

PACTS Transit Supportive Development Study



December 2015



Acknowledgements

This study was funded by PACTS, with FHWA funding, and local match contributions from study area municipalities. The consulting team wishes to thank the following representatives for their guidance and support.

John Duncan; Carl Eppich, AICP, PACTS

Tom Poirier; David Galbraith, Gorham

Alex Jaegerman FAICP; Bruce Hyman, PE, AICP, Portland

Dan Bacon, AICP, Scarborough

Charles Haeuser, AICP, South Portland

Gordon Billington; Bud Benson, Standish

Molly Just, AICP, Westbrook

Chris Mann, MaineDOT

Sarah Zografos, Maine Turnpike Authority

Integrated Planning Solutions (IPS) Consulting Team

Kat Beaudoin, AICP, study manager, IPS

Carol Morris, Morris Communications

Paul Godfrey, PE, HNTB

Elizabeth A. Della Valle, AICP

Essek Petrie, AICP, HNTB

Brad Huff, LA, HNTB

Study Support Services

Evan Richert, AICP

Kevin Hooper, PE

Data, Photo and Illustration Credits:

Terry DeWan, L.A.

Sustain Southern Maine

GrowSmart Maine

Sarah Cushman, Cushman Transportation Consulting, LLC

Contents

List of Appendices	iv
List of Figures	v
Executive Summary	vii
1.0 Introduction	1
1.1 Why This Study is Needed: Placemaking in Maine	1
1.2 Study Expectations: Making Change Possible	3
1.3 The Timing is Right	4
1.4 History: Linking Land Use and Transportation Planning	4
1.5 Public Preferences are Changing	5
1.6 Study Tasks	7
2.0 Common Barriers to Center-Focused Development	9
2.1 Lack of Public Infrastructure	9
2.1.1 Public Sewer and Water	9
2.1.2 Public Transit (Bus) and Ride Share	10
2.1.3 High Speed Internet	11
2.2 Reluctance to add more development in already congested area	11
2.3 Current Tax Policies and Public Perception of Who Pays	12
2.4 Existing Planning and Regulatory Tools and Approaches	12
3.0 Municipal Characteristics	15
3.1 Overview of Selected Centers of Opportunity	15
3.2 Variations in Codes, Policies and Infrastructure	20
4.0 What are the Ways and Means for Creating Centers?	29
4.1 Overview of Center Management Tools	29
4.1.1 Addressing Existing Vehicle Traffic	29
4.1.2 Creating Context Sensitive/ <i>Complete Streets</i>	29
4.1.3 Providing or Augmenting Transit, Pedestrian / Bicycle Services	30
4.1.4 Creating (Public and Private) Gathering Places	30
4.1.5 Encouraging Consistent Zoning Designed to Support Financially Feasible Development	30
4.1.6 Adopting Incentives for Partnerships with Developers	30
4.2 Tools Currently in Use by Study Area Municipalities	30
4.3 Tools that do not Support or that Undermine a Center-Focused Development Pattern	33
4.4 Additional Tools to Support Center-Focused Development Pattern	35
4.5 Funding Mechanisms	42
4.6 Partnerships	44
5.0 Fiscal Considerations	49
5.1 Fiscal Analysis	49
5.2 Other Considerations	52
5.3 Conclusions	53

6.0	Recommendations	55
6.1	General Recommendations	55
6.2	Recommendations by Center	61
6.2.1	South Gorham & North Scarborough	62
6.2.2	Libbytown / Portland	71
6.2.3	Redbank & Brick Hill / South Portland's West End)	75
6.2.4A	Standish Corner Transit Supportive Development	79
6.2.4B	Standish Corner Connector Road Feasibility Study	80
	Findings	82
	History of Growth	82
	Traffic Analysis	84
	Revised Connector Road Network	85
	Soils most conducive to Community Septic Systems	86
	Connector Road Cost Estimate and Typical Section	87
	Permitting of local roadways	89
	Conclusion and Recommendations	90
6.2.5	Pride's Corner Westbrook	93

APPENDICES	99
-------------------	-----------

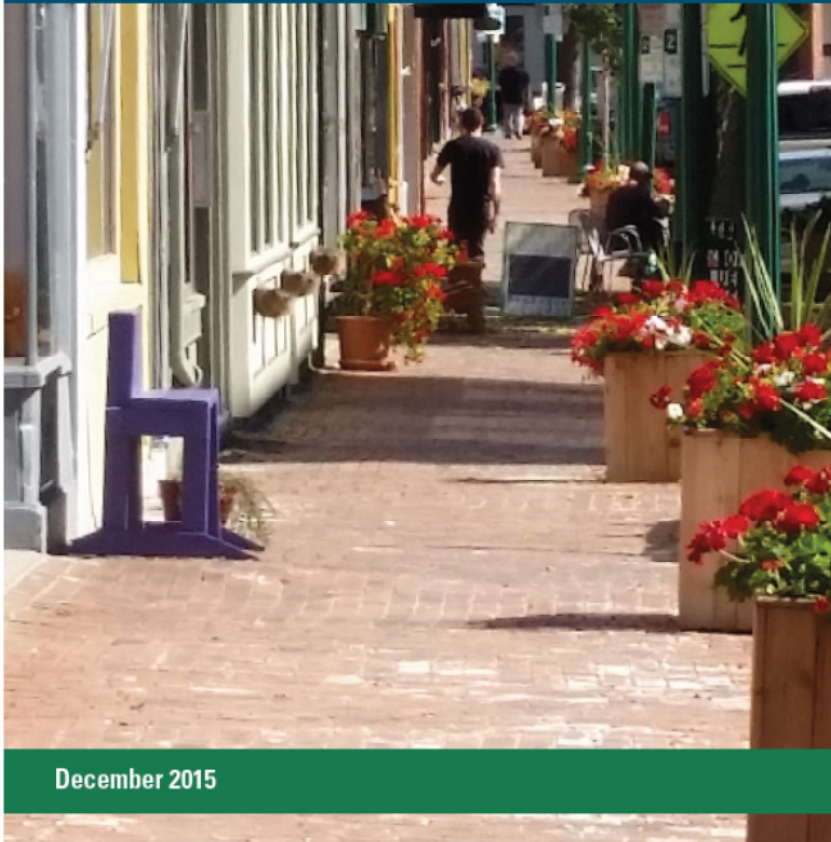
Appendix	Name	
A	Detailed Summary of Municipal Plans and Codes Affecting Centers of Opportunity	100
B	Funding Mechanisms	107
C	Fiscal Analysis Worksheets	111
D	Principles of Form Based Codes	122
E	NRCS Soil Survey Maps for South Gorham/North Scarborough, Pride's Corner, Westbrook & Standish Corner, Standish	124
F	Soil Types in Standish	127

LIST OF FIGURES

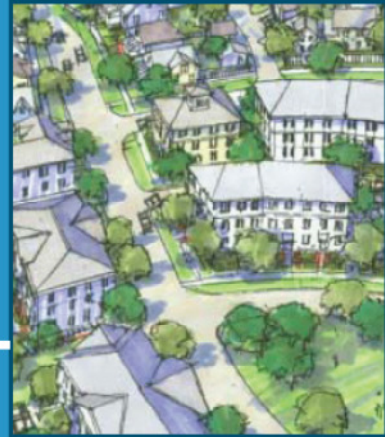
#	Figure Name	Page
1.5A	Public Preferences	6
1.6A	Gorham East-West Study - Study Area	7
1.6B	Sustain Southern Maine Centers of Opportunity shown in blue outlines with Gorham East-West Study growth centers shown in yellow	8
2.1.1A	Areas where Public Water and Sewer are available in study area	9
2.1.2A	Portland Metro Routes	10
2.1.2B	South Portland Bus Routes	10
2.1.3	Maine's "Three Ring Binder"	11
3.1A	Selected Centers of Opportunity in Study Area	15
3.1B	South Gorham and North Scarborough Centers	15
3.1C	Libbytown Center	16
3.1D	West End Center	17
3.1E	Standish Corner Center	19
3.1F	Pride's Corner Center	20
3.2A	Summary of Comprehensive Plan and Land Use Codes affecting Centers of Opportunity	21
3.2B	Existing Infrastructure and Needs in Centers of Opportunity	24
4.2A	Tools Currently Being Used	33
4.3A	Tools Not Currently Being Used or that Do Not support Centers of Opportunity	35
4.4	Tools that could be used or changed to increase success of centers	41
5.1A	Comparison of SF/MF Housing Units – Current vs Center by Municipality	50
5.1B	Comparison of Number of School Children and Potential Municipal School Cost Savings – Current vs Center by Municipality	51
5.1.C	Comparison of Miles of New Municipal Roads and Potential Municipal Highway Maintenance Cost Savings – Current vs Center by Municipality	52
5.2A	Potential Open Space Preserved by Municipality	53
6.1	General Recommendations for Transit Supportive Development	56
6.2.1A	South Gorham & North Scarborough Center of Opportunity	65
6.2.1B	Possible Cross Sections	66-67
6.2.1C	North Scarborough – 20+ Years	68
6.2.1D	South Gorham – 20+ Years	69
6.2.1E	County Road Overlap – 20+ Years	70
6.2.2A	Libbytown Center of Opportunity, Portland	73
6.2.2B	Images of Development concepts	74
6.2.3A	West End Center of Opportunity, South Portland	77
6.2.3B	Needs Identified for the West End	78
6.2.4B1	Local Connector Road Concept: Final Report – Route 23/35 Corridor Study, Standish	81
6.2.4B2	History of Growth in Standish 1920-2015	82/83
6.2.4B3	Existing & Connector Road Network Intersection Volumes (PM Peak Hour) at Route 25/35	84
6.2.4B4	Connector Road Network (Revised)	85
6.2.4B5	Soils in Standish Corner most suitable for subsurface waste disposal.	86
6.2.4B6	Connector Road Network (Revised) over Soils and Natural Resources	87
6.2.4B7	Quadrants of the Connector Road Network	87 & 91
6.2.4B8	Summary of connector road network costs by quadrant, with and without sidewalks	88
6.2.4B9	Connector Road Typical Cross Section	88
6.2.4B10	Low volume paved connector road materials and minimum specifications	89
6.2.5A	Pride's Corner Center of Opportunity, Westbrook	95
6.2.5B	Images of possible cross sections for Bridgton Road and potential new connector roads	96/97

PACTS Transit Supportive Development Study

Executive Summary



December 2015



THIS PAGE INTENTIONALLY LEFT BLANK

Executive Summary

What This Study Will Achieve: Placemaking in Maine

In this study, PACTS and six municipalities (Gorham, Portland, Scarborough, South Portland, Standish and Westbrook) explored best practices and options for community-centered planning that could over time provide transportation choices beyond automobile travel in the study area. Coordinated by PACTS, this second phase of the Gorham East-West Corridor Feasibility Study (Gorham E-W Phase 1) was launched in September 2015.

The study focused on how to concentrate development-supportive policies into specific growth centers in order to evolve these centers into places that are highly attractive to people of all ages for living, working and recreation. We call these places ‘Centers of Opportunity’ (centers). Other benefits of intentionally growing certain places in this way are that more undeveloped land remains available for agriculture, recreation and habitat, and the cost of providing municipal services to these compact areas is reduced. These centers typically also offer increased availability of services to residents. Several of the centers studied were located on arterial roads; how to manage development in these kinds of locations, so common to Maine, was another focus of the study.

“For too long, we over-invested in the wrong places. Those retail centers and subdivisions will never be worth what they cost to build.”

Christopher B. Leinberger is a senior fellow at the Brookings Institution and professor of practice in urban and regional planning at the University of Michigan.

Is it a Road or a Street - A Pass-Through or a Place? While these terms are often used interchangeably, a ***road*** generally refers to a transportation corridor that connects two or more centers of activity; travelers on roads *pass through* on the way to work or when transporting goods or services to customers. Roads generally carry traffic at higher speeds. A ***street*** most often refers to a transportation facility that provides *access to places* like neighborhoods and downtowns; it is usually a lower speed facility that also supports pedestrians, cyclists and transit riders.

In discussing the advances made in our society in the early days of road building, where travel time from the country to the city was often cut in half, Chuck Marohn, P.E., Executive Director of Strong Towns, recently said, “The idea that I can get to town now in eight minutes instead of 10 minutes points out that there is a diminishing return to this approach....when roads were first built to connect two places, they were incredibly efficient....now we’ve changed what a road is....we’ve introduced elements of a “local” street into what was an arterial road. Most of our arterials are now really “stroads – street/road hybrids. When streets become roads, we lose the framework and lose the value (of both).” Further, he says, “We can’t afford to grow the way we have been; we can no longer rely on Washington or the state for dollars.”¹

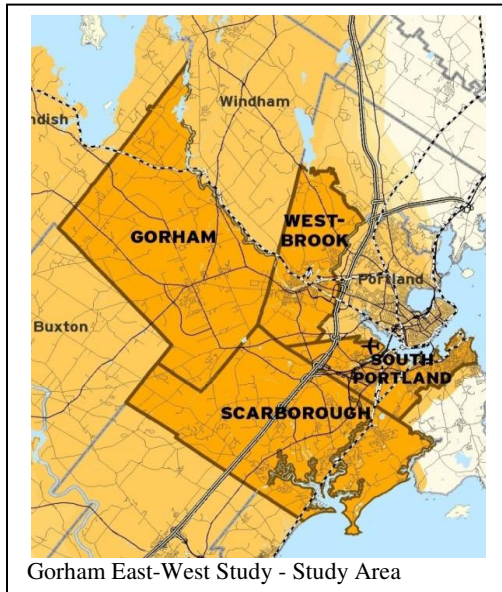
Because the practice of transforming rural roads to “streets” that include a mix of activity has caused costly conflicts, planners across the country are attempting to stem this tide with a focus on Placemaking, “a quiet movement that inspires people to collectively re-imagine and reinvent public spaces as the heart of every community....Strengthening the connection between people and the places they share, (it’s) a collaborative process by which we can shape our public realm in order to maximize shared value....”²

¹ The cost of Auto Orientation – Chuck Marohn; <http://www.strongtowns.org/the-cost-of-auto-orientation>

² Project of Public Spaces http://www.pps.org/reference/what_is_placemaking/

Building on the Gorham East-West and Sustain Southern Maine Studies: The Gorham East-West Corridor Feasibility Study Phase 1, completed in 2012, recommended a three-pronged approach to address congestion in the study area:

- 1) Modification of current municipal land use policies that inadvertently exacerbated sprawl;
- 2) Expansion of existing transit service and new transit service to towns without transit; and
- 3) Additional highway capacity improvements: either highway widening or new roads.



Sustain Southern Maine, a GPCOG regional planning study focused in Southern Maine, created pilot programs in nine communities to test best practices of placemaking in real life by working in collaboration with developers and land owners to create new, denser development that would be attractive to residents and newcomers alike.

This Transit Supportive Development study brings the land use concepts explored in the above two studies one step closer to reality by providing communities with some of the tools to build attractive and vibrant “places” connected by (arterial) roads and ultimately served by transit. Those places are connected internally by local streets, which can serve as a better, safer, more efficient framework for capturing traveler value as opposed to using the through-road for that purpose.

The Time is Now - Public Preferences are Changing: In August 2014, PACTS conducted a transportation survey³ as part of its Long Range

Transportation Plan update: Destination Tomorrow: 2040. More than half of respondents and over two-thirds of 18-34 year olds envision themselves living in a community where schools, stores, and restaurants are within walking distance and served by public transit; one-fifth of respondents 55 or older say they would use public buses if they became unable to drive.

Other recent surveys conducted by *The Urban Land Institute*, and *The Demand Institute*, suggest that more Americans are choosing places to live that are home to people with diverse incomes, and have shopping, groceries, restaurants and transportation choices. In April 2014, Smart Growth America released its report entitled *Measuring Sprawl 2014*. It found that people in these kinds of centers:

- have greater economic opportunity,
- spend less of their household income on the combined cost of housing and transportation,
- have a greater number of transportation options available to them,
- And tend to be safer, healthier and live longer than their peers in more sprawling metro areas.

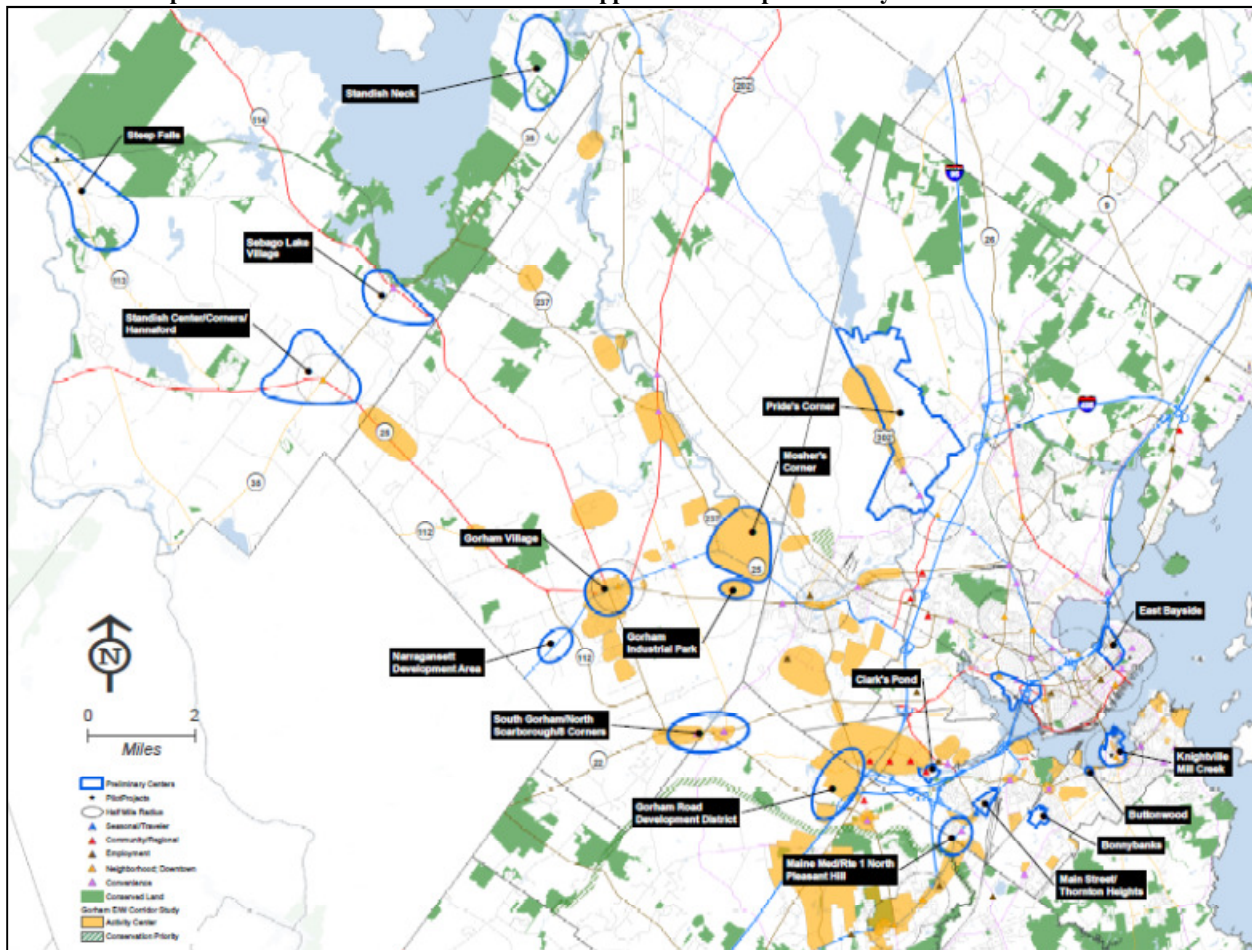
With this data in mind, there is strong market support for creating mixed-use centers that provide places for residents and workers to interact. Important to the success of these centers is incorporating the *Complete Streets* concept. Complete Streets refers to a road design that accommodates all users, not just motorized vehicles. While the design will vary depending on the primary use of the street, in general, a

³ Report to Portland Area Comprehensive Transportation System, 2014 PACTS Transportation Survey, August 2014 by Pan Atlantic SMS Group - <https://www.dropbox.com/s/rbqsvszfh49mqbk/2014%20PACTS%20LRTP%20Values%20and%20Priorities%20Survey%20Report.pdf?dl=0>

Complete Street provides a balance of facilities for bicyclists, pedestrians and transit, along with automobiles and trucks. It is important to note that all modes have equal importance in a Complete Street design; shoehorning in a narrow sidewalk and/or bike lane in whatever space is left over after vehicles are accommodated does not follow the principles of Complete Streets.

Study Task Overview: In each of the six study area municipalities, several possible Centers of Opportunity (where growth could be focused) were identified. These centers were then vetted and adjusted by a group of officials from each municipality, who assessed the growth and redevelopment potential of each and chose the one that they believed had the most potential. Community outreach forums were then held in each city or town to present growth concepts, obtain a sense of the direction for the center that the municipality and residents could support and determine what was needed for implementation.

Below: Composite Map of Centers of Opportunity from Gorham East-West Phase I and Sustain Southern Maine Studies for the 6 Municipalities involved in the PACTS Transit Supportive Development Study



Next, a broad review was conducted of each municipality’s land use and infrastructure policies. These policies were compared with the public’s expressed desires for land use and infrastructure preferences at community forums. The review highlighted best practices already in place as well as areas that need improvement in order to achieve the desired development goals. For highlights, proceed to the section titled **Code, Policy and Infrastructure Variations** on page v.

A narrow fiscal analysis was undertaken for each center to evaluate the costs and benefits of status quo development compared with the costs and benefits of the center-focused development as described in this study. In addition, the existing roadway, pedestrian, bicycling, transit and utility (water and sewer) features associated with the location were inventoried for the six centers selected.

Recommendations were developed to make creating these Centers of Opportunity a reality including identification of critically needed changes to policies and ordinances affecting land use and infrastructure, in addition to fiscal and development-related tools to encourage the desired type and degree of growth for each center. These recommendations include regional and state-level actions needed to support center-focused development along with local actions.

Selected Center of Opportunity Comparisons: To provide as much instruction as possible, centers were chosen to illustrate a range of neighborhood sizes and population density. The following is a summary of the characteristics of each municipality's selected Center of Opportunity.

South Gorham/North Scarborough: The *South Gorham* and *North Scarborough* centers are both located in the congested Route 22 and 114 "overlap area", with a mix of commercial and residential land uses on this busy road. Travel delay is experienced regularly during peak travel times. The area sits atop a valued groundwater aquifer the communities are committed to protecting. Relief from congestion is desired first and foremost; addition of utilities is needed to support higher density growth. With those issues resolved, residents are interested in village style development in Scarborough and campus style development in Gorham.

Portland/Libbytown: *Libbytown* is a mixed-use center, hosting the Portland Transportation Center (PTC), which includes the Amtrak Downeaster and Concord Coach intercity bus line. The center is characterized by multiple zoning districts, and underdeveloped areas with substantial redevelopment potential. Metro bus routes serve the area. New development is underway after significant planning and public infrastructure investment. More infill and higher densities with decreased surface parking is envisioned; more gathering areas, better bus stops and more pedestrian connections are also desired.

South Portland's West End - Redbank & Brick Hill: *Redbank* is most similar to the Libbytown center, but has more residential and service uses with few retail options that require shopping trips out of the neighborhood. Within the center, *Brick Hill* is also a mixed use area, incorporating office and mixed residential uses in an existing campus style layout. Walking and bicycling facilities are minimal with substantial gaps. Limited transit is available. Residents are interested in growth of more local services and additional transportation options – better sidewalks and more frequent transit.

Standish/Standish Corner: *Standish Corner* has the character of a village but lacks an interconnected street network and a municipal sewer system. Formerly the center of a rural agricultural community, Standish Corner sits at the junction of two busy state roadways, Routes 25 and 35. Development has occurred on existing roads and is located primarily on and adjacent to Route 25, a popular route connecting to New Hampshire. No transit service is available to this area at this time. Standish Corner has a master plan with an associated Route 25/35 Alternative Route plan adopted by the town. An ordinance was developed to implement the master plan and roadway plan. Standish wants to determine the feasibility of the roadway plan, adjust it as needed to promote optimal mixed use development and to identify soils in the planning area that may support community septic to allow for higher density development.

Westbrook/Prides Corner: The *Prides Corner* area is the largest and least densely developed center of those looked at in this study, located at the outer edge of Westbrook's urban area. The subject of much planning in the past, its biggest challenges in terms of supporting new growth are the lack of public sewer

and relief from through-traffic on the already congested Bridgton Road (Route 302). Without an interconnecting street system and some kind of infrastructure partnership to assist with road building and utility extension, development is likely to continue stringing along Route 302, exacerbating traffic problems. Limited transit service exists. Many of the large land owners in the area are interested in developing their land, favoring a partnership with the municipality to build a street grid and extend utilities. They also would support amendments to the ordinance to permit densities in the range of 8-15 units per acre. They envision land uses that improve the area's walkability and bikability with a greater number of local conveniences.

Code, Policy and Infrastructure Variations: Each of the centers included in the study differ when it comes to achieving the desired patterns and mixes of development. Some centers have adequate public utilities to support growth; others have public water but no public sewer, while some have no utilities at all. All are plagued by some amount of growing traffic congestion. Some centers are supported by a well-developed interconnected local street network, while other have few if any network elements to help provide relief. Historically located on what were then known as "connector roads", these centers have evolved over time into communities with an entirely new character; they are in essence, hybrids of streets and roads - or 'stroads', as explained on page 1 of this Executive Summary. An analysis of the municipal planning tools being used is highlighted below:

Center-Focused Tools Currently In Use: Tools that support a center-focused development pattern being used by some of the municipalities include:

- Planning for and creating mixed use zoning districts
- Master planning (land use and local street plans, Complete Streets, thoroughfare models)
- Neighborhood multi-modal transportation and wayfinding planning
- Infrastructure improvement plans, including transit
- Form based codes, that create more flexibility in development and encourage desirable land uses
- Density/intensity bonuses to encourage developers to build more affordable housing
- Regional integrated land use and transportation planning
- Impact and/or other developer fees for funding infrastructure
- Transit Tax Increment Financing (TTIF) and traditional Tax Increment Financing (TIF) to pay for infrastructure
- Buy Local initiatives

Tools in Use That Do Not Support a Center-Focused Development Pattern: On the other hand, some municipalities do not use the tools described above and/or use other tools that do not support an efficient development pattern including:

- Overreliance on contract (lot by lot) zoning, which can create inconsistencies and can miss the opportunity to see the big picture
- Restrictions/limitations on allowing mixed use as well as inflated space and bulk standards, which encourages auto-dependent communities and big-box type stores
- Vague standards relating to New England Village character
- Overly complicated and time-consuming regulatory processes
- Lack of planning and funding to invest in infrastructure
- Lack of integration of regulatory and non-regulatory tools (i.e. economic/community development and planning)

Additional Tools to Support a Center-Focused Development Pattern: Other tools not widely used by municipalities in the study area include:

- Planning and regulating specifically for mixed uses and traditional neighborhoods
- Being more entrepreneurial, including municipalities' acquiring land for future center-based uses
- Emphasis on offering housing choices, such as multi-family, 2nd floor apartments over retail and condos in addition to single family homes
- Creating "complete neighborhood centers" on one or both sides of an arterial so that residents do not need to drive across a busy road for services
- Adopting a combination of strong incentives and reasonable requirements for developers in centers, along with,
- Streamlining the development review process in centers as compared to other parts of town making centers more attractive for developer investments
- Adopting regional Impact Fees and Transfer of Development Rights (TDR) policies and programs to encourage regionally appropriate development and rural land conservation
- Planning for and making public investments in infrastructure in priority Centers of Opportunity
- Exploring and using creative partnerships and funding techniques for public investment
- Working via advocacy groups at the state level to adopt legislation to support center-focused development

A summary of each center's infrastructure characteristics was developed using available information. Characteristics considered deficiencies in terms of Complete Streets policies or accepted engineering practice were noted. In general, while roadway lane width was adequate in most instances, centers were deficient in one or more of the following areas:

- Adequate right of way to provide Complete Streets
- Sidewalks and crosswalks
- Shoulders/breakdown lanes
- Bike lanes
- Turn lanes
- Access management
- Transit accommodation
- Traffic calming
- Wayfinding signage
- Traffic control measures

Overall Barriers: In each center, barriers exist to reaching higher densities. Some are physical, some are social, and some are political. Overall, though, these barriers are largely financial.

- Lack of Public Sewer and Water:
 - only two of the six (Portland and South Portland) have sufficient sewer and water service to support anticipated higher density growth
 - one has public water but no public sewer (Standish)
 - another has some public sewer and some public water with adequate capacity to support desired growth but not without extension (Westbrook)
 - two have neither public water or sewer (South Gorham and North Scarborough)
- Public reluctance to add more development in an already traffic-congested area
- Current tax policies and public perception of who currently pays for new infrastructure

- pre 1970, municipalities partnered with developers often on a 50-50 ratio to build streets and install public utilities; in recent decades, with local budget challenges mounting, developers are expected to cover all costs often forcing their investments to serve only a small segment of the more affluent market.
- Public Transit (Bus) and Limited Ride Share:
 - Portland, South Portland and Westbrook have access to fixed route service but it is insufficient according to public feedback
 - Park' N Ride lots do not exist in all centers studied

How is the needed infrastructure paid for? A variety of funding mechanisms are available to municipalities and their partners beyond local operating and capital budgets to provide the infrastructure necessary to support growth in these centers. Examples are:

- Requiring developers to make or pay for offsite improvements which arise because of a development (impact fees/exactions)
- Requiring a payment from a developer that partially pays for an impact – (offset fees)
- Tax Increment Financing (TIF), including Transit TIFs, Special Assessment, Development, or Capital Improvement Districts
 - Tax-based tools that capture the assessed value of an area after new development and can use the increased value to make public investments in the same area or elsewhere
- Local development corporations
- Public / private grants
- Low-interest loan programs
- Pension funds
- Donations

The Financial Picture: Center-focused Development Makes ‘Cents’

Local government has financed growth over the last seven or eight decades primarily through grants, capital investment and debt. More recently, because those resources have shriveled, municipalities have relied on the private sector to finance growth. In either case, this is not sustainable.

Figure 5.1B – Comparison of Number of School Children and Potential Municipal School Cost Savings Current vs. Center by Municipality						
Town	Number of New School Enrollment			Potential Annual School Enrollment Costs		
	Current	Center	Change	Current	Center	Change
Gorham	474	406	68	\$ 6,114,574	\$ 5,239,993	\$ 874,581
Scarborough	1743	1439	303	\$ 21,822,850	\$ 18,023,089	\$ 3,799,761
Portland	1464	992	472	\$ 19,808,256	\$ 13,421,234	\$ 6,387,022
South Portland	824	608	215	\$ 11,798,354	\$ 8,711,374	\$ 3,086,980
Standish	376	337	39	\$ 3,784,484	\$ 3,389,820	\$ 394,663
Westbrook	857	650	207	\$ 11,412,560	\$ 8,660,944	\$ 2,751,616

This study included a quantitative fiscal analysis to identify the areas of potential municipal savings that exist for center-focused growth compared to the current sprawling pattern of growth. A *Center pattern of growth* includes compact, mixed-use areas designed to receive a larger share

of anticipated growth within a municipality, making amenities available to more people, particularly within walking distance. The *Current pattern* of growth reflects the historic sprawl pattern.⁴

Potential savings in education and public works costs - two of the most expensive cost centers in municipal budgets - were evaluated using available municipal data to reflect the commonly acknowledged benefits of compact or managed development patterns (for example, more full service neighborhoods; walking, cycling and transit options; lower public service costs; more open space; better environmental quality etc.)

School Children and School Costs: Looking at overall housing growth projections and adding municipal input, the total number of single-family and multi-family housing units were estimated for each center. Education costs for Current pattern and Center pattern were based on a per student cost in each municipality (total education costs/school enrollment). Using data obtained from a 1999 American Housing Survey⁵, and further corroborated in a March 2007 study⁶, suggests that the number of school aged children for single family homes is 64 children per 100 units of housing and 21 (29 in the 2007 study) per 100 units of housing for multi-family homes. Therefore, the number of school children is assumed to be less in these centers because the proportion of multi-family to single-family will be greater in the Center pattern than in Current pattern. Population per household data⁷ shows that a higher percentage of multi-family housing can result in lower household populations and less demand on public schools than single-family housing.

Targets for the amount of single-family and multi-family growth that would take place in each center were developed by municipal representatives, based on overall growth projections and recognizing their desire to increase the diversity of housing types in these centers.

Figure 5.1C – Comparison of Miles of New Municipal Roads and Potential Municipal Highway Maintenance Cost Savings Current vs. Center by Municipality						
Town	Number of New Municipal Road Miles			Potential Annual Highway Maintenance Costs		
	Current	Center	Change	Current	Center	Change
Gorham	27.42	5.19	22.23	\$ 194,608	\$ 160,686	\$ 33,923
Scarborough	101.56	18.38	83.19	\$ 1,807,534	\$ 1,427,001	\$ 380,533
Portland	74.84	16.33	58.50	\$ 1,872,767	\$ 1,040,426	\$ 832,341
South Portland	45.56	8.71	36.85	\$ 769,462	\$ 512,975	\$ 256,487
Standish	22.11	4.15	17.96	\$ 117,013	\$ 102,386	\$ 14,627
Westbrook	47.04	9.31	37.73	\$ 499,380	\$ 344,810	\$ 154,570

The potential annual school enrollment cost savings for each municipality range from approximately \$395,000 per year (Standish) to \$6,400,000 (Portland). Schools with larger enrollments generally tend to have the highest potential cost savings.

⁴ The fiscal analysis performed does not measure all impacts of the proposed center development (i.e. administrative, recreation, cultural) nor does it evaluate potential capital costs. A qualitative list of fiscal considerations is also included following the results of the fiscal analysis.

⁵ 1999 American Housing Survey (Washington, DC), U.S. Bureau of the Census and U.S. Department of Housing and Urban Development, 1999.

⁶ Overcoming Opposition to Multifamily Rental Housing, by Mark Obrinsky and Debra Stein, Joint Center for Housing Studies, Harvard University

⁷ 2009 Housing and population data, PACTS region, Gorham East-West Corridor Study

New Road Construction and Maintenance Costs: Increasing density and the ratio of multi-family to single-family housing units in the Center pattern is anticipated to reduce the number of dead-end local road miles constructed and maintained in the future. Estimates for miles of new municipally maintained roads for Current and Center patterns were based upon an average suburban style roadway frontage (200' per single-family unit and 40' per multi-family unit). These averages were then reduced for the Center pattern based on proposed density increases (five times for single-family and two times for multi-family).

Road maintenance costs were estimated by dividing total municipal public works costs⁸ by the estimated number of lane miles of locally maintained roads for each municipality⁹. The potential cost savings assumes that new road miles in the Center pattern will be concentrated and interconnected providing for more efficient flow of maintenance activities vs. the Current pattern that supports numerous dead end streets often built miles apart that require redundant public works efforts. The concentration of road miles under the Center pattern will improve highway maintenance costs as well emergency response times.

The number of new municipally maintained road miles can potentially be reduced from approximately three miles (Standish) to 33 miles (Portland). Miles of potential new municipal roads may be overstated for more urban communities (Portland, South Portland) as many new housing units will likely be accommodated in existing neighborhoods. This is also true for those communities who do not accept new roads to maintain.

Other Benefits: There are potential economic, societal, and environmental benefits as part of the Center pattern of compact, mixed use development, such as:

- Reduced vehicle traffic congestion and vehicle miles traveled
- More pedestrian- and bicycle-friendly neighborhoods
- More public transit/rideshare options
- Reduced air and water pollution
- More open space preservation opportunities; more habitat preservation
- A wider range of housing options
- Reduced public service costs and improved public safety response times
- New England village-style development pattern with retail, services and community gathering
- Creation of centers that are attractive to educated younger workers

In summary, investing in the development of more compact centers can benefit municipalities both fiscally and socially. Collectively for the six municipalities, it has been determined that annual savings are over \$21M for school and highway maintenance costs. These municipal cost savings can be redirected to other public costs that may be associated with developing compact centers, such as extension of sewer/water, and construction of local connector streets. The social benefits to compact development include quality of life improvements for residents, preservation of open space, more transit and rideshare opportunities, and increased vitality of local businesses.

RECOMMENDATIONS SUMMARY

This region is poised to develop attractive and interconnected centers that will not only support traffic flow for through-travelers but will also optimize local, internal trips as part of a more compact mixed-use pattern of development. Center-focused development also has the potential to attract the educated

⁸ Total Public Works budgets for each municipality were divided by total road miles maintained. It is acknowledged that each Public Works budget contains varying items, resulting in a range of municipal costs

⁹ Locally maintained road miles provided by MaineDOT

workforce necessary to support a healthy economy, while allowing seniors to age-in-place cost-effectively. Maine's home rule is an asset here, as it allows municipalities to promote or support the tools that work for them.

PACTS and the municipalities most directly affected by this plan should undertake a prioritization effort and incorporate the most important strategies into annual planning work programs.

Overall Needs: Each of the centers have deficiencies that, once addressed, could make them places attractive to higher density and transit supportive development:

- Address existing vehicle congestion
- Adopt policies to create Context Sensitive / Complete Street to augment transit and pedestrian / bicycle services
- Create (public and private) gathering places
- Encourage consistent, center-appropriate zoning designed to attract financially feasible development
- Adopt incentives for partnerships with developers to support infrastructure needs

Role of PACTS and GPCOG should be to incentivize municipalities that:

- Plan for and regulate mixed uses and traditional neighborhoods with more housing options
- Create “complete neighborhood centers” on one or both sides of busy arterial or collector roadways
- Are more entrepreneurial –
 - purchase land for center-focused development,
 - adopt development incentives,
 - streamline codes and processes,
 - make public investment in infrastructure in centers,
 - form public/private partnerships and
 - use creative funding techniques
- Support regional Impact Fees and Transfer of Development Rights (TDR) programs
- Work together through advocacy organizations at the state level to adopt legislation (and funding) to support center-focused development

With municipalities' support (through comprehensive plans), **PACTS and GPCOG should:**

- Pursue Regional Capital Improvement Planning – (beyond transportation)
- Facilitate a regional Transit TIF development strategy in Centers
- Facilitate the exploration and use of other creative partnerships and funding techniques
- Explore utilizing Cumberland County bonding authority to make infrastructure investments
- Adopt and manage a regional Impact Fee and TDR program
- Explore and compile development standards that can readily be regionalized (Best Management Practices for drainage, road cross sections, access management, road bed construction specifications)
- Plan for and make public investments in infrastructure using criteria favoring municipalities that focus their public investments in mixed-use centers as recommended in PACTS Regional Transportation Plan.

The Full Report outlines specific recommendations for each center and provides more details on overall recommendations.

1. INTRODUCTION

1.1 Why This Study is Needed: Placemaking in Maine

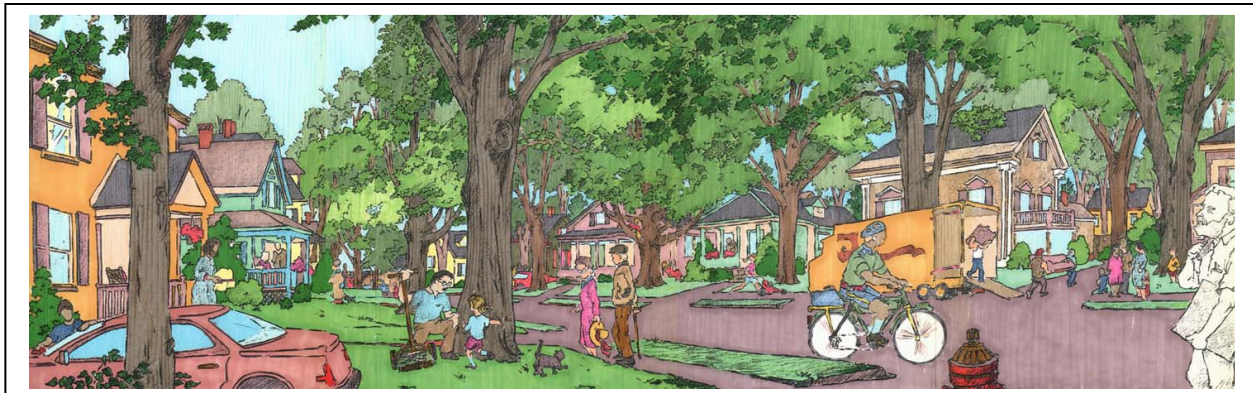
“For too long, we over-invested in the wrong places. All those retail centers and subdivisions will never be worth what they cost to build.”

Christopher B. Leinberger is a senior fellow at the Brookings Institution and professor of practice in urban and regional planning at the University of Michigan.

The purpose of the PACTS Transit Supportive Development Study (TSD) is to provide communities with more tools to create “places” that are cost effective for investors, more efficient in terms of providing public services and ultimately, transit supportive. Such places often already exist in one scale or another along collector or arterial roadways, but lack some (or all) of the economic, utility and transportation infrastructure that supports growth, for example allows a framework of interconnected streets. Such a framework allows the arterial or

collector road to be used for its intended use as a commuter and service/goods delivery route while providing additional opportunities to capture traveler value ‘internally’ on the interconnected street network. The interconnected street network will serve as a place for development of mixed-use activities that invite residents, employees and visitors to walk, cycle and, with enough activity, ride the bus without needing to drive onto busy roads.

In order to incentivize growth in developing centers along the east-west corridors west of Portland, PACTS and six municipalities are exploring community development best practices that promote transportation choices beyond automotive travel. In September 2014, Gorham, Portland, Scarborough, South Portland, Standish and Westbrook, in an effort coordinated by PACTS, initiated this second phase of the Gorham East-West Corridor Feasibility Study, (Gorham East-West), which concluded in 2012.



Credits: Bruce Towle, courtesy of Maine State Planning Office

The TSD study explores one of Gorham East-West’s primary recommendations: to develop community centered and transportation-efficient land use tools, incentives, and policies that would make specific locations more likely to be chosen as places to live, do business and invest in each of the host communities. By adopting more development-friendly policies and directing public investment into carefully chosen Centers of Opportunity, these centers will evolve into places that are more attractive to people of all ages for living, working and recreating. Coined in the Sustain Southern Maine study, Centers of Opportunity (Centers) are “places that are or can be highly competitive for the next generation of jobs and housing in Southern Maine. They are well positioned to tap into the market’s desires for safe, livable and walkable neighborhoods, with housing and transportation choices. They will be targets of

focused infrastructure investments to meet the needs of 21st century business and their workers.”¹⁰ Another benefit of intentionally focusing residential and commercial growth into specific locations is that the surrounding undeveloped land is more likely to remain available for agriculture, recreation and wildlife habitat. In addition, municipal services will be less costly and the development of utilities into these centers is more likely viable.

The Era of Low Cost Growth

Leading up to the 1970s, most municipalities partnered with private entities to build the infrastructure needed to support urban or village life. From new streets to the extension of water and wastewater systems, to the creation of affordable housing, it was often the norm for a city to pay fifty percent (50%) or more of the cost to build the urban grid. In the decades since the 1970s, that partnership practice all but ended. At about the same time, New England experienced an economic downturn, accelerating a growing trend of selling off available inexpensive (often agricultural) land for development along rural low-traffic roads, reducing infrastructure costs for developers. Workers took advantage of easily accessible low cost land and federal housing subsidies, as well as the *then* low cost of automobile travel, to move out into the countryside. Living outside the urban core became an attractive option to the hustle and bustle of aging urban work environments, and many businesses ultimately followed suit.

The Difference Between a Road and a Street

The lower cost of this suburban development lifestyle was short-lived. While municipalities transferred the public responsibility for new local street development to private developers, the state opted for a ‘hands-off’ policy that allowed private development along rural roadways without managing the size, number and location of access points. This provided developers with the opportunity to capture the value of the increasing pass-by traffic by steadily building highway-oriented businesses along the same roadways that once whisked suburban residents in and out of the cities. The results were – and are - clogged roadways. The

 <p>Road</p>	<ul style="list-style-type: none"> -High travel speed -Limited Intersections & few driveways -Wide roadside clear zone -Low density residential /rural land uses
 <p>Street</p>	<ul style="list-style-type: none"> -Low travel speed -Many driveways & intersections -Retail, office, and/or residential uses -No need for roadside clear zone -Comfortable bike/ pedestrian environment - Parking
 <p>Stroad</p>	<ul style="list-style-type: none"> -High design speed, moderate travel speed -Many intersections & driveways -Wide roadside clear zone -Dispersed land use pattern -High turning-movement conflict -Hostile bike/pedestrian environment

Country Roads, City Streets, Suburban Stroads -*The Michigan Planner*, May 2012

¹⁰ <http://sustainsouthernmaine.org/what-are-centers-of-opportunity/>

solutions, repeated across the country, were wider roads with more lanes. This attracted more automobiles and the cycle continued.

While these terms are often used interchangeably, a **road** generally refers to a transportation corridor that connects two or more centers of activity; travelers on roads *pass through* on the way to work or when transporting goods or services to market. Roads generally carry traffic at higher speeds. A **street** most often refers to a transportation facility that provides *access to places* like neighborhoods and downtowns; it is usually a lower speed facility that also supports pedestrians, cyclists and transit riders.

In discussing the advances made in our society in the early days of road building, where travel time from the country to the city was often cut in half, Chuck Marohn, P.E., Executive Director of Strong Towns, recently said, “The idea that I can get to town now in 8 minutes instead of 10 minutes points out that there is a diminishing return to this approach...when roads were built to connect two places, they were incredibly efficient...we’ve changed what a road is...we’ve introduced elements of a “local” street into a road and confused the two. Most of our arterials are now really “stroads – street/road hybrids”¹¹.

