



RICHMOND BICYCLE AND PEDESTRIAN PLAN

September 2014

Prepared by the Midcoast Council of Governments



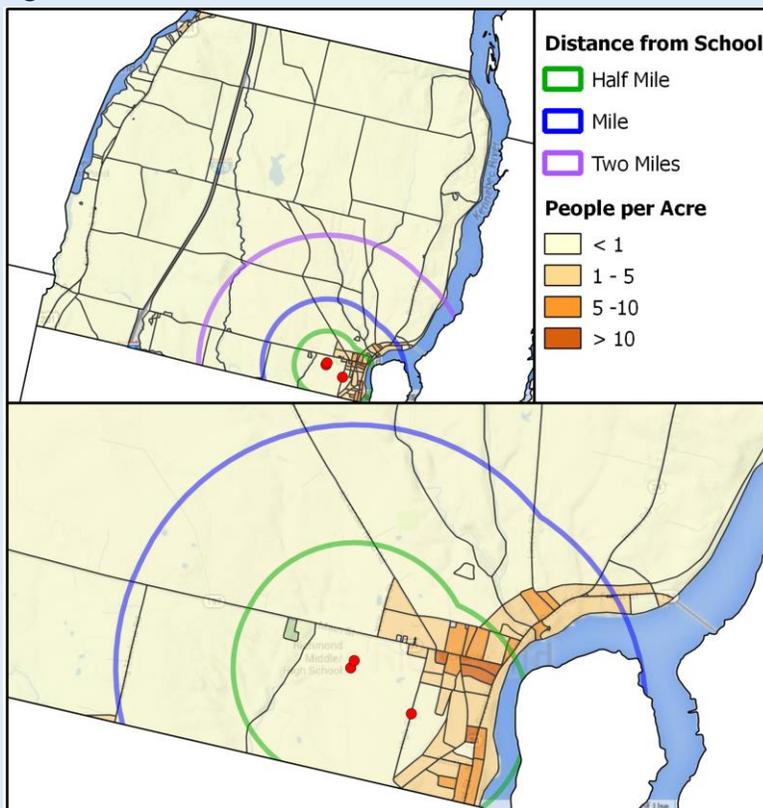
Midcoast Council of Governments

Introduction

Bicycle and pedestrian activity is an important factor of a successful village center. Creating a friendly environment for cyclists and pedestrians draws more people to a town and encourages them to stay there longer. Having more people in the streets adds to the sense of place in a community and in turn encourages additional activity. A 2010 MaineDOT report (Improving Maine's Quality of Place through Integrated Bicycle and Pedestrian Connections) found that in addition to increasing local residents' ability to access small businesses and amenities, improvements to bike and pedestrian experiences added to the local economy, improved health and safety of residents, and built a sense of community.

Despite its rural character Richmond is a compact village and as such has great opportunity to be a very bike and pedestrian friendly community. The town's two public schools and their associated facilities are located immediately adjacent to the village center. Approximately 42% of the town's population live within a mile and a half of at least one of these schools. Expand the radius to two miles and it covers around 53% of everyone living in Richmond (Figure 1).

Figure 1



Population density by census block based on 2010 census numbers.
Distances from schools are straight line, "as the crow flies", and so do not represent a true travel distance.

