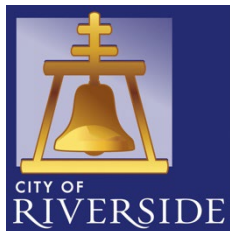


Third Street Grade Separation Project



City of Riverside



Project Description

The Third Street Grade Separation Project (Project) in Riverside, California grade separates the existing crossing with the BNSF Railway (BNSF) San Bernardino Subdivision crossing with a new four-lane underpass. The existing rail line carries 66 freight and 20 passenger trains daily and the rail mainline will be realigned to improve train speeds. The Project will reduce conflicts between trains and roadway users, improve goods movement reliability, ease traffic congestion, and reduce greenhouse gas (GHG) emissions.



Figure 1: Existing Crossing with Gate Arms Down

Project Location

The Project is located along the BNSF San Bernardino Subdivision in Riverside, California at the Third Street at-grade highway-railway crossing. The crossing being eliminated is located at approximately 120 feet west from the intersection with Commerce Street and 376 feet east of the Vine Street intersection. The Project limits extend from Vine Street in the West to Park Avenue in the East on Third Street. Third Street not only connects to Downtown to the west but also the University of California, Riverside (UCR) to the east. Downtown Riverside is located on the west side of SR-91 and the BNSF corridor and is home to employment centers, government services, and housing. Several roadways cross these two heavily traveled corridors to access Downtown. The Project is located in Congressional District CA-041 near by the State Route (SR) 91, SR-60, and Interstate 215 (I-215) freeways. Figure 5 below is a map of the Project location.

Geospatial Data

Latitude: 33.9835670

Longitude: -117.364305



Figure 5: Project Location Map



Project Scope

The proposed Project will construct a new four-lane underpass to replace the existing at-grade crossing at the BNSF Railway triple tracks near the Third Street intersection with Commerce Street. The Project limits extend from Vine Street in the west to Park Avenue in the East. This will realign the rail tracks westerly to avoid any significant property impacts to the surrounding businesses and improve rail geometry. The three existing BNSF mainline tracks will be permanently relocated Westerly-to minimize disruptions of rail operations. Commerce Street, just East of the BNSF tracks, will be permanently realigned Easterly to allow for track modification and an improved intersection with Third Street. Improvements on Third Street will include a new raised median, Class II bike lanes, and sidewalks. The Project will also require the construction of retaining walls, realignment of the Riverside Canal and canal syphon, a stormwater pump station and detention basin, and utility relocations. Other Project features include grading, excavation, construction of drainage pipes and structures, relocation of utilities, and removal of the existing railroad crossing signals.

Project Funding

The City of Riverside (City) has progressed the Project through preliminary engineering and National Environmental Policy Act (NEPA) clearance. The City has secured Construction phase funding, which has a cost estimate of \$47,000,000.

Challenges and Expected Outcomes

Safety and Emergency Vehicle Accessibility

The existing crossing of the BNSF corridor at Third Street has significant safety challenges and creates a barrier to mobility. The crossing has been upgraded to include modern safety design including a raised median, quad gates, crossbucks, and striping. Even with this design in place, there is a significant history of collisions between trains and roadway users. As detailed in the Safety section, there have been five crashes recorded between the FRA and Riverside Police Department, of which three have been fatal. The fatalities have occurred within the last five years.

There has also been a history of collisions involving roadway users outside of the railroad crossing. Between 2017 and 2022 there have been nine crashes involving vehicles, two of which resulted in injuries. The crashes involved included broadsides, hit objects, and rear ends. The lack of bicycle and pedestrian involved crashes on the roadway are attributed to the overall safety and security of the roadway. The roadway is heavily traveled with a high percentage of trucks for a local roadway. In addition to the at-grade BNSF crossing, this deters active transportation use.

The at-grade crossing also impacts emergency services response times. From January 1, 2007, to June 23, 2020, the Riverside Police Department was delayed 401 times due to trains moving through the crossing, with an average delay of 3.5 minutes. From July 2013 through June 2023, American Medical Response vehicles were delayed 103 times by an average of 3.1 minutes. Between March 2013 and September 2023, Riverside Fire Department emergency response vehicles were delayed 17 times. Fast response times during emergencies are critical to after crash and healthcare. The delays impact the ability of emergency responders to provide efficient services.



