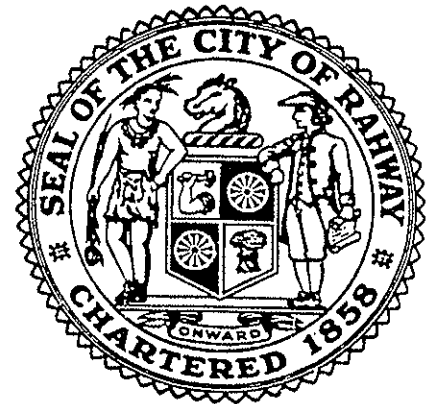


# Master Plan

## for the City of

# Rahway



## Acknowledgments

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The Rahway Planning Board\*  
The Rahway Zoning Board of Adjustment\*  
The Rahway Center Management Corporation\*  
The Rahway Truck Traffic Group  
The Rahway Knights of Columbus  
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\* A list of individuals on these boards is provided on the next three pages.

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## 1. INTRODUCTION

Over the past two decades since the last Comprehensive Master Plan for the City of Rahway was prepared, the City has been subjected to regional economic and real estate forces which have produced profound change in the City. The manufacturing sector, which heretofore had been the backbone of the economy of the nation and of New Jersey, has declined, giving way to increased jobs and activity in the service sector. For example, in 1956 six manufacturing concerns in Rahway—Allen Industries, Merck and Company, Purolator Products, Quinn and Boden Company, the Regina Corporation, and Tingley Rubber Corporation, employed 6,740 persons, 85 percent of the City's working population. Today only Merck and Company remains in Rahway. Retailing has fled the downtown for regional malls and highway strip developments. Truck and vehicular traffic, and the reliance on major highways for passenger and freight movement has displaced rail and waterborne forms of transportation. The population is maturing and aging, living longer and independently from their sons and daughters.

Such forces have had a tremendous impact on cities like Rahway, which built itself around manufacturing, a friendly and vibrant downtown, good, moderately-priced housing, a solid public school system and community facilities, and very active philanthropic, civic and fraternal clubs and organizations. While the decline of employment in the industrial sector and the loss of retail dollars from the downtown have impacted Rahway, the residents and government, unlike many of Rahway's neighboring communities, took a very pro-active role in attempting to foster economic development in Rahway and retain its good qualities. Such recognition and the retention of a favorable industrial climate in the City has allowed Rahway to retain the high level of employment (such as Merck & Company, Inc.) while encouraging the expansion of the Rahway Hospital, as well as myriad other, smaller manufacturing and business enterprises. The City formulated a plan to revitalize the Central Business District in 1990 and the Rahway Center Partnership was formed. The City has rebuilt its community facilities—City Hall, the new firehouse and post office, and has undertaken renovation of its cultural facilities—the Union County Arts Center. Housing rehabilitation has been encouraged and assisted with public funding and new housing, including higher density housing to serve a variety of income levels and households, has been built. Housing and businesses in the path of frequent flooding have been acquired and cleared, and the land they were on has been added to the inventory of open space. Plans to revitalize Rahway's riverfront have proceeded and new walkways and bike trails have been added. Improvement in stormwater drainage and water quality have been ongoing. Improvements to schools, the library, and the police force are being instituted. A program of removing obsolete fuel storage tanks throughout municipal facilities is being undertaken.

downtown has also been instrumental in preparing this plan. (A list of acknowledgments appears in the front of this Master Plan.)

The master plan which follows is comprised of a series of goals and objectives followed by nine elements: the land use plan element (which includes the land use plan for the future of Rahway), the housing plan element (which also addresses the City's fair share housing obligation), the economic plan element (incorporating supplementary market analyses and recommendations for the revitalization of the downtown), the utilities plan element, the community facilities plan element (including plans for renovating one community center and building a second new center), the open space and recreation plan element (including the new Rahway recreational bikeway), the circulation plan element (incorporating the ongoing train station rebuilding project), the historic preservation plan element (which proposes adopting an historic preservation ordinance), and the recycling plan element.

## 2. GOALS AND OBJECTIVES

The goals and objectives of the Rahway Master Plan are as follows:

- Maintain a proper balance between land uses so that the City's population is adequately served by a sound employment base and sufficient services.
- Protect residential neighborhoods from commercial, industrial and office encroachments.
- Provide adequate public facilities for the City's population, including schools, parks, libraries, recreation/open space, fire and police, and solid waste disposal.
- Provide an opportunity for the development of housing of various types and sizes, to meet the needs of people at various stages in their life cycle.
- Encourage adequate affordable housing opportunities, especially for young families and senior citizens.
- Encourage mixed-use development where appropriate, such as residential uses within selected commercial/retail zones.
- Ensure that new development on vacant or underutilized land is in keeping with existing neighborhood character.
- Preserve open space and protect natural, cultural and historic resources.
- Provide a systematic plan for the acquisition of riverfront and upland parcels for additional open space and parkland.
- Provide social services adequate to meet the needs of elderly and handicapped residents, as well as increased need for child care.
- Encourage the revitalization of the downtown area of the City through partnerships between the public and private sectors.

- Provide adequate infrastructure to meet the needs of industry.
- Provide for efficient and safe traffic circulation in the City. This should be achieved while the aesthetic quality is maintained, especially along residential streets.
- Optimize alternative modal choices within the City, in particular to access the railroad station. Access modes other than parking at the station should be encouraged, i.e., buses, jitneys, taxis, walking, bicycles, etc.
- Protect lives and property from flood damage through stormwater control and management.
- Encourage the redevelopment of Brownfield sites (underutilized and contaminated industrial sites) in the City.
- Improve development approval process by providing all zoning, subdivision and land use procedures under one comprehensive land development ordinance.

### 3. LAND USE PLAN ELEMENT

#### 3.1 BRIEF HISTORY OF RAHWAY<sup>1</sup>

Settlers from Long Island and New England were given land grants in the Rahway area in 1665. The major attraction of the settlement was the Rahway River, named after a Lenni-Lenape chief by the name of Rahwack. Various settlements came into being over the next 20 years, particularly when mills were built along the river. By 1700 there were several roads to Rahway, and St. Georges Avenue, known then as the King's Highway, ran from Elizabethtown to Philadelphia through Rahway.

In 1757 the Rahway Quakers built a meeting hall on Main Street. By 1770 St. Georges Avenue had five inns, including the Merchants and Drovers Tavern and Terril Tavern, which survive to this day. Rahway Township was created in 1804, actually consisting of present-day Rahway and Clark and sections of Cranford and Linden. Growth along the river was aided by the shipping industry, and public docks were built within Rahway. Ships departed directly from Rahway to destinations such as New York and even as far away as Bristol, England.

Development in Rahway was accelerated by the building of the railroad in 1835. Between 1837 and 1856 the town's population swelled from 3,000 to 7,000 persons. Rahway became the County's most industrialized municipality, with carriage making as its primary industry. In the latter part of the nineteenth century, the manufacture of clothing was also a major industry.

Rahway was incorporated as a City in 1858, the year following the formation of Union County. Rahway became increasingly urbanized with the lighting of city streets in 1857, the creation of the library in 1869, and with the construction of an opera house on Irving Street in 1874. The turn of the century marked the end of the carriage industry, but new enterprises such as Merck and Company (1903) and the Wheatena Company (1907) replaced them. Residential development, including both affluent suburban housing and worker housing, was being built in Rahway. Schools were added, banks were opened, the County Park was established, the railroad was elevated, and State Highway 25 (later US 1) was constructed.

Following a period of decline during the depression, the post-World War II era saw unprecedented housing development. Areas of Rahway were redeveloped, such as St. Georges Avenue, while ur-

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<sup>1</sup>A more complete historical description, with reference to historical districts, buildings and street-scapes is provided in 10. Historic Preservation Plan Element.

ban renewal programs of the 1960s saw the replacement of many older structures on the Rahway River. Much of Rahway was now fully developed, and smaller infill residential and retail development—particularly on US Route 1 & 9 and St. Georges Avenue—was prevalent. The last few decades have marked a period of stability in Rahway, with little new development and, with the decline in household size, a loss of some population.

### 3.2 NATURAL CONDITIONS IN THE CITY OF RAHWAY

#### A. Topography

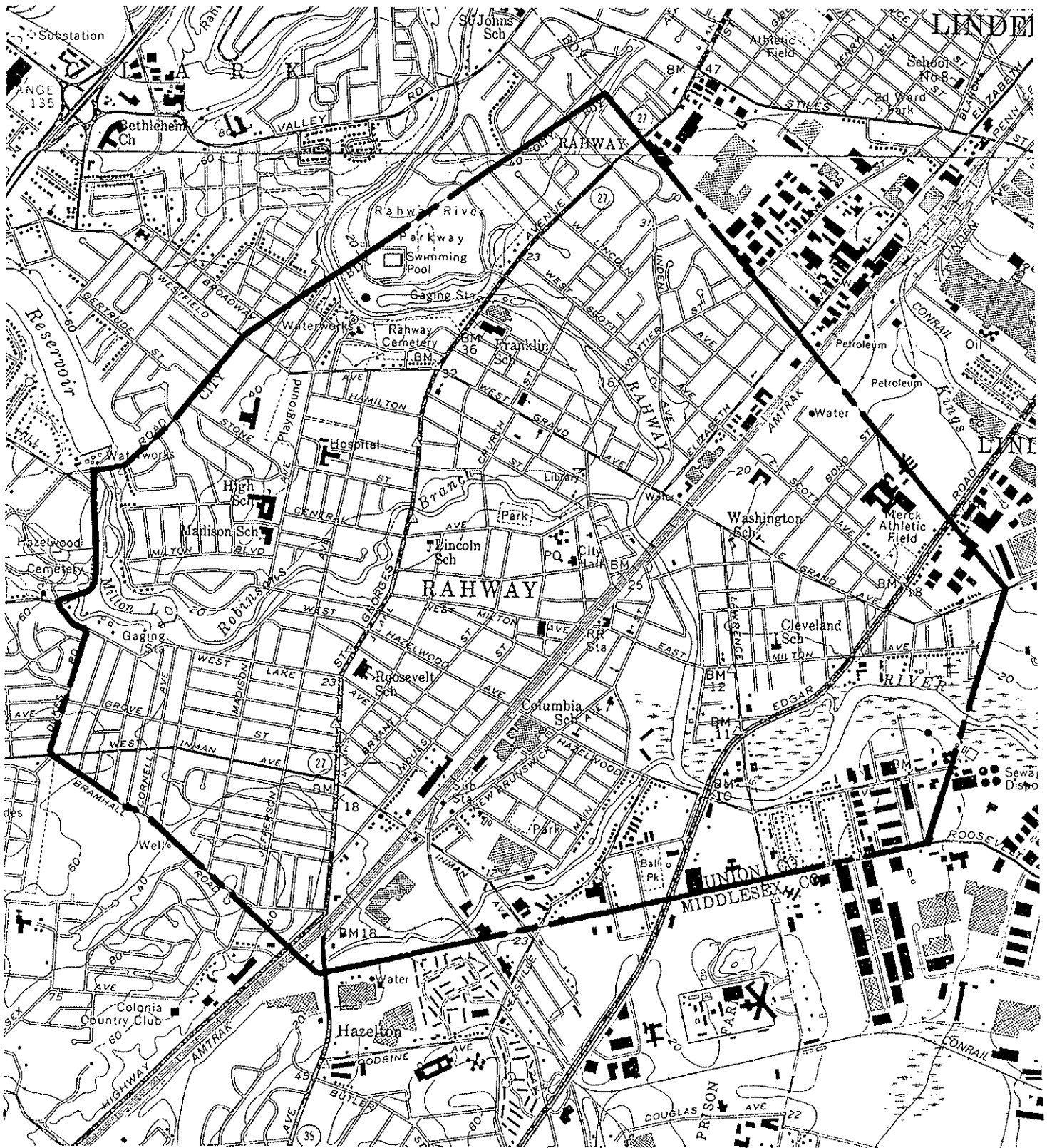
The City of Rahway has a particularly flat topography due to its location at the confluence of the three branches of the Rahway River, the North and South Branch and the Robinson's Branch, and the terminus of the Rahway River (see Figure 3.1). Owing to these tidal or nearly tidal streams, over ninety percent of Rahway has a slope of less than two percent. Of the remaining areas of the City, nine percent of the land area of Rahway has slopes of between two and seven percent. The remaining one percent of Rahway's land area is comprised of land with slopes between eight and fifteen percent (11.2 acres of land), while land which has slopes over fifteen percent comprises only 2.8 acres. Such level topography is obviously extremely conducive to urban development, but has also led to problems of surface drainage and flooding.

#### B. Geology and Soils

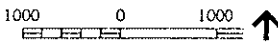
Rahway lies entirely within the Piedmont Plains subprovince of northern New Jersey. Comprising one-fifth of the total area of New Jersey, the Piedmont Plains subprovince extends southwestward from the Hudson River, between the Coastal Plain Province and the Highland Plain subprovince. Rahway is located at the eastern end of the subprovince where the topography flattens out toward sea level at the Arthur Kill and Newark Bay.

The subsurface of Rahway consists of bedrock of soft red shale and red sandstone, overlain by glacial deposits (ground terminal moraine), alluvial deposits and tidal marshes.

Ground moraine represents about 82 percent of the subsoil in Rahway, and is composed of unstratified glacial materials deposited during the Wisconsin Glaciation (i.e., Wisconsin period of the ice age). These soils are composed of silts and sands intermixed with clay, gravel, cobbles and boulders which were transported from significant distances and a variety of locations during glaciation. Red



SOURCE: PERTH AMBOY AND ROSELLE  
USGS QUADRANTS



3.1 Topography



shales and sandstone predominate, with these soils exhibiting a yellowish hue at the surface and reddish colors in the subsurface. Such soils have poor drainage characteristics, which are aggravated by their relatively high water tables and their flat gradients.

Recent alluvial soils comprise about 13.2 percent of Rahway's soil types. Consisting of riverine deposited particles of silt and clay, they are located predominantly adjacent to Rahway's stream channels. The character of these soils has been altered somewhat by their location in poorly-drained areas along stream beds. These soil types have very poor drainage characteristics and in some cases exhibits swamp-like characteristics.

The areas of tidal marsh account for only 1.1 percent of Rahway's soils. Composed of stratified silty clay, they are both very soft and compressible. The top layer of 2 to 5 feet is composed of an organic layer of decomposed organic material resulting from tidal marsh plant growth. Below this, a layer of highly-compressible sediment is found, up to depths of 100 feet. These soils are found in flat tidal areas and have exceedingly poor drainage characteristics. Such land is obviously unsuitable for any form of development.

### C. Wetlands

According to the National Wetland Inventory (NWI) maps of the US Department of the Interior's Fish and Wildlife Service, there are several areas of wetland, both freshwater and estuarine, within Rahway.

There are three types of freshwater wetlands in Rahway, as follows. Palustrine open waters include areas adjacent to and including the North Branch of the Rahway River at the Rahway River County Park and Milton Lake at the Milton Lake County Park. Palustrine forested wetland includes land adjacent to the North Branch of the Rahway River along the Rahway River Parkway, currently vacant property located south of Hazelwood Avenue between Leesville Avenue and US Route 1 (the Masonic Home property), vacant land in the vicinity of Flanagan Field at the eastern end of Rahway, and in the industrial areas located adjacent to the Robinson's Branch of the Rahway River south of New Brunswick Avenue (in the vicinity of the Dri-Print Foil plant). Palustrine scrub-shrub wetland is found along the Rahway River behind the Union County Resource Recovery Facility and in the lower Essex Street area, where the City will acquire several parcels of land and clear structures for conservation purposes.

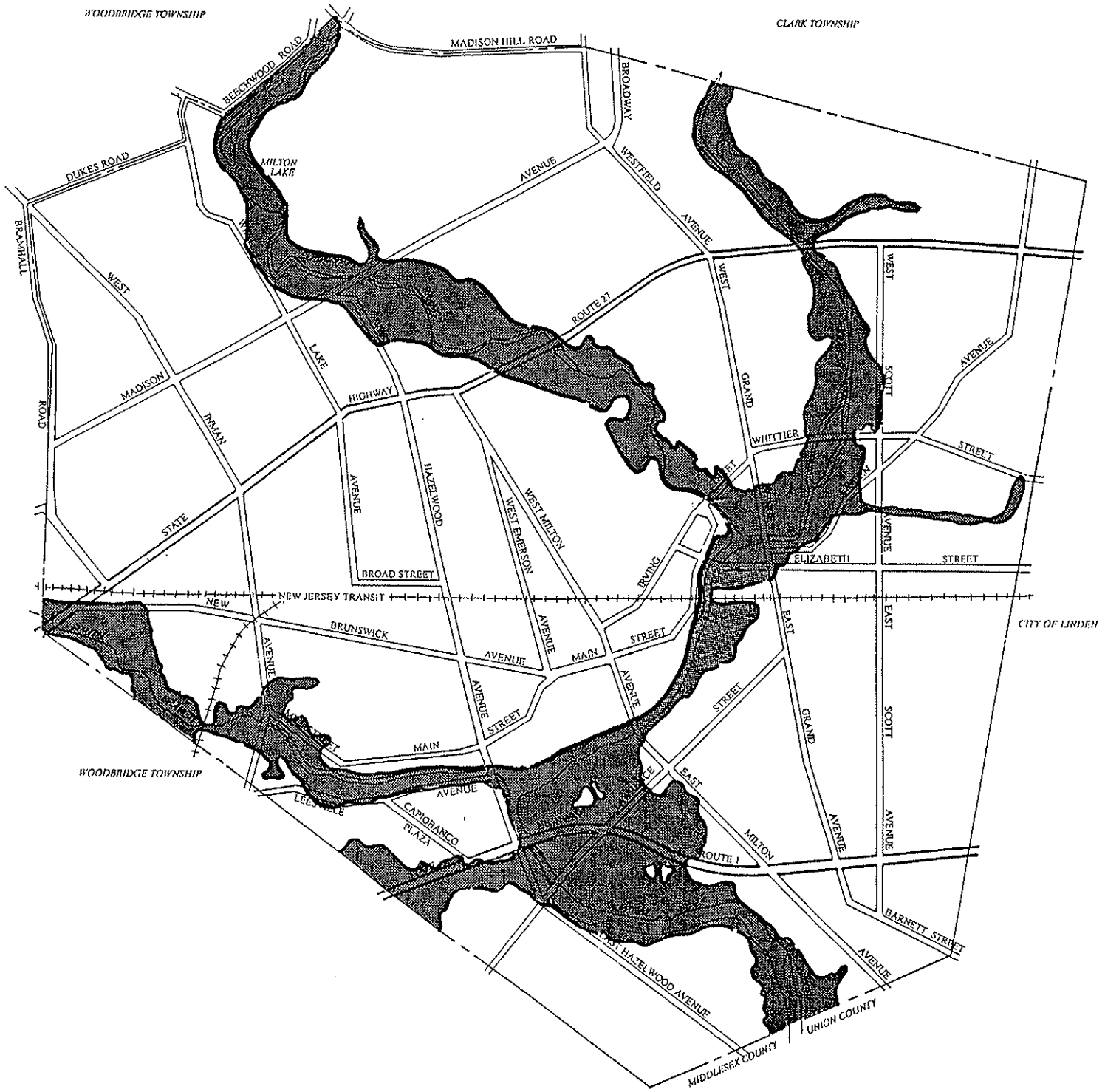
There are two types of estuarine wetlands in Rahway. Estuarine tidal emergent wetlands are located on both sides of the Rahway River at the City's eastern boundary (i.e., where the river leaves the City), and adjacent to the river at the southern end of Beacon, Barnet and Henry Streets. Estuarine subtidal open water wetlands include the whole of the Rahway River from where it crosses under the train tracks to its point of departure from the City and the Robinson Branch of the Rahway River from Regina Avenue to its confluence with the Rahway River.

