

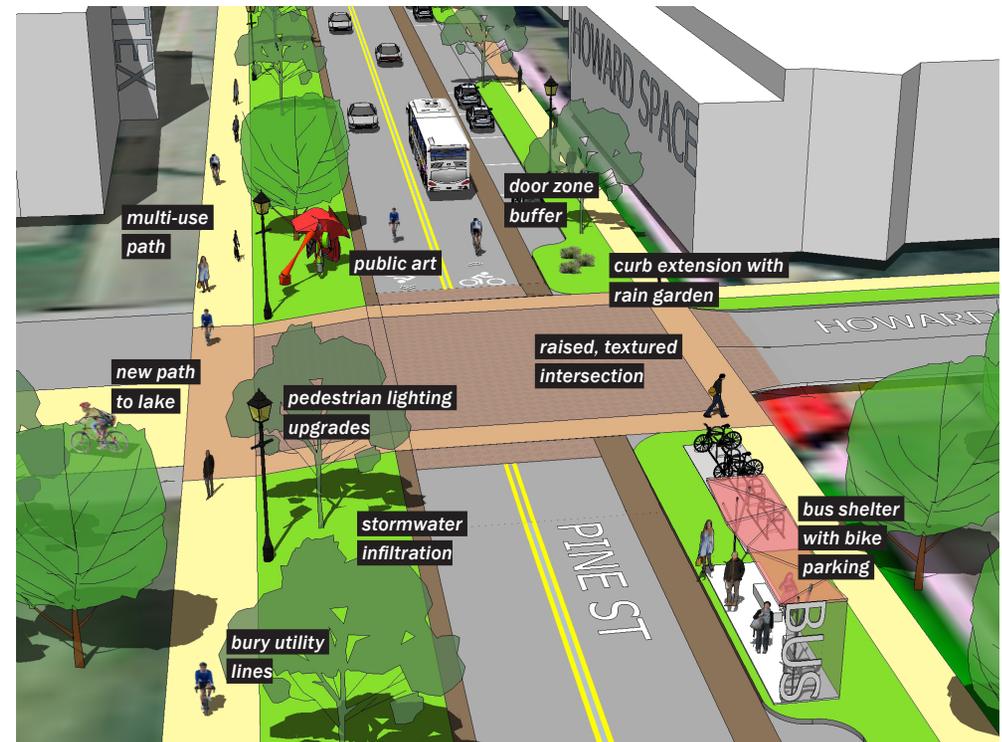


CONNECTIVITY & MOBILITY

The South End has seen an influx of jobs, people and activity which led to an increase in traffic of all kinds—not only people in cars, but people walking and biking to the South End as well. In fact, pedestrian counts at key intersections have increased by almost 3 times since 2005! With this growth in activity, however, we've seen a rise in traffic and safety challenges that we must address. With Pine and Shelburne Streets as the only north-south through streets in the South End, it is not uncommon for traffic to crawl along Pine Street as people leave their jobs to head home for the day. And, we've seen the frequency of crashes between cars and bikes or pedestrians along these routes increase as well.

In recent years, the City has made improvements in the South End to address some of these important challenges. Pedestrians now benefit from greater visibility when crossing major streets with the addition of Rapid Flashing Beacons. The intersection of Pine Street and Lakeside Avenue has been improved with a new traffic signal and better bike lane markings. But there's much more we can do to improve the safety and connectivity of our transportation networks in the South End.

Throughout the planBTV South End process, community members emphasized their desire for enhanced walkability and bikeability along South End streets and at intersections, as well as for enhanced transit service. Additionally, those who live and work in the neighborhood are looking for more options for getting to their favorite businesses, to the Champlain School or to the Lake. In short, South Enders want a less car-centric neighborhood. Creating a more inviting and connected environment for walking, riding a bike, and taking the bus is not just essential for getting to and around the South End—these improvements also strengthen the character of the neighborhood, boost its economic development potential, and make it more environmentally sustainable.



