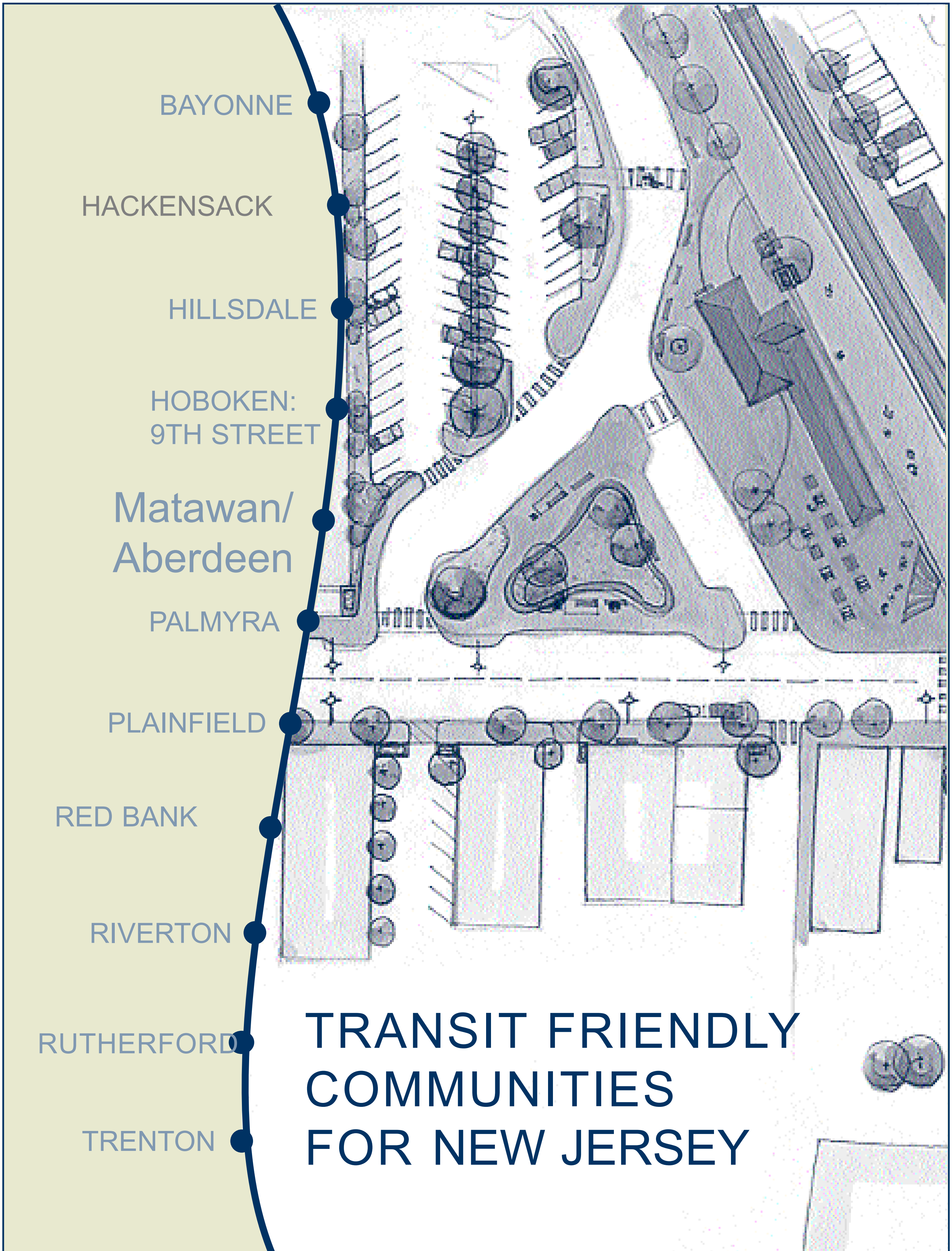
TRANSIT FRIENDLY COMMUNITIES FOR NEW JERSEY



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Downtown New Jersey
New Jersey Future
New Jersey Office of State Planning

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INTRODUCTION

The Aberdeen-Matawan Station - now largely a park and ride facility straddling the two municipalities - is poised for a major transformation. Following a major investment in a new station building constructed by NJ TRANSIT, both the communities of Aberdeen and Matawan are looking at the development potential of the underutilized land and parking lots which surround the station. As a major landowner in the area, NJ TRANSIT also has an interest in the future development of the Aberdeen-Matawan Station.

The main goal of this report is to help guide the development of the station area, whether it occurs separately or collectively by the municipalities. This report sets the stage for a more detailed planning process than was possible in this study and that will be necessary for any development to occur. At the same time, however, the report identifies ways, prior to major development occurring, that Matawan and Aberdeen can work together to improve pedestrian, bicycle, and transit access to the station as well as enhance the station environment as a focal point for both communities. Moreover, Matawan has a specific interest in better linking the station with its downtown revitalization efforts.

While there are many opportunities for development around the station, there are also many obstacles to be overcome. The competing demands and visions of separate municipalities present jurisdictional challenges. Roadway capacity limitations will need to be addressed by a detailed analysis to support extensive new development. Parking for new development, if not properly planned and implemented, could overwhelm the already car-dominated setting. Indeed, there has been no market analysis to date about the types of uses that are most feasible and appropriate for the station area. This, too, will have to be undertaken.

This report documents the findings and recommendations of the technical team supported through a grant from the Transit and Community and Systems Preservation Pilot Program (TCSP), with added funding by NJ TRANSIT and the New Jersey Department of Community Affairs. It was prepared by RPA and PPS assisted by NJ TRANSIT, Downtown New Jersey, and the NJ Office of State Planning.

The report is divided into two main sections: the first describes issues and opportunities—many of which can be undertaken in the short term—to enhance station access and its environment. The second section focuses on new development, including suggested urban design guidelines.

ABOUT THE TRANSIT-FRIENDLY COMMUNITIES PROGRAM

In the last 15 years, NJ TRANSIT has spent over $7.5 billion to repair, rehabilitate, expand, and connect all of the State's passenger lines—built in the mid 1800's by competing rail companies -- into one seamless transit system. Together, these connections, upgrades, and new light rail lines will result in an interconnected rail network with over 150 commuter rail stations serving the majority of state residents. Despite this massive infusion of transit funding and commitment by NJ TRANSIT, there has been a lack of awareness among many New Jersey communities about how to leverage these transit investments to revitalize their downtowns, encourage business and local economic development, and reduce reliance on the private car. This program—Transit-Friendly Communities for New Jersey—is working with diverse community partners to develop specific ways that New Jersey towns and cities can become more "transit-friendly." Under this effort, NJ TRANSIT is working with a consortium of non-profit organizations, the New Jersey Office of State Planning, and local public and private sector partners on a statewide initiative which includes educational workshops, technical assistance, and demonstration projects in eleven communities to shape a new vision for linking train stations to community enhancement. This program allows NJ TRANSIT to leverage the talents and resources of its non-profit and government partners—leaders in smart growth, community revitalization, regional planning, and public education—to shape the future of communities around NJ TRANSIT stations well into the 21st Century. The result will be models for other New Jersey communities to follow in future NJ

[1] U.S. Department of Transportation Federal Highway Administration, Transportation and Community and System Preservation (TCSP) Pilot Program Description. U.S. DOT FHWA web site: http:// www.fhwa.dot.gov/tcsp.

TRANSIT projects; communities that understand how transportation investments can enhance the environment, create strong downtown centers, and improve quality of life.

The program received one of a handful of competitively selected federal grants under the Federal Highway Administration's Transportation and Community and System Preservation Pilot Project (TCSP) program. The TCSP program supports States, local governments and metropolitan planning organization initiatives "…to plan and implement strategies that improve the efficiency of the transportation system; reduce environmental impacts of transportation; reduce the need for costly future public infrastructure investments; ensure efficient access to jobs, services, and centers of trade; and examine private sector development patterns and investments that support these goals." The TCSP Program is authorized for $120 million from Fiscal Year 1999 - 2003, to be used throughout the United States.

WHAT IS A TRANSIT FRIENDLY COMMUNITY?

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A TRANSIT FRIENDLY COMMUNITY MAKES THE STATION A PLACE IN ITSELF. At the heart of a transit-friendly community is a station facility surrounded by uses that create a sense of place for commuters and visitors alike. The station is comfortable and convenient for the transit riders who use it every day. Retail uses which provide a needed service for transit riders also help animate and make a station more secure. Outdoor public spaces—such as a station plaza—can make the rail station a visible focal point in the community, while creating a venue for community activities and events which reinforce the central role of the station in community life.

A TRANSIT FRIENDLY COMMUNITY LINKS THE RAIL STATION TO KEY DISTRICTS IN THE COMMUNITY. Beyond the immediately adjacent district, there are opportunities to link other commercial, cultural, and mixed use districts to the station. Often, visitors and tourists arrive by rail. This makes it logical for a rail station to provide a welcoming presence and to act as a focal point for information and activities that are community-wide in focus.

A TRANSIT FRIENDLY COMMUNITY SUPPORTS THE DISTRICT AROUND THE STATION AND ENCOURAGES NEW DEVELOPMENT. Station areas characterized by extensive pedestrian/vehicle conflicts and auto-oriented redevelopment discourage walking, shopping, and even thinking about the station area as an attractive place for new development. Extensive vacant or underutilized parcels of land within a quarter to half mile of a rail station are also symptoms that the station area is not viewed as a desirable location for new development. With increasing ridership, and an enhanced station setting, development pressures often also increase, especially if the local economy is healthy. Even if the local economy is less robust, community development programs can take positive steps to encourage new development.

Improving the pedestrian environment around a station creates an opportunity to revitalize a surrounding business district, attracting new businesses and encouraging the rehabilitation of older or historic structures, as well as new construction. These districts can develop an identity of their own and can become popular destinations.

Local communities can shape the kind of development that meets their particular goals for increasing tax ratables, reducing impacts on city services, attracting specific types of uses, and ensuring appropriately scaled and designed buildings -- rather than simply reacting to development proposals. From the perspective of reducing conflicts with access at rail stations, new development that minimizes automobile access has definite advantages. For example, experience has shown that with new office development, 90% of its users still drive, rather than take the train. This increases the parking requirements around stations. Residential development, however, encourages transit ridership, as people take advantage of their proximity to the station to reduce or even eliminate their need for a car.

A TRANSIT FRIENDLY COMMUNITY PROVIDES CONVENIENT STATION ACCESS FOR PEDESTRIANS AND BICYCLISTS. Rail stations are centers of communities, where often thousands of people pass through on a daily basis—creating conflicting demands among rail passengers arriving by car, by bus, on foot, or by bicycle. With increasing ridership at many stations, these conflicts are becoming more severe every day. In the past, decisions about improving access to the station have been largely focused on improving auto access—adding parking and widening roads, for example—to the point where it becomes difficult for people on foot or on bikes to enter or leave the station safely.

While auto access plays a key role in most rail stations, other modes of access should be made equally convenient. A balanced approach "calms" the traffic around the station so that all modes of access are handled equitably, reconnecting the station area to the surrounding community. For commuter rail stations, a half mile walk is not out of the question for many people, especially if the route is comfortable and relatively direct. Bicyclists will travel even further to reach a commuter rail station, but again, only if the ride is not hazardous and the proper facilities are provided—en route and at the stations.

Indeed, sometimes the streets and sidewalks around a station pose the most problems for pedestrians and bicyclists: once they get a block or two away from the station, the local network of streets and sidewalks often improves. If this is not the case, then these streets too should be made more pedestrian and bicycle friendly.

A TRANSIT FRIENDLY COMMUNITY INTEGRATES COMMUTER PARKING IN A BALANCED WAY. While accommodating improved pedestrian and bicycle access, and serving as a setting for new development, accommodating commuter parking is still a necessity at most stations. Certainly some stations have more space available for commuter parking than others—so the correct amount of parking varies from station to station. Whether the amount of parking is large or small, however, it need not completely aesthetically and physically dominate the station setting. If commuter parking facilities can be used evenings and weekends for other purposes, the costs of construction and operation

Aberdeen/ Matawan station area

of a parking facility can also be shared.
In considering commuter parking, facilities for bicycles should play a more important role. Large, secured, and weather protected bike parking areas will elevate the visual presence of the bike facility and encourage wider utilization.

A TRANSIT FRIENDLY COMMUNITY PROVIDES FEEDER LOCAL TRANSIT SERVICE WHICH CONNECTS TO LONG DISTANCE RAIL, REDUCING THE NEED TO REACH A STATION BY CAR. Very often, community bus services are not geared to commuters going to or from a rail station. In many communities, local routes do not serve rail stations at all. This forces many people to drive to the station who might be willing to take a bus as long as the schedule does not involve long waits and there are bus stops conveniently located near their home. NJ TRANSIT is working with communities to purchase local jitney vans which provide shuttle or circulator services for commuters, and other constituencies the rest of the day. These jitney services also reinforce rail stations as community transit hubs.

A TRANSIT FRIENDLY COMMUNITY INVOLVES AN ONGOING PARTNERSHIP BETWEEN NJ TRANSIT AND THE SURROUNDING COMMUNITY. Building a Transit Friendly Community requires an ongoing partnership between NJ Transit and stakeholders at the local level. This not only affords an opportunity to pool limited resources, but it encourages the coordination and collaboration necessary for all of the pieces of a station district to fit together and to adapt to changes and new challenges over time.

THE ABERDEEN-MATAWAN TRAIN STATION AND STATION AREA

The Aberdeen-Matawan Train Station area was selected for the TCSP program because it is typical of a high-use, suburban station where almost all riders reach the station by car. During weekdays, the station area accommodates over 2,000 parked cars that occupy most available surface space. Development opportunities exist in the station area, but they need to be accommodated while providing sufficient parking capacity for commuter parking. The environment makes the area unattractive, lacking in amenity, and difficult to reach on foot or by bicycle. Clearly, there are opportunities for a substantially improved station area environment, which can serve as a prototype applicable to similar station areas in New Jersey and elsewhere.

The Aberdeen-Matawan train station is located on NJ TRANSIT's North Jersey Coast commuter rail line 33 miles from the line's northern terminus at Penn Station-New York. Each weekday approximately 3,500 people board at the station, most of them traveling in the peak period in the peak direction (northbound). Travel times between Aberdeen/Matawan and Penn Station range from 52 to 73 minutes in the peak period, averaging about 60 minutes. Off-peak travel times average about 63 minutes and weekend travel times are scheduled for 67 minutes. Travel times from Aberdeen-Matawan to Newark-Penn Station range from 15 to 24 minutes less than to New York. Riders destined for lower Manhattan typically transfer to the PATH rapid transit system in Newark to continue the trip to the World Trade Center, while mid-town-bound riders continue on to Penn Station-New York. NJ TRANSIT stops 35 trains each weekday each way at Aberdeen-Matawan, with 15 of these operating in the peak period. Twenty-one trains stop in each direction on Saturdays and Sundays, maintaining an hourly schedule for most of the day. The monthly commuter fare to New York is $231; the one-way fare is $8.25 in the peak, and a discounted off-peak round-trip fare is offered at $12.25.

In the late 1990's, NJ TRANSIT invested in excess of $7 million in upgrades at the Aberdeen-Matawan train station. Improvements have included the construction of a new station building and high level platforms, canopies, and facilities to make the station ADA accessible.

The Aberdeen-Matawan train station straddles the two political jurisdictions—the Borough of Matawan and Aberdeen Township, the boundary formed by Atlantic Avenue. The train station building, north and southbound platforms and one of three NJ TRANSIT commuter parking lots are located within Aberdeen. The remainder of NJ TRANSIT facilities, including two NJ

TRANSIT commuter lots and two former station structures are located within Matawan.

THE STUDY PROCESS

Setting Objectives. To initiate the study process the project team held a stakeholders meeting in August 2000 with members of the civic and business community and with elected and appointed officials of the Borough of Matawan to discuss and modify a draft of the study objectives. The Matawan stakeholders identified ten objectives, to be used to shape the agenda for this and future studies of the station:

1. Identify opportunities for development/redevelopment in the

Figure 1: aerial photo of station area

Aberdeen/Matawan station area that can reflect favorably on both Aberdeen's and Matawan's tax base through the creation of ratables;
2. Ensure both the retention of existing commuter parking at the Aberdeen/Matawan station and the potential to increase this parking supply at the station in a manner sensitive to the community's needs;
3. Improve the attractiveness of the immediate station area;
4. Establish a concierge service at Aberdeen/Matawan station to involve Matawan's retail sector;
5. Suggest new uses for the two older station buildings;
6. Improve non-auto access to the station (including walking, biking and bus feeders and/or community shuttle) to relieve the burden on local roads;
7. Identify ways to ease congestion on the regional road system beyond the immediate vicinity of the station area that feeds the station (e.g., Monmouth County roads, State Route 34, etc.);
8. Strengthen Matawan's historic downtown;
9. Reduce the threat from traffic accidents in the immediate vicinity of the station;
10. Improve ease of walking between station and the retail section of Main Street; and
11. Bring both communities into the planning process.

A meeting with the Aberdeen Township administration was also held to discuss these objectives.

As noted, this study focuses on underlying principles that can guide future development, short and medium improvements to enhance station access and environment, while identifying additional studies that need to be undertaken.

Data Gathering. The initial data gathering portion of the study involved a combination of extensive field observations and examination of existing studies, reports, plans, and data relating to the station and station area. These included documents associated with the Matawan redevelopment area designation, the Redevelopment Plan for the Aberdeen redevelopment area, NJ TRANSIT Rail Station Redevelopment Plans, and data collected by NJ TRANSIT's Market Research Division on train passenger usage, place of origin, and train station access.

During the fall of 2000, Project for Public Spaces, Inc. studied the outside areas of the Aberdeen-Matawan rail station using systematic observations, surveys of passengers, and a review of existing studies and data. Station usage and pedestrian and vehicular circulation were documented through photographs and general observations to understand pedestrian and vehicular access issues, conflicts, and other usage patterns.

To identify potential improvements, the team surveyed 76 people inside and outside of the train station about their daily use of the train station as well as types of design, programming and service improvements they would like to see in the station and surrounding areas. Pedestrians and bicyclists were asked to record the routes they used to walk or bicycle to the station, and drivers were asked where they parked. (See Appendix A for a full summary of the survey results.)

Information about potential development sites and opportunities was gathered from field surveys as well as discussions with administration officials from the two jurisdictions. The meeting to establish objectives with Matawan also was used to gather additional information, discuss concerns, ideas, and opportunities for the station area's public spaces. A meeting with the Aberdeen's administrator was used for the same purpose.

THE DEVELOPMENT CONTEXT

FINDINGS

The train station and the associated parcels around the train station are an extraordinary shared resource for Aberdeen, Matawan, and NJ TRANSIT. The station and the land owned by NJ TRANSIT are at the center of a complex jurisdictional arrangement, with two municipalities each in control of parcels of land which are significant in size, but which if planned and developed separately would not allow for a comprehensive and optimal redevelopment strategy. *(Figure 2: Ownership diagram)*

The idiosyncratic geometry of the streets leading to the train station and the disposition of natural resources in both towns, especially in Matawan, offer a number of opportunities to link the two towns to each other and to the train station area. The basic

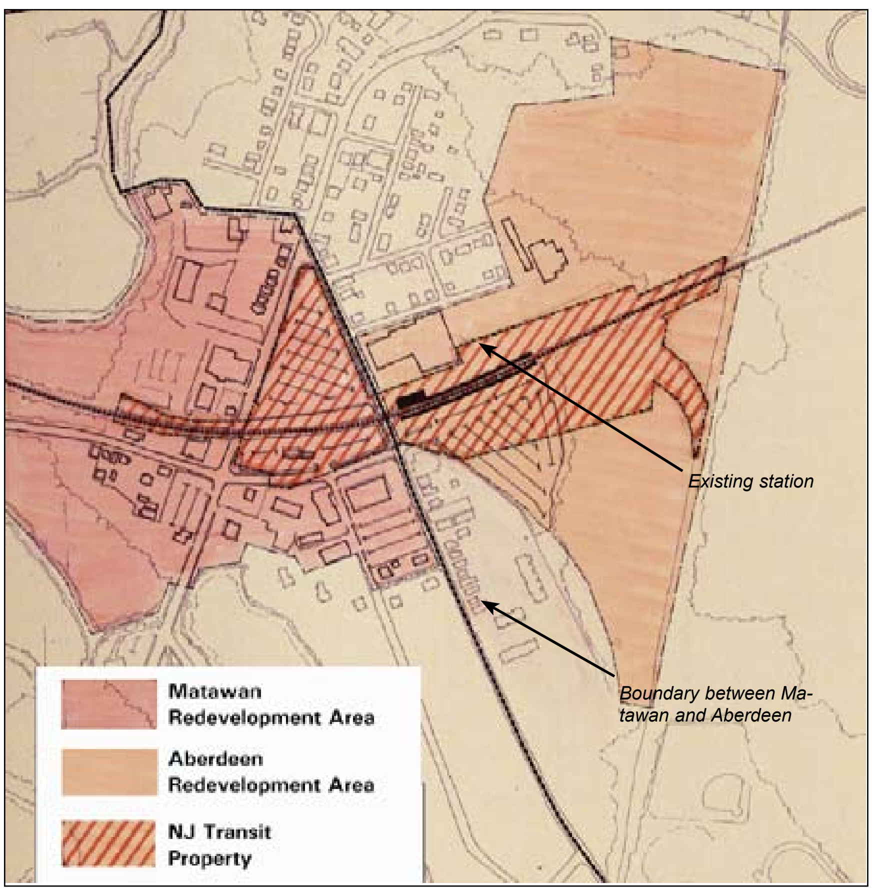

Figure 2: Ownership Diagram

elements of a successful, transit-friendly town plan are already in place: the challenge for these towns is to reinforce the interesting existing armature of streets and natural resources and integrate the development of the station area into its larger setting.

