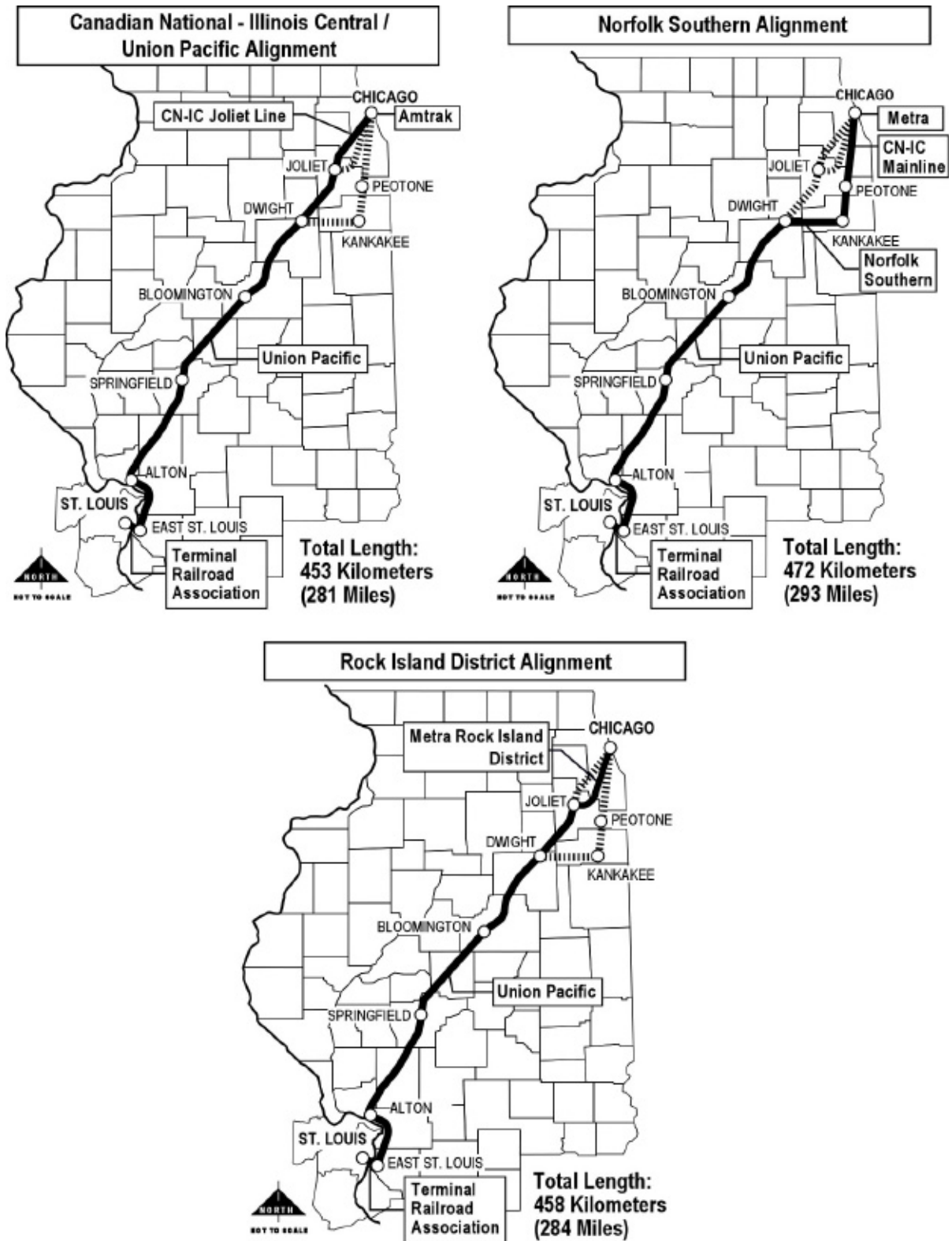
2.3 Detailed HSR Build Alternative

2.3.1 Alternatives Considered between Dwight and Chicago

Due to the lack of funding commitments and the uncertainty regarding several related projects, the 2003 Chicago – St. Louis HSR Project EIS did not select a Build alternative between Dwight and Chicago. Three alternatives were evaluated in the EIS process. One alternative was the existing route utilizing the UP between Dwight and Joliet and the Canadian National (CN) (former Illinois Central/GM&O/Alton) between Joliet and Chicago Union Station. Another alternative used a Norfolk Southern (NS) (former Conrail) branch line east of Dwight to Kankakee, and then the Canadian National (former Illinois Central) line north to Chicago. The third alternative followed the UP north from Dwight to Joliet and then followed the Metra Rock Island District (RI) (former Rock Island) line between Joliet and Chicago. Figure 2-1 shows the three alternatives.

Amtrak currently uses the UP-CN alternative for the six Lincoln Service trains operated daily between Chicago and St. Louis. The State of Illinois helps fund these six trains. The UP-CN alternative is also used by the Texas Eagle, part of Amtrak’s long-distance national network, which continues beyond St. Louis to Dallas-Fort Worth and San Antonio, Texas. Between Chicago and St. Louis, the UP-CN alternative has 281 miles, the NS alternative has 293 miles, and the RI alternative has 284 miles.

Figure 2-1
Alignments Evaluated in the Draft EIS



2.3.1.1 Funding Availability

Questions regarding funding that existed in 2003 have now been answered; therefore, the choice of an alternative is clearer. A concern cited in the Final Environmental Impact Statement (FEIS) was the lack of committed funding for improvements in the project area. The new commitment of federal funds for high speed intercity passenger rail in the United States holds the promise for this project since the FEIS has been approved. Funds from the State of Illinois's Capital Spending bill, *Illinois Jobs Now!*, have the potential to match the federal dollars to permit the entire Chicago – St. Louis HSR project to move forward.

2.3.1.2 CREATE Project Railroad Improvement Plans

