

# Bump Outs: An Environmentally-Friendly Solution for Keeping People Safe

## Armory Village Revitalization Project

### What is a Bump Out?

Curb extensions, traffic calming, bio-retention areas, storm water runoff... these are some of the terms associated with the new features being installed in downtown Millbury as part of the Armory Village Revitalization Project. A bump out, also known as a curb extension, is a traffic calming measure which extends the width of the sidewalk and curb line at crosswalks and other locations. They will provide a safer experience for pedestrians, calm traffic in our downtown, absorb and slow down storm water runoff and help mitigate the effects of climate change.

When used in conjunction with crosswalks, bump outs make crossing the street safer for pedestrians by narrowing the crossing distance and increasing pedestrians' visibility to oncoming traffic when parked vehicles would otherwise make them hard to see. Bump outs serve as a visual cue to drivers to be aware of pedestrians and reduce their speeds.

### Environmental Benefits

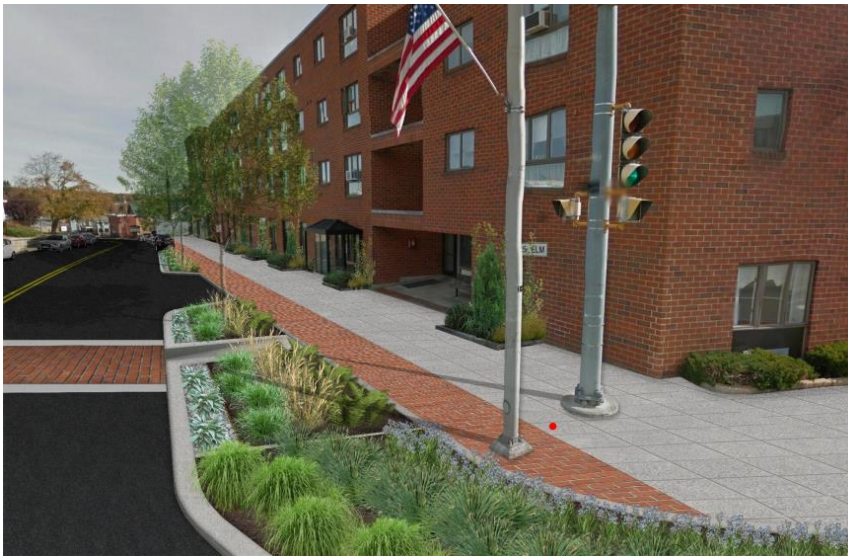


In addition to public safety benefits, bump outs also improve environmental health. By incorporating rain gardens, bioswales and street trees within bumpouts, rain and snow melt are absorbed and cleaned. This is a cost-effective, resilient approach to managing storm water by mimicking the absorption and filtering capability of natural, undeveloped areas. Under the old design, when it rained or snowed on impervious surfaces like streets and sidewalks, rainwater and snow melt flowed along these surfaces into drains and eventually into the Blackstone River.

Along the way, the storm water and snow melt picked up trash, oil, road salt, and other contaminants that are bad for the Blackstone River, which is polluted, and harmful to plants, aquatic life and animals.



Under the new design, storm water and snow melt from streets and the sidewalks will flow into rain gardens and bioswales within a few strategically located bump outs where it will be soaked up, stored and filtered. Porous pavers within pedestrian plazas and alongside concrete sidewalks will work in concert with these rain gardens and bioswales by absorbing, filtering and directing storm water flow from the sidewalks to these features by way of perforated pipes. Together, these features, known as green infrastructure, will limit the amount of pollutants entering the Blackstone River, which will make for a healthier ecosystem.



Bump outs will also decrease the impacts of climate change. Large, high intensity and successive storm events are occurring with increased frequency, causing flooding of the Blackstone River and damage to surrounding homes and businesses. Acting like a sponge, the bump outs will help capture and hold the storm water, slowly infiltrating it into the ground over time. Street trees within bump outs will also provide shade, which will provide much-needed relief during hot summer days by keeping downtown cooler.

## Aesthetic Benefits

Finally, the bump outs are part of the larger Armory Village Revitalization Project aimed at improving the appearance of the streetscape and creating a more welcoming and accessible downtown. Along with street trees, planters, wider sidewalks, and pedestrian plazas, they will make downtown Millbury a more attractive place to live, work, shop, eat, or meet up by adding both color and beauty. Bump outs are a small piece of a larger goal to bring back life and vibrancy to downtown Millbury.

More information about the Armory Village Revitalization Project can be found on the Town of Millbury's website at <https://www.millbury-ma.org/planning-development/pages/armory-village-revitalization-project> or by contacting Laurie Connors, Director of the Department of Planning & Development at [lconnors@townofmillbury.net](mailto:lconnors@townofmillbury.net) or 508-865-4754.