For the most part, these wetland areas have remained as undeveloped vacant land, and have been acquired by the City or County for conservation and open space purposes. In the past, a few smaller areas, such as in the industrial areas south of New Brunswick Avenue and on the site of the Resource Recovery Facility, have been disturbed or filled in. Owing to the present location and ownership of much of the wetland areas in Rahway by the City and County, and their use as conservation areas and parkland, the remaining wetland areas are protected, and would have little impact upon development or redevelopment proposals in the future.

It should be noted that the NWI is not an entirely accurate survey of wetland areas; most of the mapping was derived through aerial photo interpretation. As such, smaller and more localized areas of wetland could exist in Rahway. As per the New Jersey Freshwater Wetlands Protection Act of 1987, such areas are protected, and the development or disturbance of these areas, as well as land adjacent to them (called buffer or transition areas) are strictly regulated by the New Jersey Department of Environmental Protection. Applications for development or redevelopment in these areas are thus required to comply with the Wetlands Act, and permits to fill or disturb these areas are required.

#### D. Drainage and Flooding

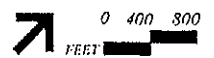
Stormwater drainage and flooding within Rahway represents the largest single physical constraint to development within Rahway. Flooding in Rahway is not merely confined to areas adjacent to the three branches of the Rahway River and the Rahway River itself, but owing to Rahway's extremely flat topography, extend significantly beyond these areas (see Figure 3.2). Factors which exacerbate these flooding effects are the poor drainage qualities of Rahway's soil; the fact that much of the City has been urbanized and is covered by impervious surfaces (buildings, roads, driveways, parking areas, walkways, etc.) which do not permit precipitation to percolate into the subsoil, but to flow over land as stormwater runoff; the tidal effects of the Rahway River which cause the river to rise at certain times, lowering its capacity to retain runoff; and finally, Rahway's location at the terminus or low point of the vast Rahway River watershed, which stretches from Rahway to Millburn and Summit in the

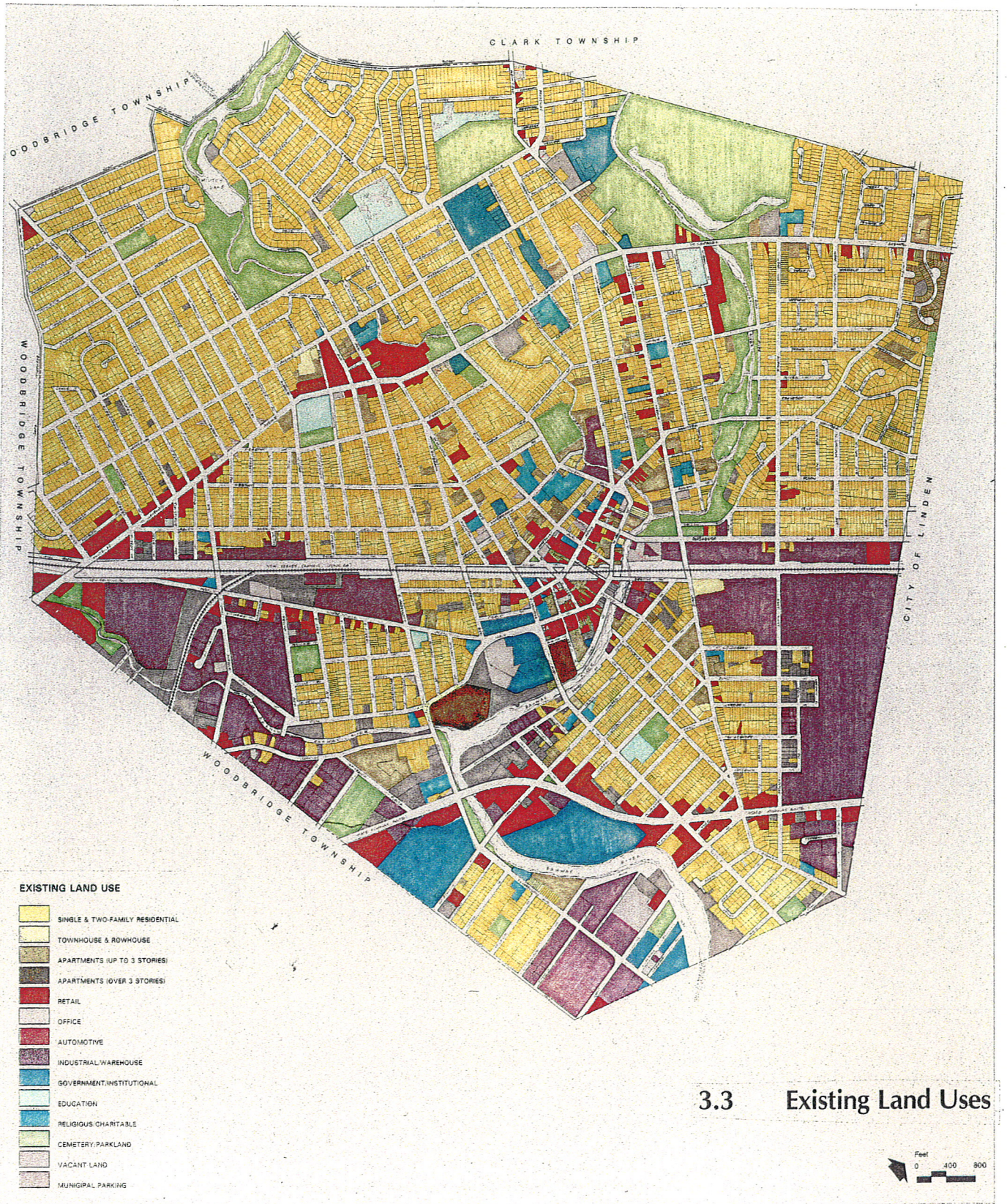



 AREAS WITHIN 100 YEAR FLOOD PLAIN

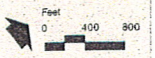
SOURCE: NATIONAL FLOOD INSURANCE PROGRAM  
 FIRM MAP, CITY OF RAHWAY, AUGUST 2, 1982

### 3.2 One Hundred Year Flood Plain





### 3.3 Existing Land Uses



north, to Westfield, Plainfield and Scotch Plains to the west, and Edison to the south—an area which itself has become paved over by urbanization leading to greater volumes and velocities of stormwater runoff. As a result, a substantial portion of Rahway's total land area is flood prone (see Figure 3.2).

Over the years, Rahway, with the aid of Federal agencies such as the Army Corps of Engineers, and State agencies such as the New Jersey Department of Environmental Protection, has embarked upon programs to ameliorate or lessen the impacts of flooding on persons and property in the City. Both physical flood control measures have been instituted (e.g., building of levees), increasing the network of storm drains and separating them from sanitary sewer mains to lessen or control such flooding, and buildings and structures (particularly housing) which have been particularly vulnerable to flooding have been acquired and cleared, and the residents or business tenants have been relocated. Much of this acquired land has been added to the inventory of open space and conservation areas within Rahway. These actions have ameliorated those land uses which have been most flood prone and vulnerable to damage by storms of a frequent magnitude (i.e., 2-, 5- or 10-year storms). However, there are still fairly large areas of Rahway which are developed and occupied and which would be subjected to potential flooding during storms of a larger magnitude (i.e., a 100-year storm).

### 3.3 EXISTING LAND USES

Existing land uses in Rahway are shown on Figure 3.3 and described below.

#### A. Residential Uses

Property devoted to residential uses in the City of Rahway amounts to 955 acres. This represents 71.3 percent of all developed land within the City.<sup>2</sup> The total area of land devoted to residential uses when the prior land use element of the master plan was completed in 1973, was 969 acres. There has thus been a diminution of residential land to the tune of 14 acres in the past 23 years.

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<sup>2</sup>The total "developed" area of Rahway is the sum of all land areas devoted to residential, commercial, industrial and vacant uses, which is 1,340 acres. Total land use area does not include land devoted to roads, waterways, parks or public uses—that is, non-ratable land. Rahway, in total, covers 2,554 acres, or 3.99 square miles.

## **Highway Commercial Uses**

The commercial areas which are located along US Route 1 & 9 in Rahway are comprised of highway-oriented uses, serving predominantly a regional customer base made up mostly of transient travelers on US Route 1 & 9, and to a lesser degree, Rahway residents in the surrounding neighborhoods. Retail establishments are those typically found on such highways—gas stations, automobile sales, motels and hotels, and fast food restaurants, but the highway also provides places for a number of free-standing comparison goods stores—furniture, lumber and auto supplies. What is somewhat unusual of this particular highway business area is the fact that most of the establishments are small, and located on properties which do not have much depth and therefore overall size. As a result, smaller individual freestanding establishments are the rule, as opposed to strip centers and shopping centers found elsewhere along US Route 1 & 9 in other nearby communities. Parking is provided in off-street lots, most typically in the front yard, supplemented by on-street parking along side streets. At the southern end of this retail area, due to the elevated nature of US Route 1 & 9, direct access and frontage are missing and more marginal retail uses and manufacturing uses are found. With the proposed realignment of US Route 1 & 9 (see Circulation Plan Element), even more of this direct frontage will be lost, although with intersection improvements and frequent on- and off-ramps retail development will still be possible.

## **Central Commercial Uses**

Central business uses predominate in the retail core of the downtown.<sup>4</sup> These areas include not only establishments providing convenience and comparison goods and services, but have a more mixed-use character with business service uses, cultural and arts-related establishments, banks, professional and other small office uses, philanthropic and civic oriented establishments and even residential apartments. The core of the downtown is mostly focused on Irving Street and Main Street between the railroad trestle and East Milton Avenue, but includes uses oriented to some of the side streets in the area, most particularly Cherry and Lewis Streets. What distinguishes the central business uses, or this downtown core, from the surrounding service retail area which envelopes it (to be described next) is the focus on serving the pedestrian customer, the so-called walk-in trade, or those customers who have driven to and parked in the downtown for shopping, eating, entertainment or other business-related functions whose duration is longer than a convenience shopping trip. Moreover, the goods and services provided are those sought by everyday or weekly shoppers, drawn from

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<sup>4</sup>For a more detailed discussion of the Central Business District see Economic Plan Element.

the surrounding residential areas and communities, unlike the service businesses who offer their specialized services to other businesses, contractors or a small segment of the shopping public.

Parking in this area is provided on-street as well as in a series of large municipal parking lots (maintained and administered by the Rahway Parking Authority) and smaller private parking lots interspersed throughout the downtown. For the most part, the retail establishments are small and restricted to the ground floor. No major retail anchors exist within the downtown. A complete listing of existing uses in the downtown area is provided in Appendix C of the Economic Plan Element, and a more detailed discussion of the land use issues in the downtown is provided in the Economic Plan Element itself.

### **Service Commercial Uses**

At the fringes of the central business district on such streets as West Main Street, the extension of Irving Street above West Main, Campbell Street, Elizabeth Avenue, Elm Avenue, Bridge Street, Monroe Street, and portions of Essex Street, are service retail uses. These retail uses are primarily service oriented, serving both other businesses and contractors, and the general public. Rather than relying upon the walk-in trade, these uses provide specific services to customers in the surrounding neighborhoods and region, who in most cases will make a specific trip to visit these uses. Such establishments as caterers, antique dealers, cabinet makers, electrical supply stores, art studios, and construction offices are found here, interspersed with residential and office uses. This service retail area capitalizes upon its proximity and accessibility to downtown Rahway, but with less visibility and walk-in trade and with fewer parking spaces available, offers a central location with lower rents. These service retail areas also serve as business incubators for the downtown, retail businesses just starting out that cannot compete with such uses as banks and drug stores for high rental spaces. They also provide space to arts-related uses, which are becoming an increasingly important sector in the downtown economy and helping to transform and revitalize the downtown as a niche shopping market. Establishments in this area are mostly small, and often without much of a visible storefront (i.e., without glass windows to showcase their wares), since it is services rather than goods, that are being offered. Parking is provided mostly on-street and in small private lots interspersed throughout the area. These service retail areas also provide a good transition between the more intensive central business district retail uses in the downtown and the residential areas surrounding the downtown.

## **Single-Family and Two-Family Residential Uses**

The predominant form of development in Rahway is single-family residential units which comprise a total of 6,109 units, or 65 percent of the City's housing stock (as of 1990).<sup>3</sup> Most of this development is located on uniformly small, rectangular lots laid out in a grid-like street pattern throughout the City. Two areas where slightly larger residential lots are located are between Kaminsky Drive, Moses Drive and Stone Street, and on the north side of West Lake Avenue. A majority of the City's single-family homes are located west of the New Jersey Transit Railroad Line, which with the exception of commercial and multi-family uses located in the central business district, along St. Georges Avenue and West Grand Street, and aside from the parks located along the north and south branches of the Rahway River, dominate this area of the City. To the east of the rail line, such single-family neighborhoods are more compact and are surrounded by industrial areas or commercial areas of the central business district or Route 1.

Within these single-family neighborhoods, two-family units do exist, even though these are not permitted under current zoning. There are a total of 420 two-family units in Rahway. Some were established prior to the advent of such zoning restrictions, or were granted variances and some may have even been converted illegally. Since it is not always possible to distinguish these units from single-family uses from an exterior view, two-family uses and single-family uses are shown on the Existing Land Use Map as a single land use category.

## **Townhouse or Row House Uses**

There is a small inventory of townhouse or row house uses in Rahway—these being defined as attached multi-family units wherein the physical separation occurs by means of vertical party walls (as opposed to the stacking of units in the case of apartment projects). Some of the row house projects are old; one is located on the north side of East Milton Avenue between Essex and Lenox Streets; another is located on the corner of Bryant Street and Central Avenue. Others are more modern, having been built in the late 1980s, when this form of multi-family housing surged in popularity throughout New Jersey. The most recent example is the townhouse project located on East Grand Avenue adjacent to Merck, and the railroad trestle (known as "36 East Grand Avenue"). This form of housing accounts for only a minor portion of Rahway's housing stock, the exact number of which is not available

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<sup>3</sup>It should be noted that the single-family housing unit total includes 533 attached units. An indeterminate number of these are townhouses and row houses, as discussed below.



from the 1990 census. Despite its small number, its presence adds to the variety of housing opportunities in the City, and may well be the choice of housing for redevelopment or new development in areas of Rahway zoned for multi-family development in the future.

### **Low-Rise Apartments**

The predominant form of multi-family housing in the City is low-rise apartments. Such apartments are provided in many different forms. Some are older, small apartment buildings or converted single-family buildings dating back to before the second World War. Most of these are located at the fringe of the downtown area, such as on Campbell Street. Apartments are also found above retail uses—particularly in the downtown—in buildings dating back to the earlier part of the twentieth century. Some apartments have been more recently created through the conversion of buildings devoted to manufacturing or offices uses. An example is the old Regina factory conversion, located on Broad Street. Another is the conversion of the old City Hall on Campbell Street into a three-story apartment complex. There are also the garden apartment style complexes built immediately after World War II, typically in brick structures, containing two stories and having pitched roofs. The largest of these complexes are located off Audrey Drive and Alden Drive at the northeastern boundary of Rahway.

A number of the low-rise apartment complexes were built by the Rahway Housing Authority to provide affordable housing to persons of low and moderate incomes. The first of these, Glendening Homes, a 76-unit complex, was built in 1951 on Capobianco Plaza, with a 12-unit addition built in 1968. A series of complexes followed on West Grand Avenue, with 37 senior apartments built in 1964, and another 48 units added in 1968—known as Kennedy Apartments. In 1985, a 40-unit senior complex was added at 337 West Milton Avenue. Finally, in 1991 a 24-unit family complex called Ruby Scott Gardens was added adjacent to Glendening Homes.

The City has also added to its inventory of low-rise apartments with the construction of more modern projects. These, however, are small and have not added significantly to the City's inventory of multi-family units.

### **High-Rise Apartments**

Rahway has three high-rise apartment complexes. The first is a nine-story building known as Golden Age Towers located opposite City Hall at the corner of Augusta Street and East Milton Avenue. Built with funding from the New Jersey Housing Mortgage Finance Agency, and accommodating HUD Sec

tion 8 income-eligible senior citizens, the 195 units were completed in 1979. The second high-rise complex, Rahway Plaza Apartments, is located behind City Hall on the corner of East Hazelwood Avenue and Main Street, and is a conventional market-rate apartment complex. In 1984, a 5-story, 40-unit senior citizen complex a 165 E. Grand Avenue was built by the Rahway Housing Authority (Shaffhauser Towers).

The 1990 census of housing does not provide a breakdown of multi-family housing into the land use categories described above (i.e., townhouses and row houses, low-rise apartments and high-rise apartments). However, it does indicate that complexes containing between 2 and 9 units account for 2,341 units or 23 percent of Rahway's housing stock. This is significant because it outnumbered the larger multi-family complexes by 2 to 1, the latter providing a total of 1,221 units or 12 percent of Rahway's housing stock. Between 1980 and 1990, however, whereas the number of single-family units declined by 3 percent (302 units), and the number of small multi-family complexes declined very slightly (a loss of 19 units in total), the multi-family projects, with 10 units or more, grew by 185 units, or 2 percent of Rahway's housing stock.

#### B. Commercial Land Uses

Commercial land uses in Rahway account for 153 acres, or 11.4 percent of all developed land in the City. Land devoted to this type of land use when the City last completed its Master Plan (1973) was 62.4 acres of the total land area. Therefore, there has been a considerable increase (a 246 percent increase) in commercial land uses in the City in the past 23 years.

Currently, despite the fact that there are four business zones in Rahway's zoning ordinance, there appear to be five different types of commercial areas, each with its own distinct mix of uses, land use character and form of development. These areas are as follows:

#### **Neighborhood Commercial Uses**

Neighborhood commercial uses are comprised of a series of small retail establishments located along collector streets or at the intersection of collector and local streets outside of the downtown and away from the arterial and major collector streets which pass through Rahway (i.e., US Route 1 & 9 and St. Georges Avenue or Route 27). These areas provide primarily convenience goods and services to customers from the immediate residential neighborhood, or from nearby industrial areas within Rahway. The neighborhood retail centers in Rahway are located as follows: at the intersection of West-

field Avenue and Madison Hill Road (this neighborhood retail area actually extends into Clark Township) comprised of convenience stores and medical offices; at the intersection of Westfield Avenue and Madison Avenue, where a series of office and retail uses and an animal hospital are located; on West Grand Avenue just east of St. Georges Avenue, a small retail center anchored by Dembling's supermarket and liquor store; at the intersection of East Grand Avenue and Bond Street, which has small convenience stores such as a laundry, barber, bar and luncheonette; and the row of convenience stores and automotive uses which front on the east side of New Brunswick Avenue from East Hazelwood to East Lake Street, which serves both residents in the area as well as employees in the adjacent large industrial area. Parking for these neighborhood retail areas is provided mostly on-street since a large portion of the trade is walk-in, since customer visits are short and since on-street parking turnover is high.