Note: While new development issues and opportunities are separately described in this report, the improvement of streets and sidewalks through the station area is essential for successful long term development. The recommendations described above should be implemented as development occurs.

INFLUENCES ON THE STATION AREA DEVELOPMENT: BROADER CONTEXT

The train station site is influenced by the layout of the existing two towns, as well as by the extensive lakes and wetlands that interweave throughout the area and the existing road network.

GENERAL LAND USES AND REGIONAL CONNECTIONS

The orientation plan demonstrates how well-defined the station area is: a long and narrow site bounded to the east by the Garden State Parkway, to the south by the wetlands around the Mohingson Creek and the Freehold Branch rail right-of-way, to the west by Holmdel Road, and to the north by Matawan Creek and Lake Lefferts. Although single-family houses predominate, there is an established commercial core along Main Street in Matawan and highway commercial uses along Holmdel Road. The Matawan Regional High School complex along Atlantic Street near Church Street is another important destination and gathering place. *(Figure 3: orientation plan)*

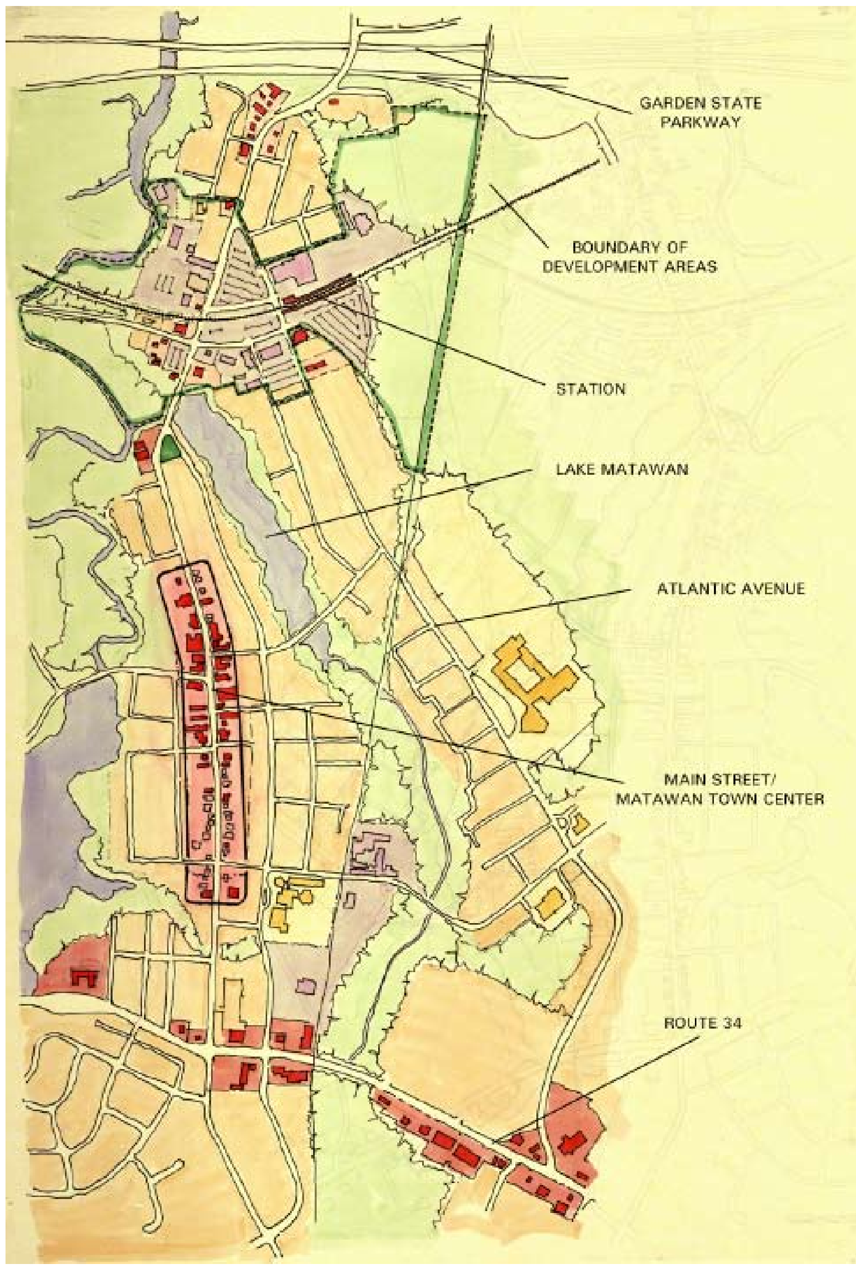

Figure 3: Orientation Plan

ROAD NETWORK

The well-defined boundaries of the site—the Garden State Parkway, Mohingson Creek, Holmdel Road, and Matawan Creek—also constrain connections to the train station in various ways. To the south, only one road, Main Street, crosses the Parkway in the vicinity of the train station connecting the portions of Aberdeen north of the Parkway to the station area and Matawan. This road does not lead to an interchange with the Parkway, and the connection from the Parkway to the station is indirect and awkward. The sidewalks on the bridge across the Parkway are narrow. Nevertheless, the Lower Main Street/Main Street connection is a key gateway to the station area that should be acknowledged in the redevelopment plans for the station area.

To the south, it is necessary to travel all the way to Church Street before crossing the Mohingson Creek wetlands to the residential subdivisions south of our study area. To the south is Holmdel Road/State Route 34, a wide road that, while it has some abutting residences, is primarily lined with highway-oriented commercial uses. The road is difficult to cross. Matawan Creek and Lake Lefferts limit connections to the east and west. Ravine Drive and, closer to the station area, Aberdeen Road, connect the Matawan downtown to points north and to the Exit 120 interchange with the Garden State Parkway.

The triangular geometry of the roads around the train station extends by way of Main Street into Matawan and by way of Atlantic Avenue along the shared border with Aberdeen. These two major roads that converge at the train station are part of a larger system of roads that form three triangular loops. *(Figure 4: road networks)*

Each of the three loop roads has its own distinct potential and should be prioritized for streetscape improvements in order to make the already existing underlying system more apparent. For example, streetscaping could distinguish between the different routes through variations in the lighting and paving patterns. Signs or an interpretive map at the train station should also explain how the systems of roads connect the towns and the train station. The three loops are:

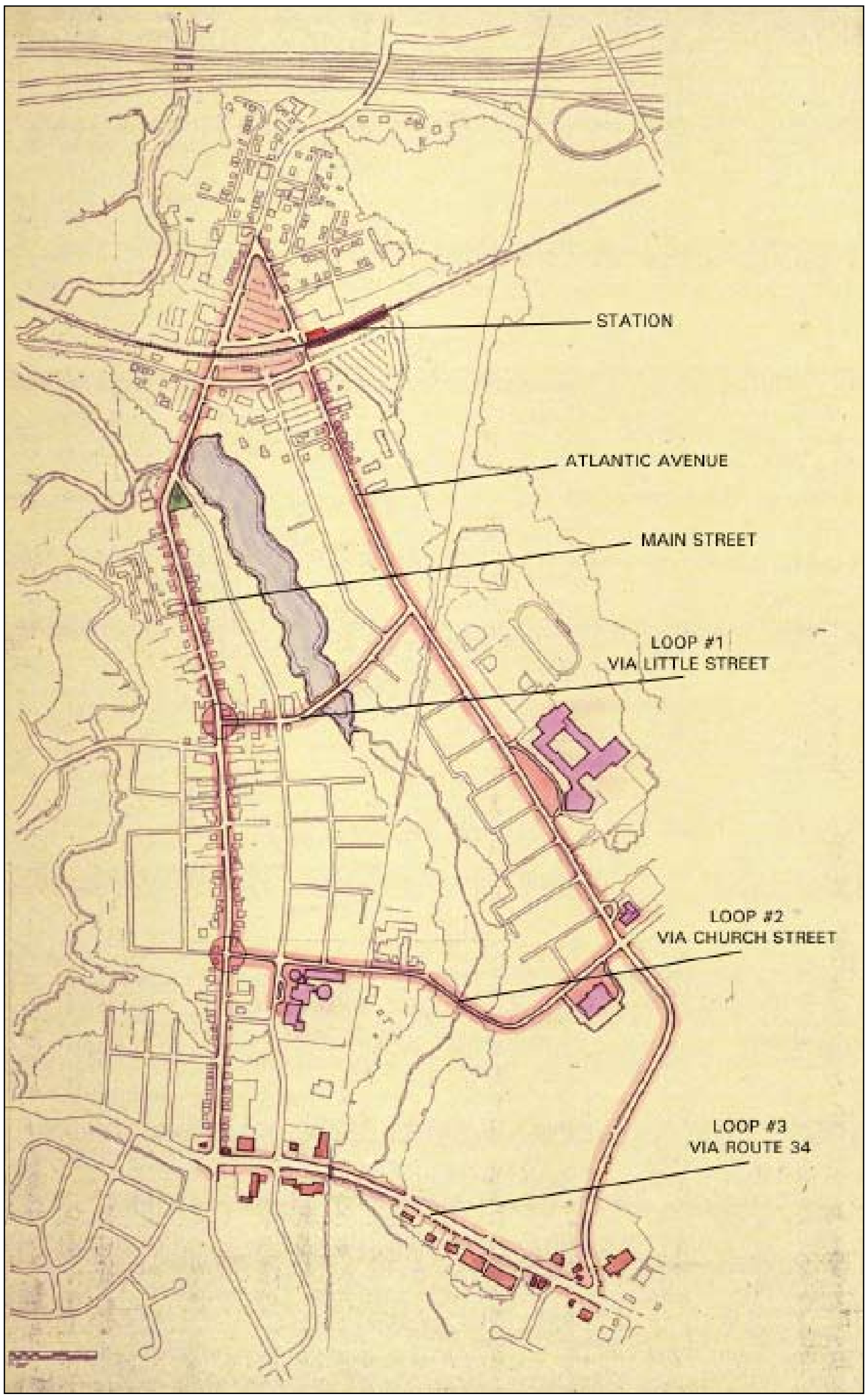

Figure 4: Road Networks

#1 Closest to the train station is a loop across Lake Matawan formed by Main Street, Atlantic Avenue, and Little Street. This circuit connects the two towns to each other and to the train station by way of the bridge across Lake Matawan. This affords excellent views of this resource.

#2 Farther from the station area is a loop formed by Main Street, Atlantic Avenue, and Church Street. This circuit connects the two towns to each other and to the train station by way of Church Street, that also links the two town halls, offering both a real and symbolic opportunity to link the institutional centers of the two municipalities to each other and to the train station.

#3 Main Street, Atlantic Avenue, and Holmdel Road / Route 34 form the largest loop. This circuit connects the two towns to each other and to the train station by way of Route 34, which, along the edge of the study area, is a commercial strip.

NATURAL RESOURCES

One of the true assets of the region is a system of lakes, streams, wetlands and mature stands of trees that is interwoven into the settlement patterns of Matawan and Aberdeen. *(Figure 5: natural resources)* These resources consist of Lake Matawan, the wetlands along the Matawan and Mohingson Creeks and Lake Lefferts. Despite its value, visual and physical access to these resources is limited. In some places, informal access is already taking place, with paths worn into the wild vegetation. This is especially true along Matawan Creek in the area of Water Street.

The trail converted from the rail line will a be new natural resource, lined with trees. The green way is important for its county-wide implications. Of more local significance, is the intersection of the trail with each of the three loop road systems? The rail trail is also an opportunity to link the road network to the station: special attention should be paid to places where the rail trail crosses the network of loop roads as a way of integrating both systems and bringing them to the train station. Any future development on the surface parking lots south and west of the station should maximize the connection to the rail trail system for this reason. When the roadway and natural systems are overlain, the

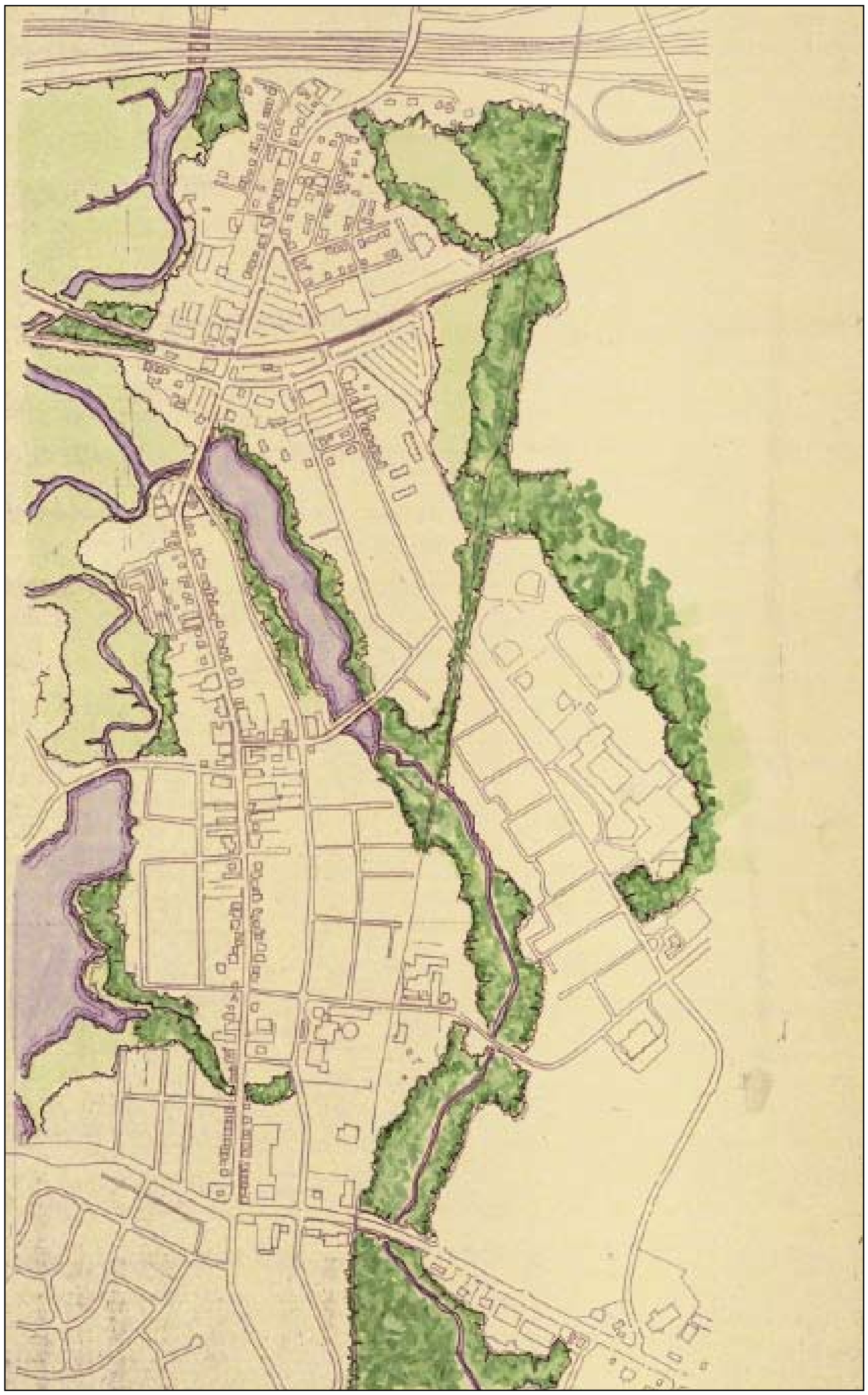

Figure 5: Natural Resouces

potential to knit the towns together and to the train station is evident. *(Figure 6: connections)*

THE REGIONAL RAIL NETWORK AND NORTHERN MONMOUTH COUNTY

The Aberdeen-Matawan train station serves as the transit gateway for residents of northern Monmouth County to the rest of the Northern New Jersey-New York metropolitan region. Its location at the confluence of several local roads that extend south further into Monmouth County make it a magnet for residents in much of the county. Given the important role that New York City plays in the regional economy and its culture, and given the limitations associated with auto travel into New York, the adequate functioning of the train station is a valuable contribution to Aberdeen, Matawan and the many towns to the south. Similarly, the renaissance of Newark and the New Jersey Hudson River waterfront towns, all accessible through the train station, strengthens the value of the station. And the opening of the Newark Airport station, which will be reachable by North Jersey Coast Line train service, will further buttress the train station's value.

INFLUENCES ON THE STATION AREA DEVELOPMENT:

IMMEDIATE STATION AREA

The immediate station area is completely dominated by station area parking in a variety of private lots and NJ TRANSIT lots. Parking demand is so strong it has become a cottage industry with almost every small business selling spaces by the day, week, and month. Adjacent to the station are a variety of small industrial businesses, a handful of restaurants, some convenience retail and a variety of underutilized or vacant properties.

