Selected Intercity Passenger Rail Grade Crossing Improvements, Positive Train Control Implementation Projects and Passenger Rail Corridor Investment Plans

Grade Crossings

CA - Pacific Surfliner Chesterfield Drive Crossing Improvements Project (up to $2,236,550)
California Department of Transportation

The project will deliver improvements to an existing at-grade crossing on the LOSSAN corridor north of San Diego, by replacing the free flowing right turns and pedestrian islands with protected sidewalk bulb-outs, adding a multi-use Class 1 bike path with a switchback to reduce the overall grade, widening sidewalks, and improving rail grade crossing signals, gates, and signs. The project is designed to accommodate the addition of future double track of the LOSSAN corridor, consistent with future plans. The project will increase safety at a crossing with documented accidents.

IL - Ash Street Underpass (up to $2,000,000)
Illinois Department of Transportation

The project will grade separate Ash Street in Springfield, IL from the existing Norfolk Southern line and the proposed Union Pacific/Amtrak lines through creation of a railroad underpass. The project will achieve the safety benefits of grade separation. The benefits will be magnified in conjunction with other planned corridor project investments, resulting in train safety and operations improvements, increased capacity, increased speed, and unimpeded roadway connectivity.

PTC

CO - PTC Implementation Project Interoperable Train Control Messaging Security (up to $432,000)
Transportation Technology Center, Inc.

The project will assist the North American rail industry in defining requirements for a next generation security approach for PTC messages exchanged among locomotives, wayside equipment, and back office facilities. This project specifically addresses identification and definition of requirements and bounding parameters for PTC messaging security techniques, identification of current and developing technologies that may be suitable candidates for next generation PTC message security, and issues related to interoperable processes that support PTC message security. This project will develop recommended practices to aid the industry in maximizing messaging and will addresses a common shared problem for all railroads implementing PTC, mainly enhanced cryptographically based security in low band width environments.

DC - Amtrak PTC Wireless Communication and Key Management Implementation (up to $2,640,000)
National Railroad Passenger Corporation

This project will perform system analysis and R&D on cryptography and a Key Management subsystem, including hardware and software, in support of future phases to design and integrate systems, followed by testing and commissioning. This project is a necessary first step to achieving a secure wireless communication and data transmittal network between a train point of origin and targeted receivers on the Northeast Corridor (NEC) where Amtrak has deployed ACSES. The security of the PTC network is a critical safety concern.

MD - Implementation of the PTC Shared Network and User Support (up to $4,992,799)
ARINC Incorporated

The project will deploy an ITCM/ITCSM shared network to support short lines and commuter railroads, and to provide support to participating short line and commuter railroads to assist them in initiating PTC operations. Deployment of this service will reduce deployment and operating costs for short lines and smaller commuter railroads, and reduce or eliminate the need for these railroads to add IT staff to support ITCM and ITCSM systems. It will also reduce the complexity of the industry networking environment, inevitably improving overall PTC system reliability. The project will reduce PTC implementation, maintenance, and operating costs for all parties.

NY - Hudson Line PTC (up to $3,000,000)
New York State Department of Transportation

The project will provide conceptual engineering and environmental work necessary to proceed expeditiously in implementing the PTC system on the Hudson Line from Poughkeepsie, NY (MP QC 75) to Hoffmann's, NY (MP QC 169), and west of Schenectady for the Empire and Adirondack Corridors. This project will benefit the overall implementation of Positive Train Control nationwide because it provides the opportunity to work with two Class 1 freight railroads on developing the system architecture and layout to transition from ACSES to I-ETMS and accomplishes this work in a manner where this emerging technology can move quickly into deployment.

Corridor Planning

CA - Coachella Valley-San Gorgonio Pass Corridor Investment Plan (up to $2,982,050)
California Department of Transportation

This project will complete a Service Develop Plan and Tier 1 Environmental Impact Statement for a new intercity passenger rail service that would operate from Los Angeles east to Indeo, California, which is a corridor of approximately 141 miles in length. This proposed service has been the subject of previous feasibility studies led by the State (in consultation with FRA), and

based on these earlier analyses, the application proposes to move forward with the development of this service with a target frequency of two round-trips per day. Currently, Amtrak's Sunset Limited route operates in the proposed corridor with a total of three round-trips per week.

IL - Terminal Planning Study (up to $3,000,000)
Illinois Department of Transportation

This project will develop an enhanced Service Development Plan (SDP) for the Chicago-Detroit/Pontiac Corridor, covering train and passenger operations at Chicago Union Station and portions of the Chicago Terminal area, including some of the southern and southwestern Chicago metropolitan area. The project will increase understanding of this area's unusual complexity, including the many interactions between current and future passenger and freight services in this region. This issue is critical challenge to improved intercity passenger rail service in the Midwest for not only the Chicago-Detroit/Pontiac corridor, but also to the Chicago-St. Louis corridor, the Chicago-Carbondale corridor, new intercity services to and from cities to the east (e.g., Columbus and Cleveland, OH), and planned expansion of Metra commuter rail service.