Pine Street at Howard Street, showing improvements that could make this street a better, safer place to bike, walk, drive and catch the bus.

The Champlain Parkway design and the Railyard Enterprise Project studies continue to evolve outside the scope of the planBTV South End process. However, the challenges and potential improvements that these projects could bring must be considered as part of this plan.

The Champlain Parkway's design—originally envisioned as a four lane divided highway that would run along the City's waterfront—has changed greatly over the past several decades. Today, plans for the Parkway not only consider new street connections, but also modifications to existing streets all the way from King Street to Queen City Park Road. It now includes design elements for slower speeds, facilities for walking and biking, greater connectivity to uses that need to be supported by vehicular and truck traffic, and sets up opportunities for traffic calming on nearby neighborhood streets. The Railyard Enterprise Project has emerged from several planning studies which identified the railyard as one of the largest underutilized areas of the City, with great opportunity for thoughtful redevelopment. Several alternatives are being studied for developing multi-modal transportation infrastructure that better connects Pine and Battery Streets, reduces impact of freight operations, improves connectivity with nearby residential neighborhoods, and supports economic development and mixed-use infill around the railyard area.

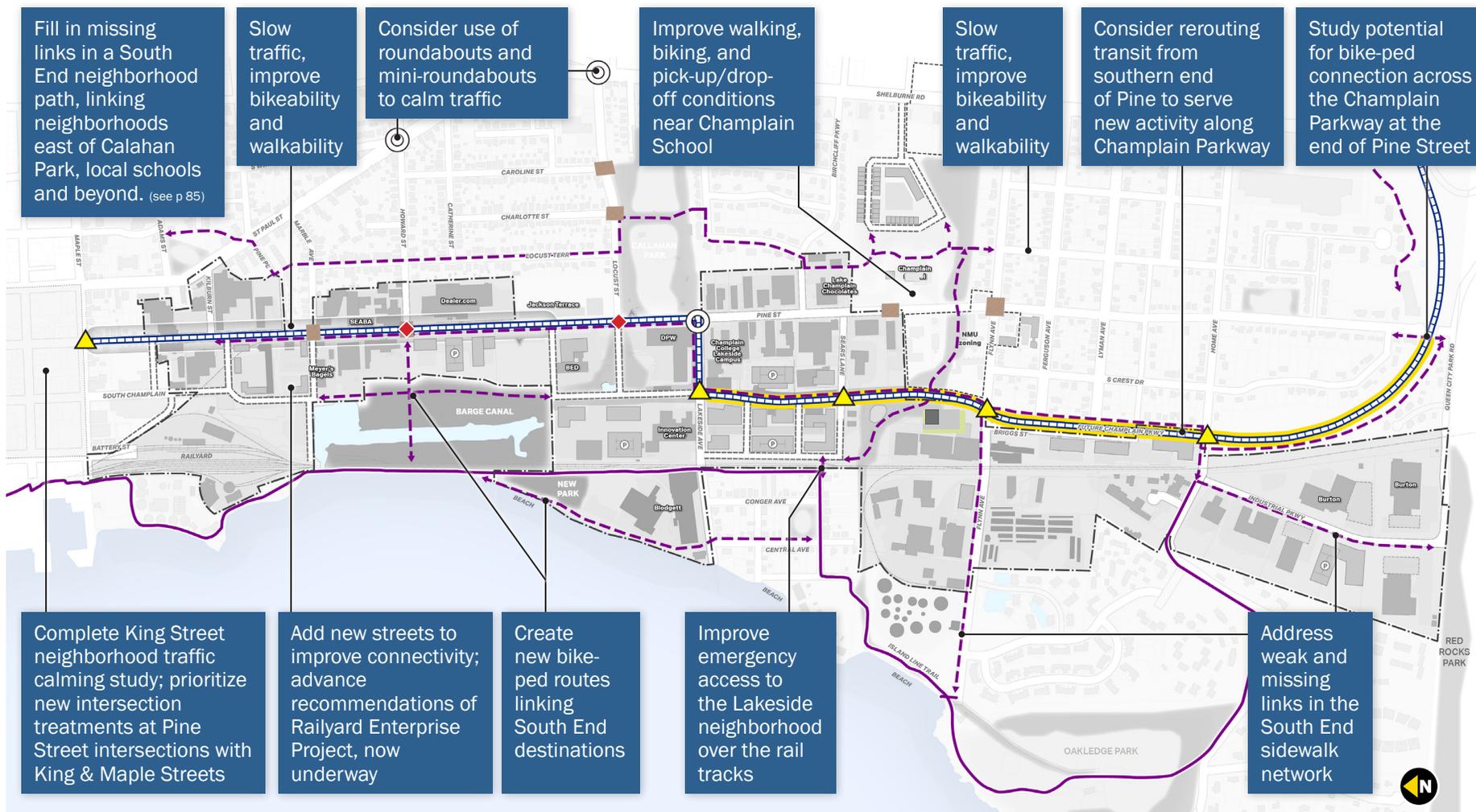
While there are many anticipated improvements from these projects, there are also many continuing concerns about the benefit that will be realized

