



INFRASTRUCTURE

1. **BACKGROUND**: The following provides a brief overview of infrastructure needed to support existing development and future growth in Yarmouth including roads and bridges, culverts and stormwater systems, water, sewer, energy, communications, and coastal structures. Links to websites and programs for more in-depth information are embedded throughout the text.

Data/Trends:

- Heavy congestion on major roads during the summer with increasing congestion year round.
- Existing road layouts are narrow leaving limited room for expansions without land takings or changing the character of the area.
- Three of the major roadways in Town (Route 6A, Route 6 and Route 28) are under the jurisdiction of MassDOT, which governs design standards and is responsible for maintenance. Intersections with safety concerns are along Route 6A at Union and Willow Streets, along Route 28 at West Yarmouth Road, South Sea Ave, Seaview Ave and Old Main/North Main, and at the Exit 8 interchanges.
- Several aging and undersized culverts result in washouts and tidal restrictions (Run Pond, Dennis Road at Crab Creek, Thacher Shore Road and Seagull Beach Road).
- Most stormwater is addressed on each developed site, but there are significant stormwater systems owned and operated by the Town.
- Yarmouth now connects to the Cape Cod Rail Trail (CCRT) offering transportation and recreation opportunities.
- Eversource has expanded their tree trimming program to minimize storm/tree related outages. National Grid has replaced much of their undersized transmission main and is nearing the end of their hookup moratorium in much of the mid and lower cape. Many municipal and school properties, as well as businesses and residents, have added Solar, with more being proposed or considered.
- OpenCape fiber optic broadband is available all along Route 28, and along Route 6A from the Barnstable Town line to West Yarmouth Road where it follows the transmission lines into Dennis. Fiber optics are faster and more reliable and can handle larger volumes of data which are needed by larger businesses, institutions and municipalities, but cost can be a consideration.
- [2019 Water System Master Plan](#) showed adequate water supply through 2040 with current water quality meeting regulatory requirements. PFAS and other emerging contaminants remain a potential issue as well as manganese and nitrates. The Master Plan also identified the need for improvements to all of the Water Department's 41 well and treatment buildings. Improvements generally include safety improvements for OSHA compliance, long overdue roof replacements and electrical upgrades.
- The [2017 Water System Asset Management Plan](#) recommended dedicating approximately \$900,000 per year indefinitely to address aging and undersized water main.
- Yarmouth currently has no municipal sewer system, although there are very active efforts to create a municipal system for economic development, health and environmental reasons. See the Water Resources data sheet for additional information.



- **Coastal Structures/dredging:** Coastal infrastructure repair and maintenance is an ongoing need at various locations throughout town. Revetments, shore erosion, dredging, permitting, and beach replenishment activities are needed to maintain access to and protect our rivers, ponds, estuaries and beaches.

2. EXISTING PROGRAMS/PROJECTS/INITIATIVES: The Town has many programs and initiatives to maintain and expand our Infrastructure.

- **Roadways/Stormwater:** The Town allocates approximately \$2.4 million annually for roadway maintenance and stormwater improvements. (\$900,000 State Chapter 90 and \$1.5 million thru annual appropriations).
- **DPW Building:** A new Department of Public Works (DPW) facility is currently in construction off Buck Island Road, replacing existing facilities that are 40-70 years old. This facility will increase efficiency of operations, safety and house expensive specialized vehicles inside for longevity.
- **Baxter Grist Mill:** Repairs to the Baxter Grist Mill dam and fish ladder have been completed. The repairs were needed for dam safety and to improve fish passage. Future work at the site could include improvements to the Grist Mill building itself.
- **Parkers River Tidal Restoration Bridge Replacement:** Although a MassDOT owned bridge along Route 28, the Town joined with state and federal partners to replace and widen the bridge as a tidal restoration project using a variety of grant funding. The condition of the bridge had deteriorated and a new bridge will be a significant infrastructure improvement along Route 28. The project is currently in construction and is anticipated to be completed by 2021.
- **MS4 Stormwater:** As part of the MS4 General Permit program, the Town inventoried and mapped its existing stormwater systems, provided educational materials on stormwater related topics, developed programs and regulation amendments, and conducts monitoring of outfalls.
- **Stormwater:** The DPW has completed stormwater projects at Gleason Avenue, Bayview Street and Pawnee Road using Best Management Practices (BMPs) to address water quality.
- **Water Station Improvements:** As recommended in the 2019 Master Plan, the Water Department has initiated a three phased program to accomplish much needed water station improvements. The first phase will eliminate asbestos concerns and some confined space and electrical issues, as well as replace the first 12 roofs. Construction of Phase 1 is anticipated to begin in early 2021.
- **Coastal Structure Evaluation:** Completed the first phase of evaluation and design of the town's coastal structures to determine if they are sustainable and able to continue to protect the town assets. Alternative and enhancement options will be considered.
- **Dredging and Beach Nourishment:** The Town continues to conduct dredging the navigational channels and nourishing the beaches with the dredge spoils to protect Town coastal structures.