As the station is transformed, the following influences should be

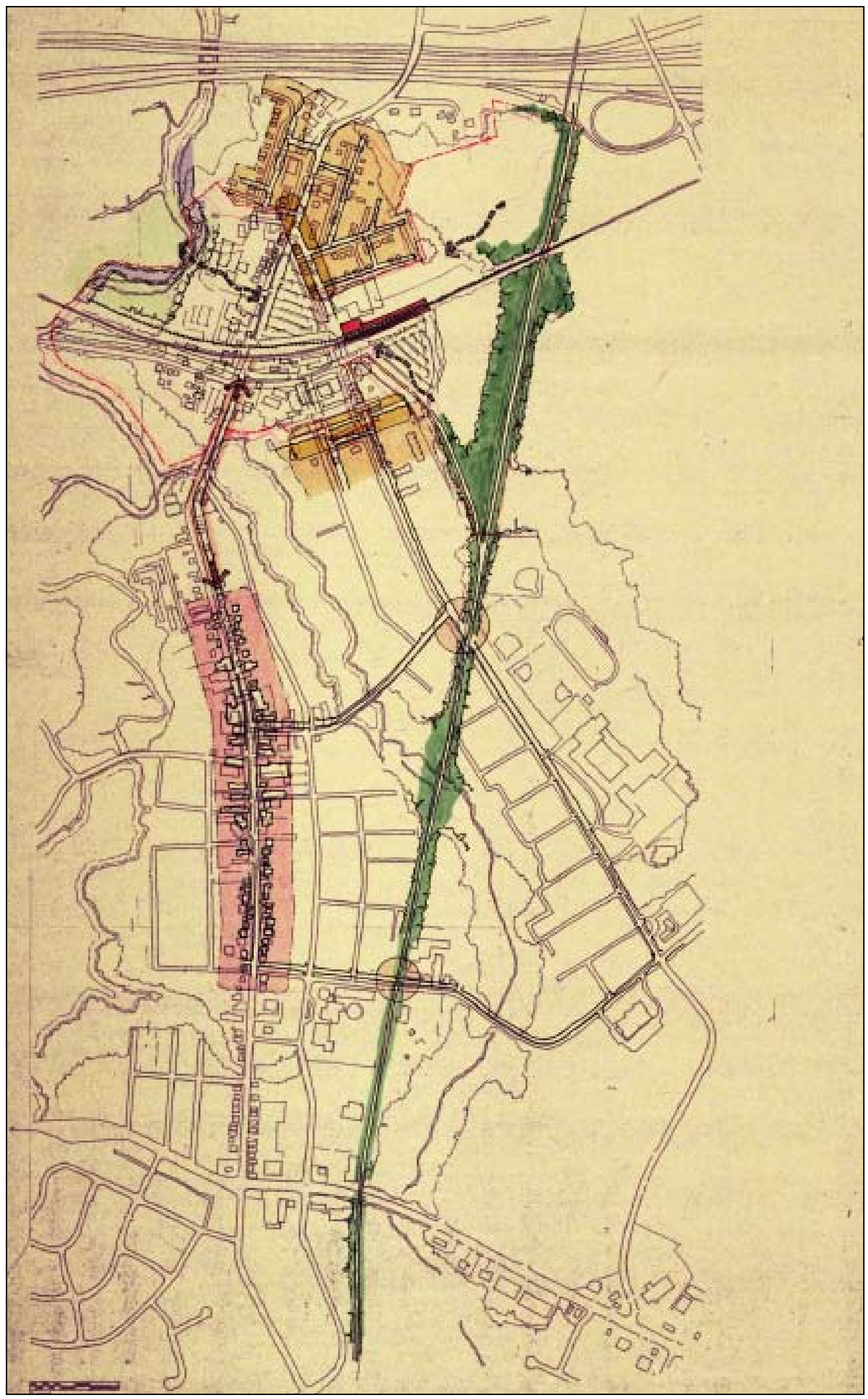

Figure 6: Connections

taken into strong consideration:

ADJACENT RESIDENTIAL NEIGHBORHOODS

On two sides of the parking areas are residential uses (single-family homes) that form the edge of two neighborhoods. Although these neighborhoods have had to struggle with the auto-dominated environment of the station, there has been, nonetheless, some reinvestment in these neighborhoods in recent years, including new in-fill housing

The building blocks of a transit-friendly town plan already exist in the existing street and block system of the neighborhoods surrounding the train station. Every effort should be made to reinforce what is already taking place - to aggressively continue to in-fill the vacant and underutilized parcels on these blocks. Significant in-fill housing is possible here for people who will be self-selected these neighborhoods for their excellent transit access to New York City and Newark. Future development on the surface parking lots near these neighborhoods should supplеement the existing street pattern and make the appropriate transition to the small-lot, single-family scale of the existing neighborhoods.

TRAFFIC AND PARKING IMPACTS OF DEVELOPMENT IN THE STATION AREA: A CAUTION

Given the burden on the street network around the station and on the major approach roads to it, it is especially important to try to understand the traffic implications of potential development opportunities, and a traffic analysis is an important next step. Although it is not possible to be specific unless a specific proposal is known, rough comparisons of the traffic generated by office space versus residential development can be informative. For this purpose, suppose a development of 1,000,000 square feet of office space is constructed, and alternatively an equivalent building bulk of residential is considered.
Despite proximity to the station, experience elsewhere in New

Jersey shows that only about 7 percent of workers will arrive by train to work in suburban office developments. With an average of three workers per 1,000 square feet (with 50 percent of the workers arriving in the peak hour and with an average occupancy of 1.1 workers per vehicle), it can be expected that about 1,400 vehicle trips would be added in the peak hour with a 1,000,000 square foot development.

Residential development of 1,000,000 square feet in an apartment or townhouse complex would be equivalent to 868 units, roughly 1,500 square feet in size. With an average of 1.4 workers per household, and given likely travel patterns and transit modal shares, it can be expected that about 310 vehicle trips would be added to the street traffic in the peak hour in the vicinity of the train station. This would be less than one-quarter the amount added by comparably-sized office development. Although these estimates are only illustrative, they do suggest that great care must be taken in order not to overburden the street network, particularly if developments are mostly office in nature. Moreover, the vehicle trips generated by new development are likely to find their way on many of the same roads that are already burdened with vehicle access to the rail station.

As for parking requirements, and using the example above, office development is likely to require upwards of 4,000 parking spaces (4 spaces per 1,000 square feet), which residential develop only about 1,770 spaces (even with as many as two spaces per dwelling), or slightly more than half as many spaces as offices. Given the current shortage of parking for commuters today, offices clearly would add appreciably to the burden, although development provides some financial resources for addressing these burdens.

Understandably, the two jurisdictions may be more inclined toward accepting offices rather than more residences, since commercial development traditionally generates ratables without adding the cost burden of added school children. Residential development in this area, though it will inevitably add some to the burden on schools, may not add as much as would happen in a typical suburban households, since double-income, no-children households and empty nesters will likely account for much of the housing demand in this area. Residential development probably offers a much greater possibility of adding people to the community, who will have a direct stake in the community, and who will frequent its restaurants and retail establishments more than workers in "nine-to-five"office developments.

Given the traffic implications, it would be prudent for the two towns to very carefully and cautiously examine the traffic implications of any development proposal, especially given the uncertainty of funding for additional highway capacity and access projects. An early examination of market conditions would also be of help to determine the likelihood of developments with various uses. A suggested scope for the traffic analysis is outlined as Appendix B to this report.

RECOMMENDATIONS/ DEVELOPMENT GUIDELINES

The following guidelines in Figures 7-12 on the following pages are presented as a potential framework that both Aberdeen and Matawan could consider in their respective redevelopment plans for the station area.

Figure 7: Scale and Density

New development should make appropriate transitions in scale and promote the completion of the existing neighborhoods. Future redevelopment should respect the existing scale and street pattern of the existing residential areas. Where possible, existing streets should be extended into the new development. Where this is not possible or appropriate, the termination of existing streets should be resolved in an architecturally appropriate way. Wherever development is of a larger scale the massing of new buildings and the scale of new well-defined open spaces should effect a gradual transition in scale to the existing single-family neighborhoods.

Specifically:

- **Complete the street system in the existing neighborhood and promote in-fill residential development of vacant and underutilized parcels.**
- **Create a transition zone between the existing neighborhood and new development. The transition zone should be characterized by intermediate scale development that is compatible with the massing and architecture of the existing neighborhoods. The streets within this zone should be treated as "seams" between the existing neighborhoods and the new developments.**
- **Designate a core area capable of supporting the highest density development that follows the tracks and extends into the Aberdeen parking area. Despite the larger scale of development, the buildings in this core area must create a station area that is human in scale with excellent visibility from Main Street and Atlantic Avenue.**
- **Create a landscape buffer along the west and north edges of the redevelopment area to provide a suitable scale transition to the wetlands and Lake Matawan and to prevent more intense development from overwhelming these natural resource amenities.**

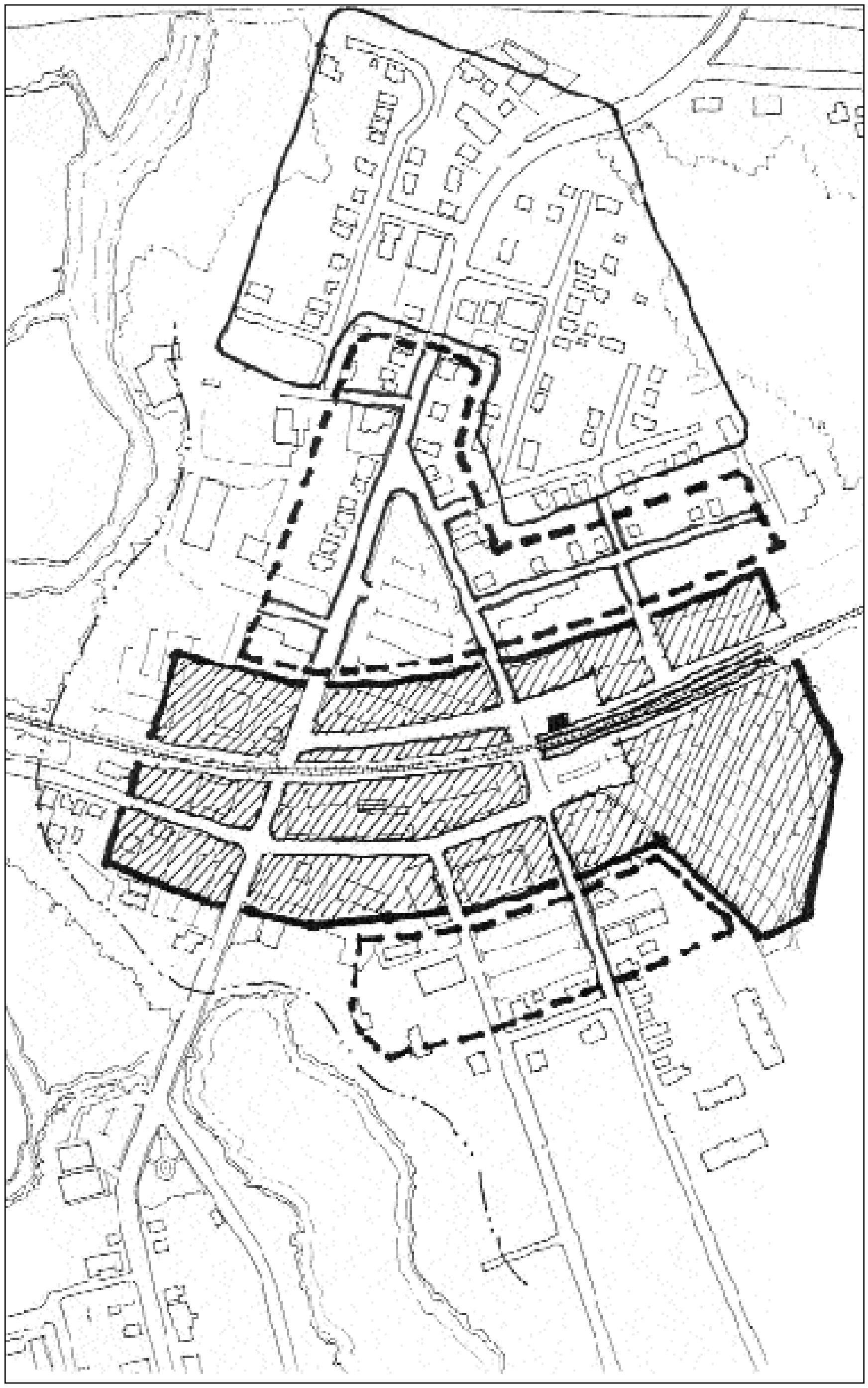

Figure 7: Scale and Density

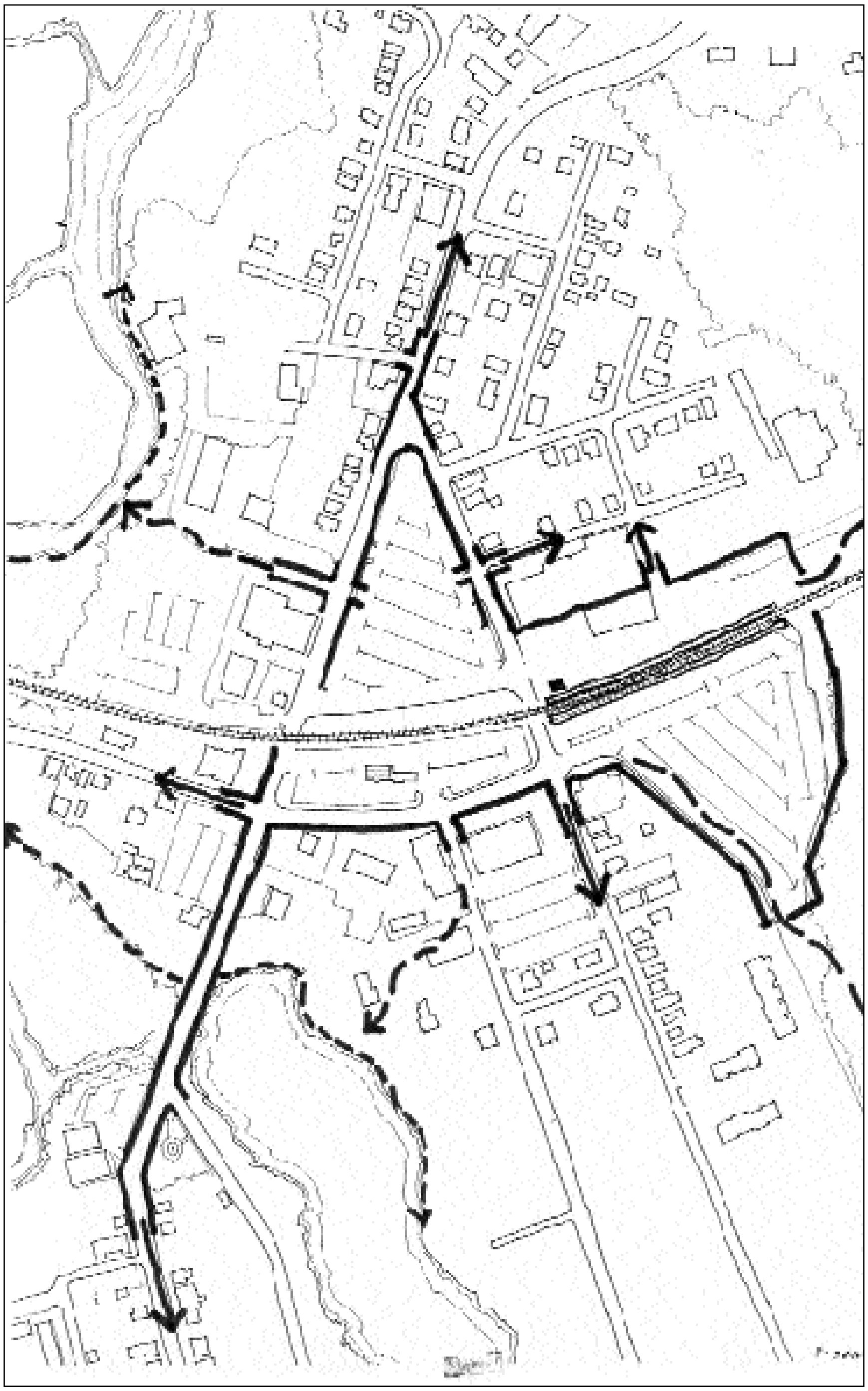

Figure 8: Connections

The redevelopment of the Matawan/ Aberdeen Station area should make as many connections as possible to the surrounding context and street network. Future development should maximize the potential for connections beyond the station area. These include:

- **connections to the proposed Henry Hudson Heritage Trail**
- **connections to the edges of the lake and the wetlands**
- **connections to the existing neighborhoods through extensions of the existing street pattern**
- **connections to the network of roads radiating from the station by responding to the importance of Main Street and Atlantic Avenue**

These connections should have the following hierarchy:

- **Make primary connections from the station area to downtown Matawan by way of Main Street, to Aberdeen by way of Atlantic Avenue and to points east via Upper Main Street.**
- **Make secondary connections to the side streets in the existing neighborhoods. Where possible extend these streets into the redevelopment sites. Where this is not possible, recognize the termination of the side streets in the new site and building designs**

Figure 8: Connections

Figure 9: Edges and Gateways
The new development should articulate the importance of the edges of major connecting roads and opportunities to create gateways into the site. (Diagram #3)

- **The massing of the buildings should create a sense of entry, especially at the most important gateway opportunities where the major connecting roads enter the redevelopment area - Main Street, Atlantic Avenue, and Upper Main Street.**
- **The architecture and site planning of the redevelopment area should respond to the secondary gateway opportunities where side streets from the neighborhoods enter the redevelopment zone.**
- **The station area should be well defined. Building entrances and important facades should be oriented towards the station with excellent visibility from the major gateways.**