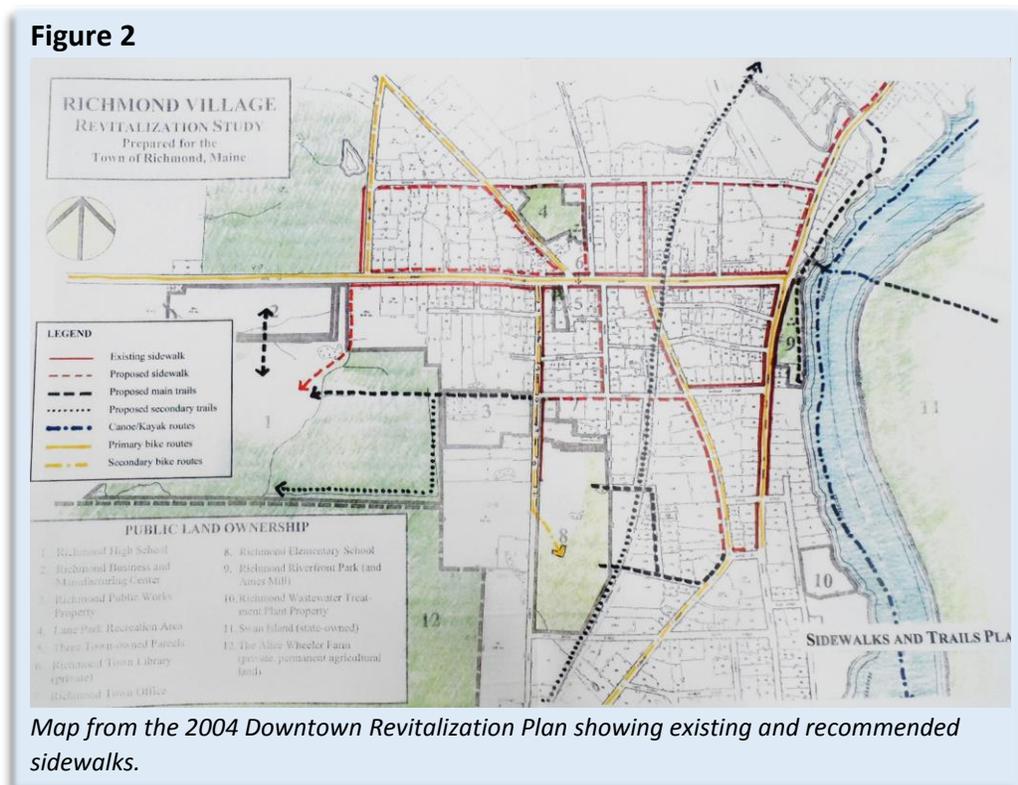
In addition to serving local residents, improving the level of access for cyclists has the potential to bring in outside users. For example bike tourism is a growing market in Maine and the USA. The MaineDOT did a study of bike tourism published in 2001 that found in 1999 bike tourists directly spent \$36.3 million in Maine. This resulted in an economic impact to the state of over \$66.8 million dollars. Subsequent studies in other states across the US have found similar large economic impacts and have shown a steady

and steep rise in the number of bike tourists in every part of the country. Bike tourists have repeatedly been found to spend more money per day than the average tourist. Further, in part due to the limited ground they can cover in a day, they are more likely to stop in smaller, more rural areas and to spend their money in local establishments.

Review of Current Plans

The Town of Richmond’s current comprehensive plan, adopted in 1990, established a strong desire in the town for a walkable village center. The plan identified a number of goals concerning the pedestrian experience. This included the desire for a system of off-road trails, the centerpiece of which could potentially be on the disused rail line through town (though the first priority for this rail line is its return to active rail use). Multiple other goals jointly called for the encouragement of a bike and pedestrian oriented village center allowing for people to reach and move between the schools, the waterfront, and village center businesses, all by foot or bike.

The 1990 Comprehensive Plan identified specific strategies for accomplishing these goals. The city planned to upgrade the sidewalk system within the village center with a particular focus on making connections between major public facilities (the schools and town offices), the businesses on Main St., and the recreation facilities (the waterfront and athletic fields). Strong language was included for interacting with MaineDOT on the subject of maintaining a



pedestrian friendly village center. The town is expected to make sure state actions “are compatible with the goals of the comprehensive plan with respect to the preservation of visual resources,

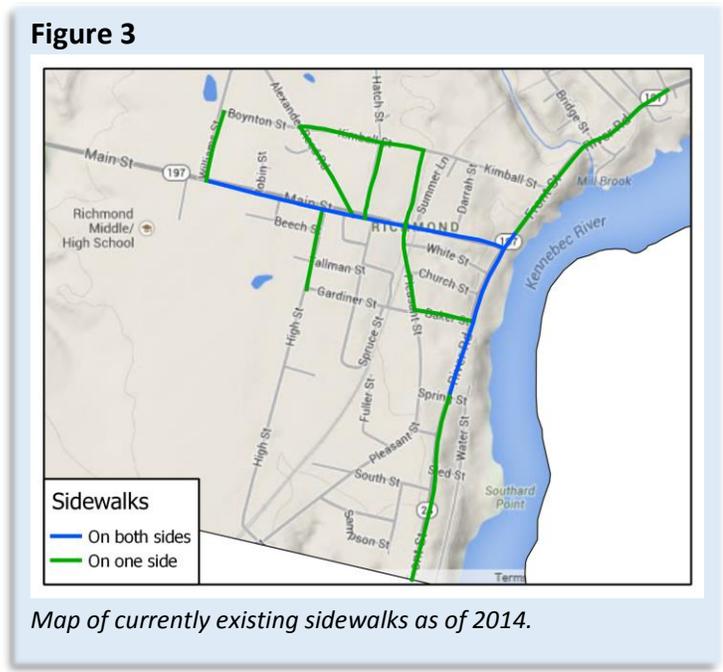
sidewalks and general pedestrian movement within the town.” Further while Route 197, Richmond’s Main St., is a state highway the town was tasked to “work to assure that the local role is the predominate role for the road and that efforts to divert traffic onto this route are resisted.” Finally, the plan called for the creation of an off-road trail network, including both connecting trails, such as the potential rail trail, and contained trails, such as those in the Town Forest.

