Fair Haven

Active Transportation Plan

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DEPARTMENT OF TRANSPORTATION · THE STATE OF NEW JERSEY

Borough of FAIR HAVEN New Jersey · Incorporated 1912

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01 INTRODUCTION

The Borough of Fair Haven has demonstrated a desire and commitment to make active transportation an integral part of the community, as illustrated by the hundreds of students who walk and bike to school every day. From its Complete Streets policy and Safe Routes to School programs to the implementation of bike lanes on Ridge Road, the Borough continues to seek opportunities to enhance safety, access, and mobility for those traveling by foot or by bike.

In the 2016 Master Plan Reexamination, Fair Haven residents identified bicycle and pedestrian improvements as the second highest priority to enhance their community's livability. More comfortable, convenient, and attractive conditions for bicyclists and pedestrians can enhance the vibrancy of the downtown, support local businesses, and improve health by encouraging more residents to choose active modes of transportation more often.

To support these objectives and continue to advance its Complete Streets policy, the Borough of Fair Haven has undertaken the development of an Active Transportation Plan as part of the New Jersey Department of Transportation's (NJDOT) Local Bicycle/Pedestrian Planning Assistance Program, which seeks to foster the development of non-motorized transportation modes in accordance with statewide goals and local needs.

This technical memorandum provides an overview of existing conditions for bicyclists and pedestrians in Fair Haven, including a review of the geographic and demographic context; previous studies, policies, and programs; key destinations and attractions; crash analysis; inventory of existing bicycle and pedestrian infrastructure; and a bicycle level of traffic stress (LTS) analysis.

Ultimately, the final Master Plan will include recommendations for improved facilities to enhance the overall bicycle and pedestrian network, as well as a suite of supportive programs and policies.

02 Context

Geography and Transportation Network

Fair Haven is a compact borough situated in northeastern Monmouth County along the Navesink River. At just over 1.5 square miles, Fair Haven is the 25th smallest municipality in Monmouth County by land area (out of 53). The Borough is bounded to the west by Red Bank, the south by Little Silver, the east by Rumson and the north by the Navesink River and Middletown Township. Fair Haven is considered fully built out with over 2,000 households, a business district, and various cultural and recreational destinations throughout the community. The Borough sits on a peninsula between the regional center of Red Bank and the Jersey Shore.

Two county routes traverse Fair Haven – CR 10 (River Road) and CR 34 (Ridge Road/ Harding Road). These two roads provide the only continuous east-west corridors through the Borough and serve both local and regional trips. River Road provides access to the central business district of Fair Haven and is the busiest roadway in the Borough, with an average annual daily traffic (AADT) of nearly 12,000 vehicles (2015). Several north-south roadways, including Harrison Avenue, Hance Road, Fair Haven Road, Kemp Avenue, and Buena Vista Avenue, provide connectivity between CR 10/CR 34 and local residential streets.

The local street network provides varying degrees of connectivity for bicyclists, pedestrians, and motor vehicles. The eastern and northern neighborhoods tend to have more meandering alignments and cul-de-sac streets, while the central and western neighborhoods tend to have a more traditional street grid pattern. Wetlands around Fourth Creek, McCarter Pond, Schwenker's Pond, and Shippees Pond create natural barriers that further limit connectivity options.

From a regional perspective, Fair Haven is also close to several major arterial roadways, including NJ Routes 35 and 36 and County Route 520 (Rumson Road), as well as the Garden State Parkway (Interchange 109), located approximately three miles west of the Borough.

In addition to roadway access, Fair Haven is served by the NJ TRANSIT 838 local bus route. This route runs through the Borough via River Road and provides connections to Red Bank, Brookdale Community College, Colts Neck, Lincroft, Freehold Borough, Freehold Raceway Mall, Rumson, and Sea Bright. Route 838 also connects the Borough to the North Jersey Coast Line commuter rail as well as NJ Transit bus routes 831, 832, and 834 via Red Bank and routes 67 and 836 via Freehold Raceway Mall. These crucial transit links effectively connect Fair Haven to regional destinations across northern and central New Jersey, as well as to New York City.

Demographics

As of 2015, Fair Haven has a total population of 6,075 and a population density of 3,797 people per square mile, nearly three times greater than Monmouth County as a whole. This combination of compact size and high density indicate significant opportunities for walking and biking to serve as convenient transportation options for trips within the Borough or for intermodal connections.

Fair Haven can be characterized as a residential, family oriented community. Approximately 31.4% of the population is below the age of 18, significantly higher than the average in Monmouth County or the state as a whole (17.4% and 16.7%, respectively). This finding highlights children as a critical segment of the population, and the need to ensure safe routes to schools, parks, downtown businesses, and connections among and between residential neighborhoods.

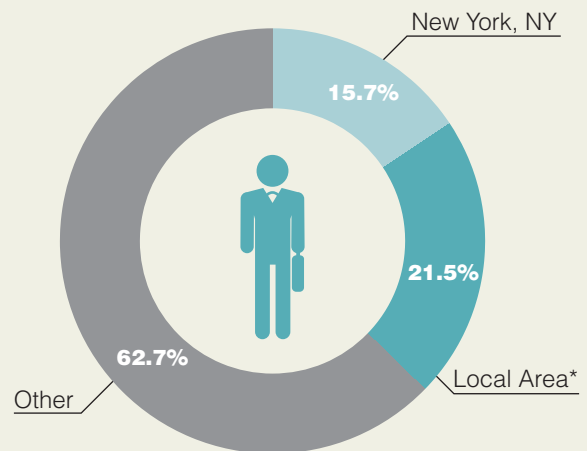U.S. Census Journey to Work data (2014) indicates that 73.8% of Fair Haven residents commute by car, truck, or van. Monmouth County and New Jersey have a slightly higher car dependence, with 83.1% and 79.9% of workers commuting by this mode, respectively. A significant number of residents also use public transportation (18.1%, compared to 8.0% in Monmouth County and 11.0% statewide). While this includes a large number of commuters who use more distant ferryboat services (7.4%), approximately 10.7% use nearby bus or commuter rail services, where walking or biking might be a convenient "last mile" connection to access a train station or bus stop.

