

ADDRESSING INFRASTRUCTURE NEEDS

Overview

For the Plan, the term “infrastructure” refers to services or facilities Portland might want or need to support conservation and development strategies and enhance the overall quality of life in the community.

Services and facilities such as municipal buildings, parks, recreation facilities, roadways, and utilities help support the type of community that Portland has indicated it wants to be. Such services and facilities also affect residents’ quality of life.

By providing for adequate facilities and services, Portland can maintain and enhance residents’ quality of life.

Community Facilities



Transportation



Infrastructure



N. Address Community Facility Needs

Community facilities support important community functions such as education, public safety, and recreation and contribute significantly to the quality of life in Portland.

Portland has addressed a number of community facility needs in recent years and these efforts should continue.

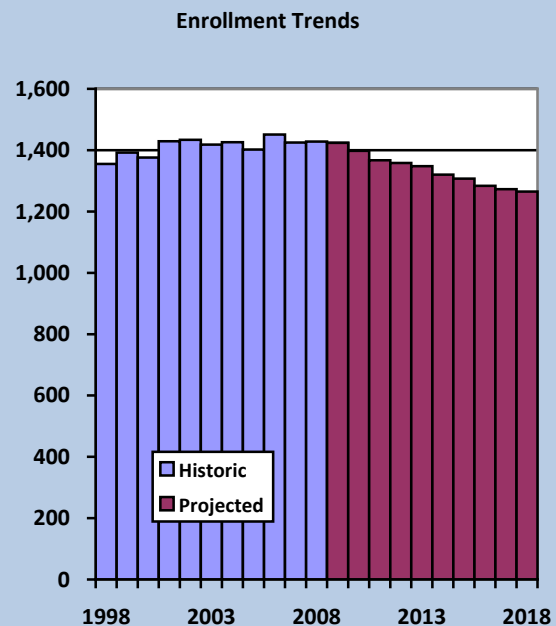
Community facilities and services are major contributing factors in determining the overall quality of life in Portland.

CASE STUDY – Enrollment Projections

Education services comprise approximately 60% of Portland’s annual budget and fluctuations in enrollments can have a major impact on the budget.

However, enrollment projections for the Portland school system point to declining enrollments in the near term. This trend reflects the changing age composition of Portland and is similar to what is forecast in other Connecticut municipalities. Eventually, this enrollment trend will change and so continued enrollment projections are recommended.

This type of information helps Portland anticipate and prioritize community facility needs. Gathering this type of information should continue to occur.



CASE STUDY – Portland Town Park

Since 2005, the Town of Portland has been planning for a new town park / recreation facility on Route 17 near Strickland Street. Following receipt of a grant from the State of Connecticut in 2011, the Town was able to prepare a feasibility study of the property for use as a recreation complex.

Then, in 2012, an advisory committee was established to oversee design of the improvements. Following site walks, public outreach, and property surveys, several options for the property were evaluated. As of 2015, a preliminary plan has been prepared and final authorization to proceed is the next step.

This type of approach is an example of how Portland anticipates and prioritizes community facility needs. This type of process should continue to be used for other community facilities.

Route 17 Portland Town Park Master Plan



N.1. Address Community Facility Needs

Some community facility issues may warrant consideration during the planning period:

- Maintaining a planning process for anticipating and prioritizing community facility needs
- Maintaining existing buildings and facilities
- Update municipal facilities to meet anticipated needs
- Implement the Parks and Recreation Master Plan, especially in terms of the recreation complex on Route 17 at Strickland Street
- Maintaining adequate staffing for fire and emergency medical services (EMS)
- Monitoring school enrollment trends and projections

For all municipal facilities, consideration should be given to acquiring additional land adjacent to each facility as it becomes available in order to be able to provide for possible future expansion.