### **General Commercial Uses**

These are commercial areas which provide both a mix of convenience as well as comparison shopping opportunities at various points along St. Georges Avenue (Route 27). There are three distinct areas: one which extends along both sides of St. Georges Avenue from the Woodbridge Township border to Grove Street; the second extends from West Lake Avenue to Rahway Kiwanis Park, and has a heavier concentration of retail uses and shopping centers on the west side of St. Georges Avenue; and the third is located between West Grand Avenue and Rahway River Park, which is more intermittent and is interspersed with parkland and single-family uses. The key characteristic of these general retail areas is the variety of goods and services offered—gas stations, auto sales, auto supply and repair garages, eating and drinking establishments, furniture stores, hair salons, mom and pop stores, florists, insurance, medical and other professional offices are but a few of the types of establishments in these areas. This area also includes a designed shopping center (as opposed to individual freestanding stores and strip centers), anchored by Drug Fair, a large drug store, with a variety of smaller convenience and specialized retail establishments. The size of the retail establishments, and the size and depth of the property they are located on, varies considerably. Parking for these stores is provided both on-street and off-street in well laid-out parking lots. The retail stores serve both residents of the immediate neighborhood as well as regionally generated traffic—customers who utilize St. Georges Avenue to get to work, school, leisure opportunities or shopping in other areas (such as Woodbridge) from both Rahway and the surrounding communities.

### C. Industrial and Office Research

Land devoted to industrial and office research uses in the City of Rahway currently amounts to 147 acres, or 11.0 percent of the City's developed land. This is a significant drop compared to 1973, when 249 acres of land in the City were used for industry—a 40 percent decline.<sup>5</sup> This number is even less than land devoted to industrial uses in 1956, when 160 acres were so used.

A parallel statistic is the decline in the labor force of persons employed in industry. Whereas white collar jobs, in particular managerial and professional employment, and technical sales and administrative support, increased quite substantially between 1980 and 1990 (5 percent and 4 percent respectively), employment in the traditional blue collar sector, precision production craft and repair, and operators, fabricators and laborers experienced a significant decline (4 percent and 7 percent respectively; see Table 4.9 in the Housing Plan Element). In spite of this shift, the number of persons employed in 1990 in Rahway, at 13,268, represented only a small decrease in the overall employment figures (a 2 percent decline overall).

In this land use classification, Rahway has three types of land uses: heavy industrial areas—older areas of manufacturing, auto repair and salvaging establishments; light industrial areas—more modern industrial development with light manufacturing, warehouse, flex and office space; and office-research—areas with office and research buildings, and pilot plants.

#### **Heavy Industrial Uses**

Heavy industrial uses within Rahway are generally confined to an area located in southwest Rahway, bounded by East Hazelwood Avenue, New Brunswick Avenue, Regina Avenue, Leesville/Capobianco Plaza, and Elston Street and the Woodbridge Township border to the east of the N.J. Transit Railroad tracks. (A small portion of this heavy industrial area overflows to the west side of the tracks between Murray Street and West Lake Avenue.) This is an older industrial area established primarily due to its access to the railroad and the south branch of the Rahway River. This industrial area is particularly varied with respect to the use and size of establishments. Uses range from petrochemical, electrical and metalworking factories to auto body repair shops, auto salvage and junkyards, warehouse and distribution operations, trucking, landscaping, and contractors' yards. The largest establishment is Dri-Print Foil (28 acres), whose presence and prominence in Rahway go back many years, and which

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<sup>5</sup>In 1973 Merck and Company's property in Rahway was classified and zoned as industry. No office-research classification was used in Rahway until the introduction of the Office-Research zone in 1992.

is one of the largest single employers in the City. Other sizable industrial concerns include Swim 'n Play Inc. (12 acres), Guest Packaging, and GBC Corporation. One of the most noticeable recent trends in Rahway is the disappearance of large industrial establishments, whose buildings have been subdivided and are now used by multiple smaller industrial tenants. An example of this is the large series of connected industrial buildings located to the west of New Brunswick Avenue and East Hazelwood Avenue which is now occupied by approximately eight different tenants. Despite this area's location adjacent to the railroad, trucking has also fully replaced the railway as the primary mode of transportation, utilized to ferry goods and materials to and from this industrial area. Due to the age of the area, on-site drainage, parking, lighting and landscaping conditions are somewhat poor.

On the opposite side of the Rahway River fronting on Route 1, is the Union County Resource Recovery Facility. This new facility, opened in 1994, is the most recent large industrial activity to be established in Rahway. (It is more fully described in the Economic Plan Element.) A few small industrial buildings, mostly auto repair related uses—some abandoned—are located on the east bank of the Rahway River in the lower Essex Street area.

To the west of Merck's plant in Rahway, between the railroad and Elizabeth Avenue, from the Linden border to just south of West Grand Avenue, are metal and plastic works, food warehouses, manufacturing establishments, and contractors' shops. Not much in the way of off-street parking and loading facilities and landscaping are provided on many of these properties.

### **Light Industrial Uses**

The largest light industrial area of Rahway has the characteristics of a modern industrial park. It is located to the south of the Rahway River and west of Witherspoon Street on the Woodbridge Township border. This industrial area has larger rectangular properties, is laid out in a grid-like street pattern, and has predominantly low one-story, small manufacturing, research and testing facilities, warehousing, distribution and flex buildings surrounded by parking lots and open space. A portion of the Rahway Valley Sewer Authority sewage treatment plant and the Rahway Department of Public Works yard are also located in this area.

To Merck's east, across US Route 1 & 9, on East Lincoln Avenue and Felver Court are a small number of light manufacturing and distribution establishments that appear to be of a more modern vintage, and thus in somewhat better condition.

## Office-Research Uses

The office research area in Rahway is comprised of the Rahway portion of the Merck and Company plant, located in the northeastern section of Rahway on the Linden border. The Merck plant (211 acres in total, of which 89 are in Rahway), occupies an area between US Route 1 & 9, the railroad tracks, the Linden border (it actually continues substantially within Linden itself), with a southern boundary of East Grand Street to Montgomery Street, and East Scott Avenue. With 3,650 employees, and having been established in 1903, Merck is Rahway's largest employer and one of the, if not oldest remaining industrial concerns. The Merck campus comprises of manufacturing, testing, and research facilities, laboratories and administrative offices. The developed portion of Merck's plant is classified as heavy industrial in the Rahway zoning code, even though it is comprised only of buildings and facilities used for research, administration or pilot manufacturing. The vacant land which Merck has acquired and cleared for future expansion south of the developed area has been rezoned for office research uses. (Merck and Company is more fully described in 5.3, the Economic Plan Element.)

### D. Institutional Uses

Rahway has within its borders numerous institutional uses, including 21 churches or houses of worship, several philanthropic or civic establishments, governmental, educational and community buildings and facilities (described in the Utilities Element Plan, and the Community Facilities Plan Element), parks and recreational facilities (described in the Open Space and Recreation Plan Element), and the Rahway Hospital (described in the Economic Plan Element). A majority of these institutional uses are located in the single-family residential neighborhoods of Rahway, typically on arterial or collector streets, although there is a concentration of churches and civic associations within and on the fringes of the downtown. While these uses do not consume a high proportion of Rahway's land resources, they all play a very important role in the life of the community. In fact, Rahway is a particularly pro-active community, and its institutions have been instrumental over the years in improving and maintaining the quality of life and the economic vitality of the community.

### E. Vacant Land

Eighty-five acres (6 percent) of land within Rahway are classified as vacant. (This figure includes only privately-owned vacant land and does not include parks and open space owned by the City or County.) This figure is also somewhat misleading, since a large proportion of this land is environmentally

constrained (by wetlands or severe flooding) and could not be easily developed. Some of this vacant land is accounted for by numerous very small isolated parcels of land, where they serve as open space or yard area or parking for the owners/occupants of the property next door and are thus unlikely to be developed. There is also a fairly large inventory of vacant land owned by Merck, which the company acquired and cleared of existing single-family homes to accommodate the future expansion of its physical plant. Most of the remaining vacant land is zoned for residential uses. A discussion of its likely development (as well as redevelopment opportunities) are discussed in the Housing Plan Element. The largest vacant parcels in Rahway include the 11-acre parcel behind City Hall, the 5-acre parcel on St. Georges Avenue across from Stone Street, the Merck-owned (nearly) vacant 5-block area north of East Scott Avenue, the Masonic Home parcel located between Capobianco Plaza and East Hazelwood Avenue, the New Jersey Transit-owned property partly used for maintenance of the railroad off New Brunswick Avenue and a sizable parcel located adjacent to the Dri-Print Foil plant.

### 3.4 RELATIONSHIP OF EXISTING USES TO THE CITY'S ZONE PLAN

While the current zone plan for the City of Rahway (Figure 3.4) does generally follow the existing land use pattern, there are a substantial number of inconsistencies between the types of land uses that actually exist and their zoning designation. This has created a large number of uses which are non-conforming with respect to zoning.

#### A. Residential

##### **R-1 Single-Family Zone**

The only inconsistency between the zoning and existing uses in this district is the existence of the Rahway Hospital parking lot off Jefferson Avenue opposite Trussler Place.

##### **R-2 Single-Family Zone**

The R-2 residential zone, which covers the largest land area of the City, provides only for detached single-family uses, home professional offices and municipal parks and playgrounds. Among the major inconsistencies are the fact that a considerable number of two-family uses exist within this district. There were 420 two-family structures in all of Rahway in 1990 according to the US Census; a majority of these are within the R-2 district. These two-family homes are evident in certain areas of Rahway

The production of this map was prepared in part through an urban planning grant from the Department of Housing and Urban Development under the provisions of Section 701 of the Housing Act of 1954, as amended. The remainder has been financed by local funds.




- R-1 SINGLE FAMILY RESIDENTIAL ZONE
- R-2 SINGLE FAMILY RESIDENTIAL ZONE
- R-3 GARDEN APARTMENT RESIDENTIAL ZONE
- R-4 HI-RISE RESIDENTIAL ZONE
- B-1 NEIGHBORHOOD BUSINESS ZONE
- B-2 CENTRAL BUSINESS ZONE
- B-3 HIGHWAY BUSINESS ZONE
- B-4 REGIONAL BUSINESS ZONE
- B-5 PLANNED BUSINESS ZONE
- I-1 LIGHT INDUSTRIAL ZONE
- I-2 HEAVY INDUSTRIAL ZONE
- O-1 OPEN SPACE ZONE
- O-R OFFICE RESEARCH ZONE
- H-1 HOSPITAL ZONE

### 3.4 Current Zoning Map

## CITY OF RAHWAY UNION COUNTY NEW JERSEY

#### MAP REVISIONS

Date	Ord. No.	Description (Old Block & Lot Numbers)	By
5-27-77	A-27	BLK. - 141 LOTS 1, 2, 3, 4, 5 TO B-2 ZONE	MUN. COUNCIL
11-17-77	A-27	BLK. - 141 LOTS 1 & 2 TO B-2 ZONE	MUN. COUNCIL
2-17-78	A-27	BLK. - 141 LOTS 3 & 4 TO B-2 ZONE	MUN. COUNCIL
11-22-81	A-27	200 FT. ALLEY CLASH AND RE-ENTRY DRIVE	MUN. COUNCIL
8-13-82	A-17-82	BLK. - 17 CHANGED FROM B-1 ZONE	MUN. COUNCIL
7-28-82	A-13-82	172 PARTIAL LY CHANGED TO B-2 ZONE	MUN. COUNCIL
6-18-82	A-26	CHANGED FROM I-2 TO B-1	MUN. COUNCIL
(10-2)	A-27-91	279 NEW 75 IN DIA. & 304 PARTIALLY TO O-R & B-1	MUN. COUNCIL

 **ROBERT E. ROSA ASSOCIATES**  
City Planners & Landscape Architects  
Edison, New Jersey 08817



such as on West Scott Avenue between St. Georges Avenue and Ludlow Street. However, many of these are difficult or impossible to identify by means of a land use survey: they most often appear as a single-family residence from the exterior. Sometimes the existence of two mailboxes, or separate electrical or water meters provide an indication of this. However, even these are difficult to identify from the exterior. In all likelihood, such two-family structures are spread widely over Rahway rather than concentrated in one particular area. In addition, the current R-2 regulations do not provide for municipal or governmental facilities or even schools as permitted uses. As a result, all of the existing public schools and St. Mary's School are non-conforming uses, as are the Rahway Historical Society (i.e., the Merchant's and Drover's Tavern), the Water Treatment Plant, the Rahway library, the Maple Street fire substation, the N.J. Division of Motor Vehicles Inspection property, the Esterbrook Senior Center and Rahway Day Care.

Other non-conformities include: the garden apartment complex located on Alden Drive; an industrial plant located off Leesville Avenue just west of Martin Street; a series of commercial establishment on Woodbridge Avenue between Randolph and East Hazelwood Avenue; a multi-family complex located at the intersection of Witherspoon and Hazelwood Avenues; a few older small industrial establishments at the corner of Johnson and Essex Streets; a number of multi-family and retail uses located in the vicinity of the intersection of East Grand Avenue and Bond Street; a series of commercial establishments at the corner of West Scott Avenue and Allen Street; the area along Essex Street from Washington to Monroe Streets which contains a mix of commercial, industrial and multi-family establishments; infringements of various retail uses located along St. Georges Avenue into the R-2 district; and, at the northern end beyond Rahway River Park, a scattering of office and retail uses within the R-2 zone.

### **R-3 Multi-Family Residential Zone**

There are 3 areas of the City zoned R-3 multi-family residential. Single-family uses are not permitted in this district, yet all three have a number of single-family uses within them; all are therefore non-conforming. The major areas of inconsistency include: the lower area of Essex Street where the City has acquired property for open space and conservation purposes, and which also contain scattered small industrial uses; the Masonic home and single-family uses located between Hazelwood Avenue and Leesville Avenue; the Golden Age Towers, which is a high-rise, high-density apartment complex; an area bounded by Irving Street, Allen Street, West Grand Avenue and the Rahway River, which contains a number of single-family uses; and single-family uses adjacent to the Audrey Drive garden apartment complex which are within the R-3 district's boundaries.

#### **R-4 High-Rise Residential Zone**

The only property in this district is the Rahway Plaza Apartments, a high-rise residential use; therefore, no inconsistencies exist.

#### **B. Commercial Zones**

##### **B-1 Neighborhood Business Zone**

For the most part the inconsistencies which exist in this district are restricted to fringe areas of these zones, where single-family uses exist (at the intersection of Westfield Avenue and Madison Hill Road, and at the intersection of Madison and Westfield Avenue). The one major exception is the B-1 zone, which fronts on both sides of West Grand Avenue almost all the way from Whittier Street to St. Georges Avenue. While some businesses or office uses do exist in this area, there are also some small multi-family buildings, and the predominant use is still detached single-family uses. (Some may be occupied by two or even as many as three families.) In the B-1 district located on the east side of New Brunswick Avenue between Lake and Hazelwood Avenues, retail uses do predominate; however, these are interspersed with non-conforming industrial uses and single-family homes.

##### **B-2 Central Business Zone**

The major inconsistency that exists within this district is the area located on the eastern side of West Main Street from the railroad trestle to Irving Street. This area has become more of a service-oriented retail area than an integral part of the central business district. However, since the current use regulations are broadly construed, these existing uses are not non-conforming to the zone code itself.

##### **B-3 Highway Business Zone**

Perhaps the greatest inconsistency between Rahway's current zoning map and the uses which currently exist, falls within this district. The type of uses envisioned and permitted by the B-3 designation are highway-oriented businesses. The B-3 Highway business zone, however, includes: a large portion of the downtown where a central business designation would be far more suitable; fringe areas of the downtown where service business uses are established; and all of the retail areas along St. Georges Avenue, which is really more of a general or community business area rather than a highway business zone.

Specifically, the inconsistencies are as follows: the area of downtown Rahway to the west side of Irving Street is clearly not of a highway business type, but more suitable for a central business designation; the service retail uses on Campbell and West Cherry Streets are also inconsistent with this designation; the converted Regina building, now used for multi-family use, is inconsistent and non-conforming with the B-3 zone, as are the single-family, office and civic uses located between West Milton Avenue and Clinton Street; the whole B-3 zone located to the east of West Main Street is likewise more properly designated for service retail uses; and finally, the boundaries of the B-3 district to the east side of Route 1 are not consistent with the boundaries between the highway retail uses fronting Route 1 and the single-family homes behind it.

#### **B-4 Regional Business Zone**

Uses within the B-4 district are generally in conformity with those permitted by the zoning code; however, this zone would be more properly characterized as a highway business zone than a regional one. The most glaring inconsistency is the new Union County Resource Recovery Facility, which takes up more than half the zone's land area, and is obviously a non-conforming heavy industrial use.

#### **B-5 Planned Business Zone**

The two uses which exist within this zone, the SDI office building and the City Hall complex, are permitted within this zone. The remainder of this zone consists of vacant land.

### **C. Industrial and Office-Research Zones**

#### **O-R Office Research Zone**

This area encompasses a portion of the Merck physical plant and predominantly vacant land owned by Merck, which it plans to use for office-research purposes in the future. The few remaining scattered single-family homes in this area are non-conforming, since these uses are not permitted in the district.

#### **I-1 Light Industrial Zone**

In the southernmost older industrial district in Rahway located to the west of the railroad, many of the industrial uses are heavy in nature (e.g., metalworks, automobile salvage yards, etc.). Despite its

"light industrial" label, this district does permit many of the heavy industrial uses which are found within this district. The same comment applies to the series of heavy industrial uses found between the railroad and Jacques Avenue, and the railroad and Elizabeth Avenue, although some light industrial uses are also found within these areas.

Because the I-1 Light Industrial zone does permit heavy industrial uses within its boundaries, only a few inconsistencies exist, as follows: within the older southwestern I-1 zone, the boundaries of the zone in the vicinity of New Brunswick Avenue and St. Georges Avenue incorporate some commercial establishments; the southern end of US Route 1 & 9, also labeled I-1, also incorporates non-conforming retail uses; and finally on Elizabeth Avenue, the area of the block midway between West Grand Avenue and the Rahway River contains service retail uses.

### **I-2 Heavy Industrial Zone**

The I-2 Heavy Industrial zone permits both light and heavy industrial uses, as well as offices and research facilities. The area to which it is applied, i.e., the Merck property, actually consists of research and office facilities and small pilot manufacturing facilities. As such, an office-research designation would be more suitable. Because of the permissive nature of the I-2 Heavy Industrial zone, there are no inconsistencies or non-conformities within this zone.

### D. Open Space Zone

#### **O-1 Open Space Zone**

A number of County or municipal parks have been excluded from this designation, which although permitted in the R-2 zone in which they are located, should more properly be zoned as "open space." This includes the rear 3-acre portion of the Resource Recovery Facility, which is County parkland; a portion of Milton Lake County Park; the newly-acquired properties on lower Essex Street; and the municipal park known as Stein field. In addition, Hart Street Park is currently within the I-1 Light Industrial zone.

## E. Hospital Zones

### H-1 Hospital Zone

The boundaries of this zone are somewhat inconsistent with the hospital's physical plant. With three small exceptions (all single-family homes), the hospital's boundaries (including the First Aid Emergency Squad and the Rahway Regional Cancer Center building) now extend all the way up to Trussler Place.

