

# MLK Jr. Blvd/Charlotte Avenue over Rosa L. Parks Boulevard Bridge Deck Replacement

## Existing Conditions

### Description:

The Dr. Martin L King Jr Boulevard over Rosa L Parks Boulevard Bridge is located in Downtown Nashville. The bridge was built in 1955. NDOT Bridge Program was notified in 2018 of falling concrete from the bottom of the bridge onto traffic traveling on Rosa L Parks Boulevard. The Bridge Program Annual Contractor mobilized on site to remove the loose concrete and install temporary shoring to ensure no further concrete would impact traffic. The bridge was then inspected, and it was determined that more than 50% of the bridge deck was compromised with delaminated concrete. In addition, there is exposed steel reinforcement with severe corrosion throughout the bottom of the bridge deck.

**Spans:** 2

**Length:** Approximately 86'

**Width:** 84'

**Skew:** 90°

### REASONS FOR REPLACEMENT:

- CONCRETE BRIDGE ELEMENTS IN "POOR" CONDITION
- SEVERE SURFACE CORROSION & SECTION LOSS ON BRIDGE DECK REINFORCEMENT
- DELAMINATED BRIDGE DECK CONCRETE
- BRIDGE DECK POSES A SIGNIFICANT RISK TO THE TRAVELING PUBLIC



Top Deck



Delaminated Bridge Deck Concrete w/ Exposed Steel Reinforcement



Severe Steel Reinforcement Corrosion

# MLK Jr. Blvd/Charlotte Avenue over Rosa L. Parks Boulevard Bridge Deck Replacement

## Proposed Conditions

### Description:

The existing bridge deck will be removed and replaced. The proposed bridge deck will be constructed using a phased construction method in order to maintain traffic over the bridge throughout the duration of the project. Intermittent lane closures on Rosa L Parks Blvd and Dr Martin L King Jr Blvd/Charlotte Ave will be required in order to construct the new bridge deck. The project has been coordinated with local utility companies, NDOT Planning Department, NDOT Traffic, and NDOT Permits.

**Spans:** 2

**Length:** Approximately 86'

**Width:** 84'

**Skew:** 40°

**Opinion of Probable Cost:** \$2.5 M

**Anticipated Construction Duration:**

44 Weeks

**Anticipated Schedule for Construction:**

September 11, 2023 to August 4, 2024

**Project Status:** In coordination with Metro Water Services, TDOT, & NDOT

### CONSTRUCTION CHALLENGES:

- UTILITY COORDINATION
- PHASED CONSTRUCTION WHILE MAINTAINING TRAFFIC
- MATERIAL PROCUREMENT
- TRAFFIC VOLUME IN AREA