Town Hall



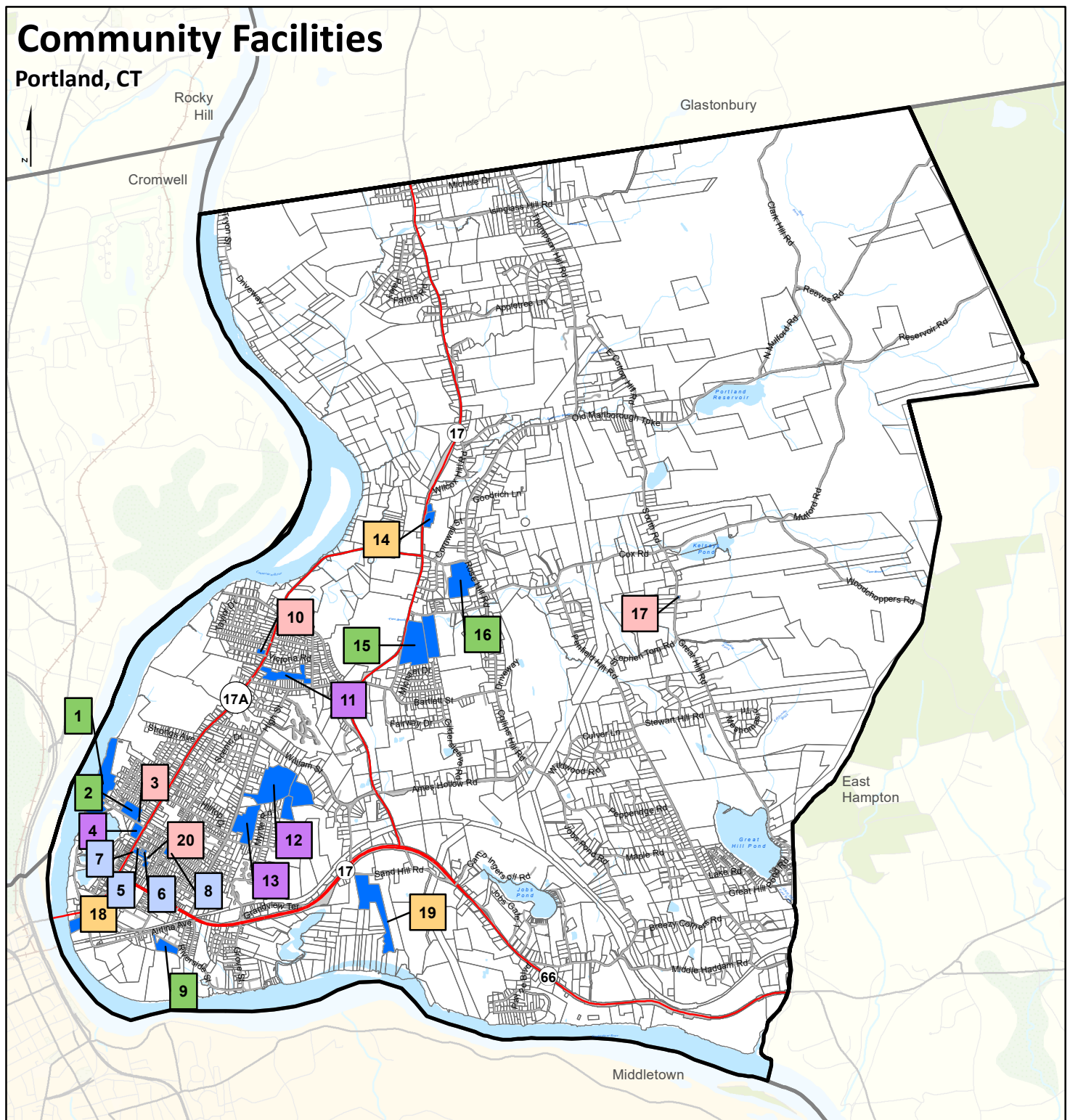
Policies
1. Maintain a planning process for anticipating and prioritizing community facility needs.
2. Maintain the buildings and facilities already existing, including adding staffing as needed.
3. Update municipal facilities to meet anticipated needs.
4. Implement the Parks and Recreation Master Plan, especially in terms of the Route 17 Portland Town Park.
5. Maintain adequate staffing for fire and emergency medical services (EMS).
6. Monitor school enrollment trends and projections.
7. For all municipal facilities, consider acquiring additional land adjacent to each facility as it becomes available in order to be able to provide for possible future expansion.
Action Items
8. Implement actions to address community facility needs.

Highway Garage



Community Facilities

Portland, CT



Legend

- | | | |
|------------------------------------|----------------------------------|--|
| 1 - Riverfront Park | 8 - Town Hall | 15 - Portland Town Park (proposed) |
| 2 - Middlesex Ave. Fields | 9 - Brownstone Park | 16 - Bransfield Park |
| 3 - Fire Station #1 | 10 - Fire Station #2 | 17 - Fire Station #3 |
| 4 - Brownstone Intermediate School | 11 - Gildersleeve School | 18 - Sewer Plant |
| 5 - Community Center | 12 - High School / Middle School | 19 - Transfer Station / Recycling Center |
| 6 - Senior Center | 13 - Valley View School | 20 - Police Station |
| 7 - Library | 14 - Highway Garage | |

3,250 Feet

O. Address Vehicular Transportation

Overall, the vehicular circulation needs of Portland residents and businesses appear well served by the State highway system and the network of local streets.

The overall goal of this section of the POCD is to provide for the safe and efficient movement of people and goods over the roadway network in Portland.

Provide for the safe and efficient movement of people and goods over the roadway network in Portland.