“When streets become roads, we lose the framework and lose the value,” says Marohn. And the reverse is also true. Further, he says, “We can’t afford to grow the way we have been; we can no longer rely on Washington or the state”.

This practice of transforming rural roads to streets has caused costly conflicts. Planners across the country are attempting to stem this tide with a focus on Placemaking as a practical take off point for redeveloping centers. As described by the **Project for Public Spaces**, “Placemaking is a quiet movement that inspires people to collectively re-imagine and reinvent public spaces as the heart of every community. As both an overarching idea and a hands-on approach for improving a neighborhood, city, or region, Placemaking has the potential to be one of the most transformative ideas of this century. Strengthening the connection between people and the places they share, Placemaking refers to a collaborative process by which we can shape our public realm in order to maximize shared value. More than just promoting better urban design, Placemaking facilitates creative patterns of use, paying particular attention to the physical, cultural, and social identities that define a place and support its ongoing evolution.”¹²

1.2 Study Expectations: Making Change Possible



Rendering of Yarmouth Route 1 Boulevard – courtesy GrowSmart’s Implementing the Vision

Over the last twenty years, many Maine studies have looked at the potential benefits of a more efficient land use pattern. All of these studies have come to the same conclusion: *continuing with our current practice of building single-family homes on widely spaced multiple-acre lots puts heavy pressure on finite resources: farmland, wild habitat,*

¹¹ The cost of Auto Orientation – Chuck Marohn; <http://www.strongtowns.org/the-cost-of-auto-orientation>

¹² Project of Public Spaces http://www.pps.org/reference/what_is_placemaking/

transportation capacity, stormwater management, and municipal service budgets. The increasing loss of agricultural and rural habitat is apparent to all. And the strain on our aging and underfunded transportation system is becoming increasingly evident as municipalities fail to raise the funds needed to maintain what was built over the last fifty to sixty years.

1.3 The Timing is Right

The region's changing demographics indicate that in coming decades, more and more people are now, and will be, moving to cities and centers. And while Maine's cities are few and far between, those who want to come to Maine to live and work are also likely to be attracted to its smaller downtown centers if they offer convenience, walkability and community. Conversations within municipalities indicate that current residents themselves also want these amenities. The desire for sidewalks, bike lanes and paths, and local community retail, services, and gathering spots are a common theme heard in today's public forums.

The cost of widely dispersed housing and the strong need to attract younger, educated workers to Maine combine to offer compelling arguments for offering a denser form of development in some locations as a way of increasing homebuyer choices. But forty years of the existing pattern has codified people's expectation that funding for services like public spaces, sewer and water should be made by private investors, along with longer commutes with a focus on privacy over community. **While the resource-related benefits and the economic and social potential of changing Maine's development pattern are clear, we have yet to fully understand or embrace the practical steps needed to make this change. This is especially true given the reduction in federal and state funding support for infrastructure and the heavy reliance on property taxes to cover costs.**

1.4 History: Linking Land Use and Transportation Planning

The Sensible Transportation Policy Act: In 1991, voters passed the Sensible Transportation Policy Act (STPA). The overall purpose of the STPA was to guide the planning and decision making responsibilities of the State (MaineDOT) and the Maine Turnpike Authority (MTA) to ensure that public input was sought and that municipalities' planning objectives were respected.

Destination Tomorrow: PACTS' long-range transportation plan, *Destination Tomorrow*, was first adopted in 2003. It included a policy that strengthened the effect of STPA by requiring that municipalities adopt complementary land-use policies before PACTS would fund significant highway investments in their area. That plan is being updated and maintains this policy.

The Gorham East-West Corridor Feasibility Study: The Gorham East-West Corridor Feasibility Study report, completed in 2012, recommended a three-pronged approach to address congestion in the study area:

- 1) Modification of current municipal land use policies that inadvertently exacerbate sprawl;
- 2) Expansion of existing transit service and new transit service to towns without transit; and
- 3) Additional highway capacity improvements: either highway widening or new roads.

The TSD study effort focuses primarily on the first of the three approaches, in order to support the transit indicated in the second approach. Meanwhile, the MTA and MaineDOT are in discussions with the Army Corps of Engineers to examine more closely which of the capacity expanding options could feasibly move forward.

Sustain Southern Maine (SSM): In 2011, the Greater Portland Council of Governments (GPCOG), in partnership with the Southern Maine Planning and Development Commission (SMPDC) and others, received a grant from the U. S. Department of Housing and Urban Development (HUD) to explore how the region could develop in more sustainable ways. Completed in 2013, the study prioritized nine pilot *Centers of Opportunity* from more than 150 region-wide. The pilot centers explored ways to capture projected growth, identifying opportunity for land owners and communities by creating mixed-use walkable concept plans in centers in order to attract a combination of younger workers, families and seniors. The study methods and results of SSM offered substantial guidance for this study effort.

PACTS' Congestion Management Planning: In 2013, because of federal regulations affecting state and regional transportation planning, PACTS adopted a Congestion Management Process (CMP) plan. The CMP is an ongoing process of monitoring and addressing unacceptable multimodal congestion. "In a performance-based planning process, the results of the CMP are a tool for PACTS to use to shape upcoming long range transportation plans and other planning efforts".¹³

Southern Maine Area Transportation Initiative: GPCOG recently commissioned a study exploring the merits of consolidating the independent transit services that currently serve the region. Metro, South Portland and Zoom each provide their own services. In addition, a separate van service is provided by the University of Southern Maine for students commuting between Portland/Gorham campuses. No conclusions have been reached to date as there are numerous complexities to overcome; however, interest in finding a regional solution remains high. Despite oft-heard requests during these studies for enhanced transit, funding remains a challenge as federal subsidies are declining and farebox revenues typically cover only about 32% of overhead.

These initiatives and others, including Portland's Libbytown Circulation and Streetscape Study, and Standish's GrowSmart Maine Model Maine Town Community¹⁴ project among other prior works, are the foundation on which this TSD study lies. All speak to the importance of connecting land use and transportation, creating opportunities for transportation choice and supporting concentrated growth in places that can be attractive for people to live, work and recreate without completely relying on the private automobile for transportation.

1.5 Public Preferences are Changing

In addition to policy and regulatory guidance, public preferences in Maine and across the country are also changing. In August 2014, PACTS sponsored a transportation survey¹⁵ which resulted in more than half of respondents and over two-thirds of 18-34 year olds indicating they envision themselves living in a community where schools, stores, and restaurants are within walking distance and served by public transit. In that same survey, one-fifth of the respondents 55 or older said they would use public buses if they became unable to drive. Survey highlights indicate that PACTS and its partners:

- Should explore expansion of current bus schedules, routes, and areas serviced;
- May wish to add focus on bus services... bike lanes/paths... and major road conditions; and

¹³ <http://www.pactsplan.org/plans-studies/2013-plans-studies-completed/>

¹⁴ A description of the Maine Model Towns project can be found at <http://www.growsmartmaine.org/standish>

¹⁵ Report to Portland Area Comprehensive Transportation System, 2014 PACTS Transportation Survey, August 2014 by Pan Atlantic SMS Group - <https://www.dropbox.com/s/rbqsvszfh49mqbk/2014%20PACTS%20LRTP%20Values%20and%20Priorities%20Survey%20Report.pdf?dl=0>

- Should explore increasing transit connections between routes, having buses run on a more frequent schedule, and developing (transit) related user technology and marketing.

Other recent surveys by the *Urban Land Institute*, and *The Demand Institute* report that more Americans are choosing places to live where residents have diverse incomes; and choices are available for shopping, groceries, restaurants and transportation. Selected highlights from these are in Figure 1.5A.

An April 2014 Smart Growth America report entitled *Measuring Sprawl 2014*, analyzed sprawl based on four factors: Development Density, Land Use Mix, Activity Centering and Street Accessibility. The report found that where sprawl-scores decreased, the people in those compact and connected metro areas:

- have greater economic opportunity.
- spend less of their household income on the combined cost of housing and transportation.
- have a greater number of transportation options available to them, and
- tend to be safer, healthier and live longer than their peers in more sprawling metro areas.

That report also found that the most connected metro areas:

- Encourage mixed use in their comprehensive plans, allow residential uses and activities in all commercial zones, are focused on jobs/housing balance (plus mix of job types) within one mile of census block groups, and have a high “Walk Score” within each census tract.
- Offer homebuyer assistance programs. They have a comprehensive focus on downtown development and a downtown plan.
- Designed streets for people first, had a transportation master plan and invested in street connectivity.
- Planned for development centered on transit stops/stations, allowed higher density in exchange for workforce housing, and unified/streamlined their codes and development processes.

Figure 1.5A Public Preferences

America in 2013, A ULI Survey of Views on Housing, Transportation, and Community.

- More than 50% of Americans prefer neighborhoods close to shops, have residents with a mix of incomes, and have public transportation.
 - 61% prefer a shorter commute and smaller home; 53% want to be closer to shops, restaurants and offices.
 - 52% prefer a neighborhood with income mix; 48% look for a mix of homes.
 - 51% look for availability of public transportation.
- Neighborhoods that are close to a mix of shops, restaurants, and offices are especially appealing to African Americans (75%), members of generation Y (62%), single people (60%), renters (60%), and college graduates (60%).
- American renters desire many of the same community attributes as homeowners, placing a high value on neighborhood safety, good local schools, and walkability..
- Americans are daily drivers (77%), 22% walk to a destination every day, 6% use the bus or trains and 2% ride bikes.
- 42% of Americans say they will move in the next five years; 62% of them say they prefer to settle in mixed use communities.

Millennials and Their Homes:

Still Seeking the American Dream 2013, The Demand Institute

- In the next five years, nationwide, Millennials will create 8.3 million new households; millennials spend 1.6 trillion on home purchases and 600 billion on rent.
- This age group is hopeful: 79% expect their financial situation to improve and 74% plan to move in the next 5 years.
- Of those planning to move 71% will do so for a better home or rent.
- In five years the % of married millennials will double and the % with children will increase by 19%.
- 60% of millennials plan to purchase a home; 48% of them in the suburbs.
- Of these 54 – 61% want homes in proximity to groceries, restaurants and retail shops.
- Millennials still want their cars (88%).

Another Smart Growth America report - *Safer Streets, Stronger Economies*¹⁶ – released in March of 2015 focused on those places where ‘complete streets’¹⁷ policies were in place.

- Streets were usually safer: automobile collisions declined in 70% of projects, and injuries declined in 56% of projects.
- Safety has financial value: within their small sample, *Complete Streets* improvements collectively averted \$18.1 million in total collision costs in just one year.
- The projects encouraged multimodal travel: *Complete Streets* projects nearly always resulted in more biking, walking and transit trips.
- *Complete Streets* projects are cheap: The average cost of a *Complete Streets* project was just \$2.1 million – far less than \$9 million average cost of projects in state transportation improvement plans.
- As an economic development tool, findings suggest that *Complete Streets* projects were supportive of increased employment, net new businesses, higher property values, and new private investment.

With this data in mind, there is strong support for creating mixed-use centers with complete streets that provide places for residents and workers to interact.

1.6 Study Tasks

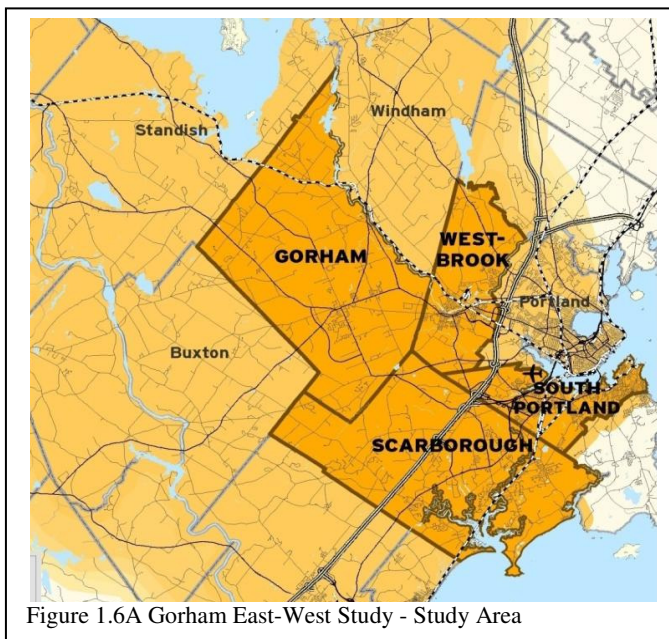


Figure 1.6A Gorham East-West Study - Study Area

The Gorham East-West Corridor Feasibility Study was used as the foundation for this effort, along with data and lessons learned from SSM. As noted, numerous other relevant plans were reviewed including: the Standish Road Feasibility Study, GrowSmart Maine’s Model Town and Re-envisioning the Highway Strip projects, the Libbytown Circulation and Streetscape Study, the City of Portland Wayfinding System Study, Westbrook’s Smart Growth Plan for Pride’s Corner, Scarborough’s Dunstan Corner development, South Portland’s Knightville planning work and the Long Creek Bicycle/Pedestrian Trail Plan.

With this background in mind, several possible Centers of Opportunity (centers) where growth could be focused were

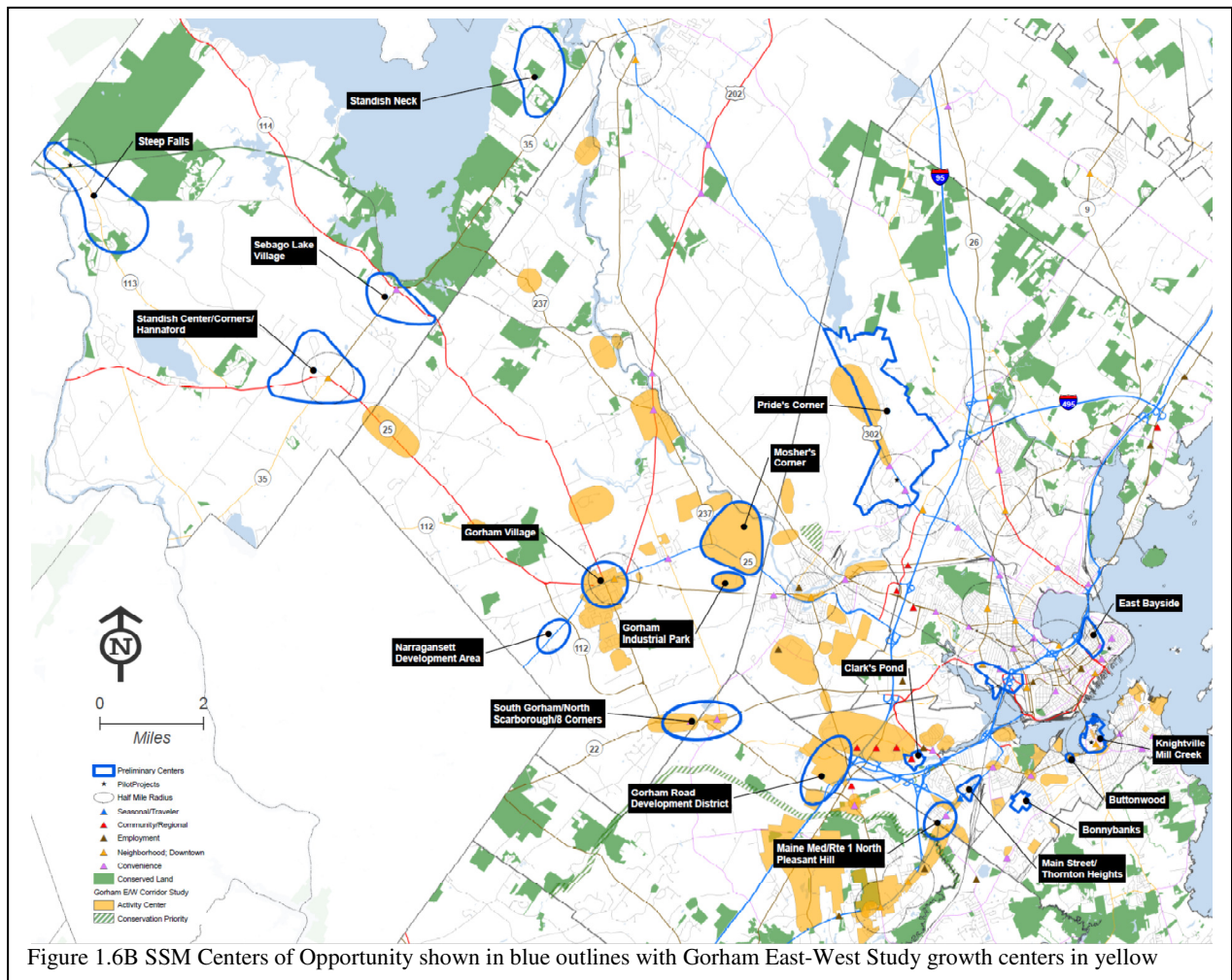
identified in each of the six study area municipalities. The study team chose six priority centers; these were then vetted and adjusted by a group of officials from each municipality, assessing the growth and redevelopment potential of each. This effort was followed by community outreach forums in each priority center. These forums were to obtain a sense of direction for the center that the municipality, landowners, residents and businesses could support. Every municipality opted for different community outreach efforts; some changed direction focusing on alternative locations, others opted to brainstorm with immediately affected land owners, still others moved from neighborhood to focus group and back to the neighborhood level for input. These variations speak to the importance of each municipality, its residents, and developers working together to customize a planning process compatible with the desires of all

¹⁶ <http://www.smartgrowthamerica.org/research/safer-streets-stronger-economies/>

¹⁷ Streets designed to accommodate all users – drivers, pedestrians, cyclists and transit riders

parties in order to find fair and innovative ways to grow and pay for needed public improvements. Following this initial outreach, a broad review was conducted of each municipality’s land use and infrastructure policies and codes. These were compared with what the public expressed as preferred land uses and infrastructure at the community forums. The review highlighted best practices already in place as well as gap areas that need improvement in order to achieve the proposed development pattern.

A narrow fiscal analysis was undertaken for each center, evaluating the costs and benefits of the current development pattern compared with the costs and benefits of center-focused development¹⁸. In addition, the existing roadway, pedestrian, bicycling, transit and utility features associated with the primary roadway were inventoried for the six centers selected. Existing transit service features associated with the roadway were identified for the six centers selected as well. This analysis found very different degrees of



growth readiness among the municipalities assessed.

Recommendations were developed to highlight critically needed changes to policies and ordinances affecting land use and infrastructure. Recommendations on fiscal and development-related tools to encourage the desired type and degree of growth for each center were included. The recommendations focus on municipal actions as well as regional and state-level actions needed to support center-focused development.

¹⁸ Center-focused development means the focusing of development in Centers of Opportunity

2. COMMON BARRIERS TO CENTER-FOCUSED DEVELOPMENT

Building on the work done in SSM, what follows is a discussion of the overall barriers to increasing densities found in some or all of the centers evaluated.

2.1 Lack of Public Infrastructure

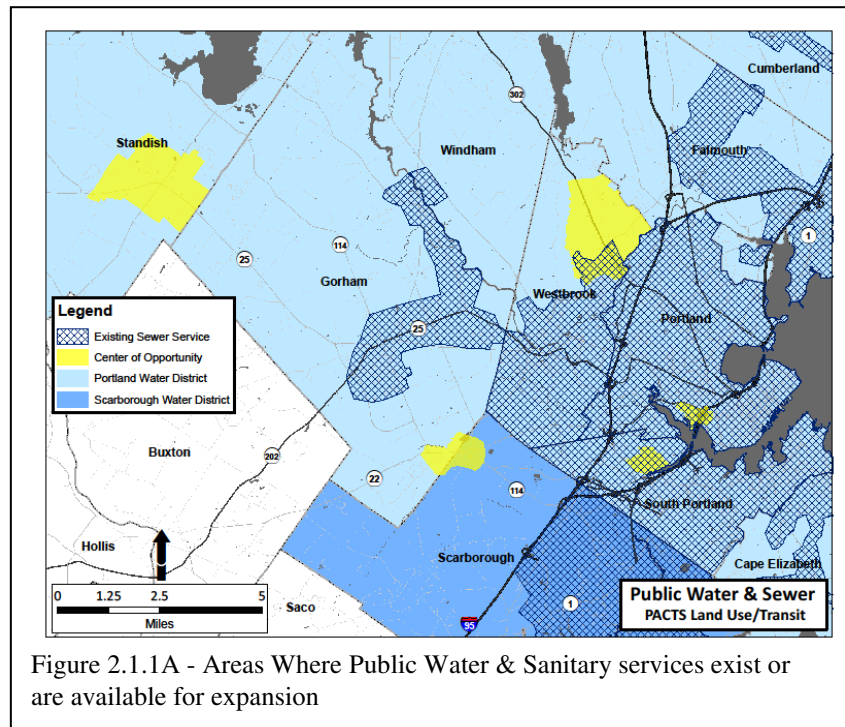
This area of Maine is a mix of very urban to very rural communities. In that mix, a substantial portion of the population lives in areas without public sewer or water, public transportation or high speed internet. While this does not represent a problem to those residents who enjoy a rural lifestyle, it stands in the way of economic development and the fostering of more densely developed, walkable, mixed-use centers in suburban and rural communities. To create a higher level of density, public sewer and water are necessary. And in some cases, capacity upgrades for existing water and sewer utilities may be needed to support additional development. The availability of high speed internet may also make the difference between a location that attracts business and one that does not.

2.1.1 Public Sewer and Water:

Figure 2.1.1A shows that all municipalities in the study area are served to some degree with either public water or sewer or both but, not all parts of each municipality are actually served.

Of the communities examined in this study,

- only two of the six (Portland and South Portland) have sufficient sewer and water service to support anticipated higher density growth;
- one has public water but no public sewer (Standish);
- another has public water and some sewer with adequate capacity to support desired growth but not without extension (Westbrook);
- two have neither public water or sewer (South Gorham and North Scarborough).



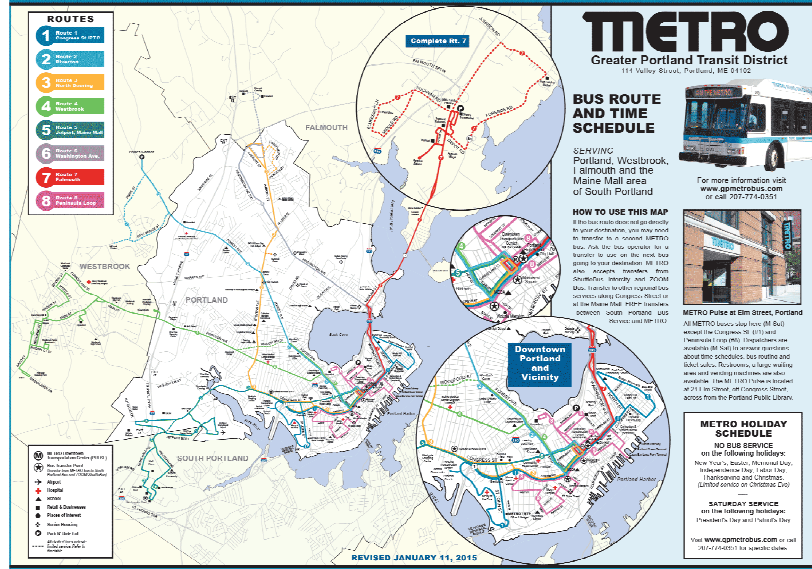
Communities understand that these public utilities are a key prerequisite for growth, but there is no clear path for how to fund development of this infrastructure. In most if not all cases, municipal officials expect the cost to be borne by developers. But because of local density restrictions, developers often cannot put together a feasible financial package if they must shoulder the entire cost of these facilities. Taxpayers do not see the immediate personal benefit, since most already have a satisfactory private system in place. Indeed, in locations where a wastewater or water district has been petitioned to expand into a

neighborhood, the need for residents to pay hook-up and user fees often causes the expansion to be soundly rejected by the residents themselves. Furthermore, in those communities where a public system is not available but where soils may be adequate for development of a community septic system, the regulated densities may not be sufficient to provide for adequate pay back.

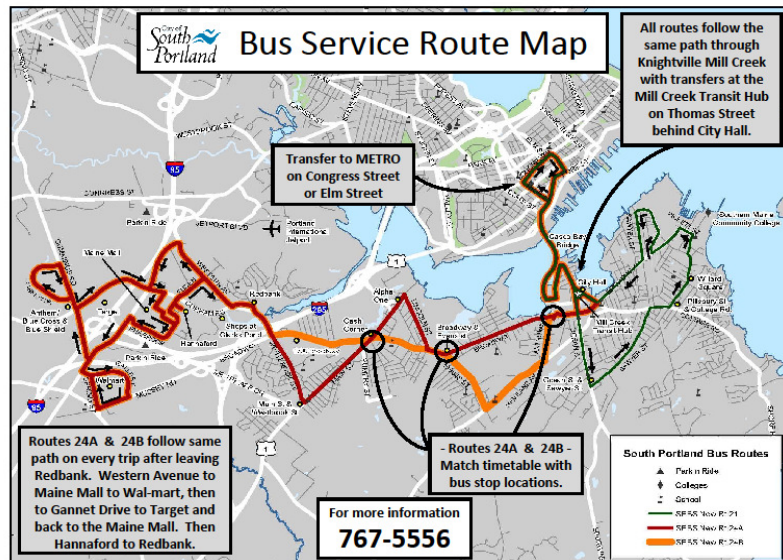
2.1.2 Public Transit (Bus) and Ride Share:

In Maine, desire for public transit typically scores high in public opinion polls, but, people are more prone to say they will take public transit than they are to actually use it. This is especially true in less dense areas, where population density is too low to make the service headways attractive. Alternatively, in Maine’s urban areas at least, there lingers the perception that riding the bus is for those who are less fortunate and who do not own their own vehicle; however, that perception may be changing in Portland and South Portland more than anywhere else.¹⁹ In the communities examined here, only Portland, South Portland and Westbrook have access to a fixed route public transit system: Transit providers are attempting to expand service, particularly connecting Gorham and Portland because of USM’s shuttle service. South Portland’s Redbank area has the highest density.

Residents there clearly want more service, especially on weekends and in the evenings. Several residents have to walk nearly two miles to the Maine Mall to catch a bus that will take them to work. In this case, the service network is in place, but funding for an adequate service schedule is not available. This prompts residents to have more difficulty meeting work schedules and/or forces them to own a private vehicle.



Figures 2.1.2A Portland Metro Routes and 2.1.2B South Portland Bus Routes

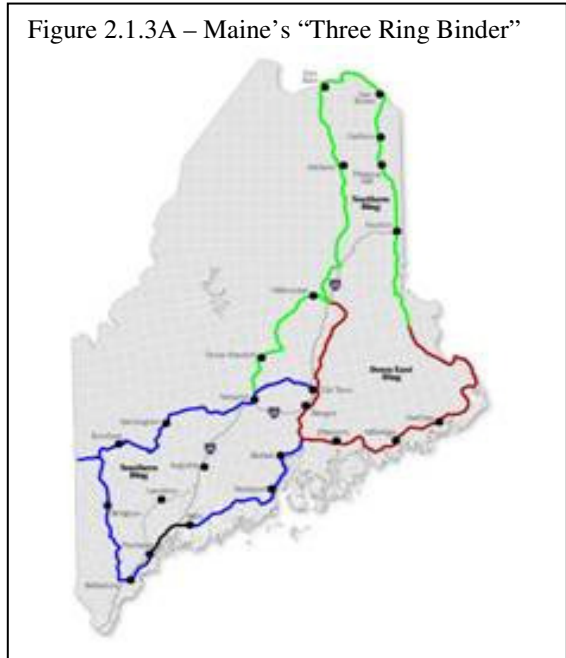


¹⁹ <http://www.citylab.com/cityfixer/2012/07/race-class-and-stigma-riding-bus-america/2510/>

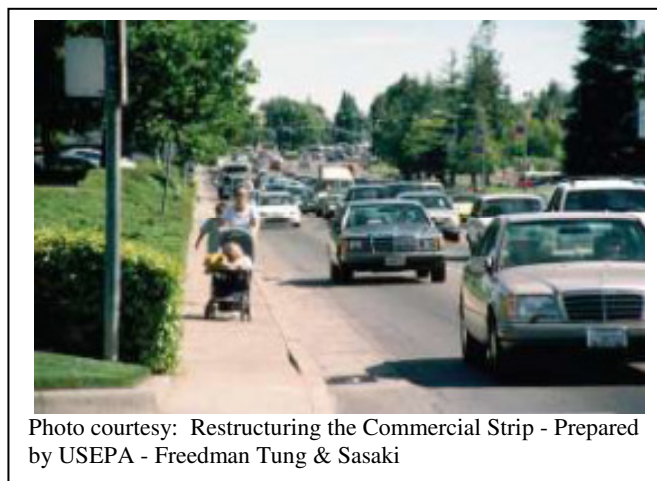
In more rural municipalities of the study area, the idea of public transportation is mildly interesting; commuters are more apt to make use of Park ‘n Ride lots and participate in voluntary ride sharing²⁰. Because three centers are located on highly congested roadways, their residents feel that buses would make matters worse as they would also get caught up in the growing traffic congestion.

2.1.3 High Speed Internet:

Solving the problem of bringing high speed internet to these or other communities is not within the purview of this study. But it would be remiss to leave this critical component of economic sustainability completely out of the discussion. High speed internet can be defined in various ways; by some definitions²¹ Maine’s access is insufficient statewide. As part of Maine’s Three Ring Binder effort (see Figure 2.1.3A), an extensive high-capacity dark fiber open source network has become available to all carriers in the locations shown in this figure. This is a big step forward but further work on this issue needs to be part of municipal and regional planning and business development efforts, as any location outside of this network is unlikely to be able to support the business needs of anything but smaller, less technology dependent businesses.²²



2.2 Reluctance to add more development in an already congested area:



A center that is ripe for development into a denser, more village-like setting is often adjacent to or bisected by an arterial road that is a major route for pass-through traffic. These locations are typically in the process of being developed linearly along the roadway to capture the commerce benefits associated with the intensity of the pass-through traffic. This orientation leaves the centers’ residents with few if any of their needed daily goods and services within walking or even short driving distance. This is true for the Westbrook, Gorham, Scarborough, and to some degree South Portland and Standish, locations. While this situation could act as an incentive for

residents eager to create a plan that better serves their own needs, they are often resistant to creating more density and the associated new dwelling units and businesses because they see its potential to compound existing congestion. While adding more density may not be a major barrier in itself, adding more traffic to existing roadways is. Municipalities facing this situation are challenged to explore the construction of

²⁰ <http://www.exploremaine.org/commuters/parknride/index.shtml>

²¹ <http://www.latimes.com/entertainment/envelope/cotown/la-et-ct-comcast-time-warner-fcc-broadband-20150131-story.html>

²² Map source <http://www.gwi.net/the-three-ring-binder-will-expand-internet-options-for-maine-customers/>

parallel and interconnecting streets off the arterial spine that supports non-auto-oriented businesses and that provides opportunities for existing as well as new residents to walk, bicycle, or take short drives to meet daily needs.

2.3 Current tax policies and public perception of who pays:

Given that growth requires infrastructure and infrastructure requires funding, it is not surprising that Maine communities are having a hard time moving forward with coherent growth. As noted in Chapter 1, not just Maine, but the entire country, finds itself facing a major shift in how development takes place. Since the 1930s, most public infrastructure was built with the support of the government - federal, state, county, and/or municipal. Many communities have roads, sewer systems, bus service, and even low-cost housing that are the result of a combination of municipal and other government funding, tax policy, or preferential loan availability. With the tightening of all government budgets, many of these funding sources are no longer available. But the perception remains that government will somehow still find a way to pay for these critical needs. In fact, government has taken the position that private enterprise should bear this cost burden. However, private enterprise must be able to generate adequate revenue from a project to support the investment, which cannot typically be done without the ability to build a sufficient number of units.

The public must understand that there is no longer ‘free’ money for more than bare bones responses to providing public benefits. When municipalities expect private development to cover all costs (such as infrastructure and placemaking amenities), they will deliver only the bare minimum necessary to meet market and regulatory requirements. These usually fall far short of the public interest in creating a desirable “place” or public environment. Those communities that can help residents understand this, and can generate support for innovative partnerships with local investment,, will be most successful in center-focused development efforts. These partnerships will help create the places that attract the kinds of jobs, housing, activities and amenities that are the cornerstone of a prosperous community.

2.4 Existing Planning and Regulatory Tools and Approaches:

The cost to undertake detailed master planning for land use and street development is expensive and takes time; while federal funding was available for this approach in the past, those programs were largely dropped by municipalities in the 1970s when federal funding dried up. This loss would have ideally been picked up by local governments, but for various reasons, including the friction of the ever-present private property rights discussion, it was not. The process shifted to comprehensive planning as the predominant form of policy setting; unfortunately the scale of comprehensive plans is often too generalized to allow for a clear view of what is desired in each of its development areas.

One of the deliverables this study is providing is an understanding of the gaps between existing density and mix of uses, lot size, height restrictions and other regulatory methods needed to support strong mixed use centers. This is provided for each community, beginning in Chapter 3 and in more depth in Chapter 4, with an eye toward highlighting best practices in use in the region, in Maine, and elsewhere. An additional barrier to growth in these centers may be the existing development framework within the municipalities; landowners often indicated that the permit review process was at times confusing, cumbersome and thus, costly.

Developers often find the municipal development processes creates uncertainty in terms of time, and subsequent costs to their bottom lines. In some instances, local ordinances have been amended piecemeal with no comprehensive consolidated code from which to work. This causes confusion for developers, administrators and the public, making it difficult to understand and apply the requirements. In other

cases, the regulations are not necessarily consistent with the plans. A plan may intend 'smart growth' but ordinances continue to allow conventional development. An example: still allowing conventional dead end streets, but *not* allowing housing densities sufficient to support profitability or create transit viability. This makes the conventional low-density, auto-dependent form of residential and strip development easier for developers to permit and construct, ultimately undermining the desired denser growth supposedly desired in the community plan

Finally, municipalities have more recently relied almost entirely on regulations as opposed to incentives, and expect developers to make 100% of growth-related capital investments. This means developers and municipalities often work against each other instead of together. Decisions resulting from this approach are often more reactive and devoid of discussion around how the private and the public realm can work together to create better communities.

THIS PAGE INTENTIONALLY LEFT BLANK

3. MUNICIPAL CHARACTERISTICS

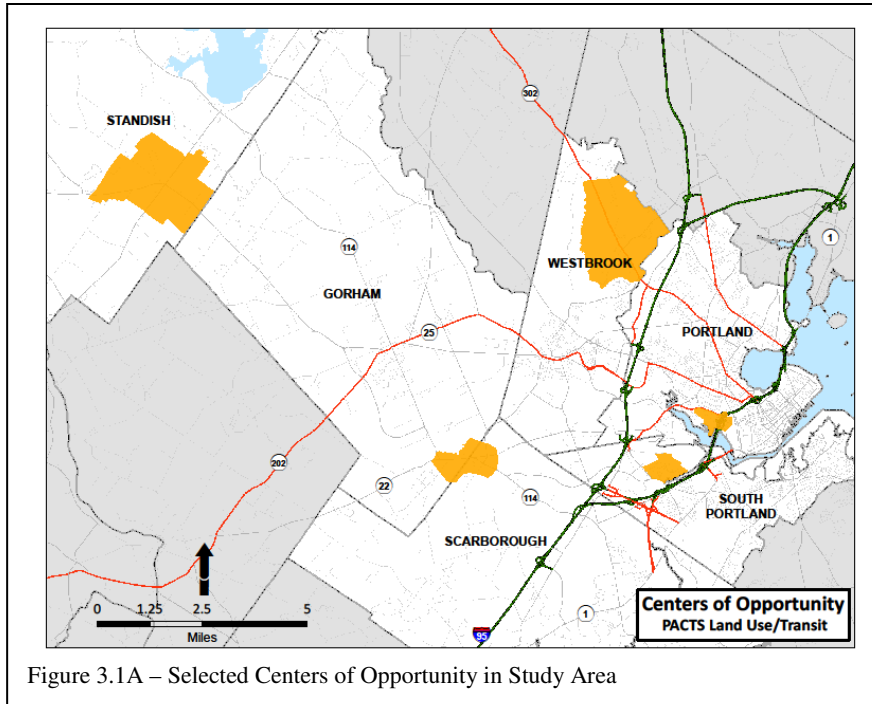


Figure 3.1A – Selected Centers of Opportunity in Study Area

3.1 Overview of Study Centers of Opportunity

Highlighted here are the primary characteristics of each municipality’s selected Center of Opportunity, as well as highlights from discussions with area residents and land owners about how these areas should grow.

South Gorham/North Scarborough: *The South Gorham and North Scarborough centers are bisected and connected by the Route 22 and 114 “overlap area”.* Because they share

similar interests and challenges, these two communities chose to work together from the start of this study effort. The roadway provides access to commercial and residential land uses and carries high traffic volumes to and from municipalities to the north and west. Without a traffic solution to mitigate peak and daily congestion, the two communities have difficulty envisioning how intensified growth could be accommodated. The centers also sit atop a valued groundwater aquifer the communities are committed to protecting. The Maine Turnpike Authority (MTA) completed a preliminary study that indicated a Turnpike spur would be cost effective and likely to relieve roadway congestion; at present the Authority is evaluating the process of securing approvals to build a spur, which requires proof that no feasible alternative exists. No transit service is available in this area at this time.

Roughly eighty (80) residents and business owners from North Scarborough and South Gorham provided input at the first session. Attendees were very concerned about the notion of encouraging growth in the area without also taking corrective and preemptive actions to address traffic congestion and safety (including for pedestrians and cyclists) in the area. A range of opinions were expressed about what form additional growth could take. Several people indicated that having a vision for what the area could become would help in focusing on the need for and type of traffic solution to pursue.

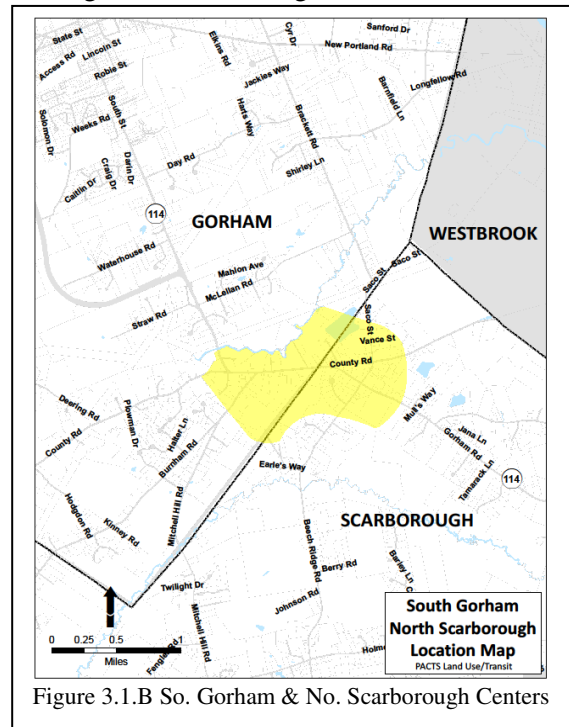


Figure 3.1.B So. Gorham & No. Scarborough Centers

Adding public transportation did not seem to be relevant for this group. They felt that any potential bus transportation would be subject to the existing roadway congestion. The need for and cost of water and sewer utilities and aquifer protection were also foremost on the minds of many of the attendees. In the end, most could not envision a different future without first settling on a traffic solution. There was unanimous agreement from this group that widening the existing road to more than three lanes was not an acceptable solution.

A follow-up meeting was held with a smaller group of individuals in early 2015 in an attempt to develop specific direction for how the area could grow. Citizens who attended had also attended the previous meeting. Although still somewhat skeptical about increasing density without knowing how the traffic congestion would be solved, the group continued to favor the area developing in a village or campus-like form, and did understand how developing a plan at this time would help shape a traffic solution. The need for extending public sewer to the area was once again highlighted, as was its associated cost and the importance of protecting the aquifer. The group also seemed to acknowledge the logic of concentrating development at the roadway junctions, thus bookending a less intensely developed ‘overlap’ section.

After the smaller group meeting, the municipalities commissioned the creation of several illustrations that were intended to begin guiding the conversation for how the area might grow. Those illustrations were reviewed at a neighborhood meeting by many of the same people who attended the first meeting. In general, many felt the concepts showed too much pavement for the type of development they envisioned. However, the vast majority supported a maximum of three (3) travel lanes on the overlap area (two through lanes and a center turn lane) with a tolled bypass to be built for relief of existing congestion. While the details of a specific cross section were not determined, attendees were strongly in favor of sidewalks, one travel lane in each direction, and a center turn lane; some were particularly interested in separate bike lanes. On-street parking was another feature explored especially for the areas nearer the South Gorham campus and North Scarborough village intersections.

Portland/Libbytown: *Libbytown* is a mixed used center, hosting the Portland Transportation Center (PTC) including the Amtrak Downeaster and Concord Coach intercity bus line. The center is characterized by multiple zoning districts, and underdeveloped areas with substantial redevelopment potential. Metro Routes 1 and 5 serve the area.

New development at Thompson’s Point is underway after significant planning and public infrastructure investment. A group of staff, consultants, and the Portland Planning Board chair gathered at Portland City Hall to brainstorm ways to improve the Libbytown area with additional mixed-use activity and transportation services. Shortly after that, a neighborhood meeting was held at the Airport Clarion Hotel. About 30 interested citizens attended. Two break-out groups focused on a) land use ideas, and b) transportation/connectivity improvements in the Libbytown area.

Highlights of their discussions follow:

- Add street connections

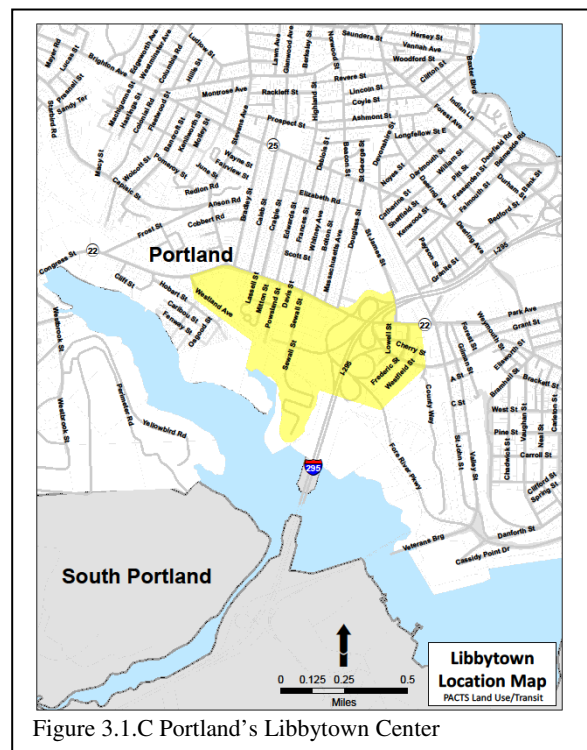


Figure 3.1.C Portland’s Libbytown Center

- Add 5-story buildings with commercial on ground level and office/residential above, particularly in the Westgate Shopping Center area
- Create pedestrian and activity connections to encourage use in the ‘redundant’ ramp area – parks and crosswalks etc.²³
- Fill the gaps associated with sidewalk connectivity
- Add multi-level parking at Thompson’s Point
- Decrease surface parking by adding mixed use activities
- Explore options for pedestrian/trail connections
- Add better signage
- Add street lighting in targeted locations
- Decrease impervious area – create more pervious parking lots
- Create/support public or private neighborhood gathering areas. This was focused on the Westgate Shopping Center, but also in the form of a new triangular park next to Denny’s. (This small park was also mentioned as being of interest in the Libbytown Circulation Study).
- Make better transit accommodations.
- Include Libbytown Study recommendations in this report.

The City of Portland planned to use the graphics created as a result of this meeting as part of the rollout of for continued work in the Libbytown Area.

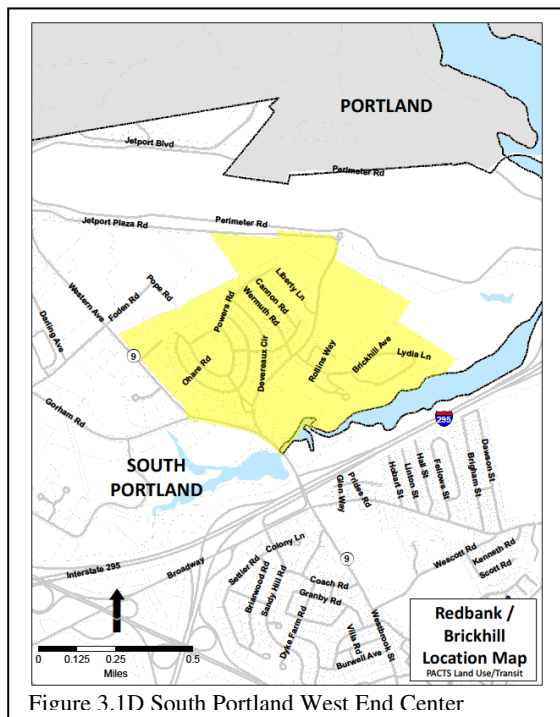


Figure 3.1D South Portland West End Center

South Portland’s West End - Redbank & Brick Hill:

Redbank is most similar to the Libbytown center, but has more residential and service uses with fewer retail options, which requires residents to make shopping trips out of the neighborhood. Within the center, *Brick Hill* is also a mixed-use area, incorporating office and mixed residential uses in an existing campus-style layout. Walking and bicycling facilities are minimal with substantial gaps. South Portland bus route 24A and 24B service this area. The City supports a Resource Hub in the neighborhood that is staffed by the Community Partnership for Protecting Children (CPPC).