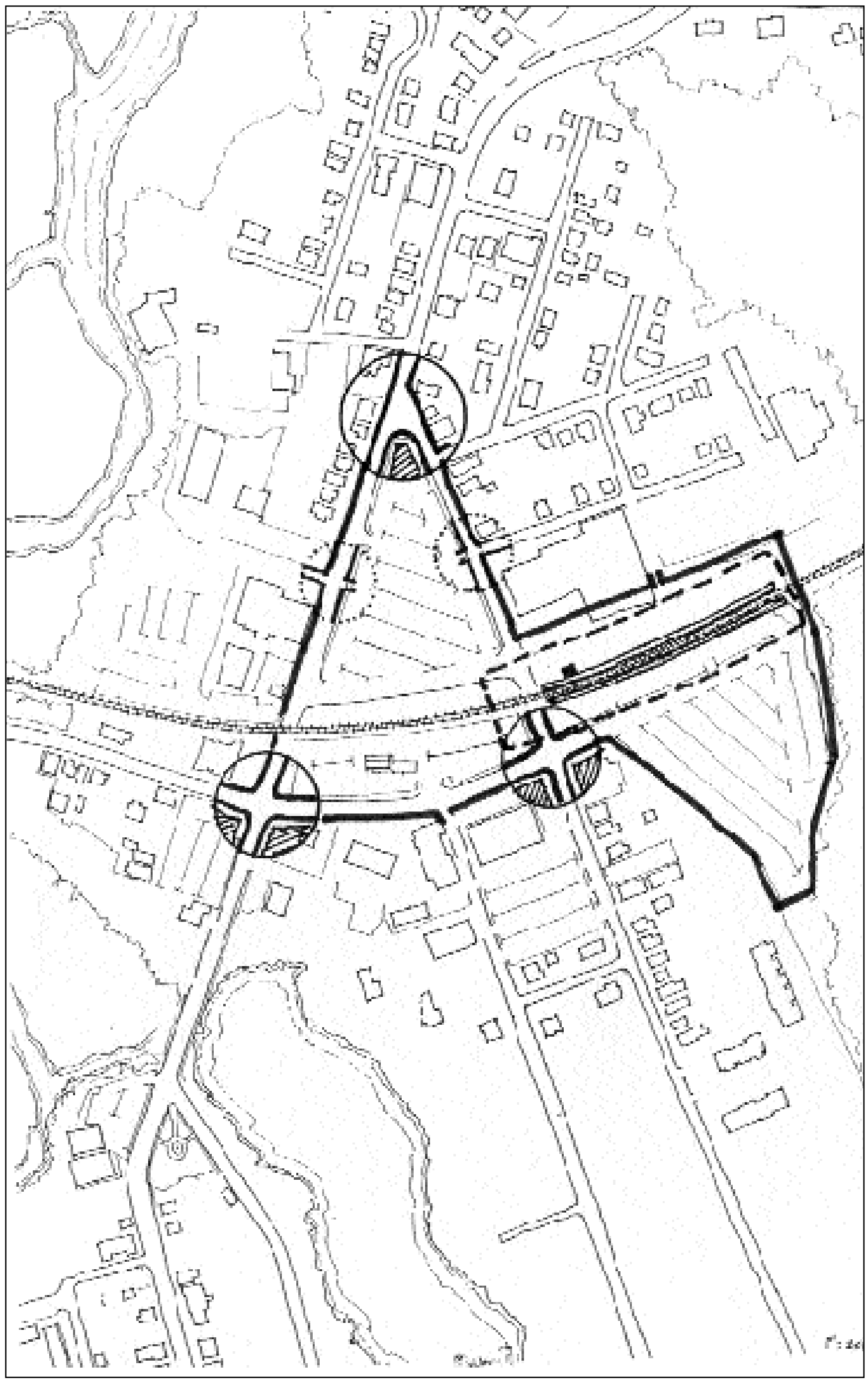

Figure 9: Edges and Gateways

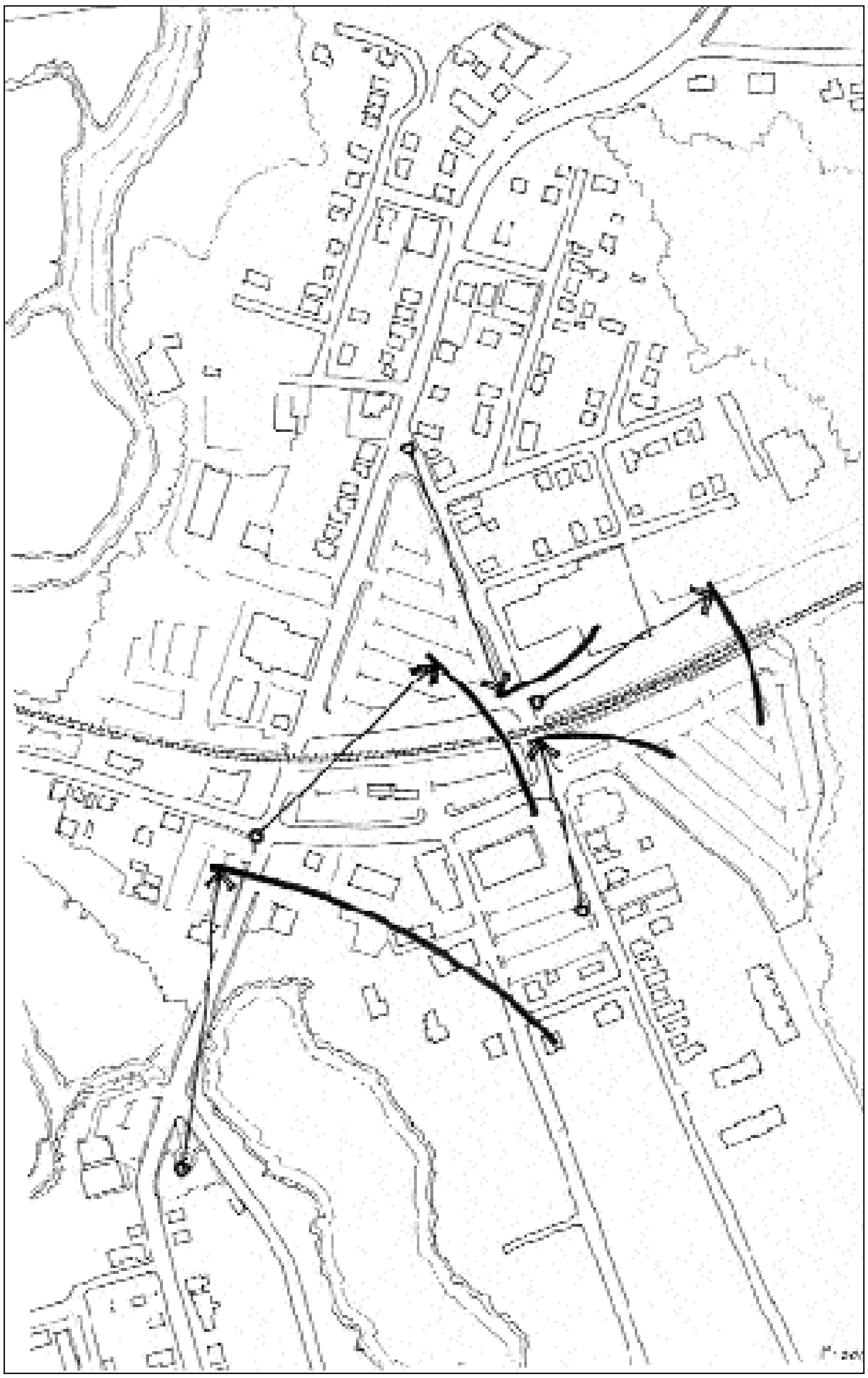

Figure 10: Views
Views into the redevelopment area should guide the placement and scale of buildings.

- **The new developments need to respect views from key locations beyond the boundaries of the site. This is especially true for taller buildings that may be visible when looking across the Lake Matawan from the small park on Main Street.**
- **The station area should be visible from key approaches and gateways into the redevelopment areas.**
- **Views from Atlantic Street should extend the full length of the station area platforms to assure the sense of security that comes with passive surveillance.**

Figure 10: Views

Figure 11: Pedestrian Precincts
Prioritize three "pedestrian precincts" and the connections between them. The recommendations outlined in Part I of this report are a starting point for creating a pedestrian oriented environment around the station.

- **The "primary station area" should take in portions of the area on the opposite side of Atlantic Avenue. The roads within this area, and the road crossings, should be treated with a unified design that includes the full range of traffic calming and pedestrian amenities.**
- **New development should create a setting for the existing historic train station, including a new square or public space around the station.**
- **The intersection of Main and Little/Ravine is one of the most important gateways into the site. Street furniture, lighting and paving materials should create a sense of arrival and connection to the other spaces and to the train station.**
- **A unified streetscape design along Little Street should be applied to link these three places.**

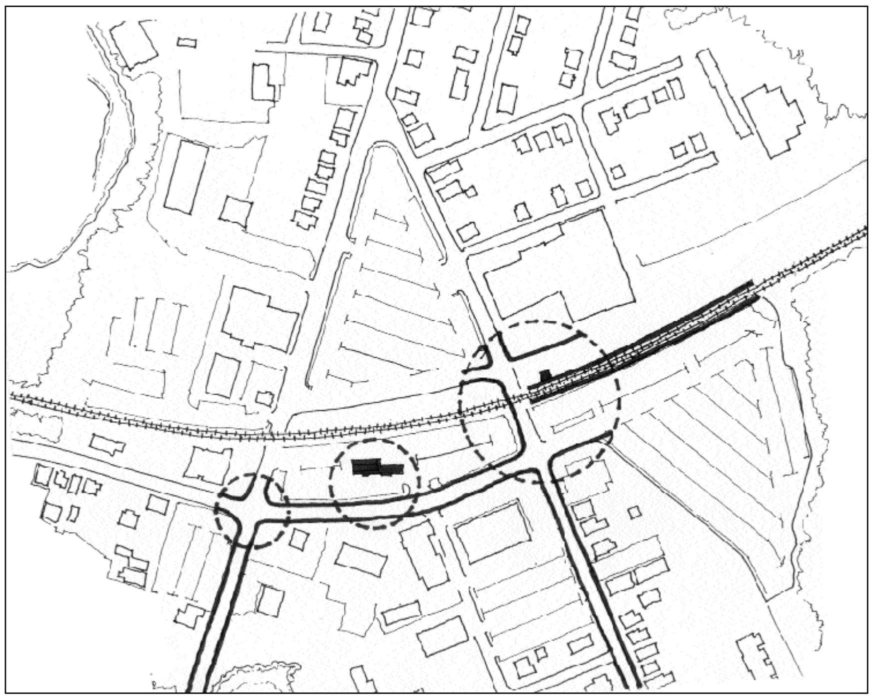

Figure 11: Pedestrial Precincts

Figure 12: Edges and Orientation
New buildings around the primary station area should be oriented toward a well-defined public space or station square. This "station square" should include drop off and pick up areas on each side of the station and as well as a plaza that can be an amenity for both rail passengers and the local community.

- **Establish minimum transparency requirements for facades of the buildings that face onto the station area and onto Atlantic Avenue. Tenant these ground floor spaces with uses that will activate the station area.**
- **Locate building entrances where they will activate the station square and the key gateways to the redevelopment area.**
- **Plan a station area that is functional, attractive, and that includes a variety of amenities and attractions.**

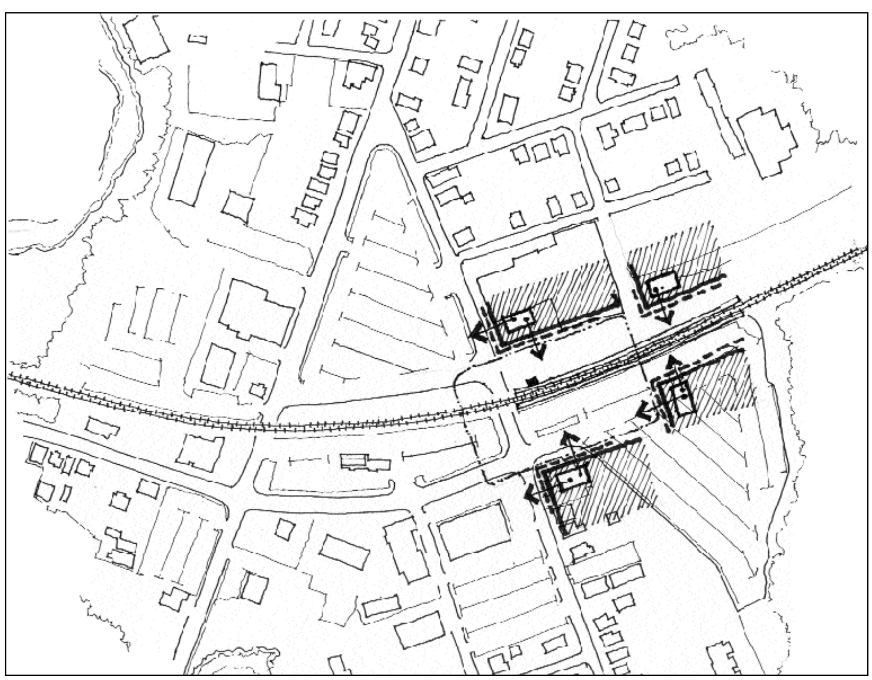

Figure 12: Edges and Orientation

KEY ISSUES AND

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TRANSIT FRIENDLY COMMUNITIES FOR NEW JERSEY

FINDINGS

The Aberdeen-Matawan station serves both a local and regional function. Almost 40 percent of the riders live in the two towns, with the remaining originating in towns to south - Marlboro, Manalapan, Freehold, Colts Neck, and Holmdel. Many use the Route 79 or Route 34 corridors to reach the station through Matawan, contributing over 1,500 autos to that community's traffic twice a day. For these towns, these strategically-aligned roads to the Aberdeen-Matawan station offers the quickest and easiest choice for use of the rail transit system. Eighty-one percent of riders drive to the station, with 13.5 percent arriving as passengers. While only five percent walk, this proportion translates into about 175 people a day who arrive at the station on foot, an sizeable number, especially in light of the barrier to walking in the station area. Few people bicycle to the station.

Results from PPS's more limited survey of 76 train passengers indicated that travel times to the station were less than ten minutes or less for 45 percent of the train riders, but with a large 41 percent taking ten to 20 minute to reach station. The relatively young demographic in the sample of passengers (36 percent were between the ages of 21 and 35 and 34 percent between the ages of 36 and 45) suggested that more of those among them who were close to the station might walk or bicycle if facilities were improved.

Pedestrian Access

The pedestrian access routes that join the two towns to each other and to the train station are primarily Atlantic Avenue and Main Street, but also include Aberdeen Road and Johnson Avenue. All of these streets are generally satisfactory places to walk, although there are locations (such as at the regional high school on Atlantic) where there are no sidewalks. Portions of Main Street have extensive curb cuts and building setbacks, which reduces the comfort of walking.

The main obstacles occur not on roads leading to the station, but on the streets that connect Main and Atlantic. Little Street, which connects Matawan and Aberdeen by way of a bridge across Lake Matawan, has narrow sidewalks. Farther from the station, Church Street has significant impediments to pedestrian (and bicycle) travel near the older industrial buildings near the Freehold Branch right-of-way. The topography is steep and sidewalks are narrow and in disrepair. This area also feels isolated and unsupervised which will be an obstacle to the use of the proposed rail trail (described below) as well.

The closer one gets to the station, the worse the pedestrian environment becomes. Nearer the station, pedestrians must navigate poor, narrow, and missing pieces of the local sidewalk system interrupted by curb cuts, driveways, cars parked on the sidewalk, and other obstacles. Pedestrian crosswalks at street intersections or mid-block where people need to cross are generally poorly marked, if they exist at all. It is hardly surprising that about two thirds of passengers interviewed rated the adequacy of the area's sidewalks to be "fair" or "poor." A similar percentage also felt that the ease in crossing Atlantic Avenue or Main Street, and the ease in walking to and from the parking lots to the station was also "fair" or "poor."

Because of these conditions and the widespread preference for using the automobile, few people walk to the station from their homes. Of the passengers who do choose to walk to and from the station, most choose Atlantic Avenue or Johnson Avenue rather than Main Street. Still, people walking to and from their parked cars generate the most pedestrian traffic around the station.

These main pedestrian routes are discussed below:

Atlantic Avenue

Atlantic Avenue, the main route of people walking to and from their home in both towns, is a predominantly low scale residential street. This street, once it crosses Meadow Road, one block to the west of the station, is pleasant to walk except in front of the high school, where there are no sidewalks. Atlantic Avenue around the station (extending from Meadow Road to Main Street), however, is dominated by commuter parking lots on both sides of the street, with no buffer between the parked cars and pedestrians. In fact, parked cars often extend out onto the sidewalks. While short-term on-street parking is permitted along both sides of Atlantic Avenue, the street itself is, in actuality, not wide enough to support dual side parking. Since this on-street parking appears to be lightly used, rethinking the function of the curb lane opens up potential for improving bicycle access, as is described in more detail below.

At the station itself, there are no crosswalks across Atlantic Avenue at the main pedestrian entrance to the station. This is precisely the area where there is the most conflict between pedestrians and vehicles entering and leaving the station area. In addition, the placement of signs and signals at the track crossing creates a confusing environment for pedestrians. Finally, excessively wide driveway turning radii at the entrances to the NJ TRANSIT commuter parking lots encourage higher traffic speeds and make it more difficult for people to walk along Atlantic Avenue.

Meadow Road

Meadow Road is the key connection between Main Street, Atlantic Avenue, and the train station. It is bordered on the east side by the vacant, historic station building, commuter parking, an underutilized, former drop-off area and, on the west side, by a mix of businesses and private commuter parking lots. Excessive curb cuts break the continuity of the sidewalks and there is no sidewalk at all along the west side of the street.

Main Street

Main Street serves as a major traffic corridor that connects the train station to Route 35 to the west and Matawan's historic Main Street corridor and the Route 34 commercial corridor to the east. In the vicinity of the station, walking is difficult on Main Street, with multiple curb cuts that break up the continuity of the sidewalk. The sidewalk on the bridge over Matawan Lake, separated from the roadway with an unattractive guide rail, is extremely narrow and uncomfortable to navigate. The curb radii from Broad Street onto Main Street encourages high speed right turns.

There are no pedestrian crosswalks at key entry points to the train station, including Meadow / Aberdeen Road, the entrances to the parking lot by the former more modern station building, and Atlantic Avenue.

However, there is an opportunity to improve the quality of pedestrian space in this area. Memorial Park, located at the intersection of Main and Broad Streets is well maintained, but could be visually enhanced. It also cannot take advantage of the views of the Matawan Lake because of overgrown vegetation next to the lake. Also, the westbound left turn lane from Main onto Broad Street appears to be longer than is needed, it could be landscaped in the future.

Johnson Avenue

Johnson Avenue is a residential street that runs roughly parallel to Atlantic Avenue and provides an alternate connection to the station. It has no sidewalks.

Other Streets

There are a number of streets located within the Township of Aberdeen and sandwiched between Lower Main Street and the train station. These include Harrison and Dolan Avenues that each have direct access off Atlantic Avenue and dead end into natural wetlands. These streets, a mix of residential and industrial uses, have poorly maintained sidewalks, where they exist at all. Directly adjacent to the train station is an industrial storage property that functions as an informal pick-up and drop off area as well as the regular location for a morning snack truck; it has not sidewalks in front of it.

BICYCLE ACCESS

Although a handful of people ride their bicycles to the train station - seven or eight were counted on an average day at the bike racks in the fall - the environment in the broader community and around the station does not encourage it. There is only an informal network of routes including a route around Lake Leferts, the Henry Hudson Heritage Trail, the Raritan Bay Shore Bike Trail, and Keyport. Currently these routes are poorly maintained and are rarely marked. Points of departure from existing bike paths to shared roadways are in disrepair and are not clearly identified. This is particularly problematic at intersections with roads carrying heavier volumes of vehicular traffic. For example, bicycle travel is constrained by the narrow sidewalks on the Little Street Bridge and by the poor sidewalks and poor visibility of the portion of Church Street nearest the Henry Hudson Heritage Trail.

Existing drainage gutters and storm grates, particularly at intersections, are another challenge to bicycle riders throughout the Matawan/Aberdeen station area and commercial districts. Pools of water and considerable accumulations of gravel and refuse in gutters and near storm grates are a common occurrence throughout the study area.

Finally, bicycle parking and other bicyclist amenities are in short supply at both the Aberdeen/Matawan train station and in nearby commercial districts. At the station, there are two bike racks, one in the station entrance plaza area and one adjacent to the outbound platform. Lockers are provided for bicyclists along the former outbound platform of the original historic station building, closer to Main Street.

While current access to the station for bicyclists is poor, there is potential for significant improvement. The topography of Matawan and Aberdeen is generally flat and scenic, making bicycling physically easy. There are plans to greatly improve the Henry Hudson Heritage Trail as part of a Monmouth County greenway plan along the right-of-way of the former Freehold Branch rail line, which leads directly to the station.

Not all streets can be made convenient for bicyclists. Main Street's heavy traffic volumes and frequent curb cuts, for example, make it difficult for bicyclists to navigate. To determine which local roads would be suitable to designate as bicycle approach routes to the station, Rutgers University's Transportation Policy Institute (TPI) compared the conditions of the selected roadways to the Bicycle Compatible Roadways and Bikeways, Planning and Design Guidelines published by the New Jersey Department of Transportation (NJDOT, April 1996). TPI found that many of Matawan and Aberdeen's major roadways do not meet NJ DOT's guidelines. Roadways such as Atlantic Avenue and Church Street could be enhanced by improved street design and encouraging the development of a comprehensive bicycle and pedestrian path network linked to the downtowns and the train station.

TPI's assessment report and explanation of NJDOT's bicycle compatibility guidelines are included as Appendix C to this report.

TRANSIT ACCESS

Although the rail station serves 3,500 people per weekday, there is currently no NJ TRANSIT bus service to the station. The high level of demand and the shortage of parking spaces suggests that a bus service could be well used, however. Indeed, 57% of those passengers interviewed indicated that the two jurisdictions should give "high" or "moderate priority" to providing a looped route shuttle bus service from the station to specific locations in Matawan and Aberdeen.

The Borough of Matawan is working with NJ TRANSIT to develop a satisfactory routing for a local jitney shuttle bus that could transport passengers, predominantly Matawan residents, to and from the train station along a multiple stop route through town during peak hours that would include a stop in Downtown Matawan as well as in the surrounding neighborhoods. It is hoped that this effort will not only provide an alternative to driving, but also encourage people to shop and spend time in Downtown Matawan. The shuttle bus is one of several efforts the Borough is working on to help create better connections to the train station and revitalize the downtown area at the same time. A more specific discussion of the issues related to Downtown Matawan is included in the Revitalization and Links to Historic Downtown Matawan section below.

COMMUTER PARKING

Current commuter parking surrounding the Aberdeen-Matawan Station on surface lot sites along Atlantic Avenue, Meadow Road, and Main Street accommodates approximately 2,150 cars. Of these parking facilities, about 1,300 spaces are on property owned by NJ TRANSIT and managed by the Borough of Matawan and the Township of Aberdeen; about 800 spaces are owned and managed by a 10 different private businesses. Aberdeen owns only one small 16-space lot. Parking fees, which do not differentiate between residents and non-residents, are levied on either an annual basis ($360), a quarterly basis ($60 to $100), on a monthly basis ($25-$45), or a daily basis ($2 to $5). Many of these lots have long waiting lists. In general, the NJ TRANSIT-owned lots are less expensive, reflecting a desire on the part of the transit agency to ensure that high costs do not deter from the attractiveness of using the railroad. Consequently, the waiting lists tend to be longer for those facilities. Detailed

Table 1: Parking Supply Data at Aberdeen/Matawan Station

Capacity	Use	Type	Parking Fee	Wait List	Permits Sold	Owner	Operator
391	340	P	$360/yr	1300	400+	NJ TRANSIT	Matawan
74	71	D	$2/day	NA		NJ TRANSIT	Matawan
100	100	D	$2/day	NA		NJ TRANSIT	Matawan
301	277	D	$2/day	NA		NJ TRANSIT	Aberdeen
450	312	P	$90/qtr			NJ TRANSIT	Aberdeen
16	16	P	$60/qtr	400	500+	Aberdeen	Aberdeen
33	32	P	$30/mo			Private	Hackman's
218	210	P	$100/qtr	Yes	Unk.	Private	Halleran's
35	25	P	$30/mo, daily $5	Yes	30	Private	Matawan Tool
17	18	P	$30/mo, $3/day			Private	Teddy's Barber
143	119	P	$30/mo, $3/day		100	Private	Lotus Rest.
24	31	P	$30/mo		3	Private	J. Matullo
18	14	P	$45/mo	Unk.	Unk.	Private	L. Vaccarelly
184	108	P	$30/mo, $2/daily			Private	Matawan Rest.
29	55	P	$30/mo, $2/daily			Private	Matawan Rest.
60	25	P	$30/mo	Unk.	10	Private	Key Auto Body
10	5	P	$25/mo	No	8	Private	Private
18	15	P	$25/mo		18	Private	Fitness City
2,187	1,768						

information for each parking lot is found in Table 1.