Route 17A / 66



Route 17 at Route 17A



O.1. Maintain and Improve Roadway Conditions

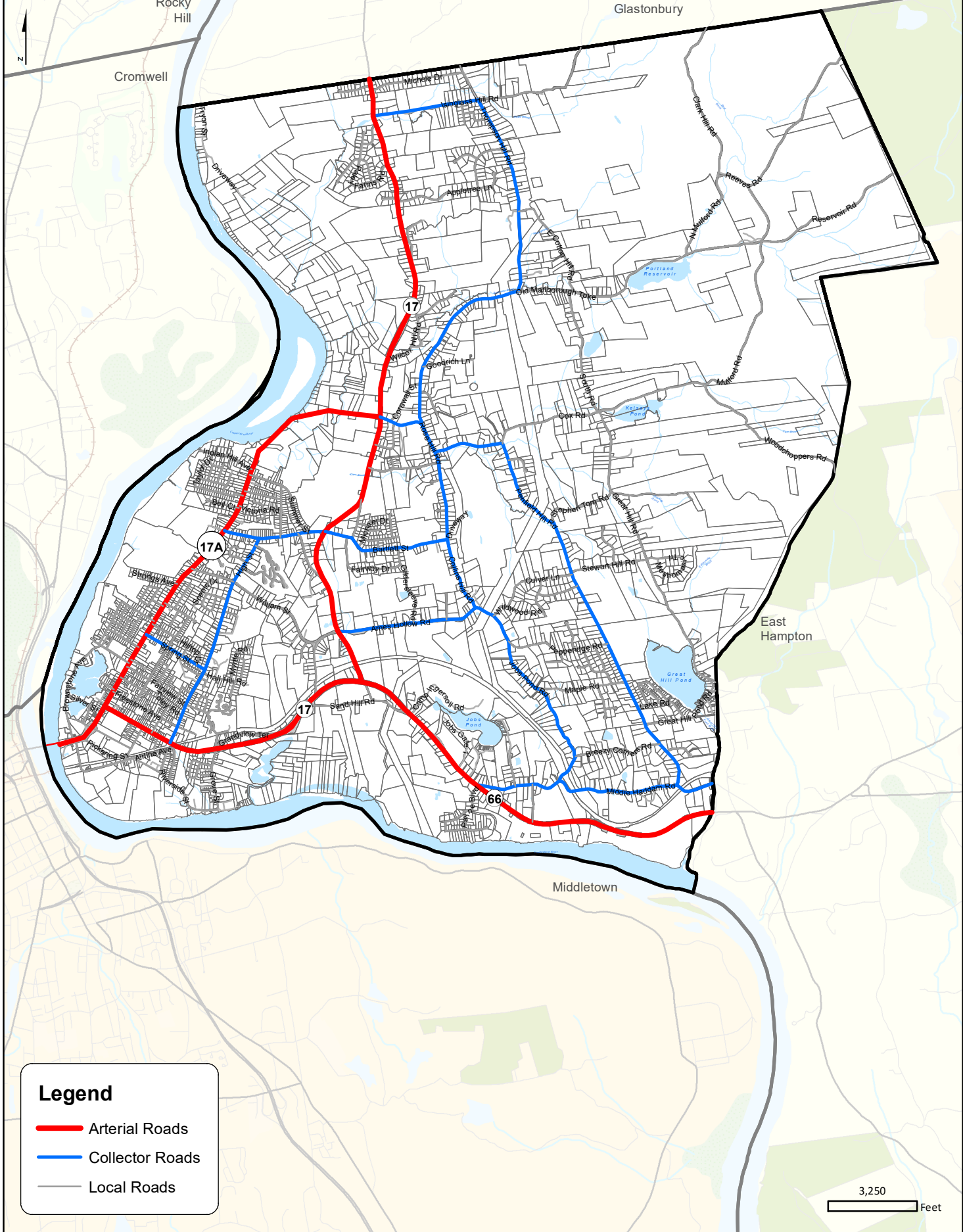
Roadway safety involves many factors including sight lines, road geometry, drainage, surface conditions, and road width. The Public Works Department (PWD) regularly reviews road conditions to address safety or other issues which may arise. Design and routing considerations could include roundabouts, road relocations, and other approaches. Roadway improvements may include storm drainage installations, road widening and extensions, horizontal and vertical realignments, and total road section reconstruction.

Maintaining roadway pavement is a considerable financial obligation for Portland and one that seems easy to delay given fiscal constraints. However, all road pavement will eventually deteriorate and experience has shown that modest improvements in early years (crack sealing, chip sealing, etc.) will extend the useful life of roads and avoid considerable expenses later (total reconstruction). Portland should strive to maintain road pavements as cost effectively as possible over the lifecycle of the road.

