

# Section 1

## INTRODUCTION



# **1.0 Introduction**

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## **1.1 Tiering Process - Overview**

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This draft environmental impact statement (Draft EIS) addresses the proposal by the Illinois Department of Transportation (IDOT) to improve high speed passenger rail service between Chicago, Illinois and St. Louis, Missouri and to improve the rail lines through Springfield, Illinois, and includes the Springfield Rail Improvements Project. This Draft EIS has been prepared to satisfy the requirements of the National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321 et seq.), and Council on Environmental Quality (CEQ) NEPA regulations (40 CFR 1500-1508). This Draft EIS is being prepared by IDOT and the Federal Railroad Administration (FRA) in cooperation with the U.S. Fish and Wildlife Service, the U.S. Environmental Protection Agency, the Illinois Historic Preservation Agency, the Illinois Department of Agriculture, and the Illinois Department of Natural Resources. IDOT and FRA are using a tiered environmental process, a phased environmental review used in the development of complex projects. This Tier 1 Draft EIS addresses broad issues and alternatives for the Chicago-St. Louis rail corridor. If a decision is made to build additional rail improvements as an outcome of the Tier 1 process, Tier 2 environmental documents will be prepared for component projects.

Concurrent with the Tier 1 study of the full Chicago to St. Louis corridor, IDOT and FRA are conducting a Tier 2 analysis for the Springfield Rail Improvements Project. The Tier 1 Draft EIS includes the Springfield Rail Improvements Project Tier 2 evaluation (this document), which considers site-specific alternatives through the City of Springfield. The Springfield Rail Improvements Project is also referenced as the Springfield Project in this document.

## **1.2 Tier 1 Alternatives in Springfield**

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The purpose of the proposed Chicago to St. Louis High Speed Rail (HSR) Corridor Program is to enhance the passenger transportation network between Chicago and St. Louis by improving high speed passenger rail service, resulting in a more balanced use of different corridor travel options by diverting trips made by automobile and air to rail.

The existing transportation network consists of highway (automobile and bus), air, and passenger rail travel. Currently, nearly all trips made annually within the Chicago-St. Louis corridor are accomplished through automobile and air travel with only 1 percent by passenger rail. Automobile travel is seen as more flexible and convenient, and air travel is seen as faster than passenger rail. Enhancements to passenger rail service would include reduced travel times, improved service reliability, increased frequency of trips, and increased capacity. Increased use of rail would result in an overall improvement in traveler safety in the corridor, as well as a reduction in air pollutant emissions and energy consumption.

Multiple alignment options are available for the HSR corridor through Springfield. In addition, the existing and projected rail traffic on the three north-south corridors through Springfield causes vehicle traffic congestion, safety and other problems. These problems are primarily related to the multiple at-grade crossings in the three north-south corridors. The crossings block vehicle traffic, increase risk of crashes and require trains to blow horns. Concurrent with the Tier 1 analysis, the Tier 2 analysis through Springfield analyzes alternatives for enhancing Union Pacific (UP) rail line capacity and to accommodate and reduce the effects of the increasing high-speed passenger and freight train traffic on the on the three north-south rail corridors in the City.

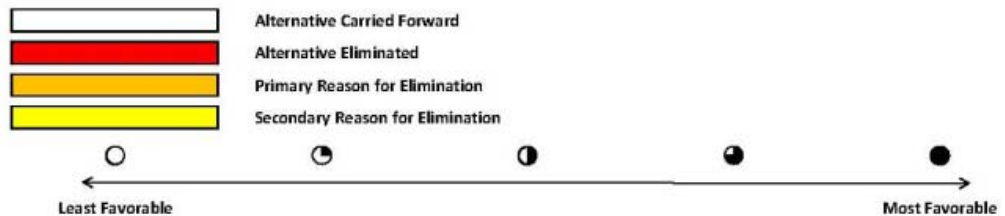
The north limit of the Springfield Project is the south right-of-way line of Sangamon Avenue. The structure over Sangamon Avenue would not be affected by any of the Springfield alternatives and provides an easily recognized project limit for the public.

The south project limit is the north right-of-way line of Stanford Avenue. The track arrangements and rail operations are the same for all alternatives at this point, and it provides an easily recognized project limit for the public. The project includes an evaluation of vehicle congestion, public safety and other problems along all three of the north-south rail lines through the City.

The Tier 1 alternative screening process identified five alternatives in Springfield (see Volume I). Table 1 summarizes the Tier 1 alternatives analysis.