In late January of 2015, CPPC hosted a public meeting where 15-20 residents attended, talking about what they saw as needs in the area. Pedestrian amenities, more bus service - especially nights and weekends, apartments with more bedrooms, and more retail and services were high on the list. In August and September, redevelopment ideas based on this input were displayed at the Resource Hub and comments were collected. In general, residents indicated that they supported the

development of more affordable residential units and more local and affordable buying options accessed by better pedestrian and transit accommodations. While transit service is available, its frequency was thought to be inadequate to meet the travel needs of residents. Participants indicated a desire for more recreational opportunities and facilities, social services, and educational services for both adults and children. More specific ideas included:

²³ While cited in the previously mentioned Libbytown Traffic Circulation Study, MaineDOT and FHWA do not currently support this concept.

- Up to 6-story residential buildings with some 5-bedroom units and with retail on ground floor
- Grocery/café/bakery/ice cream/ethnic food/redemption/affordable retail/arcade/diner
- Job training/incubator business options
- Better signage, accommodations for a visually impaired resident
- More frequent buses and more weekend and night options
- More street lighting and sidewalks
- Dog park, youth play areas

An informal ‘travel survey’ was undertaken with few residents responding. Of those responding, Devereaux Circle and Red Oak Drive were the most frequent origins; destinations and travel modes varied.

While this Transit Supportive Development Study was underway, the South Portland Bicycle & Pedestrian Committee with assistance of the Safe Routes to School Program administered by the Bicycle Coalition of Maine conducted a **Site Walk & Bicycling Audit of the Westbrook Street Corridor - Redbank to Skillin/Memorial Schools**

For a number of years, local residents, regional bicycle commuters, and members of the South Portland Bicycle and Pedestrian Committee have brought forth safety and community isolation concerns regarding the Redbank, Brickhill and other West End neighborhoods that abut Interstate I-295 and the Maine Mall area.

On June 4th, 2015 the South Portland Bicycle and Pedestrian Committee convened a group of city councilors, local police, community residents, school staff, and advocacy organizations for a site walk and bicycling audit of the area. Specifically, the group met in Redbank during the morning school commute and walked and rode bikes out of the Redbank/Brickhill neighborhood onto Westbrook Street, which connects neighborhood residents and area workers and other travelers to the Mall. The group then proceeded to cross under Interstate I-295 at Exit 3 and continue along Westbrook Street to the Skillin Elementary and Memorial Middle Schools’ campus (where Redbank and Brickhill students attend).



Photos courtesy Sarah Cushman, Cushman Transportation Consulting, LLC

Members of the group took photographs, stopped to discuss different trouble points, informally interviewed passing walkers and cyclists, and met afterward to do an initial compilation of safety and accessibility concerns.

Among those issues raised were the:

- Intimidating and unpleasant nature of the highway vehicle traffic pattern for walkers and bicyclists – number of lanes, lane width, traffic volume and speed - intended almost solely to get travelers to and from the Mall and the Interstate; this creates:
 - a daunting walking experience from a safety perspective
 - the reality that many cyclists use the narrow sidewalk on the northeast side of Westbrook Street
 - an overall unattractive and unwelcoming experience that discourages people from walking and biking even though with local incomes, many residents have no choice to do otherwise
 - a general lack of connectivity to employment, health care, recreation and other opportunities in South Portland and Portland

refinements to the interconnected street grid that avoided resource impacts and provided opportunities for development on both sides of the roadway. The attendees were interested but somewhat skeptical; their questions revolved around the location and cost of such a street grid, and the pressing need from their perspective for more direct traffic relief. A follow-up landowner workshop was held on November 5th during which several refinements to the revised local street grid were made. The final revised roadway concept was presented at a Town Council Workshop on November 24th. The Council will pursue discussions on whether to formalize the revised roadway grid.

Westbrook/Prides Corner: *The Prides Corner* area is the largest suburbanizing center, located at the outer edge of Westbrook’s urban area. The subject of much planning in the past, its biggest challenges in terms of supporting new growth are the lack of public sewer and the need for relief for through-traffic on the already congested Bridgton Road (Route 302), which connects the Lakes Region communities to Portland. Without an interconnecting street system, and some kind of infrastructure partnership to assist with road building and utility extension, development is likely to continue to string along Route 302, exacerbating the traffic problems. Portland Metro makes one stop on Elmwood Road as part of its Route 2 Riverton run.

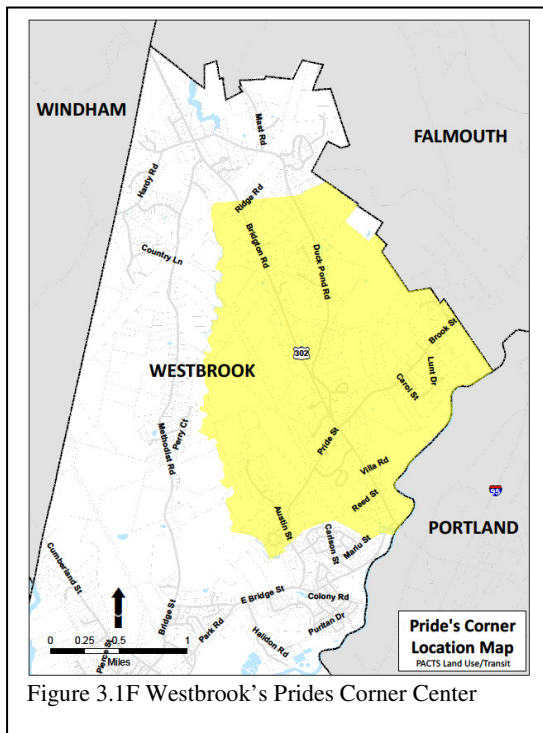


Figure 3.1F Westbrook’s Prides Corner Center

In early 2015, a meeting of owners of large tracts of land was hosted by the City and facilitated by the study team. All owners attending shared their current thinking regarding future uses of their properties. Plans ranged from keeping acreage in open space, to actively marketing and developing land at higher densities for mixed-use activity, to more conventional large acreage residential development. Others favored low density, high-end residential or condominium development. Most attendees were clear that the lack of wastewater utilities was a barrier to development. It was unanimously agreed that abiding by current allowable densities make development challenging from a cost-benefit perspective. This group was most interested in increased walkability and favored a village-style development pattern. They were hopeful that a future partnership with the City would lead to investment cost-sharing here.

A follow up meeting with landowners was held to review a concept sketch. The owners supported the concept, prompting the City staff to request a joint City Council and Planning Board meeting. As a result of that joint

meeting, which was attended by the landowners to show support for the concept, the City has decided to pursue the feasibility of supporting more intense development of this center.

3.2 Variations in Codes, Policies and Infrastructure by Municipality

Each of the centers studied differ from one another when it comes to achieving the desired patterns and development mix. Some centers have adequate public utilities to support growth while others have public water but no public sewer. All are plagued by some amount of existing traffic congestion that bisects the centers. Some centers are supported by a well developed interconnected local street network, while others have few if any network elements to help provide relief. Located on what are now considered ‘local or collector roads’, most of the centers have evolved over time into communities with an entirely

new character yet the roadway retains characteristics of the historical ‘farm to market’ connectors they once were.

Some centers studied are managed by center-focused policies but in varying degrees and have adopted or retained land use codes that may conflict with those policies. The challenges associated with maintaining consistency between interrelated and frequently changing policies and codes is high, especially when administrative budgets are not keeping pace with the rising expectations of the public. Some of the most relevant discrepancies gleaned from reviewing codes, talking with staff, landowners and the public are summarized here:

- Allowed uses do not support one another as well as they could.
- Allowable density/intensity provisions may be too low or minimum lot sizes and dimensional standards may be too restrictive to generate sufficient return on investment, much less the desired development pattern.
- Even though density bonuses are used in the community, they may not apply in the centers studied.
- Few, if any, incentives are used to drive development to the desired locations.
- There is an expectation, at times stipulated in the Comprehensive Plan, that developers shoulder the full burden of public impact. This is not an uncommon municipal position inside and outside the study area.
- Some tools in use do not correspond with center-focused development.
- Multiple zones existing within one center may erode the ability for the desired pattern to be achieved.
- Numerous code amendments over time, with little if any re-codification, causes confusion and inefficiency in administration and in seeking permits.
- Modern sometimes complex codes coupled with the community’s expectation that the few staff members wear many hats may cause the development community to avoid investing in a center.
- Parking requirements and road building standards are often based on suburban style development patterns.

Figure 3.2A summarizes the Plan and Code characteristics in each of the centers studied. A more exhaustive evaluation for all centers and a detailed list of Plan and Code considerations for each center is provided in Appendix A.

Figure 3.2A Summary of Comprehensive Plans and Land Use Codes affecting Growth in Centers of Opportunity	
Gorham	<p>Comprehensive Plan</p> <ul style="list-style-type: none"> • Identifies South Gorham as Neighborhood Center, compact New England style village, and mixed use growth area but largely relies on contract zoning to expand uses and intensity of development. • Density/intensity provisions appear to be too low to attract private funds desired to extend public sewer, though policy calls for developer financing of public water and sewer. • Policies call for buildings on access drives or new streets where feasible, with no new buildings directly fronting County Road, but there is little incentive for developers to spend dollars to create new streets. <p>Ordinance</p> <ul style="list-style-type: none"> • Standards do not appear to be successful in promoting traditional village character and scale. • Contains density transfer provision intended to increase density and reduce dimensional standards, but does not apply in this center.

**Figure 3.2A Summary of Comprehensive Plans and Land Use Codes
affecting Growth in Centers of Opportunity**

<p align="center">Scarborough</p>	<p>Comprehensive Plan</p> <ul style="list-style-type: none"> • Identifies North Scarborough as small commercial and service village center. • Plan specifies public sewer is not intended for the center and generally calls for sewer to be furnished by developers. • Plan calls for expedited development review, but it is unclear whether or not expediting provisions have been adopted. <p>Ordinance</p> <ul style="list-style-type: none"> • Provides areas for small and moderate scale nonresidential and community uses and a range of residential and mixed uses, but ultimately provides limited access to goods and services needed daily. • Requires conservation subdivisions, typically not appropriate in centers, in 1 district. • It is unlikely that allowed densities, even using the municipality’s density transfer provisions, are adequate to stimulate private investment in public sewer. • <i>Traditional Neighborhood Development</i> provisions allow for increased density on 25+ acre parcels served by public sewer and water, but not in this center.
<p align="center">Portland</p>	<p>Comprehensive Plan</p> <ul style="list-style-type: none"> • Identifies all areas, except the Recreation – Open Space district, for growth. Ordinances largely are consistent. Three districts allow mixed use. <p>Ordinance</p> <ul style="list-style-type: none"> • The eight zones in this district generally provide compact dimensional standards and allow for an array of uses; however some ordinance revision would be needed to achieve the higher density of mixed use along Congress Street and to enable redevelopment of the Portland Transportation Center surface lots .
<p align="center">South Portland</p>	<p>Comprehensive Plan</p> <ul style="list-style-type: none"> • Identifies Redbank/Brick Hill as “established high-density residential neighborhood with a neighborhood center” Nonresidential uses limited to promote residential character. • Plan provides specific policies that encourage mixed use within proximity of existing services and retail to reduce travel, but does not identify Redbank/ Brick Hill as one of its mixed use designations. • Plan calls for compact development in areas to be served by bus, but some districts require very high minimum lot sizes per dwelling unit. • Municipality has Transit TIF but has not been used much. • Plan calls for increasing population within easy walk of bus or future streetcar, but service is inadequate to serve existing population of the center. <p>Ordinance</p> <ul style="list-style-type: none"> • Is largely consistent. • Two districts allow mixed use.

Figure 3.2A Summary of Comprehensive Plans and Land Use Codes affecting Growth in Centers of Opportunity

Standish	<p>Comprehensive Plan</p> <ul style="list-style-type: none"> • Identifies Standish Corner as pedestrian friendly with mixed small scale commercial and residential. • Plan and ordinance call for more compact, pedestrian friendly village, though density may be too low to support development of community septic and new road construction. Incentives are provided for conservation subdivisions within transition areas, which typically are not appropriate for compact centers. <p>Ordinance</p> <ul style="list-style-type: none"> • Is largely consistent, but may be more complicated than necessary.²⁴ • Format does not make it easy to use. • Despite form-based code, many projects require planning board review and an additional “supplemental review” process has been added.
Westbrook	<p>Comprehensive Plan</p> <ul style="list-style-type: none"> • Identifies the existing Prides Corner as growth area made up of suburban style neighborhoods with mix of housing and low intensity commercial. The plan envisions a mixed use corridor with increased building height and a uniform building line along Bridgton Road <p>Ordinance</p> <ul style="list-style-type: none"> • Is largely consistent • Direction to reduce curb cuts with new/redevelopment to enable the flow of through traffic and encourage coordinated development on consolidated lots • Despite incentives, density allowances appear inadequate to attract private investment for public sewer and interconnected streets. While limiting the length of dead end roads is an attempt to reduce their frequency, coupled with density, it has the unintended consequence of limiting the extent of return on investment for developers.

Source: Town of Gorham, 2013 Comprehensive Plan, Land Use Ordinances, 2-3-2015. Town of Scarborough, 2006 Comprehensive Plan, Ordinances, Chapter 3 Building, Land Use and Development Impact Fees, 2014. City of Portland’s Comprehensive Plan, November 2002, Updated 2005, Code of Ordinances, Chapter 14 Land Use, Rev. 9-15-2014. City of South Portland Comprehensive Plan Update, 10/15/2012, Code of Ordinances, Chapter 27, September 2014. Town of Standish 2006 Comprehensive Plan Update, 6/6/2006, Code, Chapter 181 Land Use, 11/12/2014. City of Westbrook 2012 Comprehensive Plan and Land Use Ordinances of City of Westbrook, 11/17/2014.

Infrastructure and Utility Characteristics:

Based on an evaluation of existing readily available data and a cursory review of online aerial photos, Figure 3.2B identifies the broad characteristics of the major roadways that bisect each of the centers. Those highlighted in grey indicate a deficiency in terms of best practices for *complete streets* policies, accepted engineering practice as well as utility capacity to support higher densities. The deficiencies noted may be the result of several factors:

- Changes in market forces in the immediate vicinity of a center or beyond have stretched and ultimately hybridized the highway classification. This evolution was neither acknowledged nor addressed by the responsible jurisdiction(s); ‘stroads’ just happen over time.
- The ambiguity of highway access management responsibilities coupled with confusing nuances in roadway ‘ownership’, and their associated capital and maintenance responsibilities.
- The lack of capacity or will to coordinate land use and transportation decisions such that after a time the costs to make necessary improvements becomes largely unbearable.

²⁴ The municipality’s land use ordinance provides a “Step-by-step guide to the Form Based Code Village Districts” that advises the applicant to first refer to the Regulating Plan to identify the appropriate district, then identify the frontage types and from there the various standards for development.

Figure 3.2B Existing Infrastructure and Needs in Centers of Opportunity So. Gorham / No. Scarborough (Route 22/114¹)		
Transportation Element	Existing	Needed
Roadway ROW Width	Varies: 50' - 80'	100' w/o bypass, 80' w/ bypass ²
Number of lanes (2-way)	2	5 / 3
Lane Width	12'	11' or 12'
Shoulder Width	Varies (1'-4')	5'
Sidewalks (Y/N)	No	Yes
Sidewalk Width	N/A	5'
Bike lanes (Y/N)	No	As part of shoulder
Crosswalks (Y/N)	No	Yes ³
Traffic Signals (Y/N)	Yes	Yes
Speed Limit	40 mph	40 mph / 25 mph with traffic calming as appropriate ⁶
Wayfinding Signage (Y/N)	Yes	Yes
Roadway lighting (Y/N)	No	Yes
Drainage Type (Ditch/Curb)	Ditch	Curb and gutter with separated storm drain system
Transit (Y/N) – Route #	No	Yes (New Route study when center nodes reach overall density of 8+DU/ac)
Bus Shelter/Bus Stop (Y/N)	No	Yes ³
Rail Infrastructure (Y/N)	No	No
Park and Ride Lot(s)	No	Yes – near bus stop(s)
Bicycle Facilities ⁴ (Y/N)	No	Yes – near bus stop(s)
Trails/Paths (Y/N)	No	Yes ³
Access Management (Y/N)	Limited	Full ⁵
Sewer (Y/N)	No	Yes
Water (Y/N)	No	Yes
Street Trees and Plantings	Limited	Yes – for shade, aesthetics and traffic calming

¹ – Infrastructure information based on major road(s) in each Center of Opportunity

² & ³ – See Opportunity Maps in Chapter 6 for cross section details and known Trail/Path locations

⁴ – Bicycle facilities are bike racks and/or bike storage lockers

⁵ – Full access management is the use of all reasonable access management techniques along entire roadway length

⁶ - See MaineDOT Guidelines for possible opportunities to use traffic calming devices

Figure 3.2B Existing Infrastructure and Needs in Centers of Opportunity Portland – Libbytown (Congress St. from Fore River Pkwy. to Stevens Ave.)¹		
Transportation Element	Existing	Needed
Roadway ROW Width	Varies: 70 to 80'	80' (consistent)
Number of lanes (2 way)	4	4
Lane Width	12'	11'
Shoulder Width	2'	5'
Sidewalks (Y/N)	Yes (both sides)	No change
Sidewalk Width	6'	No change
Bike lanes (Y/N)	No	Yes
Crosswalks (Y/N)	Yes	Yes ²
Traffic Signals (Y/N)	Yes	No change
Speed Limit	30 mph	30 mph
Wayfinding Signage (Y/N)	Yes	Yes (additional per Wayfinding System Study)
Roadway lighting (Y/N)	Yes (limited)	Yes (along full length)
Drainage Type (Ditch/Curb)	Curb	No change
Transit (Y/N) – Route 1, 3 & 5	Yes (Metro Rtes1, 3, 5)	Yes (Metro Rtes 1, 3,5)
Bus Shelter/Bus Stop (Y/N)	Yes (Shelter & Stop)	Yes (Shelter & Stop) ²
Rail Infrastructure (Y/N)	Nearby at PTC	No change
Park and Ride Lot(s)	Nearby at PTC	No change
Bicycle Facilities ³ (Y/N)	Nearby at PTC	Additional at Bus Shelters
Trails/Paths (Y/N)	Adjacent	Adjacent
Access Management (Y/N)	Limited	Full ⁴
Sewer (Y/N)	Yes	No change
Water (Y/N)	Yes	No change
Street Trees and Plantings	Limited	Yes – for shade, aesthetics and traffic calming

¹ – Infrastructure information based on major road(s) in each Center of Opportunity

² & ³ – See Opportunity Maps in Chapter 6 for cross section details and known Trail/Path locations

⁴ – Bicycle facilities are bike racks and/or bike storage lockers

⁵ – Full access management is the use of all reasonable access management techniques along entire roadway length

⁶ – See MaineDOT Guidelines for possible opportunities to use traffic calming devices

Figure 3.2B Existing Infrastructure and Needs in Centers of Opportunity So. Portland – Redbank/Brick Hill (Westbrook St. from Western Ave. to Jetport Rd)¹		
Transportation Element	Existing	Needed
Roadway ROW Width	Varies 50' +/-	50'
Number of lanes (2-way)	2	2
Lane Width	11-12'	11'
Shoulder Width	N/A	5'
Sidewalks (Y/N)	Yes (one/alternates)	Yes (fully extend to both sides)
Sidewalk Width	Varies – 4 to 5'	5'
Bike lanes (Y/N)	No	As part of shoulder
Crosswalks (Y/N)	Yes (limited)	Additional Crosswalks ²
Traffic Signals (Y/N)	No	No
Speed Limit	30 mph	25 mph with Traffic Calming ⁶
Wayfinding Signage (Y/N)	No	Yes
Roadway lighting (Y/N)	Yes (limited)	Yes (along full length)
Drainage Type (Ditch/Curb)	Ditch	Curb and gutter with separated storm drain system
Transit (Y/N) – Route #	Yes (24A, 24B)	Yes (24A, 24B with additional frequency)
Bus Shelter/Bus Stop (Y/N)	Yes (Stop only)	Yes (Stop and Shelter) ²
Rail Infrastructure (Y/N)	No	No
Park and Ride Lot(s)	No	Yes – near bus stop
Bicycle Facilities ⁴ (Y/N)	No	Yes – near bus stop
Trails/Paths (Y/N)	Adjacent	Adjacent
Access Management (Y/N)	Limited	Full ⁵
Sewer (Y/N)	Yes	No change
Water (Y/N)	Yes	No change
Street Trees and Plantings	Limited	Yes – for shade, aesthetics and traffic calming

¹ – Infrastructure information based on major road(s) in each Center of Opportunity

² & ³ – See Opportunity Maps in Chapter 6 for cross section details and known Trail/Path locations

⁴ – Bicycle facilities are bike racks and/or bike storage lockers

⁵ – Full access management is the use of all reasonable access management techniques along entire roadway length

⁶ - See MaineDOT Guidelines for possible opportunities to use traffic calming devices

Figure 3.2B Existing Infrastructure and Needs in Centers of Opportunity Standish Corner (Route 25)¹		
Transportation Element	Existing	Needed
Roadway ROW Width	50'	50' (unless required for turning lanes or signals)
Number of lanes (2 way)	2	2
Lane Width	11-12'	11'
Bike lanes (Y/N)	No	Yes designed/painted within Shoulder
Shoulder Width	Varies 4' to 6'	5'
Sidewalks (Y/N)	Limited sections	Yes (both sides)
Sidewalk Width	5' (limited)	Continue for consistency
Crosswalks (Y/N)	Yes (limited)	Yes (additional) ²
Traffic Signals (Y/N)	Yes	Possibly as proposed roadway plan is built out (TBD) ²
Speed Limit	30 mph	30 mph – with potential traffic calming ⁶
Wayfinding Signage (Y/N)	No	Yes
Roadway lighting (Y/N)	Yes (limited)	Yes (along full length)
Drainage Type (Ditch/Curb)	Ditch/Curb	Curb and gutter with separated storm drain system
Transit (Y/N) – Route #	No	No
Bus Shelter/Bus Stop (Y/N)	No	No but plan for future
Rail Infrastructure (Y/N)	No	No
Park and Ride Lot(s)	No	Yes (location TBD)
Bicycle Facilities ³ (Y/N)	No	Yes – at Park and Ride lot
Trails/Paths (Y/N)	No	Yes – nearby ³
Access Management (Y/N)	Limited	Full ⁵
Sewer (Y/N)	No	No, but consider community septic
Water (Y/N)	Yes	Yes - on new network only
Street Trees and Plantings	Limited	Yes – for shade, aesthetics and traffic calming

¹ – Infrastructure information based on major road(s) in each Center of Opportunity

² & ³ – See Chapter 6 for proposed connector roadway plan

⁴ – Bicycle facilities are bike racks and/or bike storage lockers

⁵ – Full access management is the use of all reasonable access management techniques along entire roadway length

⁶ - See MaineDOT Guidelines for possible opportunities to use traffic calming devices

Figure 3.2B Existing Infrastructure and Needs in Centers of Opportunity Westbrook – Prides Corner (Route 302)¹		
Transportation Element	Existing	Needed
Roadway ROW Width	Varies – 80 to 100'	80'
Number of lanes (2 way)	2	2 (w/ turn lanes as needed)
Lane Width	12'	11'
Shoulder Width	Varies 6' to 10'	5' minimum
Sidewalks (Y/N)	Yes (one side)	Yes (Both sides)
Sidewalk Width	5 to 6'	5' minimum
Bike lanes (Y/N)	Not signed/stripped	Yes
Crosswalks (Y/N)	Yes (limited)	Additional Crosswalks ²
Traffic Signals (Y/N)	Yes	Additional Locations ²
Speed Limit	35 mph	30 mph with Traffic Calming ⁶
Wayfinding Signage (Y/N)	Yes	Yes (Additional Wayfinding signage needed)
Roadway lighting (Y/N)	Yes (limited)	Yes (along full length)
Drainage Type (Ditch/Curb)	Curb	Curb - no change
Transit (Y/N) – Route #	Yes (Metro Route 2)	Yes (Metro Route 2)
Bus Shelter/Bus Stop (Y/N)	Yes (Stop only)	Yes (Stop and shelter) ²
Rail Infrastructure (Y/N)	No	No
Park and Ride Lot(s)	Nearby	Yes – at/near Bus Stop
Bicycle Facilities ³ (Y/N)	No	Yes – at Bus Stop
Trails/Paths (Y/N)	No	Yes ²
Access Management (Y/N)	Limited	Full ⁵
Sewer (Y/N)	Nearby	Yes (extend into Brook Street and street network)
Water (Y/N)	Yes	No change for 302 but needed on street network
Street Trees and Plantings	Limited	Yes – for shade, aesthetics and traffic calming

¹ – Infrastructure information based on major road(s) in each Center of Opportunity

² & ³ – See Opportunity Maps in Chapter 6 for cross section details and known Trail/Path locations

⁴ – Bicycle facilities are bike racks and/or bike storage lockers

⁵ – Full access management is the use of all reasonable access management techniques along entire roadway length

⁶ - See MaineDOT Guidelines for possible opportunities to use traffic calming devices

4. WHAT ARE THE WAYS AND MEANS FOR CREATING CENTER-FOCUSED DEVELOPMENT?

4.1 Overview of Center Management Tools

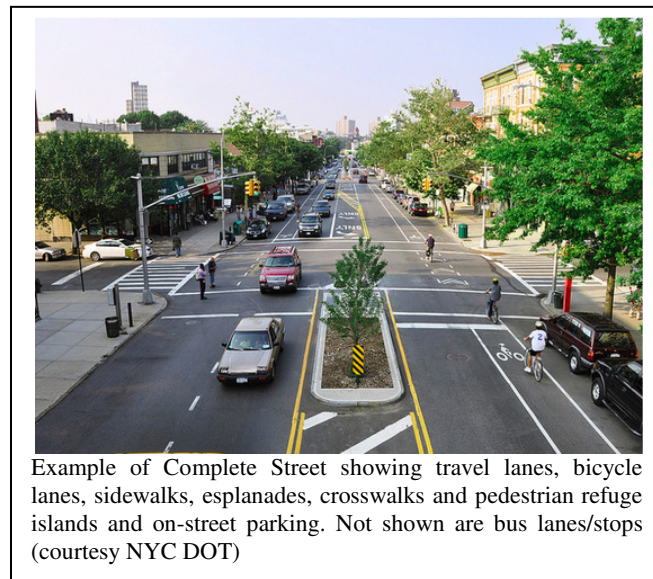
This section discusses management tools upon which the success of centers relies and delves more deeply into assessing the tools used in each center studied. The points that follow were derived from study objectives, community input, and analysis of land use and infrastructure policies and provisions. The detailed technical analysis in this section sets the stage for recommendations found in Chapter 6.

4.1.1 Addressing Existing Vehicle Traffic:

Each of the locations, in varying degrees, has traffic congestion issues. At predictable times of day, the arterial roadways through which these centers pass experience long lines of commuter traffic that generate varying degrees of delay. In more mature areas, traffic signals, turn lanes, median islands and other traffic management devices are in place or planned. Other areas simply rely on street signs and driver courtesy as a way of managing the friction of vehicles entering and exiting main roads. Even with access management regulations in place, historic developments and proliferation of highway oriented business development often exacerbate this problem.



Typical 4-lane roadway – ‘Anywhere U.S.A; Source: Internet



Example of Complete Street showing travel lanes, bicycle lanes, sidewalks, esplanades, crosswalks and pedestrian refuge islands and on-street parking. Not shown are bus lanes/stops (courtesy NYC DOT)

4.1.2 Creating Context Sensitive / Complete Streets:

For decades, road improvements were made with only vehicles in mind. While vehicles remains a high priority, the goal of today’s public works and highway departments is changing; roadway, street improvements, and pathway/trail systems in centers need to be designed to cater to pedestrians, cyclists, and buses along with cars and trucks. Roadways and streets in the study area meet some of these principles but all the centers need some further work. MaineDOT and most of the municipalities in the study area have recently adopted *Complete Streets* policies and are making strides integrating the changes into their development and road improvement programs.

4.1.3 Providing or Augmenting Transit, Pedestrian/ Bicycle Services and Facilities:

Part of a Complete Streets philosophy includes the careful consideration of walkers and cyclists. When incorporating the desire of each of these centers to grow in their own unique style, this consideration is even more important. The presence of sidewalks, crosswalks, pedestrian refuge islands, bike lanes and paths/trails range from non-existent to spotty. The need for these types of improvements was clearly identified as a priority at all of the neighborhood meetings.

4.1.4 Creating (Public and Private) Gathering Places:

In addition to people-oriented transportation measures, the neighborhoods were very vocal about their desires to see their centers grow in ways that allowed them to meet local retail, service, and other needs, including opportunities to meet and socialize, both formally and informally. The kinds of activities mentioned included pocket parks, coffee or ice cream shops, restaurants, greenhouses/farmers markets and pubs with sitting areas, plazas for people watching, bakeries and specialty/ethnic food shops as well as neighborhood-based services such as daycare and social services. In one area, taller complexes with rental units sized for larger families were also desired.



4.1.5 Encouraging Consistent Zoning Designed to Support Financially Feasible Development:

One of the objectives of this study was to address the concept of a development framework that could be used in different types of centers across the region. While a consistent framework is difficult to achieve across disparate communities, where numerous forces dictate the pattern of development, the principals of compact mixed-use development that caters to the local residents was readily identified as a common goal. Further, some tools lend themselves to regionalization; examples of these include Complete Streets Policies and standardized Cross-Sections, Access Management, Transfer of Development Rights, Impact Fees and Capital Improvement Planning.

4.1.6 Adopting Incentives for/Partnerships with Developers:

One of the biggest challenges facing the six communities is the need for a community development strategy that relies on sound funding mechanisms and partnerships to accomplish the desired development form. Many tools exist and are already to some degree in use in some of these centers. However, their expanded use - in addition to creation of new investment strategies - is also needed.

4.2 Tools Currently In Use by Study Area Municipalities

A number of tools that support a center-focused development pattern are already being used by some of the municipalities in the study area. See Figure 4.2A. They include:

- Planning for and creating mixed-use zoning districts.
- Master planning for land use and local street networks.

- Form based codes.
- Density/intensity bonuses.
- Infrastructure improvement and investment plans, including transit.
- *Complete Streets* policies.
- Neighborhood transportation planning, including planning for pedestrian and bicycle mobility, and wayfinding.
- Regional integrated land use and transportation planning.
- Impact fees and/or exactions for infrastructure improvement and development.
- Transit Tax Increment Financing (TTIF) and traditional Tax Increment Financing (TIFs).
- Buy-local initiatives.

Examples of some of the ways these tools are being used follow:

Planning/regulating for mixed use: **South Portland** planners specifically engaged the community in planning for mixed-use development in Knightville and other neighborhood centers. The City's regulations focus on design as well as pedestrian and bicycle mobility. They not only allow mixed use, but in some cases, require it.

Portland adopted some mixed-use districts, but also provides for mixed use in neighborhoods through a combination of districts that together allow for larger mixed-use areas, such as within Libbytown.

A number of years ago, **Westbrook** conducted master planning and adopted related zoning amendments to support development of the Prides Corner Smart Growth District. The Smart Growth District is a much smaller area than the area currently under study located on the northwestern side of Rte. 302. The plan for the District has remained largely unrealized because of barriers previously identified in this report.

Master planning and revised regulation: **Standish** used strong citizen engagement techniques to create a vision and master plan for Standish Corner, including a focus on design and creation of a conceptual connector road plan. Standish incorporated the vision, master plan, and connector road plan into its comprehensive plan and land use regulations. It has since followed up efforts with additional studies to further implement the master and connector road plans.

Form Based Code: **Standish** created a form based code to implement its design-focused vision and master plan. Most land use controls, placement, dimensional, streetscape, and architectural standards vary based on street classification. Additional considerations regarding form-based codes are outlined in Appendix D.

Density/intensity bonuses: **Gorham and Scarborough** incorporated density transfer provisions and other incentives in their land use regulations to allow increased density or intensity of development, including reduced dimensional standards if proposed development meets standards that are intended to create a certain character. **Westbrook** also adopted density incentives in one of its zoning districts.

Complete Streets: **Gorham, Scarborough, Portland, South Portland, and Standish** adopted *Complete Streets* policies and standards to ensure that they “are designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists, and transit riders of all ages and abilities.”²⁵ Gorham, Scarborough, and Standish adopted standards that require parking areas to be placed behind structures to support the creation of more walkable centers.

²⁵ Smart Growth America, National Complete Streets Coalition, <http://www.smartgrowthamerica.org/complete-streets/complete-streets-fundamentals/complete-streets-faq>.

Infrastructure improvement plans: **Gorham** prepared a plan to guide extension of public sewer, which will be required to support the desired pattern of development, into South Gorham. From there, sewer potentially could be extended to North Scarborough. **Gorham, Scarborough, Portland, South Portland, and Westbrook** prepared integrated stormwater management plans to reduce the impacts of new development on water quality and address capital needs, including ways to more equitably pay for capital improvements.

Transportation and wayfinding plans: **PACTS and Portland** prepared multimodal transportation and wayfinding plans to guide improvement of pedestrian, bicycle, and other transportation infrastructure, as well as a signage plan to direct unfamiliar drivers to destinations both inside and outside of Libbytown.

Regional planning to meet future land use and transportation demand: In the recent SSM effort, **GPCOG** worked with most municipalities in York and Cumberland counties to identify existing and emerging centers of opportunity. As part of the project, anticipated residential and job growth was allocated to various centers within a municipality. Transportation linkages among centers and investment needs, including support for transit, were identified to manage congestion and accommodate projected growth.

Impact fees and/or exactions for infrastructure: **All six municipalities** use impact fees and most municipalities use exactions, particularly for projects approved with a contract zone, to contribute to construction of anticipated sewer and other types of infrastructure.

Transit Tax Increment Financing (TTIF) and traditional TIFs: **All six municipalities** have local financing programs that use some or all tax revenues generated from new development to reduce bond debt issued for projects, pay the investing company directly for project costs incurred, or fund eligible economic development activities. Both **Portland and South Portland** also adopted **TTIFs** that provide funding for transit service and infrastructure.

Buy local initiatives: **Portland and South Portland** have active “buy local” and other similar initiatives that encourage locally owned businesses, including those that tend to focus on providing local goods, services, and gathering spots.

Figure 4.2A Tools Currently Being Used		
Tools	Description	Town/neighborhood
Planning/regulating for mixed use	Specifically planned for mixed use, with focus on design and pedestrian and bicycle mobility.	South Portland Portland
Master planning and revised regulation	Creatively engaged community to create vision, master plan, and regulations with strong focus on design and street plan. Among the 6, one municipality adopted form based code.	Standish Westbrook
Density/intensity bonuses	Incorporated incentives for increased density and reduced dimensional standards.	Gorham Scarborough Westbrook
Infrastructure improvement plans	One municipality prepared evaluation of how to extend sewer. Others prepared plans and programs to manage stormwater.	Gorham Scarborough Portland South Portland Westbrook
Transportation and wayfinding plans	Prepared comprehensive transportation and wayfinding plan to guide unfamiliar travelers.	Portland
<i>Complete streets</i> and streetscape regulations	Adopted “ <i>complete streets</i> ” regulations that meet the needs of motorized vehicles, transit riders, pedestrians, and bicyclists.	Gorham Scarborough Portland South Portland Standish
Planning for future land use and transportation development on a regional basis	Worked with nine municipalities to plan centers of opportunities; identified growth nodes in most of York and Cumberland Counties	SSM in Cumberland/York counties
Impact fees and/or exactions for infrastructure	Used impact fees and/or exactions to fund construction of infrastructure.	Gorham Scarborough Portland South Portland Westbrook
Transit tax increment financing (TTIF) and regular TIFs	Used local financing program to reduce debt issued for project, pay for project costs, or fund eligible economic development activities or infrastructure.	South Portland and Portland (both) Gorham Scarborough Standish Westbrook
Buy local initiatives	Supported “buy local” and other initiatives that provide access to local goods, services, and gathering spots.	Portland South Portland

4.3 Tools That Do Not Support or That Undermine a Center-Focused Development Pattern

On the other hand, some municipalities do not use the tools summarized in 4.2A and/or use other tools that do not support an efficient development pattern. See Figure 4.3A. Some of these tools include:

- Overreliance on contract zoning.
- Restrictions on mixed use.
- Inflated space and bulk standards.
- Vague standards relating to New England Village character.
- Overly complicated and time-consuming regulatory processes.

- Lack of planning and funding to invest in infrastructure.
- Lack of integration of regulatory and non-regulatory tools.

Overreliance on contract zoning: Because of the difficulty, time, and expense required to master plan and rezone entire neighborhoods, some municipalities defer to smaller-scale contract zoning to guide growth. One example of complications that arise from this overreliance is Scarborough’s experience with the proposed contract zone for Dunstan Crossing when the town did not amend regulations to implement the higher density, village-like development called for in its comprehensive plan²⁶. A more recent example is apparent in South Gorham, where the municipality’s repeated approval of contract zones in place of more proactive planning has set the stage for more piecemeal highway strip development that provides convenience retail for commuters rather than the daily needs of residents and workers in the area.

Restrictions on mixed use: Most municipalities continue to include zoning districts that allow primarily either residential or nonresidential use and/or generally prohibit mixed use.

Inflated space and bulk standards: Most municipal ordinances do not support compact development. They have density provisions, height limits, and building/lot coverage standards that are too low and lot size, frontage and setback standards that are too high. The result creates a spread-out pattern of development that uses land inefficiently and discourages walking.

Vague standards relating to New England Village character: A general criticism of conventional zoning is that it is less effective than a form based code in creating a desired form of development. Generic guidance to create or preserve New England character, without clear standards, guidelines, or processes to define what that means (in terms of street and building layout, architectural form, and treatment of the public realm) are unlikely to result in development that reflects the community’s vision or municipal intent. The precision of specific standards like those included in form based codes or those provided in conventional codes that are based on more focused master planning is more likely to create the desired pattern of development than more generic regulatory language.

Overly complicated and time consuming regulatory processes: In some cases, municipal ordinances and the development review and approval processes are overly complicated and time consuming. In part, this may be the result of a complicated zoning structure. It may also be a result of multiple amendments of multiples sections of ordinances over time. When ongoing amendments occur without periodic, comprehensive review of the impact of piecemeal ‘fixes,’ unintended consequences occur. Multiple changes often create unnecessarily complicated and longer permitting processes that certainly do not encourage and often will discourage desired uses and forms of development. All of the municipalities may benefit from review and possibly re-codifying of their ordinances. Portland has a large number and complex array of zoning districts and multiple levels of review. Standish has a form based code, which is complex and challenging to apply; the code would benefit from changes in format, possibly shifting from long narratives to tables which are more accessible and easy to understand.

²⁶ The Town approved a contract zone that was overturned by referendum. The court’s finding - that such a reversal is defensible despite local regulations that spelled out the administrative review of contract zones - should prompt consideration of when contract zoning is and is not advisable. In the case of Dunstan Crossing, because Scarborough had not updated its regulations to reflect its land use policies within the statutory time limits, the municipality was required to negotiate with the developer by a specific deadline to avoid nullification of its regulations. Dunstan Crossing turned out reasonably well, given the circumstances, but not without considerable cost and political upheaval.

Lack of planning and investment in infrastructure: Few master plans exist to guide investments in infrastructure in the centers, unless those investments are part of a major planned municipal or state investment. Even when infrastructure plans are developed, municipal policies and tools rely on private investment. Most municipalities do not vigorously identify the value and/or need for public-private partnerships to develop the type and quality of infrastructure that is necessary to support their desired pattern of development. At the same time, allowed densities are almost always too low to allow reasonable returns on investment. Municipalities continue to rely heavily on impact fees and exactions and do not acknowledge the clear need for more public-private partnership for investments in infrastructure needed to support desired and anticipated growth.

Lack of integration of regulatory and non-regulatory tools: Most municipalities rely on zoning to create the centers they say they want. Only a few support both planning/regulation and more proactive community/economic development efforts and rarely are the two types of planning programs as integrated as they need to be to create locally owned, operated, and focused retail, service, and gathering places. Local planning and development departments need to better blend the edges between the focus on regulation and the more proactive community and economic development efforts. In addition, an extension of conventional community and economic development efforts to include collaboration and support of “buy local” efforts, using more cooperative and/or collaborative models like those occurring in Portland’s Bayside neighborhood, could go a long way toward supporting the creation of local retail, service, and gathering areas in centers.

Figure 4.3A Tools Not Currently Being Used or That Undermine Center Development	
Tools	Description
Contract zoning	Many municipalities are too reliant on contract zoning to guide growth.
Zoning	Zoning districts primarily allow for either residential or nonresidential uses and/or generally prohibit mixed use.
Space and bulk standards	Density, minimum lot sizes, minimum areas per unit or family, maximum height, maximum percent impervious surface and building lot coverages are too low; minimum frontage and minimum setback requirements are too high.
Standards relating to New England Village character	Standards are generally too vague and do not extend to architecture and creation of the public realm.
Regulatory processes	Many development review standards and approval processes are overly complicated and time consuming. Recodification, with an eye toward managing development that reflects the municipality’s vision of its centers, would make permitting more timely and streamlined.
Planning and investment in infrastructure	There are few master plans to guide investments in infrastructure in the centers, unless the investments are part of a planned major public investment.
Integration of regulatory and non-regulatory planning tools	Most municipalities rely on zoning, rather than integrating regulatory and more proactive community/economic development activities.

4.4 Additional Tools to Support a Center-Focused Development Pattern

Tools not used by municipalities in the study area or which could be more widely used include:

- Planning and regulating for mixed uses and traditional neighborhoods.
- Assembling land.
- Offering housing choices.

- Creating “complete neighborhood centers” on one or both sides of an arterial; i.e. centers that offer opportunities for residents to work, recreate and gather on one or both sides of an arterial.
- Adopting a combination of incentives and requirements.
- Streamlining the development review process in centers.
- Being more entrepreneurial.
- Adopting policies that support regional Impact Fees and Transfer of Development Rights (TDR) programs
- Planning for and making public investments in infrastructure in priority centers of opportunity.
- Exploring and using creative partnerships and funding techniques.
- Working at the state level.

Planning and regulating for mixed uses and traditional neighborhoods: It is often costly and politically challenging for municipalities to undertake the detailed planning necessary to prepare a community vision and an overall plan for a desired development scheme. As a result, some municipalities have used contract zones as a substitute for a master plan and regulations that support, or in some cases, require mixed use. As part of master planning for centers, it is important that both municipal officials and the broader community develop a deeper understanding of the framework necessary to build successful mixed use centers. Municipalities need to carefully observe, measure, and assess their centers and/or those of others that demonstrate a desirable form and composition, then revise use allowances and restrictions and space and bulk regulations accordingly. Whether to use a form based code or mixed use district under the more conventional zoning format is a matter of local preference, and community readiness. However, a form based code may produce a more satisfactory product both in terms of more precisely achieving the desired form and, equally important, streamlining the review process for those who do not seek waivers from the prescribed standards.

Municipalities may also provide more focus on road and parking requirements in their centers to ensure that they reflect more urban principles. For example, if dead end streets are allowed at all, they may be the exception rather than the rule, or allowed only if needed to protect a significant natural resource. Parking standards also need to ensure that they are not inflated, either in number or dimension. Reductions in the number of spaces might be allowed in exchange for employers who provide car pool shuttles, financial support for bus passes, trail and/or sidewalk network development, and similar demand management techniques. Shared parking could be strongly encouraged. In some cases, municipalities could plan for and construct common lots with clear and attractive signage to direct drivers to public parking areas. In addition, a public education effort could help increase the community’s familiarity with the availability of parking behind storefronts. Interconnected local streets and alternative local accesses would allow residents and workers to meet daily needs without having to travel across arterials that bisect a center (see creation of “complete neighborhood centers” discussion below).

Community readiness in adopting a form based code includes both philosophical/political considerations as well as the technical capacity of the community to develop and administer the code. Generally speaking, a form based code may be a better fit for municipalities that have a well defined or established character to build from rather than having a largely undeveloped area that would require creation of a new center. No matter whether a form based code is adopted for the bolstering of an existing center or the creation of a new center, planners must help residents and business owners articulate the desired form of development, including the mix of uses, building types and styles, as well as the relationship between buildings and streets in order to arrive at specific standards to guide new development. In an existing center, planners can observe and measure these features and build mirroring standards that can be applied to new development. In new centers with little existing physical development, planners likely will have to help the community identify other centers, potentially not in the municipality, that have the desired mix of the uses, building types, and development patterns from which to develop standards.

Another important feature to assess the appropriateness of using form based codes is the municipality's familiarity and/or experience with regulating land use. A municipality that has only regulated land use for a short period of time or that is facing questions about its right to regulate may wish to consider a mix of conventional zoning districts and one or two form based code districts, at least until it becomes more comfortable with the latter. In addition, if the municipality has limited planning staff or staff without experience with architectural or design standards, it may be difficult to administer the code, at least initially, and accommodations for peer review or permit review fees may be necessary. Municipalities that pursue form based codes need to employ professional staff and be ready to relinquish board and committee reviews of development proposals in favor of professional staff review in order to provide efficient and timely project approvals that are the promise of form based codes. Those municipalities may want to approach adoption of more administrative processes incrementally, with appeals to the planning board, until there is greater confidence that the new form based code is producing the desired form and pattern of development. One tool that might help bridge that period of confidence building is the use of a consent agenda for proposals that go through the administrative review process, especially on small projects. Another tool is the use of an administrative 'coordinating committee' made up of interdisciplinary municipal staff who meets on a regular basis to review development proposals. As always, clear communication and education around the intent of these processes is key to success.