Two critical bottlenecks that involved the Canadian National alternative and were problematic to the implementation of HSR are scheduled for elimination as part of the Chicago Region Environmental and Transportation Efficiency (CREATE) program. The CREATE program includes a specific set of railroad improvement plans that were developed in a coordinated planning effort between the U.S. Department of Transportation, the IDOT, the Chicago Department of Transportation, Metra, Amtrak, and the Association of American Railroads (AAR) and the freight railroads serving northeast Illinois (BNSF Railway, Canadian Pacific Railway, CN, CSX Transportation, Norfolk Southern Corporation, and the UP Railroad).

Two rail flyovers proposed in the CREATE program would eliminate the current at-grade rail crossings that cause the operational bottlenecks and delays to Amtrak and Metra trains. The first bottleneck at Brighton Park will be addressed under CREATE Project P-5. A new double track bridge will carry the CN freight traffic, Amtrak intercity, and Metra commuter passenger trains over the four-tracked Western Avenue Corridor of the Norfolk Southern. CREATE Project P-6 includes a second double track bridge, which will carry the CN/Amtrak and Metra over the Beltway Corridor of the Indiana Harbor Belt Railway (IHB) at CP Canal in Summit. Both UP and CN have supported these CREATE elements, which will facilitate the expanding freight operations as well as the HSR passenger service.

In addition, new signals were put in at Brighton Park to help with the train movements. Prior to the Brighton Park junction improvements, switch-operators used semaphore towers to signal approaching trains to stop, then notified them when it was safe to proceed through the busy crossing of intersecting tracks. More than 70 trains a day proceeded to the Brighton Park junction and stopped, and waited for track clearance before they could continue their journey. Ten Amtrak trains serving the Chicago-to-St. Louis corridor pass through Brighton Park daily and were also affected by the congested system. In 2007, a modern remotely controlled signal system, new crossing diamonds and other improvements were installed at Brighton Park.