In 2004, Richmond commissioned a Downtown Revitalization plan. That plan set a goal of making Richmond “the most walkable village in Maine.” Towards that end it called for improving and expanding sidewalks throughout the village and creating off-road trails (Figure 2). These improvements were focused on creating a robust network of walkable streets centered on Main St. While all “key village streets” are recommended to have a sidewalk on at least one side, Main and Front Streets are specifically called out for sidewalk improvements and recommended to have sidewalks on both sides within the village. The report also calls for bike lanes on the major routes into and out of the village, specifically mentioning Routes 197 and 24. An off-road trail connecting the High School to High St. and the creation of a trail along the rail line are also recommended. This plan was updated in 2011 and at that time sidewalk and crosswalk improvements had been undertaken on most of the streets identified in the initial plan. To continue improving the pedestrian experience the town was recommended to add amenities such as additional pedestrian lighting, bike racks, benches, and trashcans. Further recommendations also include advocating for the creation of the Merrymeeting Trail.

Inventory of existing conditions:

The roads within the village center as well as other major routes within Richmond were reviewed for the existence and quality of bike and pedestrian infrastructure. Within the village area this was done by staff, assisted by volunteers. In June 2014, staff and volunteers traveled the roads on foot, filling out written assessment tools. The major corridors in and out of the village area were evaluated by staff traveling by car so as to cover more ground.

All roads within the village area that carry any significant amount of traffic have sidewalks on at least one



side of the road, with the exception of Boynton St., Gardiner St. and the section of Kimball St. between North Pleasant and Front Streets (Figure 3). Where sidewalks exist they are almost universally in good shape. One exception is Front St. south of Main St., starting midway between Weymouth and Church Streets. The sidewalks south of here on both sides of Front St. are narrow and in fair to poor condition. This includes non-handicap accessible curbs at the corners of Church and Front Streets (Figure 4). Another notable gap is on Main Street between Pleasant and Williams Street, where sidewalk sections have deteriorated. This section of Main Street, which includes residences, the Post Office, a bank, the library, the high school and businesses, also does not have the pedestrian-scaled lighting and other pedestrian amenities that were implemented throughout Main Street as a result of a 2011 Community Development Block Grant (CDBG) project. Crosswalks exist at all Main St. intersections from Williams St. to Front St. as well as at the intersection of Front and Weymouth Streets. All these crosswalks are in reasonable shape with the white outlines having been repainted recently. The red brick pattern interior portion of the crosswalks is in need of repainting.

Figure 4



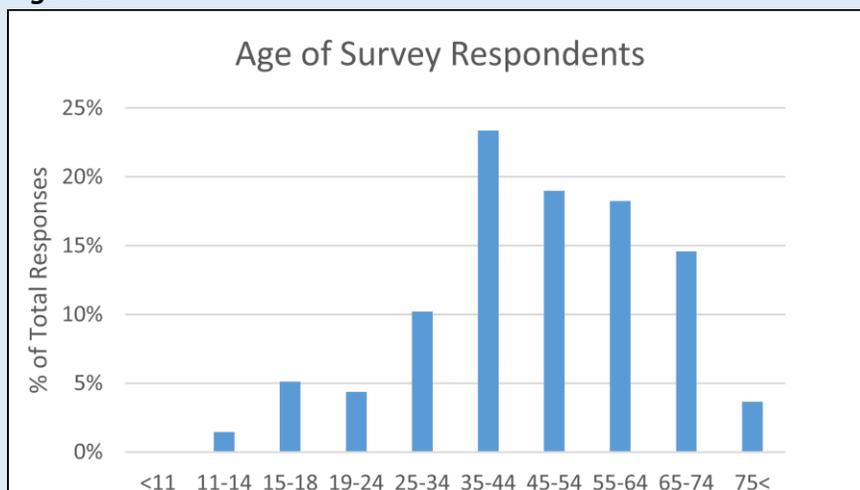
Sidewalk conditions on Front St. south of Main St. The first shows disrepair and non-handicap accessible conditions at the corner of Front and Church streets. The second shows crumbling and narrow sidewalk on the river side of the road south of the Baker St. intersection.