Parking is clearly an issue for station users. Eighty-four percent of the passengers interviewed by PPS rated the amount of parking around the train station as "fair" or "poor" and 85 percent identified constructing more parking facilities as a "high" or "moderate" priority for the area.

STATION DROP-OFF AND PICK-UP AREAS

With the relocation of the station to the present site, the drop-off area for station passengers was reduced. Vehicles are not permitted to stand and drop-off or pick up passengers along either side of on Atlantic Avenue in front of the station. In theory, passengers should be dropped off in front of the second, more "modern" former train station building and walk across the street to the station. In practice, people drive into the private industrial lot adjacent to the station to drop-off passengers, or stop illegally on Atlantic Avenue.

Passenger pick-up areas at the station are also present challengesproblematic. The official pickup area is not visible from Atlantic Avenue, is poorly marked, and spatially ill defined. Drivers are uncertain as to do not know where they area allowed to park or wait. For passengers, there is little seating and protection from the weather while waiting. Many passengers do not know that there is a designated pick-up area, and wait on Atlantic where, again, cars are not supposed to stop.

THE STATION AREA AS A "PLACE"

As a new facility, the Aberdeen-Matawan station is generally attractive and well maintained. A small but attractive plaza leads to a climate controlled waiting roomarea, with rest rooms and seating. The station suffers more because the area around it is so unattractive: Seventy-four percent of the passengers interviewed rated the attractiveness of the area around the train station as "fair" or "poor", while only 13 percent rated it "good."

With redevelopment, this environment will improve and additional commuter services and retail could be provided, if designed and conveniently located next to the station. In fact, two-thirds indicated that the Townships should give "high" or "moderate" priority to developing new commuter-oriented retail and services in the station area. Passengers suggested the following retail or services that they would like to see at the station or in the station area:

- A coffee / bagel shop, or bakery;
- A restaurant;
- A convenience store;
- A day care center;
- A supermarket or pharmacy;
- A dry cleaners.

The need for a store with take-out coffee, food and/ or convenience was the most frequently mentioned by passengers (13 responses).

Another 36 percent identified the provision of a concierge service at the station as a "moderate" priority for the Townships, while 18 percent thought a service such as this should be a high priority. A concierge service would allow passengers to drop off their dry cleaning, shoes for repair, or order a take-out dinner in the morning and pick up these items on their way home.

Passengers suggested some additional amenities for the station. There is also a need for additional seating on the platforms and at pick-up and drop-off waiting areas. Extending the station building's hours of operation and providing access to restroom facilities would add to passenger comfort. Others requested an ATM machine and a ticket vending machine.

While passengers consider the development of new commuter retail and services to be a priority for the redevelopment of the station area, most gave a "low" priority to the development of new rental housing (66%), condominium housing (66%) and new commercial office space (51%). Of course, this sample represents the preferences of rail passengers, the majority of who live outside of the two communities sharing the railroad station.

The "original" historic station building, now vacant, and the excessive sidewalk space around the platform areas provides a challenging opportunity for redevelopment. While NJ TRANSIT has considered redevelopment options for the building many times in the past, rising rehabilitation costs and the lack of a solid redevelopment proposal has resulted in the continued vacancy of the building. Architecturally distinctive, however, the historicold station building brings a unique presence to the area; its restorationdevelopment presents an opportunity to improve the sense of place around the train station and and could serve as aa focal point for new development. The idea of redeveloping this building was also raised by passengers as something the towns Townships and NJ TRANSIT should consider. A few passengers specifically suggested the possibility of the building housing a restaurant or coffee shop. An opportunity for additional uses to complementthe adaptive reuse of the former more "modern" station building, although currently occupied with NJ TRANSIT's administrative offices in the former, more modern station building, also exists and could be considered as a long-term possibility with the redevelopment of the area.

REVITALIZATION AND LINKS TO HISTORIC DOWNTOWN MATAWAN

The Borough of Matawan is actively working to revitalize its historic downtown, and to improve the environment and services so that it attracts more businesses and shoppers, including commuters going to and from the station. The Borough would therefore like to form as many links to the station as possible -- for pedestrians, bicyclists, and shuttle buseseven through a shuttle bus. However, because the downtown is seen as a rather long walk from the station, the idea of a concierge service for the station is of local interest because it would allow businesses to be able to provide a service for passengers directly at the station.

Historic downtown Matawan runs along Main Street from Lake Matawan to Church Street. Presently, new commercial development is occurring along Routes 35 and 34 and traffic congestion is caused along Main Street during rush hours by train station commuters accessing Route 34. Little of this traffic, however, stops to visit the Main Street commercial corridor. As part of the passenger survey, people were asked about their usage patterns of historic downtown Matawan and the section of Main Street between the Matawan River Bridge and Atlantic Avenue to get a sense of the connections and links between commuters and these areas. The survey indicated that there is very little use of these areas in general by passengers: 70 percent said they rarely or never shop or visit a professional office in downtown Matawan and 61 percent rarely or never visit the Main Street area. Train station commuters are an untapped market.

One key issue with downtown is its pedestrian environment. The buildings are a mix of historic and 1970s vintage that are set back at varied distances from the street. Curb cuts and parking lots front the street interrupt the continuity of the sidewalks. There is a lack of mid-block crosswalks to aid shoppers and the sidewalks have an uneven surface for walking and vary in width. Although there has been some attempt to unify the area with "Historic Main Street" signs and banners, and some building and façade renovations are visibly underway, the offering of services and retail businesses are insufficient to draw people from the train station to stop and do their shopping.

As part of this study, Downtown New Jersey, Inc. conducted a “Downtown Business Assistance Team" evaluation of the district. In addition to conditions contributing to a poor environment for pedestrians and bicycles, the study identified the need for:

- a greater the mix of commercial retail and use of underutilized downtown properties;
- reduced traffic speeds;
- a coordination of existing parking options, integrated parking signage, and an expansion of off-street parking;
- stronger downtown management to coordinate and direct downtown activities
- image building, and promotional activities to attract people to the area; and
- appropriate design standards for buildings in the historic commercial district.

The study's findings and recommendations are included as an appendix Appendix D to this report.

RECOMMENDATIONS/ REDEVELOPMENT GUIDELINES

The Aberdeen-Matawan Train Station already functions as both a destination and a gateway to the Aberdeen Township and the Borough of Matawan Townships by virtue of its location along Atlantic Avenue, which serves as a boundary line between the two townships. While the station is accessible by automobile, it is not so accommodating by foot, bicycle, or transit. There are opportunities both in the short-, mid- and long-term to expand the station and station area's multi-modal transportation accessibility, its inter- and intra-town linkages, create distinctive public spaces, and guide new development to act as a catalyst for revitalizing Matawan and Aberdeens a whole.

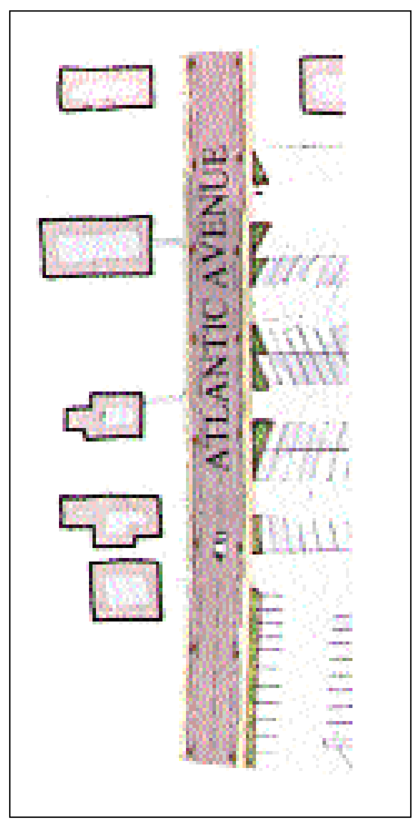


Figure 13: Atlantic Avenue adjacent to the Station (left) - proposed improvements

Figure 14 : Atlantic Ave. East of Meadow Road (right) - new sidewalk at edge of parking lot

The following recommendations are aimed at improving vehicular, pedestrian, and bicycle access and safety in the station area in the short, medium, and long term, prior to major redevelopment of the station area sites. In the next section, under *Implementation*, are a series of short-term recommendations as well as a compilation of the responsibilities is provided in chart form.

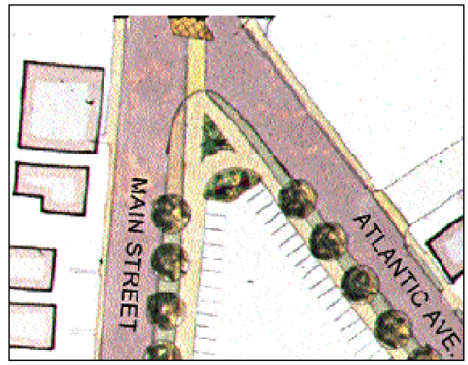


Figure 15: Atlantic Avenue and Main Street Intersection - proposed improvements

PEDESTRIAN ACCESS

Create distinct pedestrian crossings, sidewalk/curb improvements, and traffic calming measures along various local streets leading to the station to increase pedestrian safety, and more clearly define vehicular spaces.

Additional new sidewalks, neck-downs, crosswalks, and a reduction of curb radii are recommended needed to narrow pedestrian crossing distances and calm traffic at all streets leading to the station. In general, the goal is to provide:

- Gateways to the station area from Main Street in Matawan;
- Continuous, well-paved sidewalks, with minimal disruptions by curb cuts;
- Pedestrian amenities (trees, seating, etc.);
- Crosswalks at all intersections and, in some instances, neck-downs at corners to narrow crossing distances for pedestrians and to help slow vehicles at intersections;
- Bufferinged edges at the sidewalks adjacent to parking lots using plantings, a sitwall, or a low fence -- preventing cars from parking in the lots from "overhanging" ontoon the sidewalk;

The following are recommended for each street:

- Consider installing a traffic light at the Meadow Road intersection for vehicles exiting from the NJ TRANSIT commuter lot.
- Create an improved passenger drop-off and pick up area (see below.)
- Create defined, striped crosswalks on Atlantic for pedestrians exiting and entering the station (from the station plaza to the

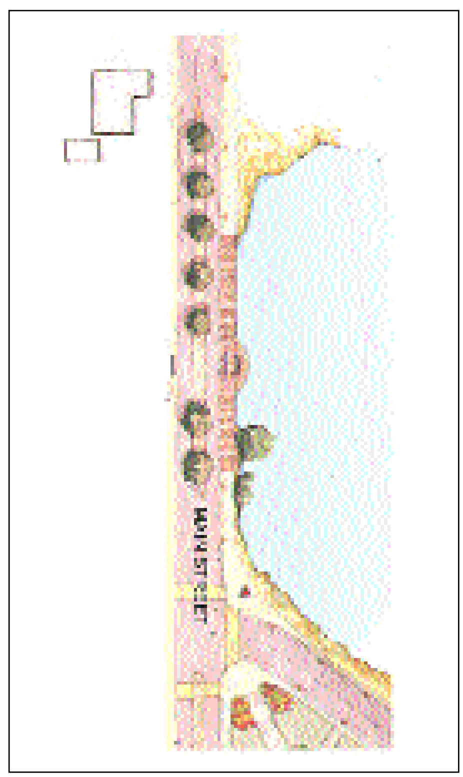
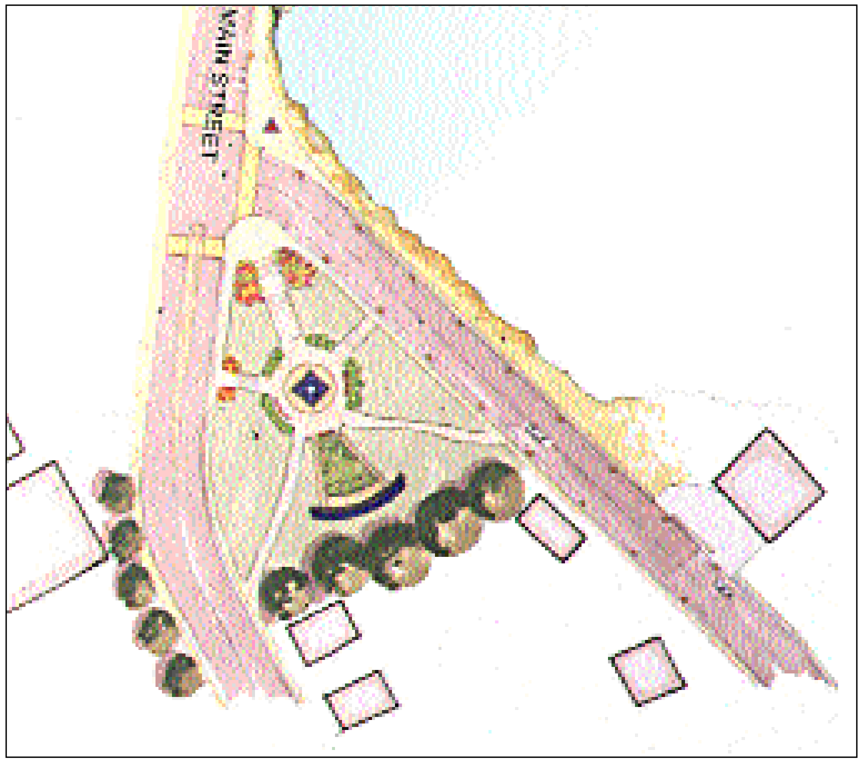


Figure 16: Main Street - new bridge at Lake Matawan

Figure 17: Enhancements to Veterans Park



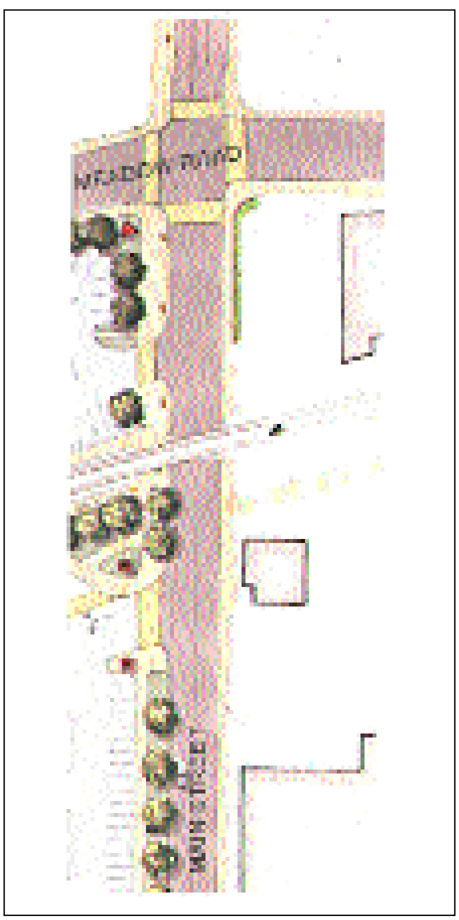


Figure 18 - New edges and entries for parking lots.

parking lot; along Atlantic at the parking lot entry; and on all sides of the Atlantic/ Meadow Road intersection). Pedestrian striping should also be placed in front of the train station for pedestrian and bicycle use in a bright and distinctive paint color. In the long term, these crosswalks could be defined with special pavers or textured asphalt.

- Consider redesigning the pedestrian track crossings and adding an edge to the sidewalk to clearly indicate to pedestrians when it is safe to cross the tracks and when it is not.
- Extend the sidewalk from the train station plaza to the adjacent industrial property parking lot.
- Remove the existing fence along the outbound station side of Atlantic Avenue.
- Provide landscaping along the sidewalk to help visually buffer the commuter parking from the street.
- Provide a sidewalk along Meadow Road by reconfiguring existing parking lots.
- Consider locating distinct train station directional and identifying signs, landscaping, and artwork to better mark the

entrance into the train station area. Address pedestrian needs by repairing sidewalks and providing crosswalks.

- Reduce the width of curb cuts at commercial developments, such as the 7-11 store.
- Create a "T-intersection", eliminating the high-speed right turn lane from Broad onto Main Street at Veteran's Park. Replace with an amber blinking light for stopping at the T-intersection. *(Figure 15, page 43)*
- Enhance Veteran's Park with additional pedestrian pathways, seating, public programming. Consider the creation of a new memorial sculpture for the site incorporating public participation. *(Figure 17, previous page)*
- Provide a wooden walkway and bridge adjacent to the existing bridge for pedestrian use. Prune trees to open up views of the lake. *(Figure 16, page 43)*
- Create a distinct driveway into the commuter parking lot buffered on either side with landscaping with the understanding that the site will likely be developed in the future. *(Figure 18, previous page)*

BICYCLE ACCESS

Enhance existing roadways to encourage the development of a comprehensive bicycle network linked to the downtown and the train station.

- Provide signs on existing informal bicycle routes and shared roadways to indicate route paths and links to area attractions. "Share the Road" signs, traffic control devices, and hazard markings for bicyclists and motorists should also be provided, especially at the intersections where designated bikeways meet shared roadways, to alert motorists and bicyclists of potential obstacles as well as to look out for one another.
- Repair unsafe conditions where existing bike paths transition to shared roadways and install bicycle safe storm water inlets, grates that are flush with the pavement outside of the lane sharing area, and improved lighting.
- Provide weather protected bicycle parking in the station area and Downtown Matawan. Provide bicycle supportive amenities such as benches, telephones, and newspaper vending

machines.

- Create strong pedestrian and bicycle links and access to the station from the Henry Hudson Heritage Trail.
- Designate a bike lane along both sides of Atlantic Avenue that connects to the future heritage trail, and east of Meadow Road by eliminating on-street parking.
- Widen the Main Street Bridge over Lake Matawan to provide a pedestrian and bicycle path from Broad Street to the station. The path can continue off-street and lead directly into the station parking lot. (A designated bike route on Main Street through downtown Matawan is not recommended.)

TRANSIT ACCESS

Explore implementation of transit shuttle to the station.

- Initiate a shuttle service to the station to transport passengers on a loop through Matawan and Aberdeen to the train station to reduce the use of cars in the train station area.

COMMUTER PARKING

Consider relocating commuter parking at the station as redevelopment occurs.

Consider relocating parking from the area around the historic former train station to create a public square in front of the station (*Figure 19)*.

- Consider adding temporary commuter parking adjacent to the historic station platform.
- As redevelopment occurs around the station, consider consolidating surface commuter parking into structured facilities that are integrated into the fabric of the selected redevelopment plans.

STATION DROP-OFF AND PICK-UP AREAS

Create improved drop-off and pick up areas for better passen-

Figure 19: Historic Station and Potential Future Square

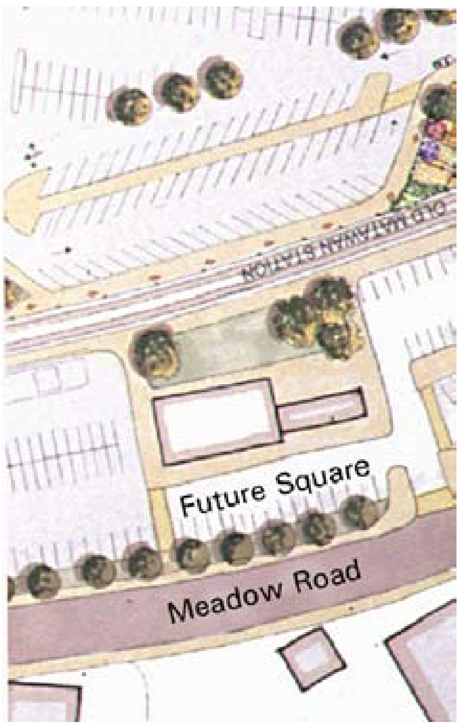


Figure 20: Site-Plan - Proposed Station Pedestrian and Drop-Off Improvements

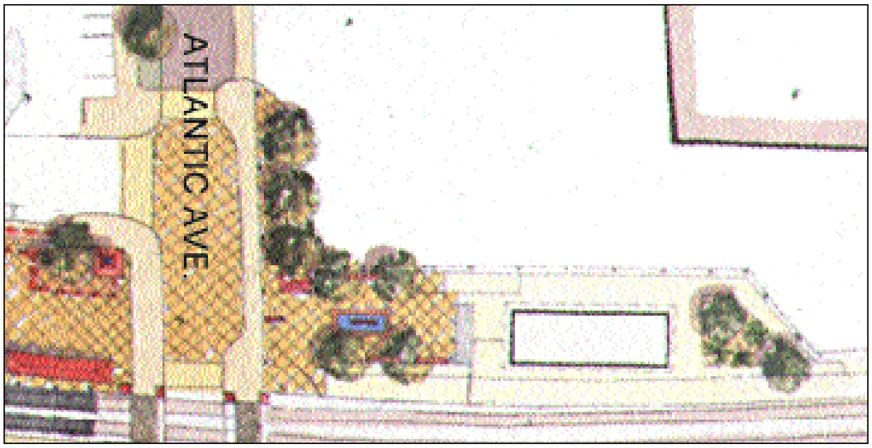


Figure 21: Extended Drop-Off Area, West of Station

Figure 22: Redesigned Station Pick-Up Area

ger access to the station; Consider providing temporary stopping zones that do not obstruct traffic circulation around the station (Figure 20).

