

Franklin Avenue Bridge

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The existing Franklin Avenue Bridge carrying the Burlington Northern Railroad is a concrete and steel underpass. As was typical for these structures, the main span over vehicular traffic uses steel girders. Separate concrete pedestrian tunnels behind the primary abutments are monolithic with the abutments.

The existing pedestrian tunnels are approximately 5 feet wide and 7 feet tall. The sidewalks leading to the pedestrian tunnels from the east curve horizontally and vertically, so that there is no direct line of sight into the tunnels from the east until users are at the entrance to the tunnels.

A newer Bend Parkway bridge was built parallel to and west of the railroad bridge; this new structure includes sidewalks along Franklin Avenue. The new sidewalks are wider, are open to view from Franklin Avenue, and align with the pedestrian tunnels under the railroad tracks.

Project Purpose

The purpose of a project at the Franklin Avenue Bridge is to improve pedestrian and bicyclist safety by increasing the vertical and horizontal clearances in the pedestrian tunnels, and by re-aligning the approaches to the pedestrian tunnels from the east so that any occupants of the tunnel can be seen from the roadway.

Alternatives Considered

Alternative 1 – Expand the Pedestrian Tunnels

This alternative consists of replacing the pedestrian tunnels with wider tunnels, and increasing the vertical clearance from 7 feet to 10 feet. The sidewalks approaching from the east would be re-aligned to promote visibility into the tunnel from the east approach.

The construction of the original bridge and tunnels makes it infeasible to widen the pedestrian tunnels or to change the vertical clearance. Rail traffic would be disrupted during construction, and costs for removing the tunnels and constructing new abutments would be very high. Any changes to vertical clearance would require lowering the sidewalk profile, which would affect the nearby highway bridge.

The existing bridge appears to be in fairly original configuration. A Federal nexus, such as use of Federal funds or need for Federal permits or approvals, would require coordination of any modifications with the State Historic Preservation Office (SHPO).

Alternative 2 – Retain the Existing Pedestrian Tunnels and Re-align the East Approach Sidewalks

This alternative consists of removing the existing sidewalks and constructing new sidewalks aligned with the pedestrian tunnels. This would improve visibility into the tunnels, which is likely to increase the perception of personal safety for tunnel users. The existing tunnels would remain as they are.

The location and size of the pedestrian tunnels will make it difficult to see from Franklin Avenue into the tunnels with any approach sidewalk configuration. The benefit of re-aligning the approaches would be limited to visibility into the tunnels from the east approach only.

The east elevation of the bridge appears to be in fairly original configuration, including the original fabric of the ornate concrete rails. A Federal nexus, such as use of Federal funds or need for Federal permits or approvals, would require coordination of any modifications with the SHPO.

Alternative 3 – Improve drainage and lighting

This alternative leaves the existing structure as is, and upgrades existing lighting and sidewalk drainage for the comfort of pedestrians. Screening or fencing could also be installed at the transitions between tunnels to improve sight distance and eliminate blind spots in the tunnel. Such work, if a Federal nexus is present, requires coordination with the SHPO.

Recommendation

Modification of the tunnels themselves is not feasible, due to the high cost of construction and the high cost of affecting the railroad operations. Modification of the east sidewalk approaches to the tunnels will be costly and will have limited beneficial effect on tunnel use. Painting, lighting, screening, and drainage improvements would provide minor safety improvements and improve the user experience.