Assembling land: A group of investors, made up of adjacent landowners, developers, government entities, and/or development or redevelopment corporations may purchase and assemble adjoining lands to facilitate implementation of the master plan. While the Supreme Court has ruled that government entities may not use eminent domain to acquire private land for another private entity to develop, there is nothing prohibiting willing sellers from working with government entities. Private landowners may also collaborate with each other and/or government entities to pursue mutual economic development interests (see *Explore use of creative partnerships and funding techniques* that follows).

One local example of such a corporation is the Greater Portland Public Development Commission. This quasi-State agency is charged with administering loans and grants to businesses and nonprofits for the purpose of stimulating economic growth and revitalization efforts and fostering coordination of economic development efforts. It affects Portland, South Portland, Westbrook, Falmouth, Cape Elizabeth and Scarborough. The Commission was formed after World War II to provide economic development opportunities for Portland and South Portland, using the proceeds from the sale of South Portland land formerly used to make Liberty Ships. Together with locally raised funds, the Commission periodically invested in businesses and nonprofit organizations. In 2008, the Legislature expanded its jurisdiction to include the other four municipalities and permit it to work with and make grants to nonprofit organizations that share its goals. Commissioners are appointed by the Governor.²⁷

Offering housing choices: To develop a series of vibrant centers connected by transit, municipalities must allow a variety of housing choices that appeal to residents of all ages and incomes. Multilevel, multifamily housing is one critical form of housing to add to a mix of single-family detached and duplex homes. Others include live-work units, row houses, garden apartments, congregate and other forms of housing geared to the elderly and/or physically challenged, that allow residents to age in place. Cohousing, as well as tiny houses are other forms that can cater to different needs and pocketbooks.

Cohousing, as developed in Brunswick and Belfast, are styled as "eco-villages" and are generally similar in form and location to cluster or conservation subdivisions located outside of existing centers. However, that does not have to be the case. In Denver, Colorado, a traditional neighborhood, Highland Gardens

²⁷ <http://portland.wcsh6.com/news/news/74145-greater-portland-public-development-commission-grants-375000-regional-economic-development-grou>

Village, was redeveloped from a former amusement park, using a relatively traditional gridded street network. One section of Highland Gardens Village was developed as cohousing and extended off the end of one of the Village's gridded streets, with a clearly defined and attractive entrance into a relatively dense cluster of homes. These surround a small outdoor gathering area and playscape for children who live in this cohousing sub-neighborhood of the Village.

Tiny houses (or Katrina cottages²⁸), of approximately 500-800 square feet, can also help expand the range of housing choices for new centers. Cottages were an important focus in the 2010 Damariscotta Heart & Soul Planning Charrette.

Creating “complete neighborhood centers” and interconnected, local street network on one or both sides of an arterial: Centers are often bisected by arterials lined with strip development that tends to cater to commuters. Both the mix of uses and congested roadways make it difficult for residents and employees to get the goods and services they need on a daily basis without having to enter or cross the arterial or leave the center to get them – whether walking, bicycling, or even via a short car ride. When “complete neighborhood centers” with enough local goods, services, and gathering places are developed on one or both sides of an arterial, along with an interconnected, local street network, residents and workers are able to meet their daily needs without crossing the arterial or having to go elsewhere to get them (see preceding discussion regarding dead end streets in ***Planning and regulating for mixed uses and traditional neighborhoods***).

Adopting a combination of incentives and requirements: A more robust package of incentives and regulations, including density bonuses and reduced dimensional and other standards, could help create compact, mixed-use centers. Public-private financial partnerships, donations, and other creative financing techniques could be used to create infrastructure and other elements that respond to the vision for the center (see discussions titled ***Being more entrepreneurial, Explore and use creative partnerships and funding techniques, Planning for and making public investments in infrastructure*** that follow).

Streamlining ordinances: As noted earlier in this report, some municipal ordinances and development review processes are overly complicated and time consuming and should be reviewed, re-codified, and streamlined to reduce confusing and conflicting provisions. Municipalities could take a page from the new urbanists' approach with form based codes: if a developer proposes a project that reflects what the municipality wants, both in type and mix of use and desired physical form, the project goes through the permitting process reasonably quickly, with comparatively little negotiation about how to meet standards, redundant review by multiple boards and committees, and delay. The project also obtains access to public infrastructure funds to help create the desired public realm (see discussion on ***Planning for and making public investments*** that follows). If the municipality wants to also provide a process to permit a more conventional development approach that does not necessarily respond to the vision for the center, the municipality may choose to allow that, but the developer should expect it to take longer to get through the process and be prepared to make more concessions and/or provide more offsite improvements.

Another approach to consider is adoption and/or greater use of a permit by rule system, similar to what the State of Maine uses for certain natural resource protection or shoreland zoning provisions.²⁹ A permit

²⁸ **Katrina Cottages** are small residential shelters designed and marketed in the United States in the wake of Hurricane **Katrina** (August 2005) as an alternative to the trailers issued to flood victims by the Federal Emergency Management Agency (FEMA).

²⁹ Under the Maine Natural Resources Protection Act “The regulations identify activities taking place in or adjacent to wetlands and waterbodies that should not significantly affect the environment if carried out according to the standards contained in the regulations. A person proposing to do work that qualifies for Permit-by-Rule is required

by rule approach would require the municipality to specify the standards for development in a specific area and allow developers to file notice of proposed work, certify that the work will be done in compliance with the standards, and notify the public of proposed work. Following administrative review of the permit by rule notice and a specified time to allow for a request for public review, the developer could proceed with the proposed project.

Being more entrepreneurial: Municipalities and the region could provide more support for “*buy local*” efforts to respond to the desire for locally based businesses in these centers. Furthermore, planning departments could consider shifting more of their focus to integrating or coordinating regulatory and planning functions with more proactive local and county community and economic development efforts. This might include development of regional BMPs for Low Impact Development (LID), Access Management, Complete Street cross sections, and other development standards that simplify the process for developers. Other coordinating efforts might include assembling land and identifying and recruiting desirable local businesses. Municipalities and the region could also consider using the local and/or regional development corporation model, described previously, as well as a combination of public/private grants, low interest loans, and donations to help create those elements and amenities that support the creation of community and place. While some municipalities use low interest loan funds as part of their economic development efforts, the programs tend to be less integrated with planning departments and the county community development program than they might be. Improved focus and coordination could bring more success to the mission of all departments.

Municipalities and the region could consider adopting local and/or regional ***Transfer of Development Rights (TDR)*** programs, including density transfer provisions like those used in Gorham and Scarborough. Regional multijurisdictional programs that identify sending and receiving areas (i.e., the centers), potentially in different communities will help center growth. See the former Maine State Planning Office’s 2004 *Report to the Community Preservation Advisory Committee on Transfer of Development Rights and Related Considerations*, which provided a survey of TDR programs in use nationally, explored factors important to the success of TDRs, limitations of TDR programs, and alternatives to TDR-like density transfer charges, open space impact fees, and purchase of development rights.³⁰ The report also provides TDR models for a Density Transfer Charge, Suburbanizing Maine Towns, Regional Multi-Jurisdictional TDR, Preserving Highway Capacity, and State Model-Transfer of Development Credits, and discussion of TDR and Affordable Housing.

Additional resources to explore in considering the regional TDR approach include the following:

The Regional Alliance of Puget Sound Counties, Cities, the Puget Sound Regional Council, Forterra and the Washington State Department of Commerce provided its 2013 report titled The Regional Transfer of Development Rights in Puget Sound³¹ to its grantor, the U.S. Environmental Protection Agency. The purpose of this TDR program was “to accommodate the more than 1.5 million new people expected to live (t)here by 2025, and adapt to a changing climate, without increasing pressures on Puget Sound from habitat and land use, storm water, toxic pollution, and transportation”. While the PACTS region is not as fast growing as the Puget Sound region, the Puget Sound principles are noteworthy.

In 2011, the Delaware Valley Regional Planning Commission, which serves four counties in New Jersey and five in Pennsylvania, released a report titled Assessing the Potential for a Regional Transfer of Development Rights Program in Salem County, NJ. This study assesses the feasibility of developing a

to file notice with the Department of Environmental Protection (DEP) instead of preparing an individual permit application.” <http://www.maine.gov/dep/land/nrpa/ip-pbr.html>

³⁰ This report is available at <http://www.gpcog.org/about-gpcog/document-library/>

³¹ <http://www.commerce.wa.gov/Documents/FINALRPT-Regional-Transfer-of-Development-Rights-6-30-13.pdf>

regional TDR program. Guided by a Salem Regional TDR Task Force, the study evaluates land use patterns and the views of municipal officials within Salem's fifteen municipalities and looks at existing TDR programs elsewhere in New Jersey and in other states for innovative ideas that could be utilized in Salem County. It also estimates the relative amounts of land that could be protected as sending zones and receiving zones in the county, and where those areas might be located. The Salem regional study includes a preliminary analysis of the buildout of Salem's municipalities and information on the water and sewer infrastructure in municipalities with potential as receiving areas. It proposes various ways that a regional TDR program could be initiated in Salem and recommends topics for future study toward its development. This report complements a state-wide analysis of Transfer of Development Rights in New Jersey developed by a State-wide TDR Task Force and issued by New Jersey Future in 2010, which includes recommendations for legislative and regulatory changes that would facilitate use of TDRs in Salem and throughout New Jersey.

Planning for and making public investments in infrastructure: It is important that municipalities recognize and acknowledge that they must be a partner in creating desirable centers. To this end, municipalities should ***explore alternative funding sources*** - such as through the EPA or community focused foundations, - to create master plans to guide the development of infrastructure, including sewer, water, stormwater, roads, sidewalks and trails (for both pedestrians and bicyclists), wayfinding, open space and recreation. Municipalities can also create and adopt an official street map for centers to guide development.

Municipalities could create new programs like ***low interest or "patient" loan funds*** to help the private sector create or improve infrastructure. A "patient" loan fund would take advantage of municipal access to bonds with lower interest rates by offering lower or reduced interest repayments and/or longer term paybacks which are tied to building permits rather than the permitting of an overall project. To establish such a program, and to help reduce the administrative burden on individual municipalities, municipalities and/or the region will have to develop local tracking, management, and cost recovery systems. The availability of public funds should be tied to the quality of the infrastructure project in meeting the vision for the center.

Explore and use creative partnerships and funding techniques: Municipalities could adopt creative partnerships and funding techniques that support collaboration between the private and municipal sectors, as well as other public entities. One approach PACTS has discussed for some time is directing capital funds primarily to municipalities that adopt local policies and standards that encourage centers designed for transit and multiple modes of travel. This could be done as an incentive to encourage developers to design for transit and demand management approaches for employees and/or customers, or it could be required as a threshold to access PACTS funds. Another approach is to structure partnerships with large landowners who own key parcels who may not want to sell or divest themselves of their property, but who may be amenable to sharing in the costs and benefits of a development. Other approaches to explore are partnerships with the region's large employers, including public employees and the insurance industry, to access use of pension funds (see section **4.5 Funding Mechanisms** that follows).

Municipalities could seek community, economic, and other funding to support public and private development of infrastructure that provides the bones for the vision of the center. Operating and capital planning budgets; offset fees; TIFs, including transit TIFs; special assessment, development, or capital improvement districts; and other creative partnership efforts also can be used to generate funds for this or similar infrastructure programs.

Strong infrastructure is a key to metropolitan prosperity and choices about infrastructure today will reverberate far into the future. The Urban Land Institute's (ULI) infrastructure programming helps inform decision makers who are making infrastructure investment decisions by engaging in infrastructure

conversations around the world, from roads to transit, from water systems to electrical grids. Such conversations bring together private sector developers, public sector leaders, governments, transit service providers, advocates and others. Facilitated by ULI, these conversations explore ways to achieve outcomes such as transit-oriented development, improved regional coordination of infrastructure planning, enhanced public private cooperation, and much more.

PACTS and the municipalities could continue to research how successful centers are created. Further understanding of how design, regulation, infrastructure funding, community interaction, and the marketplace works (or doesn't work) will provide greater insight into preparing additional model policies and codes to support the creation of centers.

Working at the state level: State laws, state funding priorities, voter-approved bonding for infrastructure grant programs are all vehicles that can be used to support development of the municipalities' visions for centers of opportunity. While state priorities are always shifting, readiness is key. Similar to a federal stimulus package, the more a region and individual municipalities are prepared with planning and design for projects 'on the shelf,' the more readily they can shape the priorities of funding programs and/or access funds when they become available. The State Infrastructure Bank often manages small state bonds for more popular water quality related bond issues; a number of bond proposals for local infrastructure improvements were made in the recent past but have failed to receive legislative approval to send on to the voters. One way to make the case from a regional perspective is to develop a regional capital improvement plan focused on investing in infrastructure in the priority centers. The use of some of these tools will be discussed further in **Chapter 6 - Recommendations**.

Some of the tools the six municipalities may pursue or change because their use may undermine the creation of a center-focused development pattern are summarized in Figure 4.4.

Figure 4.4 Tools that could be used or changed to increase success of centers						
NEED FOR:	Gorham	Scarborough	Portland	South Portland	Standish	Westbrook
Master Planning to create mixed use districts	•	•	•	•		•
Reduced use of contract zoning to implement policy for compact village and mixed use areas.	•					
Reduced number of zoning districts in centers			•			•
More housing choices	•	•		•	•	•
Higher density called for in both policy and regulation	•	•	•	•	•	•
Lower space and bulk standards	•	•	•	•		•
More specific standards related to New England character	•	•	•	•		
Planning for "complete neighborhood centers"	•	•		•		
Clearer or eliminated focus on support of strong incentives for conservation subdivisions in transit areas					•	
Planning for local street network	•	•				•
Planning for complete streets and wayfinding	•	•				•
Planning for expanding public water and/or sewer or community septic	•	•			•	•
Planning for infrastructure investment partnerships	•	•			•	•
Transit TIF in center	•	•		•		•
Better/further integration of regulatory and non-regulatory tools, including "buy local", land assembling, entrepreneurial efforts, and creative partnerships and funding techniques	•	•	•	•	•	•
Streamlined development review process in centers	X	X	X	X	X	X

4.5 Funding Mechanisms

Aside from operating and capital planning budgets, a variety of funding mechanisms are available to municipalities to provide the infrastructure necessary to support anticipated growth and create places where people want to live and invest in local businesses. They include:

- Impact fees/exactions.
- Offset fees.
- Tax Increment Financing (TIF), including Transportation TIFs.
- Special assessment, development, or capital improvement districts.
- Local development corporations.
- Public private grants.
- Low interest loan programs.
- Pension funds.
- Donations.

These funding mechanisms are summarized below and described more fully in Appendix B.

Operating and capital planning budgets: All six municipalities prepare annual operating and multiyear capital improvement plans (CIP) to assist them with planning for capital expenditures on a rational and systematic basis. The opportunity exists to create a regional capital plan to guide, and perhaps spur, regional investments and to provide at least some of municipal and regional capital dollars to support desired local and regional growth patterns.

Impact fees/exactions: Two techniques that are widely used by municipalities are impact fees and exactions, both of which put the entire burden of the cost of new infrastructure on private developers. Impact fees are assessed against new development to cover the cost of providing capital facilities needed to serve the development as a way for development to “pay its own way.” Regional impact fees are an option that could be explored.

Another commonly used tool to fund improvements is development exactions, the requirement that the developer provide off-site improvements to support proposed development, in spite of the fact that the need for the improvement may have been generated by multiple prior developments.

Offset fees: An offset fee is a one-time fee paid by a developer or property owner, typically to a municipality, for the right to develop a parcel more intensively than would otherwise be allowed under local regulations, balancing private and public benefits. A regional offset fee begins to look more like a regional TDR (see ***Transfer of Development Rights (TDR)*** discussion in Section 4.4). An offset fee is different from an impact fee, which is charged to pay for the cost of providing infrastructure needed to service a development.

Tax Increment Financing (TIF), including Transit TIF: TIFs are an important public financing tool that focus on economic development, its ability to capture and shield new property value, and its ability to be applied to a broad range of activities, including among others, infrastructure improvements and transit operation and improvements. A TIF dedicates the future tax revenues of new commercial or mixed use development toward a specific project in the community, usually economic or community development or transportation-related. TIFs normally are applied on a municipal basis, but regional applications could be explored.

Special assessment, development, or capital improvement district: A special assessment or development district is an area of a municipality with the power to collect fees to make specific improvements in or direct benefits to that area. These districts have been very effective in helping revitalize business areas or make improvements to residential neighborhoods.

Local or regional development corporations: A local or regional development corporation is an organization, often made up of local citizens, established to improve the economy of the area by developing economic development programs, drawing new business and industry, and providing financial support. These may be designed as for-profit or non-profit entities. The benefit of a non-profit status is the potential availability of more public or foundation funding sources to support the goals and strategies.

Public-private grants: Despite our current weak economy and tight budgets, a number of state and federal agencies and private foundations have funds that support local capital improvement and community development.

Low interest loan programs: If designed appropriately, municipalities and the region may use many of the tools noted above to create loan and/or revolving loan funds to support development of infrastructure. The funds could be designed to provide various options and incentives such as low or forgivable interest repayments and/or patient repayment schedules.

Pension funds: A new source of funds that is being explored to provide capital for infrastructure projects are large employee, including public employee, pension funds.

Donations: Donations of funds, equipment, or property by an individual, corporation, or foundation can help create cherished places in neighborhood and village centers.

The Need to Increase Community Investment

Most municipalities regularly use the mechanisms at the top of the above list. They rely on public investment, as well as impact fees and exactions, and have the philosophy that development should pay its own way. In this scenario, municipalities also believe that development will provide adequate investment to not only meet the minimum need for protecting the health and safety of the community but also create a quality of place that generally reflects an imprecisely defined vision of a New England Village. However, these widely used techniques will only get a municipality so far in providing the amount and quality of infrastructure necessary to support efficient growth, particularly those elements that are crucial to the quality of place – resilient and attractive sidewalk paving materials and curbing, extensive landscaping, vest pocket and community parks, ornamental lighting, pedestrian furniture, and other amenities.

The reality is that it is unlikely that the private sector can provide the necessary and desired infrastructure without a significant increase in allowed density and intensity of development, perhaps at higher levels than desired by the community. Even if regulations are adjusted to provide greater return on investment, it is likely that the development community will not provide enough investment in some areas of public infrastructure to create highly desirable public places, unless there is some level of public funding. The challenge is for municipalities and the region to use their conventional operating and capital planning budgets, low interest loan funds, along with the other, less widely used regional tools, to work in partnership with developers to take the next step in providing the type and quality of infrastructure required to support anticipated growth and create desirable places to live and work.

One source of funds that is somewhat new to the region is large pension funds. Donna Cooper and John F. Craig, in their review of this topic in *Using Pension Funds to Build Infrastructure and Put Americans to Work*³², discuss some of the limitations to effectively access pension funds for infrastructure. Some of these issues include: closing the information gap to align pension fund managers with infrastructure project sponsors, increasing confidence in the soundness of infrastructure investments to help investors consider risks and options for addressing them, insuring that there is a sufficient return for investors, and ensuring that financing is reliable and predictable. Addressing some of these limitations to increase access to these funds is typically beyond the capacity of most municipal and regional planners, but public collaboration with private and financial interests in the region may help identify potential opportunities and ways to overcome some of these barriers. To access pension funds from outside of the region likely will require engagement of sympathetic interests at higher levels of government.

While donations of funds, equipment, or property by an individual, corporation, or foundation are rarely major or consistent methods of financing infrastructure improvement, they can help create important places in centers. For example, the donations of time and treasure may help create flower gardens/displays, build or improve vest pocket parks and playgrounds, develop community gardens, preserve open spaces, and construct gazebos or even larger projects like libraries that create gathering places and an identity or treasured sense of “place.”

Under State law, regional councils like GPCOG are viewed as “uniquely qualified to assist in the development of technical capacity of local governments, to develop regional policies, services, and solutions to meet local needs, and to serve as a vital link between local governments and the State.”³³ Regional councils are enabled to implement programs and services on behalf of member municipalities “while avoiding the creation of special districts or other legal or administrative entities to accomplish these purposes.”³⁴ Also under State law, the Governor may designate regional planning and development districts for the purpose of “coordinating policies, plans, and programs among and within various levels of government affecting the development of these districts or subdistricts.”³⁵ Under either provision, there are potential avenues that both PACTS and GPCOG can use to support more efficient development of regional centers.

Municipalities can explore new partnership models, including working with Cumberland County, which has bonding authority. They can also reconsider ways to partner with the private sector, community organizations and other public entities, including regional organizations, in ways that may not necessarily be new, but have been used in a more limited fashion in the Greater Portland region in recent years.

4.6 Partnerships

New and creative partnerships offer important, potentially vital opportunities to create centers. Regulation is important in protecting the public interest and in preventing the type of development municipalities do not want, but it is not very effective in creating the types of places they do want. Public infrastructure may be necessary to create desired centers, but it may not be financially feasible to pay for the type and quality of infrastructure required to create the type of place desired. In some centers, other public, private, or nonprofit organizations may control important properties but have limited interest or resources to develop them in ways that reflect the municipality’s interests.

³² <https://www.americanprogress.org/issues/economy/report/2013/03/28/58145/using-pension-funds-to-build-infrastructure-and-put-americans-to-work/>

³³ 30-A M.R.S.A. §2301.

³⁴ 30-A M.R.S.A. §2305.

³⁵ 30-A M.R.S.A. §2341.

A creative or new look at public private partnerships, including those that may have some roots in past community and economic development efforts offers promise, including:

- Greater Portland Public Development Commission.
- Public private partnerships.
- Regional TDR.
- State financing of new road construction or improvements to existing roads.
- Regional economic development models.
- Regional and state planning and investments.

Greater Portland Public Development Commission: The purpose and involvement of the Greater Portland Public Development Commission, which is described earlier in this report (see Assembling Land in Section 4.3), could potentially be expanded to include involvement in new partnerships to support investment in and economic growth of the region.

Public private partnerships: One example of a successful public private partnership was the decision by the City of Portland and Forefront Partners to jointly apply for an infrastructure grant through the US Economic Development Administration (EDA) for public improvements needed to support the redevelopment of Thompson's Point. Just prior to submitting the application to EDA, the State informed the City that it was preparing an application to the Federal Highway Administration for a Transportation, Community and System Preservation Fund (TCSP) grant, which, if funded, would augment the EDA grant particularly in terms of transportation improvements. The City, State and Forefront Partners jointly applied for funding through EDA; as a result nearly \$3 million in infrastructure investments was awarded to the City and State with the requisite 'local share' provided by the developer. More public and quasi-public entities are utilizing this approach to fund public infrastructure needs.

Regional TDR: Regional TDR, discussed earlier in this report, will only be possible if municipalities in the region recognize and acknowledge that their future fortunes will rise and fall along with the Greater Portland region³⁶. Creating and supporting ongoing partnerships is vital to promote development patterns that reflect local values, protect mobility, build on the economic strength of this part of the state and make efficient use of land and public investments.

State financing of new road construction or improvements to existing roads: In 2005, 23 M.R.S.A. s.703-B³⁷ was adopted whereby the officers of one or more municipalities could petition the state to build a public road to spur economic development, downtown revitalization or neighborhood preservation; to create new housing stock; to promote mixed use or densely settled village centers; or to enhance public safety. In their petition, municipalities would request that the State Highway Fund cover up to 50% of the cost of the proposed road construction, subject to available highway funds. In order to qualify, the municipality would need to have a department-approved transportation plan for state and state aid highways and comply with the policies and procedures adopted by the department. The municipality would be responsible for securing the balance of funds and for undertaking project design, permitting and construction following department guidelines. The public road would be required to meet state design standards and function as a major collector or arterial highway as defined in department rules.

While this law has had limited use and the State Highway Fund remains challenged, it is listed here as a tool that could be used to build collector roads that serve a developing center. And with minor modification, the law could be used to allow up to 50% of State Highway Funds to be used to improve

³⁶ <http://www.gpcog.org/>

³⁷ <http://legislature.maine.gov/statutes/23/title23sec703-B.html>

existing highways passing through designated centers when those highways do not meet *complete streets* policies adopted by PACTS or the municipality; or potentially, to build local roads when they relieve the need for state investment on an adjacent state route.

Municipal Partnership Initiative (MPI)³⁸: The Municipal Partnership Initiative (MPI) program was conceived and developed in early 2011. It is a creative method to develop, fund, and build projects of municipal interest on the state infrastructure system with MaineDOT as a partner. It is intended to remain simple, flexible, and fast moving. It will respond to municipal interests, leverage economic opportunities, and improve safety whenever possible while ensuring the public gets good value for their tax dollars.

Unless waived by the DOT Commissioner, the state funding contribution for a project will be capped at \$500,000 and generally have a state share of 50% or less. State funding for the MPI is limited by available state funding, which is impacted by revenue projections, Legislative budget deliberations, bid prices, and the severity of winter weather. Funding shares will be negotiated on a case-by-case basis, depending on the extent of regional or statewide benefits. Consideration will be given to the impact a project has on eliminating the need for current and future projects and maintenance needs. Municipalities may also propose shifting long-term maintenance responsibilities as part of their share.

Business Partnership Initiative: MaineDOT's Business Partnership Initiative (BPI) is a one-third state, two-thirds business/municipal demand response program, designed to respond to Municipal/Business Entity requests, such as responding to changing local transportation needs on State and State-Aid highways, developing economic opportunities, and relieving safety concerns on or adjacent to these highways. The program is designed to promote public/private partnerships between MaineDOT and municipalities, public utilities, private businesses and other entities by leveraging additional resources on a voluntary basis to match limited state resources. It will make improvements to State and State-Aid highways, often utilizing more flexible project delivery methods when the nature of the highway and project allow.

Regional economic development models: Since 1979, the Cities of Lewiston and Auburn have shared the tax base of land to support the creation of the Auburn-Lewiston Industrial Air Park in the City of Auburn. Prior to 1979, the two cities had worked cooperatively for many years. Operating and maintaining an airport, water pollution control facility, transit authority, 911 center, joint economic development organization, and small railroad spur as well as mutual aid, and joint purchase and auction of surplus material are examples of some of their collaborations. When the municipalities decided to develop land at their jointly owned airport into industrial space, they recognized the value of sharing the costs and revenues for the development. In 1973, the Legislature enacted a tax-sharing framework to allow two or more municipalities to enter into an agreement to share all or part of assessed valuation of commercial, industrial, or residential property in a community and use of the valuation and mil rate of the municipality in which the property is located to determine taxes. In the process of developing the industrial park, the municipalities "recognized that by extending water and sewer to the Airport and other industrial areas in Auburn might also benefit at the expense of the City of Lewiston"³⁹ and designated 130 acres of land for the proposed development site. The tax sharing arrangement recognized that because the Industrial Airpark was located in Auburn and the City would bear the added costs of police, fire, and public work's services to the area, Auburn would receive 30% of the tax revenue off-the-top and since the land was co-owned, both municipalities would split the remaining tax revenue. In total, Auburn received 65% of tax revenue from the airport and Lewiston received 35%. Tax revenue from the 130-acre parcel would be split with Auburn receiving 75% and Lewiston 25%. The formula for the Industrial Airpark

³⁸ <http://www.maine.gov/mdot/docs/mpi/MPIMunicipalGuide.pdf>

³⁹ "Lewiston-Auburn, Maine: A Novel Tax Sharing Experiment"

http://www.crcog.org/publications/CommDevDocs/municipal_services_documents/LATaxSharing.pdf .

was scheduled for review every five years and the formula for the 130-acre parcel in 50 years. The successful tax sharing agreement helped propel the Industrial Airpark to the highest priority for funding by the Androscoggin Valley Region's Overall Economic Development Plan. Funds to construct the Park's infrastructure were approved by the US Economic Development Administration in 1980 and construction was completed in 1981. The Auburn-Lewiston experience offers a successful model of some of the benefits that municipalities can gain by working together.

Another interesting collaborative model, one that is communications-based, has evolved in Washington County. It is a distributed communication network based largely on the "ties that bind" theme.⁴⁰ The collaboration makes use of an extensive, informal and formal communications network. In the model, organizations use their email networks and listserves to get the word out about an initiative or to further a purpose in the County. These might include grant, training, or health opportunities. It might advertise a fun event, like the Turkey-thon to raise funds for the Food Pantry. The network includes the Washington County Council of Governments (WCCOG), Sunrise County Economic Development Council, municipalities, cultural organizations, museums, chambers of commerce, CAP agencies, businesses, social groups, and individuals – everyone who wants to be connected. According to Judy East, Executive Director of WCCOG, "Four to five organizations reach 80% of the County." This informal group evolved to advertise public health and community events around areas of common interest. Because they are networked, when any one of them wants to collaborate, say on a grant application, they already know who likely partners are and put out a call for collaborators. The partners are known, so if one group wants to put together a proposal to take advantage of or to create an opportunity that would benefit from a collaborative effort, potential partners have already been identified. Rather, than being a group, the initiative is more of a distributed network of many groups that will collaborate when their interests cross or align. For regions that may not have one or more leaders who create more proactive regional economic development models, or who lack the political will and wherewithal to develop and embrace them, the Washington County communications model offers opportunities to collaborate on regional interests.

Regional and state planning and investments: As noted at the start of this document, the Sensible Transportation Policy Act, (STPA) was amended in 2001 authorizing the state to prioritize investments in "communities that adopt and implement land use plans that minimize over-reliance on the state highway network." The 2004 major substantive rule promulgated to implement this amendment to the law was further amended in 2011. The 2011 rule amendment eliminated most of the references to the types of incentives the MaineDOT would offer to municipalities that did so. But the law's preference for such planning remains on the books and could be referenced in funding requests.

The award-winning Gateway 1 effort, sponsored by MaineDOT and involving the 20 towns from Brunswick to Stockton Springs through which 100 miles of U.S. Route 1 passes, is an example of how strong leadership and facilitation can be effective in creating voluntary partnership approaches. The use of interlocal land use and transportation agreements that frame the issues to address and the mechanisms to foster them could be explored as a template for achieving efficiencies in this region.

Finally, in 2003, PACTS adopted Destination Tomorrow that included Policy 6, which calls for strengthening the link between transportation investments and land use policies.⁴¹ This groundbreaking land use policy was recognized with both the Maine Association of Planners and the Northern New England Chapter of the American Planning Association's Plan of the Year Awards. The plan was updated in 2006, 2010, and is being updated once again in 2015. PACTS continues support of the land use policy with this study.

⁴⁰ Judy East, Executive Director, Washington County Council of Governments, phone conversation on 4/18/2015.

⁴¹ <http://www.pactsplan.org/long-range-transportation-planning/the-2003-plan/>

THIS PAGE INTENTIONALLY LEFT BLANK

5. FISCAL CONSIDERATIONS

The suburban pattern of development underpinning many of the communities in the study area is one that has difficulty supporting itself. Chuck Marohn, founder of the non-profit Strong Towns says, “The great experiment of suburbanization that America had embarked on following World War II has no precedent in human history. As it enters its third generation, the flawed assumptions that were overlooked are now coming back to bite us in a cruel way. Like a Ponzi scheme, there is only one way this ends.... American suburbanization is a grand experiment, but one where the hypothesis -- suburban development provides prosperity -- is never really tested. It is basically a law, not a theory, (which) has crept into our ethos.”⁴²

The way to growth over the last seven or eight decades has been for local government to rely on grants, transportation investment and debt. More recently, because those resources have shriveled, municipalities have relied heavily on the private sector to finance growth. Neither method is sustainable. The short-term revenue gains may be clear but the ongoing financial obligations associated with long-term maintenance of infrastructure are becoming more burdensome, even in places where density is high and more development is available to help cover the costs.

As noted in Section 1.5 regarding changing public preferences, we observe that many people’s attitudes in the region are aligned with the mindset that walkable, affordable, mixed use communities are strongly desired. However, we also understand that municipalities are clearly bound by fiscal realities and thus, must make decisions that are financially sound – both in the short and/or long-run.

Each municipality has a unique list of budget items. Larger, more urban municipalities often have a broader range of budget items, while smaller, more rural or suburban municipalities predictably have fewer budget items. Regardless of size, each municipality’s most costly budget items are:

- Education (school funding)
- Public Services (fire, police, emergency)
- Public Works (roads and infrastructure)

A quantitative fiscal analysis was performed to identify potential opportunities for municipal savings that arise when considering the “centers pattern” of growth as compared to the “trend or current” pattern of growth. For purposes of this analysis, a *Centers Pattern* is a more managed type of compact, mixed use development, which receives a larger share of anticipated growth within a municipality in order to make amenities available to more people, particularly within walking distance. It is compared with the *Current Pattern* which reflects the historic sprawl pattern that has in the region over time.

This fiscal analysis does not measure all impacts resulting from development of a center (i.e. administrative, recreation, cultural) nor does it evaluate potential capital costs. A qualitative list of fiscal considerations is included following the results of the fiscal analysis. Additional details and worksheets are provided in Appendix D.

5.1 Fiscal Analysis

This fiscal analysis compared the Current Pattern to the Center Pattern for each study municipality to determine potential savings in education and public works costs. This analysis was prepared using available municipal data and key benefits commonly accompanying Center Pattern development.

⁴² <http://www.strongtowns.org/journal/2011/6/13/the-growth-ponzi-scheme-part-1.html>

School Children and School Costs: Not surprisingly, education costs were the highest cost identified for each municipality. School costs typically were three to four times the total of all other cost items. The education cost for each community is based upon the number of school children. For this analysis, the number of school children and associated education costs was derived by using the Current Pattern percentage of single family (SF) and multi-family housing (MF) in each of the six municipalities.

At the kick-off workshop for this study effort, municipal representatives who participated were provided with municipal population, housing unit and job projections used in the SSM study; those projections identified the portion of new people, homes and jobs that could be captured in all existing Centers of Opportunity in each community based on historical growth patterns. The resulting proportion was attributed to the Current Pattern as percentages.

Looking at overall growth projections for all existing centers, municipal officials were asked to identify how much of the total projected center growth (people, homes and jobs) could reasonably be captured in the center chosen to be the focus of this study. Part of this activity also required them to identify the ratio of SF/MF housing growth they believed could be supported in this center⁴³. In each community, the percentage of MF housing units targeted to the selected Centers was higher than the Current Pattern. Based on these percentages, a potential number of new SF and MF housing units to be directed to the selected Centers was identified⁴⁴. Figure 5.1A identifies the Current vs. Center pattern percentages of SF and MF housing units forecasted between 2010 and 2035. Using these percentages, the number of SF and MF housing units to be directed to each of the centers studied were calculated.

Town	Current Housing Split (Existing)		Center Housing Split (Assumed)		Total Housing Units in Center (2010-2035)
	SF	MF	SF	MF	
Gorham	84%	16%	65%	35%	830
Scarborough	89%	11%	65%	35%	2,940
Portland	38%	62%	10%	90%	3,920
South Portland	62%	38%	33%	67%	1,728
Standish	95%	5%	80%	20%	608 ⁴⁵
Westbrook	59%	41%	33%	67%	1,848
Totals					11,874

Education costs for Current Pattern and Center Pattern were then calculated by first determining the per student cost in each municipality (total education costs/school enrollment). Using the number of school

⁴³ At the start of this study effort, Municipal representatives were provided with total projected population, housing units and jobs by municipality from the Sustain Southern Maine Study; a portion of which was projected to be captured by all Centers of Opportunity in each community. T

⁴⁴ Total number of new housing units (2010-2035) projected for Centers was identified as part of the Sustain Southern Maine (SSM) Study, 2012.

⁴⁵ Page 7 of The (November 2007) Standish Corner Master Plan suggests that more than 750 units of projected housing growth could be absorbed in its 4 growth centers. For purposes of this analysis, the majority were assigned to Standish Corner.

age children per 100 units of housing data obtained from a 1999 American Housing Survey⁴⁶, and later corroborated in a March 2007 Study⁴⁷, the per student cost was then multiplied by the estimated number of housing units (SF and MF) for both the Current and Center Patterns.

The 1999 Housing Survey indicated that the number of school-age children for SF homes is 64 children per 100 units and 21 per 100 units for MF homes. These numbers are used in the calculation shown in figure 5.1.B (the 2007 Study identified the same number of children for SF and a modest increase from 21 to 29 MF children per 100 units of housing). The potential cost savings identified in Figure 5.1B is based on the assumption that the number of school children will likely be less in the future because the proportion of MF to SF will be greater in the Center Pattern than in Current Pattern. This supports existing population per household data⁴⁸ that shows that more MF housing can result in lower household populations in municipalities with a higher percentage of MF units, with consequent less demand on public schools than SF housing.

As noted previously, approximate percentages of SF and MF housing to be directed to each Center studied were determined by each municipality during the study kick-off workshop or by review of adopted local plans. These percentages support each municipality’s desire to increase the diversity of housing within their communities. While increasing MF housing units suggests a potential reduction in school children in the future, it does not intend to suggest that the centers will not be family-oriented. Centers will and are intended to contain a diverse range of occupants, including school-age children.

Figure 5.1B – Comparison of Number of School Children and Potential Municipal School Cost Savings Current vs. Center by Municipality						
Town	Number of New School Enrollment			Potential Annual School Enrollment Costs		
	Current	Center	Change	Current	Center	Change
Gorham	474	406	68	\$ 6,114,574	\$ 5,239,993	\$ 874,581
Scarborough	1743	1439	303	\$ 21,822,850	\$ 18,023,089	\$ 3,799,761
Portland	1464	992	472	\$ 19,808,256	\$ 13,421,234	\$ 6,387,022
South Portland	824	608	215	\$ 11,798,354	\$ 8,711,374	\$ 3,086,980
Standish	376	337	39	\$ 3,784,484	\$ 3,389,820	\$ 394,663
Westbrook	857	650	207	\$ 11,412,560	\$ 8,660,944	\$ 2,751,616

As seen from Figure 5.1B, the potential annual school enrollment cost savings for each municipality range from approximately \$395,000 per year (Standish⁴⁹) to \$6,400,000 (Portland). Schools with larger enrollments generally tend to have the highest potential cost savings.

New Road Construction and Maintenance Costs: Particularly in suburban and rural communities, new road construction and maintenance costs were also identified as a high municipal cost. Increasing density in the Center Pattern is anticipated to reduce the number of local road miles that will be constructed and maintained in the future because development will be more concentrated on an interconnected street

⁴⁶ 1999 American Housing Survey (Washington, DC), U.S. Bureau of the Census and U.S. Department of Housing and Urban Development, 1999.

⁴⁷ Overcoming Opposition to Multifamily Rental Housing , by Mark Obrinsky and Debra Stein, Joint Center for Housing Studies, Harvard University

⁴⁸ 2009 Housing and population data, PACTS region, Gorham East-West Corridor Study

⁴⁹ Because the elementary school is located in Standish Corner, the estimate

system rather than on multiple interspersed single access dead-end streets. Estimates for miles of new municipally maintained roads for Current and Center Patterns were based upon a historical average for minimum roadway frontage (200' per SF unit and 40' per MF unit). These average values were then reduced for the Center Pattern based on proposed density increases.

Road maintenance costs were estimated by dividing total municipal public works costs⁵⁰ by the estimated number of lane miles of locally maintained roads for each municipality⁵¹. The potential cost savings identified in Figure 5.1C is based upon the assumption that there will be fewer local road miles to maintain in the Center Pattern than in a Current Pattern; new road miles in centers will be concentrated and interconnected providing for more efficient flow vs. the Current Pattern of the recent past that supports numerous dead end streets whether built miles apart or in proximity to one another. The concentration of road miles under the Center Pattern will reduce highway maintenance costs as well emergency response times.

Figure 5.1C – Comparison of Miles of New Municipal Roads and Potential Municipal Highway Maintenance Cost Savings Current vs. Center by Municipality						
Town	Number of New Municipal Road Miles			Potential Annual Highway Maintenance Costs		
	Current	Center	Change	Current	Center	Change
Gorham	27.42	5.19	22.23	\$ 194,608	\$ 160,686	\$ 33,923
Scarborough	101.56	18.38	83.19	\$ 1,807,534	\$ 1,427,001	\$ 380,533
Portland	74.84	16.33	58.50	\$ 1,872,767	\$ 1,040,426	\$ 832,341
South Portland	45.56	8.71	36.85	\$ 769,462	\$ 512,975	\$ 256,487
Standish	22.11	4.15	17.96	\$ 117,013	\$ 102,386	\$ 14,627
Westbrook	47.04	9.31	37.73	\$ 499,380	\$ 344,810	\$ 154,570

Figure 5.1C shows that the number of new municipally maintained road miles can potentially be reduced from approximately 22 to 4 miles in Standish and 27 to 5 miles in Gorham. Miles of potential new municipal roads may be overstated for more urban communities (Portland, South Portland) as many new housing units will likely be accommodated in existing neighborhoods.

5.2 Other Considerations

In *The Fool Proof City*⁵², Chuck Marohn strongly suggests that the traditional development pattern (i.e. New England Style Village) is brilliant – “a foolproof approach to building places was developed the hard way: slowly and incrementally over time.”

⁵⁰ Total Public Works budgets for each municipality were divided by total road miles maintained. It is acknowledged that each Public Works budget contains varying items, resulting in a range of municipal costs

⁵¹ Locally maintained road miles provided by MaineDOT

⁵² <http://www.strongtowns.org/journal/2013/11/25/the-fool-proof-city.html>

Numerous potential economic, societal, and environmental benefits are realized as part of the compact, mixed use development anticipated as part of center-focused growth. New England village and campus style development patterns offer local retail, services and community gathering places that result in:

- Less vehicle traffic congestion and vehicle miles traveled
- More pedestrian- and bicycle-friendly neighborhoods
- More public transit and rideshare opportunities
- More efficient use of land that creates less air and water pollution
- More open space and habitat preservation opportunities
- Reduced public service costs and response times
- Improved housing options

An example of societal savings is shown in Figure 5.2A depicting an estimate of potential open space preserved. Open space preservation savings were determined by calculating the number of acres consumed by traditional SF and MF development under Current Pattern (1 acre per SF unit, 0.2 acre per MF unit), and comparing it to the number of acres consumed by a Centers Pattern (0.2 acre per SF unit, 0.1 acre per MF unit). While lot sizes of SF and MF units vary, these were assumed to be average values for each municipality for purposes of this analysis. It is likely that average lot sizes will be smaller in more urban municipalities (Portland, South Portland) and larger in more suburban/rural communities (Westbrook, Standish, Gorham and Scarborough).

Figure 5.2A – Potential Open Space Preservation by Municipality			
Town	Open Space Calculations (acres)		
	Trend	Center	Change
Gorham	724	137	587
Scarborough	2681	485	2196
Portland	1231	431	800
South Portland	667	230	437
Standish	584	109	474
Westbrook	697	246	451

Potential open space acreage saved a total almost 5,000 acres across the study area municipalities. Over 40 percent of that total can be realized in the Town of Scarborough alone. This is primarily due to the high percentage of SF homes in Scarborough and estimated growth in housing units between 2010-2035.

5.3 Conclusion

The results of this analysis show that developing places with a Centers Pattern can benefit most municipalities both fiscally and socially. Collectively for the six municipalities, it is possible that annual savings of over \$21M for school and highway costs could be realized. These municipal cost savings can be used to contribute to other costs that may be associated with compact centers, such as extension of sewer/water, and construction of local connector streets. The social benefits of center-focused development include quality of life improvements for residents, preservation of open space, more transit and rideshare opportunities, and increased vitality of local businesses.

THIS PAGE INTENTIONALLY LEFT BLANK

6. RECOMMENDATIONS

6.1 General Recommendations:

One of the study area's biggest assets is its size – it's small enough for people to work together but big enough to generate economic and political impact. The relationships community leaders already have with one another through PACTS and GPCOG are a very positive force.

The region is poised to assist with creating multiple attractive and interconnected centers, supporting traffic flow for through-travelers and optimizing the internal trips generated by a more compact mixed-use pattern of development. Here, home rule is an asset, as it allows the municipalities to promote or support the tools that work for them.

This chapter outlines specific recommendations, both for PACTS and for the municipalities that participated in the study. More than these, however, GPCOG's and the County's roles, defined by statute, should also be considered in terms of the recommendations that follow, especially give their role as two of the primary sponsors of the SSM study.