2.3.1.3 Routing Options

Another concern cited in the FEIS was the potential development of a new South Suburban Airport near Peotone, Illinois, which could potentially be served by the Norfolk Southern route. While the State of Illinois is acquiring land for a future airport to preserve the area for future airport development, the plan has not been approved by the Federal Aviation Administration. The IDOT is currently updating forecasts of potential use of the airport. A possible one runway “starter” airport is being discussed.

The City of Joliet has become the fourth largest city in Illinois and a major travel destination. The Metra Rock Island District or the Canadian National options would serve Joliet. The Metra Rock Island Division is heavily used by Metra commuter operations with some 70 trains each weekday. In contrast, the Heritage Corridor of Metra, which uses the Canadian National route between Joliet and Chicago, is served by only three trains per day in each direction. The Metra Rock Island District commuter operations would add conflicts with high speed intercity passenger with trains stopping at 12 intermediate stations.

The Norfolk Southern option would require upgrading a lightly used railroad freight branch line to permit high speed passenger operations. This alternative would also require upgrading the largely single track CN north-south main line, one of CN’s busiest freight routes. Although the CREATE Project P-1 includes improvements at Grand Crossing and provides for an improved route for Amtrak trains into Chicago Union Station (P-4), this route is also part of the planned high speed rail route between Chicago and Detroit, Michigan and between Chicago and Indianapolis, Indiana, which would limit the number of operational “slots” available for Chicago-St. Louis trains and could also impact schedule reliability.

Since the 2003 FEIS, the UP has developed plans and is moving forward to construct a new intermodal terminal immediately south of Joliet, which would be connected to the UP line currently used by Amtrak. Construction has commenced on this new intermodal terminal; it is expected to be operational in 2010. While the line currently sees only six freight trains per day, UP is projecting over 20 trains per day when the intermodal terminal is fully operational and the adjacent industrial development is completed. The addition of HSR services will make the added capacity of double track imperative to avoid conflicts between the current AMTRAK passenger service and proposed HSR, and the expanded UP freight operations.

The Canadian National alternative follows the historic Illinois and Michigan National Heritage Corridor for much of the distance between north of Joliet and just south of Chicago Union Station. The rail tracks follow the route of the historic Chicago and Alton Railroad, which began operations in 1847 and have been in continuous use as a railroad for over 160 years. The Lockport area is the location of the Gaylord Building, part of the National Trust for Historic Preservation. The building was constructed of limestone excavated for the I&M Canal construction. The high speed rail improvements in the sections along the I&M

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Corridor will be located within the existing railroad-owned property and do not anticipate the need to acquire additional right-of-way. The portion of the Canadian National option between Joliet and Chicago is also part of the Chicago Terminal Track 2 application for ARRA funding.

2.3.2 Springfield Alternatives

Interest in relocating railroad operations through Springfield, Illinois has been expressed by several parties. The Capital City Railroad Relocation Authority, which existed between 1967 and 1994, accomplished the consolidation of some sections of the Springfield rail network. Mergers and spin-offs of branch lines have also changed the rail traffic picture in recent years. The most recent study of potential rail consolidation in Springfield was completed for the City in 2005.

While the recent City study recognized that the IDOT was planning for the development of high-speed rail passenger service between Chicago and St. Louis, the magnitude of the future intercity passenger service and UP freight operations were not fully considered. These future operations are now forecast to include 18 passenger trains and more than 20 freight trains each day. The projected increase in freight frequencies is largely the result of the development of a new intermodal freight terminal currently underway in Joliet, farther north on this rail line. This new development was not foreseen in 2005. In fact the City report stated, "UP does not view this as a major freight line in the future". The 2005 City report recommended that the three rail freight corridors be consolidated by using the NS corridor in Tenth Street, thereby allowing the abandonment of the UP/Amtrak Corridor located in Third Street and the CN Corridor in Nineteenth Street. The City study recommended a basic two track line in Tenth Street but the consolidation was never supported by any of the five railroads involved.

