



## Commercial Street Improvements Project Phase 3

### Project summary

The Commercial Street Road Reconstruction Project – Phases 1 and 2 are now complete and progress is continuing with Phase 3.

To assist with the Phase 3 project funding, the Town of Provincetown received a \$2 million dollar grant from the Commonwealth's MassWorks Infrastructure Program.

Provincetown was awarded this grant based on the Town's previous work history with the grant agencies to improve the overall functionality of Downtown Provincetown for residents and tourists alike. This includes significant improvements for the water quality of Provincetown Harbor in addition to the environmental benefits of the project with the installation of porous asphalt. The design approach for this area is twofold:

- To develop a solution that will effectively improve the water quality of Provincetown Harbor by limiting stormwater runoff
- To reconstruct and pave a portion of Commercial Street and abutting sidewalk

Phase 3 of the project will continue to address two critical issues facing Provincetown—stormwater management and repaving of Commercial Street. This grant will help fund almost the entire cost of final design and construction. The remainder of the project costs will be funded by the Town. The complete Commercial Street Improvements Project – Phase 3 will include repaving, curbing, sidewalks replacement where needed, and new drainage.

### Background

In an effort to remediate Provincetown Harbor's water quality issues, the Town was involved with numerous State Agencies that provided grant funding. The first step was identifying the 25 ocean outfalls that discharge untreated stormwater into Provincetown Harbor. The next step included prioritizing the outfalls by location and installing stormwater improvements at each outfall as funding became available. Although effective, this approach is costly to the Town and granting agencies. A more economical solution is to address the root problem, that being the impervious surfaces on Commercial Street causing stormwater to flow into the Harbor.

Through new technologies, the proposed design seeks to help Provincetown manage stormwater runoff and beach impairments occurring at many of the outfalls. A porous paving material being used will fully manage runoff from the Phase 3 section of Commercial Street.

### Why porous pavement?

This design for the reconstruction of Commercial Street will use porous pavement allowing stormwater to filter through the pavement (see Figure 1). The larger aggregate used in the production of porous pavement allows water to infiltrate into the ground rather than running off the surface and into the storm drains that carry the runoff to ocean outfalls in the Harbor. Porous pavement is typically used on roadways where sheeting water is a significant safety hazard; and is also used in areas where water quality has been degraded because of

roadway runoff. Using this design, the stormwater is filtered by the soils prior to entering the water table and is one of the best methods to remove the bacteria that cause beach and shellfish bed closures.

Due to the space limitations that are present along portions of Commercial Street and the amount of utilities within the road layout, porous pavement installation is a viable alternative to other stormwater improvements options.

### Nonpoint source pollution reduction tips

Individuals can have impacts on their watershed. The following is a list of some items residents can assist with to continue the improvements made to date by the Town

- Limit the amount of fertilizer put on your lawn by following recommended application rates
- Clean up pet waste
- Repair car leaks
- Collect stormwater runoff from roof gutters into a rain barrel and use that collected water for gardening
- Use phosphorus-free dishwashing detergent

### Construction times

Road reconstruction

- October 2016 through May 2017
- Phase 3 road reconstruction will be comparable to the Phase 2 schedule with final paving being completed by May 2017

### Construction concerns and challenges

The goal is to minimize disruption to residents and businesses through weekly notifications and “e-blasts”.

- Weather conditions affect construction progress during the colder months
- Access to paving materials; temperatures affect paving plant operations and availability of mix

### Participation is encouraged!

We understand that construction of this project may place temporary burdens on residents and abutters. We are also aware of individual concerns on how the construction period may effect business operation or appearance of one’s property that abuts Commercial Street.

Questions about this project should be directed to the DPW Department and we will arrange a meeting with the Town’s consultant to address these issues at the earliest convenience.

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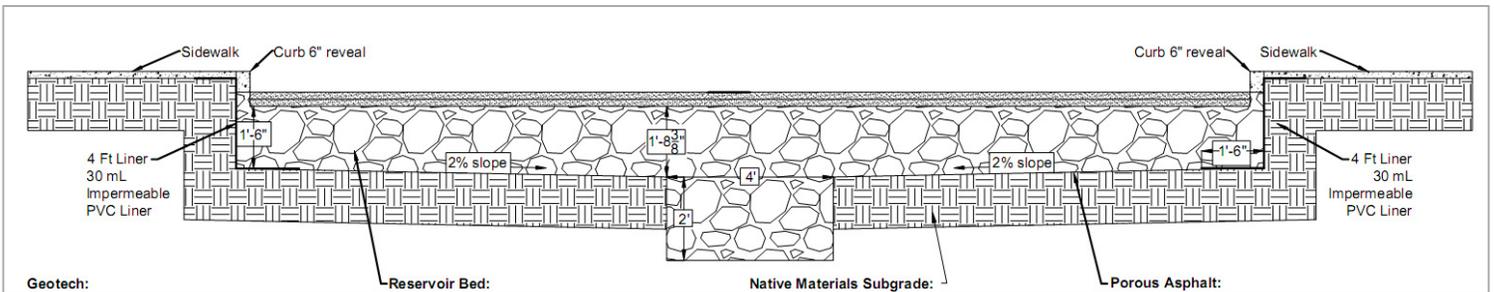


Figure 1: Preliminary Roadway Design