Only 1.0% of residents currently report walking or biking as their primary means of commuting to work. However, approximately 38.3% of residents live within 10 miles of their place of work. Local employment areas include Red Bank (6.5%), Fair Haven (5.4%), Rumson (3.1%), and Shrewsbury Borough (2.6%). These short commutes provide additional opportunities for walking or biking.

**Age Distribution of
Fair Haven Residents**

60 and over — 19.0%
Under 18 — 31.4%
18 to 34 — 8.1%
35 to 59 — 41.3%
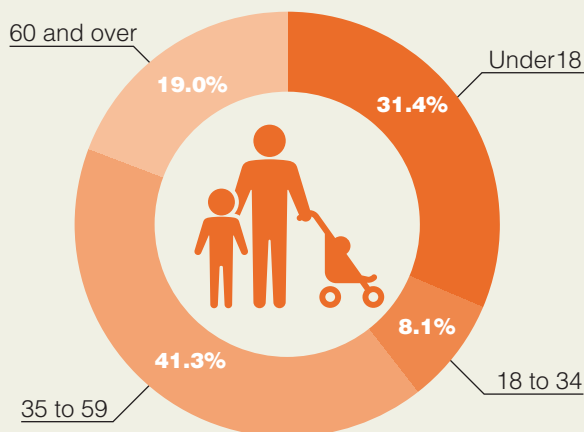
**Place of Work for
Fair Haven Residents**

New York, NY — 15.7%
Local Area* — 21.5%
Other — 62.7%

includes Red Bank, Fair Haven, Rumson, Shrewsbury, Tinton Falls, and Little Silver

Previous Studies, Policies, and Programs

The Borough, as well as jurisdictions that impact local transportation (NJDOT, Monmouth County, NJ Transit), have a variety of existing policies, programs, and previous studies relevant to the Bicycle and Pedestrian Master Plan. These programs and previous work support walking and bicycling initiatives and help inform and guide the planning process.

Complete Streets

Fair Haven enacted a Complete Streets policy in the summer of 2012. This policy requires the Borough to include all modes of transportation in its future road projects, including pedestrians, bicyclists, public transit users, and motorized vehicles. Working in cooperation with Monmouth County and the State of New Jersey, which have both passed Complete Streets policies, these three levels of government are in a position to implement their policies and create a network of Complete Streets within Fair Haven's boundaries and connections to regional destinations.

Master Plan Reexamination

Fair Haven adopted its most recent Master Plan in 1991. Since that year, the Borough has produced four reexamination reports, each of which is focused on determining whether the ideas and policy guidelines set within the original plan are still applicable. In addition to reviewing past policies, each reexamination also looks to providing direction for future planning and growth management. Fair Haven's original 1991 Master Plan had little language regarding alternate modes of transportation. The plan acknowledged the high bicycling and walking rates of school children at Knollwood and Sickles Schools, but offered little in the way of viable solutions. The primary solutions at the time were focused more on street widening and less on the pedestrian and bicyclist realm.

The third Master Plan Reexamination, completed in 2005, offered the first language citing the need for bicycle and pedestrian network improvements. The document cited the need to address safety concerns along River Road to mitigate pedestrian and vehicular conflicts, as well as to devise a Circulation Plan within the Master Plan to identify specific areas in need of bicycle and pedestrian network improvements. The most recent Master Plan Reexamination, written in 2016, stressed these issues as still relevant. The 2016 reexamination reaffirms the Borough's concerns about pedestrian crossings, especially along River Road and Ridge Road. The document once again stressed the need for a Circulation Plan Element to address traffic safety, in addition to other modes of transportation.

In preparation for the 2016 reexamination, the Borough Planning Board conducted a survey of Fair Haven's land use and zoning opportunities and challenges. When asked about their number one priority for making Fair Haven a better place to live, the second most common response from respondents was pedestrian and bicycle circulation. Other relevant findings from the same survey include:

» Respondents highly disliked the existing state of bicycle and pedestrian accessibility in the central business district

» Over 50% of respondents stated that their children get to school via bicycle, while an additional 25% of children walk to school.

» Two thirds of respondents indicated that they would walk or bike to local destinations more often if pedestrian and bicycle facilities were improved for safety and convenience.

» While 88% of respondents typically drive to local destinations, walking and biking are popular alternatives, with 57% and 44%, respectively, of respondents also often using those modes

» 6% are "not at all satisfied" and 33% are "partially satisfied" with the Borough's pedestrian facilities

» 21% are "not at all satisfied" and 34% are "partially satisfied" with the Borough's bicycle facilities

3rd Street / SRTS programs

Fair Haven is an avid participant in the Safe Routes to School (SRTS) Program. The program is a national initiative designed to make routes safer for all children to walk and bicycle to school. Fair Haven has instituted numerous programs to help achieve this goal. As one of the Borough's signature initiatives, 3rd Street between the Knollwood School and Fair Haven Road is closed to vehicular traffic during arrival and dismissal times in order to accommodate the large number of students who bicycle and walk to and from school. In addition, Fair Haven has had several police-sponsored bicycle rodeos at local schools to educate children on bicycle safety. As a supplement to these bicycle rodeos, Fair Haven police regularly hand out "tickets for good behavior" when a child is seen bicycling correctly. To help ensure safety, the schools require students to wear helmets, reinforced by a formal agreement signed by students and their parents. Finally, Fair Haven has a long-standing annual tradition called

"Transition Day", during which graduating third graders at the Sickles School ride their bicycles to the Knollwood School where they will soon begin 4th grade, cheered on by faculty, parents, and the Fair Haven police department. These programs have all helped foster the bicycle culture that exists in the Fair Haven School District. The Sickles School was acknowledged for its work by the New Jersey Safe Routes to School Recognition Program in 2015.