The Project greatly improves safety of the transportation system and emergency response times. The Project eliminates conflicts between train and roadway users through the installation of a grade separation. The Project also installs dedicated Class II bike lanes and sidewalks to create a safe multimodal experience. Lastly, the Project improves emergency response times by eliminating delays when the crossing gate arms are down.

Goods Movement Reliability

Goods movement accounts for a third of the Southern California economy, and it increases the region’s global competitiveness. Freight is shipped from the Ports of Los Angeles and Long Beach along the Primary Highway Freight System (PHFS) and freight rail system to the Inland Empire. The economies of Riverside County and adjacent San Bernardino County have been driven by logistics firms which account for 23.6% of the region’s job growth from 2011 to 2018. The Inland Empire is home to large warehousing and distribution centers, including more than 300 acres of industrial land use between Third Street and the freeways (Figure 3).



Figure 3: Industrial Area Adjacent to Project

The success of the goods movement economy requires an efficient rail system. The current at-grade crossing at Third Street impacts the reliability of transportation networks. When crashes occur at the crossing, the rail corridor is closed for emergency response and obstruction removal. This delays train traffic along the BNSF corridor which currently carries 66 freight trains per day and will increase to 146 freight trains per day, a 121% increase. The BNSF San Bernardino Subdivision was identified as the state’s top freight rail bottleneck in the California State Rail Plan. The delays contribute to worsening this key freight bottleneck.

Third Street carries a significant volume of traffic in an East-West direction. The average daily traffic is 13,063 vehicles with a total train count of 92. Congestion on this segment of Third Street is due to the high volume of daily train traffic and the extensive length of these trains at the at-grade crossing. Currently, there are 3 hours and 12 minutes of delay due to the gate arms being down. This directly impacts the reliability of the local freight system. To avoid delays, vehicles and trucks often re-route their trips to the neighboring University Avenue Grade Separation. This adds approximately 1.1 miles in trip distance.

The Project addresses both rail and truck goods movement reliability which benefits the goods movement economy. The grade separation removes conflicts between trains and roadway users, eliminating rail delays due to closures caused by crashes. The Project realigns the rail mainline which will flatten the current rail line curve radius to maintain 50 mph speeds and the Project accommodates a fourth mainline track. The Project reduces truck delays by eliminating times when the railroad crossing is closed. This results in improved efficiency of the roadway system.



Project Benefits

(A) Improves safety at Highway-Rail or Pathway Rail Grade Crossings

The Project significantly improves the safety of the highway-rail grade crossing at Third Street and BNSF. This is accomplished by separating roadway users from the railway, eliminating conflicts between modes. Third Street carries freight, transit vehicles, bicycles, pedestrians, and general vehicular traffic. Due to the high train and vehicular volumes that converge at the existing Third Street at-grade crossing, since 2017 there have been five collisions with trains and Third Street users, including three fatalities. Over the same time period, there have been nine crashes outside of the railway, including one fatality. The Project implements safety features and improves vehicle, pedestrian, and train mobility.

The project constructs a grade separation at the BNSF tracks which enhances roadway safety by eliminating train-vehicle and train-pedestrian conflicts. The traffic crossing is removed, eliminating the possibility of collisions between trains and roadway users of all modes. The project also constructs sidewalks and on-street bike lanes to promote safe multimodal access within the project limits. These safety enhancements address the collision types that have occurred within the project limits.

(B) Proposes to grade separate, eliminate, or close one or more Highway-Rail or Pathway-Rail Grade Crossings

The Project proposes to grade separate and eliminate the existing Third Street crossing (FRA # 026480N) at the BNSF San Bernardino Subdivision.