2.3.2.1 Existing UP/Amtrak Corridor (Third Street)

The existing UP/Amtrak Corridor uses the historic route of the Chicago & Alton Railroad through downtown Springfield. For many years, the Third Street Corridor was double tracked; however, one track was removed in the early 1970s. The Third Street Corridor includes about 25 at-grade rail-street crossings between Sangamon Avenue and Ash Street. Both UP freight and Amtrak passenger operations through Springfield are currently limited to a 25 mph maximum speed. The Preferred Alternative in the High Speed Rail FEIS of 2003 retained the existing single track configuration through the Springfield area, with a rebuilding of the track to permit a 40 mph top speed. The 2005 report to the City noted that during the most recent 10 years there was one accident in this section of the rail line with one injury resulting.

In order to accommodate the growing freight rail traffic and the high speed intercity passenger service without operational delays, the IDOT now proposes to add a second track in this corridor through Springfield. Some four quadrant gates were included in the improvements proposed as part of the 2003 FEIS for installation at many of the at-grade

crossings. It is likely that the Illinois Commerce Commission (ICC) will require four quadrant gates at all the crossings in the City. Fencing or barrier can be installed where problems exist from trespassing and encroachment by vehicles on the flanking frontage roads. The existing historic railroad station, which serves the current Amtrak passenger trains, located on Third Street between Jefferson and Washington, was constructed in 1895 for the Chicago & Alton Railroad. Under the State's current plans, it will be preserved and platforms upgraded. Since there are no active rail freight customers on this section of the UP/Amtrak Corridor, freight trains will be able to maintain the 40 mph speed without stopping, minimizing the waiting time for vehicles and pedestrians stopped at the crossings. Current projections of future freight and passenger trains anticipate some ten freight trains each day in each direction, together with nine passenger trains each way. This includes the added intermodal trains anticipated to be carrying containers to and from the new Intermodal Terminal under construction in Joliet. Construction of the double track line with welded rail, new concrete crossing panels, and upgraded crossing gates would be accomplished within the existing right-of-way.

2.3.2.2 Norfolk Southern Corridor (Tenth Street)

The 2005 City study proposed to relocate UP freight operations, existing Amtrak and High Speed Rail passenger trains, and Canadian National freight trains and I&M freight trains to a single shared corridor using the existing NS line in the Tenth Street corridor. The plan included adding a second and, in short section, a third main rail track, along with grade separation structures at North Grand, Ash, and Madison/Jefferson Streets. This is the route of the former Wabash Railroad and is now a main freight route of Norfolk Southern between Kansas City and Detroit as well as Columbus, Ohio and East Coast points. If the three separate rail lines were all operating on the NS Corridor, some 70 trains per day would use the Tenth Street Corridor (25 NS, 20 UP, 18 HSR/Amtrak, 4 CN, and 3 I&M). The plan also included rebuilding a portion of the I&M line to connect the UP and NS tracks.

As noted in the 2005 City report, "NS may consider double tracking" just to accommodate its own future traffic. The combined 40 daily trains of UP freight and HSR passenger operations will also require double tracks to assure reliable on-time operations. The UP has also indicated its requirement to control its operations rather than have dispatching done by NS or I&M, so the feasibility of sharing NS tracks for this volume of freight and passenger traffic would be problematic. NS also wishes to control its operations since this line is an important commercial corridor with 25 or more trains per day. Thus it is likely that four tracks would ultimately be required to adequately serve the combined volume of passenger and freight train operations, two for NS (and perhaps CN and I&M), and two for UP/Amtrak/HSR. Constructing four tracks in the Tenth Street Corridor would require much more extensive construction and property condemnations than had been anticipated in the 2005 report.