Bicycle Recycling Program

Fair Haven residents participate in a program that provides lower income children with opportunities to own bicycles. As part of the its bulk waste collection program, the Borough gathers and donates used bicycles to Second Life Bikes, located in Asbury Park. The organization repairs them and distributes them to the local community or sells them at low cost. Fair Haven donates between 60 and 75 bicycles to Second Life Bikes each year. These donations are made on a monthly basis and help support the community. Participation in this program serves as a reminder that Fair Haven residents have a strong interest in bicycling.

Mayor's Challenge for Safer People, Safer Streets

Fair Haven joined the U.S. Department of Transportation (USDOT) 2015 "Mayor's Challenge for Safer People, Safer Streets" initiative, one of only eight New Jersey municipalities to participate. The program focuses on advancing bicycle and pedestrian safety and accessibility goals by tackling one or more of the Challenge activities: implement

a Complete Streets approach, identify and fix barriers to safety and access, gather data on walking and biking, use context-sensitive design, create bicycle and pedestrian networks, improve safety laws, and educate and enforce proper road use behaviors by all.

Red Bank Bicycle/ Pedestrian Planning Project

Neighboring Red Bank completed a bicycle and pedestrian plan in 2010. Red Bank is a major regional destination for many Fair Haven residents. Therefore, connections between Fair Haven and planned facilities in Red Bank are an important part of developing a cohesive, continuous regional network. The Red Bank plan identified several proposed improvements and bicycle connections with Fair Haven, including:

» Bicycle lanes on:

  » Front Street (CR 10)

  » Harrison Street

  » Marion Street/McLaren Street

  » Harding Street

» Multi-use path on portion of Harding Street

» Speed limit reduction on Front Street (CR 10) and portion of Harding Street

Monmouth County Bicycle Facility Policy and Guidelines

In April 2015, Monmouth County Freeholders adopted a resolution amending the Monmouth County Bicycle Facility Policy and Guidelines. Where possible, off-road, shared-use paths are encouraged. For on-road facilities, all bicycle facilities on county roads must follow AASHTO design guidance.

Map 1 - Planned Projects

Fair Haven has several projects in various stages of planning and design related to bicycle and pedestrian improvements. These projects should be incorporated into infrastructure improvements identified within this plan. On-going projects, depicted in Map 1, include:

1 New sidewalk along Third Street eastbound, including ADA curb ramp improvements and crosswalk striping

2 New passive recreation space planned along the Navesink River, including at the end of Battin Road (boat ramp), Denormandie Avenue (park), and Grange Avenue and Hance Avenue (viewing vistas and waterfront pocket parks)

3 New sidewalk along Fair Haven Road northbound between McCarter Park and Linden Drive. Includes ADA curb ramp improvements, crosswalk striping, tightening the corner radii at Laurel Drive and Linden Avenue, and crosswalk striping and signage

4 New sidewalk on Cedar Avenue northbound between Fisk and Foreman Streets, including new curbing, ADA curb ramps, and crosswalk striping

5 Crosswalk improvements with decorative striping along River Road at the intersections with Oak Place, Denormandie Avenue, and Fair Haven Road

03 Vision and Goals

Public involvement is an essential component of the Fair Haven Bicycle and Pedestrian Master Plan. The planning process is intended to involve key stakeholders and the general public throughout the Plan's development. The community provided valuable input, insights, and feedback on existing conditions, areas of need, and improvement concepts, and shaped the goals and vision statement that ultimately guide the Plan. The result will be a plan that is reflective of the priorities and interests of the community and its residents, leading to broader support for implementation.

Community Involvement Activities

The project team is using several methods to engage the community throughout the planning process. The following sections summarize key community involvement activities.

Study Advisory Committee

A local Study Advisory Committee (SAC) is providing input and guidance at key intervals during the planning process. The SAC includes representatives from Fair Haven's local government, engineering and public works, business association, school district, and residents; Monmouth County Division of Planning; and New Jersey Department of Transportation. The SAC met formally to review existing conditions, as detailed in this document, and will meet two more times during the duration of the project.

Kick-off and Existing Conditions Review – January 31, 2017

The SAC reviewed the results of the existing conditions analysis and provided input on key problem areas and deficiencies. The SAC also drafted the goals and vision for the Plan.

Recommendations Review – July 31, 2017

The project team presented the plan's draft recommendations. The SAC reviewed and discussed the initial concepts, provided feedback, and suggested several additions and modifications.

Public Events/Meetings

In addition to the SAC, the project team also sought input from the general public by participating in community events and holding public information centers (PICs). Events included:

Trucktoberfest – October 29, 2016

The project team staffed a booth during the community's Trucktoberfest event at Fair Haven Fields. The event was an opportunity for project staff to distribute project information and talk with members of the public early in the planning process about key issues and needs. Members of the public provided input via comment forms and marking-up a large map of the Borough, identifying problem areas and desired walking and bicycling routes.

PIC #1 – April 27, 2017

The project team held a PIC at Borough Hall from 5pm to 7pm. The PIC was an open-house format and included a series of boards summarizing the existing conditions analysis; a station for attendees to provide feedback on and prioritize the Plan's goals; and a station for attendees to mark-up a map of the Borough, identifying problem areas and desired walking and bicycling routes.