The table below outlines the category of recommendation, the lead players and potential partners, the specific action and the primary objectives. A column is left for PACTS and member communities to determine the priority of each recommendation as a basis for moving forward. Priorities should reflect actions that should be undertaken in the short, mid and long terms; time frames for these may be adjusted but could be defined as follows: short term: 18 months; mid term: 18 to 36 months; and long term: 36 months or more

Figure 6.1 GENERAL RECOMMENDATIONS FOR TRANSIT SUPPORTIVE DEVELOPMENT

Figure 6.1 GENERAL RECOMMENDATIONS FOR TRANSIT SUPPORTIVE DEVELOPMENT				
CATEGORY				
Lead Entity	Partners	Actions	Primary Objective	Priority (S, M, L)
ENTREPRENEURIALISM				
PACTS	GPCOG & Cumberland County	Convene forums of investors, developers and city officials (including local economic development entities, utility and transit service providers), potentially facilitated by the Urban Land Institute (ULI) , to strategize ways to create Public Private Partnerships (P3s) , whose purposes are to create mechanisms to invest in water, wastewater, transit and street/road systems.	Create Partnerships	
GPCOG	PACTS	Facilitate discussions with local and regional Development Commissions, Boards of Trade, Chambers of Commerce and other similar development groups for interest in forming a Developer Consortium with a focus on priority centers.	Create Partnerships	
PACTS	GPCOG	Facilitate development of a Regional Infrastructure Improvement Plan	Equitable Investment Sharing	
PACTS	GPCOG, Cumberland County, Municipalities, Housing & Finance Interests	Work together to develop and make available new loan products for housing and small business development in those centers that are backed by master plans and related regulations. These could include an affordable housing and/or elderly housing component. (Currently, federal loan products are available for buying in the rural part of municipalities; a similar or better product could be pursued for buying housing in a designated center.)	Provide for Affordable Mixed Housing Choices in Centers	
Municipalities	Land Owners	Approach land owners in centers to encourage/inspire them to work together to assemble land for (re)development, especially as part of a master planning effort.	Facilitate Center Investment	
FACILITATION, COLLABORATION, COORDINATED INVESTMENT				
GPCOG	PACTS & Cumberland County	Seek federal or foundation grants, matched with state and local public and private dollars, to fund center master planning efforts and development of new regulation including recodification of existing regulatory systems.	Facilitate Center Investment	
PACTS		Direct funding to Transportation Investment Areas as outlined in Destination Tomorrow.	Facilitate Center Investment	
PACTS	GPCOG Cumberland	Compile an inventory and estimated costs for master planning and infrastructure investments that would be required to facilitate development in the priority	Facilitate Center	

Figure 6.1 GENERAL RECOMMENDATIONS FOR TRANSIT SUPPORTIVE DEVELOPMENT

CATEGORY				
Lead Entity	Partners	Actions	Primary Objective	Priority (S, M, L)
	County Municipalities	centers of opportunity and upon which is based a Regional Infrastructure Planning Program that would guide infrastructure investment in centers. Public infrastructure should include streets and utilities; transit, pedestrian and bicycle facilities; parks, playgrounds, gateways and gardens.	Investment	
PACTS	Cumberland County CDBG Program Administrators	Identify Regional Investment Areas, similar to those identified in the PACTS long range plan, in order to support planning and funding decisions directed towards communities desiring to make infrastructure investments in centers.	Facilitate Center Investment	
PACTS	GPCOG	Explore collaboration with the real estate community, university, market researchers, MEREDA, housing interests, chambers, and municipalities to fund market research to fine-tune ways to clarify and respond to homebuyer concerns and demands for housing and other land uses and activities in centers.	Market Research on Homebuyer Concerns and Demands	
PACTS	GPCOG	Adopt and oversee a regional approach to programs for Complete Streets, Access Management, Impact Fees, Transfer of Development Rights	Simplify Regulation	
Municipalities		Local economic and community development officials and planners should join forces to explore ways to collaborate on common goals and proactively seek the interest of land developers to undertake some of these initiatives.	Facilitate Center Investment	
EDUCATION				
PACTS	GPCOG, Municipalities, Developers, Financiers	Design and offer co-sponsored workshops and “How To” tools, with municipalities and other public, private, and nonprofit entities, on recent housing trends, preferences, traffic management techniques, the realities of financing development, techniques to create desirable public spaces and other topics that help create the kind of places desired.	Share Best Practices Create Partnerships Facilitate Center Investment	
PACTS	GPCOG	Periodically convene community planning (and development) staff in strategic planning sessions to discuss: <ul style="list-style-type: none"> ○ current research on how successful centers are created, ○ what is and is not working in terms of developing centers to be more transit, bicycle and pedestrian friendly, 	Provide Targeted Technical	

Figure 6.1 GENERAL RECOMMENDATIONS FOR TRANSIT SUPPORTIVE DEVELOPMENT

Figure 6.1 GENERAL RECOMMENDATIONS FOR TRANSIT SUPPORTIVE DEVELOPMENT				
CATEGORY				
Lead Entity	Partners	Actions	Primary Objective	Priority (S, M, L)
		<ul style="list-style-type: none"> ○ what may be holding member towns back from investing in centers, ○ how they may assist with identifying strategies for streamlining/design/community engagement efforts that seem to work, ○ what other technical assistance needs exist, ○ ways they might work with local, state, federal, public, private and nonprofit partners to secure resources to meet center-focused needs. 	Assistance	
REGULATION				
Municipalities		<p>Amend ordinances to reflect master plans that:</p> <ul style="list-style-type: none"> ○ allow mixed use districts ○ create clear standards and incentives ○ avoid creating more permitting hurdles for desired variation in housing ○ ensure the amount of process is proportionate to how well the proposal meets the vision and scale of the center ○ reduce the required number and configuration of parking spaces required ○ encourage and/or require shared parking, and ○ prevent the creation of new dead end streets unless there is a significant reason for one (i.e., to avoid a valuable natural resource) ○ include provisions to require subdivisions to provide for extension of streets into adjoining lands to expand an interconnected street network over time ○ avoid internal inconsistencies, including formatting redundancies or gaps ○ seek opportunities for reorganizing text into tables and include graphics that help explain or illustrate concepts around design relationships ○ create more precise design standards and submission expectations with the goal of reducing redundant reviews within the growth centers ○ reward proposals that meet the vision for the center with a more streamlined and timely permit process ○ provide more informal reviews (administrative vs Planning Board) ○ combine the review responsibilities of various boards and committees ○ increase use of consent agendas and/or permit by rule procedures 	<p>Facilitate Center Investment</p> <p>Facilitate a Street Grid</p> <p>Reduce Impacts</p> <p>Reducing Time & Cost of Processing Permits</p>	
ADVOCACY				
PACTS	GPCOG	Regularly evaluate State laws and bills related to transportation, community development and financing to make sure that member municipalities take	Facilitate Center	

Figure 6.1 GENERAL RECOMMENDATIONS FOR TRANSIT SUPPORTIVE DEVELOPMENT

CATEGORY				
Lead Entity	Partners	Actions	Primary Objective	Priority (S, M, L)
		advantage of opportunities to adjust them in favor of center development.	Investment	
PACTS	GPCOG	Partner with organizations that have similar missions (including those with development interests) across the state to pursue state and federal funding for research, including market research and development models that would support the kind of centers desired.	Create Investment Partnerships	
PACTS	GPCOG	Seek opportunities to improve MaineDOT funding programs to assure that preference is given to centers of opportunity.	Funding Opportunities	

THIS PAGE INTENTIONALLY LEFT BLANK

6.2 Recommendations by Center

Specific recommendations for each of the centers evaluated in this study are outlined here. All except for Standish, which has already done so, should first create a master land use and street network plan that focuses on the specific character, mix and intensity of uses they hope to attract to the center. Master plans should include public investments beyond streets and utilities, such as parks and playgrounds, gateways and gardens that make a center attractive for people. Whenever possible, streamlining codes and processes to simplify implementation of the master land use and street plans should be done simultaneously. This will require a regimen of trust building in the center for residents, as well as land and business owners. While this can often be a time consuming and expensive endeavor, it is worth the effort.

“For millennia, around the world, in different cultures, different continents and different climates, we built places scaled to people. It has only been the last 60+ years that in North America gradually stopping walking and started driving. For thousands of years prior, we walked everywhere, and so our places were built around people who walked. While there are many variations on a theme, the spacing, scale, proportions of these places were very similar to one another.” Chuck Marohn

In general, more mixed uses and a wider range of small scale nonresidential uses need to be allowed, along with densities and intensities that speak to dense urban locations for Portland and South Portland or to the New England Style Village for Westbrook, Gorham, Scarborough and Standish. It’s also important to codify standards relative to parking and pedestrian and bicycle travel in a way that supports transit. In this undertaking, also plan for any street improvement needs, including wayfinding, to assure that a complete street policy will be met as improvements are made.

And in all but Portland and South Portland, which are fully served in the centers studied, policies and programs including funding mechanisms for developing or extending utilities and making other public improvements are needed. It is important that these policies and programs consider creative partnership approaches that will serve as an incentive for developers to create the infrastructure that will achieve the desired results. A number of other tools, such as the integration of community and economic development initiatives with planning, land assembling, regional permitting and fee structures should also be utilized. The General Recommendations in section 6.1 describe these approaches in more detail.

6.2.1 South Gorham & North Scarborough

Representatives from these two adjacent centers decided early on to work together. One of the biggest barriers to achieving the land use patterns envisioned in the Land Use Recommendations that follow is the lack of a decision on the part of transportation and regulatory agencies regarding the addition of new transportation capacity to relieve congestion-related delays experienced there today and for the past several decades. Both communities were clear that without a transportation solution, it would be difficult to create the kind of centers envisioned. No one who attended the public meetings during this planning effort favored a solution that added more than one new lane on Routes 22 and 114; rather, the communities envisioned a maximum of 3 lanes between the two major intersections that flank the ‘overlap’. The predominant sentiment of citizens who participated in the planning discussions is for the Turnpike to build a spur and allow this area to serve local needs.

In addition to the need for a long-term traffic solution, the lack of a public wastewater system to protect a highly valued aquifer beneath the area is also a barrier to achieving the desired intensity and style of development here. While Utility Recommendations are also included in this report, the challenge of securing funding for public wastewater service into the area is likely to take some time.

In the interim: With these barriers in mind, the communities should as soon as possible commission the development of a master plan that takes into the account the anticipated time lag for both the transportation and wastewater solutions to be realized and thus design the land use plan and code in a way that acknowledges the need for strong access management and private on-site wastewater systems until such time as decisions are made to extend public sewer to the area.

Land Use Recommendations:

- ❖ **Gorham** should collaborate with Scarborough to develop a master plan for South Gorham and North Scarborough to include a local and connector street network, parks and playgrounds, gardens, greenways and gateways; the master plan should include a framework for how the public improvements will be funded. The result of this effort would be to revise its land use code so that the use of contract zoning is discontinued or significantly reduced in this center. Because so many parcels have used this vehicle, the town should adopt the content of the contract zones, with some revisions as a starting point for the primary designated zone.
 - ✓ A new “high intensity mixed use” zone should be created in an area roughly 1500’ in diameter from the intersection of County Road and Blue Hedge Road that creates a ‘campus style’ village development scheme⁵³.
 - ✓ Outside the “high intensity mixed use” zone and toward the North Scarborough center, a new zone for the area along both sides of the County Road to the Gorham Town Line should be designated “low intensity mixed use” with as few access points along the arterial as possible (preferably at the intersections of existing streets only) and this zone should require access from a parallel street network.
 - ✓ Gorham should also adopt Scarborough’s aquifer protection zone and standards.
- ❖ **Scarborough** should collaborate with Gorham to develop a master plan for North Scarborough to include a local and connector street network, parks and playgrounds, gardens, greenways and gateways; the master plan should include a framework for how the public improvements will be funded.
 - ✓ The Town should adopt a new “high intensity mixed use” zone roughly 2000’ in diameter from the intersection of County Road and Saco Street to create a New England style village.

⁵³ “Campus style” is a term that was used by the South Gorham residents at a neighborhood workshop; additional discussions with residents are needed in order to clarify intent.

- ✓ The Town should rezone the remaining frontage along County Road in a way that matches the recommended “low intensity mixed use” zone in South Gorham. Because this segment of County Road includes the intersection of Route 22 and 114, there should be no new access points or intersection except possibly on the north side of the highway across from Route 114 intersection.
- ✓ The Town should determine whether the incentive it currently has for conservation subdivisions in this area remains relevant in terms of its vision for a traditional neighborhood settlement pattern.
- ❖ Both municipalities should explore whether they are willing to coordinate joint development review and approvals where appropriate in proximity to the town line.
- ❖ Both municipalities should ensure that regulatory procedures in these centers are streamlined for development that meets the vision for the centers.

Utility Recommendations:

- ❖ Gorham and Scarborough should form a partnership that begins with evaluating the existing feasibility study for extending sewer facilities from South Gorham and determine whether it needs to be updated or expanded to include consideration of extending it from Westbrook. This partnership should be balanced to apply the largest cost to the community with the most to benefit.
 - The feasibility study should identify the estimated cost as well as the best vehicle to use to recoup costs (including but not limited to TIF, impact fees, special assessments or public private partnerships, public bonding, tax base sharing, a combination of these tools etc.).
- ❖ While public water does not exist in this location, the presence of the aquifer may be a viable resource to tap into. While individual wells are likely to be more than adequate to serve existing and future needs, both municipalities should consider including this consideration in the sewer extension feasibility discussions to determine whether a community water supply system may create efficiencies and savings for all concerned and also make it easier to protect source water from contamination.
- ❖ Unless policies and regulations are adequate to guide the desired growth, both municipalities should consider extending the wastewater system first along a conceptualized future parallel road that is part of the interconnected street network on the north side of the arterial. Doing so would encourage development access on the parallel road and its cross connections to the south side of the County Road where sanitary sewer can be further extended. Avoiding placement of the utility in Route 22/114 will help to avoid the temptation to further strip out the arterial without building the local interconnected network.
- ❖ Both communities should work with PACTS and other communities to identify and prioritize capital improvement projects that have a regional impact.

Transportation Recommendations – County Road - Route 22/114:

The following recommendations are made on the assumption that additional capacity via a new turnpike off Route 22 and 114 will be implemented and that the existing ‘overlap’ area be designed as a 3-lane facility with an interconnected local street network flanking the existing corridor.

- ❖ Because both communities have adopted a *complete streets* policy, they should incorporate implementing standards in their respective ordinances.
- ❖ Based on the STPA rule, both communities should adopt a plan that stipulates the characteristics desired for the Route 114/22 corridor. The plan should specify:
 - ✓ A right of way width of 80’ with two through lanes and one shared turn lane where needed.

- Lane widths of 11' or 12', with minimum 5' wide shoulders to accommodate bicycles – this template requires 43' to 46' of the 80' right of way
 - On-street parking along the roadway should be planned in the areas considered for high intensity; while the width of right of way in the low intensity area between the two will accommodate on-street parking in the future, the communities recognized it would not likely be needed for some time – this template would add another 20' to the right of way for a total of 63' to 66'
 - Minimum 5' wide sidewalk – this would increase the right of way need from 73' to 76', leaving 4' for snow storage.
- ✓ Access management and traffic calming to create a 25 mph speed zone in the centers and a 35 mph zone in the segment between them.
- ✓ Street lighting and streetscaping features consistent with an arterial roadway.
- ✓ Optimal locations for cross traffic at planned/existing intersections to include safe pedestrian crossing features.
- ✓ Planned locations for bus shelters, park 'n ride lots and bicycle facilities should be in and around the major intersections.
- ✓ The typical cross sections provided in this document may be used to create a hybrid that meets the communities' needs for:
 - County Road
 - Parallel and connector roads
- ❖ Both communities should develop or seek partnership with developers to develop an interconnecting street network beginning with the parallel street at the north of Route 114/22.
- ❖ While there is no transit route traveling through this center today, development intensity and density should be monitored so that transit providers are periodically updated with information to help them determine when a transit route may be warranted. It is recommended that the high intensity areas at either end of this center have at least 50% of the land area developed at a density of at least 8 units per acre before conducting an evaluation on whether to expand transit services into the area.

The illustrations on the following pages are intended to assist the communities with beginning the master plan conversations.

Figure 6.2.1A *Conceptual road network of South Gorham & North Scarborough, Center of Opportunity*
Sketch of Ideas for discussion only – this is not a proposal

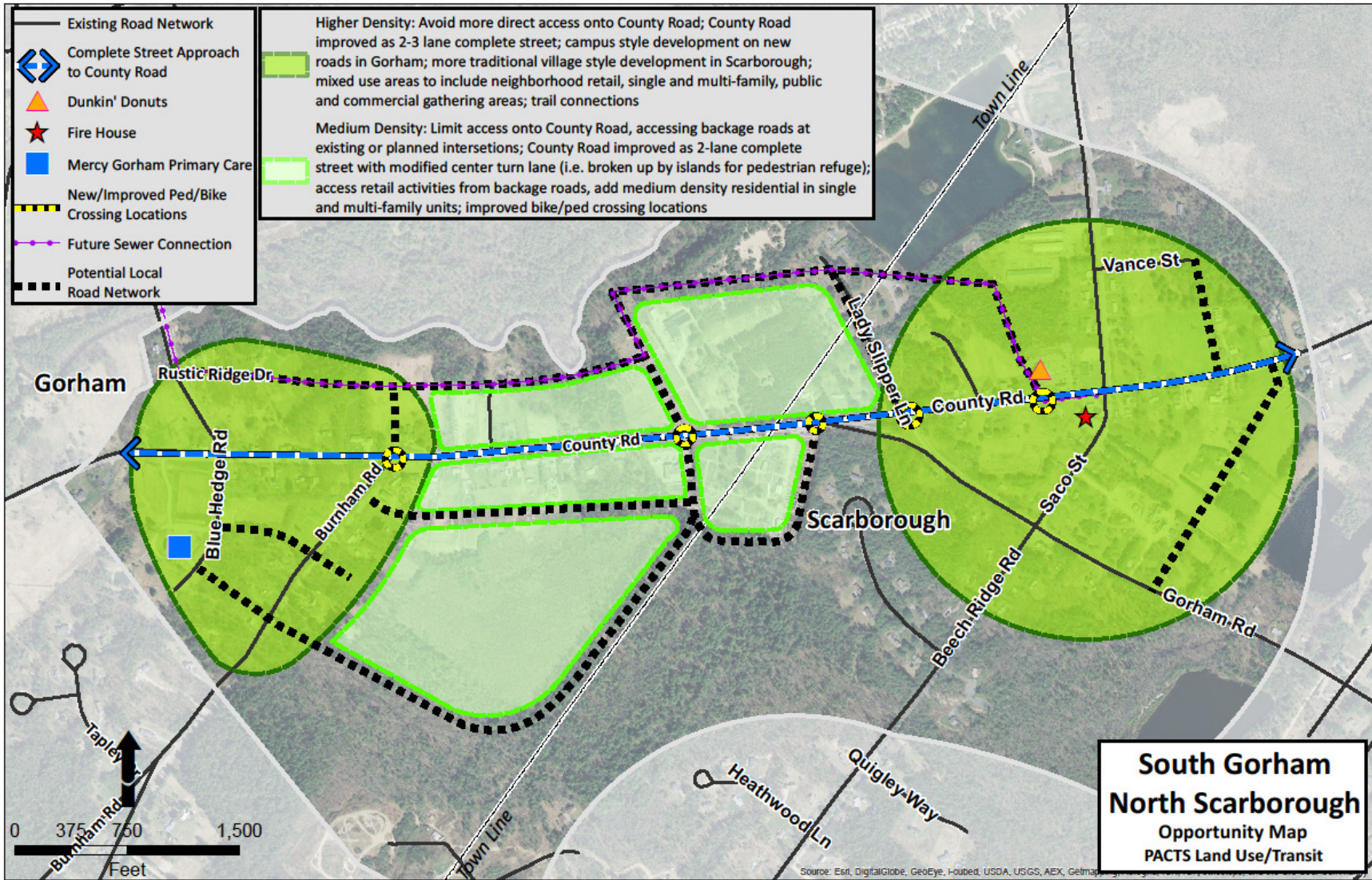
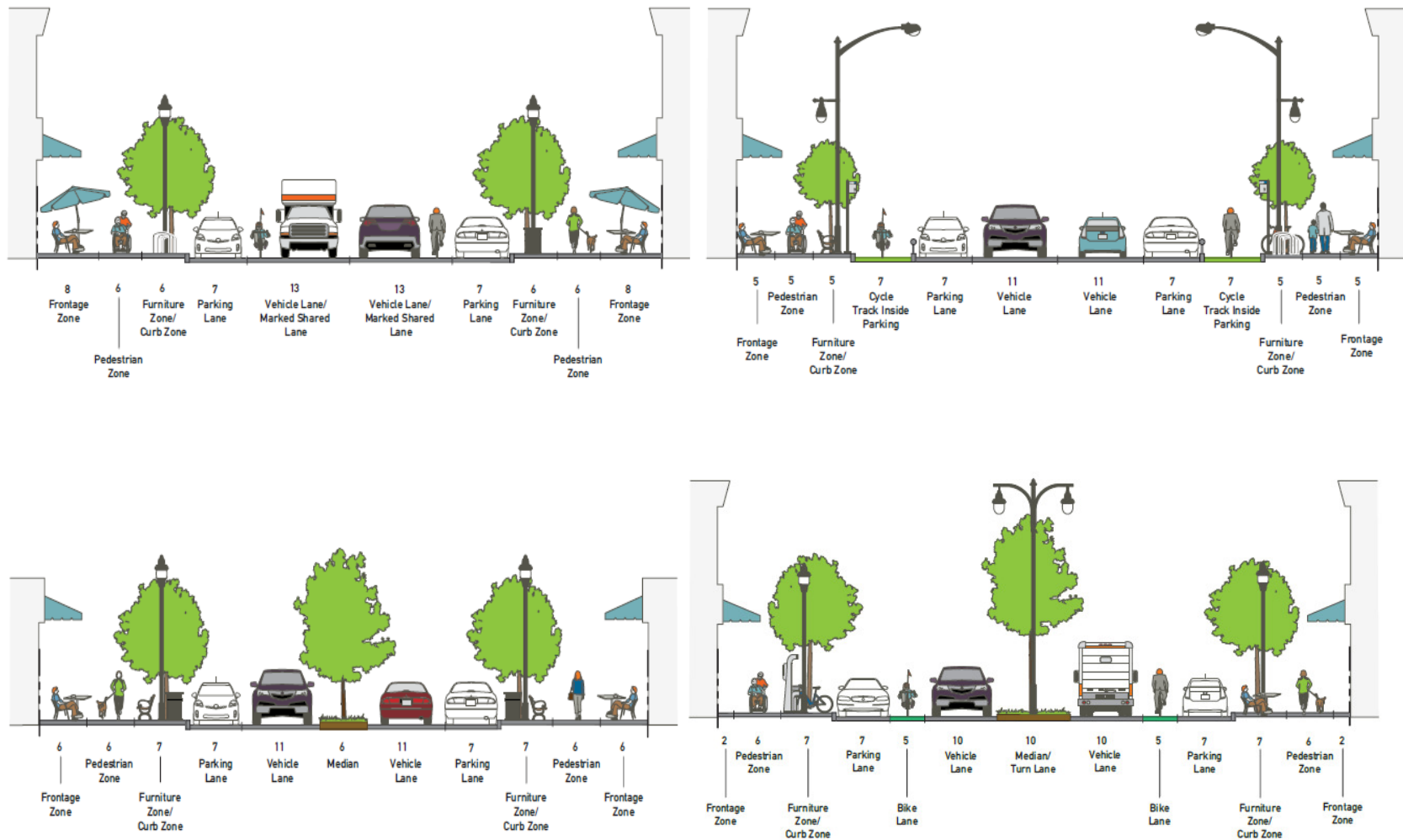


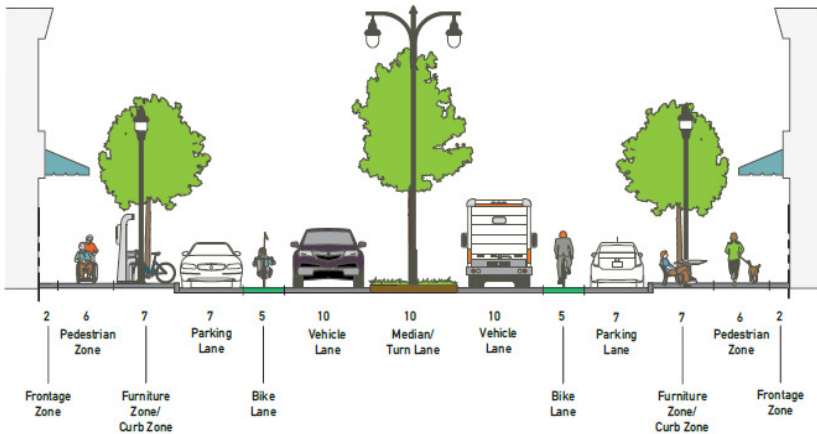
Figure 6.2.1B – Possible Cross Sections

Possible Cross Sections for County Road within the Higher Intensity (Village or Campus) Centers – Source: <http://activetransportation.org/Design>



Each of these options may be modified to provide more or less of each component in order to address community preferences.

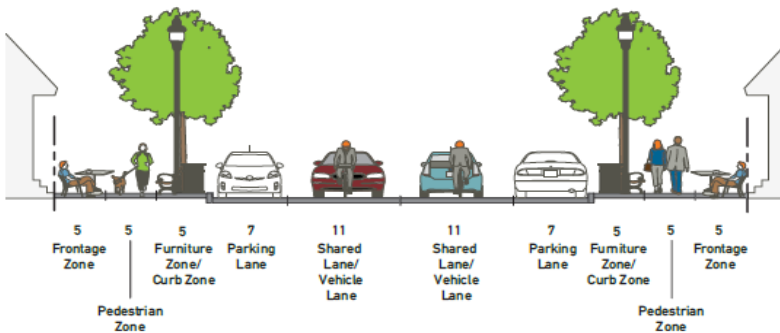
Possible Cross Section for Lower Intensity County Road in the Overlap - Source: <http://activetransportationpolicy.org/Design>



While the cross section to the left shows the opportunity for on-street parking, the communities have suggested that it may not be needed in the overlap in the near term.

The overlap area will remain higher speed than the village or campus centers at either end. As such, wider lanes for driving, turning and bicycling may be warranted.

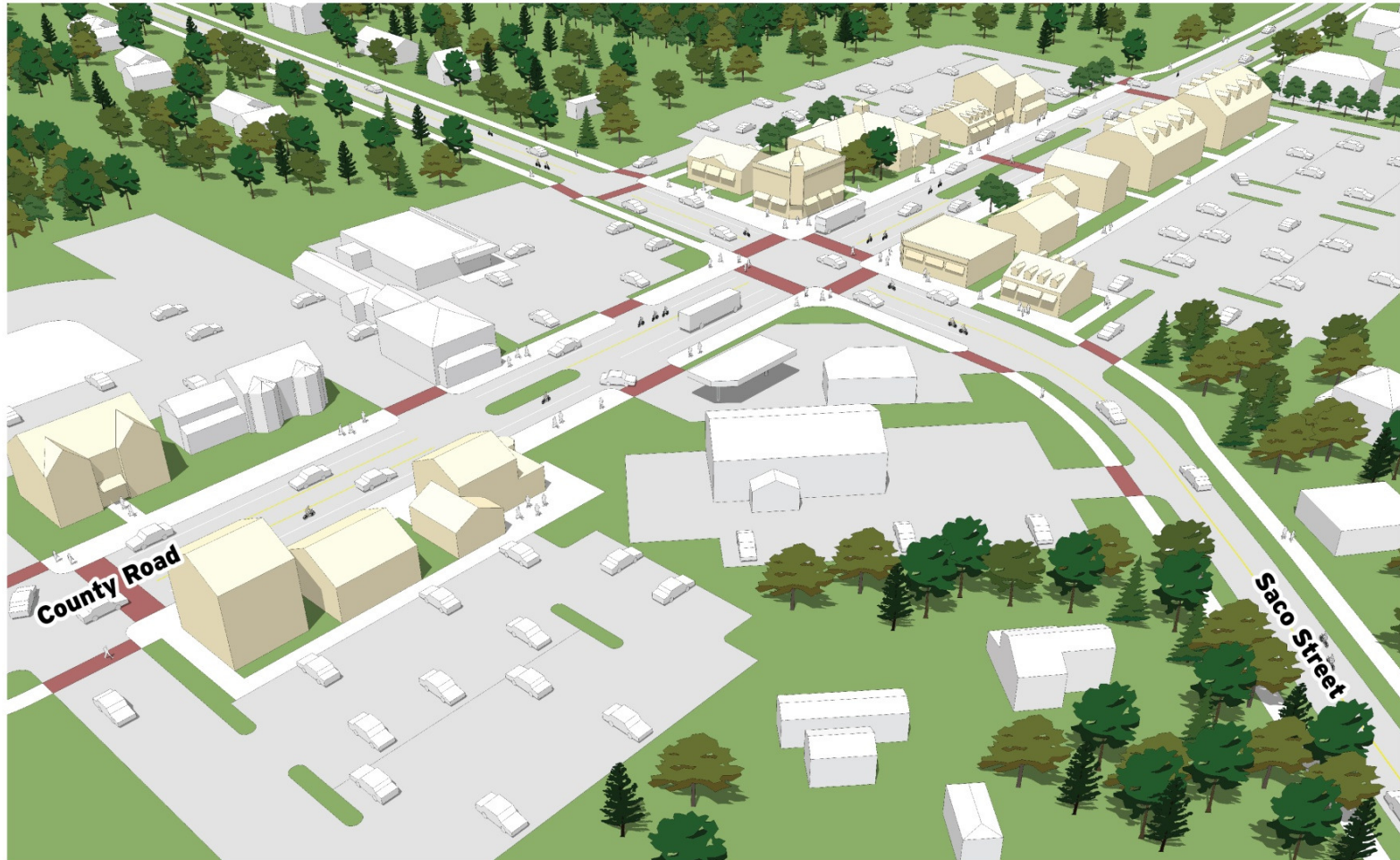
Possible Cross Section for New Parallel and Cross Connector Streets



New Parallel and Cross Connector Streets are typically low volume local roads with slower speeds to accommodate the mix of activities located there.

As such, bicyclists can more safely share lanes with through traffic; however, community preference may opt for a wider right of way that allows for separated bike lanes in each direction.

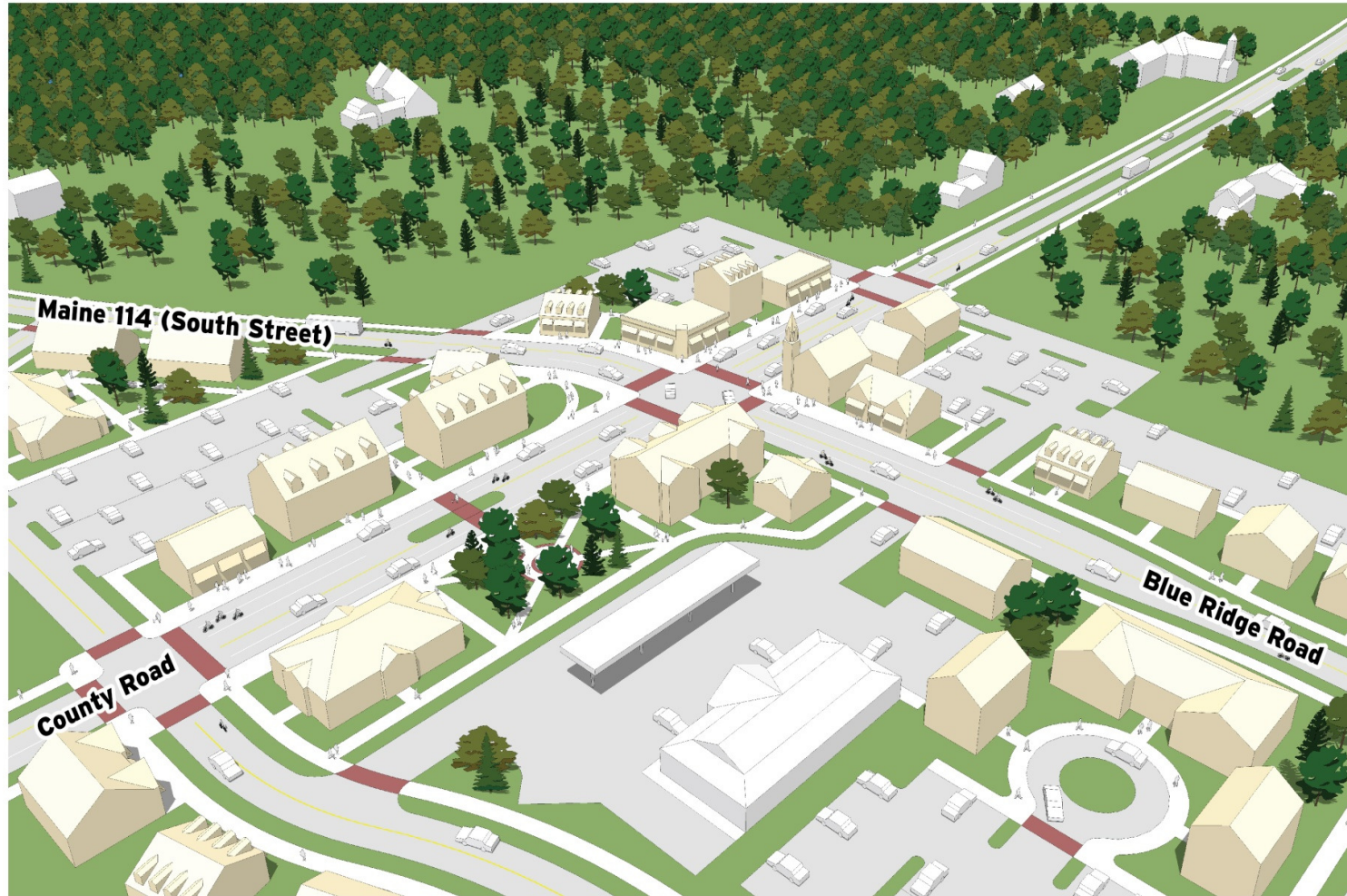
*Figure 6.2.1C - North Scarborough – 20+ Years –
Sketch of Ideas for Discussion Only –Not a Proposal*



Scarborough
Intersection of County Road and Saco Street
Looking northeast



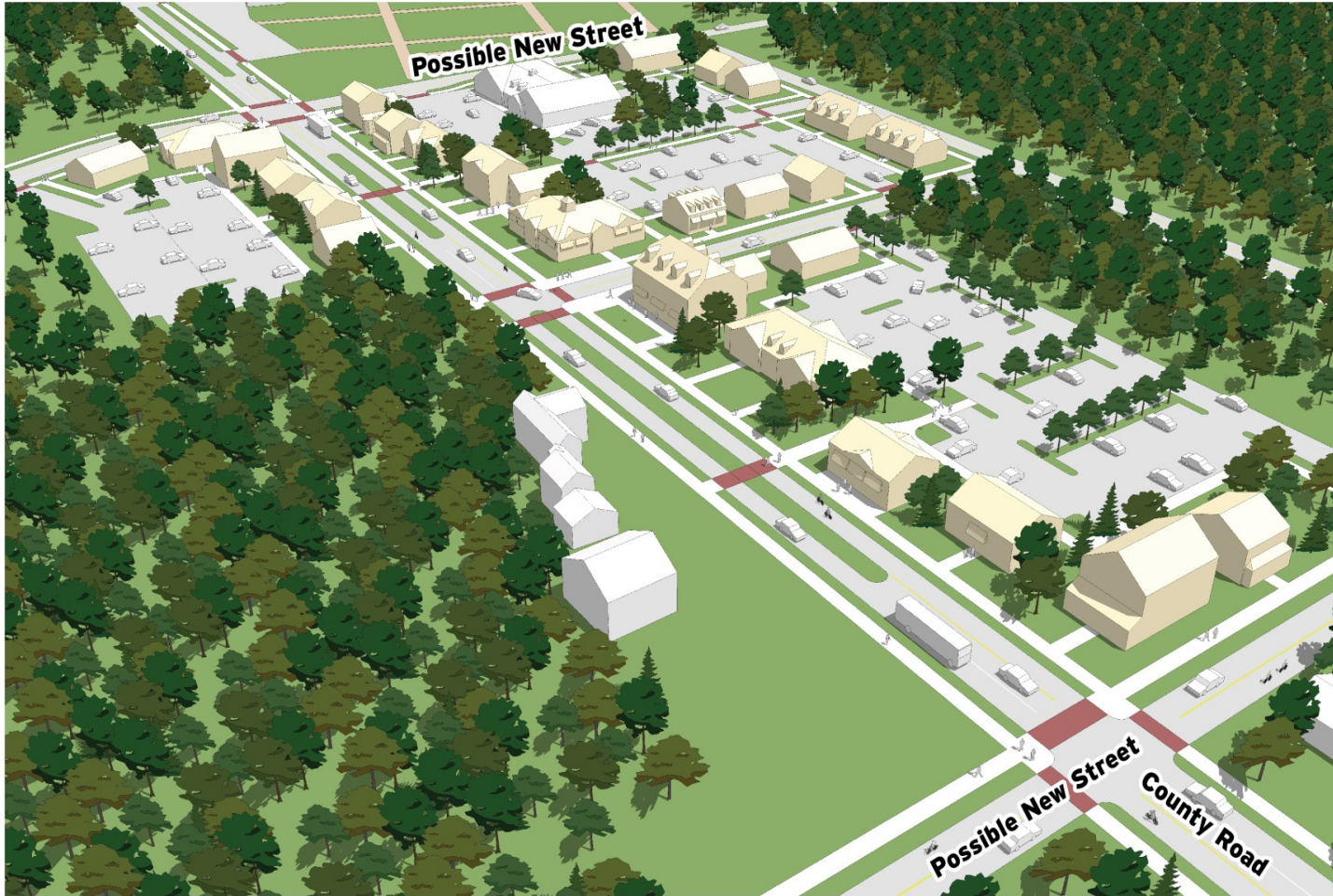
*Figure 6.2.1D – South Gorham – 20+ Years –
Sketch of Ideas for Discussion Only – Not a Proposal*



Gorham
Intersection of County Road and Maine 114/Blue Ledge Road
Looking northeast



*Figure 6.2.1E – County Road Overlap – 20+ Years –
Sketch of Ideas for Discussion Only –Not a Proposal*



County Road - Long-Term

Near O'Donal's Nursery between Gorham and Scarborough
Looking southeast



6.2.2 Libbytown

Libbytown is a mixed used center, hosting the Portland Transportation Center (PTC) including the Amtrak Downeaster and Concord Coach intercity bus line. The center is characterized by multiple zoning districts, and underdeveloped areas with substantial redevelopment potential. Metro Routes 1 and 5 serve the area. New development is underway after significant planning and public infrastructure investment. Numerous infill ideas resulted from the planning sessions held there (see Chapter 3).

This area is well served by utilities and Metro. The biggest challenges for this area to improve its status as a Center of Opportunity may be to simplify the development review process while still maintaining the strong sense of character and high standards that make Portland so successful.

Land Use Recommendations:

- ❖ Portland should undertake neighborhood master planning for mixed use with an eye to reducing/consolidating/simplifying some of the zoning designations, particularly along Congress Street, as well as increasing density/intensity and clarifying standards relating to character.
- ❖ Before modifying existing ordinances to implement the master plan, the City should review, recodify and simplify ordinances and streamline development review procedures.
- ❖ Ordinances should reflect increased intensity and mix of uses in Westgate Shopping Plaza and the City should seek partners to redevelop the Westgate Shopping Plaza by expanding local options such as the addition of gathering places like greenhouses, pubs, coffee shops and bakeries and/or structures over the parking.
- ❖ Redevelopment of the area around Denny's with a large multilevel structure containing retail and service on the ground level with residential activity on upper floors is recommended. Burnham Street near Denny's should be discontinued and the nearby park should be expanded into the area of the discontinued street. Promote renovation of structures to artist lofts nearby.
- ❖ Work with Concord Coach, the Northern New England Passenger Rail Authority and Forefront Partners⁵⁴ to explore ways to make better use of the Portland Transportation Center complex by potentially constructing a building over the top of existing surface parking. Consider moving the bus and rail station to Thompson's Point, freeing up the current site for additional development. Buildings in this freed up area should consider retail and service on the first floor above surface parking with residential units on upper floors.
- ❖ In the future, if conditions allow, partner with MaineDOT for the removal of redundant ramps; either purchase the land from the State or obtain a long-term lease that allows the City and potential partners to redevelop the parcels. The land areas (shown in gold on the map) within the ramps should be considered for high-density multistory residential units with retail and service uses on the ground floors⁵⁵.
- ❖ Consider expanding the Transit TIF district currently designated for Thompson's Point to include all or at least some additional portion of Libbytown.
- ❖ Work with PACTS and other communities and partners to identify and prioritize capital improvement projects that have a regional impact.

⁵⁴ This recommendation has not been discussed with these parties to date.

⁵⁵ A recommendation similar to this in the Libbytown Study completed in 2014 was not supported by MaineDOT; residents of the area continue to press for this and as such it is included here as something to consider in the future should current conditions change.

Transportation Recommendations - Congress Street and portions of adjoining neighborhood streets:

- ❖ Explore connecting the end of Westland Avenue parallel to the rail line to the end of Powsland Street and then on to Thompson's Point Road as an alternative route to and from Thompson's Point.
- ❖ Expand access management options whenever possible as development occurs.
- ❖ Improve crosswalk markings at Sewall Street, Fore River Parkway, Lassell and Stevens Avenues.
- ❖ Add bike lanes along Congress Street, Fore River Parkway, Park Avenue, Sewall Street and Westland Avenue and at side streets.
- ❖ Add bicycle facilities at bus stops and shelters along Congress at Westgate Plaza, near Caleb Street, between Powsland and Mitton, at Sewall Streets and Clarion Hotel entrance as well as the stop between Massachusetts and Douglass Streets.
- ❖ Add bus shelters at bus stops without shelters.
- ❖ Add additional street lighting along Congress Street at locations where light coverage does not meet minimum requirements and at Fore River parking areas.
- ❖ Add security lighting along the trail traversing land adjacent to the westbound Fore River ramp.
- ❖ Expand wayfinding signage, particularly at Fore River Parkway and in vicinity of ramps.
- ❖ Add street trees/plantings for aesthetics, shade and traffic calming.

Figure 6.2.2A – Center of Opportunity – Libbytown/Portland – Development Concepts

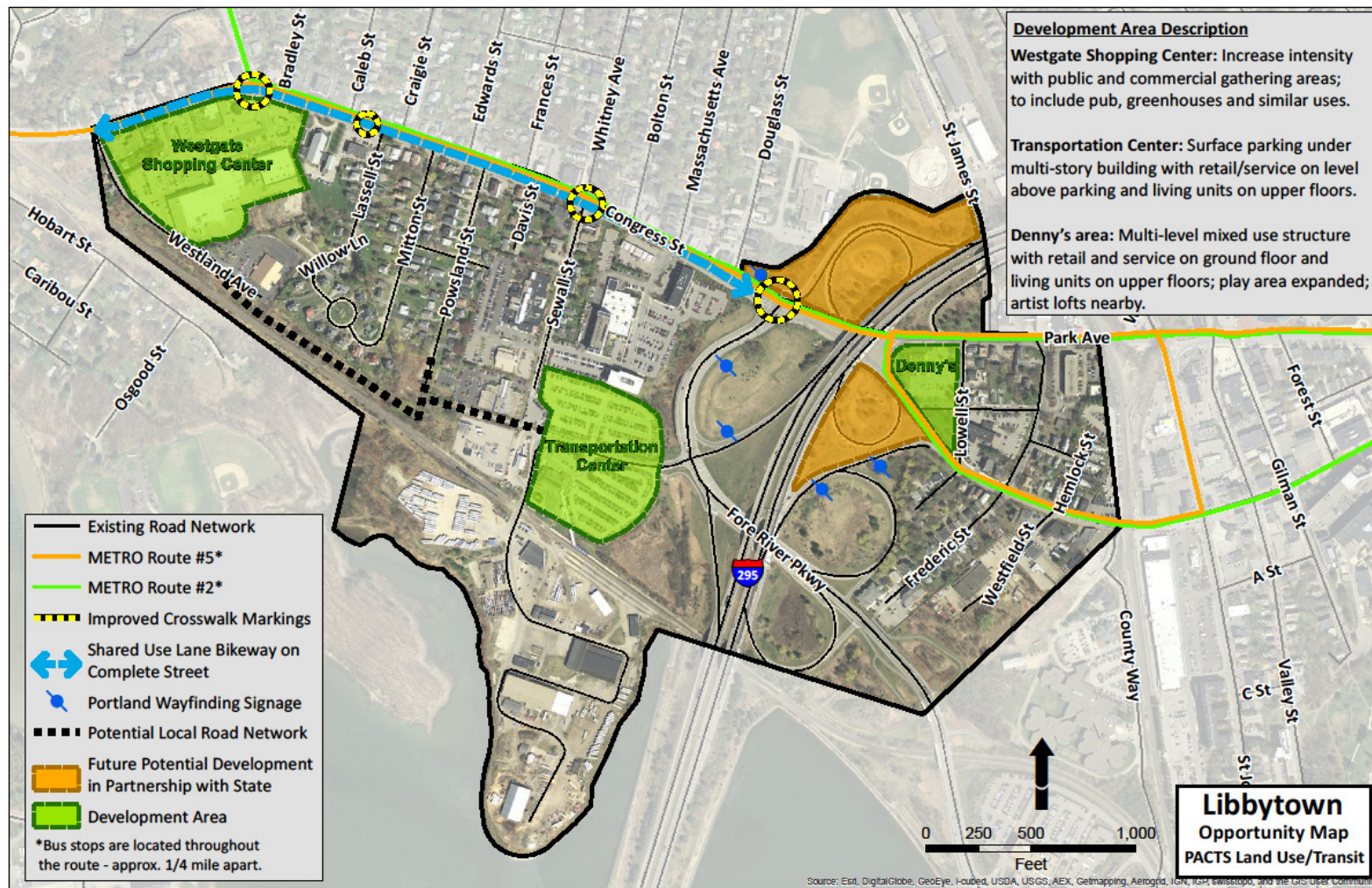




Figure 6.2.2B - Redevelopment concepts

Sources:

Top Left: <http://www.embreydc.com/zoning-approved-urban-development/>

Top Right: <http://gothamgreens.com/our-farm/>

Bottom Left: <http://thebaumfoundation.org/highlights/unep-implement-future-we-want>

Bottom Right: <http://www.columbusunderground.com/forums/topic/dublin-historic-downtown-urban-development>

6.2.3 South Portland's West End - Redbank/Brick Hill

Redbank is a long established neighborhood that is now surrounded by busy highways leading to the Maine Mall, Jetport and surround commercial areas. It includes residential and service uses with few retail options requiring residents to make shopping trips out of the neighborhood. Within the center, *Brick Hill* is also a mixed-use area, incorporating office and mixed residential uses in an existing campus-style layout. Walking and bicycling facilities are minimal with substantial gaps. Adequate utilities exist; South Portland bus route 24A and 24B service this area but residents wanted it expanded to include evenings and weekends.