The NS also has a substantial freight switching yard in the Tenth Street Corridor between Cook Street and South Grand resulting in the slow movement of freight trains entering and

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leaving the yard. The 2005 City report notes that the proposed overpass at North Grand would require right-of-way acquisition and would displace residences and businesses. New right-of-way would also be required for the connecting tracks to route trains from the other lines onto the NS Corridor. The concept plan developed in the 2005 report for rerouting the UP/Amtrak trains using the I&M to access the NS Corridor also would require sharp curves at both ends permanently limiting train speeds to 25 or 30 mph. In order to achieve 40 mph operating speeds, the curves would have to be much flatter and as a result at the south end where the I&M would meet the NS Corridor, the flatter curve could impact the baseball stadium at Lanphier plus additional houses on the south side of North Grand Avenue. At the north end connection, where the tracks would transition between the UP and the I&M, the existing bridge over Sangamon would have to be replaced. A new passenger station would be required. Safe passenger access to platforms would require separation from the NS freight operations. Platforms would be required to access two tracks to permit simultaneous stopping of northbound and southbound trains. While it is understood that the City has been exploring constructing an intermodal station serving both intercity passenger rail and local buses, the additional property required could involve condemnation that would add further delay to implementation.

2.3.2.3 HSR Schedule Implications of Springfield Alternatives

Third Street Alternative

The Third Street Corridor through the City of Springfield has major advantages for early implementation of the Chicago – St. Louis HSR passenger service. Agreements are in place between the UP and Amtrak for passenger trains to use the UP tracks. Since the existing UP/Amtrak Corridor track construction would be performed within the existing right-of-way, the work to restore the second track could be scheduled to commence as soon as funding is available and regulatory authority is received. Some initial work for relocation of the fiber-optics communication buried cables and other utilities would be required to accommodate the second track. In contrast to the Tenth Street Corridor, no new structures would be required, minimizing impacts during the track restoration.

The second restored “double” track would be constructed while maintaining passenger and freight train traffic on the existing track. The existing track has already been rebuilt with concrete ties and welded rail. The new grade crossing signals and gates would be designed and installed concurrently with the double track construction. By using highly mechanized Track Laying Machines (TLM), it is estimated that all the track construction and related signal and grade crossing improvements would be completed as soon as 2012. The double tracking of the Third Street Corridor would thus be completed before the UP’s freight traffic begins to ramp up to serve the new Joliet intermodal terminal.

Upgrading the present track and restoring the former double track in the Third Street Corridor along with the installation of four quadrant gates will permit the modest increase in both passenger and freight train speed through the corridor from 25 mph to 40 mph.

Except in the station area where passenger trains will stop, the added train speed will reduce delay time at the road crossings to less than 30 seconds per passenger train and about two minutes for a freight train. Opportunities also exist for consolidation of some of the closely spaced street crossings to further improve safety without significantly affecting traffic and pedestrian flows.

Tenth Street Alternative

The Tenth Street Corridor through Springfield is owned and operated by Norfolk Southern and is a busy freight route with some 25 trains per day. Although Amtrak operates passenger trains on NS tracks in other locations, NS has expressed serious concerns about joint use of the line through Springfield since it could unduly interfere with NS's current freight operations, particularly with the operations of the Springfield Freight Yard in the vicinity of Cook Street and South Grand. UP has reviewed the Tenth Street alternative and has said that the plan as presented in the 2005 study does not work. None of the NEPA required environmental studies have been performed for the Tenth Street Corridor. Since a number of properties would have to be acquired, and since the Tenth Street Corridor is adjacent to an area with a significant minority population, a full EIS is likely to be required in order to qualify for federal funding. An EIS of this magnitude normally would require at least two years for scoping to a ROD. A ROD would not be likely to be issued until 2012.

