

Memorandum

DATE: January 12, 2024
TO: Victoria MPO
CC:
FROM: ATG|DCCM
RE: Bridge Condition Analysis

The project team conducted an analysis to review the conditions of bridges for the Victoria MPO service area. Since bridges within the Victoria MPO area provide for the movement of people and goods both regionally and locally, a state of good repair is essential. This analysis found that there are 7 bridges within the Victoria MPO boundary that are in poor condition out of 205 total bridges.

Victoria Bridge Conditions Analysis

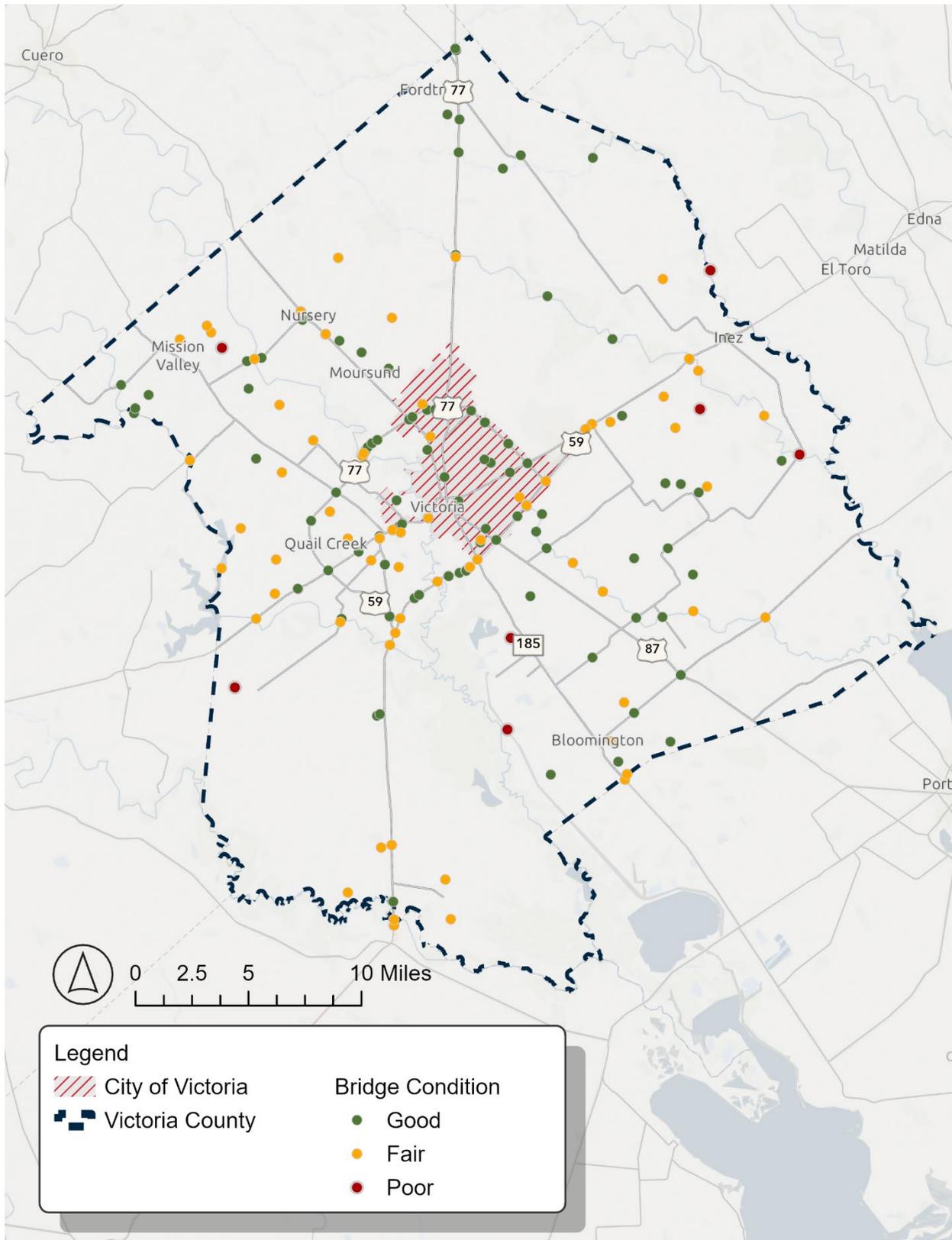
This analysis used data from the USDOT National Bridge Inventory (NBI) from November 2023. The NBI data includes information about bridge locations and the conditions of the deck, substructure, and superstructure components. A score of 7 or higher is given to bridge components that are in good condition. A score of 5 or 6 is given to bridge components that are in fair condition, while a score of 4 or lower represents elements that are in poor condition. Guidance from the FHWA’s Computation Procedure for the Bridge Condition Measures and the Code of Federal Regulations (23 C.F.R 490.409) was used to complete the analysis of NBI data. For this analysis, the lowest score of the components of a single bridge is used to portray the overall condition of the bridge.

A total of 205 bridges were identified within the study area. Around 59% of the bridges in the study area are in good condition, 38% are in fair condition, and 3% are in poor condition. Figure 1 shows the conditions of all bridges in the study area. The total area of bridges in the study area is 213,106 square meters, of which 1,843 square meters (1%) are in poor condition. Table 1 presents the condition of all bridges in the study area by count and deck area.