### Table 1-1. Summary of Springfield Tier 1 Screening

| Evaluation Criteria                                      | 1                                    | 2                    | Springfield Alternative: | 4                             | 5                             |
|----------------------------------------------------------|--------------------------------------|----------------------|--------------------------|-------------------------------|-------------------------------|
| <i>Meet Purpose and Need</i>                             |                                      |                      |                          |                               |                               |
| Passenger Travel Length (mi)                             | 4.8                                  | 4.8                  | 4.8                      | 4.8                           | 4.8                           |
| Passenger Travel Time (min)                              | 5.8                                  | 5.8                  | 5.8                      | 5.8                           | 5.8                           |
| Connectivity to passenger rail                           | N/A                                  | N/A                  | N/A                      | N/A                           | N/A                           |
| <i>Minimize Operation and Construction Issues</i>        |                                      |                      |                          |                               |                               |
| Operational Issues                                       | Minimal                              | Minimal              | CN does not support      | Additional Switching Required | Additional Switching Required |
| Number of Railroads along Route                          | 1                                    | 1                    | 1                        | 1                             | 1                             |
| Number of Railroad Flyovers                              | 0                                    | 0                    | 0                        | 0                             | 0                             |
| Number of At-Grade Highway Crossings                     | 52-67                                | 28-32                | 17-21                    | 50-54                         | 39-43                         |
| Construction Issues                                      | Limited to UP plus grade separations | Primarily NS freight | Primarily NS freight     | UP plus NS                    | UP plus NS                    |
| <i>Minimize Capital and Maintenance Costs</i>            |                                      |                      |                          |                               |                               |
| Capital Cost (\$M)                                       | 113-377                              | 315-338              | 461-486                  | 412-435                       | 558-584                       |
| Maintenance Costs (Cost per Year)                        | \$230,400                            | \$230,400            | \$230,400                | \$230,400                     | \$230,400                     |
| <i>Minimize Impacts to the Environment</i>               |                                      |                      |                          |                               |                               |
| Right-of-way Impacts (ac)                                | 6.0-22                               | 42-43                | 81-84                    | 48-49                         | 87-90                         |
| Residential and Neighborhood (mi)                        | 9.1                                  | 5.4                  | 3.6                      | 9.1                           | 7.3                           |
| Water Resources (crossings)                              | 0                                    | 0                    | 0                        | 0                             | 0                             |
| Floodplain Impacts (crossings)                           | 0                                    | 0                    | 0                        | 0                             | 0                             |
| Wetlands (ac)                                            | 0                                    | 0                    | 0                        | 0                             | 0                             |
| Threatened and Endangered Species                        | 0                                    | 0                    | 0                        | 0                             | 0                             |
| Environmental Justice (50% Poverty) *1                   | 0                                    | 0                    | 0                        | 0                             | 0                             |
| Environmental Justice (50% Minority) **2                 | 208                                  | 178                  | 75                       | 208                           | 105                           |
| Cultural Resources within Proposed ROW                   | 1                                    | 0                    | 0                        | 1                             | 1                             |
| Parks and Recreation (Potential Section 4(f) Properties) | 0                                    | 0                    | 0                        | 0                             | 0                             |



\*1 – Number of 2010 Census tracts where population having income below threshold exceeds 50 percent. The 2010 poverty threshold for a family of four is \$22,113.

\*\*2 – Based on the 2010 Census block areas that exceed 50 percent minority populations.

The Tier 1 alternative screening process (Volume 1, Section 3.3.5) eliminated the following alternatives from further consideration:

Alternative 5 was eliminated because it introduced the need for trains to shift from one track to another in the Union Pacific (UP) line north and south of the City and increased the length of Canadian National (CN) track. The shift is necessary because under this alternative UP passenger traffic would be on the 3<sup>rd</sup> Street tracks, and UP freight traffic would be on 10<sup>th</sup> Street. UP freight trains on the UP west track north and south of the City would need to cross over the UP east track to use the new UP freight corridor on 10<sup>th</sup> Street. These trains could block and delay any UP freight or passenger trains on the UP east track. This alternative also had the highest capital costs and the largest area of new right-of-way required. This alternative was among the highest in terms of length of rail corridor through minority and low-income residential neighborhoods, and did not provide any notable advantages relative to the other alternatives. Minority and low-income populations are considered “populations of concern” due to the 1997 DOT Order directing Federal agencies to identify and address disproportionate high and adverse human health or environmental effects on these groups (U.S. DOT Order 5610.2, 1997).

Alternative 4 also was eliminated because it introduces the need for trains to shift from one track to another in the UP line north and south of the city in the same manner as described above, its high capital costs, and community impacts. This alternative did not provide any notable advantages relative to the other alternatives.

Alternative 3 was eliminated because of a lack of support from the CN, the high capital costs, and the large area of right-of-way that would need to be acquired. This alternative had the lowest probability, based on census data, for environmental justice and neighborhood impacts, but constructing Alternatives 1 or 2 with the grade separations on the CN corridor would minimize the potential for higher EJ impacts associated with these alternatives at a lower cost than constructing Alternative 3.

Alternatives 1 and 2 are the retained alternatives and are addressed at site-specific detail in this volume. They are briefly described as follows:

Alternative 1 leaves UP freight and passenger traffic at its existing location in the 3<sup>rd</sup> Street rail corridor. A second track would be added to increase train traffic capacity. New grade separations would be constructed at City streets. Alternative 1 is evaluated with three different grade separation configurations. These are referred to as Alternatives 1A, 1B and 1C.

Alternative 2 would shift UP freight and passenger traffic to the 10<sup>th</sup> Street rail corridor parallel to the existing Norfolk Southern corridor. Two new tracks would be constructed for the UP, and new grade separations would be constructed at City streets. Alternative 2 has two different grade separation configurations. These are referred to as Alternatives 2A and 2B.

The alternatives are described in greater detail in Section 3. The alternatives are screened as to how they will achieve the project purpose and need as described in Section 2. The

Tier 2 screening process is described in Section 3. The alternatives that remain after Tier 2 screening are then evaluated for their environmental consequences. This evaluation is presented in Section 5.

### **1.3 Anticipated Decisions**

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The anticipated decisions to be made as part of this process are:

- Record of Decision on the Springfield Rail Improvements Project.
- The selection of an alternative that will determine the alignment and number of tracks required for each of the involved railroads. It will also determine right-of-way limits, locations of grade separations and at-grade crossing, existing crossings to be closed, quiet zone implementation, fencing, pedestrian crossings and station location.