The 2005 City report noted the need to construct at least three grade separation structures in order to consolidate the rail operations in Tenth Street. This would require preparation of detailed engineering plans for the new structure, acquisition of right-of way for some of the connecting tracks. Agreements would have to be negotiated with both NS and I&M for construction as well as operations and maintenance on their properties. The detailed design, property acquisition, and negotiations processes would at a minimum require three years prior to the start of any construction in the Tenth Street Corridor. The earliest construction could commence would be 2015. Staging of the new structures while maintaining NS freight operations would likely require at least two years, plus a third year for final track installation. This would mean that HSR passenger operations between Chicago and St. Louis could not commence until 2018. Intercity passenger service and the UP's growing freight operations would be required to use the single track in the Third Street Corridor until the new route was completed with added delays resulting from the increased freight operations. Operations simulations performed by UP also found that the Tenth Street Corridor would add an estimated 10 minutes to passenger train schedules and more for freight operations.

2.3.2.4 Impacts on the Purpose and Need of the HSR Project

The goal of the Chicago to St. Louis HSR project is to make passenger rail travel more attractive and to increase the modal share of passenger rail. One of the most important project objectives is to achieve a four hour trip time between the two cities, and to have a reliability of better than 90 percent on-time performance. The project is also seeking federal

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funding currently available from the \$8 Billion FRA high speed rail program. Early implementation will be a key factor in FRA's evaluation of competing projects around the US. The Third Street Corridor is "shovel ready" to use the federal terminology. In contrast, relocation of the high speed rail operations to the Tenth Street Corridor are far from the design stage, lacking support from the five railroads that would be involved. Since the early implementation of improving the tracks and grade crossings in the Third Street Corridor requires a relatively modest capital investment, it would not preclude future detailed examination of other rail alternatives through Springfield that would achieve the goals of high speed rail and improved rail freight services. No ARRA funds have been applied for to pursue improvements in the Tenth Street Corridor.

2.3.2.5 Cost of Alternatives

The existing single track in the Third Street Corridor has been upgraded with concrete ties and welded rail by UP at a cost of \$ 5 Million. Restoring the second track and adding the four quadrant gates along with the station improvements should complete the remaining work in the Third Street Corridor for under \$15 Million. While no detailed engineering plans have been developed for the Tenth Street Corridor, the double track concept proposed in the 2005 City report estimated the cost at \$70 Million. Considering the cost escalation since that date, constructing a single added track for UP and Amtrak operations in Tenth Street plus the three overpass structures would likely be around \$120 Million. Constructing two new tracks in Tenth Street to meet the needed capacity for the expanded UP freight traffic plus high speed passenger service would likely be in excess of \$200 Million.