by these investments. In particular, the Champlain Parkway's design has attracted a wide range of support, criticism, and suggestions for alternative street design or use of the land. The City continues to work with state and federal agencies to identify future retrofits and improvements that can be made along the Parkway's corridor to expand its functionality.

Much like the bold vision for new street connectivity in planBTV Downtown & Waterfront, this plan envisions that new and retrofitted facilities that emerge from these projects will serve to better connect the neighborhood, reinforce an urban street network, expand multi-modal connectivity and support economic development goals for the South End. By implementing these goals, the South End can become less car-centric and the streets can become an extension of the neighborhood's character.

To realize the vision for the neighborhood, planBTV South End outlines strategies to:

- improve on- and off-street connections for walking and biking so that they're safe and comfortable for the full range of users
- expand infrastructure for all modes of transportation in order to address critical connectivity, traffic and parking challenges
- reinforce the character of the neighborhood by using our streets not only as places for moving people, but also to support adjacent land uses, and as a canvas for innovative stormwater systems and public art



MAP LEGEND

Focus Area	New Transit Stops with Bike Racks
Potential New Street Connection	Raised/Textured Intersection/ Crosswalk
Planned Champlain Parkway Route	Proposed Traffic Signal (as part of Champlain Parkway Plans)
Existing Bike Path/Bike Routes	Intersections to Study for Potential Improvements
Proposed New/Improved Bike & Pedestrian Routes	
Potential Bus Route	