Policies
1. Continue to address roadway safety and other conditions as they arise.
2. Consider traffic calming approaches where needed to protect the quality of life in residential neighborhoods, commercial districts, near schools and recreational areas.
3. Maintain road pavements as cost effectively as possible over the lifecycle of the road
Action Items
4. Implement actions to maintain and improve roadway conditions.

Vehicular Transportation

Portland, CT



Legend

- Arterial Roads
- Collector Roads
- Local Roads

3,250 Feet

O.2. Maintain A Functional Road Network

Since the major roads in Portland are part of the State highway system, the Town should continue to work with regional and state agencies to maintain and improve the overall roadway network.

The basic elements of the roadway circulation system for Portland are in place. It is anticipated that private developers will build future roads as part of the subdivision of property. As this occurs, the Town should ensure there are reasonable connections within and between subdivisions. Developers often like to build cul-de-sac streets and these roads can complicate the efficient provision of municipal services (school buses, snow plows, emergency response, etc.).

Should traffic speed or volume become an issue in residential neighborhoods, commercial districts, near schools or recreational areas, “traffic calming” might be considered.

Policies
1. Continue to work with regional and state agencies to maintain and improve the overall roadway network.
2. Ensure that there are reasonable connections within and between future subdivision roads and that cul-de-sac streets are minimized.
Action Items
3. Implement actions to maintain a functional road network.

CASE STUDY- Traffic Calming

“Traffic calming” is a series of approaches to managing the design or use of roadways in order to control traffic speeds and/or volumes. Some approaches include:

Education

1. Educating drivers to try and alter behavior
2. Neighborhood meetings to raise awareness of the issue and identify possible approaches.
3. Neighborhood newsletter to share information about safety concerns and proposed responses.
4. Radar speed sign to alert motorists to prevailing speed.
5. Traffic signs to inform drivers of a speed-sensitive area.

Enforcement

6. Enhanced enforcement of speed limits and other traffic laws.

Design

7. Implement a Complete Streets Plan to include ideas, like Road Diets, that narrow travel lanes (pavement markings, landscaping, or curbing) to slow traffic and provide space for pedestrians and cyclists.
8. Mini-roundabouts to require vehicles to slow down and navigate around an island.
9. Temporary / permanent constriction of travel lanes (curb extensions, bump-outs, chicanes, etc.) to slow traffic and deter through traffic.
10. Speed bump / hump to deter speeding and - through traffic.
11. Partial / full closure to prevent traffic.

P. Support Walking

Portland should aspire to be a pedestrian-friendly community. These efforts will help support the Town Center and the overall quality of life in the community.

Sidewalks – Portland wants to have sidewalks (surfaced walkways located along streets) established and maintained within the Town Center and extending out to surrounding areas (such as the Quarries, the Riverfront Park area, and the Arrigoni Bridge). The Town Center area will benefit from encouraging a pedestrian-friendly environment and from providing a continuous system of safe, inviting, and attractive sidewalks and crosswalks. Sidewalks should be of adequate width to enhance the pedestrian experience.

Trails and Multi-Use Paths - Portland seeks to establish a system of off-road trails and multi-use paths to interconnect open space areas and provide opportunities for residents and visitors to enjoy the landscape of Portland including the riverfront area and the Meshomasic State Forest. Portland has been working on improving the Air Line Rail Trail as part of a regional greenway system and this will enhance the effort to be recognized as a pedestrian-friendly community. Trail connections to Glastonbury through Wangunk Meadows are also encouraged.

Promote walking, biking, and transit in Portland as recommended in the “complete streets” plan.

Policies
1. Aspire to be a pedestrian-friendly community
2. Ensure that adequate and safe pedestrian crosswalks are provided in appropriate places.
3. Close gaps in discontinuous sidewalks.
4. Enforce the existing sidewalk maintenance ordinance.
Action Items
5. Develop and implement a sidewalk improvement program.
6. Implement recommendations of the Complete Streets Group.
7. Adopt a “complete streets” plan.
8. Identify who is responsible for sidewalk repairs on Main Street and compel them to complete them.

Sidewalks



Air Line Trail



Q. Support Cycling

Portland should aspire to be a bicycle-friendly community.

The Complete Streets Group has been looking at how to make better provisions for bicycles in the future. Completing the Air Line Trail in Portland and connecting it to the Arrigoni Bridge is a great step forward in terms of being a bicycle-friendly community.

Policies	
1.	Aspire to be a bicycle-friendly community
2.	Create an overall system of bicycle routes in Portland.
3.	Accommodate bicycles whenever practical in road and site development projects.
4.	Narrow travel lanes and create bicycle lanes where possible.
5.	Establish formal bike lanes with medians where space is available.
6.	Work with CTDOT to include bike lanes on all state roads in Portland.
Action Items	
7.	Implement recommendations of the Complete Streets Group.
8.	Seek designation as a “bicycle-friendly community”.