The only road outside of the village center with sidewalks is Front St. which has sidewalks on one side of the road extending north to Tulip St. and south to the town line with Bowdoinham. The sidewalks to the south are in increasingly poor condition as one moves away from town, quickly becoming extremely narrow and overgrown by the time it ends. The sidewalk to the north is in very good shape. The sidewalk on Pleasant St. ends at Gardiner St. (the boundary of the Village Center) despite significant residential development and poor visibility on the road. Route 197, Route 24, and Alexander Reed Road are the primary roads into and out of the village center. Both Route 197 and Alexander Reed Road have sidewalks and shoulders within the village but lack any bike or pedestrian amenities as soon as they leave the village. Route 24 has some sidewalks outside of the village area, as previously mentioned, but narrows after Tulip Road to the north of the village to remove all bike or pedestrian space. These three roads all have posted speed limits of 50-55mph and aside from some areas of shoulders paved for drainage reasons on Route 197, lack a paved shoulder. This makes them challenging if not dangerous for both bike and pedestrian use. In contrast to these roads Route 201, which serves the western part of Richmond, has wide shoulders that can easily accommodate careful bike and pedestrian traffic.

Public Survey

A survey of Richmond residents was created to establish their bike and pedestrian habits and concerns. This survey asked residents 15 questions covering their motivations/destinations for their non-car trips, their frequency of traveling by bike or foot, the roads/locations where they biked and walked, and the roads/locations that they felt needed improvement to be safe/attractive to cyclists and pedestrians. The survey was provided online and in paper versions in order to reach the largest number of residents in the ways most convenient to them.

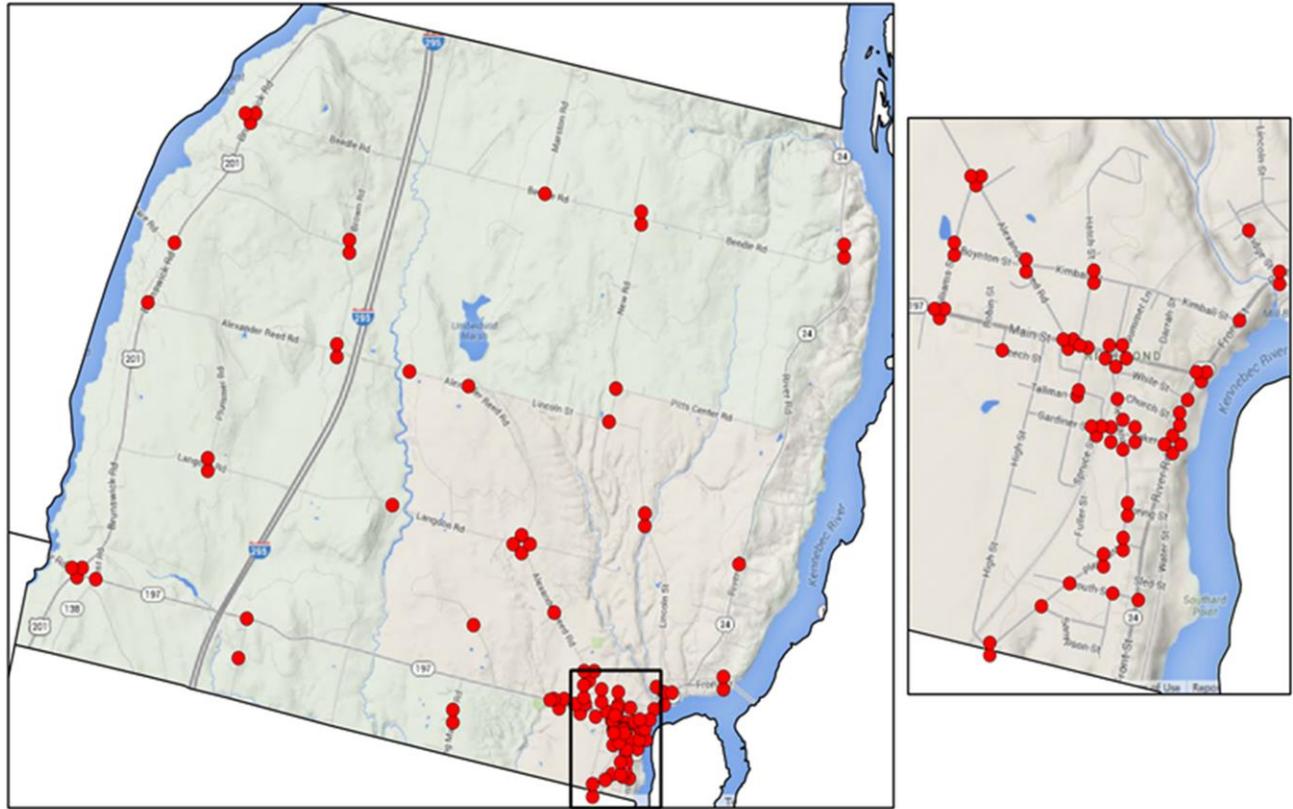
Figure 5



The survey received 137 total responses. This provides a statistically significant sample of Richmond's total population of 3,411 (as of the 2010 census). The sample is mostly representative of the population's age profile though it is skewed slightly older

due to a lack of responses coming from children under 11 years of age (Figure 5). Based on the short answer portions of the survey the needs of the very young population are mostly covered by their parents. The survey responses also reflect where people live within the town. Only

