

Existing Site Hydrology

The project site consists of a downtown area in Millbury, Massachusetts at the intersection of Elm and Main streets. The site is primarily impervious, consisting of streets, sidewalks, brick paving, and buildings with few green spaces over Class A soils the primary of which is Merrimac fine sandy loam. The site ranges from 417 ft elevation to 387 ft elevation (NAVD83) falling generally from the northwest to southeast toward the Blackstone River. Current rainfall is conveyed overland via a curb and gutter system along the road and intercepted into curb inlets of an existing storm drainage system, which discharges into the Blackstone River approximately 400' from the site. There are no wetlands present on the project site.

Post-Improvement Condition

After the infrastructure improvements are complete, runoff from the east of the project will be conveyed into pervious pavers, rain gardens, or a combination of both before being routed into a Stormtech infiltration device. This Stormtech system will discharge overflow into the existing storm drainage system. Runoff from the east side of the project north of Elm Street will be captured by a rain garden via a curb cut and pervious pavers, which will discharge into the existing storm drainage system catch basins along South Main Street. The improved surfaces of the existing streets, sidewalks, and buildings will remain the same in material, but will incorporate pervious pavers, porous pavement, lawns, rain gardens, and planting beds with indigenous plantings and grasses throughout the project area.