PIC #2 – September 25, 2017

The project team held a second PIC at Borough Hall from 5pm to 7pm to present the draft recommendations. The informal open-house included a series of boards summarizing study findings and illustrating the draft concepts. Attendees discussed the recommendations with the project team and provided feedback and suggestions.

WIKIMAP

An online "Wikimap" website (shown below) was launched in October 2016 to collect place-based comments about walking and biking in Fair Haven. Similar to hard-copy maps used at public events, the web interface allowed users to mark-up a virtual map of the Borough. Accessible to the general public, users were asked to identify corridors and spot locations that are difficult for walking and biking, desired walking and biking routes, and desired locations for additional bicycle parking.

Over the course of the study, 91 unique users accessed the Wikimap site and provided a total of 25 comments on current issues and desired improvements

Clockwise from top:

(1) Study Advisory Committee Meeting #1

(2) Public Information Center #2

(3-4) Public input at Trucktoberfest 2016

Vision and Goals

Developed collaboratively with the SAC, the Fair Haven Active Transportation Plan defines an aspirational vision for the future of active transportation in the Borough, and its role in community life.

> ## *Vision*
>
> *Fair Haven is a model community for walking and bicycling, where these are convenient, comfortable, and safe transportation options for people of all ages and abilities. Traveling on foot or by bicycle is the natural, default choice for children going to school and residents and visitors traveling within the Borough. Active transportation supports a vibrant community, with a thriving business district and streets filled with people of all ages.*

To support this vision, the Plan seeks to achieve the following goals. The goals are listed in the order in which they were prioritized by attendees of the first public information center:

Safety: Improve safety and driver awareness of bicyclists and pedestrians through enhanced crossings, improved bicycle facilities, traffic calming, or other infrastructure improvements consistent with the local context and need

River Road Complete Street: Balance the needs of bicyclists, pedestrians, and motor vehicles along River Road to enhance access and support a bustling, vibrant local business district

Comfort and Access: Support a Borough-wide network for bicyclists and pedestrians that is comfortable for school children and provides convenient access between residential neighborhoods and schools, parks, and businesses

Regional Connectivity: Integrate Fair Haven's bicycle network with the regional network, supporting links to destinations in neighboring Red Bank, Rumson, Sea Bright, and Little Silver

Education: Communicate the rules of the road and promote safe travel habits for all modes

Implementation: Create a clear plan for integrated multimodal networks of safe travel options by foot or bike that can be easily communicated and shared with various constituencies, stakeholders, and partners, and that identifies a broad range of short and long term strategies

Benefits of Walking and Biking

Active transportation provides many community-oriented and regional benefits:

Transportation Equity

Bicycling and walking are more than recreation. They are a means of getting to work, running errands, and seeing friends, particularly for those that are too young to drive, unable to drive, cannot afford or choose not to own a car, or simply prefer not to drive. In most communities, 20%-40% of the population does not drive. Short trips of one mile or less can easily be made by bicycle or on foot, yet 60% of these trips are typically made by car.[1]

Environmental Sustainability

Active transportation provides a greener, more sustainable alternative to driving. It has a reduced impact on roadways, both in terms of space consumed and infrastructure maintenance required. Shifts from driving to walking or bicycling can reduce vehicle miles traveled and congestion; fuel consumption; and emissions of CO_2, CO, NO_x, and VOCs.

Public Health

Active transportation integrates physical activity into everyday life. This can lead to decreased rates of obesity, diabetes, heart disease, high blood pressure, and other ailments. Children who walk or bike to school, for example, have been found to be more attentive, better able to concentrate, and have mental alertness that is one-half school year more advanced than their less active counterparts.[2]

Economic Vitality

An increase in bicycling and walking has a variety of positive economic impacts. Customers arriving by bicycle or by foot are more likely to shop locally, which is beneficial to the economic strength and stability of the community. Though spending less per trip than motorists, they tend to spend more over the course of a month.[3] Pedestrian infrastructure can also support a more vibrant community, boost property values and sales revenues, and spur private investment.

Safety

Safety improvements are an essential component to encouraging more people to walk or bicycle. Investments in bicycle and pedestrian infrastructure also improve safety for all roadway users. High vehicle speeds can inhibit a driver's ability to react to activities happening along the roadway and narrow a driver's peripheral vision. Traffic calming enhancements reduce crash severity for all modes and create a more attractive environment for active transportation.

1 *National Highway Travel Survey, 2009*
2 *Egelund, N. et al., Mass Experiment, 2012*
3 *Popovich and Handy, Bicyclists as Consumers, 2014*

04 Existing Conditions

In order to guide the development of bicycle and pedestrian recommendations for Fair Haven, the project team first inventoried and analyzed existing conditions within the Borough related to bicycling and walking. This effort included identifying key destinations and activity centers, analyzing crash data, conducting a targeted sidewalk inventory, identifying key intersections and corridors, and examining the bicycling network and off-road paths.

Key Destinations

Locations that could attract a high number of pedestrian or bicycle trips were inventoried and mapped, as shown in Map 2. Key destinations were grouped into the following categories:

» School – children walking or biking to school

» Parks – many users, including children, bike or walk to recreational facilities

» Municipal Buildings – library, post office, convention center, and other public facilities

» Transit – many transit riders arrive at bus stops by foot or bike

» Commercial – some shoppers arrive on foot or by bike. Others park nearby but still have to access the stores by foot.

» Houses of Worship – community gathering spots that may attract residents from the surrounding neighborhoods

Two public schools are located within the Borough: the Viola L. Sickles School and the Knollwood School. These schools have a combined enrollment of over 1,000 pre-kindergarten to 8th grade students that reside in Fair Haven. High school students attend Rumson-Fair Haven Regional High School,
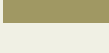
located in Rumson along Ridge Road (CR 34), approximately 1.1 miles east of the Borough. While not attended by Fair Haven residents, the Red Bank Regional High School is immediately adjacent to the Borough, located on the south side of Ridge Road (CR 34) in Little Silver.

