



Municipality: City of Leominster, Massachusetts
Project Title: Monoosnoc Brook Bank Stabilization Project
Award Year (FY): 2021
Grant Award: \$200,661
Match: \$66,887
Match Source: Local cash match
One or Two Year Project: One
Municipal Department Leading Project: Office of Mayor Dean Mazzarella

Community Overview:

The City of Leominster, MA (City) is located in Worcester County, approximately 20 miles north of Worcester, MA. The City has a population of 41,176 (2010 Census), 15% of which are Latino, 4% are African American, and 2% are Asian. Citywide, Leominster's residents earn about \$10,000 less per year than observed across the state (\$58,995 versus \$68,563). The project area is located within an Environmental Justice Community, designated by minority population and income.

Project Description and Goals:

The project is located along the Monoosnoc Brook Walk, between Central Street and Mechanic Street in Leominster, MA. In the Spring of 2017, a 30-foot-long segment of a stone masonry retaining wall running along the southeast bank of Monoosnoc Brook collapsed. The City temporarily stabilized the bank by placing large riprap stone along with precast Jersey barriers along the toe of the slope within the brook.

The primary goal of the project was to design a resilient solution to permanently stabilize the brook against current (2020) and future flow conditions (2070) resulting from climate change. The projected precipitation totals for each storm analyzed during the project were calculated by using a baseline precipitation total from Atlas 14 and adding a 7.8% increase to account for the 2070s projected change in inches of total precipitation.

The City and Woodard & Curran engaged with the public through two public meetings (2/21 and 6/21) as well as a tabling session with the Senior Center (6/21) and met with abutting property owners to determine the best solution to stabilizing the brook. The selected design creates a community benefit by increasing greenspace within the area and expanding the Monoosnoc Brook Walk.

Results and Deliverables:

The project successfully moved through concept and feasibility stages into the design and permitting stage. To move through the concept and feasibility stages, Woodard & Curran conducted an Alternatives Analysis which considered preliminary hydrologic and hydraulic modeling results, a parking evaluation, and input from the community. The project is currently in the design and permitting stage which included refining of the hydrologic and hydraulic model, development of permit level design drawings, and submission of several permits including a Massachusetts Department of Environmental Protection (MassDEP)



Environmental Notification Form, a MassDEP Notice of Intent, a MassDEP Water Quality Certification, a MassDEP Chapter 91 License, a U.S. Army Corps of Engineers Pre-Construction Notification, and a City of Leominster Special Permit.

Lessons Learned:

Public involvement and engagement with our intended project partners (the Spanish American Center, Ginny's Helping Hand, and the Leominster Senior Center) proved to be very difficult during the ongoing COVID-19 pandemic. Many of our partners were not operating during the pandemic, therefore it was difficult to receive input from the intended residents of the EJ target communities. Ultimately as restrictions were relaxed and in person meetings were again possible, the time lost to the pandemic made it difficult to have the resident input factor into the project design. However, during the virtual engagements with the community, the project team learned that the community uses the municipal lot within the project area a great deal and that it is extremely important to the downtown business community. As a result of this feedback received, it was determined that eliminating the parking lot, daylighting the brook, and creating the largest ecological improvements to the area was not a viable option for the community when considering the benefit of keeping the parking lot.

Partners and Other Support:

- City of Leominster: Provided constant feedback to the project team vis public hearings and meetings with abutting property owners and regulators.
- DESMAN: Parking Consultant who studied the parking in downtown Leominster.
- Ginny's helping Hand: Local organization close to the project area that helped distribute flyers to members of the EJ community during Thanksgiving 2020.
- LEC Environmental Consultants: Coordinated submission of permitting deliverables led communication efforts with regulators.
- Leominster Senior Center: Local organization that serves senior citizens in the community. Shutdown for much of the project's duration, the center reopened for a tabling session in June 2021 where the public was invited to attend. Feedback from residents was provided to help inform future work in the area.
- Northeast Geotechnical: Geotechnical Consultants who conducted borings
- Spanish American Center: Local organization close to the project area that provided translation services for informational flyers and helped distribute flyers to members during Thanksgiving 2020.
- WSP: Surveying Consultant
- Woodard & Curran: Project lead, steered the project by leading public hearings, modeling efforts, report production, and design drawing development to support permitting efforts.

Project Photos:

Please see attached.