Numerous ideas for improving the center were collected at two outreach events; many are included here.

Land Use Recommendations:

- ❖ The City should undertake a master planning and market feasibility effort for the area to determine whether it can support a new mixed use zone to replace some of the existing zoning districts or portions of them; this effort should also explore increasing the mix of use, as well as density/intensity of development and refine standards to create desired character.
 - Some ideas for increasing mix of use include: local retail oriented businesses such as bakeries, ice cream shops, deli's and ethnic grocery and food service, etc.
 - Consider increasing height limits to six stories if allowed by Federal Aviation Administration.
 - Expand social service offerings by utilizing land near the gymnasium at the former Redbank Village Elementary School site; combine with a new Resource Hub there.
 - New developments on vacant or redeveloped parcels should include retail ground floor with residential upper floors.
 - Look for opportunities to improve or increase outdoor recreation offerings for youth in the area.
- ❖ Create comprehensive transportation and wayfinding plan to guide future transportation investments.
- ❖ Introduce a *gateway plaza* in the vicinity of the bus shelter at Westbrook Street and MacArthur Circle (East/West).
- ❖ Expand the Transit TIF District to fund desired transit improvements in this area as new value is created.
- ❖ Integrate community and economic development efforts and initiatives with planning to recruit businesses to serve local retail, service and gathering places.
- ❖ Work with PACTS and other communities and partners to identify and prioritize capital improvement projects that have a regional impact.
- ❖ Ensure that regulatory procedures in this centers are streamlined for development that meets the vision for the centers.

Transportation Recommendations – primarily Westbrook Street and portions of Western Avenue:

- ❖ Adopt Complete Street principles along Westbrook Street:
 - ✓ Add minimum 5' shoulders on both sides and stripe for bike lanes.
 - ✓ Add more crosswalks.
 - ✓ Introduce traffic calming and reduce posted speed to 25 mph.
 - ✓ Introduce wayfinding signage.
 - ✓ Add street lighting.
 - ✓ Add signage alerting travelers of vision-impaired resident(s).
 - ✓ Improve drainage with curb and gutter system.

- ✓ Increase frequency of buses especially evenings and weekends.
 - ✓ Add park ‘n ride and bicycle facilities at bus stop.
 - ✓ Expand the Long Creek Trail network to Portland using one of the alternatives outlined in the Preliminary Route Feasibility & Cost Analysis for Long Creek Bicycle/Pedestrian Trail prepared by Sebago Technics in August 2009 for South Portland.
 - ✓ Utilize access management whenever possible with new or changes to existing development.
 - ✓ Introduce shade trees and street plantings for aesthetics, shade and traffic calming.
- ❖ Adopt Complete Street principles along Western Avenue leading toward Maine Mall and from Westbrook Street leading toward Broadway and Memorial School⁵⁶:
 - ✓ Improve sidewalks on both sides of Western Avenue from its intersection with Westbrook Street to Clarks Pond Parkway.
 - ✓ Relocate or add a sidewalk on Westbrook Street across Broadway so that it falls on the golf course side and avoids the need for school children to cross both Westbrook Street and Broadway on their way to school; this improvement would reduce required crossings to Broadway only.
- ❖ Add and improve sidewalks within the Redbank neighborhood.

⁵⁶ See Chapter 2 description of a **Site Walk & Bicycling Audit of the Westbrook Street Corridor - Redbank to Skillin/Memorial Schools** conducted by the South Portland Bicycle & Pedestrian Committee with assistance of the Safe Routes to School Program

Figure 6.2.3A – Center of Opportunity – West End (Red Bank & Brick Hill), South Portland



Figure 6.2.3B Needs Identified for the West End



Sources:

Terry J DeWan Associates and

Internet at <http://www.archdaily.com/147386/research-of-sustainable-urban-development-c-colomes-f-nomdedeu-architectes-with-michael-rousseau-architecte-and-adrian-maston-graphiste/>

6.2.4 Standish Corner

This section is divided into two parts. Section 6.2.4A addresses the recommendations that focus on ways the Town of Standish could improve its ordinance procedures and development requirements in Standish Corner as well as promote changes to Route 25 and 35 to comply with Complete Streets principles. Section 6.2.4B represents an expanded study emphasis that explores the feasibility of a conceptual road network at Standish Corner that was adopted by the town in 2007.

6.2.4A

Land Use Recommendations:

- ❖ While Standish has recently adopted a master plan and related codes for Standish Corner, a number of changes may be in order. For example:
 - 1) Density does not appear to be high enough to support private financing of roads/community septic.
 - 2) Even though a TIF to help finance infrastructure is in place, it stipulates that revenues cannot be used to reimburse a developer for any public investments made. A review of these limitations should be conducted with the idea of amending the TIF to make it more appealing to developers.
- ❖ The adopted code, as currently formatted, and related review processes may be too complicated to attract interested investors. Consideration should be given to shifting more permitting authority from the planning board to a staff committee of department heads and to securing technology improvements that would allow reformatting the code in a way that transforms pages of text into tables and use more graphics.
 - *Note: While the intent of the online system was a worthy streamlining action, its current set up makes it particularly difficult to maneuver; the town recognizes this barrier and is taking measures to improve the system.*
- ❖ In general, ensure that regulatory procedures in this center are streamlined for development that meets the vision for the center.

Transportation/Utility Recommendations – for Route 25 (and Route 35 as appropriate):

- ❖ Extend sidewalks to both sides of Route 25 throughout Standish Corner.
- ❖ Stripe shoulders on both sides of Route 35 throughout Standish Corner.
- ❖ Add crosswalks at intersections of Routes 25 and 35 with proposed connector roads.
- ❖ Develop and install wayfinding signage throughout Standish Corner area.
- ❖ Introduce street lighting throughout Standish Corner area, which could be paid for through an amended TIF or by applying for grants.
- ❖ Create closed drainage systems for Standish Corner with TIF proceeds or through public/private partnership.
- ❖ Plan for a Park ‘n Ride Lot and install bicycle facilities nearby.
- ❖ Plan for a future location of a bus shelter; once the density of the Standish Corner yields at least 8 units per acre explore the possibility of a new transit route.
- ❖ Utilize access management standards endorsed by PACTS and MaineDOT whenever possible with new or changes to existing development on Routes 25 and 25.
- ❖ Work with PACTS and other communities and partners to identify and prioritize capital improvement projects that have a regional impact.

Additional considerations and recommendations derived for more detailed study funded jointly by PACTS and the Town of Standish follow.

6.2.4B . Standish Corner Connector Road Feasibility Study

The town of Standish was awarded a planning grant from PACTS to undertake a feasibility study of the concepts outlined in the 2007 Final Report: Route 23/35 Corridor Study (Corridor Study), which was undertaken to explore ways to relieve congestion at Standish Corner (see Figure 6.2.4B1). Routes 25/35 are major two-lane regional arterials experiencing heavy commuter volumes that conflict with access to local businesses and pedestrian/cyclist activity. The goal of the 2007 Corridor Study was to develop recommendations for access management and other strategies to preserve the capacity of these arterials as they pass through Standish Corner. It evaluated bypass and village-style connector road options for relieving the traffic delays that continue to grow at this intersection. In the short term, the Corridor Study recommended increasing separation between Oak Hill Road and Route 25, which was implemented, as was the addition to the Town's adoption of access management guidelines.

While these measures were necessary and important components, it was determined that additional measures should be implemented, if feasible. The goal is to divert vehicular traffic away from the intersection of Route 25/35, since the primary problem is that too much vehicular traffic is being funneled through a single point. The option of evaluating the feasibility of a bypass route was excluded from the scope of this feasibility study after determining that the state would not likely pursue this option for many years. This determination was based on anticipated growth as well as the history in Maine associated with the myriad complexities and high cost of building high speed bypass highways.

The purpose of this follow up feasibility study is to further explore the connector road concepts identified in the earlier Corridor Study to ensure their feasibility and to determine whether the Town should consider reserving lands for connector corridors. This feasibility study will also discuss the regulatory challenges associated with obtaining permits for road building, whether they are built by the town, the state or private entities.

The work envisioned for this feasibility study dovetailed with tasks 3 and 4 of the PACTS Transit Supportive Development (TSD) Study involving Standish and being undertaken at the same time. As such, this work proceeded sooner than was otherwise envisioned. The TSD work done in the study area municipalities is discussed in earlier chapters of this report.

Before a build out of the Standish Corner growth center can be conceptualized, the results of the 2007 Corridor Study were reviewed to determine whether the potential locations of connector roads a) achieve congestion-related relief and b) are practicable (i.e. can be permitted in terms of natural resource impacts) and c) are located such that they provide an acceptable return on investment.

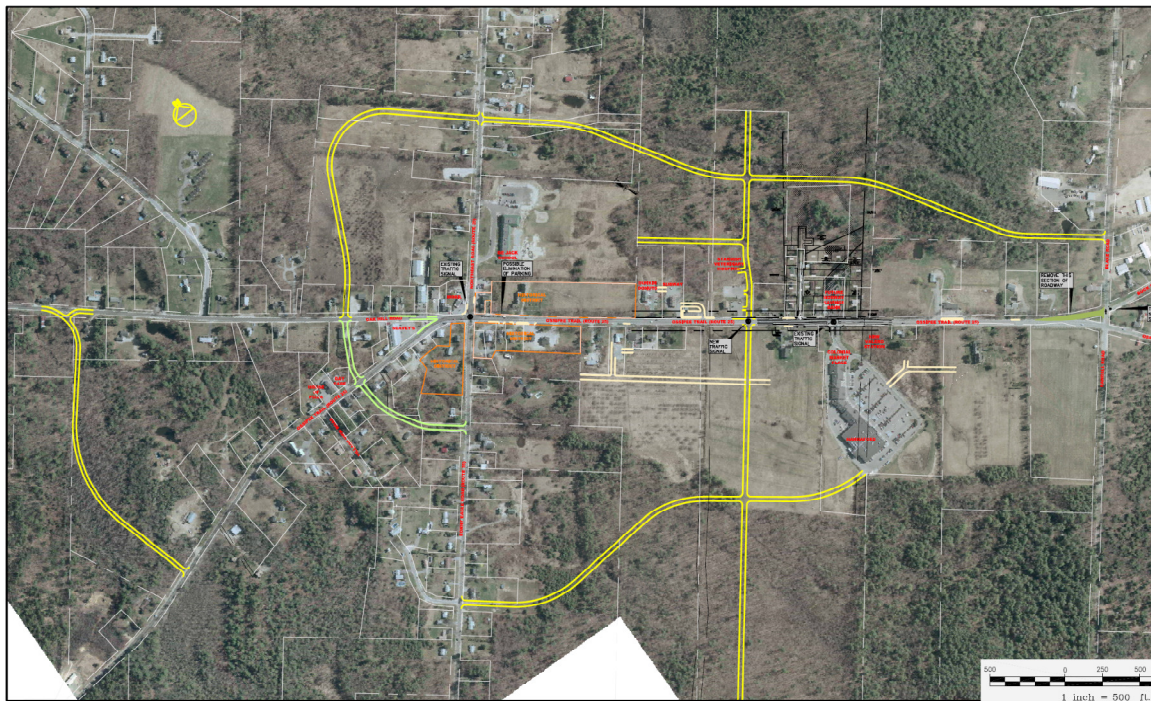
The feasibility and location of the Corridor Study's proposed interconnected street grid was evaluated, with the idea that new streets should allow development on both sides of the road in order to achieve the greatest return on investment. In addition, soils that may be conducive to community septic systems were identified with the idea of preserving them for that purpose.

This analysis was done to assist the Town of Standish in considering how it might proceed with facilitating the implementation of the Master Plan. The following tasks were completed as part of this effort:

- Review the existing traffic and safety data, reports, and studies
- Overlay the 2007 connector road network on current aerial plans and resource maps
- Refine the network to avoid critical resources and review with Town of Standish staff
- Estimate traffic volumes that would utilize the refined local road network and determine the extent to which the traffic diversion would reduce delays at the intersection of Route 25 and 35

- Develop a cost estimate and typical cross section and road specification for a connector road network
- Develop history of growth maps for the Town of Standish
- Hold a public meeting for property owners to review and revise the refined network
- Follow up with smaller groups of property owners to respond to specific questions about the refined network
- Present the refined network to the Town Council at a workshop.

Figure 6.2.4B1 Local Connector Road Concept: 2007 Final Report – Route 23/35 Corridor Study



<table border="1"> <tr> <td>Drawn</td> <td>Scale</td> <td>Revision</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	Drawn	Scale	Revision				<table border="1"> <tr> <td>Design: JTB</td> <td>Date: 11/14/2007</td> </tr> <tr> <td>Drawn: JTB</td> <td>Proj No.: 12116</td> </tr> <tr> <td>Checked: TLD</td> <td>Scale: 1"=500'</td> </tr> <tr> <td>File Name: 12116-MASTERPLAN.dwg</td> <td> </td> </tr> </table>	Design: JTB	Date: 11/14/2007	Drawn: JTB	Proj No.: 12116	Checked: TLD	Scale: 1"=500'	File Name: 12116-MASTERPLAN.dwg		<p>GP Gorrill-Palmer Consulting Engineers, Inc. Traffic and Civil Engineering Services</p> <p>PO Box 1237 15 Sycamore Street Orono, ME 04836 207-657-4910 Fax: 207-657-4912 E-Mail: mgibson@gorrillpalmer.com</p>	<table border="1"> <tr> <td>Drawing Name:</td> <td>Overall Master Plan</td> </tr> <tr> <td>Project:</td> <td>RTE 25 ACCESS MANAGEMENT STUDY, STANDISH, ME</td> </tr> </table>	Drawing Name:	Overall Master Plan	Project:	RTE 25 ACCESS MANAGEMENT STUDY, STANDISH, ME
Drawn	Scale	Revision																			
Design: JTB	Date: 11/14/2007																				
Drawn: JTB	Proj No.: 12116																				
Checked: TLD	Scale: 1"=500'																				
File Name: 12116-MASTERPLAN.dwg																					
Drawing Name:	Overall Master Plan																				
Project:	RTE 25 ACCESS MANAGEMENT STUDY, STANDISH, ME																				

Findings:

History of Growth in Standish: Based on information collected by the United State Geological Survey during the last century as well as on town records, it is clear that residential development in the Town of Standish has grown significantly. In 1920, some 369 homes were concentrated at Standish Corner, in Sebago Village and in Steep Falls and others were peppered along existing roadways with a few located along shorelines. By 1950, with roughly 596 homes in the Town, the shorelines became the most popular locations for building homes, while the three traditional village areas also grew. By 1975, residential development, now at 876, had more than doubled; most new homes built in that time were built along the same roadway grid that existed in 1920. By 2000, the residential base nearly doubled again from its 1975 levels, this time with many short dead end roads extending from the historic road network. In the short 15 years since the turn of the century, this historical pattern of development has continued without interruption albeit at a slightly slower pace; 452 new homes were built. As with other communities without a public sanitary system, this pattern of development follows the path of least resistance, which may be cost effective in the short term but has long term consequences - not the least of which is the growing traffic congestion. The following five images depict the history of residential (red) and commercial (blue) growth in Standish since 1920.

Figure 6.2.4B2 – History of Growth in Standish (5 images)

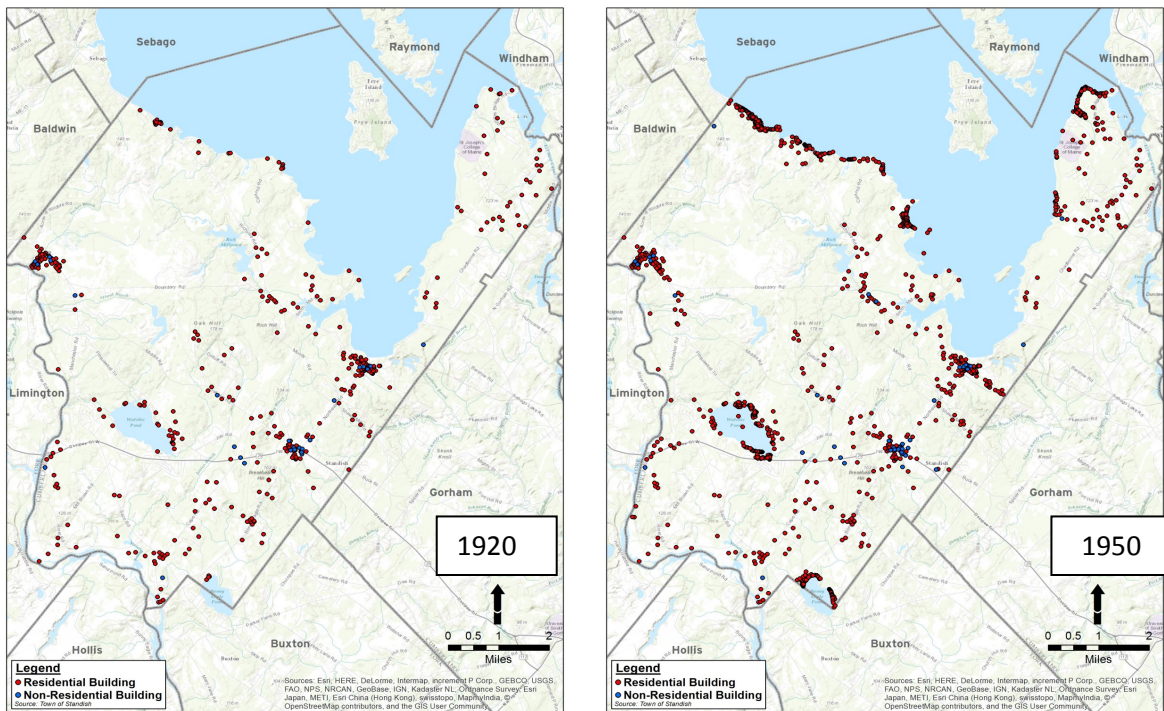
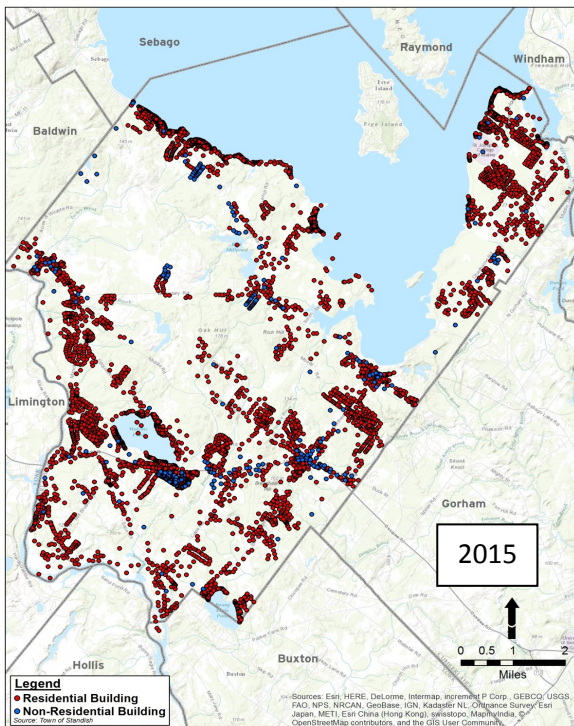
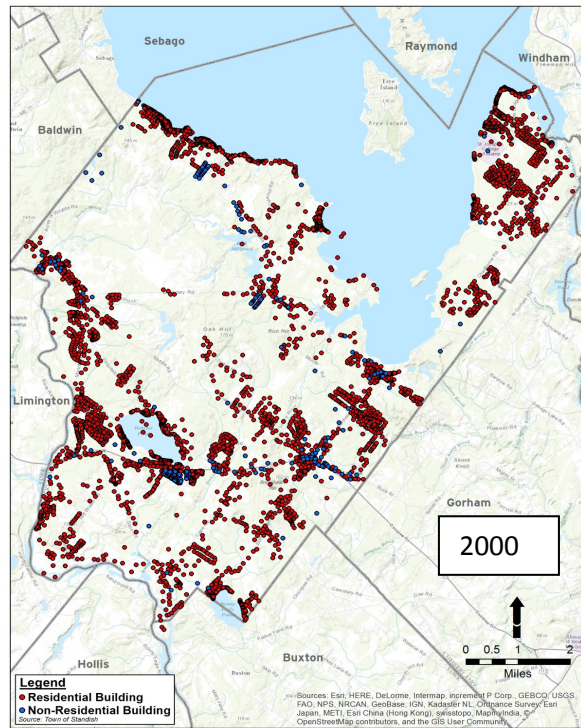
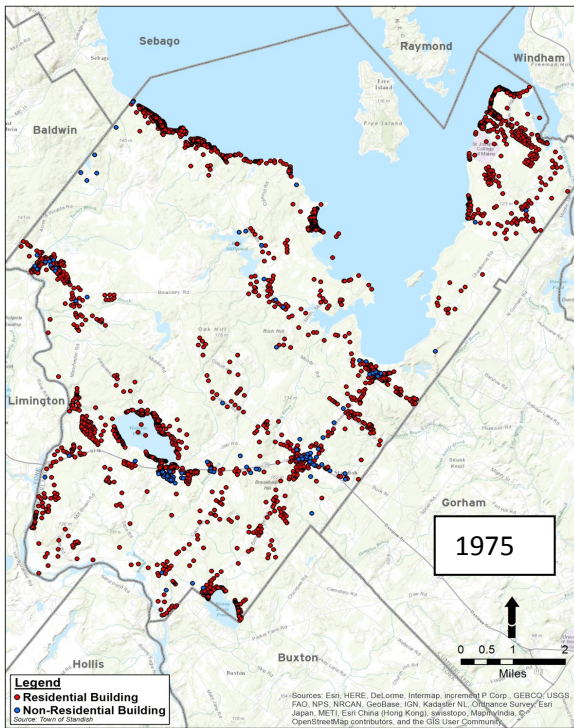


Figure 6.2.4B2 – History of Growth in Standish (5 images continued)



In the coming 25 years or more, Standish is projected to grow by another 1300 households or more and the Master Plan suggests that Standish Corner could accommodate the majority of these if a connector road network is constructed and provision is made to allow development of community septic systems.

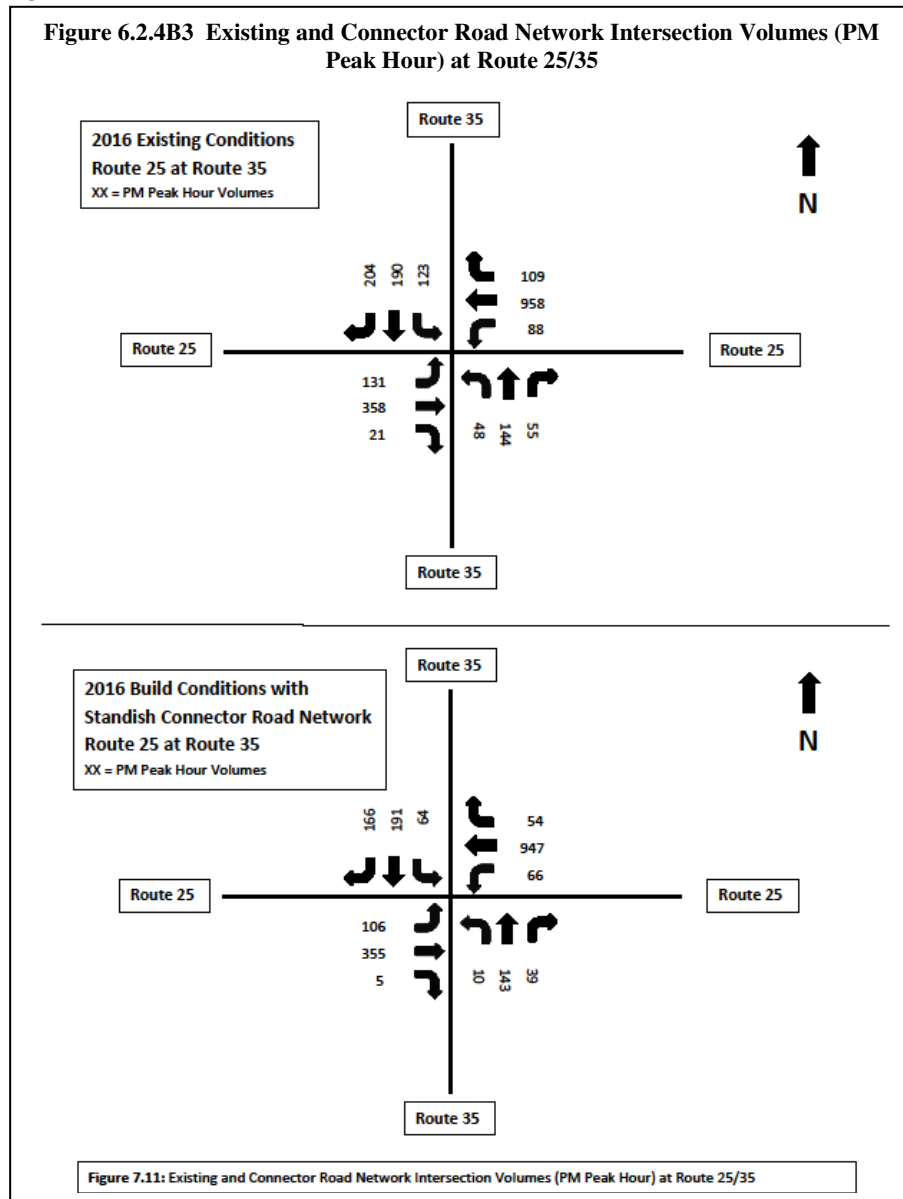
Where in all of Standish will the projected 1300 new residential dwelling units be built in the next 25+ years without additional connectivity? The Master Plan suggested that 600+ units could be directed to Standish Corner.

Traffic Analysis

The volume of traffic that could potentially utilize the connector road network and be removed from the signalized intersection of Route 25 and Route 35 in Standish Corner was estimated. During morning and

afternoon peak travel periods, traffic queues up at this intersection – primarily along Route 25 where traffic volumes are the greatest – causing undesirable delays and creating a safety hazard. Improvements that may involve the addition of additional lanes at this intersection will likely be required in the future if no relief is provided.

Based on the results of the traffic evaluation, the team determined that approximately 12% of all peak hour traffic traveling through the Route 25/35 intersection would be removed reducing delays by as much as 30%. This equates to approximately 285 out of 2,430 total peak hour vehicles using the intersection of Route 25 and 35 today that would likely use the connector road network. A breakdown of the 300 peak hour vehicles using the connector road network follows:



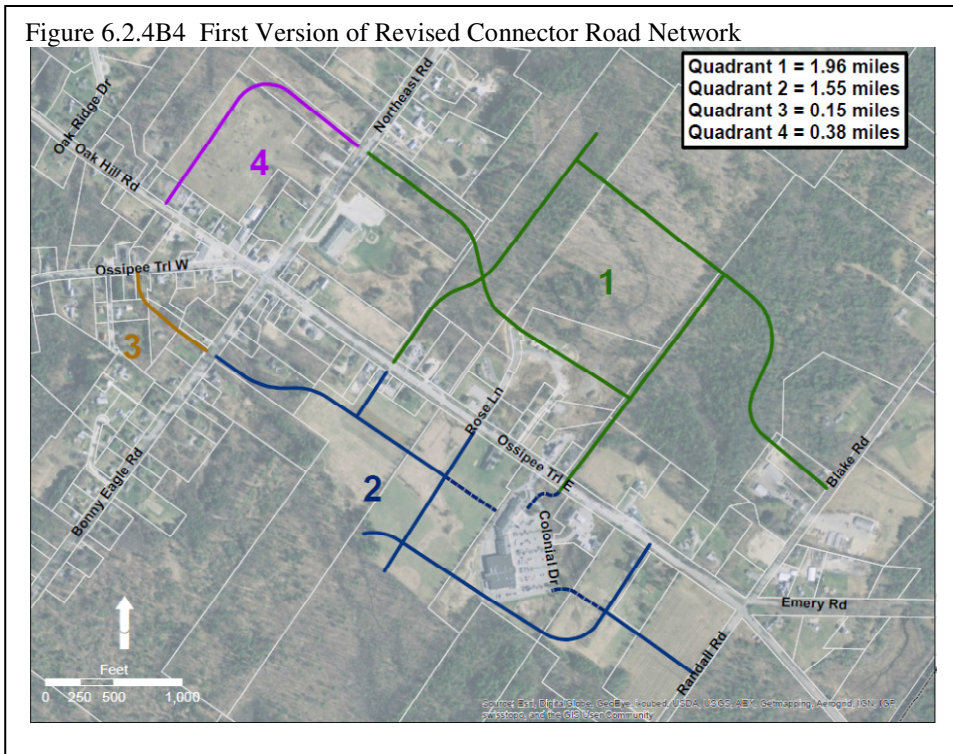
- Between Route 25 east and Route 35 north – 130 vehicles
- Between Route 25 west and Route 35 north – 65 vehicles
- Between Route 25 east and Route 35 south – 40 vehicles
- Between Route 25 west and Route 35 south - 50 vehicles

Figure 6.2.4B3 shows the peak hour volumes at the intersection of Route 25 and 35 for the existing configuration and with the connector road network in place. The volumes shown for the connector road network alternative do not include any new trips that may result from new development along the

connector road network; however, assuming the Master Plan is implemented as envisioned, many of the new trips will use other modes of travel such as walking and bicycling.

Revising the Connector Road Network

Using the 2007 aerial photo provided by the Town of Standish, an evaluation of the conceptual connector road network was compared to available soil and wetland mapping to determine if modifications were needed to avoid critical resources. Streams and wetlands (and related habitats) were identified that conflicted with the connector road network, most notably east and west of Route 25. Known historic resources were also identified.



Soil mapping revealed that most soils in Standish Corner are suitable for growth, including community septic Moderate to extreme slopes that conflicted with the connector road network were also identified.

These conflicts were then reviewed with Town of Standish staff and options to modify the connector road network were discussed. As a result, the conceptual network was shifted to avoid the greatest impacts and a

modified connector road network was developed. This modified network included an additional connection to Randall Road and improved connections to Route 35/Bonny Eagle Road. The first iteration of potential revisions to the connector road network is shown over an aerial photo in Figure 6.2.4B4.

Public and Landowner Input: Figure 6.2.4B4 and the same potential network in relation to identified streams, wetlands, habitats, and soil types were presented at a public meeting to which Standish Corner landowners were invited on October 15, 2015. Roughly a dozen landowners attended; the presentation covered the history of growth, projected growth, the goals of the master plan, the costs of and permitting requirements for building streets and the ways that new streets can be funded, among other findings. In the discussion that ensued, a number of changes were made to avoid impacts to some homes and properties as well as environmental resources.

At a follow up landowner meeting on November 5, 2015, designed to make adjustments to the potential network and discuss how new streets are funded, additional revisions were made. While some property owners expressed concern around the changes this would bring to Standish Corner, there was general agreement that if traffic delays at the intersection of Routes 25/35 could be alleviated, then it made sense to guide the future development pattern in this section of Standish. Additional revisions were made at

this land owner workshop. The final revisions were presented to and discussed by the Town Council at a workshop on November 24, 2015. The final version of the potential road grid is shown over natural resources in Figures 6.2.4B6 and an aerial photo in Figure 6.2.4B7.

Soils most Conducive to Community Subsurface Waste Disposal Systems: The U.S. Natural Resource Conservation Service has an online database with exhaustive definitions that identify soils by type. The Cumberland County Soil Survey was consulted to determine which soil types have been identified in Standish Corner. The soil descriptions include slope, depth to water table or bedrock, as well as drainage characteristics among other descriptive features. For purposes of a Subsurface Waste Disposal, good drainage is key.⁵⁷

In Standish Corner there are nearly two dozen soil types. In general, slopes range from 3-25%, depth to restrictive features runs from 10 to 80+ inches and drainage characteristics of soils in Standish Corner range from very poorly drained, well drained, to somewhat excessively drained and somewhat excessively well drained. A detailed map and table with general descriptions of soil types is included in Appendix F.

Soil Type Name	Acronym	% slope	Depth to restrictive feature	Depth to water table	Drainage class
Hermon sandy loam	HgB	3-8	>80 inches	> 80 inches	Somewhat excessively drained
Hollis fine sandy loam	HrB	0-3	10-20 inches to lithic bedrock	>80 inches	Somewhat excessively drained
Hollis fine sandy loam	HrC	8-15	10-20 inches to lithic bedrock	>80 inches	Somewhat excessively drained
Hollis very rocky fine sandy loam	HsB	3-8	10-20 inches to lithic bedrock	>80 inches	Somewhat excessively drained
Hollis very rocky fine sandy loam	HsC	8-20	10-20 inches to lithic bedrock	>80 inches	Somewhat excessively drained
Merrimac fine sandy loam	MkB	3-8	>80 inches	>80 inches	Well drained
Paxton fine sandy loam	PbB	3-8	18-40 inches to densic material	30-42 inches	Well drained
Paxton fine sandy loam	PbC	8-15	18-40 inches to densic material	30-42 inches	Well drained
Paxton very stony fine sandy loam	PfB	3-8	18-40 inches to densic material	30-42 inches	Well drained
Paxton very stony fine sandy loam	PfC	8-15	18-40 inches to densic material	30-42 inches	Well drained
Woodbridge fine sandy loam	WrB	0-8	16-36 inches to densic material	18-30 inches	Moderately well drained
Woodbridge very stone fine sandy loam	WsB	0-8	16-36 inches to densic material	18-30 inches	Moderately well drained

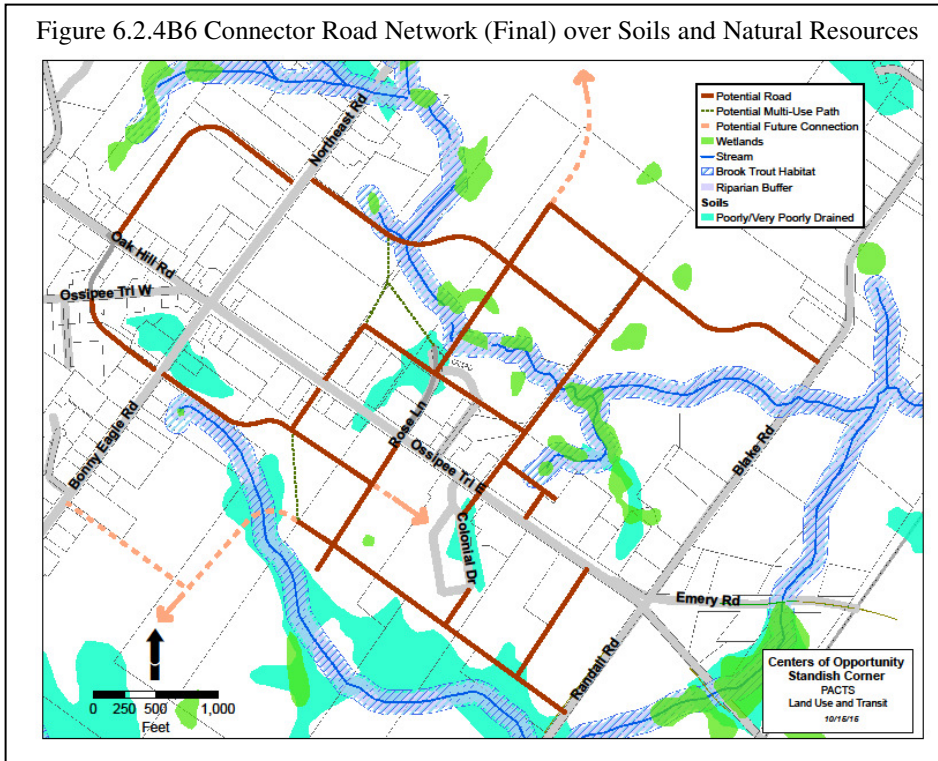
Figure 6.2.4B5 Soils in Standish Corner most suitable for subsurface waste disposal.

Figure 6.2.4B5 identifies those soils with the best characteristics for subsurface waste disposal. Other soils may be suitable but system engineering will likely be more challenging.

In general, soils that are shallow to the water table soils or soils with slopes in excess of 15% do pose a constraint for subsurface waste disposal because of poor drainage or inadequate soil absorption characteristics.

⁵⁷ This list of soils was reviewed and endorsed by Albert Frick Associates.

Figure 6.2.4B6 Connector Road Network (Final) over Soils and Natural Resources



Shallow soils, steep slopes and poorly drained soils are considered limiting factors when it comes to subsurface waste disposal. Figure 6.2.4B6 shows the revised connector road network with soils and natural resources. Areas in green and blue hatching should be avoided for roads and septic systems; areas shaded in aqua are not suitable for septic systems but could accommodate roadbeds.

Connector Road Cost Estimate and Typical Section:

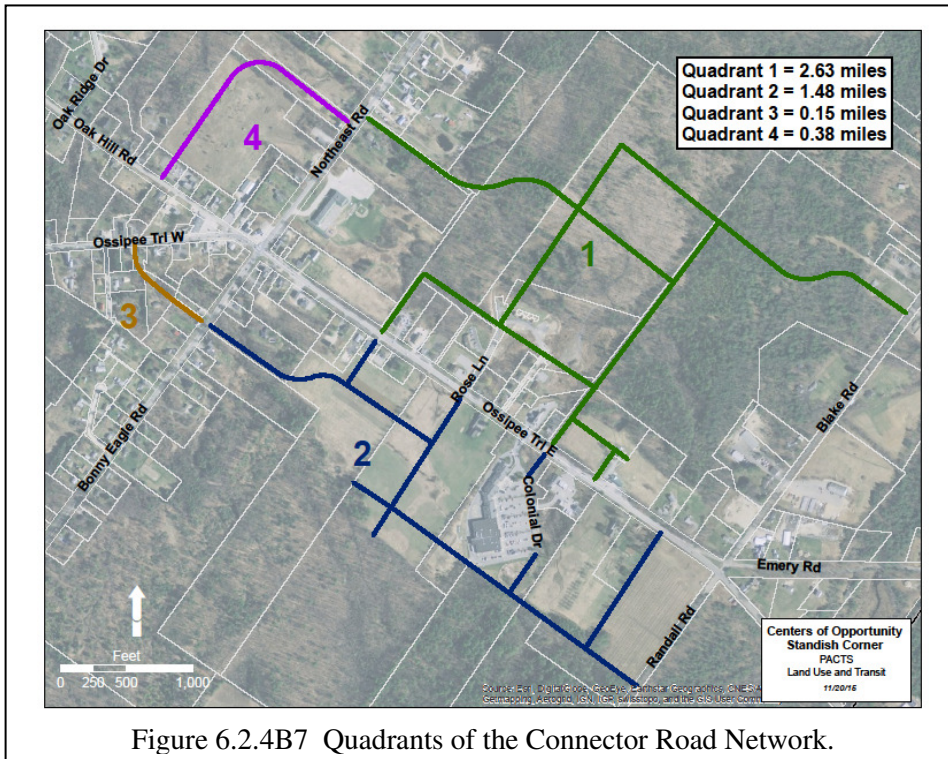


Figure 6.2.4B7 Quadrants of the Connector Road Network.

The cost to construct the connector road network was estimated for each of the four quadrants labeled in Figure 6.2.4B7. The four quadrants are:

- 1 - Northeast of intersection of Route 25 and 35
- 2 - Southeast of intersection of Route 25 and 35
- 3 - Southwest of intersection of Route 25 and 35
- 4 - Northwest of intersection of Route 25 and 35.

Each quadrant contains one or more segments of the connector road network. It is recommended that sections of the connector road network for the most promising quadrants would be constructed in order of priority, based on the amount of traffic removed from the Standish Corner intersection and amount of developable land available. Total connector road costs are based on an assumed road cost of \$425 per linear foot and a sidewalk cost of \$43 per linear foot per side.

A summary of connector road network costs, by quadrant, are shown in Figure 6.2.4B8. Costs are provided for streets with and without sidewalks.

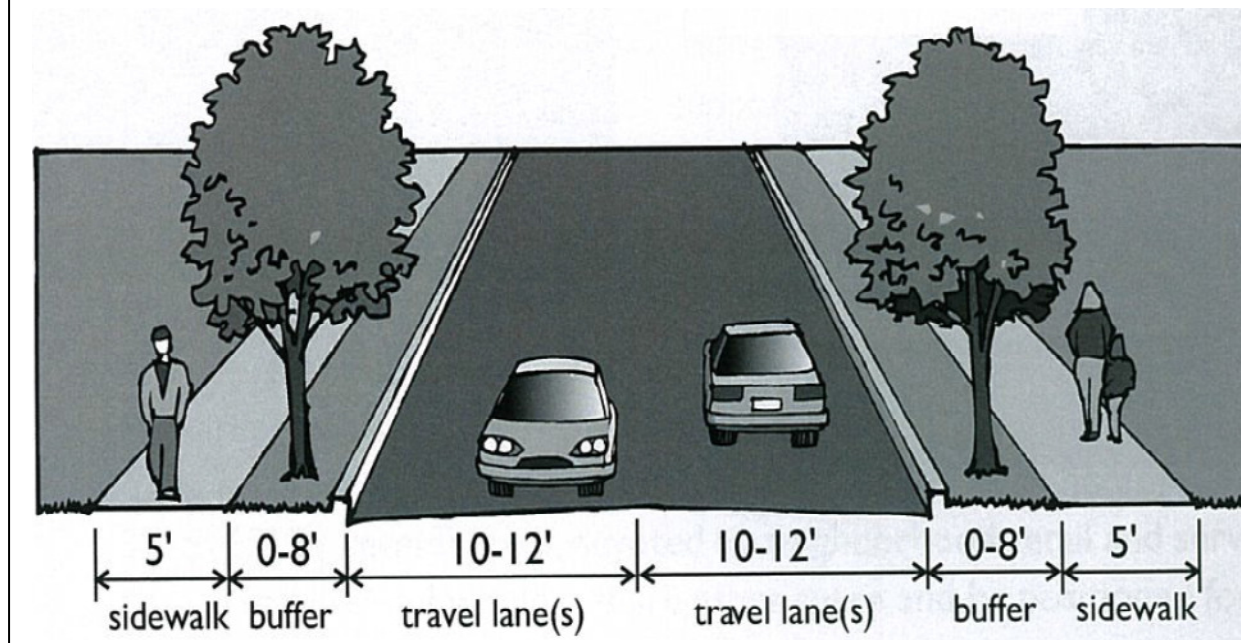
Figure 6.2.4B8 Summary of connector road network costs by quadrant, with and without sidewalks

Quadrant	Connector Road length (ft)	Total Estimated Cost (w/o sidewalks)	Total Estimated Cost (w/ sidewalks)
1 – Northeast of intersection of Route 25 and 35	13,890	\$5.90M	\$7.10M
2 – Southeast of intersection of Route 25 and 35	7,820	\$3.34M	\$3.99M
3 – Southwest of intersection of Route 25 and 35	800	\$0.34M	\$0.41M
4 – Northwest of intersection of Route 25 and 35	2010	\$0.85M	\$1.03M
Totals	24,520	\$10.43M	\$12.53M

The cost estimate is based on a proposed connector road cross section of 20-22 feet of paved travel lanes (with shoulders) and an overall right-of-way width of 50 feet; if on-street parking is desired, additional right of way would be required. Figure 6.2.4B9 provides an image of a typical section for the connector road network.

Figure 6.2.4B9 Connector Road Typical Cross Section

This is one example of many possibilities. Sidewalks may or may not be needed/required on both sides at the start but it is always a good idea to reserve the right of way so that the need for future right of way acquisition is minimized. Ten (10) foot lanes are the minimum. On street parking on any connector road should consider an additional 8-10' on either side to allow for door openings etc. The addition of bike lanes may also be taken in to consideration. In low volume situations, they are most often included as part of the travel way or may be within the shoulder. In the Northeast, adequate room for snow storage is also a must; no less than 5' is generally acceptable.



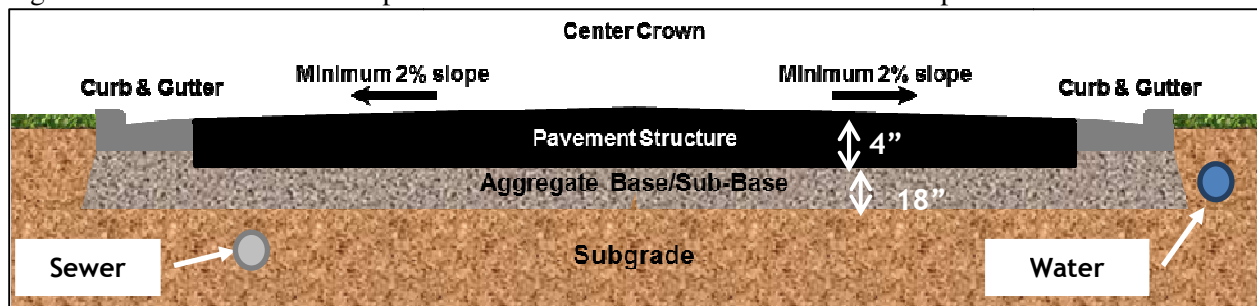
If sidewalks are not built on both sides, the cross section would consist of sloped, non-paved shoulders without curbing.