Figure 6



Each dot represents one of the 106 survey respondents that provided a mappable intersection. At intersections with multiple respondents dots are off set around the intersection so as to show the true number.

one respondent did not live in Richmond (they indicated that they worked in Richmond but lived elsewhere). Of the remaining 136 responses, 106 provided a mappable location in answer to the question “closest intersection to where I live” (Figure 6). A significant portion came for residents living close to the village center of Richmond but this mostly tracks with the population density of the town.

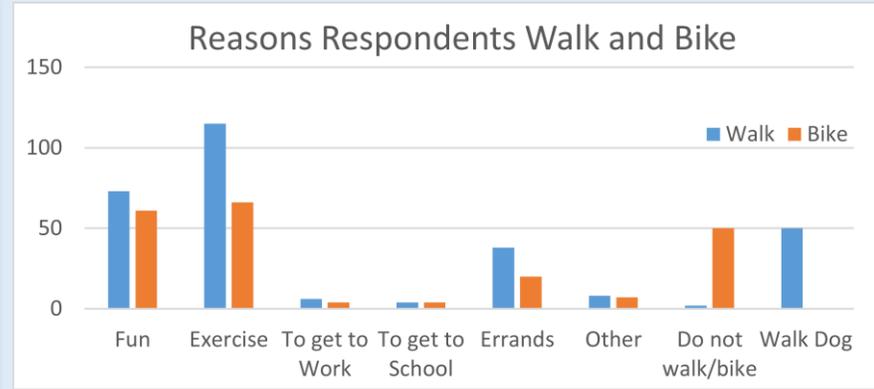
All but two of the respondents (98.5%) indicated that they walked at least occasionally while 84 (61%) indicated that they biked at least occasionally. Getting exercise was the most commonly cited reason that people listed for why they walked or biked, followed by recreation (“to have fun”) (Figure 7). Recreation/exercise also led to people walking the most frequently. Of the 131 respondents that indicated that they walk for recreation/exercise at least one day a week,

47% did so four or more days a week. Respondents were much less likely to bike this frequently. Of the 63 respondents that indicated they biked for recreation/exercise at least once a week, 49% did so only one or two days a week (Figure 8).

People most often walked in the village area. Main St., and the businesses located there, was by far the most frequently listed place people mentioned walking. This was followed by Route 24/the waterfront and Pleasant St. Cycling

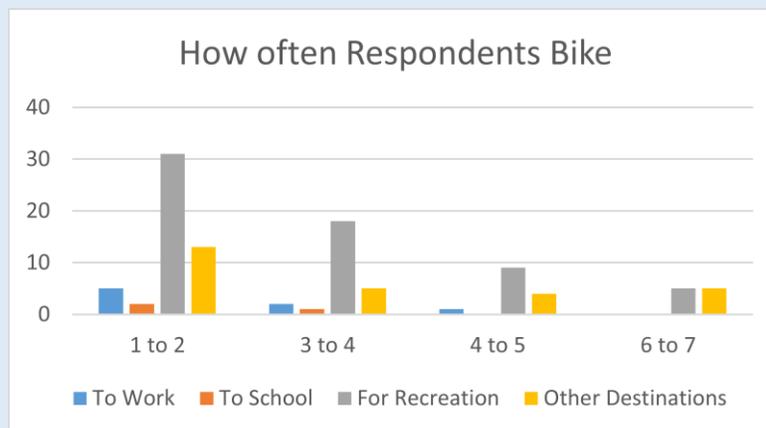
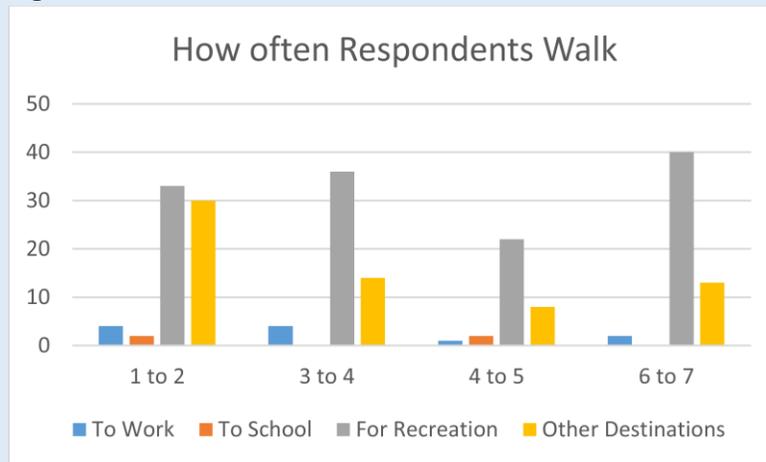
was also centered on the village. People most often listed Route 24 as a location they biked followed by Pleasant St., with Main St. and Alexander Reed Road tied for the third most frequently mentioned. Interestingly, places that people indicated they wished had better pedestrian and bike

