



COUNTY OF BERGEN

Local Concept Development Study for East Anderson Street/Cedar Lane Bridge Over Hackensack River City of Hackensack and Township of Teaneck, New Jersey



Purpose

The overall purpose of this project is to address structural, geometric, and operational deficiencies of the East Anderson Street/Cedar Lane Bridge (Structure 0200-23A) over the Hackensack River and to provide safe, efficient, and reliable passage for all users and modes of transportation.

Identified Needs

Bridge and Roadway Deficiencies

The East Anderson Street/Cedar Lane Bridge (East Anderson Street Bridge) is in overall critical condition and is structurally deficient and functionally obsolete. In 2012, due to structural deficiencies, a weight restriction was instituted, barring trucks, buses, and other vehicles over 15 tons from crossing the span. The two outer lanes of the bridge were also closed at that time. Originally built in 1971, the bridge will require extensive rehabilitation or replacement to remain functional. Currently, the superstructure is in poor condition, the deck is in poor condition, and the substructure is in fair condition based on the 2016 bridge inspection report.

The superstructure is in poor condition due to heavy leakage with efflorescence and rust staining, wide longitudinal cracks with rust staining, and large spalls with exposed and broken prestressing strands. There is active water leakage with efflorescence and rust staining throughout the underside of the superstructure at all six spans. Numerous beam drain holes in the underside of beams show evidence of active water leakage. Areas of spalling/deteriorated concrete at the precast concrete adjacent box beams have been cleaned and painted, these repairs have arrested deterioration but are not structural repairs.

The substructure is in fair condition due to the map cracking at all five pier caps, and the steel pipe piles at all five piers have areas of 100% loss of their protective coating. The deck is in poor condition due to water seepage through the asphalt wearing surface as indicated by the heavy water leakage, rust stains, and efflorescence between the box beams and wide reflective cracks in the wearing surface.

Two Controlling Substandard Design Elements (CSDE) exist within the study limits. Structurally, the bridge does not meet standards as it cannot support AASHTO's HL-93 Truck model, which is a 3-axel truck weighing 72,000 lbs. The bridge also has substandard Cross Slopes below the 1.5% minimum.

System Linkage

The East Anderson Street Bridge provides an important multimodal link within the regional transportation network. Prior to the weight restrictions on the bridge instituted in 2012, multiple NJTransit bus routes used this bridge to access the Hackensack Bus Terminal, located 0.7 miles south of the bridge on River Street. The bridge is still utilized by cars, pedestrians, and bicyclists; its connectivity is vital to the local economy and community.

The East Anderson Street Bridge is a critical piece of Bergen County's infrastructure. East Anderson Street/Cedar Lane (County Route 60) connects the City of Hackensack to the Township of Teaneck. The Hackensack Bus Terminal is a crucial multimodal hub that provides access to 13 NJTransit Bus Routes. The weight restrictions on the bridge have resulted in buses taking detours to access the terminal resulting in schedule delays and other externalized costs for commuters and NJTransit. The weight restriction also limits access for trucks, which inconveniences the businesses in the area that utilized the bridge and now also face a detour. The East Anderson Street Bridge is a critical transportation connection for communities, businesses, residents, and commuters in the area.





COUNTY OF BERGEN

Local Concept Development Study for East Anderson Street/Cedar Lane Bridge Over Hackensack River City of Hackensack and Township of Teaneck, New Jersey



The East Anderson Street Bridge is utilized by many of the businesses and residents in the area. Due to its local importance, bridge closures become highly burdensome to the community. While there are multiple crossings over the Hackensack River, the shortest detour for the East Anderson Street Bridge is approximately 1.5 miles.

In addition to vehicles, the East Anderson Street Bridge is utilized by bicyclists and pedestrians. Sidewalks are provided along both sides of the bridge. Shoulders to accommodate bicycles are currently not provided.

Goals & Objectives

- Provide bicycle compatibility and connectivity within the project limits as feasible.
- Provide ADA compliant pedestrian facilities and crossings within the project limits.
- Provide pedestrian lighting on the structure.
- Provide water access for emergency personnel.
- Provide a communications conduit for fiber optic cables for emergency services.
- Implement structural improvements to accommodate the weight of trucks and buses.
- Implement context sensitive design solutions.
- Avoid delays or disruptions caused by structural deficiencies.
- Avoid or minimize impacts to social, economic and environmental resources.
- Avoid or minimize complete or long-term roadway closures during construction.