In addition to the schools, there are a number of local destinations within the Borough. Commercial activity along River Road includes food establishments, grocery stores, convenience stores, banks, and other small businesses. In addition to commercial activity, Fair Haven boasts several outdoor recreational destinations, including the Fair Haven Playing Fields and Natural Area, Harding Bird Sanctuary, McCarter Park, Sportsman's Field, McCarter Pond Picnic Area, the Youth Center, and Fair Haven Yacht Works. Finally, the Borough is currently home to four places of worship, including the Fisk Chapel, the Church of the Nativity, the Christ United Methodist Church, and the Kingdom Hall of Jehovah's Witnesses.

## Map 2 - Major Destinations

NJ Transit Bus Stop

NJ Transit Bus Route

School

Park

Commercial

Municipal Building

Place of Worship

Fair Haven is a compact community covering 1.5 sq mi, making its schools, parks, and local businesses within easy walking or biking distance for most residents.

Map 3 - Regional Destinations

- +++++ NJ Transit Rail
- School
- Park
- Commercial
- Beach

0   0.5   1.0
Miles
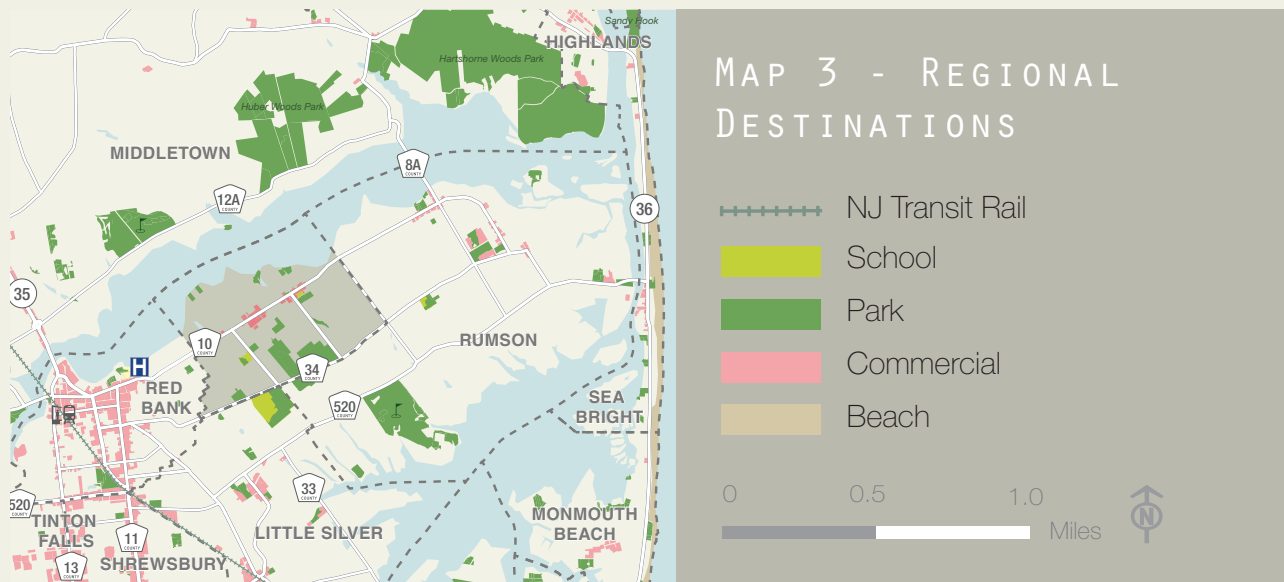
In addition to local destinations within Fair Haven, there are numerous regional destinations in relatively close proximity to the Borough, as shown in Map 3. The Borough of Red Bank is a center of culture, business, healthcare, restaurants, and shopping. Red Bank is the closest regional destination to Fair Haven, offering specialized amenities and services. As of 2014, there were more than 11,500 employees commuting to work in Red Bank, 172 of them (1.5%) originating in Fair Haven. In addition to downtown Red Bank, there are commercial corridors along NJ 35, Newman Springs Road, and Broad Street, as well as commercial nodes and village centers in Little Silver, Rumson, and Sea Bright.

There are also several major parks and recreational destinations in the region. North of the Navesink, there is the Sandy Hook National Gateway National Recreational Area, Huber Woods Park, and Hartshorne Woods Park. To the east are the Jersey Shore beaches, a major seasonal destination. The Shrewsbury River Bridge, approximately three miles from Fair Haven, provides the most direct connection for all modes between the peninsula and the coast.

Finally, recreational cycling is popular within the region. Several routes traverse the peninsula and along the Navesink River, Shrewsbury River, and coastline. Popular routes include:

- » River Road (CR 10)
- » Ridge Road (CR 34)
- » Rumson Road (CR 520)
- » Seven Bridges Road (CR 33)
- » Bingham Avenue
- » Navesink River Road (CR 12A)
- » NJ Route 36

CRASH ANALYSIS

Analysis of reported crashes can provide information related to existing safety issues, such as common crash locations or common crash characteristics and contributing factors. However, it is important to recognize the limitations of the data. Bicycle and pedestrian crashes are widely regarded as under-reported. Crashes that do not result in injury, have minimal property damage, or do not involve a motor vehicle are less likely to be reported to the police, where most crash data is collected and tracked.

Furthermore, a lack of reported crashes does not necessarily indicate a safe bicycling or walking environment. Perceived safety issues and conflicts with motor vehicle traffic are often indicated as the highest concerns that deter more people from bicycling or walking. Thus a road perceived as "unsafe" may have few actual reported crashes in part because few people choose to walk or bicycle along it.