Figure 7



Reasons given by respondents for walking and cycling in Richmond.

Figure 8



Frequency of respondents' non-vehicular trips

pedestrian and bike accommodations were very similar to the places people currently walked and biked. Route 24 was listed most often as a place people wanted to walk more easily followed by Pleasant Street and Alexander Reed Road. Three roads tied for the most mentions of places people would like to bike more easily: Route 24, Alexander Reed Rd., and Route 197. High traffic speeds and narrow roads/lack of shoulders were the most frequently listed reasons why people

felt unsafe walking or cycling on any given stretch of road.

By far the most suggested/requested improvement that people felt would help them walk around town and encourage others to walk more was additional sidewalks. Pleasant Street south of where the current sidewalk ends was the road most often cited as in need of sidewalks, followed by the stretch of roads between the Route 24 and Tulip Rd intersection (the current northern end of the Route 24 sidewalk) and the Route 197 Bridge. Other places that people would like to see sidewalks included; Gardiner St., Lincoln St. as it approaches Route 24, and Alexander Reed Rd. as it approaches the existing sidewalk at Kimball St. For cycling and walking outside of the village center people seemed to understand that sidewalks were not feasible. Instead there were repeated requests for wider, paved shoulders. This was particularly true for the roads that people would take to get into town, such as Route 197, Route 24, and outer Alexander Reed Rd.

People were also very interested in developing off-road trails and access to forested areas. The rail trail through the center of town was a very popular idea, with the general feeling that it would increase safe non-vehicular access to the village center for farther flung parts of Richmond and also be a valuable recreational resource. The section closest to town was valued highest as an off-road bike and pedestrian route from neighborhoods to downtown destinations, thus avoiding problem areas like Pleasant St. The greater Merrymeeting Trail connection was also discussed favorably with people excited about its recreation potential. There was strong support for creating an off road path between the middle/high school and the Gardiner and High St. intersection. People already take this route as evidenced by a desire path worn through the vegetation and respondents felt formalizing this link was desirable. The Town Forest was seen as an underused and under promoted resource with multiple people commenting that they did not know about it before taking the survey. Increasing the number and length of trails and providing clearly marked parking were suggested as ways to improve the forest as a destination walking location.

Final Recommendations

Richmond is already a very walkable community, particularly in the village center. It has worked hard to improve walking and cycling conditions over the last few years and this effort shows. The following recommendations will help the town to continue toward its goal of becoming “the most walkable village in Maine.” These recommendations fall into four broad categories and are prioritized within each category as follows:

Sidewalks

1. Sidewalks on Front St. south of Main St. need to be repaired, expanded, and upgraded to be handicap accessible.
2. Sidewalks on Main Street between Pleasant and Williams need to be repaired and/or replaced to ensure pedestrian safety.

3. Extend the Pleasant St. sidewalk to the Hagar St. intersection.
4. Build sidewalks on Gardiner St. and the portion of Kimball St. not currently served by sidewalks.
5. Build sidewalks on Boynton St.

Bicycle and pedestrian experience improvements

1. Install consistent pedestrian lighting and other amenities on Main Street between Pleasant and Williams, in accordance with the 2011 CDBG project specifications.
2. Small bike racks should be installed outside village center businesses.
3. Evaluate enhanced pedestrian crossings on Main St. at the High School Entrance and at the intersection of Main St. and Front St.
4. Bike racks should be installed at the Waterfront and the new park at the Route 197 Bridge.
5. Trash cans and benches should be added at key locations in the village center.

Arterial improvements

1. Major roads should have paved shoulders at least four feet wide. This is particularly important for the roads leading into the village center (Route 197, Route 24, and Alexander Reed Road).
2. The intersection of Route 197 and Route 201 should be improved with an eye to significantly reduce cyclist and pedestrian crossing distances.