Strategies for Connectivity & Mobility

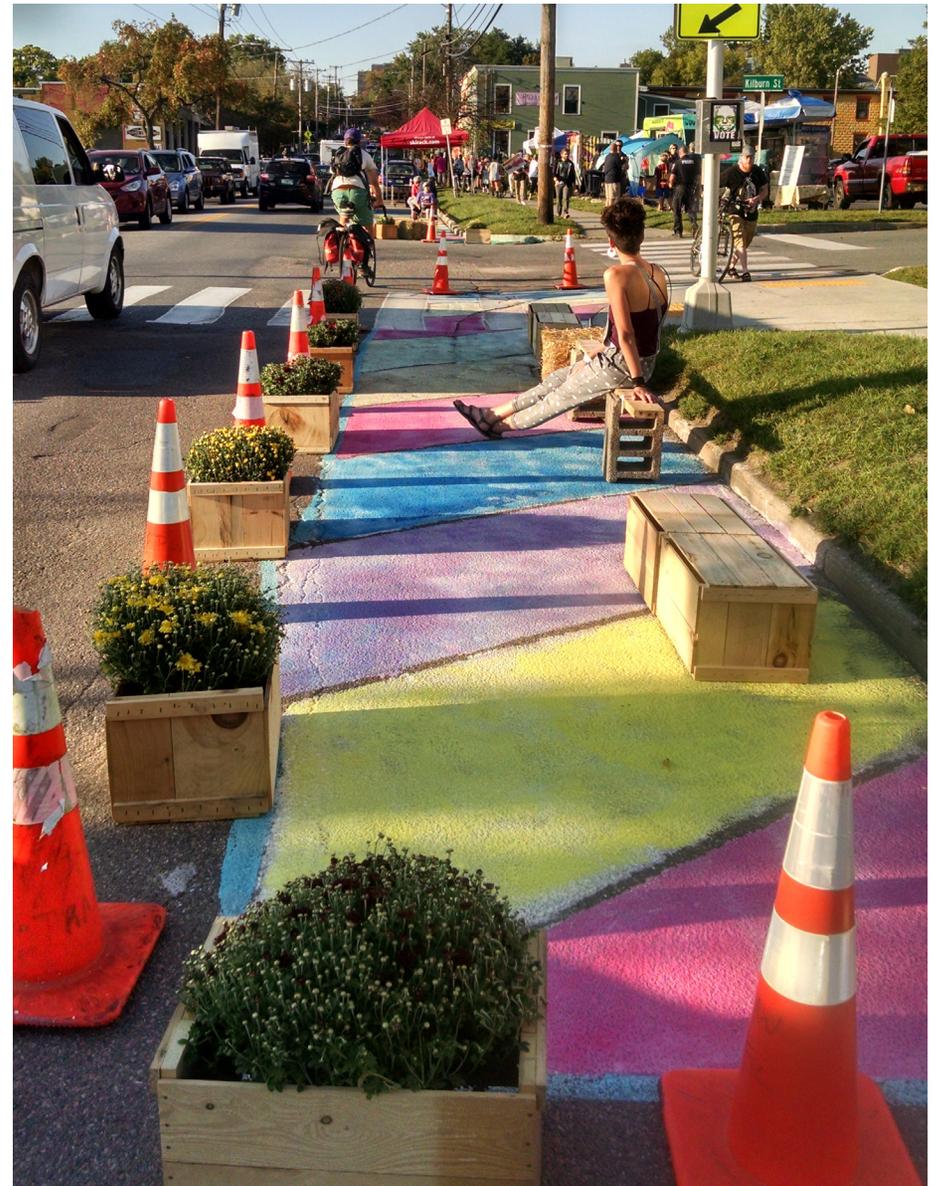
IMPROVE ON- AND OFF-STREET WALKING AND BIKING CONNECTIONS FOR THE FULL RANGE OF USERS.

A key element to reinforce the South End's identity as a mixed-use neighborhood is to ensure that there are safe, connected routes for people who walk and bike. Increased opportunities for walking and biking should be emphasized along the Pine Street corridor, and to connect neighborhood amenities, such as schools, parks, the Lake and other destinations. And, these connections are not only desirable for residents of the South End. Pine Street is a major commuter corridor; making it more friendly for people who walk and bike is attractive to employees of many South End companies, and helps reduce the pressure for more cars and parking as additional businesses start up in the neighborhood.



There are many opportunities to develop creative strategies to improve the South End's walking and biking infrastructure. Refer to the recommendations of the planBTV Walk/Bike Master Plan (www.planbtvwalkbike.org) for more specific details.

PHOTOS COURTESY OF JULIE FLYNN.



Reinforce the target speed of 25 mph for all streets in the South End. People walking and biking are particularly vulnerable to higher speed traffic. Additionally, the design of streets and intersections can encourage vehicles to drive faster than posted speed limits, creating an uncomfortable environment for those walking and biking. We should update the City’s Transportation Plan to expand the concept of target speed, and reinforce it through project design. Traffic calming principles should be incorporated into all projects, public and private, and should be emphasized along major streets such as Shelburne and Pine, near schools and parks, and in other locations as needed.