Drop-offs:

- On an extended sidewalk to the west of the station in front of the adjacent industrial property, consider creating a defined drop-off area.. With new development in the long term, a station plaza and drop-off area could be extended along the full length of the inbound platform. *(Figure 21)*

Pick-ups:

- Create a pick-up area on the east side of Atlantic, across from the outbound station area
- For the long-term, consider widening the sidewalk parallel with the platform; repave it to match Station Plaza, and provide new seating in the pick-up area. In the short term, use painted striping, along the outbound platform to effectively widen the sidewalk. The short term painted striping should be matched to the striping along Atlantic Avenue (*Figure 22)*.
- In the long-term, consider providing a new stair and ramp access from platform to this new sidewalk, the commuter parking lot.
- In the long-term, consider reconfiguring the existing parking ticket and bicycle covered space as a waiting space with

benches, covered shelter, landscaping, bicycle racks, and pay telephones. In the short-term, consider restriping this area to match Station Plaza.
- With new development in the long term, consider switching the locations of the existing handicapped parking and pick-up area to make pick-up more visible from Atlantic Avenue. The pick-up area could also be extended along the full length of the outbound platform as part of the long term station area redevelopment.

SIGNAGE

Establish a community-based signage and information system (aka "wayfinding system") for pedestrians, bicyclists, and vehicles.
A community-based signage system to direct pedestrians, bicyclists, and vehicles to the train station, historic downtown Matawan, and places of interest in the broader vicinity of the station will enhance station and community image, visibility, and access

Directional Information

- Develop community-wide signage within half a mile of the station geared specifically to pedestrians and bicyclists in both Aberdeen and Matawan., indicating convenient and safe routes to the station. Include signs at intersections of designated bikeways and shared roadways and along existing informal bicycle routes.
- Locate community "welcome" signs along major streets leading to the station including Main Street, Atlantic Avenue, Meadow Road, Aberdeen Road, Broad Street, and Lower Main Street. Signs should include directional information to show people:
- How to find the train station
- Commuter parking locations
- Station drop-off and pick-up locations
- Bicycle parking locations
- Consider relocating the existing station identification sign to a more central and visible location for motorists, pedestrians, and bicyclists.

Area Maps

- Provide community-generated maps of the station area highlighting business and shop locations, landmarks, and places of interest in Matawan and Aberdeen within walking and bicycling distance.

Information Kiosk

- Install a community information kiosk at the station for area residents and visitors to Matawan and Aberdeen that includes, for example, weekly schedules and listings of local theater, music and arts events, as well as current movies showing in area theaters.

THE STATION AS A "PLACE"

Improve the public spaces around the train station by encouraging the programming of community activities and developing certain active uses adjacent to the station to improve the image of the station, make it more attractive and functional for transit riders and the host communities.

Station and Plaza

- Consider installing either a station retail tenant or kiosk outside the station building to provide commuters with take-out coffee and newspapers and provide for presence at the station.
- Provide additional seating for passengers on the platform and in pick-up areas of the station.
- Create an inviting public space area around the former more "modern" station building as an extension of the station plaza space that includes sheltered seating, additional bicycle racks, and landscaping; Consider removing the existing bus shelter.

- Consider establishing a community-based concierge service for participating local Matawan-Aberdeen businesses to serve daily commuters. Explore the possibilities of placing this service at the station or within walking distance.
- Renovate and adaptively re-use the "original" former train station building with retail, community-based, or other active uses. Consider, in the long-term, creating a public space in front of this building, and reconfiguring parking accordingly.

REVITALIZATION AND LINKS TO DOWNTOWN MATAWAN

Improve the link between downtown businesses and the train station, and improve the business environment along Main Street in Historic Downtown Matawan.

Promotions

- Coordinate marketing and promotional efforts of area businesses to area transit riders, local residents, and office workers. Activities such as concerts, festivals, and special events also should be used to promote local businesses and to draw people downtown on a regular basis.

Area Map

- Create an area map (see above)

Concierge Service

- Once improvements have been made to the station and station area, explore the possibility of creating a station-based concierge service with interested downtown businesses to be managed by the Historic Downtown Matawan Business Association. NJ TRANSIT's experience with other concierge service operations, namely at the Maplewood Station, suggests that a minimum daily ridership of 2,000 daily passengers is needed to support this type of service. The Aberdeen-Matawan Station has a train ridership of approximately 3500, which provides a solid base of people might use the service. It should be noted that the start up of a concierge service requires tremendous energy and enthusiasm on the part of the community-based organizers and that concierge service operations take one to two years to develop a consistent clientele and management structure and sometimes longer before the operation becomes profitable. The service is valuable as a promotional vehicle as well as a supplement to existing downtown businesses.

Maintenance

Create a community-based mechanism for the provision of ongoing maintenance for the train station and station area to maintain the life and quality of the area's revitalization efforts, the distinct image, and pride of both Matawan and Aberdeen.

- The creation of a distinct entity to provide routine maintenance within the station area (including any future streetscape and public space improvements) should be seriously considered as redevelopment of the station area occurs. Ways to achieve this should be explored among those parties who have a direct interest in the area, including Matawan Borough, Aberdeen Township, and the Historic Downtown Matawan Business Association.

IMPLEMENTATION

The implementation effort relies upon the successful and ongoing cooperation of Aberdeen, Matawan, and NJ TRANSIT. This report sets the stage for this future collaboration.

Much more detailed planning studies are necessary to develop a master plan for the area. These include traffic analysis *(see Appendix B)*, market feasibility studies, as well as additional urban design analysis. While this is taking place, much still can be done to improve the access to the station and its overall environment - in part, to attract developer interest in the area. The Implementation Chart outlines the many short, mid- and long-term improvements that can be undertaken.

MATAWAN/ABERDEEN STATION

SHORT TERM CHANGES

Pedestrian and Bicycle Access

1. Traffic signal at intersection of Atlantic Avenue and Meadow Road
2 a. Stripe crosswalks on all sides of Atlantic Avenue/Meadow Road intersection
   b. Special striping along Atlantic Avenue in front of station to define auto pick-up/drop-off zone
   c. Stripe crosswalk along Atlantic Avenue at parking lot entry
   d. Stripe crosswalks from Station Plaza to parking lot
3. Stripe Atlantic Avenue Roadway in front of train station (prior to repaving)
4. Extend sidewalk from station to adjacent industrial property parking lot
5. Remove fence along Atlantic Avenue
6. Landscape along sidewalk to buffer commuter parking
7. Stripe new bicycle lanes along Atlantic Avenue
8. Provide sidewalk along Meadow Road
9. Provide painted warning sign on sidewalk between tracks and gates, such as: " Do not stand or cross here when gates are down."

Station Drop-Off and Pick-Up Area

10. Create drop-off area in front of Station Plaza
11. Repair striping to extend sidewalk to 10' along platform to match striping on Atlantic Avenue and to create a drop-off and pick-up area in the short term

The Station as a "Place"

12. Relocate sign to more central and visible location. Encourage coffee/snack vendor to help create an all day presence at the site. Locate in entry corner where station sign is currently located.
13. Remove bus shelter on Parking lot side of station
14. Add new bench seating around plaza

FUNDING OPPOURUNITES

The Boroughs of Aberdeen and Matawan can (and should) seek funding from state and county grant programs to help them implement some of the projects recommended strategies contained herein. In particular, the towns should further investigate the The Borough should specifically look into the following following Ccounty and Sstate programs for possible funding:

NEW JERSEY DEPARTMENT OF TRANSPORTATION

<u>Local Planning Assistance:</u> to help communities create Access Management Plans, local circulation plans and other transportation plans.

<u>Local Bicycle / Pedestrian Planning Assistance:</u> consultant technical assistance to help communities develop plans to enhance bicycle and pedestrian safety.

<u>Corridor and Regional Planning Studies:</u> involving state roads to help communities determine transportation needs and develop proposals to address these needs.

Local Aid for Centers of Place: to help communities who have participated in the State Development and Redevelopment Plan process Is this under OSP????

Locally Initiated Pedestrian Projects: offers funding to communities and counties to enhance pedestrian access and safety ($4.7 million was available for FY 2000).

Locally Initiated Bicycle Projects: Offers funding to communities and counties to enhance bicycle access and safety ($4.7 million was available for FY 2000).

County Aid, Municipal Aid, and Discretionary Programs: provides funding to communities and counties for improvement of roads, bridges, public transportation, incidental bicycle and pedestrian improvements.

DEPARTMENT OF COMMUNITY AFFAIRS

Office of State Planning: $3 million in "Smart Growth" Planning grants is available each fiscal year to help communities plan for their growth based on the State Development and Redevelopment Plan.

NEW JERSEY ECONOMIC DEVELOPMENT AUTHORITY

The EDA creates public/ private partnerships to bridge financing gaps and to increase access to capital forto the State's business community with an emphasis on small and middle size businesses and not-for-profit organizations. Also offered is a full range of real estate development services to stimulate both private and public development projects, particularly in urban areas.

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

Two new tree planning and care grants are currently available through the New Jersey Community Forestry Program, with continuing funding for a third grant. Under the New Jersey Tree Planting Grant, the Community Stewardship Incentive Program and the Green Communities Grant, funds can either be awarded to support municipal tree planting plans or to provide funds for a county or municipality to hire an outside firm to assist in the production of a community forestry management plan.

Appendix E provides additional funding sources for pedestrian and bicycle planning and implementation, as compiled by NJDOT.

APPENDICES

APPENDICES

A. Summary of Passenger Survey Findings

B. Suggested Scope for Threshold Traffic Analysis

C. Bicycle Compatibility Findings, Recommendations, and Criteria

D. Matawan Downtown Assistance Team Final Report

E. NJDOT Compilation of Funding Sources for Pedestrian and Bicycle Planning, Programs and Projects

APPENDIX A: Summary of Passenger Survey Findings

Matawan / Aberdeen Passenger Survey Results

Based on 76 surveys   Nov. 1, 2000

1. How frequently do you take the train from the Matawan/ Aberdeen Rail Station?

a.	Every weekday	82.9%
b.	Several times a week	11.8%
c.	Less than once a week	(-)
d.	A few times a month	2.6%
e.	Rarely or never	(-)

2. How did you get to the Station today?

a.	By car	82.9%
b.	On foot	2.6%
c.	By train	1.3%
d.	By taxi	5.3%
e.	I was dropped off	7.9%
f.	Bicycle	(-)
g.	Other ________	(-)

3. How long did it take you to get to the Station today?

a.	Less than 5 min.	13.2%
b.	6 to 10 min.	31.6%
c.	11 to 15 min.	17.1%
d.	16 to 20 min.	23.7%
e.	21-30 min.	11.8%

f. Over 30 min. 2.6%

4. What streets did you take to reach the station? (respondents asked to mark on supplied map)

5. Where did you park?

a.	Main Street Lot A	13.2%
b.	Main Street Lot B	2.6%
c.	Atlantic Avenue Lot	13.2%
d.	I was dropped-off	18.4%
e.	Private lot	43.4%
f.	On the street	1.3%
g.	Other	1.3%

6. How often do you shop or visit a professional office in the following areas:

Downtown Historic Matawan:

a.	More than 5 times per week	(-)
b.	Several times a week	5.3%
c.	Less than once a week	10.5%
d.	A few times per month	13.2%
e.	Rarely or never	69.7%

Main Street (btwn the Matawan River Bridge and Atlantic/Lower Main Street):

a.	More than 5 times per week	2.6%
b.	Several times a week	6.6%
c.	Less than once a week	10.5%
d.	A few times per month	11.8%
e.	Rarely or never	60.5%

7. How would you rate the area around the train station (defined on the map in question #4) for:

	Good	Fair	Poor	Don't Know
Variety of stores and services	(2.6%)	(38.2%)	(31.6%)	(15.8%)
Ease in crossing Main Street (btwn Atlantic Ave and Aberdeen Rd)	(10.5%)	(36.8%)	(30.3%)	(9.2%)
Ease in crossing Atlantic Ave	(13.2%)	(30.3%)	(31.6%)	(7.9%)
Ease in walking to Main Street in Downtown Matawan	(18.4%)	(23.7%)	(21.1%)	(22.4%)
Ease in walking from parking				

	Good	Fair	Poor	Don't Know
lots to the station	(19.7%)	(31.6%)	(30.3%)	(5.3%)
Adequacy of sidewalks	(19.7%)	(31.6%)	(34.2%)	(2.6%)

7. **How would you rate the area around the train station (defined on the map in question #4) for:** (cont'd)

	Good	Fair	Poor	Don't Know
Amount of parking	(1.3%)	(7.9%)	(76.3%)	(3.9%)
Overall attractiveness	(13.2%)	(51.3%)	(22.4%)	(1.3%)

8. **The Boroughs are in the process of planning for redevelopment of the station area. How much of a priority do you think each of the following should be given in the station area?**

	High Priority	Moderate Priority	Low Priority	No Opinion
(1) Develop new rental housing	(-)	(9.2%)	(65.8%)	(11.8%)
(2) Develop new condominium housing	(1.3%)	(10.5%)	(65.8%)	(10.5%)
(3) Develop new commercial office space	(5.3%)	(18.4%)	(51.3%)	(9.2%)
(4) Develop new commuter-oriented retail and services	(34.2%)	(31.6%)	(13.2%)	(3.9%)
(5) Make Atlantic Ave., Main St and RR Plaza Dr. easier to cross	(39.5%)	(30.3%)	(7.9%)	(3.9%)
(6) Provide a looped route shuttle bus service from the station to specific locations in Matawan-Aberdeen	(31.6%)	(25.0%)	(18.4%)	(5.3%)
(7) Construct more parking facilities	(81.6%)	(3.9%)	(2.6%)	(1.3%)
(8) Provide a service at the station to drop off dry cleaning, shoes for repair, order take-out dinner, etc. in the morning, and pick up these items on the way home	(18.4%)	(35.5%)	(21.1%)	(3.9%)
(9) Other:	(9.2%)	(-)	(-)	(3.9%)

9. **Please tell us a little about yourself:**

Your sex:	**Male**	**Female**
	50%	40%
Your age:		
	14-20	(-)

21-35	(35.5%)
36-45	(34.2%)
46-65	(21.7%)
Over 65	(1.3%)

Passenger Survey Open Responses

5 e. Where did you park? (Private lot)
- ? Key Auto Body (5)
- ? Matawan restaurant (3)
- ? Laxmi (3)
- ? Chinese restaurant (2)
- ? Halleran's (2)
- ? Hackmann (2)
- ? Paper Box Company
- ? Matawan Tool
- ? Tuck company adjacent
- ? Vaccarella lot
- ? Next to 7/11
- ? Teddy's barber shop
- ? Private house
- ? Johnson Ave

5 f. Where did you park? On the street - intersection:
- ? In front of Sultan's Palace (2)

5 g. Where did you park? (Other)
- ? Aberdeen lot
- ? Route 34

6. If you answered that you shop or visit professional offices in the area rarely or never, why not?
   - ? Nothing of interest there (10)
   - ? No time (6)
   - ? Don't live in Matawan (5)
   - ? No parking there (4)
   - ? Don't need to (4)
   - ? There isn't much there
   - ? I go straight home
   - ? Too far from house
   - ? Don't want to
   - ? Too much traffic

8. What do you think are the most needed improvements to the train station and the train station area?
   - ? More parking (46)
   - ? Wider platforms (13) esp. NY bound
   - ? Improved traffic controls to improve flow (8)
   - ? Traffic lights especially from parking (7)
   - ? Improve crossing the tracks and streets (6)
   - ? Better access to parking lots (5)

- ? Another exit from parking lot (3)
- ? More trains or more cars of rush hour trains (3)
- ? Heated station (3)
- ? Bigger waiting area with more seating (3)
  - ? Ticket machine (3)
  - ? Stair access from southbound platform to street level (3)
  - ? A parking garage (2)
  - ? Better drop off and crossing to parking
  - ? Overpass from Aberdeen lot to train track 2
  - ? Reduce gap between train and platform
  - ? Keep the station open longer so people can keep warm
  - ? Parking on both sides of the station
  - ? ATM
  - ? Make traffic safer
  - ? Fix the abandoned building that used to sell pizza next to RR tracks
  - ? Reduce waiting at route 34 light
  - ? Clean up around lots
  - ? Build a tunnel for crossing tracks
  - ? Parking lot egress
  - ? Faster service at ticket booth on Mondays and 1st of month

9. How much of a priority should be given in the station area to:

- ? Dunkin Donuts - high priority
- ? Traffic lights - high priority

10. What other kinds of activities, retail or services would you like to see takplace / locate at the Station or in this part of Matawan / Aberdeen?

- ? Nice coffee / bagel shop (5)
- ? Restaurant (3)
- ? Convenience store (3)
- ? Renovate the old station house (2) into a coffee shop
- ? Day Care (2)
- ? More parking lots without waiting lists
- ? Dry cleaners
- ? Super market or CVS
- ? Bakery
- ? Clothing stores
- ? Priority parking

Other comments:

- ? We shouldn't have to run for the train from the Aberdeen lot, especially since all those changes were recently made to help make access from Aberdeen easier.
- ? Daily parking in the area fills up by 6 a.m.
- ? More mass transit so people will not have to drive to station

? Train stations in other towns so this station would not get as crowded, people come from other towns to take the train here.
? Study the example of Freehold and Hoboken - two very appealing walkaabout towns.
? New station is a significant downgrade from old station.
? Provide shuttles to nearby towns so commuters won't have to drive to Matawan station.
? More police enforcing speed limit and illegal parking.
? Aberdeen/Matawan residents should be given priority when assigning parking spaces.
? No development should be allowed that would aggravate the congestion in the area.
? Trains are constantly overcrowded at peak hours.

APPENDIX B

Suggested Scope for Threshold Traffic Analysis of Aberdeen/ Matawan Station Area

1. Determine the critical streets and intersections.
2. Collect all existing hourly traffic counts from towns and county.
3. Fill in for those locations and times for which data is unavailable.
4. Make certain to count times more detailed than hourly to account for train arrivals times in the evening, and possibly for train departures toward Newark/NY in the morning.
5. Bring all counts to base year (2000 if possible) by factoring for recent growth, using nearly traffic count series that will give an accurate sense of annual growth patterns in recent years
6. Determine the hourly capacity of each street and intersection.
7. Determine the available capacity assuming a level of service C/D for each street and intersection for each relevant hour (or part).
8. Determine the proportion of auto trips to the Aberdeen/Matawan station using each of the roads in the station vicinity based on NJ TRANSIT's origin data.
9. Determine the proportion of auto trips to and from work that would likely be taken on each entryway to and from the area based on past US Census data, accounting for the shares from various directions that would likely use transit to reach work sites in the area.
10. Determine the proportion of auto trips to and from residences that would likely be taken on each entryway to and from the area based on past US Census data, accounting for the shares to/from various directions that would likely use transit.
11. Determine the added vehicle volumes for each relevant hour (or part) for each street and intersection per 100 additional parking spaces based on survey data of access and time of arrival and the on #8 above.
12. Determine the added vehicle volumes for each relevant hour (or part) for each street and intersection per each 100,000 square feet of office space.
13. Determine the added vehicle volumes for each relevant hour (or part) for each street and intersection per each 100 dwelling units
14. Using available capacity for each relevant hour (or part) for each street and intersection determine separately a) amount of parking, b) the amount of office space, c) the number of dwelling units, and d) two reasonable mixes of the three (parking, offices, dwelling units) that would be required to bring the street or intersection to capacity.
15. For those streets or intersections that appear to be the most short of capacity, examine specific traffic improvements and for each determine the added parking, added offices and added dwelling units that such improvements would "permit."