(C) Improves the mobility of both people and goods

The Project supports multimodal freight movement by eliminating conflicts between transportation modes, benefiting both rail and roadway users. Eliminating these conflicts will reduce truck vehicle hours traveled and idling time resulting from delays while waiting for trains to pass through the crossing. It will also reduce the frequency of incidents that disrupt rail operations, resulting in increased efficiency and reliability on the Alameda Corridor East rail system, which carries a significant portion of freight from the Ports of Long Beach and Los Angeles. Further, the Project would be constructed in a manner to accommodate a future fourth railroad track which would increase freight and passenger rail throughput and capacity through the area, reducing the reliance on truck freight and automobile mobility, and mitigating future construction impacts on the surrounding community.

As mentioned earlier regarding improvements to community accessibility, motorists, non-motorized users, and transit riders as well as passenger rail riders on the Metrolink passenger rail will all have improved mobility conditions through the implementation of the Project. Populations without access to a vehicle will benefit from improved active transportation facilities, including increased amounts of sidewalks, and more efficient bus transit.

Transit Accessibility: The Project enhances transit accessibility by removing the railroad barrier and providing first/last mile access for cyclists and pedestrians to access the Downtown Riverside Metrolink Station 0.5 miles south of the Project site.



Bicycle and Pedestrian Facilities: The Project provides Class II on-street bike lanes and sidewalks through the new grade separated crossing. The Project also provides ADA-compliant curb ramps for universal access.

Jobs Access: The Project will improve multimodal access to jobs in Downtown Riverside via improved bicycle and pedestrian facilities and enhanced bus transit reliability. The Project also supports using Metrolink to access regional job centers in Los Angeles and Orange Counties.

(D) Reduces emissions, protects the environment, and provides community benefit (including noise reduction)

The Project has been determined to be a NEPA CE and do not have any negative impacts on the environment. The Project will implement mitigation measures for stormwater, hazardous materials, and nesting birds.

The existing Third Street at-grade crossing is a regionally significant and highly trafficked freight and passenger rail corridor that connects important freight centers such as the Ports of Los Angeles and Long Beach within inland distribution centers and the BNSF San Bernardino Intermodal Yard. On average, 72 freight trains and 20 Metrolink and Amtrak passenger rail trains pass through this crossing each day, creating safety hazards, congestion, air pollution, and delays for all roadway users along Third Street.

In addition to the reduced emissions, the Project also reduces noise pollution. The elimination of the at-grade crossing means trains do not need to use their horn when crossing Third Street. This will provide significant benefit to the residential community.

(E) Improves access to emergency services

The Project improves emergency vehicle response times by eliminating gate arm downtime delays at the at-grade crossing and the need to detour to neighboring grade-separated crossings. From January 1, 2007, to June 23, 2020, the Riverside Police Department was delayed 401 times due to trains moving through the crossing, with an average delay of 3.5 minutes. From July 2013 through June 2023, American Medical Response vehicles were delayed 103 times by an average of 3.1 minutes. Between March 2013 and September 2023, Riverside Fire Department emergency response vehicles were delayed 17 times. Eliminating the crossing improves emergency vehicle response times.

(F) Improves access to communities

The Project improves access between Downtown and neighborhoods east of the rail line. Currently, the railroad serves as a safety barrier for individuals desiring to go Downtown to access retail and government services. The Project improves access by eliminating the at-grade crossing barrier with a new multimodal underpass that includes sidewalks and Class II bike lanes. This will create a comfortable environment and remove a barrier that negatively impacts underserved communities in the City.

(G) Provides economic benefit

The rail network in Southern California is a critical link in the supply chain that allows shippers the ability to move large volumes of goods over long distances at lower costs than other transportation methods. The Project lies along one of the busiest freight rail lines in the US, the BNSF San



Bernardino Subdivision, which connects the Ports of Los Angeles and Long Beach to the San Bernardino Intermodal Yard and the fulfillment and distribution centers throughout the Inland Empire. The Project's improvements to the regional rail system will provide tremendous support to a vital part of the Southern California economy by increasing train speeds and improving freight rail reliability. The removal of the at-grade crossing also improves truck speeds and throughput through the reduction in idling times when gate arms are down. Detailed information on economic benefits in the Selection Criteria (B) Equitable Economic Strength and Improving Core Assets