Table 1: Condition of all bridges in the study area by count and area

All Bridges	Number	Percentage	Area (square meters)	Percentage
Good	121	59%	137,837	65%
Fair	77	38%	73,426	34%
Poor	7	3%	1,843	1%
Total	205	100%	213,106	100%

Figure 1: Condition of all bridges



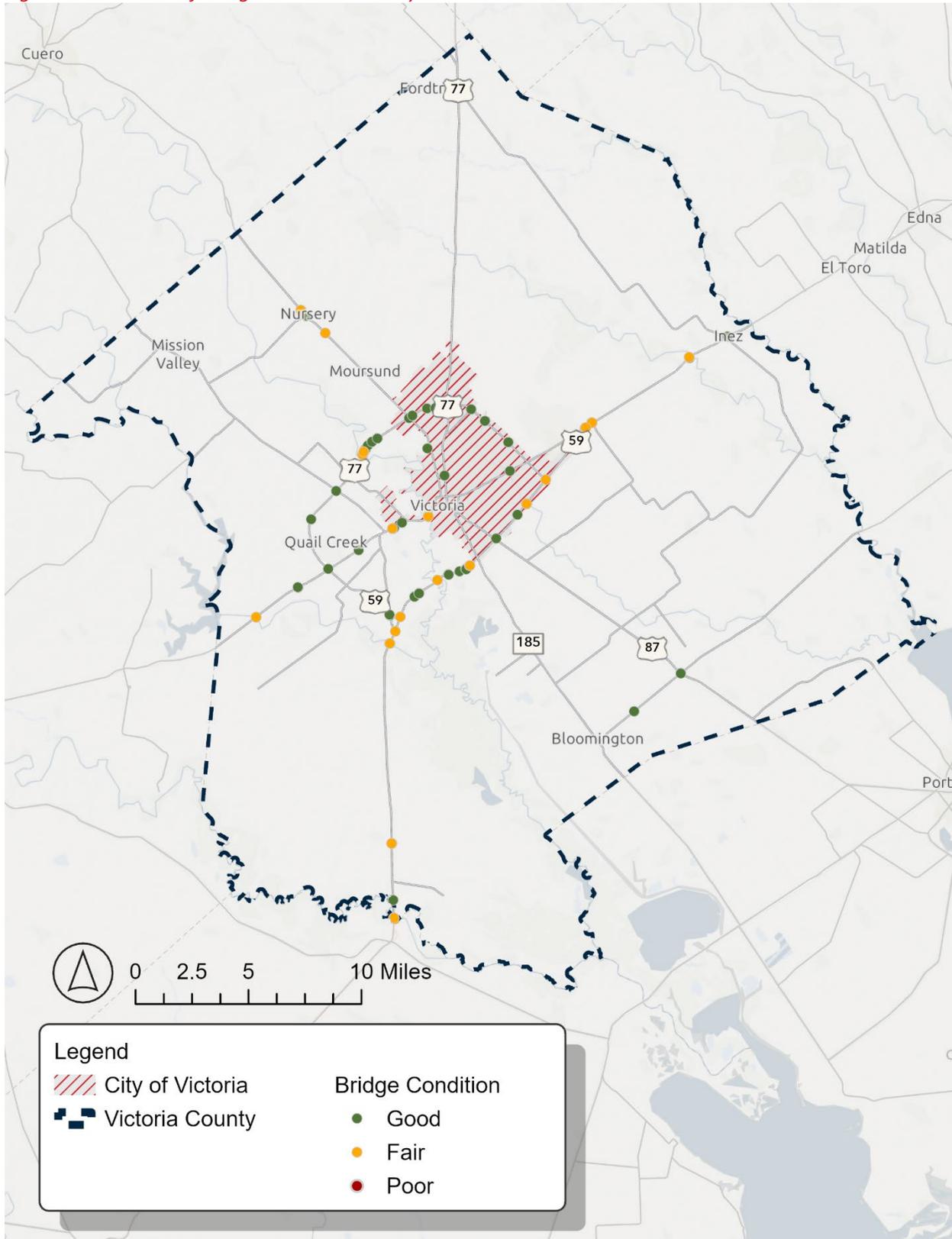
Source: FHWA (2023) National Bridge Inventory

There are 90 bridges in the study area that are part of the National Highway System (NHS). Of the NHS bridges, 68% are in good condition, 32% are in fair condition, and none are in poor condition. The total area of NHS bridges is 164,869 square meters, which is entirely in either good or fair condition. Table 2 shows the conditions of NHS bridges by count and deck area. NHS bridge locations are illustrated in Figure 2. Refer to Appendix A for a table identifying the condition of each bridge structure in the study area.

Table 2: Condition of NHS bridges in the study area by count and area

NHS Bridges	Number	Percentage	Area (square meters)	Percentage
Good	61	68%	107,230	65%
Fair	29	32%	57,638	35%
Poor	0	-	-	-
Total	90	100%	164,869	100%

Figure 2: Condition of bridges on the NHS only



Source: FHWA (2023) National Bridge Inventory