APPENDIX C: Bicycle Compatibility Findings, Recommendations, and Criteria

Bicycle Compatibility Guidelines

1. Pavement widths. At a minimum, all highway projects should provide sufficient width of smoothly paved surface to permit the shared use of the roadway by bicycles and motor vehicles. Several factors affect the compatibility of a shared roadway, and considerations in the selection of pavement width include:
   - *Traffic volumes.* Three traffic volume conditions require different pavement provisions for adequate roadway compatibility. Space restrictions due to on-street parking should also be accounted for. Traffic volume conditions include:
     - *i.* Condition I. Low volume roadways with an AADT of less than 1,200 vehicles per day. Cost of providing widening of these roads can seldom be justified based on either capacity or safety, however attention should be paid to providing adequate room at the outside of the roadway for the purposes of passing on moderately low volume roadways with an AADT between 1,200 and 2,000 vehicles per day. This is a particular concern on faster speed roadways.

	Urban with Parking	URBAN WITHOUT PARKING	RURAL
< 50 km/h (30 mph)	SL 3.6m (12 ft)	SL 3.3m (11 ft)	SL 3.0m (10 ft)
50-65 km/h (31-40 mph)	SL 4.2m (14 ft)	SL 4.2m (14 ft)	SL 3.6m (12 ft)
65-80 km/h (41-50 mph)	SL 4.5m (15 ft)	SL 4.5m (15 ft)	SH 0.9m (3 ft)
> 80 km/h (50 mph)	NA	SH 1.2m (4 ft)	SH 1.2m (4 ft)

Note: For volumes less than 1200 AADT, a shared lane is acceptable.
KEY: *SH=shoulder SL=shared lane*

     - *ii.* *Condition II.* High volume roadways with AADT greater than 2,000 vehicles per day. On these roadways the probability that a vehicle overtaking a bicycle may also meet another on-coming vehicle increases. On these roads, some room at the edge of the roadway should be provided for bicyclists. Adequate width should be determined by the speed of the roadway. At lower speeds little separation is needed for both a bicyclist and motorist to feel comfortable during a passing event. With higher speeds, more room is

	URBAN WITH PARKING	URBAN WITHOUT PARKING	RURAL
< 50 km/h (30mph)	SL 4.2m (14ft)	SL 3.6m (12 ft)	SL 3.6m (12ft)
50-65 km/h (31-40 mph)	SL 4.2m (14ft)	SL 4.2m (14ft)	SH 1.2m (3ft)
65-80 km/h (41-50 mph)	SL 4.5m (15ft)	SL 4.5m (15ft)	SH 1.2m(4ft)
>80 km/h (50 mph)	N.A	SH 1.8m (6ft)	SH 1.8m (6ft)

needed.

iii. *Condition III.* Very high volume roadways with AADT greater than 10,000 vehicles per day. On these roadways bicyclists require separate space to ride comfortably. Motorists will also benefit from improvements made to the roadside border and shoulder. NJDOT minimum

	URBAN WITH PARKING	URBAN WITHOUT PARKING	RURAL
< 50 km/h (30mph)	SL 4.2m (14ft)	SL 4.2m (14ft)	SL 4.2m (14ft)
50-65 km/h (31-40 mph)	SL 4.2m (14ft)	SH 1.2m(4ft)	SH 1.2m(4ft)
65-80 km/h (41-50 mph)	SL 4.5m (15ft)	SH 1.8m (6ft)	SH 1.8m (6ft)
>80 km/h (50 mph)	N.A	SH 1.8m (6ft)	SH 1.8m (6ft)

shoulder width of 2.4 meters (8 feet) should be provided wherever possible on roadways having an AADT greater than 10,000 vehicles.

- *Sight Distance.* Adequate decision sight distance is most important on high-speed highways and narrow roadways where a motorist would have to maneuver out of the travel land to pass a bicyclist. In situations where there is not adequate sight distance, additional widths may be necessary.
- *Truck Traffic.* Roadways with high volumes of trucks and large vehicles need additional space to minimize bicycle/motorist conflicts on roadways. Additional space should be considered when truck volumes exceed 5 percent of the traffic mix. Where truck volumes exceed 15 percent of the total traffic mix, widths should be increased by a minimum of 0.3 meters (1 foot).

- *Steep Grades.* Additional space should be considered on the ascending lane when the grade exceeds 3 percent. Where the grade exceeds 5 percent, a minimum of a 1.5-meter (5 foot) wide shoulder or 4.8 meter (16 foot) wide curb lane in urban conditions is desirable to afford safe shared use. Where descending grades exceed 6 percent, and bicycle traffic is anticipated, signing should be placed along the descending lane to advices bicyclists and alert motorists of bicyclists in the travel lane.
- *Unavoidable obstacles.* Unavoidable obstacles include bridges and narrow street sections. Zebra warning striping should be installed to shift traffic away from unavoidable obstacles. Bicycle Compatible Hazard Marking (pavement markings that alert the bicyclist that the travel lane will narrow) is another option when an obstacle cannot be removed. Where bicycle traffic is anticipated, a share the road sign should be used to supplement any striping.

2. **Pavement Design.** Bicycles require a smooth riding surface without obstructions or pavement irregularities. On roadways with rough surfaces and hazards, a bicyclist will ride as close to the smooth wheel track in the travel lane as possible. The following conditions affect the level of service the roadway:
   - *Pavement surface.* Where shoulders are employed to provide the pavement width necessary to accommodate bicycle traffic, pavement surface should be as smooth as the adjacent travel land. Bituminous concrete is preferred over concrete where shoulders are employed. The outside pavement area (where bicycle traffic normally operates) should be finished free of longitudinal seams. On portland cement concrete, pavement transverse expansion joints (if necessary) should be saw cut to ensure a smooth ride.
   - *Rumble strips.* Use of rumble strips should be avoided on all land service roadways.
   - *Raised roadway reflectors.* Raised reflectors should only be used along interior lane lines or center lines, not edge lines.
   - *Utilities.* Utility covers and drainage grates should be adjusted to fit flush with the roadway surface in all new construction, reconstruction and resurfacing projects.

3. **Bridges.** Some features found in bridges can be unsuitable where bicyclists are to be accommodated. These include curb-to-curb widths that are narrower than the approach roadways, open grated metal decks, low railings or parapets, and certain types of expansion joints. Means of addressing these features to accommodate bicyclists include:

- *Sidewalks.* Designation of the sidewalk as an alternate facility can be beneficial provided that curb cuts and appropriate signing are provided.
- *Bridge railing or barrier curb parapets.* Bridge railing or barrier curb parapets should have railings at least 1.4 meters (4.5 feet) high.

4. **Drainage facilities.** Storm water drainage facilities and structures are usually located along the edge of the roadway and act as obstacles for bicyclists. Location and design considerations of drainage facilities on bicycle compatible roadways include:
   - *Drainage inlets and grates.* A "bicycle safe" drainage grate with acceptable hydraulic characteristics has been developed by NJDOT's drainage section. This inlet grate should be used in all normal applications and should be installed flush with the final pavement. Depressed grates and stream flow grates should not be used if at all possible, and if they must be used, should be installed only outside the lane sharing area. When roads or intersections are widened, new bicycle safe drainage grates should be installed at a proper location at the outside of the roadway, and existing grates and inlet boxes should be properly retired and removed, and the roadway reconstructed.
   - *Manholes and covers.* Manholes and covers should be located outside of the lane sharing area wherever possible. Utility fixtures located within the lane sharing area or any travel lane used by bicycle traffic should be eliminated or relocated. Where these fixtures cannot be avoided the pavement surface should be made flush with the particular facility.
   - *Combination curb and gutter.* These types of curbs should only be used on low volume streets or where grades dictate special drainage conditions. The width of the gutter pan should not be used when calculating the width of pavement necessary for shared use by bicyclists. On steep grades the gutter should be set back an additional 0.3 meters (one foot). Where these types of curbs are used, pavement width should be calculated by adding 0.3 meters (one foot) from the curbed gutter.

5. **Traffic Control Devices.** All traffic control devices should be positioned so as to be visible by bicyclists who are properly positioned on the road. Specific devices include:
   - *Traffic signals and detectors.* Detectors for traffic-activated signals should be sensitive to bicycles and should be located in the bicyclist's expected path. Stenciling should direct cyclists to the point where their bicycle will set off the detectors. Pedestrian push buttons should be provided at all signalized intersections (including left turn lanes) and

mounted in a location that permits their activation by a bicyclist without dismounting. Short clearance intervals in the timing of the traffic signal cycle should not be used where bicyclists must cross multi-lane streets.

- *Signing.* In certain situations signing may be needed to advise both motorists and bicyclists of the shared use of the roadway, including the travel lane. Examples include "Share the Road," and "Allowed use of Full Lane" signs. Conditions that warrant use of these signs include:

  "Share the Road"

  iv. Shared lanes with relatively high posted travel speeds 65 km/h (40mph) or greater.
  v. Shared lanes in areas of limited sight distance.
  vi. Situations where bicycle compatible shared lanes or demarcated shoulders or marked bike lanes are dropped or end, and bicycle and motor vehicle traffic must begin to share the travel lane.
  vii. Situations where it is determined advisable to alert motorists of the likely presence of bicycle traffic, and to alert all traffic of the need to share available road space.

  "Allowed use of Full Lane"

  viii. Steep descending grades where bicycle traffic may be operating at higher speeds requires additional maneuvering room to shy away from pavement edge conditions.
  ix. Steep ascending grades, especially where there is no paved shoulder or the shared lane is not adequately wide.
  x. High volume urban conditions, especially those with travel lanes less than the recommended width for lane sharing.

6. **Intersections & Driveways.** In order to minimize the possibility of debris from being drawn onto the pavement surface from unpaved intersecting streets and driveways during new construction, reconstruction and resurfacings, all unimproved intersecting streets and driveways should be paved back to the right-of-way line or a distance of 3.0 meters (10 feet). Where curb cuts permit access to roadways from abutting unpaved parking lots, a paved apron should be paved back to the right-of-way line or 3.0 meters (10 feet) from the curb line. Additionally, curb radii should be limited to distances that communicate to the motorist that he or she must yield the right-of-way to bicyclists traveling along the roadway.

7. **Roadside Obstacles.** Sign posts, light standards, utility poles and other similar appurtenances should be set back 0.3 meters (1 foot) minimum "shy distance" from the curbing or pavement edge with exceptions for guide rail

placement in certain instances. Vertical clearance to obstructions should be a minimum of 2.6 meters (8 feet, 6 inches).

8. **Railroad Crossings.** Railroad grade crossings should ideally be at a right angle to the rails. Where this is not feasible, the shoulder (or wide outside lane) should be widened, or "blistered out" to permit bicyclists to cross at right angles. Railroad grade crossings should be as smooth as possible. Pavement surface adjacent to the rail should be at the same elevation as the rail. Pavement should be maintained so that ridge build-up does not occur next to the rails.

9. **Transportation System Management (TSM) Improvements.** TSM improvements including intersection improvements, channelization, the addition of auxiliary lanes, turning lanes and climbing lanes must consider the needs of bicycle traffic in their design. Designs should provide for bicycle compatible lanes or paved shoulders. Generally, this requires that the outside most through lane and (if provided) turning lane be 4.2 meters (14 feet) wide. Auxiliary or climbing lanes should either provide an adjacent paved shoulder or a width of at least 4.5 meters (15 feet). Where shared lanes and shoulders are not provided, it must be assumed that bicycle traffic will take the lane.

BICYCLE COMPATIBILITY DEFINITIONS

Compatible Roadways: Bicycle compatible streets and highways that have been designed to accommodate shared use by bicycles and motor vehicles. Compatible roadway design guidelines differ based on traffic volumes, speeds and environmental setting.

Designated Roadways: Also referred to as designated bikeways, these are roads, paths or ways which in some manner are specifically designated as being open to the bicycle through the use of land markings, signage, maps or tour guides, regardless of whether such facilities are designed for the exclusive use of bicycles or are to be shared with other transportation modes. These can include:

- *Bicycle Route -* A segment of a system of bikeways designated by the jurisdiction having authority with appropriate directional and informational markets, with or without specific bicycle route number.
- *Bicycle Lane -* A portion of a roadway that has been designated by

striping, signing and pavement markings for the preferential or exclusive use of bicyclists.

- *Bicycle Path* - A bikeway physically separated from motorized vehicular traffic by an open space or barrier and either within the highway right of way or within an independent right of way.

Shared Roadway: A general term denoting any roadway upon which a bicycle lane is not designated and which may be legally used by bicycles regardless of whether such facility is specifically designated as a bikeway. A shared roadway may consist of a shared lane or land plus paved shoulder.

Shared Lane: A "standard" width travel lane that is used by both motor vehicles and bicyclists.

APPENDIX D

Matawan Downtown Assistance Team Final Report

The DNJ Downtown Business Assistance Team (DBAT) met with members of the Matawan Borough municipal government and business community at 10 a.m. on Thursday, September 14, 2000.

The team included:

Marvin Reed, president, Downtown New Jersey, Inc., and mayor of the Borough of Princeton, NJ.

Meredeth Bzdak, architectural historian, Ford, Farewell, Mills & Gatsch Architects

Katheleen Shaw, project manager, Bayshore Development Co.
Don Smartt, principal, The Community Advocates

Vivian Baker, principal planner, New Jersey Transit

Beth Peterson, executive director, Downtown New Jersey, Inc.

The members of the team were chosen for their expertise in the areas of:

Downtown development and revitalization organizations.
Revitalization and reuse of historic downtown properties.
Development of multi-use downtown parking plans.
Development of downtown image-building programs.
Interface between transportation hubs and nearby commercial districts.

The purpose of the team's first visit to Matawan Borough was to gather facts relevant to the need to revitalize the historic Main Street (Monmouth Co. Route 79) corridor of Matawan. This corridor runs between Route 35 and the Aberdeen/Matawan Railroad Station on N.J. Transit's North Jersey Coast Line and the Route 34 commercial corridor. Presently, most new commercial development is happening on the Route 34 and Route 35 corridors. Traffic patterns generated by railroad station commuters accessing Route 34 through the historic downtown creates congestion during rush hours. Little of the traffic stops to make use of the Main St. businesses.

After reviewing the current general conditions of Matawan Borough, its nearby higher density residential neighborhoods, and the context of the more suburban municipalities within Monmouth County, where Matawan Borough is located, the team toured the Main Street commercial district and the surrounding area. Doubling back from several directions they examined the various gateway entrances to Matawan Borough's downtown area.

Recognizing that the historic Matawan downtown commercial district could capture more retail customers from the commuter traffic, from surrounding suburban development communities, as well as increased residential development within Matawan Borough, the team noted:

> *Matawan business, resident, and governmental officials risk losing a market climate that supports their desire to improve an important commercial and residential district. They need to advance to the next level of institutional organization and build a public/private vehicle that can move their revitalization efforts, planning, and implementation forward. Successes have been achieved in the development of independent and cooperating public, business, and resident organizations. But, more sophisticated, better funded mechanisms are needed to provide organizational and institutional continuity to implement a multi-year commitment of "time, talent, and treasure."*

Options exist to apply these measures within the unique historical and small town Matawan environment.

The team recommended:

1. More off-street parking should be made available and clearly identified for less confusing access.

2. The downtown business district should find a means to advertise directly to commuters, many of whom know little about the services available downtown.

3. The downtown Matawan property owners should continue façade improvement efforts to make their businesses more attractive and inviting.

4. The historic nature of the older structures in downtown Matawan should be exploited adequately to create a more nineteenth-century style and capitalize on the historic interest of the area.

5. The residential base of Matawan Borough should be strengthened by encouraging more in-fill housing near the downtown historic Main St. commercial district and between the district and the commuter railroad station.

6. Current traffic patterns in the downtown area should be rethought to encourage more pedestrian and bicycle usage by the new and existing residents living near the commercial area, particularly for those accessing the commuter railroad station. Crosswalks, new and cleaner sidewalks, benches, lighting and shade trees should be incorporated in the Main St. streetscape in order to be more accommodating to pedestrians. Wider sidewalks should continue across the Lake Matawan Bridge to the train station. Similar clear bicycle lanes should be designated on the parallel Broad St., Little St., and Atlantic Ave., which also connects to the commuter station.

7. Current retail, restaurant, and service businesses should identify compatible businesses that are missing from the commercial mix of the downtown. A coordinated effort should be organized to encourage additional entrepreneurs to locate in underutilized downtown properties. A broader range of retail, entertainment, and service offerings will attract more customers for everyone.

8. Development of a comprehensive revitalization plan requires stronger management for Matawan's historic downtown area. This could include:

    a. Development of a stronger management/promotional organization to develop image-building programs and special events for the downtown area - especially early evening events that would invite homeward-bound commuter traffic to stop when passing through.
    b. Creating a more solid financial mechanism - either through a modestly-financed Special Improvement District (SID) assessment of downtown commercial properties, by direct appropriation by the Borough, or by some more regular and reliable method of funding.
    c. Organizing through the SID or through the municipal government a coordination of the various parking options that already exist or which could be further developed off Broad St. and Jackson St. behind the many buildings on Main St. An integrated parking signage program should make access to this parking more visible to vehicles passing through the downtown.
    d. Completing a marketing study to define desirable businesses that might be successful additions for the downtown commercial district as the basis for a follow-up business attraction program for the district.
    e. Developing a traffic-calming program - raised crosswalks, corner neck-downs, and other roadway variations -- that would keep commuter automobiles at a reasonably slow speed as they move through the

historic Main St. commercial district. This should give greater visibility to retail, restaurant, and service businesses, as well as better accessibility for pedestrians.

f. Develop and implement further design standards appropriate for buildings in the historic commercial district. More recent modern buildings should be encouraged to modify signage, awnings, and other façade elements to conform with the established historic look.

One member of the team with particular interest in historic preservation suggested that the Historic Preservation Commission play a more active role in the development of the downtown in several ways:

1. The HPC may want to investigate the possibility of acquiring Certified Local Government (CL) status with the State. To become a CLG, the commission must meet certain federal and state standards. (The State Historic Preservation Office (SHPO) can advise them on these standards.) CLGs are eligible to apply for special grants through the SHPO and can use them for the survey and inventory of historic buildings or archeological sites, the preparation of National Register of Historic Places nominations, writing or amending preservation ordinances, preparing preservation plans, developing designation guidelines, or hiring experience staff to support and guide the Historic Preservation Commission. (For more information on the CLG program, contact George Chidley, CLG Coordinator, at the NJ State Historic Preservation Office - 609/984-6017.)
2. The Commission, with the Downtown Matawan Alliance, could sponsor an event that encourages local residents to come downtown and work together to determine what features and buildings they collectively consider significant. The results of this event could be used to form the basis for design guidelines.

3. When we walked around the downtown, we saw remaining evidence of the town's earlier terra cotta industry. This is reflected in several storefronts, on the façade of the Masonic Temple, and on the bridge connecting the downtown to the train station. One of the buildings associated with this industry apparently still remains near the train station. The preservation of resources associated with this industry should be a goal of the community. This history should be celebrated and made visible as something that is special to Matawan and sets them apart from their neighbors.

4. The town should continue to work with programs like the one at Brookdale Community College, where they had students consider restoration issues related to downtown buildings. Some type of revolving loan fund could

be used by local business owners for restoration and improvement of their buildings, in conjunction with research and documentation of historic appearance the students could provide.