R. Enhance Transit Services

Portland is currently served by a bus route operated by the Middletown Transit District. This service connects Portland and East Hampton to downtown Middletown and other bus connections available there. This service should be maintained and enhanced since the frequency of bus service limits its use.



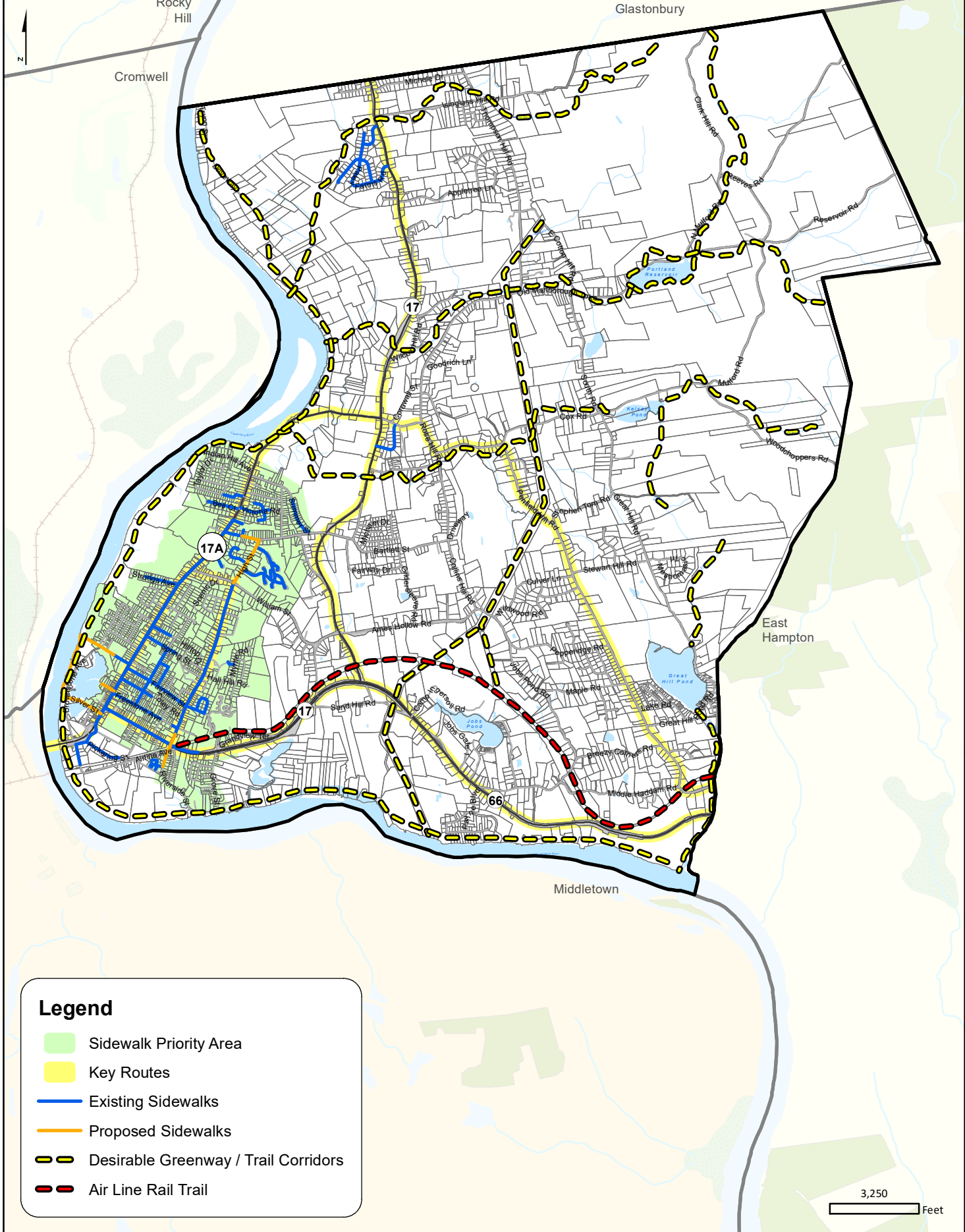
Portland participates in a regional dial-a-ride service for the elderly and disabled operated by the Middletown Area Transit District. Eligible persons can schedule trips for medical, shopping, educational and recreational purposes.

In addition, the Town also owns two handi-capped accessible vans that transport seniors for day trips and special events.

Policies	
1.	Maintain and enhance transit services.
2.	Monitor transit usage since demand may increase as the age composition of the community changes.
Action Items	
3.	Implement actions to enhance transit services.