Despite the known limitations, analysis of reported crashes can provide important insights. If a significant number of crashes in the same area were severe enough to be reported, it can indicate a potential safety issue and problem area for further assessment.

Between the years of 2011 and 2015, a total of eight crashes involving bicyclists or pedestrians were recorded in Fair Haven (NJDOT crash records). Three of the crashes involved bicyclists and five crashes involved pedestrians. One bicyclist fatality was documented, in addition to two minor to moderate injuries, while no serious pedestrian injuries or fatalities were reported. As shown in Map 4, all three bicyclist crashes occurred along River Road in the central business district, as did two of the pedestrian crashes. The remaining pedestrian crashes occurred on nearby Church Street, Ridge Road at Fair Haven Road, and another Cambridge Avenue at Harvard Road.

Due to the small sample size, few conclusions or statistics can be gleaned from the data. Of the eight crashes, alcohol played a factor in two, three crashes occurred in dark lighting conditions, six occurred at an intersection, and the victims were evenly split between males and females.

The single fatal crash involved a male bicyclist. The crash occurred at the intersection of Elm Place and River Road, within the business district of the Borough. Alcohol and poor lighting conditions were not contributing factors in the incident.

MAP 4 - CRASH LOCATIONS

- ● Pedestrian Crash
- ● Bicycle Crash
- ▬ School
- ▬ Park
- ▬ Commercial
- ▬ Municipal Building
- ▬ Place of Worship

Between the years of 2011 and 2015, there were eight reported crashes involving bicyclists or pedestrians in Fair Haven (NJDOT crash records)

SIDEWALK NETWORK

As part of the existing conditions analysis, the project team conducted an inventory of the pedestrian infrastructure along the core street network within the Borough. The streets included in this targeted inventory provide longer, continuous corridors across the Borough, create an interconnected network, and/or provide direct access to major destinations.

These roadways were examined for the presence of sidewalks and pedestrian crossing facilities (shown in Map 5). Each inventoried roadway was documented as having either no sidewalks, sidewalks on one side only, or sidewalks on both sides of the street. In addition to sidewalk connectivity, the project team also looked for deficiencies in the crossings linking the sidewalks. These deficiencies can include lack of curb ramps, lack of detectable warning surfaces, lack of crosswalk striping, or lack of accessibility to pedestrian push buttons at signalized intersections. These conditions can discourage walking, contribute to unsafe crossing conditions, reduce driver awareness and expectation of pedestrian activity, and/or create impediments to mobility for some residents.

Major roadways in Fair Haven that lack sidewalks include portions of Third Street, portions of Fair Haven Road, Buena Vista Avenue, portions of Ridge/Harding Road, and portions of Kemp Avenue. Generally, neighborhoods in the eastern portion of the Borough and north of River Road often lack sidewalks or have significant network gaps, while sidewalk facilities are more common in the central and western neighborhoods of the Borough.

A significant number of roadways lack visible crosswalks at intersections and/or curb ramps are not ADA-compliant, including Hance Road, Kemp Avenue, Ridge/Harding Road, River Road, Buena Vista Avenue, Hendrickson Place, and Harrison Avenue. While a lack of marked crossings may be a lower priority at the intersection of low traffic, residential streets, the map illustrates a need for more marked and/or enhanced crossings along the more significant connector roadways. ADA-compliance issues are common and can range from a complete lack of a curb ramp to the simple absence of a textured warning surface to help alert the visually impaired.

Improved crossings of River Road, as noted in the Master Plan Reexamination, would benefit the business district, better connect the neighborhoods to the north and south of the roadway, and improve access to parks and access points along the Navesink River.

Map 5 - Pedestrian Infrastructure Inventory

Targeted Sidewalk Inventory

Sidewalk on 2 Sides
Sidewalk on 1 Side
No Sidewalk
Existing Path

Targeted Crosswalk Inventory

Crosswalk Lacking ADA Compatibility

No Visible Crosswalk

Sidewalk gaps and deficient pedestrian crossings indicate opportunities for improvements

Bike Network

Existing Facilities

Fair Haven currently has just a single roadway with a designated bicycle lane, located on Ridge/Harding Road (CR 34) along the southern boundary of the Borough. Implemented by Monmouth County with support from the Borough, this bicycle lane was the first major road resurfacing project in Fair Haven since the adoption of the Complete Streets policy in 2012.

In addition to the Ridge/Harding Road bicycle lanes, there are several bicycle parking locations throughout the Borough. With approximately 50% of students bicycling to school, there is a high demand for parking. Accordingly, the largest bicycle parking capacity locations are located at the schools. Knollwood School currently has parking capacity for approximately 300 bicycles; 200 across Hance Road and 100 adjacent to the school. The Sickles School has capacity for approximately 120 bicycles, all located along Willow Street in front of the school. Two bicycle parking locations are located at the Fair Haven Playing Fields and Natural Area, each with a capacity of approximately 15. In addition, four businesses along River Road have small, comb-style bicycle parking facilities, each holding between one and five bicycles.

Bicycle Level of Traffic Stress

Bicycle Level of Traffic Stress (LTS) evaluates a cyclist's potential comfort level given the current conditions of the roadway. Different bicyclists have different tolerances for stress created by volume, speed, and proximity of automobile traffic. The LTS metric is based on the Dutch concept of low-stress bicycle facilities and has proven influential in the advancement of bicycle planning in the United States.

In general, lower stress facilities have increased separation between cyclists and vehicular traffic and/or have lower speeds and lower traffic volumes. Higher stress environments generally involve cyclists riding in close proximity to traffic, multi-lane roadways, and higher speeds or traffic volumes.