## 3.5 THE LAND USE PLAN

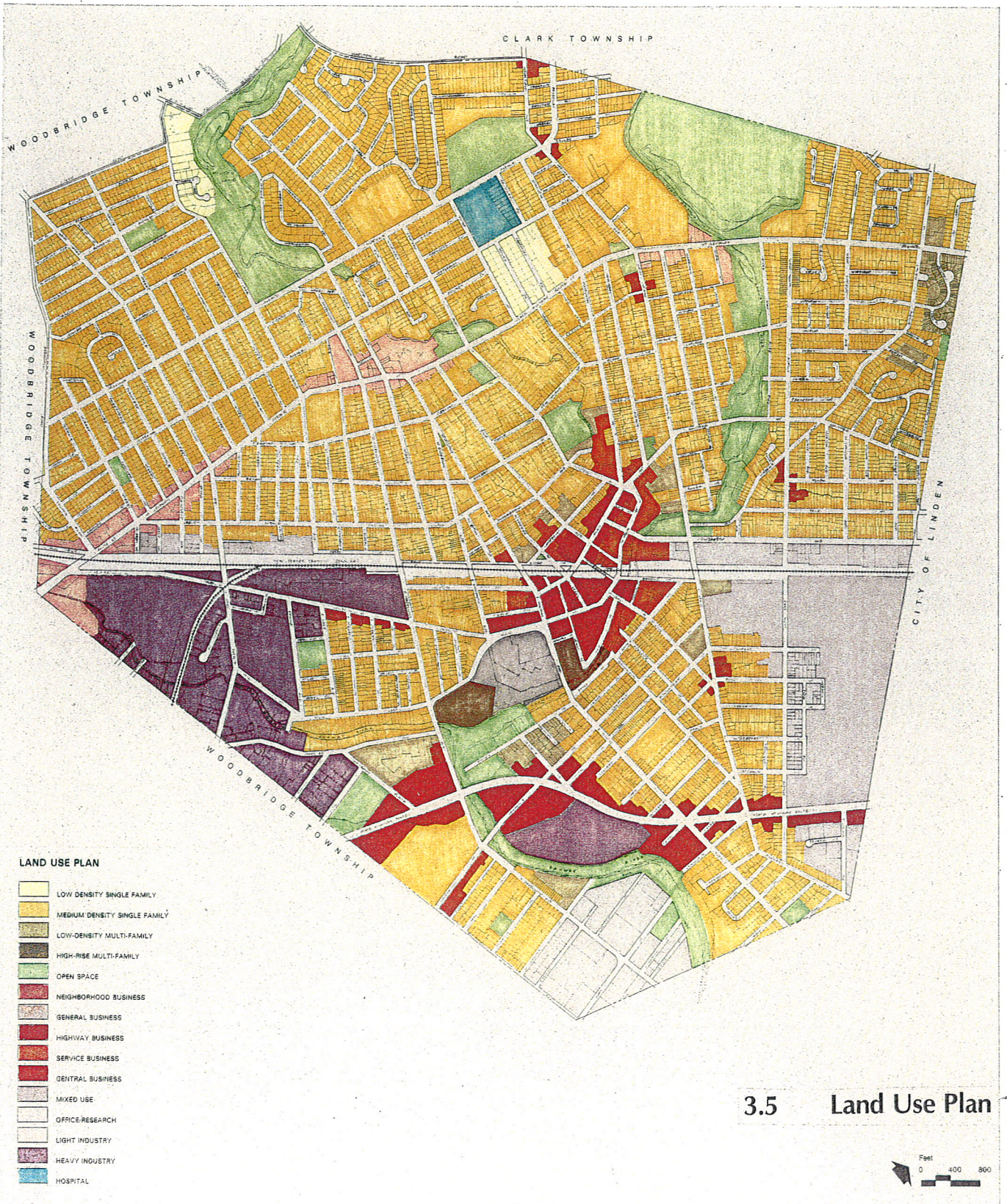
In order for the Master Plan to serve as a guide to future land use development in the City of Rahway, it must be comprehensive in addressing all the land use issues which confront the City. With respect to future uses, several changes in the land use plan are recommended (see Figure 3.5). These changes would serve as the basis for changes in the zoning map of the City.<sup>6</sup> Many of the changes in the land use map recognize the existence of functional and appropriate land uses which are now non-conforming, by changing their land use designation so that they are conforming. An example of this is where a large and well-established garden apartment complex is located in a "single-family residential area." The land use designation would be changed to "low-density multi-family."

In some instances the land use plan recognizes existing uses which are non-conforming, whose continued use or expansion may have deleterious land use impacts; in such cases the land use and zoning designation has not been changed. For example, there are small multi-family uses or businesses located in an area designated for "single-family residential." Since their continued existence or expansion could be harmful to the surrounding residential area, the land use designation remains unchanged, and they remain as non-conforming uses.

The land use plan also defines new land use designations so as to encourage new development or redevelopment which may be desirable but is different from that which is presently contemplated or allowed. An example is the redesignation of a portion of the downtown from "highway business" to "central business." Through this designation and with stricter controls as to use, with more permissive bulk and area standards, and with lesser off-street parking requirements, this area can be transformed into a truly downtown area.

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<sup>6</sup>In the zoning ordinance different land use zones are referred to as "districts" or "zones." In this master plan they are referred to as "land use designations."



Finally, for each broad land use category, this master plan sets the framework or parameters for changes to the zoning plan which would implement this master plan. First, the purpose of these changes and the land use plan designations are spelled out; secondly, the physical location where such changes should occur are indicated.

A. Residential Land Use Designations

The residential land use designations in this master plan are aimed to halt the proliferation of illegal two- and three-family conversions of single-family houses in most areas of Rahway; they should, however, be permitted in certain areas and under specific and appropriate conditions (such as along West Grand Avenue, where the old, larger single-family homes have deteriorated and become too expensive to maintain as such). The stabilization and protection of the single-family neighborhoods from unwanted and isolated office, retail and multi-family development is also intended. Public utilities should be excluded from residential areas. Both home occupations and home professional uses should be more strictly regulated. For example, home professional offices should only be permitted in certain areas (e.g., along busy arterial and collector streets) and only where they meet certain conditions (such as maintain their single-family appearance, restrict their occupancy to resident-owners of the house to which they are attached, provide sufficient off-street parking, and consume no more than 40 percent of the gross floor area of the home).

Municipal and governmental facilities, as well as public schools and philanthropic and civic uses, should become permitted or conditional uses within the medium-density single-family land use designation. Conversions of space above retail, ground floor uses in the downtown should be permitted also under specified conditions. New opportunities for multi-family development are provided for in the redeveloping areas of the downtown (i.e., behind City Hall and Dock Street), as well as in the Leesville and Essex Streets areas, as a means to revitalize these neighborhoods. Elsewhere, multi-family development is confined to specific zones where they already exist and fit within the fabric of the community. However, isolated small multi-family projects, particularly those which involve conversions of prior single-family homes are discouraged from expanding by their retention as non-conforming uses within their present zoning districts. Renovations and alterations which increase the value and utility of Rahway's housing stock, and incorporate features found in new homes built today (e.g., second bathrooms, family rooms, expanded and eat-in kitchens) should be encouraged. However, expansion and alterations to all residential structures should be sensitive to historic preservation (where appropriate) and good design.

Changes to land use designations or boundaries of the residential land uses are as follows:

### **Low-Density Single-Family**

The boundaries of this designation are not changed and are consistent with the current Rahway zoning ordinance's R-1 boundaries. The R-1 zoning of the hospital parking lot is purposefully retained; by virtue of its non-conformity, this parcel cannot be altered or developed for hospital or health related buildings or facilities without approval from the zoning board of adjustment.

### **Medium-Density Single-Family**

All municipal, governmental, educational, philanthropic and civic institutional uses should be explicitly permitted in the medium-density single-family area either as permitted uses (with more appropriate bulk and area standards) or as conditional uses. Such additional standards or conditions would be aimed at protecting the character, use and enjoyment of the adjacent neighboring single-family uses. The single-family uses within those areas of the City zoned for multi-family residential use should be designated for conforming medium-density single-family development. This includes single-family uses located on Hazelwood Avenue and Leesville Avenue; existing single-family uses within an area bounded by Irving Street, Allen Street, West Grand Avenue and the Rahway River; and the single-family homes adjacent to the Audrey Drive garden apartments.

A large area of existing single-family uses are presently located within the B-1 neighborhood business zone, which runs along both sides of West Grand Avenue from Whittier Street to Winfield Street. Despite this zoning, a great majority of these homes have remained as single-family uses and have not been transformed to neighborhood business uses. This area should be designated as medium-density single-family use, although consideration should also be given to allowing some of the older, larger homes to be converted to two-family uses under certain conditions.

The area of land located between West Milton Avenue and Clinton Street, from midway between Jacques Avenue and Georgia Street westward, which is now in the B-3 Highway Business zone, should be redesignated as medium-density single-family, owing to the predominance of such use in that area. The same transformation would apply to land on Elm Avenue developed for single-family residential uses between Irving and Campbell Streets. The rear boundaries of the business areas located along St. Georges Avenue should be carefully drawn to avoid inclusion of the single-family uses within such a business designation, since many are now included within the B-3 zone. The



same is applied to the neighborhood business area on Westfield Avenue at the intersections of Madison Hill Road and Madison Avenue. Their conversion to business uses is undesirable, and would be a further encroachment into these single-family residential neighborhoods.

### **Low-Density Multi-Family**

There are several existing stable multi-family residential developments which are located in single-family residential or business zones, and are thus presently non-conforming. These should be recognized by the master plan as appropriate and suitable, and thus redesignated as low-density multi-family. They include: the garden apartment complex located on Alden Drive; a multi-family complex located at the intersection of Witherspoon and East Hazelwood Avenue; and the converted Regina building and the old City Hall building.

### **High-Rise Multi-Family**

The Golden Age Towers is a high-rise building which should be redesignated as a high-rise multi-family land use.

## **B. Commercial Land Use Designations**

Perhaps the largest redesignation within the master plan involves commercial land use designations. The current commercial areas of Rahway clearly fall into five distinct areas, each with their own particular mix of uses, the size and types of stores located within them, the types of roads they front on, and their own particular market areas and types of customers who patronize them. To better define the character of each district and to encourage suitable types of development and redevelopment within them, five somewhat different land use designations replace four of the existing business zone districts (B-1, B-2, B-3 and B-4), while the fifth business district (B-5) is more properly placed in a "mixed use" land use designation. The intention of this rearrangement is to strengthen the existing character of development within designations and to provide more uniform standards of development.

The master plan's designations also aim to restrict the encroachment of commercial uses into residential areas, especially at the edges of existing business districts and along Rahway's arterial and collector streets (such as St. Georges Avenue, West Grand Avenue, and West Milton Avenue). To do this, new opportunities for neighborhood businesses have been created at the intersection of major collectors, such as at the intersection of Bond and West Grand Avenue and along Woodbridge

Road between Hazelwood and Randolph Road. Opportunities also exist within the downtown; the central business land use designation is intended to encourage the redevelopment and retenanting of vacant space/buildings in the downtown. Revitalization efforts in the central business district should focus on the creation of a mixed use/historic/community center rather than simply a central business zone. Appropriate standards for redevelopment should include more permissive bulk, area and height restrictions, more permissive parking standards, but stricter land use and design controls. At the same time, distinct edges to the downtown are intended to be provided. Service retail uses should provide an appropriate buffer and transition between the central business uses and the surrounding residential neighborhoods. The placement of the central business district in an historic preservation district, and the adoption of more stringent standards of design review, are intended to strengthen and capitalize upon the area's historic character (see the Historic Preservation Plan Element).

In general, the heavier commercial uses (such as auto body shops, car washes, contractor's shops, etc.) should be excluded from Rahway's business districts, and permitted and encouraged in industrial areas where they are more appropriate. The master plan also encourages a reexamination of the commercial opportunities and issues that would arise with the realignment of US Route 1 & 9 and other presently vacant properties along the highway at its southern extremity. In general, the parking standards for all business districts are to be reexamined for more up-to-date and appropriate ratios.

Changes to the land use designations or boundaries of the commercial land uses in the master plan are as follows:

### **Neighborhood Business**

Two new neighborhood business areas are provided for in the land use plan. One is to be located along the easterly side of Woodbridge Road between Randolph Avenue and East Hazelwood. The second is to be located at the intersection of East Grand Avenue and Bond Street.

### **General Business**

All of the commercially-designated property fronting on St. Georges Avenue is placed within this land use designation (in contrast to the zoning ordinance which has this area zoned as B-3 Highway Business). Furthermore, the boundaries of this district are carefully drawn to incorporate all current commercial uses and to exclude non-conforming single-family uses.

## **Highway Business**

All of the commercially-designated property fronting on US Route 1 & 9 is placed within this land use designation. This includes the current area zoned B-4 Regional Business zone, with the exception of the Union County Resource Recovery Facility; commercial uses within an area on the south side of US Route 1 & 9 and east of Barnett Street currently designated as light industrial; land on both sides of US Route 1 & 9 to the south of East Hazelwood Avenue (including some properties fronting on the west side of East Hazelwood Avenue itself) that are currently within the I-1 Light Impact Industrial Zone and the R-2 Single-Family Residential zone. The boundaries of the highway business land use designations on the northern side of US Route 1 & 9 from East Scott Avenue to East Hazelwood Avenue have been adjusted to reflect the boundaries between existing commercial establishments on the highway and single-family residential uses behind them.

## **Central Business**

Property considered to be the retail core of downtown Rahway is within this land use designation. (See also Section 5.2, the Central Business District, in the Economic Plan Element.) This designation would encompass most of the land currently zoned B-2 Central Business zone, but excludes the eastern side of West Main Street. The area within the center of Rahway (i.e., fronting the west side of Irving Street from Broad Street to Central Avenue), currently zoned B-3 Highway Business, is now included in the central business designation.

## **Service Business**

This designation covers the commercial fringe of downtown Rahway where service business establishments predominate. The entire highway business zone to the east of the downtown is included and in fact extended somewhat along Essex Street to Washington Street, which is currently zoned R-2 Single-Family Residential. Land to the northeast of the intersection of Central Avenue and Hamilton Street, presently zoned R-3 multi-family residential, is included. Portions of the B-3 zone to the west of the downtown are included in the service business designation, which, however, excludes land developed with existing single-family homes (such as on Elm and West Milton Avenues). Approximately half of the block on Elizabeth Avenue between West Grand Avenue and the Rahway River (i.e., the westerly half) has also been placed in the service business designation, whereas it is currently zoned I-1 Light Industrial.

## **Mixed Use**

Land currently within the B-5 Planned Commercial Zone (the City Hall, SDI Technologies office building, and 11-acre vacant tract behind City Hall) is placed within this designation. The list of permitted uses in this designation would be expanded to include residential and municipal uses and to permit higher overall densities. Presently, office, hotel and retail uses are permitted, and will be retained.

### **C. Industrial and Office-Research Land Use Designations**

The master plan's designations of industrial uses are aimed at confining industrial development to districts zoned for such a use. In addition, improved and more up-to-date site improvement standards and performance standards are to be adopted to encourage new development or alterations and additions to be more consistent with current environmental and design standards. A better transition between industrial uses and neighboring uses (particularly residential uses) is to be encouraged, with better separation and buffering standards. Heavy industrial uses and uses which generate intensive trucking activities are to be more strictly regulated where they have the potential to impact neighboring residents' quality of life.

Additionally, a number of industrial areas within Rahway have been redesignated to reflect the real nature of industrial activities which now exist within them. For example, the older industrial district in the south of Rahway, which has a number of heavy industrial uses, will be redesignated from light to heavy industry. The Resource Recovery Facility is also included in a heavy industrial zone. The Merck property, which is currently designated as heavy industry, is to be redesignated as office-research.

Specific changes to the land use plan with respect to industrial uses are provided below.

### **Office Research**

One major change to this designation is proposed. The current developed portion of Merck's property within Rahway consists of office and research facilities and small pilot manufacturing plants. This land use is not "heavy industrial" as characterized by its current zoning, but is more properly placed in an office-research zone (i.e., one that also permits pilot manufacturing plants which are light in nature). The current lower undeveloped portion of Merck is the land which the company has purchased

and cleared for future expansion. Its proposed use would be consistent with the current Rahway zoning ordinance's O-R Office Research zoning boundaries.

### **Light Industrial**

The only change in this designation is that the boundaries of this land use designation to the rear of industrial properties on the western side of the railroad have been adjusted to follow the property lines separating industrial uses from the single-family uses behind them.

### **Heavy Industrial**

The older southern industrial area of Rahway has a substantial number of heavy manufacturing and repair facilities. Thus, this area has been redesignated as heavy industrial. (Note that properties on the western side of the railroad behind Jacques Avenue will remain as Light Industrial.) The only other addition to the inventory of land designated heavy industrial is the Union County Resource Recovery Facility, which is presently zoned B-4 Highway Business.

#### **D. Open Space Land Use Designations**

### **Open Space**

The City of Rahway will continue to acquire properties which are particularly vulnerable to flooding, clear them, and add them to the inventory of open space. Parks within residential neighborhoods are to continue to be improved. The development of the riverfront system of parks and trails is also to continue, and walkways and bikeways connecting residential areas to the central business district and other parts of the City are intended. Community open spaces are to be provided within the downtown, both in front of the renovated train station and also on Main Street at the Rahway River/Monroe Street gateway into the central business district. Also, an open space designation would be applied to the Union-Allen Street area.

Changes to the open space land use designations would include the rear 3-acre portion of the Union County Resource Recovery Facility, the proposed acquisition of open space in the lower Essex Street area, Hart Street Park and East Hazelwood Park, Shotwell Field, Girl Scout Park, Martin Luther King Park, and a portion of Milton Lake County Park (south of Madison Avenue). In addition, the bound-

aries of this land use designation are to be consistent with property lines separating such open space and parkland from adjacent developed property.

E. Hospital Land Use Designation

**Hospital**

The hospital land use designation covers Rahway Hospital and its accessory structures and facilities (excluding the parking lot opposite Trussler Place off Jefferson Avenue, which is midblock between Hamilton Street and Kaminski Drive). Changes to the land use map involve shifting the hospital boundary line northward to Trussler Place, in recognition of the predominance of the hospital's facilities on the south side of Trussler Place. The master plan acknowledges the need for the hospital to both expand and adapt its physical plant to meet the changing health care needs of the region it serves, but recognizes that this should be accomplished in ways which do not exacerbate conflicts between this institution and the single-family neighborhood surrounding it. In addition, the possibility of Rahway adding a health care facility such as a nursing home, assisted living facility or a congregate care facility is encouraged, although a suitable location for such a project has not been identified on the land use map. Like the hospital, however, this type of facility should be so located and developed so as to be compatible with its surrounding residential uses and neighborhood. The housing and health care needs of Rahway's aging population are considered to be of great importance to the community.

3.6 THE PURPOSE AND TYPE OF LAND USES TO BE PERMITTED IN EACH LAND USE PLAN DESIGNATION

The land use element of the prior Master Plan provided few clues as to the exact purpose of each land use category or the types and form of land use that should be encouraged in each one. Furthermore, some of the designations are substantially different from their current zoning designation. It appears that some clarification is necessary. Each land use designation in the land use plan is thus described below in terms of its purpose and in the type and form of development that is to be encouraged.