Connector Road Construction Details

The connector roads identified will typically be low-volume, paved roadways carrying less than 3,000 vehicles per day. Using the proper materials is essential to build a road that will last. A road wears out from the top but it falls apart from the bottom. The materials used under the road surface supports everything above it especially the traffic. If adequate support does not exist, the road will quickly deteriorate. A good road requires a suitable foundation, which, in turn, requires suitable material. A roadbed is stable if it experiences little or no change in its volume and does not deform under repeated loads.

A proposed connector road section follows in Figure 6.2.4B10 showing the levels of suitable material. The section also identifies approximate locations for water and sewer lines within and adjacent to the connector road. The Town of Standish should consult with MaineDOT when finalizing its road construction details to confirm the identified dimensions and type/quality of suitable materials.

Figure 6.2.4B10 – Low volume paved connector road materials and minimum specifications⁵⁸.



Permitting Local Connector Roads

State, federal and sometimes local environmental laws are triggered in the construction of a new street. While state or federal dollars⁵⁹ to build connector streets off the State’s network are limited, it is nevertheless prudent to consider permitting implications within a variety of situations.

It may be possible that future USDOT TIGER grant or HUD Livable Communities’ funds could assist with financing these streets; partnerships with MaineDOT may also be available in the future especially in the case of connector streets helping to increase the life of an arterial. There is no doubt that local and private dollars will be needed to construct at least portions of the village street grid such as the one conceptualized for Standish Corner.

Maine’s Natural Resource Protection Act: The primary State regulation affecting the development of a local interconnected network will be by Maine’s Natural Resource Protection Act administered by the Department of Environmental Protection’s (DEP) Division of Land Resource Regulation (DLRR). Its purpose is to regulate the use of land to assure protection of natural resources of state significance. Protected natural resources are coastal sand dune systems, coastal wetlands, significant wildlife habitat, fragile mountain areas, freshwater wetlands, vernal pools, great ponds and rivers, streams or brooks. The

⁵⁸ Image Source: – Virginia Asphalt Association; Dimensions from MaineDOT (Low-Volume Road minimum road bed depths)

⁵⁹ Based on development of recent programs by the MaineDOT, the possibility of partnering on collector road development has increased. See Chapter 4 for additional details on its cost-sharing programs.

statutory definitions of these resources are found in [38 MRSA §480-B](#). The law gives detailed rationale for its sphere of influence.⁶⁰

National Environmental Policy Act: The next most readily triggered street development law is the National Environmental Policy Act. It comes into play whenever there is a so-called *federal action* – that is, when federal funding is used or when a federal permit is required. A federal permit may be required if the locations of proposed connector streets impact wetlands beyond the thresholds permitted by the Clean Water Act Amendments. When this occurs, a permit from the Army Corps of Engineers (ACOE) is required. The ACOE uses a handbook called *The Highway Methodology and the Highway Methodology Supplement*⁶¹ when evaluating resource impacts caused by streets. The goal of locating Standish Corner connector streets is to minimize or avoid impacts to wetlands and other natural or cultural resources.

Whenever federal funding or a federal permit is triggered, all federal and state natural resources agencies must be consulted to determine the level of impacts if any. Federal natural resource agencies may include the US Fish & Wildlife Service, the Environmental Protection Agency, and National Marine Fisheries. In addition the Maine Historic Preservation Commission (MHPC), considered both a federal and state agency, as well as Maine’s recognized Native American Tribes, are also consulted to determine whether any historic, pre-historic or archeological resources may be affected by the proposed work.

Based on readily available natural resource information affecting conceptual Standish Corner connector streets, the most obvious existing protected natural resources are freshwater wetlands, streams, brook trout habitat and vernal pools; a cursory review of available resource information found no significant habitat in the area of planned streets but a follow up review should be done at the time of permit application as additional resources may be regulated or known at the time of construction. Evidence of any species protected by the Endangered Species Act (ESA - both at the state and federal level) must also be provided; the ESA protects both species and species habitats. In the case of ESA habitats, there is often a required buffer around the designated habitat within which no permits may be granted. No ESA resources were identified at this time.

Additional requirements affecting roadway construction include the State Stormwater and Erosion/Sedimentation Rules. The rules associated with the NRPA can be found at <http://www.maine.gov/dep/land/nrpa/>.

Street development projects that require a federal permit must stipulate the Purpose and Need for the project: The first step in permitting is to identify the *purpose and need* for a project. In this case, the purpose and need will revolve around the need to create economic and community development opportunities; an incidental effect is the relief of traffic congestion (see section 7.1.1). A project permit may be requested for a full master plan covering the entire network, or may involve several phases. Ideally, each phase will have *independent utility* – that is, each will function with or without the remaining phases moving forward. Figure 7.1.4A (also shown on page 82) identifies 4 potential phases each with independent utility.

Conclusion and Recommendations

Economic and Community Development Opportunity: Creation of a connector road network in Standish Corner will provide opportunity for economic and community development with limited impact to

⁶⁰ <http://www.maine.gov/dep/land/nrpa/index.html>

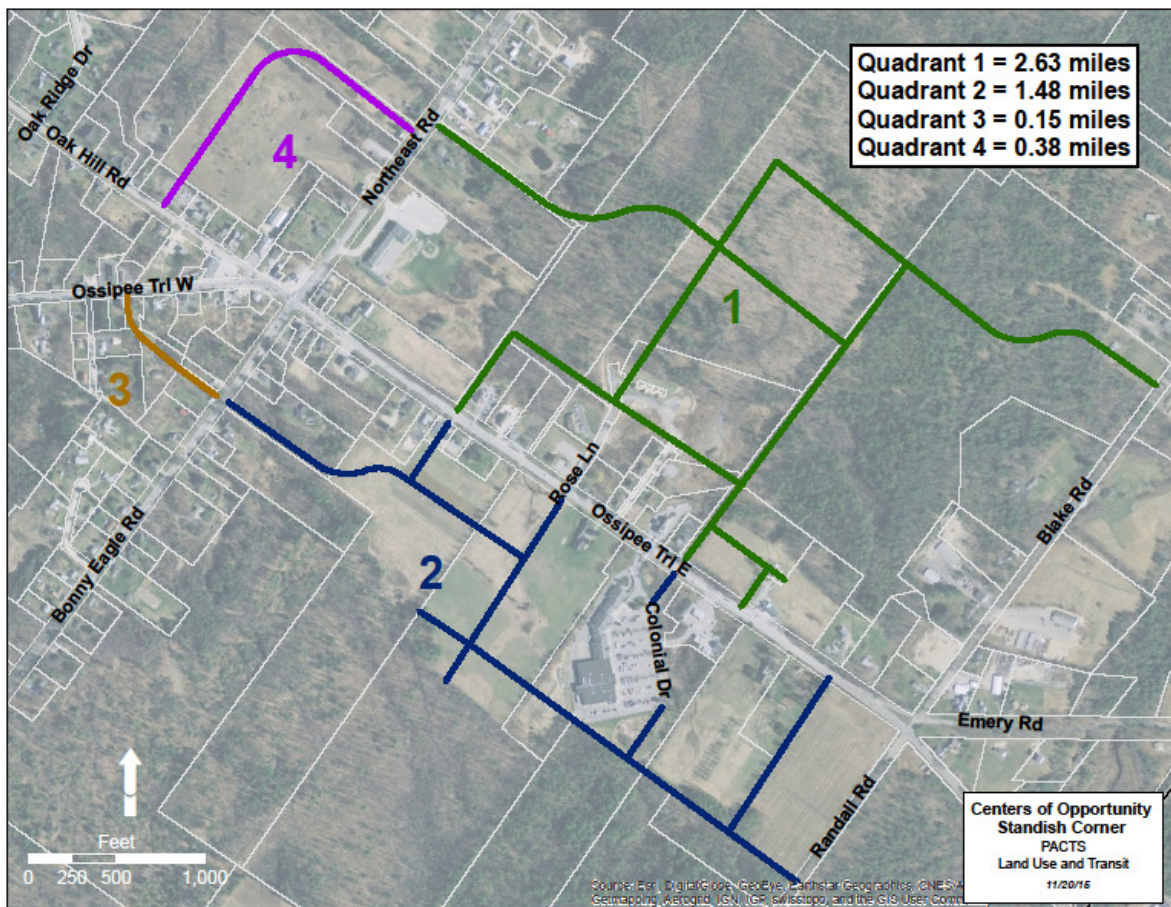
⁶¹ <http://www.nae.usace.army.mil/Portals/74/docs/regulatory/Forms/HighwayMethodBook.pdf> and <http://www.nae.usace.army.mil/Portals/74/docs/regulatory/Forms/HighwaySupplement6Apr2015.pdf>

existing traffic along Routes 25 and 35. Developing a village center is currently the goal of the Town of Standish Corner Master Plan. The connector road network has been located to provide opportunity for development along both sides of the road network as much as possible and in locations where community septic can be considered.

Conclusion: Development of a connector road network in Standish Corner will improve safety and mobility and provide opportunity for economic and community development. Based on traffic utilization and development potential, the following is a recommendation for phasing the construction of a connector road segments that have the greatest benefit (see Figure 6.2.4B7):

- Quadrant 1 – northeast of intersection of Route 25 and 35⁶²
- Quadrant 4 - northwest of intersection of Route 25 and 35
- Quadrant 3 – southwest of intersection of Route 25 and 35
- Quadrant 2 – southeast of intersection of Route 25 and 35

6.2.4B7 Quadrants of the Connector Road Network.



As a way of moving forward with the creation of a Standish Corner street network, the Town should consider the following:

⁶² As a consideration for future build out, the distance between the northern edge of this quadrant and the southern edge of the Town Office property is roughly 1500 linear feet.

- A. Refine the future build out potential of Standish Corner based on the history of growth, natural resource constraints, soil suitability for community septic and the future density envisioned in the Standish Corner Master Plan.
 - 1. Determine whether the number of new units in Standish Corner envisioned in the Master Plan remains valid, desirable and achievable.
 - *The Master Plan cites that 1350 new housing units are projected in Standish in the next 20 or more years and suggests that some 700 or more would be feasible spread across the 4 growth centers in Standish.*
 - *Based on total area of 2,440 acres minus an estimated 40 acres needed for 4.64 miles of connector roads and roughly 100 acres to be avoided due to natural and cultural features, the density resulting from adding 600⁶³ units is at about 2.5 units per acre, which is slightly above the density for places on private septic systems.*
- B. Continue to meet with individual property owners to determine desirability of the Revised Connector Road Network as it passes through their properties and,
- C. Explore means to secure the protection of the future rights of way through formal agreements with affected property owners.
- D. Pursue Official Plan adoption by the Town Council of the Revised Connector Road Network.
- E. Determine the nature and degree of a desired partnership between the municipality, the state and private investors.
 - 1. Meet with MaineDOT to determine whether there is opportunity for partnering in the development of portions of the road network that act as collectors and that avoid costs associated with widening state managed existing arterial routes.
- F. Create a marketing plan promoting the desired municipal partnership and seek developers interested in mutually exploring the development and partnership concepts.
- G. Once a partnership agreement has been established between the municipality and one or more developers, begin the permitting process by preparing preliminary designs and permit application materials.
- H. Obtain permits and funding to construct the network.

With the planning framework that has thus far been established in Standish, the community continues to rise to the top as a model of how small rural communities can grow in a cost effective and efficient manner.

⁶³ See Fiscal Analysis Chapter 5 table 5.1.A

6.2.5 Westbrook

Land Use Recommendations:

- ❖ Undertake a feasibility study to evaluate and estimate the potential costs and return on investment for developing the Prides Corner Center of Opportunity. The feasibility study should include the following at a minimum:
 - Based on growth projections⁶⁴ (3300 housing units and 3300 jobs between 2010 and 2035 of which nearly 1850 housing units and 2310 jobs could be captured by all of Westbrook's growth centers), determine the number and ratio of housing units and jobs the city wants to capture in the Pride's Corner Center of Opportunity.⁶⁵
 - Using the growth targets identified in recommendation A.1, determine
 - The costs to expand sewer to serve the development area
 - The costs to develop and maintain a network of interconnecting streets based on a concept developed for this study (see Figure 6.2.5A)
 - The impacts and costs associated with mitigating the traffic capacity and safety issues on Bridgton Road, Prides Street and Brook Street by adding new intersections and connector streets within the study area consistent with the conceptual street network shown in Figure 6.2.5A; if adjustment to the conceptual connector street network would mitigate or reduce impacts, they should be outlined.
 - The costs associated with developing the Prides Corner Center as derived from the above three bullets in comparison with the anticipated tax revenues over the life of the development;
 - The adjustments to growth targets needed that will better balance costs and benefits of developing Prides Corner Center.
 - Revisit the Fiscal Analysis (Chapter 5 of this study) and make adjustments to the Westbrook assumptions and conclusions using new data revealed by steps 1 and 2.
 - Identify acceptable financing options for making public improvements and identify public and private partners.
- ❖ Once the conclusions of the feasibility study are known, and assuming the Center concept is feasible, communicate findings to the larger Prides Corner Neighborhood to begin the dialogue that could be the basis for a detailed master plan to be incorporated in the City's policies and codes.
- ❖ Develop a master plan that solidifies the location of a road/utility network (including appropriate cross sections) and appropriate mixed-use districts with higher densities; adjust the City Comprehensive Plan to incorporate the master plan and amend zoning ordinance standards to permit its implementation.
- ❖ Continue working with landowners and other partners (such as landowners and a local land trust) to proactively recruit desired businesses, housing styles, trails and open spaces.
- ❖ Develop a plan that establishes the public investment strategy for road building and utility extension; consider the possibility of establishing a TIF district.
- ❖ Adopt *Complete Streets* provisions to augment a Complete Streets Policy.
- ❖ Ensure that regulatory procedures in Prides Corner are streamlined for development that meets the vision for the center.
- ❖ Work with PACTS and other communities and partners to identify and prioritize capital improvement projects that have a regional impact.

⁶⁴ Summary of Growth Allocations for Sustain Southern Maine (SSM) study developed by Dr. Charles Colgan using projections from the Gorham East-West Feasibility Study that were updated with 2010 Census

⁶⁵ Based on a workshop activity undertaken as part of this study, Westbrook representatives felt it would not be unreasonable to plan for 340 s.f. units and 370 multifamily units, 143 of which were duplex and the remainder as 3+ units buildings in the Pride's Corner Center. In SSM work, it was estimated that each job could generate 500 s.f. of commercial space.

Transportation Recommendations:

- ❖ Adopt *Complete Streets* policy applicable to existing and future roads
 - On Bridgton Road, consider one or more cross sections shown in Figure 6.2.5B that will
 - Provide turn lanes at key intersections.
 - Expand sidewalk systems on both sides of road.
 - Stripe the roadway shoulder for bicycles.
 - Create additional crosswalks.
 - Introduce traffic signals at key connection points that meet traffic signal warrants.
 - Reduce speed limit to 30 mph and introduce traffic calming and street trees.
 - Expand wayfinding signage systems.
 - Increase roadway lighting.
 - Add a bus shelter with bicycle facilities and expand or improve the park ‘n ride lot.
- ✓ Build SSM pathway concepts and expand into other areas of center as conceptualized in Figures 6.2.5A and B.
 - Provide a street cross section that allows for
 - Two travel lanes
 - A sidewalk on each side with esplanade
 - Bicycle lanes (may be provided as wider travel lanes)
 - On street parking
 - Roadway lighting
 - Landscaping, street furniture either at the curb or at the edge of right of way and front setback

Figure 6.2.5A Prides Corner Center of Opportunity

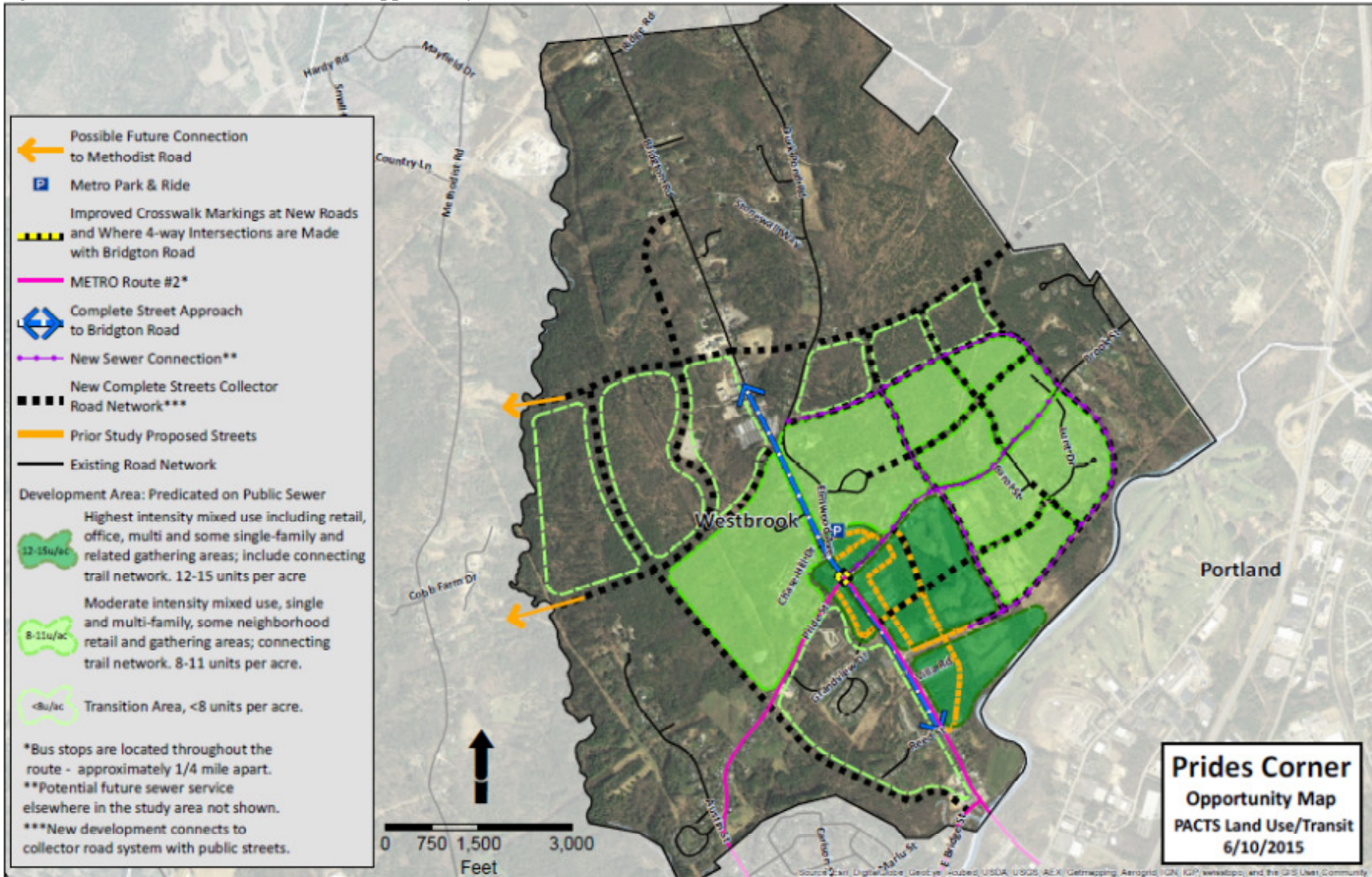
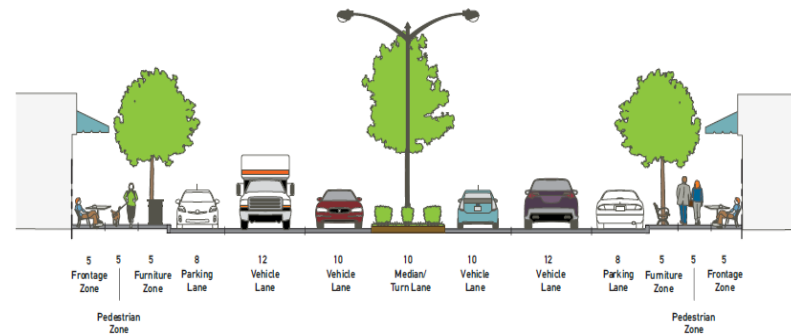
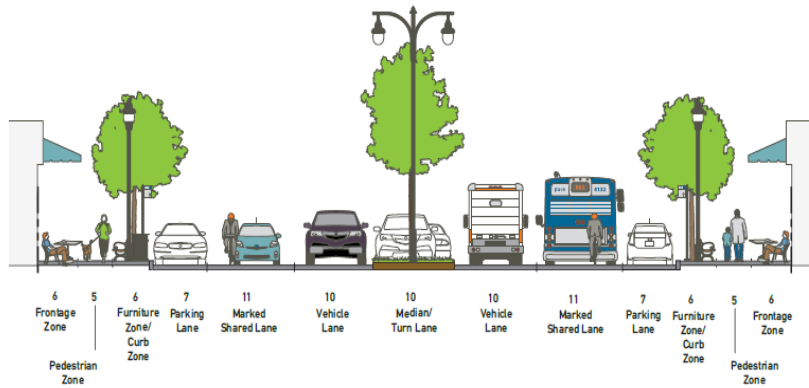
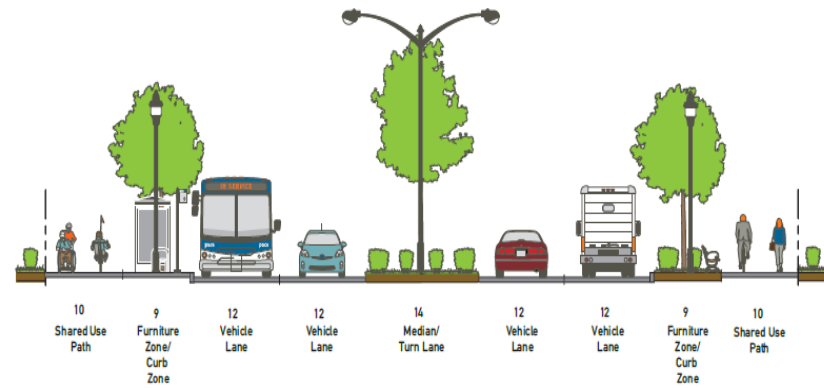
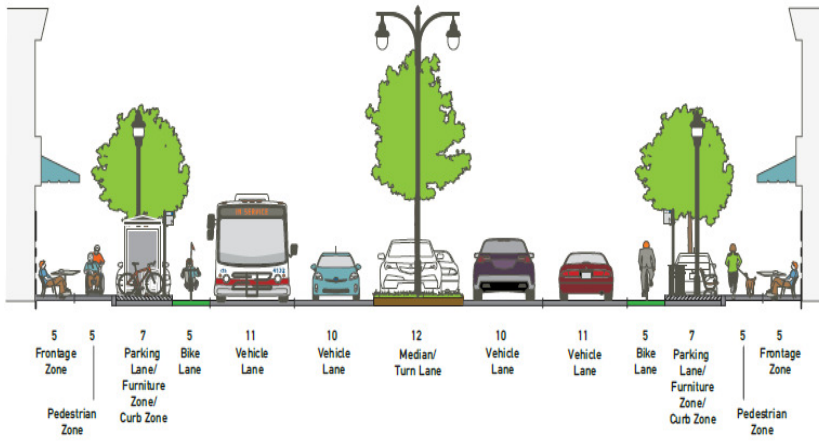


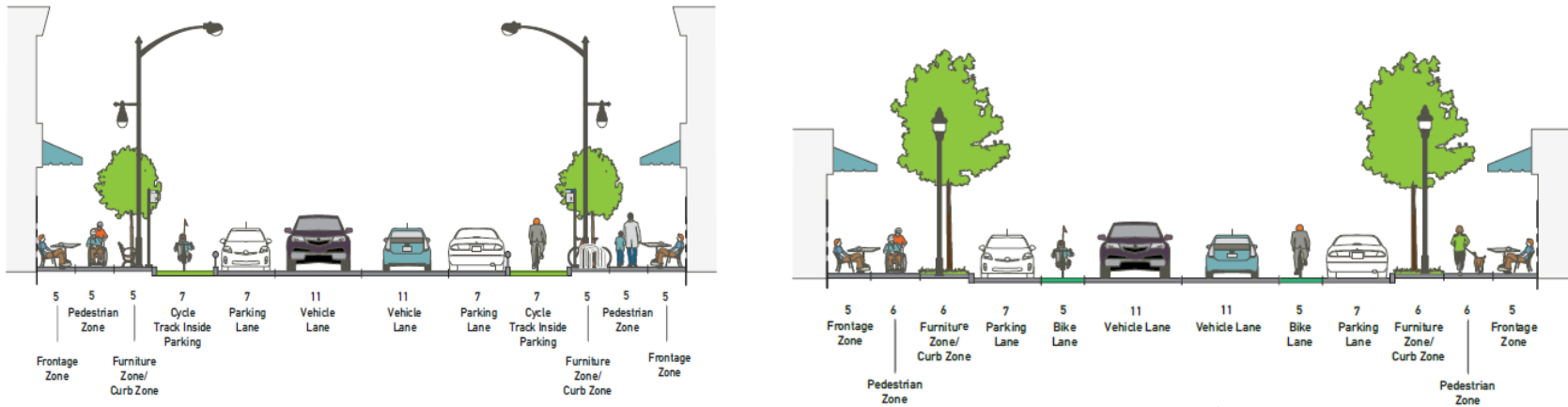
Figure 6.2.5B Possible Cross Sections for Prides Corner Roads and Streets



The cross sections above may be appropriate for Bridgton Road

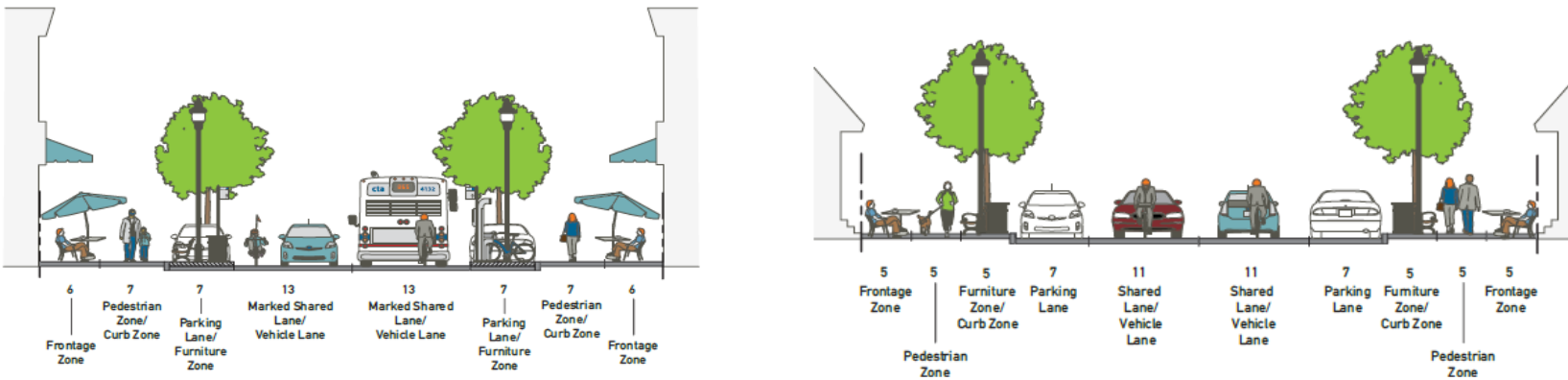
Source: <http://activetransportationpolicy.org/Design>

Figure 6.2.5B (continued)



The cross sections above may be appropriate for Prides and Brook Streets

Source: <http://activetransportationpolicy.org/Design>



The cross sections above may be appropriate for New Mixed Use Connector Streets

Source: <http://activetransportationpolicy.org/Design>

APPENDICES

Appendix A - Detailed Summary of Municipal Plans and Codes Affecting Centers of Opportunities		
	Comprehensive Plan	Land Use Code
Gorham – General Characterization	Area included in 2 designated and 14 contract zones. Designated zones include 1 residential zone and 1 farm zone.	
Purpose	Identifies South Gorham as Neighborhood Center, compact New England style village, and mixed use growth area.	<i>Designated zones</i> intended for agriculture or low density housing, including cluster; <i>Contract zones</i> allow for expanded uses and intensity of development.
Mixed Use	Calls for mix of land uses, range of residential uses, and wide range of small scale nonresidential uses.	<i>Designated zones</i> allow single family, multifamily, including condominium townhouses, roadside stands, B&Bs with public dining, inns, agriculture-related retail, reuse of existing agricultural buildings, rural entrepreneurial uses that meet performance standards; <i>Contract zones</i> allow a broader variety of small scale retail that primarily serves local needs, specialty commercial uses, service, and office uses, distilling and brewing, and residential above first floor of mixed use building, small light industrial if authorized by Town Council, no drive through facilities.
Density/Minimum Lot Size/Minimum Area Per Unit	Calls for density up to 2du/a with on-site waste disposal and 4du/a with public sewer; basic minimum lot size of 10-20,000 sf.	<i>Designated zones</i> require minimum area per dwelling unit/lot size of 40-60,000 sf, density bonus of up to 25% with public sewer and water; <i>Contract zones</i> do not specify minimum lot size or density provisions, but leaves intact low density residential provisions of the designated zones, except for upper floors of mixed use development.
Dimensional Standards	Calls for limiting most nonresidential uses to 5,000-7,500 sf with larger uses on “back lots;” requires traditional village character and scale with height limited to 2 stories; front yard setbacks no more than 50’ on County Road and 35’ on side streets.	<i>Designated zones</i> require minimum frontage of 200’, front setback of 50-70’, side setback of 20-70’, rear setback of 20-50’, no height or lot coverage limit, reduced frontage of up to 25% with public sewer and water; <i>Contract zones</i> require no minimum lot size, height, or street frontage, 10’ minimum front setback unless on Rts 22/114 when setback is 40’, 20’ minimum setback from residential properties.

<p>Other Policies and Standards</p>	<p>Calls for no drive through services; traditional village character; buildings on access drives or new streets where feasible, no new buildings directly fronting on County Road; continued use of TIFs and impact fees for public water and sewer as well as sharing public costs with neighboring communities or front-end financing for needed infrastructure, and density bonuses for projects that use public sewer; <i>complete streets</i> for new, reconstructed, and substantially improved streets, especially within village areas.</p>	<p><i>Contract zones</i> require minimum 40' landscape buffer along Rts 22/114, minimization of curb cuts, parking behind buildings with waiver provisions, requires contribution of \$10,000 per lot or business unit for future public sewer, design consistent with a traditional New England Village Character, vehicular and pedestrian connections between parking lots, sidewalks, managed hours of operation; <i>Development Transfer Overlay District</i>, which allows increased density and reduced dimensional standards in areas with existing or planned public sewer and water, but does not apply in study area.</p>
<p>Scarborough– General Characterization</p>	<p>Area included in 3 designated and 2 contract zones as well as aquifer and stream protection overlay zones. Designated zones include 1 mixed use/commercial zone, 1 transitional residential/business zone, and 1 open space zone.</p>	
<p>Purpose</p>	<p>Identifies North Scarborough as growth area, made up of Neighborhood Center District and adjacent Neighborhood Center Office-Residential Sub-District.</p>	<p><i>Designated zones</i> – 2 are intended to provide areas for small and moderate scale retail, business, office, service and community uses as well as a range of residential and mixed uses and transitional/buffer areas between residential and more intensive commercial; 1 is intended for protection of rural open space; overlay zones intended to protect ground and surface water quality; <i>Contract zone</i> – 1 provides for a wetlands mitigation project, other provides for a hair and skin care business in a rural zone.</p>
<p>Mixed Use</p>	<p>Calls for integrating residential into many nonresidential areas served by public facilities to facilitate mixed use, mix of housing types, townwide targets for growth areas, small commercial and service center that provides goods and services primarily to meet day-to-day needs of surrounding areas as well as commuters and people who work nearby, limited geographic area to discourage strip development, small businesses and village character, no large traffic generators or need for public sewer, neighborhood gas stations appropriate.</p>	<p><i>Designated zones</i> allow single family, 2-12 multifamily units depending on zone and availability of public sewer, conservation subdivisions required in 1 district, retail and services allowed in some zones but not in others; <i>Contract zones</i> – 1 doesn't allow any residential, retail, or service use – only recreation and mixing/storage of aggregate, other zone provides for a hair and skin care business.</p>

Density/Minimum Lot Size/Minimum Area Per Unit	Calls for density of 0.5-1.5 du/a with on-site waste disposal and 1-3 du/a with public sewer, higher if public sewer available and density transferred from other areas, maximum density tied to size and impacts of dwelling unit; nonresidential uses limited to 5,000 sf.	<i>Designated zones</i> – 2 zones require minimum area per dwelling unit/lot size of 10-80,000 sf depending on type of residential use and availability of public sewer, increased to 40-80,000 sf in areas without public sewer, 1 zone allows 1 du/1-2 acres depending on whether conservation subdivision design is required; <i>Contract zones</i> – 1 does not allow residential development.
Dimensional Standards	Calls for buildings reasonably close to the street with no large parking areas between building and street to create character.	<i>Designated zones</i> require minimum frontages of 50-200’ depending on zone and presence of public sewer, front setback of 10-25’ depending on zone with maximum of 60’ in 1 zone, side and rear setback of 15’, 35-45’ height limit, 25-85% lot coverage limit; <i>Contract zones</i> - 1 zone allows only structures associated with excavation.
Other Policies and Standards	Specifies public sewer not intended for the area, calls for water and sewer to be furnished by developers, using TIFs and impact fees, and working with adjoining municipalities to extend sewer; calls for pedestrian and bicycle standards, walkable environments, managed curb cuts; calls for expedited development review, reduced parking, impervious area, or modified stormwater requirements for projects that use “green building” technology.	<i>Aquifer Protection District</i> requires wastewater, stormwater, and chemical management standards; <i>Development Transfer Overlay District</i> , which allows increased density in designated growth areas, which applies in the study area; <i>Standards for parking design</i> in vicinity of Rt 114; <i>Traditional Neighborhood Development</i> provisions allow for increased density on at least 25 acre parcels served by public sewer and water but only in R4 district.
Portland – General Characterization	Area included in 8 designated and 2 contract zones. Designated zones include 2 residential zones, 3 mixed use zones, 1 business/office zone, 1 light industrial zone, and 1 open space zone.	
Purpose	Identifies all areas, except the Recreation – Open Space district, for growth.	<i>Designated zones</i> – 2 are intended for moderate to high density mixed use community centers; 2 are intended for moderate to high density residential; 2 are intended for low intensity or small scale business uses, some designated to serve the local market; 1 is intended for low impact industrial and other uses; 1 is intended to protect open space; <i>Contract zones</i> – 1 provides for mf apartments, other for an office building.
Mixed Use	Reflects zoning.	<i>Designated zones</i> – 3 districts allow mixed use.

Density/Minimum Lot Size/Minimum Area Per Unit	Reflects zoning.	<i>Designated zones</i> require minimum of 4,500-9,000 sf land per dwelling units in residential zones, 1,000-1,500 sf floor area per dwelling unit in mixed use zones; <i>Contract zones</i> – allow for increased density/intensity.
Dimensional Standards	Reflects zoning.	<i>Designated zones</i> require frontages of 50-90’ in residential zones and 20’ in business and mixed use zones, front setbacks of 0-25’, side setbacks of 0-20’, and rear setbacks of 0-25’, 25-65’ height limit up to 120’ on Thompson’s Point, 30-100% lot coverage limit; <i>Contract zones</i> – allow for reduced dimensional standards.
Other Policies and Standards	Supports buy local initiatives; allows Transit TIFs.	Requires <i>complete streets</i> .
South Portland – General Characterization	Area included in 6 designated and 1 contract zone. Designated zones include 1 residential zone, 3 commercial zones, 1 light industrial zone, and 1 rural farm zone.	
Purpose	Identifies Redbank/Brick Hill as an “established high-density residential neighborhood with a neighborhood center,” nonresidential uses limited to promote residential character.	<i>Designated zones</i> – 1 is intended for high density residential; 1 is intended for urban residential, offices, and low intensity nonresidential uses; 1 is intended for local retail convenience outlets; 1 is for wholesale and service commercial; 1 is for light industrial; 1 is for rural open space; <i>Contract zone</i> – 1 provides for adaptive reuse of the Youth Center with residential and limited office/commercial and rehabilitation of historic structures.
Mixed Use	Provides specific land use policies and Future Land Use Plan that encourages mixed use within proximity of existing services and retail to reduce travel; Redbank/Brick Hill identified for growth, but not as a mixed use designation.	<i>Designated zones</i> – 2 districts allow mixed use; <i>Contract zone</i> – requires master plan.
Density/Minimum Lot Size/Minimum Area Per Unit	Calls for compact development in areas to be served by bus, including the Maine Mall area.	<i>Designated zones</i> require minimum lot size of 5,000-80,000 sf land per dwelling units; <i>Contract zone</i> – requires minimum 7,500 sf lot, maximum density of 10 du/a or 300 units.

Dimensional Standards	Calls for mini-plans to establish character and scale of neighborhood activity centers and community commercial hubs, including pedestrian and bicycle facilities.	<i>Designated zones</i> require frontages of 15-25’ in residential district, 25’ in limited business mixed use district, 100’ in commercial and light industrial districts, and 150’ in rural farm district; front setbacks of 20’ in residential district, 0-15’ in limited business mixed use district, 20-50’ in commercial and light industrial districts, and 30’ in rural farm district; side and rear setbacks of 6-15’ in residential district, 0-15’ in limited business mixed use district, 20-25’ in commercial and light industrial districts, and 10-30’ in rural farm district; 35-90’ height limit; 25-100% lot coverage limit; 0-25% landscaped; <i>Contract zone</i> – requires minimum frontage of 75’; front, side, and rear setback of 10’; 45-60’ height limit; 33% landscaped.
Other Policies and Standards	Calls for infill development in residential areas and small mixed use centers to be compatible with the development pattern and character of neighborhood or center and desired future form; commercial design standards; increased population within easy walk of bus or streetcar; investments in neighborhood centers and community commercial hubs; <i>complete streets</i> ; supports buy local initiatives; Transit TIF.	Provides several mixed use village districts (Knightville, Willard, Spring Point, Clarks Pond) with design standards for village downtown and neighborhood activity centers; requires compete streets.
Standish – General Characterization	Area included primarily in 1 zone, the Standish Corner Form Based Code Village District.	
Purpose	Identifies Standish Corner as more pedestrian friendly with mixed small scale commercial and residential.	Intended to establish interconnected, village-scaled neighborhood characterized by vital civic spaces and quality streetscapes framed by pedestrian-scale buildings. Allowed uses and standards are defined based on a regulating plan, defined street frontage types, building and parking placement standards, block length and intersection standards, streetscape and street space standards, building form standards, a “Connectivity Plan.” ⁶⁶

⁶⁶ The municipality’s land use ordinance provides a “Step-by-step guide to the Form Based Code Village Districts” that advises the applicant to first refer to the Regulating Plan to identify the appropriate district, then identify the frontage types and from there the various standards for development.

Mixed Use	Calls for mixed residential and commercial uses.	Allows, and in some cases, requires mixed use.
Density/Minimum Lot Size/Minimum Area Per Unit	Calls for increased density and full range of elderly housing types	Requires minimum lot size between 15-30,000 sf, depending on district and permits from CEO and Planning Board.
Dimensional Standards	Calls for compact, pedestrian friendly village.	Requires lot widths of 80-200' in 2 districts; build to zones of 0-50' depending on district with minimum and/or maximum setbacks of up to 15-50' in the 2 districts; side and rear yards ranging from 5-15'; minimum and maximum heights ranging from 16-35'; and a building form standard, which relates to the ratio between building and lot widths, in 3 districts that ranges from a minimum of 30-60% to a maximum of 50-80%. Maximum building floor area limits range from 5,000-40,000 sf.
Other Policies and Standards	Calls for strong incentives for conservation subdivisions; buffers, access management, and design standards for new commercial along Rt 25; sidewalks and pedestrian ways in village, linkage with Sebago Lake Village, and multipurpose trail connections with surrounding neighborhoods; exploring ways to preserve old range roads along Rts 25 and 35 and Oak Hill Road; Roadway Action Plan with easements for trails and/or new interconnected roads; little public support for public sewer.	Requires 30% shared parking for some projects; other standards that vary by district include parking setbacks, parking number, street space standards for sidewalks, amenity zones, shoulder, and travel lanes, blocks and intersections, street trees, signage, lighting, and a variety of standards for building design related elements and low impact development.
Westbrook – General Characterization	Area included in 6 designated and 1 contract zone. Designated zones include 3 residential zones, 1 mixed use zone, 1 highway commercial zone, 1 rural zone.	
Purpose	Identifies Prides Corner as a growth area made up of Residential Growth Areas 2 and 3 and Corridor Mixed Use.	<i>Designated zones</i> – 1 is intended for urban core residential densities; 1 is intended for suburban neighborhoods; 1 is intended for rural residential uses; 1 is intended to encourage mixed use; 1 is intended for small highway/retail mixed use gateway centers; 1 is intended for rural quality and clustered residential uses; <i>Contract zone</i> for clustered 2-unit residential development.

Mixed Use	Calls for suburban style neighborhoods with mix of housing and low intensity commercial in areas served by infrastructure; lower density residential, low intensity commercial, cluster and preserved open space; corridor intended to replace highway commercial and Prides Corner Smart Growth areas with cohesive and mixed use development on consolidated lots to reduce congestion.	<i>Designated zones</i> – 2 districts provide for mixed use. <i>Contract zone</i> for residential use only.
Density/Minimum Lot Size/Minimum Area Per Unit	Calls for density of 1 du/20-60,000 with on-site waste disposal and 1 du/10-30,000 sf on public sewer; scale and intensity of development in corridor to reflect surrounding residential neighborhoods.	<i>Designated zones</i> require minimum lot size of 5,000-60,000 sf land; maximum gross density of 40-75%; <i>Contract zone</i> 4 du/a, no minimum lot size.
Dimensional Standards	See zoning ordinance; reduce frequency of curb cuts, establish uniform building line, and allow mf dwellings in corridor.	<i>Designated zones</i> allow frontages of 50-200'; front setbacks of 10-30'; side and rear setbacks of 8-30'; 35-50' height limit; 15-40% maximum footprint; 25-75% landscaped; <i>Contract zone</i> has reduced dimensional standards, height limited to 1 story.
Other Policies and Standards	Calls for interconnected road system, density incentives to bring sewer to sites.	Density incentives in one district.

Appendix B: Funding mechanisms

Operating and capital planning budgets:

The capital facilities of local governments are essential to meeting the service needs of the community in an efficient and cost-effective manner. All six municipalities prepare annual operating and multiyear capital improvement budgets. Small ongoing investments in infrastructure may be accommodated in annual operating budgets, but most major capital investments are addressed in a multi-year capital improvement plan (CIP).⁶⁷ A CIP is designed to assist a municipality in planning for its needed capital expenditures on a rational and systematic basis. A CIP is designed to identify a community's needed capital expenditures, to evaluate the priority of the various needs, and to structure a spending program for meeting the more important of these needs on an affordable basis.

Impact fees/exactions:

New or expanded public sewer, water, roadway, and other infrastructure will be required to support new residential and business developments. One source of funding that is widely used is impact fees, which are assessed against new development to cover the cost of providing capital facilities needed to serve the development. This is a way for development to “pay its own way.” Impact fees may only be used to finance facility improvements like highway, sewer, water, public safety, school, and recreation facilities and open space needed because of growth. They may not be used to pay operating or other non-capital costs or to cure existing deficiencies.

See <http://www.maine.gov/spo/landuse/docs/compplanning/impactfeemanual.pdf> for a copy of *Financing Infrastructure Improvements through Impact Fees: A Manual for Maine Municipalities on the Design and Calculation of Development Fees*.

Another common way to fund these improvements is through development exactions or the requirement that the developer provide off-site improvements to support proposed development, in spite of the fact that the need for the improvement was generated by several developments.

Both these widely used techniques will only get a community so far in providing the amount and quality of infrastructure necessary to support efficient growth, particularly those elements that are crucial to the quality of place – resilient and attractive sidewalk paving materials and curbing, extensive landscaping, vest pocket and community parks, ornamental lighting, pedestrian furniture and other amenities.

Offset fees:

An offset fee is a one-time fee paid by a developer or property owner for the right to develop a parcel more intensively than would otherwise be allowed under local regulations. Fees collected by the municipality go into a separate account that can only be used for specified purposes. For example, revenue from an infrastructure offset fee could only be used to plant trees or construct a commons, waste disposal facilities, water systems, or sidewalks. The concept behind offset fees is one of balancing private and public benefits. By paying the fee, the property owner or developer gets a benefit – the right to do additional development. The fee is then used by the Town to create an offsetting public benefit. An offset fee is different from an impact fee which is charged to pay for the cost of providing the specific infrastructure such as sewer or road improvements needed to service a development.

As previously discussed in this report, it is unlikely that the private sector will be able to provide the necessary infrastructure for these centers without a significant increase in density and intensity of

⁶⁷ A CIP is a document that includes an assessment of all existing and anticipated public facilities and services required to meet the town's planned growth and economic development, including but not limited to sewer, water, emergency services, schools, parks and open spaces, and transit facilities.

development, perhaps at higher levels than desired by the community. Even if regulations are adjusted to provide greater return on investment, it is likely the development community will not be able to provide enough investment in some areas of public infrastructure to create the kind of highly desirable public places that are so important to the success of centers. Here is where the need for an additional level of, public participation comes in.