The Merrymeeting Trail and other off-road trails

1. Pursue the creation of the Merrymeeting Trail at both the local and regional levels.
2. Create an off road connection between the High School and the intersection of Gardiner St. and High St.
3. Explore the creation of an on road, regional bike touring route as an intermediary step to the completion of the Merrymeeting Trail.

Sidewalks are only needed in the village center where narrow streets and higher traffic volumes make for a large potential for traffic conflicts. Richmond has been very good about upgrading and building a network of sidewalks on the more heavily traveled roads in the village center. There remain some areas in need of upgrading and some others that still need sidewalks. The sidewalks on Front St. south of Weymouth St. need to be upgraded. The curbs at Church St. are not handicap accessible and need to be replaced. As one moves further south on Front St. the sidewalks get very narrow, are overgrown, and are in many places crumbling. The high traffic volumes (both pedestrian and vehicular), the road's prominent role as a one of two primary access points to town, and the road's role as primary access to the waterfront park mean that fixing these sidewalks should be a high priority.

Sidewalks have been built on all of the roads where the 2004 Downtown Revitalization Plan recommended they be built, with the exception of: Boynton, Gardiner, and Center Streets as well as the section of Kimball St. between Front St. and Pleasant St. Gardiner St. and the section of Kimball St. should remain high priority locations for sidewalks as they serve as

important connections; Gardiner St. to the town offices and schools, and Pleasant St. to Lane Field. Boynton St. would also serve as a good connector between the Williams St. sidewalk and Lane field but traffic volumes are low enough to make it a lower priority. Center St. is the lowest priority given its low traffic volumes and lack of through connections.

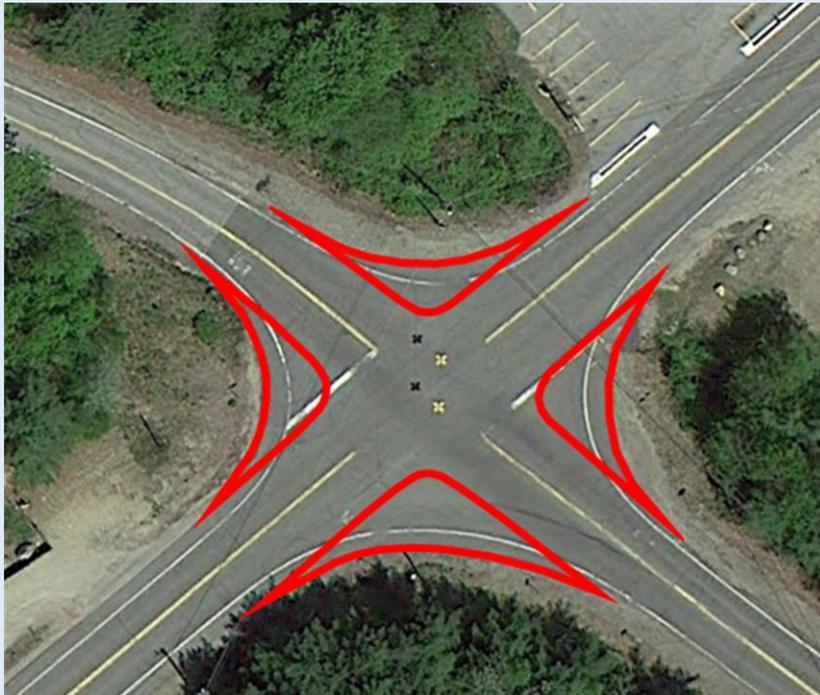
Pleasant St. should have its sidewalk extended south of its current end at Gardiner St. This was one of the most requested improvements in the public survey. The road is heavily populated and has moderate traffic volumes. It is too narrow to accommodate pedestrians and two way traffic at the same time and has poor visibility due to the terrain and alignment of the road. Pleasant St. is the most direct way for residents of a large neighborhood to get to the village center and is a popular recreational walking route. It is recommended that the town look to extend this sidewalk at least as far as the Hagar St intersection. Similarly, extending the sidewalk from the Front and Tulip streets intersection to the soon to be completed park at the base of the Route 197 Bridge was frequently mentioned as desirable by the survey respondents. Providing a safe sidewalk, complete with a crossing of Route 24 where Route 197 splits off, will make this park a useful asset for the town.