## A. Residential Land Use Designations

### **Low-Density Single-Family**

The purpose of this designation is to maintain the low-density single-family character that presently exists within this area. The intrusion of two-family multi-family residential uses, home occupations and home professional office uses are not to be permitted as this would conflict with the low-intensity residential character of the area.

### **Medium-Density Single-Family**

The purpose of this designation is to restrict residential uses in these areas to single-family homes. Although some of the homes which exist in this area are two-family homes, and some may even be three- or four-family homes, permitting such uses throughout this land use designation could result in severe detrimental impacts. The vast majority of homes were designed and built as single-family residences and are located on small lots which have limited open space and limited space to accommodate off-street parking (some have no garages at all, others only a single garage). Utility connections—water and sewer and road access—were designed to serve homes limited in occupancy to one family. Permitting additional families or individuals to occupy such homes through conversions or additions of accessory apartments could have several negative impacts:

- (a) Loss of open space on the individual lots with greater building and impervious coverage, with less vegetation and lawned area. Aside from negative aesthetic considerations and a decrease in shade, buffering and privacy from lot to lot, is the increase in stormwater runoff which may overwhelm the City stormwater drainage capacity and exacerbate flooding conditions.
- (b) Increased competition for on-street parking which not only is an inconvenience to current residents, but which narrows the traveling lanes of public roads and creates difficulties, inconvenience and danger for access, especially for service vehicles, snow removal and emergency vehicles.
- (c) Increased occupancy would create a greater burden on all municipally-provided services, especially educational facilities, but also recreation, garbage pickup, water and sewer services, library services, emergency services (police, fire, health and rescue), and public works. Because many conversions are illegal and property value assessments remain stable, or because they

add only marginally to a property's assessment, little or no additional property taxes are levied. The result is an increase in overall assessments to compensate for the increased expenses associated with the additional residents.

- (d) Because many conversions or additions are illegal, the construction work is not inspected. Violations of health, fire and building codes are unchecked, creating unsafe and potentially hazardous conditions for the occupants.

The conversion of existing one- and two-family homes into three- or more family units is to a large extent an enforcement problem, i.e., it can only be overcome if building inspections are carried out. However, since the current zoning does not provide sufficient clarity in its definitions of different types of residential units (i.e., "one-family unit," "two-family unit," "multiple-family dwelling," "apartment," "boarding house," etc.), such enforcements are difficult to carry out. More restrictive and clearer definitions may help to prevent such conversions.

The one area of the City where conversions to two- and possibly three-family units may be appropriate are the large old homes located on Grand Avenue between St. Georges Avenue and Elizabeth Avenue. These older homes have not been substantially rehabilitated or converted to business uses despite their inclusion in the B-1 Neighborhood Business zone (most likely because there is insufficient demand for such use). It may be appropriate to permit conversions to two- or three-family homes or to allow accessory apartments to be provided, provided certain conditions (related to off-street parking, size and separation of units, meeting building codes, etc.) are met.

This district is an appropriate location for residential supportive institutional facilities such as schools and educational facilities, places of worship, philanthropic uses, city facilities, and cemeteries. However, since these can have a negative consequence on residential properties if developed to the same design and bulk, area and yard standards, a different set of standards should be adopted which are tailored to meet these larger and more intensive uses.

Home occupations are appropriate in this district, but only under specific circumstances and with appropriate standards. Home professional offices should also be permitted but only along the following arterial or collector streets: St. Georges Avenue, Scott Avenue, Grand Avenue, Westfield Avenue, Milton Avenue, and Hazelwood Avenue, which can accommodate the traffic these uses generate. Both home occupations and home professional offices should be treated as conditional uses in this



district. Conditions relating to occupancy, size of building, off-street parking, types of activities conducted, and aesthetics should be added to the current regulations.

### **Low-Density Multi-Family**

This district should encourage moderate-density multi-family housing by restricting the use categories to low-rise apartments and townhouses only. Height and density in this district should be limited to three stories and a density of approximately 10 units per acre for townhouses and 16 units per acre for apartments. Other uses which may be provided as accessory uses within this designation are home professional offices and civic and philanthropic uses (such as charitable, philanthropic, fraternal, trade union or veterans organizations).

### **High-Rise Multi-Family**

Within this designation multi-family housing at moderately high densities should continue to be permitted—a height restriction of twelve stories and a maximum density of 50 units per acre. Accessory uses appropriate to the low-density multi-family designation are also appropriate here.

## **B. Commercial Land Use Designations**

### **Neighborhood Business**

The purpose of this designation is to encourage small retail facilities which provide goods and services which satisfy the daily convenience and shopping needs of the local residents. Facilities which are considered appropriate include retail trade and retail service, personal service and professional and business office, food stores, restaurants, eating and drinking establishments, beauty salons, barber shops, laundries, dry cleaning establishments, bakeries, florists, hardware stores, drug stores, video stores, liquor stores, professional medical and dental offices, and funeral parlors. These designations are located on collector roads in the City and are accessible to both vehicular traffic passing by or to pedestrian shoppers from the adjoining residential neighborhoods. In most cases such uses are established on small lots, in small commercial or converted residential buildings and often rely on on-street parking or small parking lots for the typical short shopping trip. Small-scale civic and philanthropic uses or cultural or educational uses are also appropriate in this designation. Since some of the existing neighborhood retail areas already have apartments on the second floor above retail stores, these should be permitted in the designation, but as a conditional use only.

## **General Business**

The purpose of this designation is to provide a mix of convenience as well as comparative shopping opportunities to both residents in the neighboring residential areas as well as pass-by regional vehicular travelers. Both large and small freestanding establishments as well as planned shopping centers are appropriate. The types of uses to be permitted include the convenience retail establishments permitted in the Neighborhood Business designation but would include in addition larger convenience-related facilities such as supermarkets, drug stores and home centers; comparative shops (banks, record stores, furniture and appliance stores); automobile-related uses such as automobile supply establishments, automobile sales; drive-through banks and restaurants (with additional standards of design); general and business offices; and automobile service stations as conditional uses. This designation should also encourage such facilities to be provided in comprehensive, planned shopping centers, with separate off-street parking facilities and landscaping, with uniform design and signage, and with limited points of access off major roads. No residential uses should be permitted in this designation.

## **Highway Business Uses**

The purpose of this district is to provide goods and services for both local and regional customers as they pass through Rahway on US Route 1 & 9 on their way to and from regional destinations. The following types of automobile-oriented retail facilities should be permitted: eating and drinking establishments, business services (e.g., plumbing and electrical contracting, car and truck rental and leasing), automobile sales and supply, hotels and motels, commercial recreation facilities, building supply establishments, and garden centers. Automobile service stations, car washes, and bars and taverns should be permitted as conditional uses. In order to improve the image of US Route 1 & 9, and to improve aesthetics, automobile sales for new cars (as opposed to used car sales) should be encouraged. Design standards should also be adopted to this end. Since cultural, philanthropic and public facilities, banks and office uses are better located within the community, and should be more centrally located on arterial streets, such facilities should be discouraged from locating on a highway.

## **Central Business Uses**

The purpose of this district is to create a vibrant pedestrian-oriented mixed use downtown environment, in which convenience, comparison and service retail uses are provided on the ground floor along with banks, institutional and entertainment uses, while professional and business offices and

small residential apartments are to be provided above the ground floor. Automobile-oriented uses and laboratory, manufacturing or storage uses should be prohibited.

To revitalize the downtown, parking standards for all uses should be relaxed, along with bulk standards; however, design standards which protect the district's historic integrity and enhance its aesthetics should be enacted. The northern portion of the downtown should encourage culturally-oriented uses—artists' or craftspersons' live/work space, antique stores and galleries, and space for the performing arts or the instruction thereof. Uses which make the environment around the train station more "transit-friendly" are encouraged, as are more pedestrian linkages within the downtown and between the downtown and adjacent residential and service retail uses.

### **Service Business Uses**

The purpose of this district is to encourage a mixed-use environment on the fringes of the central business district. Aside from automobile-oriented retail uses and manufacturing and warehouse uses, virtually all forms of retail development, including business service uses, all types of offices, and multi-family residential uses would be permitted on all floors within this district. Similar to the Central Business designation, arts-related uses are to be encouraged north of the train trestles, parking standards and bulk and area standards are to be relaxed, while design standards for historic preservation and to enhance aesthetics is to be encouraged.

### **Mixed Use**

The purpose of this designation would be to provide a high-density, comprehensively developed mixed-use area comprised of waterfront- and CBD-oriented office buildings, residential apartment complexes, recreational entertainment facilities, public facilities, and retail uses which complement rather than compete with the convenience and comparison retail uses which exist within the downtown. Parking should be provided on-site, as well as landscaping and open space, with public access to the waterfront and with pedestrian linkages to the downtown.

## C. Industrial and Office-Research Land Use Designations

### **Office-Research**

The purpose of this district is to provide primarily for office uses, research, laboratory and testing facilities, pilot manufacturing plants and uses which are supportive of such primary uses such as utilities, day care centers, small-scale convenience retail facilities, and outdoor and indoor recreational facilities. Appropriate parking ratios and open space standards, particularly related to buffering these uses from adjacent residential neighborhoods, should be considered, along with bulk and area standards which moderate the intensity of such uses.

### **Light Industrial**

The purpose of this district is to encourage the development of light industrial and warehouse developments which meet modern industrial performance standards (with respect to emissions, noise, smoke, glare, vibration, etc.), providing for safe access by vehicular and truck traffic, with well-laid-out buildings, off-street parking and loading areas, and landscaped open space. Uses to be permitted include manufacturing establishments, warehouse and distribution facilities, research and development facilities, wholesale trade and storage, utility or public services, office and business services, animal hospitals, vocational and technical schools, and parks and public facilities. Adult entertainment uses would be permitted as a conditional use with limitations as to its location vis-à-vis residential and institutional uses and other similar establishments.

Development standards for light industrial uses should be fairly flexible to allow for both small and large establishments, but provide for adequate separation of uses and on-site parking and loading. Heavy industrial uses which pose a threat to the health and well-being of the community—such as chemical plants, salvage or junkyards—are to be prohibited in the district.

### **Heavy Industrial**

The purpose of this district is to allow heavier manufacturing developments which exist in this designation to continue to operate without the threat of nuisance suits and complaints so long as such uses adhere to the performance standards established in the Rahway zoning code and other mandated federal and state environmental laws and requirements. In addition to all of the uses permitted in the light industrial designation, heavy manufacturing uses (petrochemical and metalworking facilities)

would be permitted, along with bus and truck depots and automobile and truck repair and body shops. The adoption of better on-site parking and loading standards, as well as design and improvement standards (i.e., fencing, sidewalks, lighting, landscaping, curbing, drainage, etc.) should be adopted.

D. Open Space Uses

**Open Space**

The purpose of this district is to provide for the open space needs of the citizens of Rahway. This designation should encompass all public (County, City and Board of Education) parks and playgrounds in Rahway. Uses permitted include all forms of passive and active outdoor recreation, including facilities and improvements customarily provided along with such uses.

E. Hospital Uses

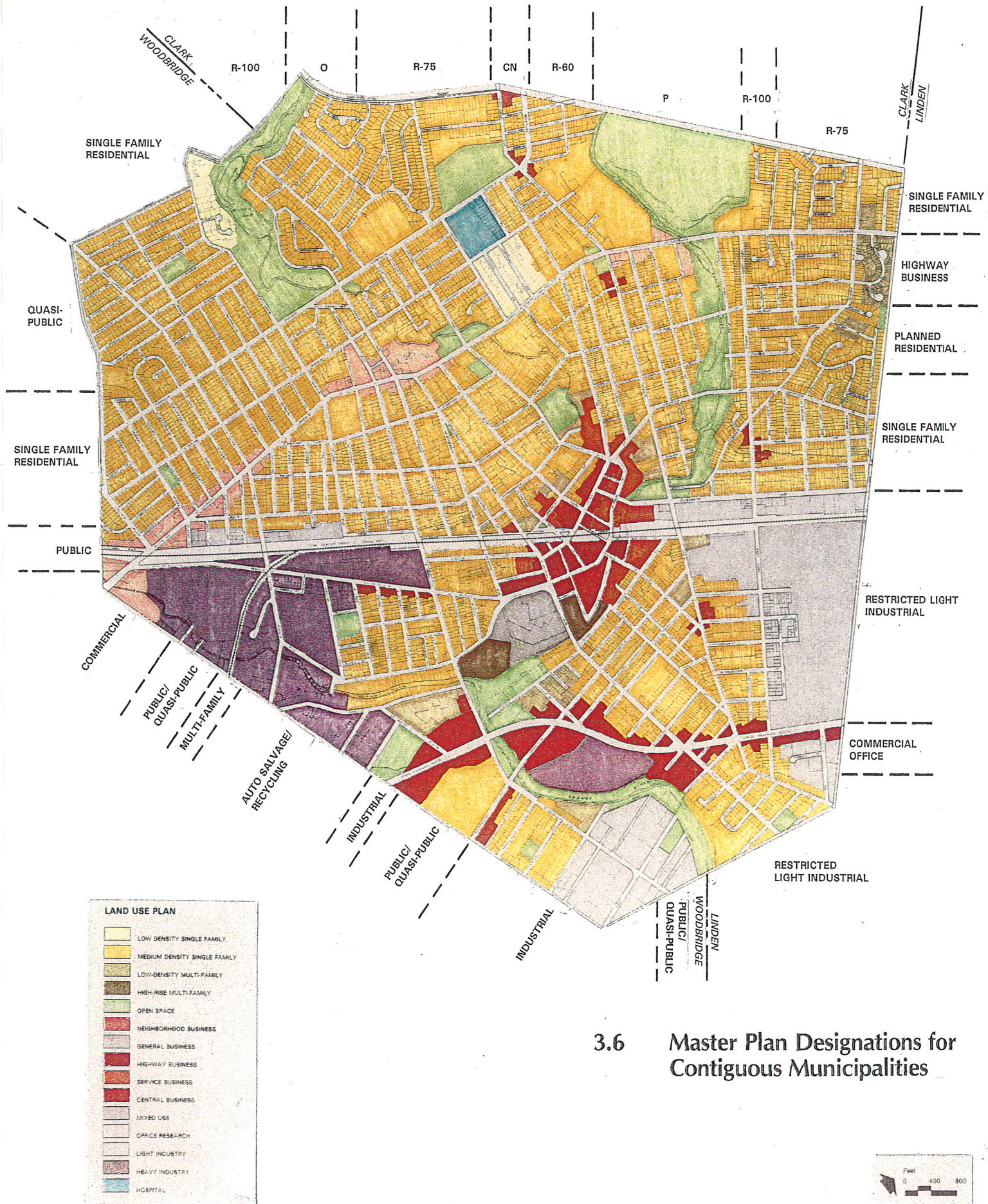
**Hospital**

The purpose of this designation is to provide for the continued operation and development of the Rahway Hospital, as well as the adjunctive health care facilities which are located within the same designation. Appropriate off-street parking space standards should be adopted, as well as open space and buffer standards which ensures that the uses can operate compatibly with neighboring single-family uses. Standards related to bulk, area and height should allow for flexibility of design and rehabilitation and/or expansion, but again in a manner which does not overwhelm the adjacent residential community.

3.7 THE MASTER PLAN'S RELATIONSHIP TO OTHER PLANS

A. Relationship to Master Plans of Contiguous Municipalities

The City of Rahway is contiguous to three municipalities: Clark Township and the City of Linden in Union County, and Woodbridge Township in Middlesex County. The relationship of Rahway's Land Use Plan to those of the contiguous municipalities is shown in Figure 3.6 and is described below.



### 3.6 Master Plan Designations for Contiguous Municipalities

## **Clark Township**

Starting at the southernmost portion of Clark Township which abuts Rahway, i.e., at the Hazelwood Cemetery, and moving northward (or clockwise) to Madison Hill Road, the Clark master plan designates that area to be single-family uses (R-100—10,000 square foot lots), which is compatible with the open space designation in Rahway. From Madison Hill Road north to a point opposite Revoir Drive in Rahway, the Clark master plan designation is O (conservation and recreation—reservoir and water company), which is compatible with the open space designation on the Rahway side of the municipal boundary. Single-family residential (R-75—7,500 square foot lots) is the designation for Clark Township between Revoir Drive and Washington Street (in Clark), which is compatible with the medium-density single-family designation in Rahway. Between Washington Street and Broadway the designation in Clark is C-N, Neighborhood Commercial, which is the same designation (although more narrowly confined) on the Rahway side of the border. From Broadway to the County Park the Clark master plan designation is single-family residential (R-60—6,000 square foot lots), consistent with the medium-density single-family designation in Rahway. The County Park is designated P (public) and utilized as parkland consistent with the Rahway Master Plan's designation of "open space" for the Park. Between the Park and the Linden border the Clark master plan's designation is single-family residential (R-100—10,000 square foot lots; and R-75—7,500 square foot lots), again compatible with Rahway's designation of medium-density single-family residential across the municipal line.

## **City of Linden**

Starting at the Clark Township border, just north of Stacy Place, and moving southerly (again, clockwise), Linden's master plan designates this area as single-family residential. (The zoning designation of this area is actually R-1A, the lowest density single-family residential designation, with minimum 5,000 square foot lots). On the Rahway side of this designation is medium-density single-family, a compatible land use designation. Abutting the garden apartment development off Audrey Drive in Rahway is first a "highway business" land use designation (from St. George's Avenue to the approximate midpoint of the garden apartment complex), then a "planned residential" designation from this point on until a point opposite the eastern terminus of Knapp Street in Rahway. While the highway business designation in the Linden Master Plan would provide for retail uses, the "low-density multi-family designation" on the Rahway side is due to the existence of the garden apartment complex. To the extent that both are higher intensity land uses and are already substantially in existence, no major change or serious incompatibilities in the future would arise from such designations. The "planned residential" designation in the Linden master plan is aimed "to provide single-family, semi-attached

and townhouse development”—all compatible with the low-density multi-family designation in Rahway, although a small area to the south of the garden apartment complex in Rahway is designated (and developed) for medium-density single-family residential. These land uses are still compatible with one another, although a possibility exists for the housing types and intensities on the Linden side of the border to be more intensive than Rahway.

From the Knapp Street point southward to Elizabeth Avenue, the Linden master plan designation is single-family residential, which is the same designation across the Rahway border. From Elizabeth Avenue southward all the way to the Rahway River (with the exception of the easterly frontage of Route 1), Linden's designation is "restricted light industrial." This designation is consistent with Rahway's light industrial designations between Elizabeth Avenue and the railroad, and the heavy industrial designation for the Merck property, which stretches all the way to US Route 1. Following a designation of highway business (opposite Linden's designation of commercial-office), Rahway's master plan's light industrial designation continues to Barnett Street, and is compatible with Linden's "restricted light industrial" designation. However, from Barnett Street westerly to the Rahway River (the Linden-Woodbridge border), Linden's restricted light industry designation is incompatible with Rahway's medium-density single-family designation. Since the properties on both sides of the border are substantially developed for industrial and single-family residential uses respectively, such an incompatibility has existed for some time. To change the designation in Rahway would only make these existing stable residential areas non-conforming.