Four levels of traffic stress were used to evaluate the roadways of Fair Haven:

Level of Traffic Stress 1: The level most users can tolerate (including children and seniors)

Level of Traffic Stress 2: The level tolerated by most adults

Level of Traffic Stress 3: The level tolerated by "enthusiastic" riders who might still prefer dedicated space

Level of Traffic Stress 4: The level tolerated by the most experienced riders

Map 6 - Existing Bicycle Facilities

Facility Type

—— Bicycle Lane

—— Unpaved Path

Number of Bicycle Parking Spaces

● 1 - 5

● 6 - 20

● > 20

ℹ️

There is one existing 1.9-mile bike lane in Fair Haven along Ridge Road (CR 34)

Map 7 - Bicycle Level of Traffic Stress

Level of Stress 1
Level of Stress 2
Level of Stress 3
Level of Stress 4

River Road (CR 10) and Ridge Road (CR 34) create the primary barriers for low-stress bicycle riding in Fair Haven

Figure 4.1 - LTS 1 Network

While the majority of Fair Haven's roadway network is LTS 1, as shown to the right, it is fragmented by higher stress roadways, creating "islands" of low stress roadways, such as north of River Road (circled in orange).

The LTS was evaluated for all roads in Fair Haven. The project team assessed major roadways and key minor roadways in the study using a variety of data sources, including base mapping, GIS data files, NJDOT Straight Line Diagrams, and traffic data from NJDOT. The team also conducted field evaluations to take measurements and verify the various roadway features, character, parameters, and user behavior. For many of the local roads in the study area, basic assumptions were made of their typical characteristics.

The majority of the streets in Fair Haven are residential streets with low traffic speeds and volumes, making them LTS 1 roadways that are accessible for all users. There are four roadways segments that are classified LTS 2, including portions of Buena Vista Avenue, Fair Haven Road, Third Street, and Hance Road. These roadways have higher traffic volumes and more frequent turning movements.

The high stress (LTS 3 and LTS 4) roadways within Fair Haven include the higher speed and/or higher volume county roadways – River Road and Ridge/Harding Road. While

Ridge/Harding Road has an existing bicycle lane, it is perceived as a higher stress roadway for most cyclists due to its 35 MPH speed limit.

From the perspective LTS 1 cyclists, such as children bicycling to school, Fair Haven has a large number of LTS 1 roadways. However, several key gaps create low stress "islands" with limited connectivity between them. River Road, for example, is a barrier between residential neighborhoods to the north and points south, while Ridge Road is a barrier to major destinations to the south such as the Regional High School. Similarly, the main north/south roads (Hance Road and Fair Haven Road) are LTS 2 roadways, and there are no LTS 1 roadways that provide a continuous connection across the Borough. While Third Street is considered an LTS 2 facility during most of the day, its closure to vehicular traffic makes it an LTS 1 roadway during the peak periods of school arrival and dismissal, effectively filling a network gap and providing an east/west conduit connecting residential neighborhoods and the schools.

Figure 4.2 - Bicycle Penalty

The bicycle penalty map to the right helps illustrate gaps in connectivity and the decrease in destinations that can be reached when a bicyclist is restricted to the low stress network compared to a vehicle able to use all roads.

Bicycle Penalty

- ≤ 60%
- ≤ 70%
- ≤ 80%
- ≤ 90%
- < 100%
- 100% (Not Accessible)
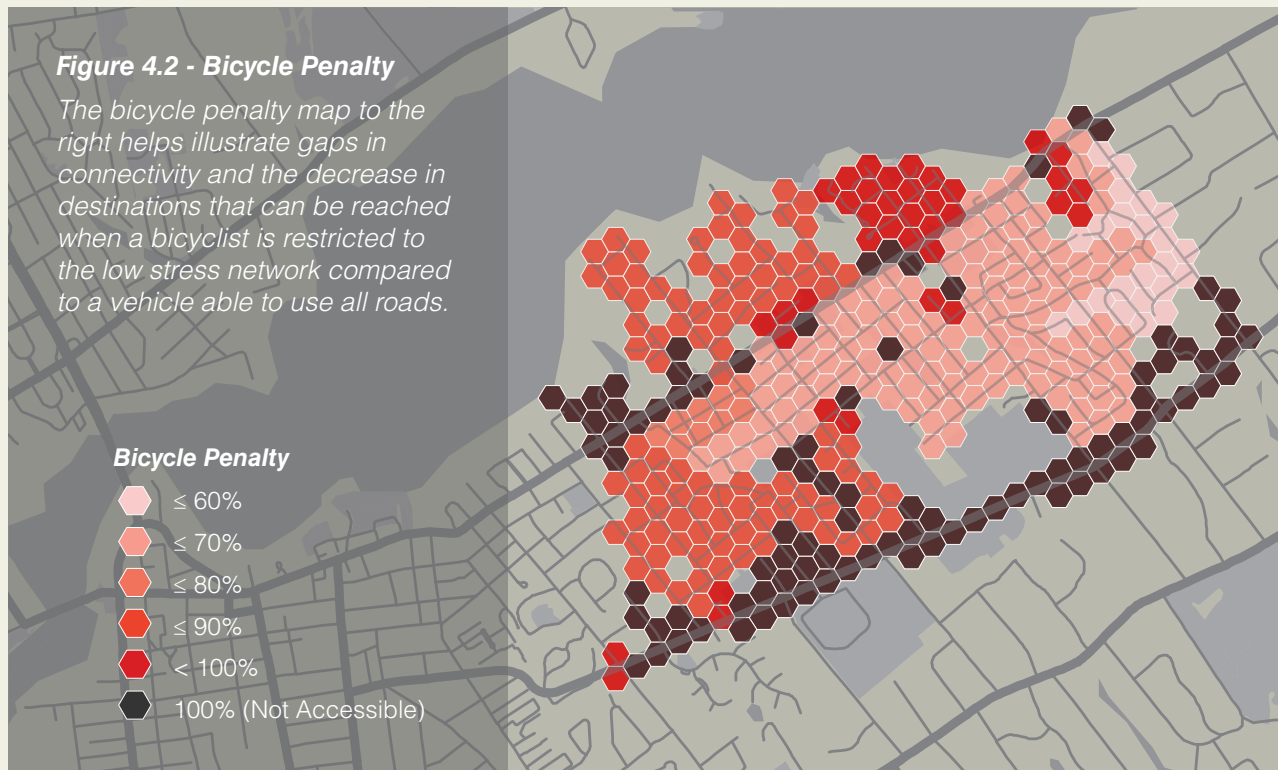
BICYCLE PENALTY METRIC