Walking / Cycling / Transit

Portland, CT



S. Provide For Utility Services

The availability of utility infrastructure (such as public water and sewer service) can have a significant impact on the development of a community. These utilities should be used to guide and support appropriate development patterns by ensuring that sufficient capacity is available in desired locations.

Promote adequate utility services to support the desired development pattern in Portland.

Sewer Service



S.1. Maintain And Enhance the Sewer System

While most areas of Portland rely on private septic systems, sewer service exists in the Town Center. The sewers help support the intensity of development desired in this area.

The treatment plant (located just south of the Arrigoni Bridge) has been upgraded to meet environmental requirements and anticipated community needs. The plant is permitted for discharge to the Connecticut River at average daily flow of 1.0 million gallons per day (MGD). The approximately 1,750 customers generate about 400,000 gallons of wastewater per day. As a result, Portland is expected to have adequate sewage capacity to meet community needs for the foreseeable future.

Still, the extension of sewer service would benefit the overall economic development objectives of the community. For example, extending sewer service to the Planned Industrial zone around the intersection of Route 17 and Route 66 and on Sand Hill Road would help attract new development to this area.

Policies
1. Maintain and enhance the current sewer infrastructure in the community.
2. If necessary to protect public health, extend sewer service to residential areas experiencing a high incidence of septic failures.
Action Items
3. Investigate expanding the sewer service area to promote economic development.
4. Adjust sewer usage rates to provide revenues that meet expenditures.
5. Provide staffing/resources to maintain sewer infrastructure.

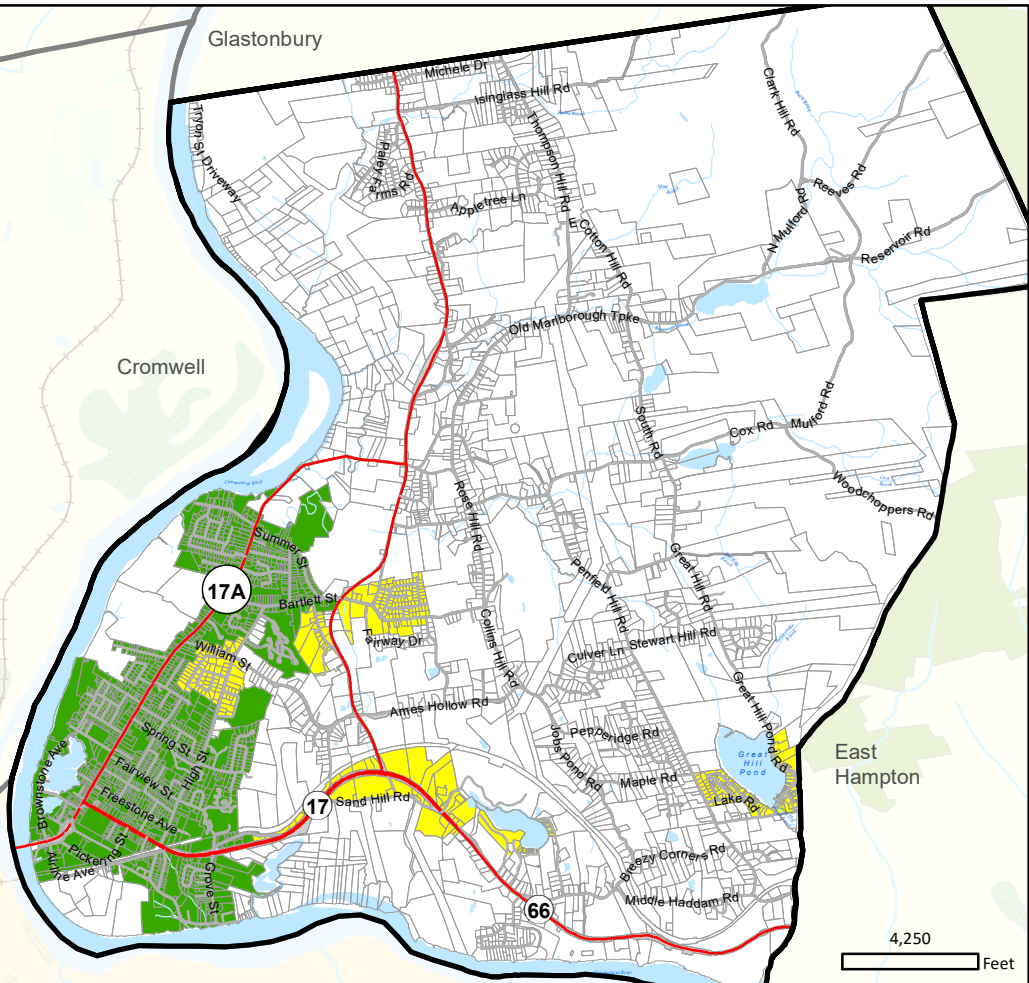
Sewer Service

Portland, CT



Legend

- Existing Sewer Service Area
- Proposed Sewer Service Area
- Planned Sewer Avoidance Area