### **Woodbridge Township**

Moving southerly from the Rahway River to Hazelwood Avenue (continuing in a clockwise direction), the Woodbridge Township's master plan's designation is "public/quasi-public" (despite the M-1 Manufacturing designation in the Woodbridge zoning code). On the Rahway side of the border, the Rahway River area is designated by the Master Plan as open space, while the remaining area is within the light industrial land use designation. Since the area south of the Rahway River on both sides of the border encompasses the Rahway Valley sewage treatment plant, the land use designations are compatible. From Hazelwood Avenue to Woodbridge Road, the Woodbridge master plan's designation is industrial. The Rahway Master Plan's designation is light industrial from Hazelwood to Witherspoon Street, but from Witherspoon to Woodbridge the land is designated (and developed) as medium-density single-family. Again, while these land use designations are incompatible, the existence of the single-family homes on the Rahway side of the border would make any other designation unwise.



From Woodbridge Road to US Route 1 & 9, the Woodbridge master plan's designation is public/quasi-public—a designation for the Division of Motor Vehicles property, which in Rahway's Master Plan has been designated medium-density single-family.<sup>7</sup> From US Route 1 & 9 westward to the rail-road spur, Woodbridge's land use designation is "auto salvage/recycling," an activity that is present within Rahway's heavy industrial district (so designated on the Master Plan) across the border. (The only exception is Madden Field between US Route 1 and Elston Street, which is designated as open space.) From the rail spur westward for a short distance the Woodbridge designation is multi-family and from thence to Little Street, the Woodbridge designation is public/quasi-public; the Rahway designation remains light industrial. From Little Street to just beyond St. Georges Avenue the Woodbridge master plan designation is commercial; the Rahway Master Plan's designation is light industrial (for a short distance) and then general business. Thus, there is a stretch of land from the rail spur to St. Georges Avenue where land use designations on either side of the municipal boundary appear to be incompatible. However, once again this incompatibility reflects historical land use patterns which a different designation would be unlikely to alter.

From just west of St. Georges Avenue to Ridge Road, the Woodbridge land use designation is "public" (although its zoning is B-3 Business), opposite Rahway's regional business designation. Thereafter, from Ridge Road to a point just east of Lentz Court, the land use designation in the Woodbridge master plan is single-family residential, consistent with Rahway's Master Plan's designation of medium-density single-family. From Lentz Court westward to Inman Avenue, Woodbridge's master plan designation is quasi-public, but its zoning is R7.5 residential, consistent with Rahway's medium-density single-family designation. From Inman Avenue to West Lake Avenue, the Woodbridge designation is single-family residential, and from West Lake Avenue to the Clark Township border it is quasi-public (i.e., within the Hazelwood Cemetery). Rahway's designation of medium-density single-family opposite these designations from Inman Avenue to the Clark border is compatible with the Woodbridge master plan.

#### B. Relationship to the State Development and Redevelopment Plan

The State Development and Redevelopment Plan (SDRP) of New Jersey was adopted by the New Jersey legislature in 1992 to serve as a framework for guiding future growth and development in the State. While the SDRP is not intended to substitute for local master plans, it is designed to guide and

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<sup>7</sup>Changes to the Rahway R-2 Single-Family Residential zoning designation to allow governmental facilities such as the DMV to be permitted uses have already been suggested in this master plan. If this were done, these designations would be compatible.

coordinate actions among various agencies and across all levels of government. The SDRP divides the State geographically into five Planning Areas, ranging from Metropolitan Planning Areas (PA-1) to Environmentally Sensitive Areas (PA-5), and its urban areas into a hierarchy of three centers—Urban Centers, Regional Centers and Towns, and Villages and Hamlets.

“Planning areas” are large land masses which share similar characteristics. For example, PA-1 Metropolitan Areas—into which the entire City of Rahway falls—is seen to be comprised of urban centers and post-war suburbs which are part of the large metropolitan region surrounding New York City and Philadelphia. With respect to the hierarchy of centers, Rahway is classified as an “Existing Regional Center,” meaning that it is a focal point for economic social and cultural activities within the region, has a developed urban infrastructure, a population and employment base of substantial size and density, and is the hub of a regional transportation system.

There are nine (9) major policy objectives for Metropolitan Planning Areas, which are as follows:

1. **Land Use:** Guide new development and redevelopment to ensure efficient and beneficial utilization of scarce land while capitalizing on the inherent public facility and service efficiencies of the concentrated development patterns.
2. **Housing:** Preserve the existing housing stock through maintenance and rehabilitation and provide a variety of housing choices through development and redevelopment.
3. **Economic Development:** Promote economic development by encouraging redevelopment efforts such as infill and land assembly, public/private partnerships and infrastructure improvements.
4. **Transportation:** Capitalize on the high-density settlement patterns that encourage the use of public transit systems and alternative modes of transportation to improve travel among major population centers, employment centers and transportation terminals.
5. **Natural Resource Conservation:** Reclaim environmentally damaged sites and mitigate future negative impacts, particularly to waterfronts, scenic vistas, any remaining wildlife habitats and to Critical Environmental/Historic Sites generally. Give special emphasis to addressing air quality concerns; provide open space and recreational amenities.

6. **Recreation:** Provide maximum recreational opportunities by concentrating on the maintenance and rehabilitation of existing parks and opens pace while expanding the system through redevelopment and reclamation projects.
7. **Historic Preservation:** Integrate historic preservation with redevelopment efforts in a way that will not compromise either the historic resource or the area's need to redevelop.
8. **Public Facilities and Services:** Complete, repair or replace existing infrastructure systems to eliminate deficiencies and enable future development and redevelopment efforts.
9. **Intergovernmental Coordination:** Provide for the regionalization of as many public services as feasible and economical, and coordinate the efforts of State, county and municipal governments to ensure sound redevelopment, by encouraging private sector investment and providing supportive government regulations, innovative tax policies and other governmental policies and programs.

The Master Plan for the City of Rahway endorses these policy objectives, and in many instances is implementing them. For example, the plan to revitalize the downtown and to accommodate the expanding needs of its major employers (Merck and Rahway Hospital) is an example. Continued efforts to channel funding for the rehabilitation of substandard housing is another. The acquisition of property in the 100-year floodplain, clearing it of structures and turning it into open space, with bikeway and walkway improvements, are also evidence of the City's commitment to the conservation, recreation and transportation goals. The renovation of the train station, improvement to the water treatment plant, the separation of the sanitary and storm sewer systems, the adoption for the first time of an historic preservation element in the Master Plan, the elimination of underground fuel storage tanks at public facilities, the improvement of existing neighborhood parks, the continued acquisition of properties in the City to provide needed commuter and shopper parking, are further examples where the City and State's policy objectives overlap.

C. Relationship to the County's Solid Waste Plan

The use and operation of the Union County Resource Recovery Facility by Rahway is consistent with the County's Solid Waste Management Plan; so too is the City's recycling program (see the Recycling Plan Element).

The only amendment required of the City's land use regulations to be consistent with the County's Solid Waste Management Plan relates to requirements that the site plan and subdivision regulations include provisions for the collection, disposition and recycling of designated recycling materials for any development proposal involving more than 50 single-family homes, 25 or more units of multi-family housing, and any commercial or industrial development comprising 1,000 square feet or more of land. This Master Plan recommends that such regulations be adopted. (For a more detailed discussion see the Recycling Plan Element.)

Pursuant to N.J.S.A. 40:55D-89 (e.), the Redevelopment Plans for :

Central Business District, dated January, 1998 (Addendum A) with amendment dated December, 2006;

Central Business District Redevelopment Plan Expansion Area, dated July, 1999 (Addendum B);

Block 88, Lots 1-5 and 11-13 as amended through May, 2004

Block 149, Lots 1,5,23-25 and portion of Lot 22 through September, 2008

Block 153, Lots 8,9,29-38 dated March, 2004

Block 153, Lot 10 through December, 2006

Block 155, Lot 1 amendment

Block 157, Lots 1-13 through June, 2004

Block 158, Lot 6

Block 159, Lot 4 through May, 2006

Block 161, Lots 3,4, & 5 as amended through September, 2003

Central Business District Redevelopment Plan Expansion Area, Portion of Block 167, dated March, 2001 (Addendum C);

Parts of Blocks 226, 227 and Block 228 Redevelopment Plan dated October, 2004 (Addendum D);

Block 277, Lots 20 & 22, through May, 2004

Block 282, Lot 1.01 Redevelopment Plan, dated July, 2006 (Addendum E);

Block 299, Lots 3,4,5,6, & 7 (Addendum F);

Block 301, Lots 1 & 2 dated June, 2004

Block 304, Lots 1,3,5,6, 7 & 8 and Block 331, Lots 18-26 and 34-47, as amended through October, 2008 (Addendum G);

Block 312, Lot 1 through September, 2006

Block 316, Lots 1-7 through May, 2004

Block 316, Lots 1.01 and 3.02 through September, 2008

Block 317, Lot 5 through September, 2006

Block 317, Lot 15 through September, 2006

Block 318, Lots 1-11, 18 and 23 through September, 2006

Block 318, Lot 20 through September, 2006

Block 318, Lot 21 through September, 2006

Block 318, Lot 22 through September, 2006

Block 319, Lots 1,2,3, & 8 through December 2006

Block 320, Lots 1,1.01, 2,3, & 4 through July 2005

Block 320, Lot 6 amendment

Block 320, Lot 10 through July, 2006

Block 326, Lots 1 & 2 through September, 2004

Block 326, Lot 4 through December, 2004

Block 338, Lot 3 Redevelopment Plan, as amended through October, 2008 (Addendum H);

Block 353, Lot 2 through April, 2008

Block 379, Lots 1-8, as amended through November, 2008

Block 388, Lots 1-15 through November, 2003

Block 389, Lot 24 through June, 2003

**PROPOSED HOUSING ELEMENT OF THE MASTER PLAN OF THE CITY OF  
RAHWAY, UNION COUNTY, NEW JERSEY**

**Prepared by:  
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November 18, 2005**

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#### 4. HOUSING PLAN ELEMENT

##### 4.1 PROFILE AND PROJECTIONS OF CITY'S HOUSING STOCK, DEMOGRAPHIC AND EMPLOYMENT CHARACTERISTICS

###### A. Inventory of Housing Stock

In the past decade, the total number of housing units increased from 9,989 to 10,381, an increase of 392 units. The overall composition of the housing stock includes 5,743 detached, single-family units, or 55.3% of the housing stock, 577 attached, one-family units, for 5.6 % of the housing stock, 1,566 two-unit residences, for 15.1 % of the housing stock, 542 residential buildings with three or four units, for 5.2 % of the housing stock, 427 residential buildings with five to nine units, for 4.1% of the housing stock, 461 residential buildings with ten to nineteen units, for 4.4% of the housing stock, and 1,054 residential units in building with twenty or more units, for 10.2% of the housing stock. The 2000 census reports that there are eleven mobile homes in Rahway, representing 0.1% of the housing stock, but there are no mobile homes within the City limits of Rahway. (See Table 4.1)

The age of the housing stock in Rahway consists of 39 units built between 1999 and March of 2000, for 0.4% of the total residential composition. 76 units were built between 1995 to 1998 for 0.7% of the housing stock. 154 units were built from 1990-1994 for 1.5% of the housing stock. 491 units, or 4.7% of the housing stock, were built between 1980 and 1989. 951 units, or 9.2% of the housing stock were built between 1970 and 1979. 12% of the housing stock or 1,247 units were built from 1960 to 1969. 4,711 units, or 45.4% of the housing stock was built from 1940 to 1959, and 2,712 or 26.1% of the housing stock was built in 1939 or earlier. (See Table 4.2) Being named a Transit Village in 2002 has spurred new residential, high density construction within ½ mile (walking distance) of the train station. The growth anticipated from the high density proposals is expected to exceed 1500 new sale and/or rental units.

Of the 4,711 housing units built from 1940-1959, 40 of the units, built in 1951, belong to the Housing Authority of the City of Rahway. These units are available only to low and moderate income families. The City of Rahway intends to petition the Council on Affordable Housing to become a "receiving municipality" as part of a Regional Contribution Agreement. The funds that a sending municipality contributes to a receiving municipality, in this case, the City of Rahway, will be used to rehabilitate the 40 family units which are in need of new furnaces, plumbing improvements, weatherizing, among others, and handicapped accessibility installations.

The number of owner-occupied units dropped slightly from 63% to 60%, while the number of renter-occupied units edged up to 36%. 353 housing units are vacant, which is approximately 3% of the housing stock. A housing vacancy rate of 5 percent typically connotes a balanced market (i.e., where demand and supply are in balance). A vacancy rate of 3% indicates that the housing market remains very strong in Rahway. (See Table 4.3)

There was a decrease in the median house value of owner-occupied units in the decade of 1990 to 2000. (See Table 4.4) The median house value of an owner-occupied house in 1990 was \$151,000. The median house value of an owner-occupied house in 2000 was \$142,600. This is significantly below the median house value in New Jersey of \$170,800, however, this is not the true representation of the current trend in house prices in the City of Rahway, which are escalating pursuant to current trends in the state.

There was an increase in median contract rents from \$559 per month in 1990 to \$732 per month in 2000. This is an increase of approximately 33%, making affordability of housing even more of a difficult issue for people wishing to live in Rahway.

Table 4.5 displays the 2005 income limits for low and moderate income households (defined as 50 percent and 80 percent of the median income respectively). These limits are established by the New Jersey Council on Affordable Housing and establish eligibility limits for a variety of Federal and State housing programs. The monthly housing cost of an affordable home for such programs is typically set at 28 percent of household's income going toward the payment of principal, interest, real estate taxes and property insurance. Thus, an owner-occupied 3-bedroom home, assumed to be occupied by a 5-person moderate-income family, would be set at approximately \$179,108.00, while the same home occupied by a 5-person low-income family would have a purchase price of approximately \$106,115. The percent of income devoted to rent (including utilities) for low and moderate income families is set at 30% of gross income. Thus, a 2-bedroom apartment, assumed to be occupied by a 3-person, low-income family, would have a maximum monthly rent of \$903.00. The same unit occupied by a moderate income 3-person family would be rented at a maximum of \$1445.40. (See Table 4.5)

#### B. Projection of Housing Stock

Rahway's housing stock will be undergoing significant changes in the future. This is due to the efforts of Mayor James J. Kennedy and the Rahway Redevelopment Agency. The Central Business District Redevelopment Area, the Lower Main Street Urban Renewal Area, the Essex Street Riverfront Redevelopment Area, the Route 1 Corridor Redevelopment Area, the Block 379 Redevelopment Area, the Block 228 and portions of Block 226 and 227 Redevelopment Area will realize new residential and/or commercial construction and increased density. Table 4.6 shows the expected proposals for each area. Further, it is expected that the Essex Street Riverfront residential project of 86 townhouses will be expanded in the future to add 53 condominium units which will be built as stacked flats. Also, the Lower Main Street Urban Renewal Area is earmarked for the future construction of approximately 200 residential units, as well as a daycare center.

Single-family detached homes on individual building lots continue to be in great demand. Residential subdivisions are being constructed on larger lots where property is available; in certain instances, older residential structures are being demolished to build one or two new homes.



#### D. Demographic and Socio-Economic Characteristics of Rahway

The population of Rahway increased from 25,325 in 1990 to 26,500 in 2000, an increase of approximately 4.5%. The state as a whole generally averages 5%. The number of households in Rahway increased from 9,623 in 1990 to 10,028. The average household size in Rahway increased slightly from 2.62 to 2.63 persons. (See Table 4.7)

An examination of the population composition of Rahway by age groups in 1990 and 2000 revealed a most significant change in the age group 18-64, where, in 1990, the number of residents totaled 11,370, and in 2000, the number totaled 20,170, almost doubling the population in this category. There is a slight increase in the number of people 65 years and older, from 3829 to 3836. (See Table 4.8)

The median household income in Rahway in 1989 was \$40,776, while in 2000, was \$50,729, an increase of approximately 25%. The median income for the State of New Jersey in 1999 was \$55,146.00. The per capita income for Rahway in 1989 was \$17,383 and in 1999 was \$22,481, approximately a 25.7% increase. (See Table 4.9)

#### E. Existing and Projected Employment Characteristics

The size of the labor force in Rahway in 1990 was 14,020 people. The size of the labor force in 2000 dropped slightly to 13,495, a 3.7 percent decrease. Rahway's unemployment rate in 1990 was 5 percent and in 2000 was 3.9%.

Employment in Rahway's "heavier" industries, and in the manufacturing sector is likely to match the nationwide and statewide trend of decline. Employment in the sales and technical sector is also likely to decline slightly, as the retail sector stabilizes, then improves with the redevelopment efforts in the downtown, especially. Increases in professional and managerial employment as Merck's research and development facilities are expanded, and the Robert Wood Johnson University Hospital at Rahway expands. Additional small office development in the downtown, as well as an influx of "arts-related" employment should improve Rahway's economy. (See Table 4.10)

### 4.2 CITY OF RAHWAY'S FAIR SHARE OBLIGATION

#### A. Fair Share Allocation

New Jersey's Fair Housing Act of 1985 requires that each municipality's Housing Element of their Master Plan include a determination of the municipality's present and prospective fair share for low-and-moderate-income housing, and its capacity to accommodate the present and prospective need.

In 1986, the Council on Affordable Housing (COAH) adopted Substantive Regulations which included a methodology for calculating the fair share obligation of each municipality in New Jersey. After two iterations of the rules, the Council on Affordable Housing adopted Third Round Rules in December of 2004. The third round rules include

a requirement for a “growth share”. This approach harnesses future growth to produce affordable housing by deeming that all growth-related construction generates an obligation. The “growth share” methodology allows each municipality to determine its capacity and desire for growth in a way that is consistent with the policies of the State Development and Redevelopment Plan; its *Mount Laurel* obligation arises as a share of that growth.

There are three components to the Third Round Methodology: the rehabilitation share (See Table 4.6d), any remaining Prior Round obligation for the period 1987-1999 (See 1997 Master Plan), and the “growth share” (See Table 4.6). Growth share is generated by Statewide residential and non-residential growth during the period from 1999 through 2014, and delivered from January 1, 2004 to January 1, 2014. As a result, for every eight market-rate residential units constructed, the municipality shall be obligated to provide one unit that is affordable to households of low or moderate income. Job creation carries a responsibility to provide housing as well. For every 25 newly created jobs as measured by new or expanded non-residential construction within the municipality Rahway shall be obligated to provide one unit that is affordable to households of low-and moderate-income. (See municipal projections, Tables 4.6 through 4.6f)

“Council” means the New Jersey Council on Affordable Housing established under the Act which has primary jurisdiction for the administration of housing obligations in accordance with sound regional planning considerations in the State.

“Fair share” for purposes of the period 1999-2014, means, in accordance with the provisions of N.J.A.C. 5:94-2, the sum of:

1. A municipality’s 1999-2014 rehabilitation share;
2. The remaining balance of the prior round’s portion of any affordable housing obligation previously assigned by the Council for the 1987 through 1999 cumulative period and not addressed by the municipality; and
3. The growth share obligation.

“Fair Share Plan” means that plan that describes the projects, strategies and the funding sources, if applicable, by which a municipality proposes to address its affordable housing obligation as set forth in N.J.A.C. 5:94-2.4, and also includes the draft Fair Share Ordinances necessary to implement that plan, and addresses the requirements of this chapter.

“Growth share” means the affordable housing obligation generated in each municipality by both residential and non-residential development from 2004 through 2014 and represented by a ratio of one affordable housing unit for every eight market-rate housing units constructed plus one affordable housing unit for every 25 newly created jobs as measured by new or expanded non-residential construction within the municipality pursuant to the methodology detailed in N.J.A.C. 5:94-2.