In order to better understand the bicycle network connectivity in Fair Haven, a technique called Bicycle Penalty was used. The guiding principle behind this analysis is that high stress links in a bicycle network can penalize and hamper bicyclists' ability to access the entire network when compared to an automobile. The analysis works by measuring the percent difference in the ability of a user at one point in the network to access any other point in the network. The analysis compares a user in an automobile, where the entire network is available, to a user on a bicycle who can only use LTS 1 roads (shown in Figure 4.2).

The Bicycle Penalty measurement is expressed on a percentage scale from 0 to 100 percent, which indicates, at a given point, the percentage of the network that is accessible by car but not by bike. For example, a Bicycle Penalty of 60 percent

indicates that a bicyclist from that point can access 60 percent less of the network compared to a motorist.

Figure 4.2 shows the Bicycle Penalty for a bicyclist using only LTS 1 road and limited to a two-mile trip distance. Areas of the Borough shown to have a high Bicycle Penalty, indicate that there is a lack of connectivity between LTS 1 routes, which limits the mobility of these users, who are often children.

As shown in the figure, the southern edge of the Borough and northwest corner, as well as several locations dispersed throughout, are not accessible via low stress roadways. Additionally, the neighborhoods north or River Road are relatively isolated and difficult to navigate for LTS 1 bicyclists compared to motorists. This is largely due to the high stress barrier effect of River Road.

The western neighborhoods also have a relatively high Bicycle Penalty due to the classification of Hance Road and Third Street

as LTS 2 roads, which otherwise provide a direct connection to the eastern side of the Borough. These findings are consistent

with feedback heard during the community involvement process.

OFF-ROAD PATHS

The Fair Haven Playing Fields and Natural Area contain a network of walking paths. While these paths enhance north/south pedestrian connectivity and access to the parks, they are unpaved and predominantly serve a recreational purpose.

Several auxiliary paths enhance linkages between the park and surrounding residential streets. The path network is accessible from Third Street, Fair Haven Road, McCarter Avenue, William Street, and Ridge Road, in addition to the primary park entrance located off of Gentry Drive.

In addition to the park trails, there is a multi-use path located adjacent to the Knollwood School that connects Oxford Avenue with the school. This path allows students and parents to avoid vehicular congestion in front of the school by accessing it through a car-free path.

The off-road path network is intended primarily for pedestrians, typically unpaved, and is generally self-contained within the parks, providing limited value to the larger bicycle network and bicyclists traveling across the Borough.

SCHOOL ACCESS

Walking and biking to school remains an important part of the school culture in Fair Haven. As discussed in Chapter 2, the Borough has several Safe Routes to School programs and initiatives to promote and facilitate walking and biking, and approximately 75% of students walk or bike to school (2015 Master Plan Re-evaluation survey). Key infrastructure related programs include the closure of Third Street to vehicular traffic during school arrival and dismissal times, and stationing of crossing guards at major intersections throughout the community.

The field inventory identified several existing deficiencies and issues that impact safe routes to schools, including:

» Sidewalk gaps along Fair Haven Road, including between Third Street and McCarter Park

» Sidewalk gaps along Third Street

» Worn crosswalk striping and lack of ADA-compliant curb ramps at intersection of Third

Street and Fair Haven Road

» Unlike the elementary and middle schools, Rumson-Fair Haven High School (RFHHS) is located approximately one-mile east of the Borough in Rumson, making it less convenient for walking to school, but within easy bicycling distance. Ridge Road is the primary connection between Fair Haven and the RFHHS. This is a high-stress corridor for bicycling due to the high traffic speeds (40 mph) and variable shoulder width. The existing bicycle lanes do not extend into Rumson. The corridor also lacks sidewalks.

» Lack of sidewalk along Ridge Road eastbound adjacent to the Red Bank Regional High School (RBRHS). A heavily worn path indicates high pedestrian demand.

» Signalized intersection of Hance Road at Ridge Road lacks pedestrian accommodations, such as curb ramps, pedestrian signal heads, and striped crosswalks. This intersection provides an opportunity for a signalized crossing of Ridge Road for students walking to RBRHS.

Key Corridors and Summary

As a result of the existing conditions analysis, public input, and review of previous studies, several key corridors, issues, and themes were identified that guide the development of improvement recommendations. These include:

» Fair Haven's compact size, relatively high density, and proximity of schools, parks, and the downtown to neighborhoods are conducive to convenient walking and biking trips

» The majority of students typically walk or bike to school. Children are a key user group and improvements should enhance access to schools

» Connections to regional destinations, including Red Bank and the Shore are important

» Key corridors include: River Road, Ridge Road, Hance Road, Fair Haven Road, Third Street, Kemp Avenue, and Buena Vista

» Sidewalk gaps and lack of enhanced pedestrian crossings are common issues on some the key corridors

» Ridge Road and River Road are the primary high traffic stress roadways within the Borough, which create barriers to low stress network connectivity

» Speeding was cited as a common issue on some of the Borough's main roadways