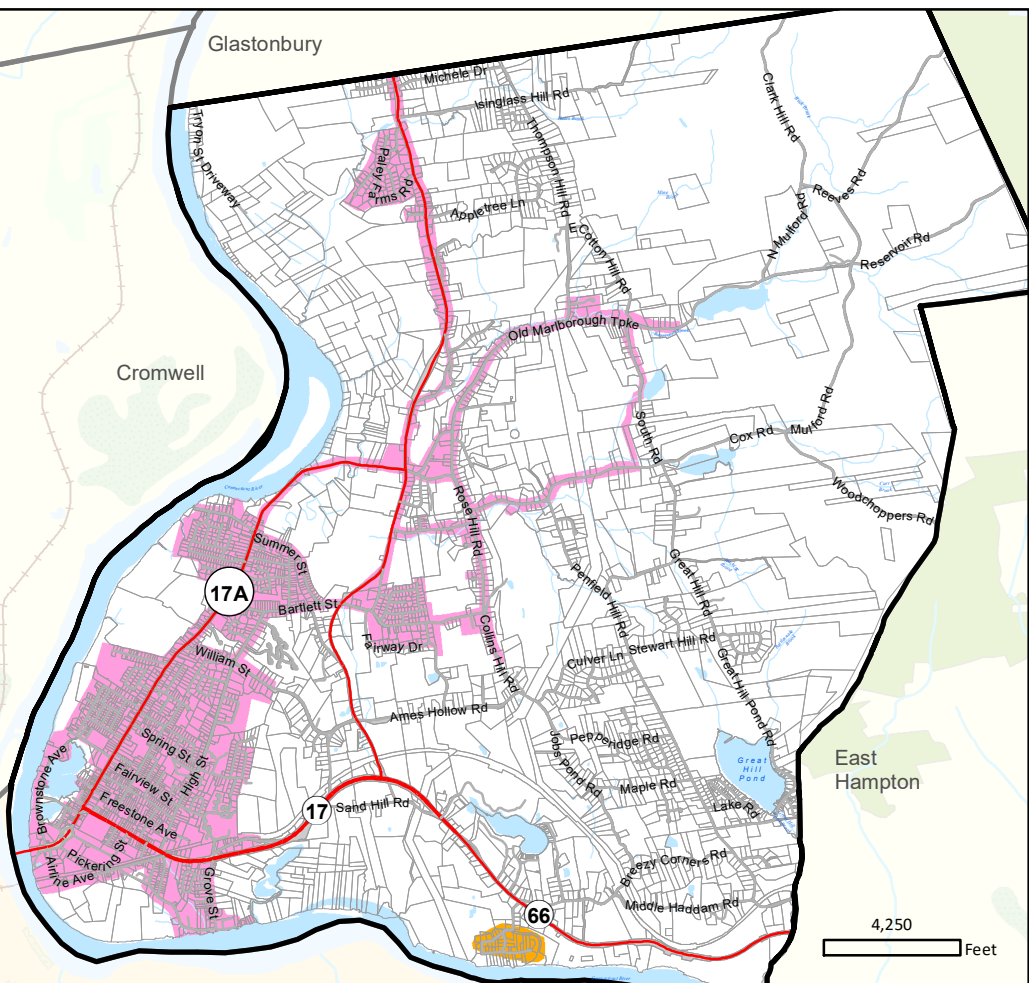
Water Service

Portland, CT



Legend

- Portland Water Department
- ECRWC - Rivercrest Division



S.2. Maintain And Enhance the Water System

While most properties in Portland rely on private wells, public water service is available in the Town Center and other areas.

CASE STUDY- Water Supply

Portland has an agreement to purchase water from the Metropolitan District Commission (a provider of water in the Hartford area) in order to supplement local sources. This arrangement was originally entered into by the Town to avoid the cost of building a filtration plant and to provide a secure water source.

Since that time, there have been some concerns expressed about the cost of the water being provided. Further, this discussion has resulted in calls to consider alternatives to the current contract with MDC.

Since the MDC Agreement is due for renewal, the Town should investigate ways that it might become independent in terms of the water supply and what the costs might be. Once the investigation is done, the Town can balance the overall advantages and disadvantages of different approaches and make a decision for the future.

Portland Reservoir



Public water for approximately 2,400 users is supplied from:

- A water supply agreement with the Metropolitan District Commission (MDC), and
- A local water source (the “Glastonbury Well”) located on Glastonbury Turnpike.