“Housing Element” means that portion of a municipality’s master plan, as required by N.J.S.A. 40:55D-28b(3), consisting of at least those items identified in N.J.S.A. 52:27D-310 and the supporting information pursuant to N.J.A.C. 5:94-2.2(b) when part of a petition for substantive certification.

“Receiving municipality” means, for purposes of an RCA, a municipality that agrees to assume a portion of another municipality’s growth share obligation.

“Regional contribution agreement (RCA)” means the transfer pursuant to N.J.S.A. 52:27D-312 of up to 50% of a municipality’s growth share obligation to another municipality within its housing region by means of a contractual agreement into which two municipalities voluntarily enter. Housing units developed pursuant to an RCA shall be included in the total number of affordable units developed in the sending municipality.

“Rehabilitation” means the renovation of a deficient housing unit, which is occupied by a low or moderate income household, to meet municipal or other applicable housing code standards as further described in N.J.A.C. 5:94-4.3.

“Rehabilitation share” means the number of deficient housing units occupied by low- and moderate-income households within a municipality, established in accordance with the provisions of N.J.A.C. 5:94-2.1(b) that must be addressed in a Fair Share Plan.

“Sending municipality” means, for purposes of an RCA, a municipality that transfers a portion of its growth share obligation to another willing municipality.

“Set aside” means the percentage of housing units devoted to low- and moderate-income households within an inclusionary development.

“State Development and Redevelopment Plan” means the plan prepared and adopted by the State Planning Commission pursuant to the State Planning Act, P.L. 1985, c.398 (N.J.S.A. 52:18A-196 et seq.).

“Substantive certification means a determination by the Council approving a municipality’s Housing Element and Fair Share Plan in accordance with the provisions of the Act and the rules and criteria as set forth in this chapter. A grant of substantive certification shall run for a period of 10 years beginning on the date that a municipality files a Housing Element and Fair Share Plan with the Council in accordance with N.J.S.A. 52:27D-313, but shall not extend beyond a period of 10 years from one year after the effective date of this chapter and N.J.A.C. 5:95.

Based on the last 10 years of building records from the City of Rahway, the Council on Affordable Housing has determined that the City of Rahway’s “growth share” is seventy (70) affordable units, forty-three (43) projected as a result of residential (market-rate) growth, and seventeen (17) as a result of non-residential (market rate) growth (Table 4.6f). The building records are shown in Tables 4.11 through 4.15 plus Appendix A.

The remaining Prior Round (1987-1999) Obligation from the first and second fair share rounds have been satisfied through new construction and rehabilitation of existing residential units within the City. In fact, surpluses exist in both categories, for new construction, Rahway's surplus is 40 units and for rehabilitation, Rahway's surplus is 6 units.

The third component of determining the "growth share", which is the affordable housing need generated by the City's actual growth, projected from January 1, 2004 until 2014, based on the number of new jobs created as a result of non-residential development, is the component, due to the City's redevelopment efforts, that will change (upward) the number of affordable units that the Metropolitan Planning Organization (MPO) calculates as the "growth share" required of the City of Rahway. (MPO calculation shown in Table 4.6f)

The projected growth share that has been computed pursuant to this Housing Element has been realized by way of new construction or other eligible housing except for thirteen (13) family rentals. These will be provided with new development to be constructed at Block 167, Lots 38 and 45. The site is available and is owned by the Rahway Redevelopment Agency. At the present time, assessments are being completed to determine the level of remediation which will be necessary, since the previous user was a laundry, where cleaning solvent was used. Since this site is in the Central Business District Redevelopment Area, a zoning overlay and amendment to the plan will be prepared by the City Planning Staff to accommodate proposed new uses, including the affordable housing, once an end user is determined. The surrounding properties are of mixed uses; the uses are mostly residential with a component of commercial, being adjacent to the center of the downtown of the City.

Infrastructure demands have been studied pursuant to expected redevelopment and the results indicate the sanitary sewer capacity is available, and the road system will be able to handle the increase in vehicular traffic. Since Rahway is also a Transit Village, the train station and bus service are expected to be used, since the proposed site is within walking distance of the train station, which is the fifth busiest station on the Northeast Corridor line. Rahway has a paid Fire Department and a superior Police Department, both of which will be able to absorb the new demands of the new construction into their schedules.

The proposed development will be in concert with the economic development policies of the City of Rahway, and it is of significance that the location is within the Central Business District, since there is a management organization that sees to the fluid operation of matters in the downtown, called the Rahway Center Partnership. Any problems that arise have several levels within which they can be solved, either the Partnership or the City Staff is usually able to handle any complaints.

The State regulations that will exert some constraint to the location within Block 167, Lots 38 and 45 of the residential development relate to the New Jersey Department of Environmental Protection, since the Robinson's Branch of the Rahway River is adjacent

to the site. There are sufficient uplands within the site, however, to permit the development of the proposed affordable housing.

TABLE 4.1

HOUSING UNITS PER STRUCTURE IN RAHWAY, 1990 AND 2000

<u>Number of Units per Structure</u>	1990		2000	
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
1 unit (detached and attached)	6,109	62%	6,320	60%
2 to 9 units	2,322	23%	2,535	24%
10 or more units	1,406	14%	1,515	14%
Mobile home or trailer units	71	1%	11	0%
TOTAL	9,989	100%	10,381	98%

SOURCE: 1990 AND 2000 US Census

**TABLE 4.2  
CURRENT AGE OF HOUSING UNITS IN RAHWAY, 2000**

<u>Decade of Construction</u>	<u>Number of Housing Units</u>	<u>Percent of Total</u>
1939 or earlier	2,712	26.1
1940 to 1959	4,711	45.4
1960 to 1969	1,247	12
1970 to 1979	951	9.2
1980 to 1989	491	4.7
1990 to 1994	154	1.5
1995 to 1998	76	0.7
1999 to March, 2000	39	0.4
TOTAL	10,381	100%

SOURCE: 2000 US Census

**TABLE 4.3**  
**HOUSING TENURE, RAHWAY, 1990 AND 2000**

<u>Housing Tenure</u>	1990		2000	
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
Owner-Occupied	6,324	63%	6,288	62.70%
Renter-Occupied	3,299	33%	3,740	37.30%
Vacant	366	4%	353	3.40%
TOTAL	9,989	100%	10,028	96.60%

SOURCE: 2000 US Census



**TABLE 4.4**  
**HOUSING UNIT VALUES AND CONTRACT RENTS FOR RAHWAY, 1990 AND 2000**

	1990	2000	Change 1990-2000	
			<u>Number</u>	Percent
Median Unit Value	\$151,000	142,600	(\$8,400)	5% decrease
Median Contract Rent	\$558	\$732	\$174	31% increase

SOURCE: 1990 AND 2000 US Census

**TABLE 4.5**  
**2005 INCOME LIMITS FOR LOW AND MODERATE INCOME HOUSEHOLDS IN UNION COUNTY**

<u>Number of persons</u>	<u>Low Income (50% of Median Income)</u>	<u>Moderate Income (80% of Median Income)</u>
1	\$28,105	\$44,968
2	\$32,120	\$51,392
3	\$36,135	\$57,816
4	\$40,150	\$64,240
5	\$43,362	\$69,379
6	\$46,674	\$74,518
7	\$49,786	\$79,658
8	\$52,998	\$84,797

SOURCE: New Jersey Council on Affordable Housing

TABLE 4.6

NUMBERS GENERATING OBLIGATION

FACILITY	NEW RESIDENTIAL	NEW OTHER SQ. FT.					
Parking Deck		188,000					
Landmark Homes	159	7000					
Heartstone	136						
Main and Monroe	14	6600					
AM Industrial	150						
Wheatena	224						
Block 318	113	6000					
Hamilton Laundry	100						
(Silcon) Hotel	225	130,000					
Giacobbe (West Main)	6						
Giacobbe (Lenington)	13						
Essex Street	86						
Best Western Hotel		46,720					
Sleep Inn and Suites		46,720					
Sleep Inn and Suites Restaurant		6,000					
Planning/Zoning Board approvals	28						
Sisto	50						
Huffman Koos (Park Terrace)	140						
Quick Chek		4900					
Dornock	36						
Block 379	90						
Library		32,000					
Laniado office		40,000					
<b>SUBTOTALS</b>	1570						
	172 demolitions						
	1398	-8	<b>174.75</b>	(Retail)	30,500	-25,000	<b>1.22</b>
				(Library)	32,000	-8,333	<b>3.84</b>
				(Office)	40,000	-8,333	<b>4.8</b>
				(Hotels)	223,440	-31,250	<b>7.15</b>
				(Deck)	188,000	-125,000	<b>1.5</b>
				Demolition-Retail	-236,319	-8,333	<b>-28.35</b>
				Demolition-Hotel	-35,000	-31,250	<b>-1.12</b>
<b>TOTALS</b>			<b>174.75</b>				<b>-10.96</b>
<b>GRAND TOTAL</b>							<b>163.79</b>
							<b>REQUIRED AFFORDABLE OBLIGATION</b>



CITY OF RAHWAY  
 CODE ENFORCEMENT  
 ONE CITY HALL PLAZA  
 RAHWAY, NEW JERSEY 07065

## Permit Activity Log

All permits issued between the dates of 1/3/2005 and 11/22/2005.

		<i>Summary</i>		<i>Totals</i>	
		Number of Permits:		24	
		Number of Permit Updates:		0	
		Total Construction Value:		\$328,425	
		Housing Units Gained:		0	
		Housing Units Lost:		21	
		<i>Details</i>			
	Work Type	Subcode	Subcode Fee	Permit Number	Permit Issue Date
F-1	Demolition	Building	\$150	05/0609	05/23/05
			<u>\$150</u>		
M	Demolition	Building	\$75	05/0007	01/04/05
			\$75	05/0008	01/04/05
			\$150	05/0343	03/31/05
			\$150	05/0344	03/31/05
			<u>\$450</u>		
R-3	Demolition	Building	\$75	05/0036	01/12/05
			\$75	05/0037	01/12/05
			\$75	05/0241	03/10/05
			<u>\$225</u>		
R-5	Demolition	Building	\$63	05/0648	05/31/05
			\$0	05/0731	06/15/05
			\$150	05/0734	06/17/05
			\$150	05/0735	06/17/05
			\$60	05/0785	06/27/05
			\$61	05/0810	06/30/05



CITY OF RAHWAY  
CODE ENFORCEMENT  
ONE CITY HALL PLAZA  
RAHWAY, NEW JERSEY 07065

## Census Report

between the dates of 1/3/2005 and 11/22/2005.

	<u>Census Item Number</u>	<u>Buildings</u>	<u>Units</u>	<u>Construction Value</u>
<b>Privately Owned</b>				
	101	12	32	1632579
	102	3	21	2026500
	103	1	-4	156588
	104	1	3	185475
	105	5	11	926976
	213	0	1	80000
	318	1	0	18500
	320	2	0	5600
	323	2	0	117500
	324	1	-1	31500
	326	1	0	2000
	328	4	1	13800
	434	0	1	0
	437	0	-1	0
	645	5	-6	41300
	649	5	0	52795
	999	1338	-5	17640715
	(109) Total 101-105			\$6,046,155
<b>Publicly Owned</b>				
	327	1	0	3650
	649	1	0	50000

**TABLE 4.6a**  
**PROJECTED DEMOLITIONS FOR THE PERIOD**  
**JANUARY 1, 2004 THROUGH JANUARY 1, 2014**

	Non-residential sf	# Residential		Non-residential sf	# Residential
Block 149			Block 157		
Lot 1	51,255	0	Lot 1	1,322	0
Lot 2		1	Lot 2	3,040	0
Lot 3		2	Lot 3		1
Lot 4		4	Lot 4		0
Lot 5		0	Lot 5		0
Lot 6		1	Lot 6		2
Lot 7		1	Lot 7		12
Lot 8		2	Lot 9	3,477	0
Lot 9		1	Lot 10	4,323	0
Lot 10		2	Lot 11	14,208	0
Lot 20		2	Lot 12		2
Lot 21		16	Lot 13		1
Lot 22		1			
Lot 23		0			
Lot 24		0			
Lot 25		2			
Block 167			Block 158		
Lot 45	35,894	0	Lot 3	1,750	0
Lot 38	13,150	0			
Lot 37		54			
Lot 39		2	Block 319		
Lot 40		2	Lot 1		0
Lot 41		2			
Lot 42		2			
Lot 43		2	Block 318		
Lot 44		2	Lot 1	2,112	0
			Lot 2	945	0
Block 316			Lot 3	11,159	0
Lot 3	1,372	0	Lot 4	720	0
Lot 4	7,324	0	Lot 5	3,221	0
Lot 5	1,391	0	Lot 6	4,244	3
Lot 6		4	Lot 7	21,638	3
Lot 7	3,385	2	Lot 8	5,437	2
			Lot 9	5,417	2
			Lot 10	2,352	1
			Lot 11	3,792	0
Block 304			Lot 18	2,640	0
Lot 5	Motel-52 units	0	Lot 23		0
Lot 6		0			

TABLE 4.6a (cont'd)

Non-residential sf		# Residential	Non-residential sf		# residential
Block 228			Block 379		
Lot 1		0	Lot 1	3,565	3
Lot 2		4	Lot 2	4,382	1
Lot 3		0	Lot 3		1
Lot 4		0	Lot 4		2
Lot 5		1	Lot 5		2
Lot 6		1	Lot 6		3
			Lot 7		2
			Lot 8		1
Block 388					
Lot 7		1			
Lot 8	900	1	Block 338		
Lot 9	665		Lot 7	6,452	
Lot 10				2,025	
Lot 11				3,384	
Lot 12	6,580				
Lot 13	1,369				
Lot 14			Block 168		
Lot 15		1	Lot 15		1
			Lot 16		1
			Lot 17		1
Block 136			Lot 18		1
Lot 24		1			
			Block 299		
Block 143			Lot 7		7
		0			

**TABLE 4.6b**

**CREDITS**

NUMBER	LOCATION	CREDITS	TYPE
2 very low	1817-1841 Newton	4	family rentals
9 low	" " "	9	" "
2 low	1779-1783 Newton	2	family rentals
4 low	Single family on Leesville Avenue	4	family rentals
4 low	746 West Inman	4	group home
3 low	482 Booth Court	3	group home
3 low	1083 Pierpont Avenue	3	group home
82 age-restricted	Rosegate	41	senior rentals
		41	affordable obligation
second round surplus		40	prior obligation surplus
<b>TOTAL</b>		<b>151</b>	
<b>NEED</b>		<b>163.79</b>	
<b>REQUIRED</b>		13	family rentals

**OBLIGATION WILL BE CONSTRUCTED AT BLOCK 167, LOTS 38, 45 AS A MIXED USE PROJECT**



TABLE 4.6c

**NEW COAH THIRD ROUND RULES**

1. ONLY 50% OF THE AFFORDABLE OBLIGATION CAN BE AGE-RESTRICTED. (RAHWAY NUMBER IS 82)
2. 50% OF THE OBLIGATION MUST BE MET BY PROVIDING NEW RENTAL UNITS (RAHWAY NUMBER IS 82)
3. ONLY 50% OF THE 50% RENTAL OBLIGATION CAN BE MET BY PROVIDING AGE-RESTRICTED RENTALS.  
(41 ROSEGATE UNITS COUNT TOWARD AGE-RESTRICTED RENTALS, BALANCE OF 82 AGE-RESTRICTED UNITS COUNT TOWARD RAHWAY AFFORDABLE OBLIGATION)
4. DOUBLE CREDIT IS GIVEN FOR FAMILY RENTALS EXCEEDING THE OBLIGATORY NUMBER OF 41
5. DOUBLE CREDIT IS GIVEN FOR VERY LOW INCOME RENTAL UNITS.
6. GROUP HOMES ARE CONSIDERED RENTAL UNITS AND ARE BASED ON THE NUMBER OF BEDROOMS.
7. PRIOR ROUND SURPLUS COUNTS AS CREDIT. (RAHWAY NUMBER IS 40)
8. 10% OF ALL TOWNHOUSE UNITS GIVEN DEVELOPMENT APPROVALS AFTER JUNE 20, 2005 WILL BE REQUIRED TO BE HANDICAPPED-ACCESSIBLE. (THIS APPLYS ONLY TO AFFORDABLE TOWNHOUSE UNITS.)

**Table 4.6d**  
**REHABILITATION SHARE CALCULATION**

	<u>Number of units Rehabilitated</u>	<u>Average expenditure Per Unit</u>	<u>Total expenditure for Year</u>
1996 (Partial)	20	\$10,360	\$207,170
1997	25	\$11,604	\$290,100
1998	24	\$10,833	\$260,000
1999	26	\$10,192	\$265,000
2000	35	\$8,071	\$282,500
2001	20	\$12,800	\$256,000
2002	22	\$11,518	\$253,400
2003	17	\$15,941	\$279,300
2004	18	\$15,517	\$279,300
2005 (Partial)	23	\$11,913	\$274,000
Average per year	23	\$11,874.90	\$264,677
<b>Surplus from prior round</b>	<b>6</b>		
<b>Rehabilitation share per COAH</b>	<b>108</b>		

From January 1, 2004 to January 1, 2014, at 23 units rehabilitated per year, 230 units will be completed

230 units minus 108 share plus 6 prior round surplus provides, by January 1, 2014, a Third Round Surplus of 128 units

**Table 4.6e**  
**HOUSING REHABILITATION NEED IN 2000**

Total units	10,381
Age of Housing-# units prior to 1939	2,712
Overcrowded	541
Lacking complete plumbing/kitchen	257
Over 30% monthly cost	1,793
Total problem units	5,303
Percent of housing stock	51%

SOURCE: 2000 US Census

Table 4.6f  
METROPOLITAN PLANNING ORGANIZATION  
GROWTH SHARE PROJECTION TO JANUARY 1, 2014  
CITY OF RAHWAY, UNION COUNTY, NEW JERSEY

**Residential Growth Share**

2005 households	10,390
2015 households	10,780
Projected growth	390
Residential growth share	43

**Non-residential Growth Share**

2005 jobs	17,590
2015 jobs	17,990
Projected growth	420
Non-residential growth share	17
<b>Total affordable units required by 1/1/14</b>	<b>60</b>

**Table 4.7**  
**POPULATION, HOUSEHOLDS AND HOUSEHOLD SIZE FOR RAHWAY**  
**1990 AND 2000**

	<u>1990</u>	<u>2000</u>	Change 1990-2000	
			<u>Number</u>	<u>Percent</u>
Total Population	25,325	26,500	1,175	4%
Number of Households	9,623	10,381	758	7%

SOURCE: 1990 and 2000 US Census

**Table 4.8  
TOTAL POPULATION BY AGE AND SEX FOR RAHWAY  
1990 AND 2000**

<u>Age Cohort</u>	1990				2000			
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Total %</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Total %</u>
4 yrs and under	905	759	1,664	7%				
under 5 years							1,660	6.30%
5-17 years							834	3.10%
18 years and over							20,170	76.10%
5-64 years	9,823	10,009	19,832	78%				
65 years and over	1,511	2,318	3,829	15%			3,836	14.50%
	12,239	13,086	29,325	100%	12,639	13,861	26,500	100%