APPENDIX E: NEW JERSEY DEPARTMENT OF TRANSPORTATION

Compilation of Funding Sources for Pedestrian and Bicycle Planning, Programs and Projects

Introduction/Acknowledgements

What follows below is a compilation and brief description of sources of funding which have been or could be used to fund pedestrian improvements in New Jersey. The list is not exhaustive, but there has been an attempt to identify all major funding sources that can be utilized to fund bicycle and pedestrian planning and project development activities, as well as funding construction. In some cases these funds may also be used to fund programmatic activities, as well. There is an emphasis on those funding sources that have been utilized in or are unique to New Jersey.

Much of this material was originally taken directly from a Memorandum on Funding Sources for Innovative Local Transportation Projects prepared by the Tri-State Transportation Campaign, and a paper on bicycle and pedestrian funding within ISTEA prepared by the Bicycle Federation of America. Virtually all of the funding sources which were available for bicycle or pedestrian projects or planning under ISTEA have been continued under the new Federal transportation funding legislation: the Transportation Equity Act for the 21st Century (TEA-21). Additional material has been taken from the USDOT publication "A Summary; Bicycle and Pedestrian Provisions of the Federal-Aid Program."

This material should continue to be viewed as a "work in progress" to be updated as new sources are identified.

New Jersey Department of Transportation
Office of Bicycle & Pedestrian Programs
(609) 530-8062
4/99 & 9/02

Funding of Planning and Programmatic Activities

Federal and/or State Funded Programming Assistance

Technical Studies Program

This program provides federal grants for (consultant based) planning, engineering, design, and evaluation of transportation projects, i.e., studies, not capital improvements or operating costs. Applicants for grants can include state or local governmental entities. Funding can be used to fund pedestrian and bicycle planning activities. Monmouth County has received approval to carry out a planning study to address pedestrian needs and opportunities in several major corridors in the County. Somerset County has received funding for a traffic calming study of selected locations in the county.

Supportive Task Grants

A portion of PL funds passed through to the MPO to support MPO planning activities is, by agreement in the NJTPA passed through to the sub-regions (counties) to fund staff planning activities. Monmouth County has used this funding source to carry out a county-wide pedestrian facilities inventory. The inventory is being used as a basis for developing local lead projects.

Transportation Management Associations

In New Jersey, Transportation Management Associations receive substantial funding assistance through the Department of Transportation. In recent years, these funds have been from Federal sources (CMAQ, or STP). (In the past, funding came from State sources). TMAs have considerable latitude in developing annual work programs to implement Travel Demand Management strategies. TMAs have carried out and are encouraged to continue to develop and undertake work program elements involving the promotion of bicycling and walking, development of bicycling suitability maps- promotional efforts aimed at increasing bicycling and walking, effective cycling presentations, etc.

Local Planning Assistance

This program provides funding to retain consultant assistance for the purpose of fostering sound transportation planning at the local level. The Department partners with municipalities who desire to develop Access Management Plans, local circulation plans and other transportation related plans SDRP designated centers and target neighborhoods under the Governor s Urban Strategies Initiatives receive priority. This funding source could be used to develop local pedestrian/

bicycle circulation plans and facilities inventories. To date, none of the studies funds have been of this type. This program is administered by the Division of Transportation Systems Planning, Bureau of Mobility Strategies, New Jersey Department of Transportation.

Local Bicycle/Pedestrian Planning Assistance

The Department of Transportation has retained the services of consultant teams with expertise in pedestrian and bicycle planning. The consultants are available to provide technical planning assistance to counties and municipalities who wish to develop pedestrian and bicycle local circulation plans and other related studies. Guidelines for participation in the program are available from the Department's Bicycle/Pedestrian Advocate. This program is administered by Division of Transportation Systems Planning, Bureau of Mobility Strategies, New Jersey Department of Transportation.

Corridor and Regional Planning Studies (TDM) Component

The NJDOT Division of Transportation Systems Planning carries out numerous corridor and regional planning studies to determine transportation needs and develop project proposals to address those needs. It is the current policy of the Division to take a multi-modal approach in all planning activities in the Division. The Department has retained the services of consultant teams with expertise in Travel Demand Management (TDM) strategies, including walking and bicycling, to participate in and support other planning activities in the Division. These consultant teams are available to undertake planning studies which examine multi-modal solutions to transportation needs. This could include the accommodation of bicycle and/or pedestrian travel needs. This program is administered by Division of Transportation Systems Planning, Bureau of Mobility Strategies, New Jersey Department of Transportation.

Other Sources of Funding

Bicycle and pedestrian planning activities and programs can and have been funded through local programs included in county and municipal budgets.

Federal Funding of Capital Projects

Federal Funding Under TEA-21

All the major funding programs under the federal Transportation Enhancement Act (TEA-21) include bicycle and pedestrian facilities and programs as eligible activities.

National Highway System (NHS)

The NHS is comprised of the 42,000-mile Interstate system and another 113,000 miles of roads identified by the states based on their importance to the national and regional economy, and their connectivity. NHS funding-for project on NHS roadways- can be used for bicycle and pedestrian improvements on or on land adjacent to any highway on the NHS system, including Interstate highways. This includes incidental improvements within larger projects which enable bicycle compatibility (e.g. paved shoulders, bicycle safe drainage grates, etc., designated bicycle facilities (i.e. bikeways: signed routes, bike lanes, paths), and pedestrian accommodations such as sidewalks, signals, overpasses, crosswalks, etc. It also includes the funding of independent bicycle and pedestrian projects along (within the right of way) or in the vicinity of (associated with) NHS roadways. Independent bicycle and pedestrian projects would be those initiated primarily to benefit bicycle and pedestrian travel. Projects could include shoulder paving, bicycle safe drainage grates, construction of sidewalks or bikeways, installation of pedestrian signals, crosswalks or overpasses.

Surface Transportation Program (STP) Funds

A broadly defined program giving states wide flexibility to invest in a wide variety of transportation activities. Bicycle and Pedestrian facilities and walkways are specifically listed as eligible activities under this program. As with NHS, pedestrian and bicycle improvements may be incidental improvements within larger projects which establish bicycle compatibility (e.g. paved shoulders, bicycle safe drainage grates, etc.), or designated bicycle facilities (i.e. bikeways: signed routes, bike lanes, paths), and pedestrian accommodations such as sidewalks, signals, overpasses, crosswalks, etc. It also can include the funding of independent bicycle and pedestrian projects along (within the right of way) or in the vicinity of (associated with) roadways. Independent bicycle and pedestrian projects would be those initiated primarily to benefit bicycle and pedestrian travel. Projects could include shoulder paving, bicycle safe drainage grates, construction of sidewalks or bikeways, installation of pedestrian signals, crosswalks or overpasses. Under TEA-21, it is specified that these funds may be used for the modification of sidewalks to comply with the Americans for Disabilities Act. A number of projects initiated by NJDOT as bike/pedestrian new starts in FY97 utilizing CMAQ funding (see below) have been programmed (subsequent phases of project development) in out years with STP funds. It should be noted that STP funds may be used for non-construction "projects" (such as maps, brochures, public service announcements) related to safe bicycle use and walking.

Local Scoping and Local Lead Projects

The Local Scoping program (in the MPOs) provides a set aside of federal (STP) funds directly to the sub regions for the advancement of project proposals through the NEPA process, ultimately making that project eligible for inclusion in the TIP (as a Local Lead project). Subregions (counties) apply for inclusion in the program, which are screened through a competitive selection process. Once scoping is completed, projects may advance as local lead projects.

Projects that clearly have no significant adverse environmental impacts may be eligible to move directly to the Local Lead program. Counties (plus municipalities partnering with counties) can receive STP funds for final design and construction of projects that are included in the TIP. Local Lead projects are selected via a competitive selection process.

Each of these sources of funds can be used to advance bicycle or pedestrian projects. As yet, only a handful of local scoping/local lead projects have directly addressed non-motorized needs as independent projects. Local Scoping/Local lead projects can also benefit the non-motorized modes if they incorporate, incidentally, features that address bicycle and pedestrian travel needs.

Transportation Enhancements

This is probably the best known source of federal funds available for pedestrian and bicycle improvements. In each state, ten percent of STP funds must be allocated to a set of 12 specific types of projects known as Transportation Enhancements. Pedestrian and bicycle projects and the conversion of abandoned railway corridors to trails are two of the 12 project types. Other project types, including landscaping/scenic beautification, rehabilitation and operation of historic transportation facilities, such as canals, towpaths, bridges, viaducts, may directly benefit or provide for bicycle and pedestrian needs. A multi-discipline Committee reviews the projects and makes recommendations to the Commissioner of Transportation who makes final selections. The program is administered by NJDOT's Division of Local Government Services.

Hazard Elimination Program

Another STP program set aside, 10% of the STP program is to be used to fund Safety projects. Funding is provided for safety-oriented improvements. Improvements that either directly or indirectly improve conditions for pedestrians can be funded. In New Jersey, the program is administered by the NJDOT Bureau of Traffic Engineering and Safety (in the near future it will be transferred to a new Bureau of Safety Programs. In general, projects are selected on the basis of excessive occurrence of a particular accident type at a given location. This often involves some sort of intersection modification such as resurfacing with a skid resistant pavement surface. In some cases safety improvements have included the installation of pedestrian signal heads NJDOT is revising its project selection process. The new process will include specific accident categories for which projects are to be funded. One of these categories will be pedestrian related accidents.

Congestion Mitigation and Air Quality (CMAQ)

As was the case under ISTEA, under TEA-21, pedestrian and bicycle improvements are among the types of projects eligible for CMAQ funding. In New Jersey, for FY97, the NJDOT initiated approximately a dozen independent bicycle and pedestrian projects utilizing CMAQ funding; later phases of the projects were funded with STP funds.

National Recreational Trails Fund (Symms Trails System Act)

An annual sum is apportioned to the states for use in developing trails related projects many of which benefit bicyclists and pedestrians. Funding is from federal motor fuels taxes collected on sale of fuel for motorized recreational vehicles (ATV's, off road motor cycles, snowmobiles) The program (including solicitation of projects and project selection is administered by the Office of Natural Lands Management in the Department of Environmental Protection. State, county, local governments, and non-profit organizations are eligible for funds.

Scenic Byways

A small grants program under which pedestrian projects may be funded if they are in fulfillment of a management plan for a designated scenic byway. Designation of the scenic bywav must be in accordance with a Scenic Byways program developed and adopted by the state.

New Jersey has adopted a Scenic Byways program, and, as a case study, a management plan for the first proposed scenic byway in the state (State Route 29, in Mercer and Hunterdon Counties along the Delaware River).

Benefits of adoption as a Scenic Byway under the Program could include direct funding of projects (assuming the passage of federal transportation legislation which includes Scenic Byways funding); and, through preferential treatment in the funding/selection process for other funding sources administered by the Department, for projects which are in fulfillment of a scenic byways management plan.

Section 402 Safety Funds

Funds administered by National Highway Traffic Safety Administration (NHTSA) to be spent on non-construction activities to improve the safety of the traveling public. Pedestrian and bicycle projects are on the NHTSA priority list. In each state, the program is administered by a designated Highway Safety representative. In New Jersey, the designated representative is the Director of the Division of Highway Traffic Safety in the Department of Law and Public Safety.

Pedestrian projects have been funded, including the development and dissemination of brochures and PSAs promoting safe pedestrian practices and a 3-E (Engineering. Enforcement, Education) program in cooperation with the City of Trenton which includes road signs and crosswalk marking. Recently, cooperative pedestrian safety programs have been implemented with Jersey City and Elizabeth. This program may be repeated in other communities with high pedestrian accident experiences, where there is local support.

Federal Transit Administration Funds

Title 49 U.S.C. (As amended by TEA-21) allows the Urbanized Area Formula Grants, Capital Investment Grants and Loans, and Formula Program/or Other than Urbanized Area transit funds to be used for improving bicycle and pedestrian access to transit facilities and vehicles.

TEA-21 also created a Transit Enhancement Activity program with a 1% set-aside of Urbanized Area Formula Grant funds designated for, among other things, pedestrian access and walkways and bicycle access, including storage equipment and installing equipment for transporting bicycles on mass transit vehicles.

Federal Community Development Block Grant (CDBG) Program

Federal block grant funding from the Department of Housing and Urban Development can and has been used to fund pedestrian improvements. Projects must occur in eligible low or moderate income areas (as defined by HUD) or benefit special needs groups. Funding flows directly to counties and municipalities. In Monmouth County, for example, a compact of 49 of the 53 municipalities worked together to identify and select eligible projects (in 1997, $ 3.854 million was available to fund projects). Some municipalities receive funding directly. Examples of projects funded which benefit pedestrians has included streetscape improvements, sidewalk installation, curb ramps, and building modifications to meets ADA access requirements.

State Funding of Capital Projects

Local Aid for Centers of Place

A New Jersey Department of Transportation funding program designed to assist municipalities who have formally participated in implementation of the New Jersey State Development and Redevelopment Plan (SDRP). Such participation entails designation as a Center by the State Planning Commission, preparation of a Strategic Revitalization Plan and Program which has been approved by the Commission, or entrance into an Urban Complex, which has been approved by the Commission. The program provides the opportunity to apply for funds to support non-traditional transportation improvements that advance municipal growth management objectives as outlined in the action planning agenda of the municipality.

Participation of municipalities in the SDRP ensures eligibility to compete for funds in the program. Typical projects include:

o pedestrian and bicycle improvements
o adaptive reuse of abandoned railway corridors (pedestrian and bicycle trails)
o scenic or historic transportation improvements
o landscaping/beautification of transportation related facilities (streetscape improvements)
o rehabilitation of transportation structures

In general, eligible projects are similar to Transportation Enhancements projects, but only SDRP municipalities are eligible to apply for funding. Allowable costs include preliminary engineering, design and construction. An annual solicitation for project proposals sent to all eligible municipalities. The program is administered by the NJDOT Division of Local Government Services in cooperation with the Bureau of Statewide Planning.

County Aid Program

This program provides funding to counties for transportation projects. These funds are allocated to New Jersey's 21 counties by a formula that takes into account road mileage and population. Annually, each county develops a Capital Transportation Program that identifies all projects to be undertaken and their estimated cost. Projects may include improvements to public roads and bridges under county jurisdiction, public transportation or other transportation related work. Funding can be used for design, ROW, and constriction.
Independent pedestrian and bicycle projects can be funded under the county aid program,
however, few independent pedestrian and bicycle projects have been funded, to date. The challenge is to encourage counties to include pedestrian and bicycle projects among those that they propose to fund.

As "state funded" projects, all projects funded under county aid program are subject to the NJDOT policy that requires that all "...bicycle and pedestrian traffic should be incorporated into the planning, design, construction and operation of all projects and programs funded or processed by the NJDOT." The Department of Transportation will continue efforts to encourage counties to comply with this policy mandate.

Municipal Aid Program

The Municipal Aid Program provides funding to municipalities for transportation projects. Funding is made available for municipalities in each county based on a formula that takes into account municipal road mileage within the county and county population. These funds are allocated to individual projects within various municipalities through a competitive process. Funding is allotted to municipalities that qualify for Urban Aid under N.J.S.A. 52:D-178, et. seq.

All 566 municipalities may apply. Projects may be improvements to public roads and bridges under municipal jurisdiction. Applications are solicited, evaluated, and rated by NJDOT staff. The results are presented to a Screening Committee comprised of Municipal Engineers and Department Staff- appointed by the Commissioner. The Committee evaluates the projects and makes recommendations to the Commissioner for approval.

The Department will pay 75% of the award amount at the time that the award of construction is approved by the Department. The remaining amount is paid upon project completion.

As is the case with the County aid program, independent pedestrian and bicycle projects can be funded under the municipal aid program; however, few if any independent pedestrian and bicycle projects have been funded through this program. Municipalities need to be encouraged to include pedestrian and bicycle projects among those which they propose to fund, and make such adjustments in the program and project selection process so that these projects are ultimately selected and funded.

As with county aid projects, all projects funded under municipal aid program are subject to the NJDOT policy which requires that all "...bicycle and pedestrian traffic should be incorporated into the planning, design, construction and operation of all projects and programs funded or processed by the NJDOT."

Discretionary Aid Program

The Discretionary Aid Program provides funding to address emergency or regional needs throughout the state. Any county or municipality may apply at any time. These projects are approved at the discretion of the Commissioner.

As "state funded" projects, all projects funded under the discretionary aid program are subject to NJDOT policy which requires that all "...bicycle and pedestrian traffic should be incorporated into the planning, design, construction and operation of all projects and programs funded or processed by the NJDOT. "

The Department will pay 75% of the award amount at the time of the award of construction with the remaining amount to be paid upon project completion.

In FY98 and FY99 this program was used a significant funding source for independent pedestrian and bicycle projects. In FY98, the Commissioner earmarked a minimum of $1.5 million of Discretionary Aid to be used for pedestrian projects. In FY99, $1.5 million was earmarked for pedestrian projects, and $10.0 million was earmarked for bicycle projects.

Locally Initiated Bicycle Projects

Provides funds for municipalities and counties for the construction of bicycle projects. These could include roadway improvements which enable a roadway or street to safely accommodate bicycle traffic, or designated bikeways (signed bike routes bike lanes or multi-use trails). The solicitation for project applications occurs at the same time as the solicitation for municipal aid projects. Applications are solicited, evaluated, and rated by NJDOT staff. Based on this evaluation, a list of recommended projects is proposed to the Commissioner of Transportation, who makes the final selection. The program is administered by NJDOT's Division of Local Government Services.

Locally Initiated Pedestrian Projects

Provides funds for municipalities and counties for the construction of pedestrian access and safety improvements. The solicitation for project applications occurs at the same time as the solicitation for Municipal Aid projects. Applications are solicited, evaluated, and rated by DOT staff. Based on this evaluation, a list of recommended projects is proposed to the Commissioner of Transportation, who makes the final selection. The program is administered by DOT's Division of Local Government Services.

Livable Communities Pilot Program

This new (2002) program provides additional funding to municipal governments for planning, design and implementation of projects to further investments in the statewide transportation infrastructure and/or to support non-traditional transportation projects developed at the local level to advance community based needs and goals. The framework for the program is based upon the highly successful Transportation Enhancement Program federally funded through TEA-21. NJDOT's FY03 Budget includes $9 million that has been earmarked to fund "statewide livable communities" initiatives through program. These funds are above and beyond the funding made available through the Transportation Trust Fund and the Transportation Equity Act for the 21st Century (TEA-21). Eligible project costs include planning, strategic planning, design and construction. The program is administered by the NJDOT Division of Local Aid.

County or Municipal Capital (Public Works) Funding

County or Municipal funding can be used to fund pedestrian improvements sidewalks trails crosswalks signals, traffic calming, etc, on rights of way under county or municipal jurisdiction by including the project in the municipal (or county) budget, or bonding for it, just as they are used to fund the construction and rehabilitation of roadway improvements for cars. Pedestrian improvements can be fully or partially assessed against the property owners along whose frontage the improvement (ordinarily a sidewalk) is placed.

As with other categories of funding, bicycle and pedestrian improvements may be incidental to (a part of) larger, roadway projects; or they can be independent, i.e. solely to address pedestrian needs.

Even small amounts of funding in county or municipal sources can be very important since they may be used to leverage or show local commitment in applications for other funding sources (e.g. TE, Local Aid For Centers, etc.).

Special Assessment Districts

Another form of municipal funding is through the creation of a local Special Improvement District (SID). The Borough of Fair Lawn (for example) established a Special Improvement District in which assessments are made on those seeking to develop or improve property. The Borough provided $100.000 in matching funds. The funding is used for infrastructure improvements including pedestrian improvements within the district. Here, also, funding can be used to leverage or show local commitment in applications for other funding sources.

Transportation Development Districts (TDD)

A Joint state/county program in New Jersey in which transportation improvements within a defined growth area are funded through a combination of public funding and developer contributions (for new developments) within the district. Theoretically, independent pedestrian improvements can be included in the infrastructure improvement plan developed through a joint planning process for the district, and funded through the TDD.

Green Acres

State Green Acres grants and loans can and have been used to fund pedestrian projects such as multi use trails and trail head facilities. Funding for state, county and local governments (and non-profits - acquisition only with a 50% match) is available for land acquisition and facilities development. The source of these funds is state bond issues. The program is administered by the Green Acres Office m the Department of Environmental Protection.

Developer Provided Facilities

The current Residential Site Improvement Standards currently in effect in New Jersey require new residential developments to include sidewalks. Other municipal and state zoning or access code regulations have been used to require developers to provide both on site and off site improvements to benefit bicycle and pedestrian traffic.