

I-81 VIADUCT PROJECT

CHAPTER 10

FINANCING AND IMPLEMENTATION

This chapter describes project costs and next steps toward funding.

The two build alternatives analyzed within this Final Design Report/Final Environmental Impact Statement (FDR/FEIS) range in cost from \$2.25 billion to \$2.42 billion. Funding for the Project is anticipated to be secured from 80 to 90 percent Federal and 20 to 10 percent State sources. The Viaduct Alternative would be constructed in three phases with a total duration of seven years. The cost of the Viaduct Alternative is \$2.42 billion (in 2021 dollars, escalated to the midpoint of construction). The Community Grid Alternative would be constructed in two phases with a total duration of six years. The Community Grid Alternative is estimated to cost \$2.25 billion (\$965 million for Phase 1 and \$1,285 million for Phase 2, in 2021 dollars, escalated to the midpoint of construction). See **Appendix A-5** for further Alternative cost estimate information. The cost estimates will continue to be refined as design progresses.

The preliminary design and right-of-way incidental phase of this project is on the approved Syracuse Metropolitan Transportation Council (SMTC) Transportation Improvement Program (TIP) as Project No. 350160. Final design cost, right-of-way acquisition cost, and individual construction contract costs are in the process of being added to the TIP/STIP and the fiscally-constrained Long Range Transportation Plan (LRTP). These final design, right of way, acquisition and construction phases will be added to both the TIP and LRTP prior to the Record of Decision. The current LRTP is the 2050 LRTP–2020 Update, which will be presented to SMTC’s Policy Committee in early 2022. This plan recognizes the I-81 Viaduct Project as being a major, regionally significant project and the revised LRTP is currently out for public review.

The New York State Department of Transportation (NYSDOT) intends to separate the Project into several individual contracts per phase that would be scheduled over multiple years. This approach would allow for costs to be funded over time as part of the State’s annual budget and within the NYSDOT overall long-term capital planning and program. NYSDOT would seek to schedule contracts to ensure optimal coordination and timing between each, thereby minimizing overall construction schedules and reducing cost impacts. Additionally, contract awards and milestones would be scheduled to provide the maximum number of construction months in consideration of the appropriate seasonal temperatures for the proposed work. The flexibility gained by issuing multiple separate contracts under variable contract letting schedules is intended to maximize efficiencies, minimize potential delays, and keep additional costs to a minimum.

In accordance with 23 U.S.C. 106 (h), the Federal Highway Administration (FHWA) has categorized this Project as a “Major” project given the significant financial investment (\$500 million or greater) it requires. To ensure that the appropriate management procedures are in place and that funding sources are identified, and that the necessary funds are available, NYSDOT would develop annual project management and financial plans as required by 23 U.S.C. 106 (h)(2) and (h)(3), respectively. The project management plan and financial management plan was drafted and submitted for FHWA review and approval prior to the release of the FDR/FEIS and Record of Decision.

The preparation of the project management plan shall:

1. Document the procedures and processes that are in place to provide timely information to project decision-makers to effectively manage the scope, cost, schedule, quality, and Federal requirements applicable to the Project; and
2. Document the role of NYSDOT and FHWA's leadership and management teams in the delivery of the Project.

The financial plan is intended to provide an unbiased, risk-based review of the current cost to complete the Project. The preparation of the financial plan is based on detailed estimates that incorporate potential cost escalation, project risks, schedules, and milestones. NYSDOT used FHWA's risk-based analysis referred to as a Cost and Schedule Risk Assessment (CSRA) to proactively identify threats as well as verify the reasonableness and accuracy of the cost estimate. The identification and evaluation of risk results in a cost estimate that considers the fluctuations due to uncertainties associated with large complex projects during preliminary development. The financial plan will be updated yearly in November.

The Infrastructure Investment and Jobs Act requires that a financial plan for all Federal Aid projects with an estimated total cost of \$500 million or more be approved by the U.S. Department of Transportation Secretary (i.e., FHWA) based on reasonable assumptions. The \$500 million threshold includes all project costs, such as engineering, construction, right of way, utility relocation, construction inspection, and inflation. The FHWA interprets "reasonable assumptions" to be a risk-based analysis. As stated earlier, the CSRA provides the risk-based assessment and is used in the approval of the financial plan. FHWA and NYSDOT conducted a CSRA workshop in November 2021.

Prior to the start of the CSRA review, NYSDOT submitted to FHWA a total base cost estimate of \$1.9 billion for the Community Grid Alternative, which was the Project cost cited in the Draft Design Report/Draft Environmental Impact Statement (DDR/DEIS) from July 2021. This cost included final design, right-of-way acquisition, utility relocation, construction, contractor procurement, and inspection. The estimated construction completion date for both phases of the Project was the end of December 2027. NYSDOT developed a risk register that identified approximately 30 potential risk impacts to the cost and schedule including utility relocation, material availability, work force shortages, accelerated construction, obtaining railroad agreements, legal challenges, and inflation. The risk factors were discussed with subject matter experts during the CSRA workshop, and each risk was assigned a corresponding probability and potential impact to the overall costs and schedule. The CSRA risk-based probabilistic approach used the Monte Carlo simulation, which forecasted a range of cost for the Community Grid Alternative between \$1.94 billion to \$2.64 billion in Year of Expenditure. Both NYSDOT and FHWA agreed to increase funding based on the risk identified. As a result of the CSRA, FHWA and NYSDOT are increasing the construction cost estimate for the Community Grid Alternative to \$2.25 billion and extending the construction duration from five to six years duration. The new construction completion end date is December 2028.

Although the CSRA process was not completed for the Viaduct Alternative, FHWA and NYSDOT applied similar assumptions to review its cost and construction duration. Based on that review, FHWA and NYSDOT proposed to increase the cost of the Viaduct Alternative from \$2.2 billion as reported

in the DDR/DEIS to \$2.42 billion, and they extended the construction duration from six years to seven years. These revised assumptions are reflected in this FDR/FEIS.

The financial plan would be updated annually to monitor costs and the availability of funding throughout the life of the Project. The annual report would be submitted to the Secretary of Transportation and developed using “reasonable assumptions, as determined by the Secretary, of future increases in the cost to complete the Project.”¹

Construction phasing and scheduling are further discussed in **Chapter 4, Construction Means and Methods**.

¹ 23 U.S.C. 106 (h)(3) – Project approval and oversight.