2.3.2.6 Springfield Alternative Routing of Rail Freight

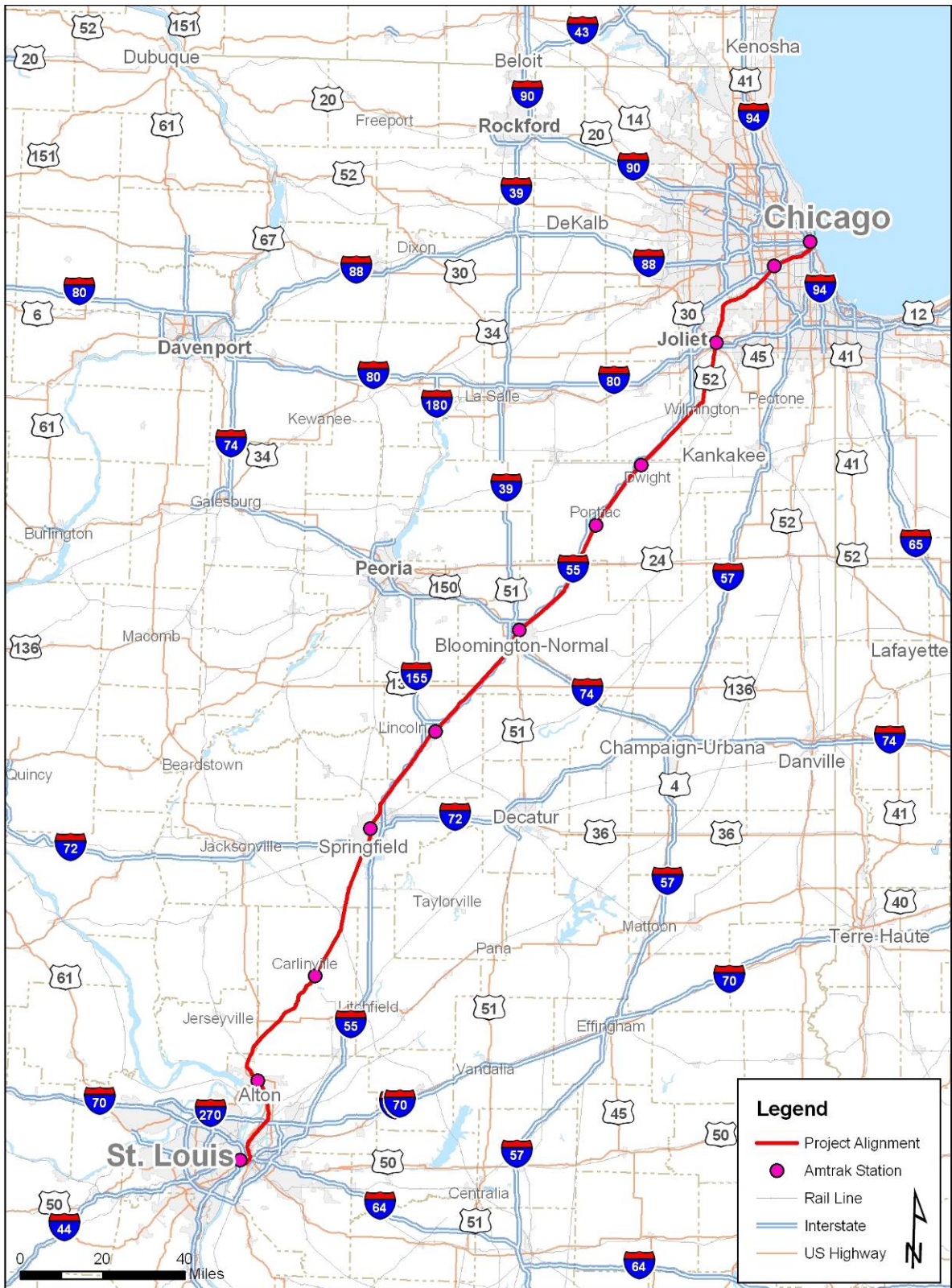
Studies of alternative routing of rail freight service, independent of passenger rail implementation, will be undertaken in Springfield. The studies will examine alternative routes for relocation and consolidation of rail freight service in Springfield by all the freight railroads that operate in Springfield.

2.4 Preferred Alternative

2.4.1 Description

The preferred alternative is the Chicago – St. Louis Second Mainline Track project. This is the next phase in development following the Chicago – St. Louis HSR Corridor Project, approved by FRA under the 2003 EIS and 2004 ROD. The Chicago – St. Louis route has been designated as a 110-mph corridor for the Midwest Regional Rail Initiative. The Preferred Alternative is located primarily within the State of Illinois between the cities of Chicago and St. Louis, Missouri, on the UP Railroad's Joliet and Springfield subdivisions. Figure 2-2 shows the project area and alignment.

Figure 2-2. Preferred Alternative



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This project will establish a second mainline track between the Joliet and St. Louis including rehabilitation of the existing freight siding north of Dwight. The second mainline track will be primarily within existing right-of-way, although some additional right-of-way may be required.

Currently, there is one track and sidings along this alignment, which is the remnant of a former double track railroad that was scaled back to a single track by the former owners. The improvements included in the 2003 EIS will upgrade the single track and sidings, and add 12 miles of second track along with enhanced warning devices at grade crossings. The proposed project will rehabilitate roadbed, add new ties, rail, and ballast and, as necessary, reestablish the historic double-track configuration. In addition, new train signaling will be installed, or existing signal devices will be upgraded, as necessary.