3. WHAT'S IN THE WORKS: In addition to the programs, projects and initiatives noted above, there are several potential Infrastructure projects in various stages of development.

- **Bass River Bridge and Four Corners:** MassDOT is currently in the design phase for replacement of the Bass River Bridge along Route 28 and improvements at the Four Corners intersection (Old Main/Route 28/North Main). Elements are being incorporated into the bridge to create a shared use pathway, overlooks, decorative lighting and entrance treatments that will allow for public art.



- **Route 28 Resurfacing Project:** MassDOT recently completed a Road Safety Audit along Route 28 from Iyannough Road to the Parkers River Bridge as the first steps in a roadway resurfacing project currently scheduled for 2023. The Town is coordinating this work with construction of municipal wastewater and water main improvements to reduce overall costs.
- **Exit 8:** MassDOT is in the preliminary design phase for safety improvements at the Route 6 ramps at Exit 8 (Union Street & Station Avenue).
- **CCRT Barnstable Extension:** Design is underway for extension of the CCRT from Peter Homer Park to Mary Dunn Road in Barnstable including a bridge over Willow Street/railroad tracks. This project is in the design/permitting phase with MassDOT, with construction in 2022.
- **Higgins Crowell SUP:** Design is currently underway for a 10' wide shared use path along the east side of Higgins Crowell Road from Buck Island Road to the roundabout, to connect the CCRT to the Sandy Pond Recreation Area, woodland trails, schools and residential neighborhoods. The DPW was recently awarded a \$150,000 MassTrails Grant for partial funding of the project.
- **Route 6A Corridor Improvements and Water Main Replacement:** Town Staff and consultant VHB are working on replacement of the aging watermain along Route 6A from the Barnstable Town Line to Union Street, as well as looking at various corridor improvements that can be made to improve safety. VHB developed conceptual corridor designs which were presented in three public meetings in May 2019. Public comment were diverse and reviewed with the BOS to identify preferred concepts. A second series of meetings are planned.
- **Energy Park:** Town Staff have been working on developing a Cape Cod Energy Park at the Septage Facility at 50 Workshop Road to look a solar, battery storage and anaerobic digester to convert biosolids and food waste to energy.
- **Municipal Vulnerability Preparedness (MVP) Community:** The Town has received a \$150,000 MVP Grant and recently applied for a supplemental MVP Grant for parking lot solar canopies at Fire Station #3 and ground mounted solar array at the commercial transfer station with battery storage backup.
- **Green Community:** Yarmouth is moving forward with installation of electric car chargers at the Senior Center and Bayberry Golf Course.
- **Stormwater:** The DPW is looking into a variety of ways to address road flooding along Mulford Street and Captain Besse Road.

4. THINGS TO THINK ABOUT: Now that you have had an opportunity to learn a little bit about Infrastructure in Yarmouth, bring your thoughts and ideas to the Workshop or include them in your Survey responses. Some things to think about include:

- What strengths do we have regarding our Infrastructure?
- What Infrastructure initiatives are we doing successfully?
- What challenges do you see related to Infrastructure?
- Are there issues and influences holding us back?
- What opportunities could we tap into to address these challenges?
- Is the Town spending its time and resources on the right projects or initiatives?
- If not, where should we be spending our time and resources?
- How does Infrastructure impact your vision for Yarmouth's future?