 *Leverage current street and corridor projects currently underway to advance these concepts.*  *Department of Public Works*

Address weak and missing links in the South End sidewalk network. Lack of sidewalks along parts of Pine Street and Lakeside Avenue, most of Industrial Parkway, and all of Sears Lane can make routes to South End destinations unsafe and less than welcoming for those traveling on foot. Additionally, better sidewalk conditions with green buffers are needed along Flynn Avenue, Home Avenue south of Batchelder Street, and along Pine Street between Calahan Park and Champlain School. We should also consider improving locations where “informal” pedestrian paths have cropped up, particularly as a way to connect the South End’s neighborhoods to nearby parks, the Lake and other amenities.

 *Further explore near-term and long-term improvements for the South End’s sidewalk/path infrastructure as recommended in the planBTV Walk/Bike master plan. Secure funding to implement missing links.*  *Department of Public Works; Parks, Recreation & Waterfront Department*

Develop a City policy on locating and designing mid-block crosswalks. Major streets like Pine with lots of pedestrian activity and lots of vehicular traffic would benefit from additional mid-block crossings. These crossings need to provide for pedestrian safety and be carefully coordinated with vehicular flows. Use of raised and/or textured paving and pedestrian activated signals should be considered.

 *Draft a policy statement regarding mid-block crossings.*  *Department of Public Works*

Continue to expand and enhance bike infrastructure within the South End. The South End needs a range of cycling infrastructure, to reflect the range in ability and desired facilities of people who bike. The proposed off-street, shared-use path proposed by the Champlain Parkway is a start. We should also consider infrastructure such as protected bike lanes along busy streets like Shelburne Road, bicycle boulevards on neighborhood streets, additional bike parking at South End destinations and at bus stops, expanding the South End’s network of bike and pedestrian links, and adding new links to access the well-loved Island Line Trail. And as we meet our goals for enhanced stormwater infrastructure, we can reduce barriers that make cycling uncomfortable—like puddles and temporary flooding that make some wary of bike commuting in the area.

 *Further explore near-term and long-term improvements for the South End’s bike infrastructure as recommended in the planBTV Walk/Bike master plan. Secure funding to implement missing links.*  *Department of Public Works; Parks, Recreation & Waterfront Department*

 **Establish a South End Neighborhood Path***—a neighborhood pedestrian and bicycle route linking residential areas to neighborhood parks, schools and other destinations. This route would provide a low-speed, low-traffic route for younger, older and less confident cyclists—and for those who prefer a lower-traffic walking and biking environment than Pine Street provides. The route will utilize a combination of a path through the school and park, and a bicycle boulevard on local, traffic-calmed streets for “low stress” biking.

**Note: The South End Neighborhood Path pictured throughout this plan is illustrative only, and draws upon the recommendations from the 2013 Champlain Elementary School Safe Routes to School Pedestrian & Bicycle Feasibility Study. Many of the connections do not presently exist. Particularly, it is acknowledged that the portion of the path illustrated to connect to Cherry Lane from Calahan Park is currently an informal path across private property with no public access at this time. Potential steps that would be necessary in order to formalize this path are outlined in the Safe Routes to Schools study, but are not the subject of this plan.*

 *Explore the potential for roadway treatments and connections of a route as part of the planBTV Walk/Bike master plan.*

Advance plans to construct elements of this route as recommended by the 2013 Champlain School Safe Routes to School study, and any applicable amendments.

 *Department of Public Works; Parks, Recreation & Waterfront Department; Community & Economic Development Office; Burlington School District*

 **Improve walking and biking conditions at and to Champlain School.** Pine Street between Lakeside and Flynn Avenue should be transformed into a complete streetscape that will encourage all to walk and bike more regularly to the school or to Calahan Park. Options for Pine Street could include a median for safer crossings, a streetscape with wider sidewalks, landscaped buffers, tighter corners at intersections, narrower driveways and narrower vehicle lanes. Additionally, a plan should be implemented to better manage school drop-offs.