The project will enable Amtrak to increase Chicago – St. Louis passenger service from the existing 10 trips per day (5 round trips) to up to 16 trips per day (8 round trips), plus the existing two trips by the Amtrak Texas Eagle. For each trip, the general trainset configuration is one locomotive, four coaches, and one cab, with the capacity to seat 500 passengers. Most passenger trips occur during daytime hours, while freight trips are more likely to occur over 24-hours.

An increase in rail passenger ridership would occur as a result of the project, as the dual mainline tracks are expected to result in an overall reduction in rail travel times meeting the four hour time between the corridor end points, plus improvements in the reliability and safety of rail service. The dual mainline tracks are also expected to avoid the operating conflicts for intercity passenger services resulting from the increased rail freight traffic anticipated to serve new intermodal freight facilities currently being constructed.

The improvements will provide for independent utility for this project. The proposed second track will provide for immediate improvements to existing Amtrak service. Acknowledged “choke points” in the corridor will be alleviated, and two trains will be able to utilize the corridor at the same time. This will provide for improved operation of existing and proposed Amtrak passenger trains within the corridor, as meets with UP freight trains can be better scheduled and accommodated. Further, this project will complement subsequent improvement activities provided for in the 2003 Final EIS.

2.4.2 Second Mainline Track

The current track alignment varies from side to side within the right-of-way. Therefore, existing trackage will be rehabilitated, replaced, and/or realigned to establish two parallel tracks where there is now one track. In addition, some siding track will be extended within the right-of-way.

Within the existing approximately 100-foot right-of-way, the two mainline tracks will be spaced 20 feet apart, center-to-center, with a buffer of approximately 30 feet between the

outside track and the edge of the right-of-way. Each trackset will be about 9 feet wide at the base of ballast. The dual tracks will provide for more efficient use of the space within the right-of-way, as the location of the existing track varies from one side of the right-of-way to the other. The new track will be laid on the “vacant” side of the right-of-way and connected to existing track, as feasible. Track that is in the middle of the right-of-way or that crosses the right-of-way will be left in place for potential future use.

The project will use premium rail, concrete ties, and a wider track-center spacing that ultimately will be suitable for higher-speed rail operation. Where feasible, construction activities and staging areas will be within existing UP right-of-way. Construction is expected to begin in 2011 and end in 2015. No displacements are expected from additional right-of-way that may be required.

2.4.3 At-Grade Crossings

Within the Chicago – St. Louis Corridor, there are numerous at-grade crossings that may be modified with the addition of a second track. Because the corridor previously had two tracks, the vast majority of the current at-grade crossing areas are wide enough to accommodate the addition of a second track. However, because the two tracks will require more space than the one existing track, the safety and warning signs may need to be relocated to accommodate the second track. At some crossings, the automatic crossing gates will need to be relocated, and some will need to be re-configured because of the second track.

Increases in train speeds warrant an increase in the level of grade crossing warning or protection. Consistent with FRA guidelines and good engineering practice, crossings will be warned or protected as appropriate. With the addition of a second track, some crossings will warrant alternative treatments to those that now exist. These modifications may include installation of new protection devices, installation of warning devices and/or installation of electrical lines.

2.4.4 Bridge Crossings

Within the Chicago – St. Louis Corridor, there are numerous bridges where the rail line crosses waterways and roads. These will be modified with the addition of a second track. Because the corridor previously had two tracks, many of the bridges are wide enough to accommodate the addition of the second track. However, some bridges/culverts may need to be widened to provide for the second track. The existing roadbed on the bridges and approaches will be modified for the second track in accordance with current FRA standards. A Bridge Condition Report (BCR) will be conducted at each bridge to determine the structural integrity for adding a second mainline track. For these crossings, the necessary NEPA documentation will be prepared at the project level.