Together, these two sources provide sufficient water to meet the Town’s requirements during the planning period. An emergency water source is available at the Portland Reservoir although this is not expected to be needed due to the arrangement with the MDC.

Issues to consider in terms of the water system include the following:

- Making improvements to increase water pressure (domestic and hydrants) in the Town Center area ,
- Improving water supply for fire suppression in outlying areas (such as underground cisterns as part of new developments)
- Extending water service for public health or economic development purposes.

Policies
1. Maintain and enhance the current water infrastructure in the community.
2. Improve water service in the Town Center.
Action Items
3. Revise the Subdivision Regulations to require underground storage tanks connected to dry hydrants for subdivisions in areas not served by public water.
4. Investigate the costs and benefits of different water supply approaches.
5. Adjust water usage rates to provide revenues that meet expenditures.
6. Provide staffing/resources to maintain water infrastructure.

S.3. Manage Stormwater Runoff

Storm drainage in most areas of Portland is accomplished by structural systems (catch basins, pipes, and culverts) or by sheet flow off impervious surfaces such as roads, roofs and parking areas.

There is increased attention being paid to the water quality impacts from stormwater runoff and Portland should consider addressing this issue as well.

It is anticipated that Portland will transition to “low impact development” (LID) approaches where storm water quality and quantity is managed more by non-structural systems. By addressing stormwater runoff closer to where the raindrop falls, LID approaches can help promote groundwater recharge, reduce the frequency or severity of flooding, and address water quality.

Policies
1. Address the water quantity and water quality impacts of stormwater runoff.
2. Address outstanding drainage issues within the community.
Action Items
3. Incorporate LID approaches into local regulations.

S.4. Address Other Infrastructure Needs

Natural Gas

Portland is in the franchise area of the Connecticut Natural Gas Company. Natural gas service is being extended into Portland from East Hampton along Route 66. While natural gas service is not widely available in the community at present, it could be important for residents and businesses. Portland should work to make natural gas service available within more areas of Portland in the future.

Electrical Service

Electricity is delivered locally by Eversource (formerly Connecticut Light and Power). Electric service in Portland is reported to be reliable town-wide and should be able to meet both current and anticipated future needs.

The main threat to electrical reliability in Portland is downed power lines due to storm events. Electrical lines can be protected by placing them underground as opportunities present themselves although this can be very expensive. Finding an appropriate balance between tree-lined streets and electrical reliability will be an on-going issue.

Wired Communication

Wired communication services (telephone, cable, internet) are available town-wide to meet current and anticipated future needs. As the use of digital communication devices grows, Portland should seek ways to enhance the capacity and speed of wired communication services.

Wireless Communication

More and more communications are happening on wireless devices and Portland should seek to enhance the coverage, capacity and speed of wireless communication services.

As people may migrate away from “wired” communications in the future to wireless devices, Portland should evaluate the best ways to address this trend. Finding an appropriate balance between a rural landscape and the quality and reliability of wireless communications will be an on-going issue. This includes “wi-fi” services.

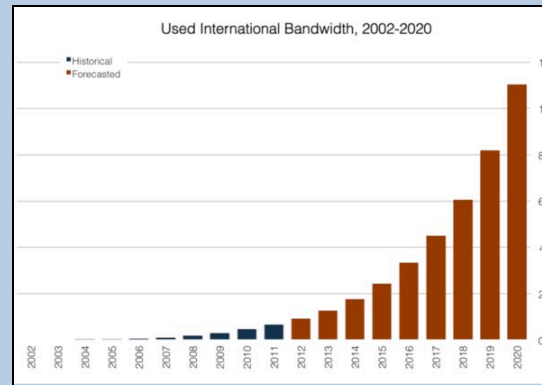
Policies
1. Work to make natural gas service available within more areas of Portland in the future.
2. Seek to find an appropriate balance between tree-lined streets and electrical reliability.
3. Seek to place electrical lines underground, especially within the Town Center, as opportunities present themselves.
4. Seek ways to enhance the capacity and speed of wired communication services.
5. Seek to enhance the coverage, capacity and speed of wireless communication services.
6. Find an appropriate balance between a rural landscape and the quality and reliability of wireless communications.
Action Items
7. Develop a tower siting preference policy for wireless communications.

CASE STUDY- Technology

Internet speed and accessibility is becoming an increasingly important issue for businesses and people. Over the last decade, there has been a significant increase in demand for speed and bandwidth. During the same period, there has been a transition from wired devices to wireless devices.

Portland needs to stay on the front edge of this transition in order to remain competitive for businesses and have access to what is now considered a basic service.

Bandwidth Demand



Wireless Devices