 *Advance plans to construct speed tables and bulbouts along Locust Street and at the Birchcliff Parkway-Cherry Lane intersection; reactivate the Champlain Safe Routes to School Committee and update/expand the existing SRTS plan.*

Advance plans to improve school drop-offs.

 *Department of Public Works, Champlain Safe Routes to School Committee, Burlington School District*

 **Seek opportunities to create new pedestrian and bicycle links to Lake Champlain and the future Barge Canal park.**

Improve existing conditions along Flynn and Lakeside Avenues. Seek opportunities for new connections from Pine Street to the Lake, and between Lakeside Avenue and the future street connections to the north being explored through the Railyard Enterprise Project. Establish paths as elevated boardwalks if needed due to environmental constraints on the Barge Canal site.

 *Secure funding to improve existing links. Study the feasibility of new connections through the Barge Canal site as part of future plans to transform the site into a publicly-accessible open space.*

 *Department of Public Works; Community & Economic Development Office; Department of Planning & Zoning; Parks, Recreation & Waterfront Department*

EXPAND INFRASTRUCTURE TO ADDRESS CONNECTIVITY, TRAFFIC AND PARKING CHALLENGES.

Providing more options for people to get around the neighborhood is an important step in addressing the mobility challenges of the South End. New street connections, with intersections at a more regular interval, provide more opportunities for people to get to their destinations, reduce congestion on Pine Street, and support investments in multi-modal transportation options. And with more efficient and appropriately located parking and transit infrastructure, we can make sure that the South End continues to be a bustling place—without all the idling!

Add new street connections. Add connections where new city streets are being explored through the Railyard Enterprise Project and the Champlain Parkway, and where other connections are possible through the redevelopment of key South End sites around Locust/Lakeside Avenue/Sears Lane (See page 72).

Amend the City's official map to include future connections.

Department of Planning & Zoning; Department of Public Works; Community & Economic Development Office; Vermont Agency of Transportation; Federal Highway Administration; City Council

Adopt land use policies that limit block size or perimeter, allowing future development flexibility in how it provides connectivity, but ensuring a well-connected urban street grid. These policies could help shape the evolution of the Lakeside/Locust/Sears Lane area, where new streets could help support a more connected South End, as well as in the area where new street connections are being explored as part of the Railyard Enterprise Project.

Revise development standards to ensure smaller block sizes where feasible if/when vacant lots are redeveloped.

Department of Planning & Zoning



PHOTO BY LEE KROHN

Address key intersections to improve safety and alleviate traffic congestion. Consider appropriate locations for new traffic signals, roundabouts or mini-roundabouts to address traffic congestion, and reinforce lower, safer speeds at intersections.

Explore potential for a redesigned intersection at Howard/St. Paul/Winooski, where improvements could help foster an emerging neighborhood activity center.

Department of Public Works

Advance plans for a roundabout and other multi-modal improvements at Shelburne/Ledge Rd/Willard/St. Paul/Locust intersection.

Prioritize the implementation of an appropriate treatment to address traffic congestion at Maple/Pine intersection either in conjunction with or independent of the construction of the Pine Street section of the Champlain Parkway.

 **Conduct a Shelburne Road corridor study.** This area could benefit from a focused corridor study exploring strategies for making it a more walkable, bikeable, crossable place and to help foster an emerging neighborhood activity center at the intersection with Flynn Avenue. Also included as an economic development strategy, this study could consider current and future land use, and potential development/redevelopment sites.

 *Secure funding and determine a scope of work for the study.*

 *Department of Public Works, Community & Economic Development Office, Department of Planning & Zoning, Chittenden County Regional Planning Commission; consult with City of South Burlington*

 **Explore potential to increase transit frequency and improve service.** Reducing wait times for the bus, extending hours of service into the evening, increasing utilization of existing service lines (such as the Champlain College shuttle), and better integrating bus service with other multi-modal systems will make transit an appealing choice for many more people. And, service improvements such as real-time bus arrival information will help South End commuters know exactly when the bus is coming—making it an attractive option to driving.