Tax Increment Financing (TIF), including Transportation TIFs:

Tax Increment Financing (TIF) is an important public financing tool that focuses on economic development, its ability to capture and shield new value, and its ability to be applied to a broad range of activities. Many communities in Maine, and elsewhere, have used TIFs to help redevelop and make investments in community improvement projects. A TIF protects the community by “sheltering” the increased value gained from new development from the valuations used in many state formulas that return funds to the municipality (school aid, revenue sharing, county taxes). If not sheltered, the value of the new development translates to reduced state subsidies or higher taxes for the community. In general, for every \$1 of new value, \$.60 is lost through losing state subsidies or paying higher taxes. The dollars saved by the TIF can then be used for community improvements.

TIF dollars may be applied to a broad range of improvements – sewer, water, and roadway improvements, construction of parking, construction and operating transit improvements, supporting marketing efforts, acquiring and/or improving public space that supports economic development and enhancing credit for private developers to help them reduce risks in developing the centers.

Special assessment, development, or capital improvement districts:

A special assessment or development district is an area of a community with the power to collect fees to make specific improvements in or direct benefits to that area. The district must be established under state law and local ordinance for a specific purpose. Special assessment or development districts have been very effective in helping revitalize business areas or make improvements to residential neighborhoods. Their purpose may primarily focus on cleanliness and safety; center on physical improvements like building facades, streetscape improvements, signage, or off-street parking; coordinate special events and programs; or provide general maintenance. One reason for their effectiveness is their ability to generate funds that are channeled into programs directly benefitting the district.

Local Development Corporation:

A local development corporation is an organization, often made up of local citizens, established to improve the economy of the area by developing economic development programs, attracting new business and industry and providing financial support.

Public/Private Grants:

Despite our current weak economy and tight budgets, a number of state and federal agencies and private foundations have funds that support local capital improvement and community development. The Department of Economic and Community Development manages federal Community Development Block Grant Funds (CDBG), which though currently limited to job generating efforts, have traditionally been awarded competitively for infrastructure, public facilities, affordable housing, and community services. The federal Economic Development Administration (EDA) also offers grants to support economic development initiatives. The Maine State Housing Authority (MSHA) has funds that support the development of affordable housing. The federal Environmental Protection Agency (EPA) has offered smart growth and/or sustainable community initiatives in recent years.

Low Interest Loans:

If designed appropriately, municipalities may use many of the tools noted above to create a loan and/or a revolving loan fund to support the development of infrastructure. The fund could be designed to provide

various options and incentives for higher quality investments in infrastructure; for example, low or forgivable interest repayments or patient repayment schedules such as the one offered by the Maine State Planning Office in the early 2000s.

Pension Funds:

A new source of funds that is being explored to provide capital for infrastructure projects are the investment vehicles using pension funds of regional and other large employers, including public employees and the insurance industry. Some limitations that may have to be addressed to increase access to these funds include building relationships with pension fund managers, making them aware of potential investment opportunities, increasing their confidence in the soundness of infrastructure investments, insuring that there is a sufficient return for investors, and ensuring that financing is reliable and predictable. These tasks are generally beyond the capacity of most municipal planners, but collaboration with private and financial interests in the region may help identify potential opportunities and ways to overcome some of these barriers. CEI may be a feasible partner for this funding source. Accessing pension funds from outside of the region is likely to require engagement of sympathetic interests from outside the region at higher levels of government.

Donations:

Donations of funds, equipment, or property by an individual, corporation, or foundation are rarely major or consistent methods of financing infrastructure improvement, but can help create cherished places in neighborhood and village centers. Donations of time and treasure may help create flower gardens/displays, vest pocket parks, playgrounds, community gardens, open spaces, gazebos, even larger projects like libraries that create gathering places and a cherished sense of “place.”

Transfer of Development Rights (TDR):

A TDR is a market-based land use tool that cities and counties use to develop compact communities while conserving natural resource and open space lands. A TDR program contains several elements. A community identifies areas that it wants to conserve, such as privately owned farms, forestland, open space or other lands, depending on the local need and desire.. These lands, known as “sending areas,” usually provide jobs, food, outdoor recreation, timber, and/or open space. Through voluntary transactions, landowners in sending areas sell their right to build homes on their land to developers in urban areas. Landowners receive money from the sale and continue to own and use their land, while developers in urban areas pay for the right to build more homes or commercial space than zoning would otherwise allow. These “receiving areas” designated for development rights are identified by the community as being better suited for locating additional growth, and are often located in cities. More compact development in receiving areas should result in more walkable communities with access to transit, a variety of shops and services, amenities such as open space and street trees, and a reduced need to drive. Under some programs, development rights can be converted to additional building height or commercial floor space, or revised parking or stormwater requirements. Receiving areas should have or should be planning for the infrastructure and services capacities to meet the needs of increased growth.

- Regional TDR benefits landowners, developers, cities, counties, and neighborhoods: This report suggests that:
 - Regional TDR is a way to maintain land in farming and forestry, which reduces stormwater runoff and protects water quality.
 - It encourages cross-jurisdiction coordination, including protection of valued lands outside a city’s boundaries.
 - Creates a regional market for conservation and development that is larger than one that only addresses an individual jurisdiction.

- TDR programs help cities grow wisely while preserving lands important to their residents. Builders can provide more homes and space for local businesses by purchasing development rights from farm, forest, and open space landowners.
 - Through voluntary transactions, TDR allows owners of farms, forests, and open spaces to receive financial return and continue to own and use the land.
 - TDR programs allow developers to increase development capacity in their projects with purchases of development rights from farm, forest, and open space landowners.
- Over the course of twelve years, several cities and counties (and ultimately the state) joined together through a series of interlocal agreements aimed at protecting farmland, forestland and open space. These interlocal agreements opened the door to several federal grants that along with state funding has resulted in:
 - Over 180,000 acres of farmland, forestland, and open space under conservation easement.
 - 2,628 transferable development right credits purchased from farmland, forestland, and open space.
 - Over 250 credits transferred into cities and unincorporated urban growth areas.

Appendix C - Fiscal Analysis worksheets

Fiscal Analysis - Summary by Town

Town	Trend Housing Split (Existing)			COO Housing Split (Assumed)			Total Housing Units in COO (2010-2035)	Trend Housing		COO Housing		Number of New School Enrollment			Potential Annual School Enrollment Costs		
	SF	MF		SF	MF			SF	MF	SF	MF	Trend	COO	Delta	Trend	COO	Delta
Gorham	84%	16%		65%	35%		830	697	133	540	291	474	406	68	\$ 6,114,574	\$ 5,239,993	\$ 874,581
Scarborough	89%	11%		65%	35%		2940	2617	323	1911	1029	1743	1439	303	\$ 21,822,850	\$ 18,023,089	\$ 3,799,761
Portland	38%	62%		10%	90%		3920	1490	2430	392	3528	1464	992	472	\$ 19,808,256	\$ 13,421,234	\$ 6,387,022
South Portland	62%	38%		33%	67%		1728	1071	657	570	1158	824	608	215	\$ 11,796,354	\$ 8,711,374	\$ 3,086,980
Standish	95%	5%		80%	20%		608	578	30	486	122	376	337	39	\$ 3,784,484	\$ 3,389,820	\$ 394,663
Westbrook	59%	41%		33%	67%		1848	1090	758	610	1238	857	650	207	\$ 11,412,560	\$ 8,660,944	\$ 2,751,616
							11874		Units		Units		School children		Dollars		Dollars

Town	Miles of New Municipal Maintained Roads			Municipal Maintenance Costs			Open Space Calculations		
	Trend	COO	Delta	Trend	COO	Delta	Trend	COO	Delta
Gorham	27.42	5.19	22.23	\$ 194,608	\$ 36,824	\$ 157,784	724	137	587
Scarborough	101.56	18.38	83.19	\$ 1,807,534	\$ 327,021	\$ 1,480,513	2681	485	2196
Portland	74.84	16.33	58.50	\$ 1,872,767	\$ 408,739	\$ 1,464,028	1231	431	800
South Portland	45.56	8.71	36.85	\$ 769,463	\$ 147,038	\$ 622,424	667	230	437
Standish	22.11	4.15	17.96	\$ 117,013	\$ 21,940	\$ 95,073	584	109	474
Westbrook	47.04	9.31	37.73	\$ 499,380	\$ 98,836	\$ 400,544	697	246	451
		Miles of Road			Dollars			Acres	

Fiscal Analysis Spreadsheet - Gorboro

HOUSING CALCULATIONS - TREND
 Housing Change (2010 - 2035)-Gorham **1975**
 Housing in all Centers of Opportunity **830**

HOUSING CALCULATIONS - GORBORO COO
 Housing Change (2010 - 2035)-Gorham **3430**
 Housing in all Centers of Opportunity **2940**

Item	Town of Gorham Data	Town of Scarborough Data
Population	16381	18919
School Enrollment	2648	3262
Emergency Service Calls	2389	2500
Mile of Town-maintained roads	219.6	353.7 Use MaineDOT lane miles as guide
SF Homes	84%	89%
MF Homes	16%	11%
Fire/Rescue Calls	2389	2500

NEW TREND HOUSING BY TYPE CALCULATIONS			NEW HOUSING BY TYPE CALCULATIONS		
SF	MF		SF	MF	
Percentage of trend SF/MF housing in Gorham	84%	16%	65%	35%	
Percentage of trend SF/MF housing in Scarborough	88%	11%	65%	35%	
SF/MF new trend housing in Gorham	697	133	340	291	
SF/MF new trend housing in Scarborough	2617	323	1311	1028	
Totals	3314	456	2451	1320	

Department	Town of Gorham Costs	Town of Scarborough Costs
School Department	\$ 34,152,140	\$ 40,889,556
Public Works	\$ 1,558,844	\$ 6,284,820
Fire/Rescue	\$ 1,505,659	\$ 3,904,485
Police	\$ 1,675,200	\$ 5,254,329

Item	Town of Gorham				Town of Scarborough			
	Unit	2014 Cost	# of units	Cost per unit	Unit	2014 Cost	# of units	Cost per unit
School Department Cost per child	per child	\$ 34,152,140	2,648	\$ 12,897.33	per child	\$ 40,889,556	3,262	\$ 12,523.60
Highway Maintenance per Mile	per mile	\$ 1,558,844	219.6	\$ 7,098.56	per mile	\$ 6,284,820	353.7	\$ 17,797.06

American Housing Survey Data	SF	MF
Number of children per 100 units new housing	64	21
Average number per unit new housing	0.64	0.21

Highway Maintenance Data	
Average length of new town-maintained road per SF unit	200
Average length of new town-maintained road per MF unit	40

Average lengths are reduced by 3X for SF and 2X for MF based on assumed density in COO scenario

ANNUAL TREND VS. COO MUNICIPAL COST CALCULATIONS							
TREND COST	Town of Gorham			Town of Scarborough			
	Unit	Cost per unit	Annual Cost	Unit	2014 Cost	# of units	Annual Cost
Number of school children							
Single Family	446.21	\$ 12,897.33	\$ 5,774,894	1674.62	\$ 12,523.60		\$ 20,972,312
Multi-Family	27.89	\$ 12,897.33	\$ 359,661	67.91	\$ 12,523.60		\$ 850,528
Total School Children - Trend for Gorham	474.10		\$ 6,114,574	1742.54			\$ 21,822,830
Miles of New Roadway for housing units							
Single Family	26.41	\$ 7,098.56	\$ 187,467	99.11	\$ 17,797.06		\$ 1,763,931.30
Multi-Family	1.01	\$ 7,098.56	\$ 7,142	2.45	\$ 17,797.06		\$ 43,602.80
Total Highway Maintenance Costs	27.4		\$194,608	101.56			\$ 1,807,534.10

COO COST	Town of Gorham			Town of Scarborough			
	Unit	Cost per unit	Annual Cost	Unit	2014 Cost	# of units	Annual Cost
Number of school children							
Single Family	345.28	\$ 12,897.33	\$ 4,453,191	1223.04	\$ 12,523.60		\$ 15,316,864.49
Multi-Family	61.01	\$ 12,897.33	\$ 786,802	216.09	\$ 12,523.60		\$ 2,706,224.86
Total School Children - Trend for Gorham	406.29		\$ 5,239,993	1439.13			\$ 18,023,089.35
Miles of New Roadway for housing units							
Single Family	4.09	\$ 7,098.56	\$ 29,013	14.48	\$ 17,797.06		\$ 257,652.89
Multi-Family	1.10	\$ 7,098.56	\$ 7,811	3.90	\$ 17,797.06		\$ 69,368.08
Total Highway Maintenance Costs	5.2		\$36,824	18.38			\$ 327,020.97

POTENTIAL ANNUAL MUNICIPAL COST SAVINGS COO vs. TREND	Town of Gorham		Town of Scarborough	
	Annual Savings		Annual Savings	
School Department Costs	67.8	\$ 874,581	303.4	\$ 3,799,761
Highway Maintenance Costs	22.2	\$157,784	83.2	\$1,480,513
Total Annual Cost Savings		\$ 1,032,365		\$ 5,280,274

Fiscal Analysis Spreadsheet - Libbytown

HOUSING CALCULATIONS - TREND
 Housing Change (2010 - 2035)-Portland
 Housing in all Centers of Opportunity

4900
 3920

NEW TREND HOUSING BY TYPE CALCULATIONS	SF	MF
Percentage of trend SF/MF housing in Portland	30%	62%
SF/MF new trend housing in Portland	1490	2430
Totals	1490	2430

NEW HOUSING BY TYPE CALCULATIONS	SF	MF
Percentage of COO SF/MF housing in Portland	10%	90%
SF/MF new COO housing in Portland	392	3528
Totals	392	3528

Item	City of Portland Data
Population	66,318
School Enrollment	7005
Mile of Town-maintained roads	676 use MaineDOT local miles as guide
SF Homes	30%
MF Homes	62%

Department	City of Portland
School Department	\$ 94,796,868
Public Works	\$ 16,916,779

CALCULATIONS	City of Portland			
	Unit	2014 Cost	# of units	Cost per unit
School Department Cost per child	per child	\$ 94,796,868	7,005	\$ 13,532.74
Highway Maintenance per Mile	per mile	\$ 16,916,779	676	\$ 25,024.82

American Housing Survey Data	SF	MF
Number of children per 100 units new housing	64	21
Average number per unit new housing	0.64	0.21

Highway Maintenance Data	SF	MF
Average length of new town-maintained road per SF unit		200
Average length of new town-maintained road per MF unit		40

Average lengths are reduced by 5X for SF and 2X for MF based on assumed density in COO scenario

ANNUAL TREND VS. COO MUNICIPAL COST CALCULATIONS	City of Portland		
	Unit	Cost per unit	Annual Cost
TREND COST			
Number of school children			
Single Family	953.34	\$ 13,532.74	\$ 12,901,360
Multi-Family	510.38	\$ 13,532.74	\$ 6,906,896
Total School Children - Trend for Gorham	1463.73		\$ 19,808,256
Miles of New Roadway for housing units			
Single Family	56.42	\$ 25,024.82	\$ 1,412,007
Multi-Family	18.41	\$ 25,024.82	\$ 460,760
Total Highway Maintenance Costs	74.8		\$ 1,872,767

COO COST	City of Portland		
	Unit	Cost per unit	Annual Cost
Number of school children			
Single Family	250.88	\$ 13,532.74	\$ 3,395,095
Multi-Family	740.88	\$ 13,532.74	\$ 10,026,139
Total School Children - Trend for Gorham	991.76		\$ 13,421,234
Miles of New Roadway for housing units			
Single Family	2.97	\$ 25,024.82	\$ 74,316
Multi-Family	13.36	\$ 25,024.82	\$ 334,425
Total Highway Maintenance Costs	16.3		\$ 408,739

POTENTIAL ANNUAL MUNICIPAL COST SAVINGS	City of Portland	
	COO vs. TREND	Annual Savings
School Department Costs	472.0	\$ 6,387,022
Highway Maintenance Costs	58.5	\$ 1,464,028
Total Annual Cost Savings		\$ 7,851,050

Open Space Analysis Spreadsheet - Portland

TREND	SF	MF
Average lot size:	0.5	0.2
COO		
Average lot size	0.2	0.1

ANNUAL TREND VS. COO OPEN SPACE CALCULATIONS (2010 -2035)

TREND COST	City of Portland		
	Unit	Total units	Total Acres
TREND Open Space Calculation			
Single Family	acre	1489.60	744.80
Multi-Family	acre	2430.40	486.08
Total Acres - TREND			1230.88
COO Open Space Calculations			
Single Family	acre	392.00	78.40
Multi-Family	acre	3528.00	352.80
Total Acres - COO			431.20

Total Acres Saved	800
-------------------	-----

Fiscal Analysis Spreadsheet - Redbank/Brick Hill

HOUSING CALCULATIONS - TREND

Housing Change (2010 - 2035)-South Portland	2600
Housing in all Centers of Opportunity	1728

NEW TREND HOUSING BY TYPE CALCULATIONS

	SF	MF
Percentage of trend SF/MF housing in South Portland	62%	38%
SF/MF new trend housing in South Portland	1071	657
Totals	1071	657

NEW HOUSING BY TYPE CALCULATIONS

	SF	MF	67%
Percentage of COO SF/MF housing in South Portland	33%	33%	67%
SF/MF new COO housing in South Portland	570	1158	
Totals	570	1158	

Item	City of South Portland		
	Units	2014 Cost	Cost per unit
School Department Cost per child	per child	\$ 44,840,246	3,130 \$ 14,325.96
Highway Maintenance per Mile	per mile	\$ 4,529,989	268.2 \$ 16,890.34

ANNUAL TREND VS. COO MUNICIPAL COST CALCULATIONS

TREND COST	City of South Portland		
	Unit	Cost per unit	Annual Cost
Number of school children			
Single Family	685.67	\$ 14,325.96	\$ 9,822,885
Multi-Family	137.09	\$ 14,325.96	\$ 1,975,469
Total School Children - Trend for Gorham	822.56		\$ 11,798,354
Miles of New Roadway for housing units			
Single Family	40.58	\$ 16,890.34	\$ 685,441
Multi-Family	4.97	\$ 16,890.34	\$ 84,022
Total Highway Maintenance Costs	45.6		\$ 769,462

COO COST	City of South Portland		
	Unit	Cost per unit	Annual Cost
Number of school children			
Single Family	364.95	\$ 14,325.96	\$ 5,228,310
Multi-Family	243.13	\$ 14,325.96	\$ 3,483,064
Total School Children - Trend for Gorham	608.08		\$ 8,711,374
Miles of New Roadway for housing units			
Single Family	4.32	\$ 16,890.34	\$ 72,966
Multi-Family	4.39	\$ 16,890.34	\$ 74,072
Total Highway Maintenance Costs	8.7		\$ 147,038

POTENTIAL ANNUAL MUNICIPAL COST SAVINGS COO vs. TREND	City of South Portland	
	Units	Annual Savings
School Department Costs	215.5	\$ 3,086,980
Highway Maintenance Costs	36.9	\$ 622,434
Total Annual Cost Savings		\$ 3,709,405

Item	City of South Portland Data
Population	25,255
School Enrollment	3130
Mile of Town-maintained roads	268.2 Use MaineDOT miles as guide
SF Homes	62%
MF Homes	38%

Department	City of South Portland
School Department	\$ 44,840,246
Public Works	\$ 4,529,989

American Housing Survey Data	SF	MF
Number of children per 100 units new housing	64	21
Average number per unit new housing	0.64	0.21
Highway Maintenance Data		
Average length of new town-maintained road per SF unit		200
Average length of new town-maintained road per MF unit		40

Average lengths are reduced by 5X for SF and 2X for MF based on assumed density in COO scenario

Fiscal Analysis Spreadsheet - Prides Corner

HOUSING CALCULATIONS - TREND

Housing Change (2010 - 2035)-Westbrook	3300
Housing in all Centers of Opportunity	1944

NEW TREND HOUSING BY TYPE CALCULATIONS

Percentage of trend SF/MF housing in Westbrook	SF	59%	MF	41%
SF/MF new trend housing in Westbrook		1090		758
Totals		1090		758

NEW HOUSING BY TYPE CALCULATIONS

Percentage of COO SF/MF housing in Westbrook	SF	33%	MF	67%
SF/MF new COO housing in Westbrook		610		1238
Totals		610		1238

Item	City of Westbrook Data
Population	17743
School Enrollment	2542
Mile of Town-maintained roads	177.9 Use MaineDOT miles as guide
SF Homes	59%
MF Homes	41%

Department	City of Westbrook
School Department	\$ 33,854,745
Public Works	\$ 1,888,599

Item	City of Westbrook			
	Unit	2014 Cost	# of units	Cost per unit
School Department Cost per child	per child	\$ 33,854,745	2,542	\$ 13,318.15
Highway Maintenance per Mile	per mile	\$ 1,888,599	177.9	\$ 10,616.07

American Housing Survey Data	SF	MF
Number of children per 100 units new housing	64	21
Average number per unit new housing	0.64	0.21

Highway Maintenance Data	SF	MF
Average length of new town-maintained road per SF unit	200	
Average length of new town-maintained road per MF unit		40

Average lengths are reduced by 5X for SF and 2X for MF based on assumed density in COO scenario

ANNUAL TREND VS. COO MUNICIPAL COST CALCULATIONS

TREND COST	City of Westbrook		
	Unit	Cost per unit	Annual Cost
Number of school children			
Single Family	697.00	\$ 13,318.15	\$ 9,293,471
Multi-Family	159.11	\$ 13,318.15	\$ 2,119,089
Total School Children - Trend for Gorham	856.92		\$ 11,412,560
Miles of New Roadway for housing units			
Single Family	41.30	\$ 10,616.07	\$ 438,444
Multi-Family	5.74	\$ 10,616.07	\$ 60,936
Total Highway Maintenance Costs	47.0		\$ 499,380

COO COST	City of Westbrook		
	Unit	Cost per unit	Annual Cost
Number of school children			
Single Family	390.30	\$ 13,318.15	\$ 5,198,043
Multi-Family	260.01	\$ 13,318.15	\$ 3,462,901
Total School Children - Trend for Gorham	650.31		\$ 8,660,944
Miles of New Roadway for housing units			
Single Family	4.62	\$ 10,616.07	\$ 49,048
Multi-Family	4.69	\$ 10,616.07	\$ 49,789
Total Highway Maintenance Costs	9.3		\$ 98,836

POTENTIAL ANNUAL MUNICIPAL COST SAVINGS COO vs. TREND	City of Westbrook	
	Unit	Annual Savings
School Department Costs	206.6	\$ 2,751,616
Highway Maintenance Costs	37.7	\$ 400,544
Total Annual Cost Savings		\$ 3,152,160

Open Space Analysis Spreadsheet - Westbrook

TREND	SF	MF
Average lot size:	0.5	0.2
COO		
Average lot size	0.2	0.1

ANNUAL TREND VS. COO OPEN SPACE CALCULATIONS (2010 -2035)

TREND COST	City of Westbrook		
	Unit	Total units	Total Acres
TREND Open Space Calculation			
Single Family	acre	1090.32	545.16
Multi-Family	acre	757.68	151.54
Total Acres - TREND			696.70
COO Open Space Calculations			
Single Family	acre	609.84	121.97
Multi-Family	acre	1238.16	123.82
Total Acres - COO			245.78

Total Acres Saved	451
-------------------	-----

Fiscal Analysis Spreadsheet - Standish

HOUSING CALCULATIONS - TREND
 Housing Change (2010 - 2035)-Standish
 Housing in all Centers of Opportunity

1350
 608

NEW TREND HOUSING BY TYPE CALCULATIONS
 Percentage of trend SF/MF housing in Standish
 SF/MF new trend housing in Standish

SF	MF
95%	5%
578	30
Totals	578 30

NEW HOUSING BY TYPE CALCULATIONS
 Percentage of COO SF/MF housing in Standish
 SF/MF new COO housing in Standish

SF	MF
80%	20%
486	122
Totals	486 122

Item	Town of Standish			
	Unit	2014 Cost	# of units	Cost per unit
School Department Cost per child	per child	\$ 8,352,900	830	\$ 10,063.83
Highway Maintenance per Mile	per mile	\$ 1,038,393	196.2	\$ 5,292.52

ANNUAL TREND VS. COO MUNICIPAL COST CALCULATIONS

TREND COST	Town of Standish		
	Unit	Cost per unit	Annual Cost
Number of school children			
Single Family	369.66	\$ 10,063.83	\$ 3,720,236
Multi-Family	6.38	\$ 10,063.83	\$ 64,247
Total School Children - Trend for Gorham	376.05		\$ 3,784,484
Miles of New Roadway for housing units			
Single Family	21.88	\$ 5,292.52	\$115,794
Multi-Family	0.23	\$ 5,292.52	\$ 1,219
Total Highway Maintenance Costs	22.1		\$117,013

COO COST	Town of Standish		
	Unit	Cost per unit	Annual Cost
Number of school children			
Single Family	311.30	\$ 10,063.83	\$ 3,132,830
Multi-Family	25.54	\$ 10,063.83	\$ 256,990
Total School Children - Trend for Gorham	336.83		\$ 3,389,820
Miles of New Roadway for housing units			
Single Family	3.68	\$ 5,292.52	\$19,502
Multi-Family	0.46	\$ 5,292.52	\$ 2,438
Total Highway Maintenance Costs	4.1		\$21,940

POTENTIAL ANNUAL MUNICIPAL COST SAVINGS COO vs. TREND	Town of Standish	
	Unit	Annual Savings
School Department Costs	39.2	\$ 394,663
Highway Maintenance Costs	18.0	\$95,073
Total Annual Cost Savings		\$ 489,736

Item	Town of Standish data
Population	9,874
School Enrollment (Standish only)	830 estimate
Mile of Town-maintained roads	196.2 combined local, minor arterial, major urban collector
SF Homes	95%
MF Homes	5%

Department	Town of Standish
School Department	\$ 8,352,900
Public Works	\$ 1,038,393

American Housing Survey Data	SF	MF
Number of children per 100 units new housing	64	21
Average number per unit new housing	0.64	0.21

Highway Maintenance Data	SF	MF
Average length of new town-maintained road per SF unit		200
Average length of new town-maintained road per MF unit		40

Average lengths are reduced by 5X for SF and 2X for MF based on assumed density in COO scenario

Open Space Analysis Spreadsheet - Standish

TREND	SF	MF
Average lot size:	1	0.2
COO		
Average lot size	0.2	0.1

ANNUAL TREND VS. COO OPEN SPACE CALCULATIONS (2010 -2035)			
TREND COST	Town of Standish		
	Unit	Total units	Total Acres
TREND Open Space Calculation			
Single Family	acre	577.60	577.60
Multi-Family	acre	30.40	6.08
Total Acres - TREND			583.68
COO Open Space Calculations			
Single Family	acre	486.40	97.28
Multi-Family	acre	121.60	12.16
Total Acres - COO			109.44

Appendix D – Principles of Form Based Code

In *Form Based Codes: A Guide for Planners, Urban Designers, Municipalities, and Developers*, Parolek, Parolek, and Crawford say that form based codes are:

- Vision-Centered
- Purposeful
- Place-Based
- Regionally Diverse
- Consequential (an economic development engine)
- Precise
- Integrated
- Binding (based on standards, not guidelines)
- Comprehensible
- Adjustable⁶⁸

They identify the basic building blocks of a Form Based Code as including:

- The Regulating Plan, which establishes the organizing principles for the code, often the type of street
- Public Space Standards, which establish standards for the creation of thoroughfares and civic spaces
- Building Form Standards, which provides an overview of the district and standards for building placement, building form, parking, land use allowances/restrictions, frontage types, encroachments (porches, fences, awnings, etc.), and building types
- Frontage Type Standards, which provide standards that typically vary by type of streets
- Block Standards which provide standards that typically vary by type of streets
- Building Type Standards, which provides standards for building types, required lot sizes, pedestrian access, frontages, vehicle access and parking, service, open space, landscape, building size and massing
- Architectural Standards, which provides standards for massing, façade composition, windows and doors, elements and details, and materials
- Project Review and Approval/Nonconformities, which provide systems of permitting, including permitting by CEO and permitting/review by various municipal boards and committees, the goal being a detailed set of standards in exchange for a streamlined and timely review process

Some considerations in deciding how to approach the development of a form based code include:

- Whether to include an extensive list of allowed uses with various permitting/review requirements or establish exacting standards that define form, including scale, of development by organizing principle, say street type or district, and allow broad categories of use within them – may define prohibited uses, if desire.
- Whether to allow or require mixed use and/or reserve certain floors for retail, nonresidential, or other uses and under what conditions to vary from those allowances/requirements.
- Whether to establish minimum or maximum lot sizes by organizing principle.

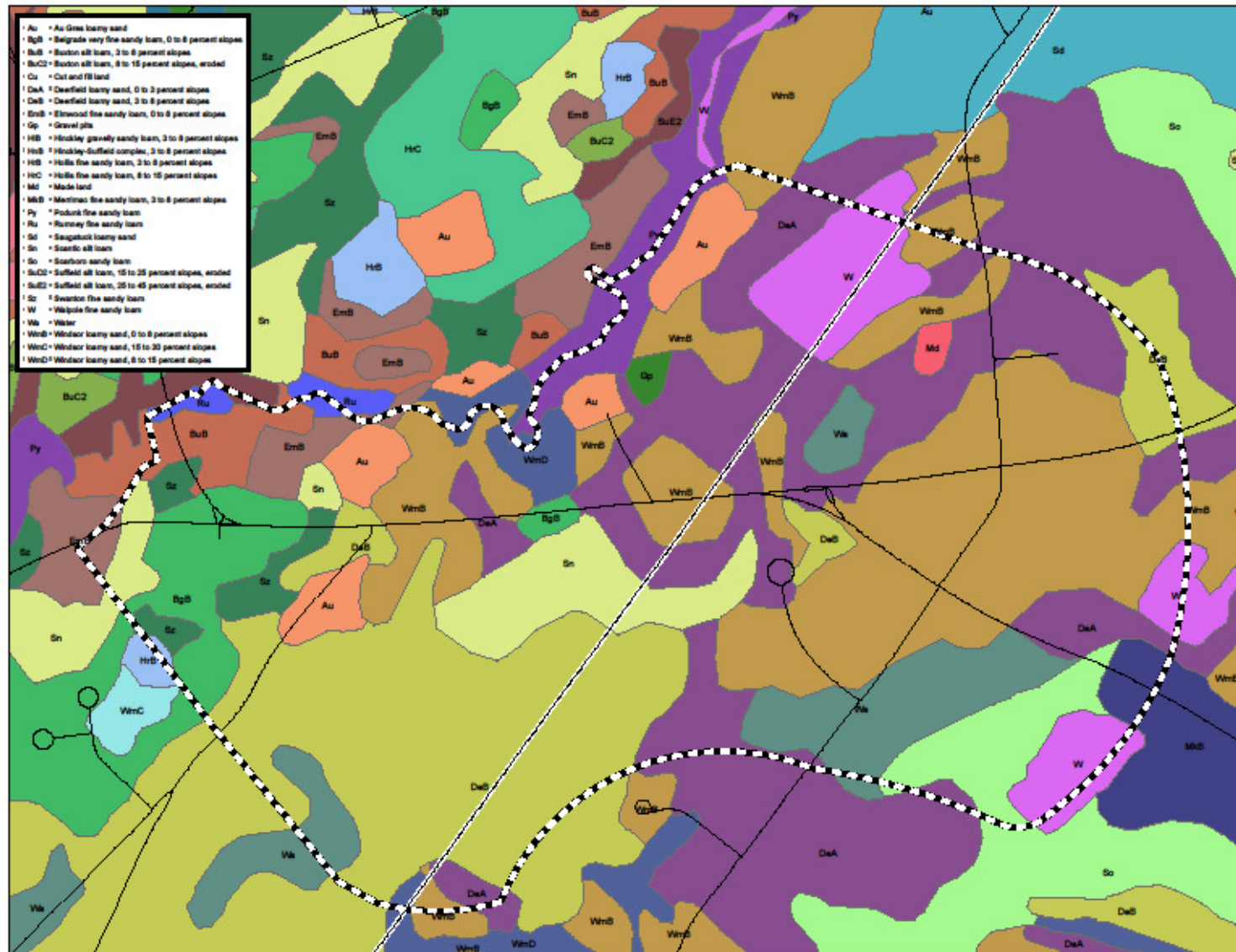
⁶⁸ Parolek, Daniel G., Karen Parolek, Paul C. Crawford, FAICP. *Form-Based Codes: A Guide for Planners, Urban Designers, Municipalities, an Developers*. John Wiley & Sons, Inc. 2008.

- Whether to establish a build to line or establish minimum and/or maximum front yard setbacks by organizing principle.
- Whether to establish minimum and/or maximum frontage or lot widths. by organizing principle.
- How to establish relationships between building and lot widths by organizing principle.
- Whether to establish minimum and/or maximum heights that vary by organizing principle.
- Whether to establish standards for entries, including service entries, façade orientation, maximum building footprint, and/or parking placement.
- Whether to establish standards for the treatment of streets, streetscapes, blocks, and intersections by organizing principle.
- Whether to establish standards for building forms, projections, blank walls, porches, walls, doors, windows, and other treatments by organizing principle.
- Whether to establish standards for fences, walls, street trees, signage, lighting, and other elements by organizing principle.

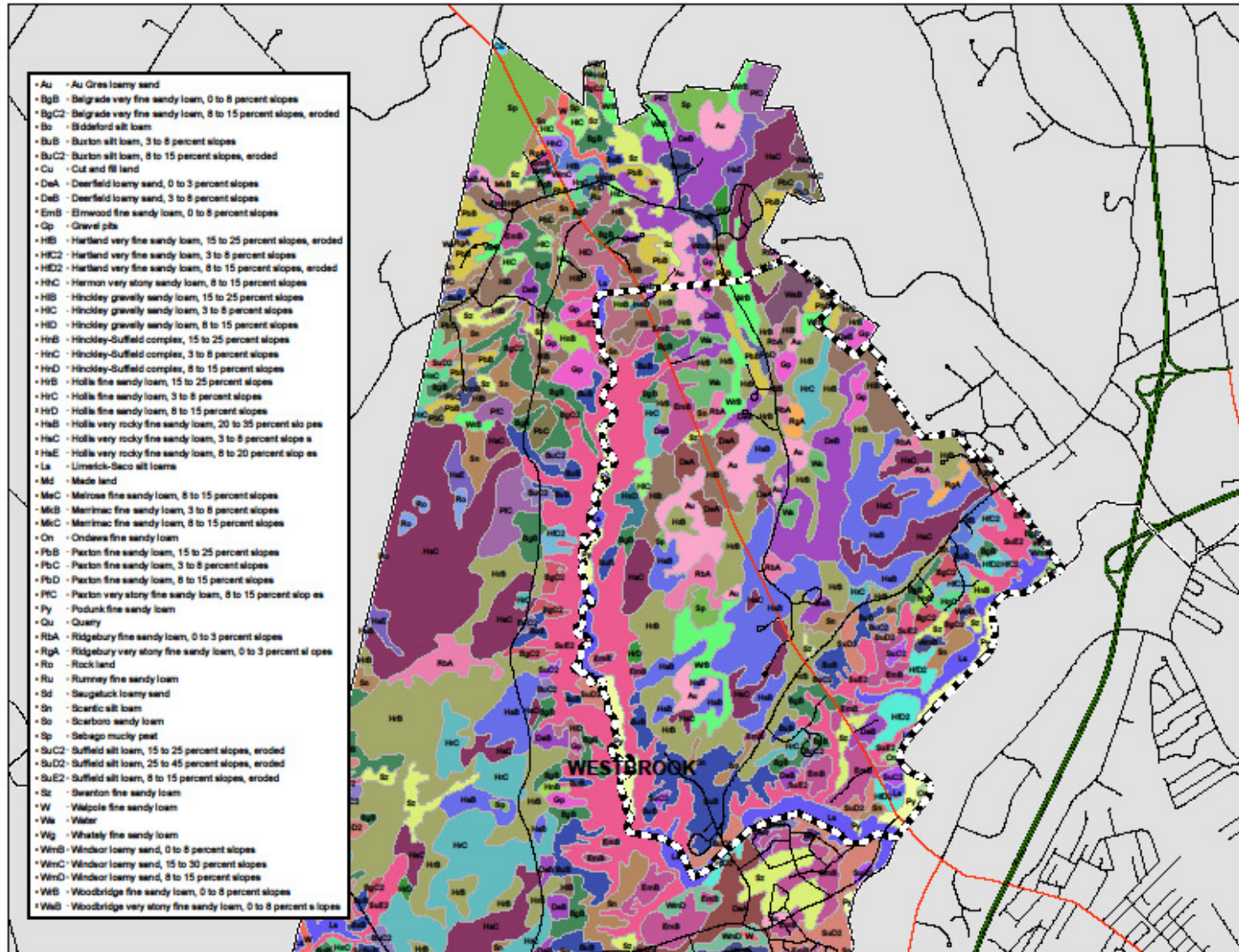
Whether a community wants to adopt a form based code or incorporate design and other standards in a conventional code, there are a few basic concepts it should follow. If the intent is to preserve and expand a pattern of development that is already established in the center, then the first order of business is to observe and measure what exists in the center. Then, using that experience, develop standards that reflect what you have observed and measured. Use graphics to illustrate what the municipality wants and does not want. If the intent is to create a new center, it will be very helpful if the municipality identifies one or more centers that reflect the mix and type of uses and form of buildings, streets, and civic spaces it would like to see in its new center. These existing centers might be located elsewhere in the community, in another nearby community, or further away.

If the intent is to incorporate more design and other standards in a conventional code, rather than adopting a form based code, the municipality should plan to include some less conventional standards to manage the creation of what is often called the public realm and reflect the relationship among buildings, streets, and civic and quasi-public spaces.

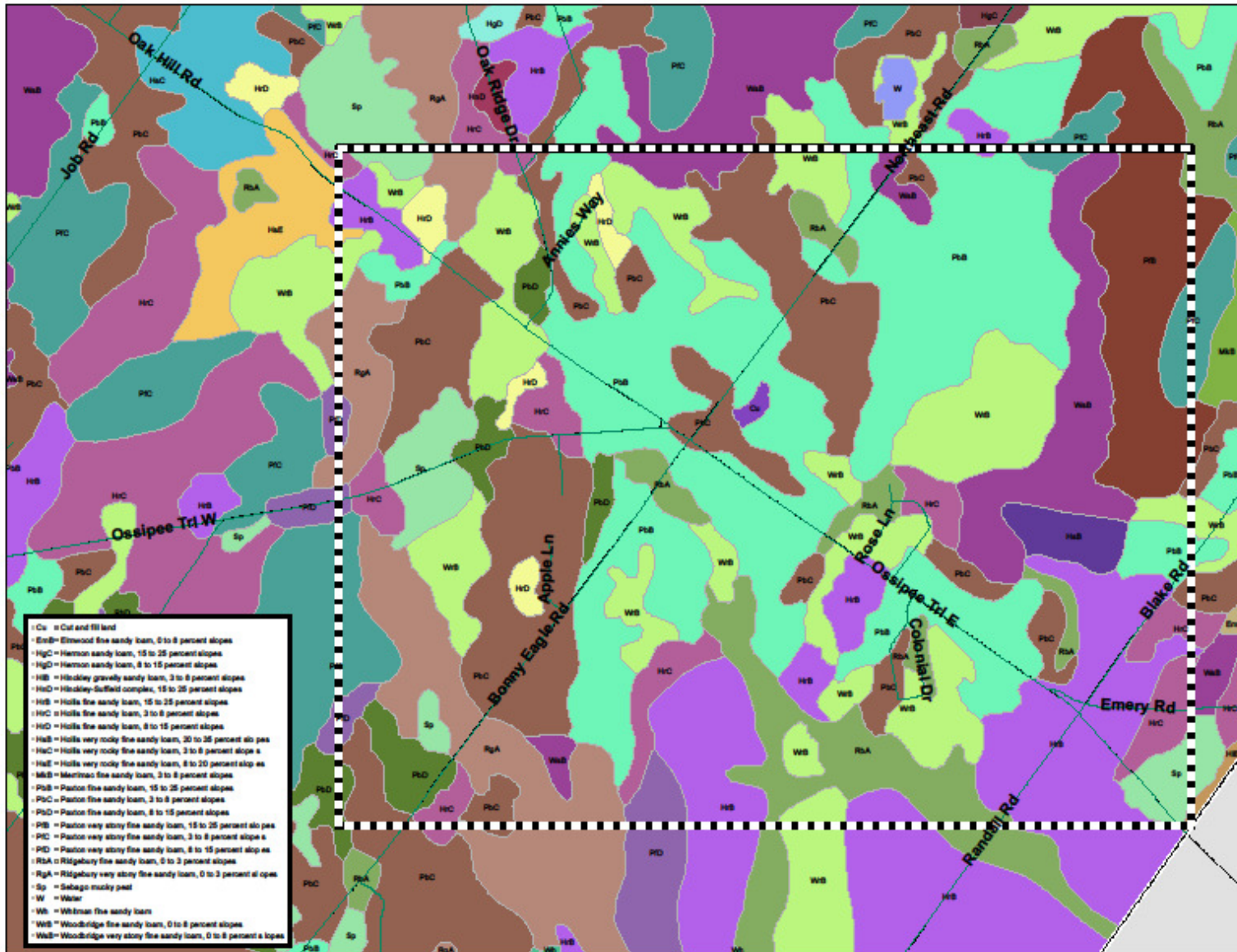
Appendix E: NRCS Soil Survey Map for South Gorham/North Scarborough



Appendix E: NRCS Soil Survey Map for Pride's Corner



Appendix E: NRCS Soil Survey Map for Standish Corner, Standish



Appendix F: Soil Types in Standish Corner

HgB

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): High to very high (2.00 to 20.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Low (about 3.7 inches)

HgD

Slope: 15 to 25 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): High to very high (2.00 to 20.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Low (about 3.7 inches)

HnD

Slope: 15 to 25 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Excessively drained

Capacity of the most limiting layer to transmit water (Ksat): High to very high (6.00 to 20.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Very low (about 2.3 inches)

HrB

Slope: 0 to 3 percent

Depth to restrictive feature: 10 to 20 inches to lithic bedrock

Natural drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Low (about 3.2 inches)

HrC

Slope: 8 to 15 percent

Depth to restrictive feature: 10 to 20 inches to lithic bedrock

Natural drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Low (about 3.2 inches)

HrD

Slope: 15 to 25 percent

Depth to restrictive feature: 10 to 20 inches to lithic bedrock

Natural drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Low (about 3.2 inches)

HsB

Slope: 3 to 8 percent

Percent of area covered with surface fragments: 1.6 percent

Depth to restrictive feature: 10 to 20 inches to lithic bedrock

Natural drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Low (about 3.3 inches)

HsC

Slope: 8 to 20 percent

Percent of area covered with surface fragments: 1.6 percent

Depth to restrictive feature: 10 to 20 inches to lithic bedrock

Natural drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Low (about 3.3 inches)

HsD

HsE

Slope: 20 to 35 percent

Percent of area covered with surface fragments: 1.6 percent

Depth to restrictive feature: 10 to 20 inches to lithic bedrock

Natural drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Low (about 3.3 inches)

MkB

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 6.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Low (about 4.6 inches)

PbB

Slope: 3 to 8 percent

Depth to restrictive feature: 18 to 40 inches to densic material

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)

Depth to water table: About 30 to 42 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Very low (about 2.9 inches)

PbC

Slope: 8 to 15 percent

Depth to restrictive feature: 18 to 40 inches to densic material

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)

Depth to water table: About 30 to 42 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Very low (about 2.9 inches)

PbD

Slope: 15 to 25 percent

Depth to restrictive feature: 18 to 40 inches to densic material

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)

Depth to water table: About 30 to 42 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Very low (about 2.9 inches)

PfB

Slope: 3 to 8 percent

Percent of area covered with surface fragments: 1.6 percent

Depth to restrictive feature: 18 to 40 inches to densic material

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)

Depth to water table: About 30 to 42 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Low (about 3.5 inches)

PfC

Slope: 8 to 15 percent

Percent of area covered with surface fragments: 1.6 percent

Depth to restrictive feature: 18 to 40 inches to densic material

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)

Depth to water table: About 30 to 42 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Low (about 3.5 inches)

PfD

Slope: 15 to 25 percent

Percent of area covered with surface fragments: 1.6 percent

Depth to restrictive feature: 18 to 40 inches to densic material

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)

Depth to water table: About 30 to 42 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Low (about 3.5 inches)

RbA

Slope: 0 to 3 percent

Depth to restrictive feature: 10 to 20 inches to densic material

Natural drainage class: Poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)

Depth to water table: About 0 to 12 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Low (about 3.7 inches)

RgA

Slope: 0 to 3 percent

Percent of area covered with surface fragments: 1.6 percent

Depth to restrictive feature: 10 to 20 inches to densic material

Natural drainage class: Poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)

Depth to water table: About 0 to 12 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Low (about 4.4 inches)

Sp

Slope: 0 to 1 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Very poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (1.42 to 6.00 in/hr)

Depth to water table: About 0 inches

Frequency of flooding: None

Frequency of ponding: Frequent

Available water storage in profile: Very high (about 18.0 inches)

WrB

Slope: 0 to 8 percent

Depth to restrictive feature: 16 to 36 inches to densic material

Natural drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)

Depth to water table: About 18 to 30 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Very low (about 2.8 inches)

WsB

Slope: 0 to 8 percent

Percent of area covered with surface fragments: 1.6 percent

Depth to restrictive feature: 16 to 36 inches to densic material

Natural drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)

Depth to water table: About 18 to 30 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Low (about 3.5 inches)