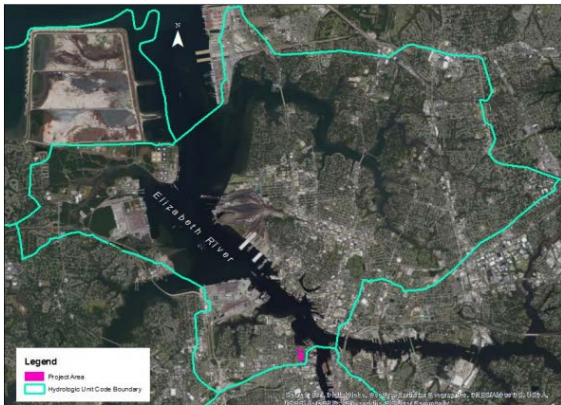




GREEN STREETS | GREEN JOBS | GREEN TOWNS INITIATIVE

The Green Streets, Green Jobs, Green Towns Partnership (G3) aims to stimulate the green jobs market and enable families to work where they live and play. Small to mid-sized communities can boost their local economies and protect water resources through the use of watershed planning, design and construction of stormwater best management practices.



CITY OF PORTSMOUTH

Insert tag line








This project builds off the foundation of a previously funded Green Streets, Green Jobs, Green Towns grant in 2017, in which the city developed a concept plan for the area.

The concept design was also presented at the Civic League's monthly meetings.

In this project, the city developed an engineered design. The design involved converting three blocks of Court Street into a Green Street to provide water quality treatment, water quantity reduction, improve pedestrian safety with traffic calming measures and promote alternate modes of transportation with the addition of a bike lane. The design also incorporated the downtown historic district without impacting the cultural and historical features of the area; tied into the larger vision for revitalization of downtown Portsmouth.

The engineered design plan included the design of several stormwater Best Management Practices (BMPs) including planted curb extensions, rain gardens, and permeable pavement. In addition to BMPs the plan developed the design of a five-foot-wide grass median, and additional planted curb extensions to reduce impervious cover and increase green space. These features not only reduce the heat island effect but are traffic calming strategies which enable safe access for all users. The curb extensions and median are designed in a way to create pinchpoints and neckdowns, slowing traffic and creating a more pedestrian friendly corridor. Bike lanes, bike racks, improved sidewalks, and benches were included in the plan to encourage alternate modes of transportation.

For public involvement, a citizen questionnaire was developed and provided to the Olde Towne Civic League for distribution. The league distributed the questionnaire via email and at their monthly meetings.

-  1 engineered design
-  5,230 native plants to be installed
-  16 trees to be planted
-  174,000 sq. ft. impervious surface to be treated
-  55.04 lbs nitrogen to be treated per year
-  17,634 sq. ft. rain garden to be created
-  39,560 sq. ft. pervious surface to be installed



PROJECT ELEMENTS

- **Engineered Design Plan** – This engineered design plan provides recommendations and details on how to transform three streets into Green Streets, with elements including native plants, tree planting, impervious pavement removal, rain garden implementation, and pervious pavement.
- **Native Plants** – Native plants offer numerous benefits. Because native plants are adapted to local environmental conditions, they require far less water. They provide vital habitats for birds, insects and other species of wildlife, prevent water run-off, and improve air quality.
- **Tree Planting** – Tree Planting – Native trees and shrubs require less maintenance and absorb rainwater, hold soils in place, and provide food and habitat for birds, pollinators, and other wildlife.
- **Impervious Pavement Removal** – Rain hits impervious surfaces such as parking lots and roads, and because it cannot soak through, it instead runs off into storm drains or directly local waterways.
- **Rain Garden** – These features filter and reduce stormwater runoff, allowing it to infiltrate into the ground before it enters into the storm drain system.
- **Pervious Paving** – This alternative to traditional black top allows surface water to flow into the ground where the volume can be held, infiltrate into the lower soil or conveyed through a stormwater system. Porous paving is a good application for areas that require a hardscape surface and have no viable options for stormwater management. There are various applications and styles making porous asphalt a good aesthetic option as well as functional.

Plan Estimates

STORMWATER VOLUME TREATED	
123,737 Gallons	
STORMWATER VOLUME REDUCTION	
49,495 Gallons	
ESTIMATED POLLUTANT REMOVAL (LBS/YR)	
TOTAL PHOSPHORUS	9.53
TOTAL NITROGEN	55.04
TOTAL SEDIMENT	1,817

SUSTAINABILITY & GROWTH

This pilot project was for the City to see if Green Streets could be incorporated into the downtown historic districts without impacting any of the cultural and historical features of the area. If the implemented project is successful, the City of Portsmouth would like to continue incorporating this type of retrofit into their future development plans for other historic district areas of the City.

A maintenance plan was included in the design package, and provides a material list and specifications, first-year and long-term maintenance requirements, routine and non-routine maintenance tasks and annual inspection checklists

The plans were later implemented through a sequential Green Streets, Green Jobs, Green Towns grant in 2019.

For additional information: visit epa.gov and cbtrust.org

Year Awarded: 2018
Award Amount: \$30,000
Match Amount: \$99,192

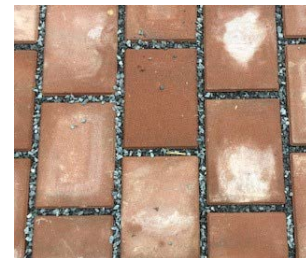
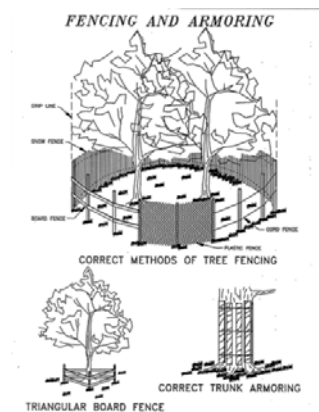
Existing Court Street



Concept Rendering of Court Street



Project Elements



Project Partners: Chesapeake Bay Trust,
City of Portsmouth, Olde
Towne Civic League, U.S. Environmental
Protection Agency, WSP USA Inc