 *Work with CCTA to explore options for funding service enhancements.*

 *Community & Economic Development Office, Department of Public Works, Chittenden County Transportation Authority (CCTA)*

 **Provide appropriately-located, amenity-rich bus stop areas.** Pine Street should be enhanced as a transit corridor, with attractive, well-lit, comfortable and accessible bus stops, bike racks for easy modal transitions, and the opportunity to turn transit hubs into “places.” These transit stops could also include outdoor art, landscaping and other creative features to make them beautiful and to reinforce the South End’s character. Well-designed stops will not only improve safety and comfort of existing riders, but can help increase ridership and send an important message that transit is important and worthy of investment.

 *Make bus stop enhancements a key component in other streetscape/corridor improvement projects, and in grant applications for those improvements.*

Seek design concepts from the community that can be integrated into transit stops. Identify possible funding sources for implementation such as Transportation Alternatives or the National Endowment for the Humanities.

 *Community & Economic Development Office; Department of Public Works; CCTA, Burlington City Arts*

 **Continue to explore potential for transit-oriented park-and-rides or intercept lots.** Consider development of a small transit-oriented park-and-ride or intercept lot where Burlington residents could drive to a LINK bus stop, and where inbound employees could park at a satellite lot and catch a high-frequency bus, walk or bike into the South End or Downtown. Such a facility should be designed to be multi-modal, and could replace informal area park-and-rides which have recently gone away or which are slated for other uses. Consult the 2011 Chittenden County Park-and-Ride & Intercept Facility Plan.

 *Identify potential locations for future park-and-ride or intercept lots; identify funding opportunities for high-frequency bus service*

 *Department of Public Works, Community & Economic Development Office, Department of Planning & Zoning, CCTA, Chittenden County Regional Planning Commission*



As part of the planBTV South End artist-led community engagement project, local artist Tyler Vendituoli designed and fabricated a bike rack sculpture with a vintage coin operated parking meter on each coil. Vendituoli created this sculpture as a commentary on how we get into and out of the South End, how space is at an increasing premium, and the challenge of parking with growth of the area.

Plan for parking. Parking is a growing challenge in the South End. As key sites redevelop, and new infrastructure is added, shared parking solutions, appropriately located and well-design parking structures, and a strong network of multi-modal options is strongly recommended. We can further define policies and strategies for parking and transportation demand management through a South End parking study.

Secure funding and determine a scope of work for the study.

Department of Public Works, Community & Economic Development Office, Department of Planning & Zoning

STREETS AS PLACES TO REINFORCE NEIGHBORHOOD CHARACTER.

Streets and other pathways are an important part of the South End. They provide the linkages to the neighborhood’s key destinations, and the way they are designed can reinforce the neighborhood’s identity, support the type of land uses that are desired, and perform other services—besides moving cars!

🗨️ Incorporate stormwater management features into streetscapes. Many of the traffic-calming features and landscape buffers that are to be built into public rights-of-way can also be utilized for innovative stormwater management features to help address the amount and quality of stormwater runoff that has an impact on our receiving waters. Improvements to South End streets and streetscapes should incorporate the recommendations of the Stormwater element of this plan.

▶️ Implement stormwater management tools identified in the Stormwater element of this plan (See page 95) when South End streets are redesigned or new streets are constructed.

👤 Department of Public Works

🗨️ Continue to incorporate the arts into the physical fabric of the South End. Strengthen the visibility of the arts by utilizing public rights-of-way, bus stops, signage and other streetscape enhancements, where appropriate, as opportunities to incorporate public art and creative landscapes.

▶️ Implement the Parks element recommendation of this plan to incorporate a Pine Street Arts Corridor and Linear Arts Park (See page 78).

👤 Department of Public Works; Parks, Recreation & Waterfront Department; Planning & Zoning Department, Burlington City Arts; SEABA



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