To improve pedestrian safety in the village center Richmond should consider enhanced crosswalk treatments, such as pedestrian activated lights, in two places: the intersection of Main St. and Front St. and on Main St. at the entrance to the High School. The Front St. intersection is a major vehicular route and has high pedestrian traffic with people crossing between the Waterfront and the village center. Vehicular visibility of pedestrians in the intersection is poor for southbound vehicles on Front St. making the right turn onto Main St. A signal here will help alert drivers to the fact that they are in a denser area and need to be aware of pedestrians. The existent enhanced crosswalk treatment across Main St. at the High School entrance serves as a visual gateway to the village center. Given the fairly sudden change from arterial Route 197 to village center Main St. the Town may want to consider additional measures leading up to this crosswalk to alert drivers to the fact they are entering a more active place that requires more attention.

Richmond has been very active in improving the experience of being in the village. Their façade improvement programs, the sidewalk updates, and the installation of street lighting have greatly added to an already attractive space. The installation of additional bike racks would improve bicycle friendliness. Small, “lollipop” racks would also be useful outside downtown businesses, particularly the ice cream shop and restaurants, to facilitate bicycle trips to these businesses. In addition to providing convenient lockup points the addition of bike racks would help to reinforce the idea of the village as a bike destination in the minds of all users. In addition to the new library, which is already planned to have a bike rack, key locations for large bike racks would be at the waterfront park and at the new park being created by the 197 bridge. Other improvements that could be added to Main St. include additional trash cans and benches. A good location for installing a bench and trash can would be adjacent to the sidewalk on the new library property. This would nicely bracket the primary stretch of the village center as both of these amenities exist at the waterfront park.

Outside of the village center sidewalks are not practical or required. In order to accommodate bicycle and pedestrian use on the rural arterial routes there should be paved shoulders at least four-feet wide on both sides of the road. The highest priorities for wider shoulders are Route 197, Route 24 north of the railroad bridge, and Alexander Reed Road as it approaches the village center. All three of these came up as areas in need of improvement in the public survey and all three lack any navigable shoulder. Improving them will greatly increase non-vehicular access to the village center. Intersections of major roads should be improved with bike and pedestrian safety in mind. This is particularly true for the intersection of Routes 197 and 201 in

Figure 9



Removing portions of the paved area (marked in red) would improve safety at the intersection of Routes 201 and 197, particularly for non-vehicular traffic.

Richmond Corner. The intersection as it is now is a barrier and safety hazard to bikes and pedestrians. It is likely not necessary to change vehicular traffic flow in the intersection but it should be narrowed in order to shorten crossing distances and improve visibility (Figure 9).

The Merrymeeting Trail is a regionally important initiative but it has distinct local importance as well. The trail would greatly improve access to the village center for a large swath of Richmond residents with around 40-45% of Richmond's population living within

a half mile of the rail right-of-way. The trail will provide a safe and direct connection to the village center relieving some of the demand put on Route 24, a road that is not currently bike or pedestrian friendly outside of the village center. The creation of the complete trail would allow for day trips into Richmond by residents as far as Brunswick or Augusta and would be a much desired recreational resource for Richmond's residents. The trail came up very frequently in the survey showing significant excitement and desire for the trail. Richmond should aggressively pursue the creation of the trail both locally and regionally. As the Merrymeeting Trail initiative moves forward, the town should keep in mind access issues inherent in the current desire to keep the rail line open for active use. Places where pedestrians are already crossing the tracks, such as between Spruce and Fuller Streets, will only attract more users with the creation of the trail. Potential conflicts between the trail and an active rail line will need to

be looked at closely. Another significant offroad trail connection will be formalizing the existing desire path between High St. and the middle/high school. The existence of this desire path combined with its frequent mention in the surveys shows a clear demand for this connection. It would significantly shorten the distance to the school from the neighborhoods south of Main St., increasing non-vehicular access to the resources there. The creation of this path should also include a crosswalk across High St. at its intersection with Gardiner St.

In conjunction with the Merrymeeting Trail, Richmond may want to consider its role as a possible bicycle destination. The village center already has the food, convenience, and hardware stores that would cater to passing cyclists. Its riverside location makes it a great place to stop for a morning or lunch break on a trip out from Brunswick or Portland, or a turning destination point for a shorter day trip from Brunswick or Augusta. The creation of the Merrymeeting Trail would be an ideal way to bring this bicycle traffic through Richmond. It would easily link the village to existing trails to the north and south, providing a currently lacking off-road route to central Maine. The off-road trail is not the only way to attract this traffic however. Most long distance cyclists are very comfortable riding on the road. If Richmond were to widen the shoulders on Route 24 and work with other towns to make this part of a larger bike friendly route it would serve a similar purpose. Richmond and neighboring towns could then work with MaineDOT to include the route in their widely used Explore Maine by Bike book. This could work as an intermediate step to the Merrymeeting trail and provide connections if the trail is constructed in phases.