SOURCE: 1990 and 2000 Census

**Table 4.9**  
**HOUSEHOLD AND PER CAPITA INCOME FOR RAHWAY**  
**1989 AND 2000**

<u>Household Income</u>	1989		1999	
	<u>Number of Households</u>	<u>Percent of Total</u>	<u>Number of Households</u>	<u>Percent of Total</u>
Less than \$5,000	341	4%		
\$5,000-\$9,000	723	7%	652	6%
\$10,000-\$14,999	413	4%	582	6%
\$15,000-\$24,999	1,160	12%	949	10%
\$25,000-\$34,999	1,307	14%	1,048	11%
\$35,000-\$49,999	2,076	22%	1,646	16%
\$50,000 and over	3,634	38%	5,151	51%
	9,654	100%	10,028	100%

SOURCE: 1990 AND 2000 US Census

**Table 4.10**  
**LABOR FORCE CHARACTERISTICS FOR RAHWAY**  
**1990 AND 2000**

<u>Labor Force Status</u>	1990		2000		Change 1990-2000	
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
People 16 yrs and older	20,508	100%	20,773	100%	265	0
In armed forces	15	0%	0	0	-15	0
Not in labor force	6,473	32%	7,278	35%	805	3%
In civilian labor force	14,020	68%	13,495	65%	-525	-3%
-Employed	13,268	95%	12,605	61%	-663	
-Unemployed	752	5%	890	4%	138	-1%
Subtotal	14,020	100%	13,495	100%	-525	-3%
<u>Occupations of Employed Persons</u>						
Managerial and professional	3,235	24%	3,862	31%	627	8%
Technical, sales and						
Administrative support	5,093	39%	3,924	31%	-1,169	-8%
Service	1,579	12%	1,683	13%	104	1%
Farming, forestry & fishing	78	1%	0	0%	-78	-1%
Precision production,						
Craft and repair	1,480	11%	1,930	15%	450	4%
Operators, fabricators and						
Laborers	1,803	14%	1,206	10%	-597	-4%
TOTAL	13,268	100%	12,605	100%	-663	-4%

SOURCE: 1999 and 2000 US Census



**Table 4.11**  
**HOUSING UNITS CERTIFIED IN THE CITY OF RAHWAY**  
**FOR THE PERIOD 1996-2005**

<u>Year</u>	<u>Units Certified</u>
1996	3
1997	7
1998	5
1999	7
2000	22
2001	10
2002	9
2003	45
2004	103
2005	37

**Table 4.11a**  
**NON-RESIDENTIAL STRUCTURES CERTIFIED IN THE CITY OF RAHWAY**  
**1996-2005**

<u>Year</u>	Office	Retail	Industrial	Institutional	Educational	Unknown
1996	2,072			2,073		1,017
1997	5,648		11,607	10,435		11,790
1998	1,900	21,105				671
1999			15,020			
2000	145,944					51,304
2001						
2002	11,932	6,111	13,842			27,488
2003	248,671					
2004					55,654	107,563
2005	<b>See Appendix A</b>					

Table 4.12  
CONSTRUCTION PERMITS ISSUED IN THE CITY OF RAHWAY  
RESIDENTIAL DEVELOPMENT  
1996-2005

<u>Year</u>	<u>Number of permits issued</u>
1996	4
1997	6
1998	22
1999	24
2000	34
2001	38
2002	15
2003	301
2004	171
2005	22

Table 4.13  
**CONSTRUCTION PERMITS ISSUED IN THE CITY OF RAHWAY**  
**NON-RESIDENTIAL DEVELOPMENT**  
**1996-2005**

<u>Year</u>	Institutional	Storage	Office	Restaurant	Industrial	Retail	Educational	Unknown	Hotel
1996	9,338	3,000	3,600						
1997	3,170	20,000	97,648	671	30,040	13,905			
1998		45,990	411,705	5,400					
1999		1,755	273,972		9,800			118,142	
2000			333,149	1,110				80,154	
2001			261,471		9,042	6,111	86,984	149,888	
2002			2,866			4,125	19,454	2,326	
2003		305	2,416						
2004	19,075	208,884				2,200		1,319	46,355
2005	<b>See Appendix A</b>								

**Table 4.14**  
**DEMOLITION PERMITS ISSUED IN THE CITY OF RAHWAY**  
**RESIDENTIAL STRUCTURES**  
**1996-2005**

<u>Year</u>	<u>Number of Residential Demolition Permits</u>
1996	1
1997	6
1998	9
1999	3
2000	12
2001	23
2002	12
2003	23
2004	37
2005	21

**Table 4.15**  
**DEMOLITION PERMITS ISSUED IN THE CITY OF RAHWAY**  
**NON-RESIDENTIAL STRUCTURES**  
**1996-2005**

<u>Year</u>	Office	Retail	Industrial	Restaurant	Storage	Unknown
1996	0					
1997	1					
1998	1					
1999	1	1				
2000	5	3			1	2
2001	2	2			1	
2002	0					
2003		3				
2004	2	3	1		2	
2005	3					

**APPENDIX A  
2005 ACTIVITY**

**CONSTRUCTION PERMITS,  
DEMOLITION PERMITS, AND  
CERTIFICATES OF OCCUPANCY**

**APPENDIX A**  
**2005 ACTIVITY**

**CONSTRUCTION PERMITS,  
DEMOLITION PERMITS, AND  
CERTIFICATES OF OCCUPANCY**





CITY OF RAHWAY  
 CODE ENFORCEMENT  
 ONE CITY HALL PLAZA  
 RAHWAY, NEW JERSEY 07065

## Permit Activity Log

All permits issued between the dates of 1/3/2005 and 11/22/2005.

<i>Summary</i>	<i>Totals</i>
<i>Number of Permits:</i>	22
<i>Number of Permit Updates:</i>	0
<i>Total Construction Value:</i>	\$10,306,577
<i>Housing Units Gained:</i>	52
<i>Housing Units Lost:</i>	0

### Details

	Work Type	Subcode	Subcode Fee	Permit Number	Permit Issue Date
A-3	<i>New Construction</i>	<i>Building</i>	\$360	05/0564	05/16/05
<u>\$360</u>					
		<i>Electrical</i>	\$45	05/0564	05/16/05
<u>\$45</u>					
M	<i>New Construction</i>	<i>Building</i>	\$3,823	05/0383	04/11/05
\$2,820			05/0410	04/13/05	
<u>\$6,643</u>					
		<i>Electrical</i>	\$360	05/0383	04/11/05
\$550			05/0410	04/13/05	
<u>\$910</u>					
		<i>Fire</i>	\$345	05/0383	04/11/05
\$45			05/0410	04/13/05	
<u>\$390</u>					
		<i>Plumbing</i>	\$192	05/0383	04/11/05
\$540			05/0410	04/13/05	
<u>\$732</u>					
R-3	<i>New Construction</i>				



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### Permit Activity Log

All permits issued between the dates of 1/3/2005 and 11/22/2005.

**R-5**

*Demolition*

*Building*

\$150	05/0875	07/14/05
\$150	05/0994	08/05/05
\$60	05/0997	08/05/05
\$150	05/1112	08/24/05
\$150	05/1177	09/07/05
\$0	05/1423	10/19/05
\$60	05/1481	10/31/05
\$0	05/1528	11/07/05
<hr/>		
\$1,204		

*Fire*

\$0	05/1528	11/07/05
<hr/>		
\$0		

*Plumbing*

\$0	05/1528	11/07/05
<hr/>		
\$0		

**S-1**

*Demolition*

*Building*

\$0	05/0610	05/24/05
<hr/>		
\$0		

**U**

*Demolition*

*Building*

\$45	05/0494	05/04/05
<hr/>		
\$45		



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## Permit Activity Log

All permits issued between the dates of 1/3/2005 and 11/22/2005.

R-5

New  
 Construction

*Electrical*

\$130	05/1328	09/30/05
\$130	05/1329	09/30/05
\$176	05/1358	10/06/05
<hr/>		
\$1,392		

*Fire*

\$369	05/0186	02/24/05
\$209	05/0245	03/11/05
\$45	05/0526	05/10/05
\$315	05/1092	08/22/05
\$45	05/1328	09/30/05
\$45	05/1329	09/30/05
\$45	05/1358	10/06/05
<hr/>		
\$1,073		

*Mechanical*

\$164	05/1328	09/30/05
\$0	05/1329	09/30/05
\$228	05/1358	10/06/05
<hr/>		
\$392		

*Plumbing*

\$520	05/0186	02/24/05
\$360	05/0245	03/11/05
\$396	05/1092	08/22/05
\$312	05/1328	09/30/05
\$312	05/1329	09/30/05
\$360	05/1358	10/06/05
<hr/>		
\$2,260		

S-1

New  
 Construction

*Building*

\$50,288	05/1009	08/09/05
<hr/>		
\$50,288		

U

New  
 Construction

*Building*

\$166	05/0649	05/31/05
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CITY OF RAHWAY  
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## Certificates Issued Summary

Certificate of Occupancy certificates issued between the dates of 1/3/2005 and 11/22/2005.

<i>Certificate</i>	<i>Count</i>	<i>Construction Cost</i>	<i>Fees</i>
Certificate of Occupancy	37	\$15,570,591	\$315

<i>Summary</i>	<i>Total</i>
<i>Total Certificates Issued</i>	37
<i>Total Construction Cost</i>	\$15,570,591
<i>Total Certificates Fees Collected</i>	\$315



CITY OF RAHWAY  
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## Permit Activity Log

All permits issued between the dates of 1/3/2005 and 11/22/2005.

R-3

New  
Construction

*Building*

\$1,228	05/0473	04/28/05
<hr/>		
\$1,228		

*Electrical*

\$146	05/0473	04/28/05
<hr/>		
\$146		

*Fire*

\$306	05/0473	04/28/05
<hr/>		
\$306		

*Plumbing*

\$358	05/0473	04/28/05
<hr/>		
\$358		

R-5

New  
Construction

*Building*

\$1,328	05/0186	02/24/05
\$838	05/0245	03/11/05
\$8,404	05/0501	05/05/05
\$60	05/0526	05/10/05
\$6,686	05/0555	05/13/05
\$6,014	05/0700	06/08/05
\$935	05/0835	07/06/05
\$1,030	05/1048	08/15/05
\$1,030	05/1049	08/15/05
\$1,030	05/1050	08/15/05
\$6,014	05/1067	08/17/05
\$1,562	05/1092	08/22/05
\$3,437	05/1130	08/26/05
\$1,027	05/1328	09/30/05
\$1,027	05/1329	09/30/05
\$1,806	05/1358	10/06/05
<hr/>		
\$42,228		

*Electrical*

\$267	05/0186	02/24/05
\$208	05/0245	03/11/05
\$45	05/0526	05/10/05
\$436	05/1092	08/22/05

## 5. ECONOMIC PLAN ELEMENT

### 5.1 INTRODUCTION

Inherent in this master plan's goals and objectives and recommendations within each master plan element, is the premise that economic forces must be used to encourage, shape and guide balanced growth and sustain economic development in the City of Rahway in the future. For example, recommended changes in the boundaries of business zoning districts, and changes with respect to the uses and bulk and area standards for such business zones are aimed not only at producing more orderly development, but at encouraging development or redevelopment in a way which fosters the economic health of the community.

Thus, the principles of economic development and the "economic plan" for Rahway are incorporated into the other eight elements of the master plan. Aside from these, however, are specific economic development efforts which are afoot in the City of Rahway which merit special treatment, separate and apart from the other elements of the master plan. These include the Central Business District, Rahway Hospital, Merck, Union County Resource Recovery Facility, the Union County Arts Center and the so-called "brownfield sites" in Rahway.

### 5.2 THE CENTRAL BUSINESS DISTRICT

#### A. Supplementary Economic Analysis

As a follow-up to the **Central Business District Study** undertaken by Moskowitz and Planners Diversified in 1990 (the "1990 CBD Study" hereafter), the City commissioned as part of the Comprehensive Master Plan update a supplementary economic analysis to be undertaken by Abeles Phillips Preiss & Shapiro in 1995.

The study utilized data provided in the **1990 CBD Study** as a base, and supplemented this with a shopper survey (the results of which are provided in Appendix A and the survey form of which is provided in Appendix B of this element), interviews and/or meetings with business and real estate leaders and public officials in Rahway (including members of the Rahway Center Partnership), demographic and market profiles for the market area, a prior analysis of retail potential for the down-

town prepared in 1993,<sup>1</sup> and land use surveys of and site visits to downtown Rahway. (A full list of uses in the downtown is provided in Appendix C.)

This data was analyzed and used to formulate a "market vision" for the downtown and to serve as a basis for recommended courses of action to revitalize the downtown.

### **The Market Area for Downtown Rahway**

Since downtown Rahway is comprised of more than retail shopping facilities it has different market areas associated with different types of uses and facilities. The downtown and the market areas are shown on Figure 5.1 and are described below.

1. **Retail.** The primary trade area for retail uses is generally within a 6/10ths of a mile radius of the center of downtown (the center being defined as the corner of Irving and East Cherry Streets). This is because (a) fifty percent of the CBD customers originate from within this area<sup>2</sup>; (b) this area is within a  $\pm 5$  to 10 minute walk of the downtown (typically the walking distance of a community-oriented downtown shopping area); and (c) to people living within this area, the stores in the CBD are closer than competitive shopping facilities, located both within Rahway (such as on St. Georges Avenue), or outside of Rahway (such as the Linden Shopping Center or the Avenel Foodtown/Bradlees Shopping Center). For the remainder of the trade area, another 20% of customers come from within Rahway itself (generally within a one-mile radius of the center, and another 20% comes from within a 2½- to 3-mile radius of the downtown. The remaining 10% is scattered and from further away.<sup>3</sup>

When this information regarding the origin of Rahway's downtown shoppers is combined with data in the shopper survey as to where customers do most of their shopping and what stores they most frequent in the downtown for goods and services, it appears that the retail trade area is broken down into two parts: a primary trade area within a 6/10ths of a mile radius of the

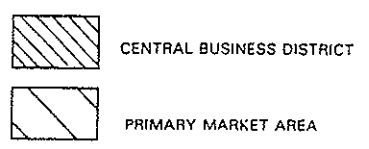
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<sup>1</sup>Demographic Analysis of Retail Potential of Rahway City Center—The Kay Group, November 1993.

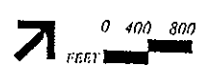
<sup>2</sup>Plotting the exact origin of all the shoppers from the Rahway shoppers survey indicated a concentration of shoppers—actually 50% of the respondents—coming from this area.

<sup>3</sup>This market area identification is confirmed by the results of the merchants survey conducted in the **1990 CBD Study**.





**5.1 Central Business District and Primary Retail Market Area**



downtown center where customers use the downtown primarily for the purchase of convenience goods for daily living and a secondary trade area, within a 2½ to 3 mile radius of the downtown. In the primary trade area customers shop in downtown Rahway because it is closer and more convenient than comparable facilities, because many who do their shopping do not have access to a car, either at any time (e.g., seniors) or only at limited times (such as when it is not being used for journey to work). Twenty years ago, downtown Rahway probably had a much larger market area for convenience goods, as well as a greater market penetration (i.e., a higher proportion of customers coming from within the market area using the downtown for convenience shopping). It has, in the intervening time period, lost its competitive edge to supermarkets and neighborhood centers in Woodbridge, Clark and Linden, and even within Rahway itself (i.e., to shops on St. Georges Avenue).

The secondary trade area, based upon the fact that it accounts for another 40% of shoppers, or 90% in total, is within a 2½- to 3-mile radius. While this is the area from which additional customers are drawn, there is a light penetration of the secondary market area, i.e., only a small percentage of residents who live within a 10- to 15-minute drive of the downtown, choose to come to downtown Rahway for shopping purposes. Based upon the fact that these shoppers have convenience shopping facilities closer to them than downtown Rahway (with greater variety, convenient parking, more direct access, etc.), and also since many also have better and more convenient access to comparative shopping at regional malls, strip centers and large freestanding stores located on regional highways like US Routes 1 & 9 and St. Georges Avenue, which have national and retail chains, it is likely that they are shopping only at the unique, one-of-a-kind, specialized or comparative shops that exist in Rahway (such as Kennedy Jewelers, the antique store, or Cliff's Hardware Store), or are already in Rahway for purposes other than shopping, e.g., the post office, the Arts Center, the train station, etc. It is primarily the presence of these few long-established stores, with specialized merchandise and a following of long-standing loyal customers, that bring shoppers from within the secondary trade area to Rahway. Unlike most downtowns, these comparative stores do not rely on a walk-in trade, i.e., customers who are in the downtown shopping at other stores who walk by their storefronts. The comparative retail stores which do exist in Rahway are comprised mostly of strong individual merchants who have carved out niche or specialized markets and developed a strong reputation and customer loyalty so that they have survived the competition from regional facilities located in Woodbridge (in particular), as well as in Clark and Linden.

2. **Institutional.** In this category are the banks, the post office, City Hall and the YMCA. The market area appears to coincide, to a large degree, with Rahway's municipal boundaries—an approximate one-mile radius. The strong presence of local banking facilities, along with an obvious community-focused post office and YMCA, means their customers come primarily from within the community itself.
3. **Entertainment.** The Union County Arts Center (UCAC) and the restaurants in Rahway appear to have a more regional draw—i.e., from within the 2½- to 3-mile secondary market area. The UCAC is unique and has no real competitive facilities from within this secondary trade area. The relatively high number of restaurants, their concentration in the downtown, and their range of cuisines, indicates that many of their customers are drawn from outside of Rahway. With regard to the latter, the presence of a large number of workers in Rahway, both in and outside the downtown (e.g., such as at Merck and the Hospital) provides a strong customer base for these restaurants.
4. **Medical.** There appears to be a fairly strong demand for medical services and clinical space within Rahway, especially associated or connected with the Rahway Hospital. However, because the Hospital is located outside of the downtown, few medically-related businesses are in the CBD itself. Most are located on St. Georges Avenue, or because of liberal zoning policies for establishing home professional occupations, many are scattered around the hospital in Rahway's residential areas.
5. **Commuter.** The train station in Rahway draws commuters from within and beyond Rahway's borders. Commuters most often choose to use that train station which is the shortest driving time from their home, provided the train station has sufficient, convenient and reasonably priced parking. The market area for the Rahway train station is comprised of those areas in which train commuters live which are closer to the Rahway train station than other train stations providing the same commuter opportunities (i.e., Metropark, Linden, Roselle, Cranford, Garwood, Westfield, and Perth Amboy). From within this area, market penetration appears to be strong<sup>4</sup>, and it appears because of the extent to which available commuter parking spaces are quickly filled that an even greater number of commuters from this area could be drawn. This

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<sup>4</sup>Despite the fact that most of the shopper survey was conducted during non-peak commuter times, still nearly half the shoppers indicated that they come to Rahway for the train station.

market area is not circular in shape and varies from between a mile to a mile-and-a-half from the center of Rahway.

6. **Service/Office Uses.** The service and office uses in the downtown do not appear to have a particularly strong customer draw. Apart from the banks and post office, few shoppers come to the downtown for office visits. However, there is a growing presence of service and office tenants<sup>5</sup>, most of whom either live in Rahway or who serve local interests. The presence of these businesses is positive in the downtown: their employees are potential customers for the retail sector<sup>6</sup>; their investment in downtown real estate, including furnishing and equipment stimulates local businesses; they generate rents and real estate taxes and their presence can bolster the image of the downtown as a place to do business.

In summary, downtown Rahway has different market areas which vary with the different types of land uses that exist within the CBD. As explained above, such market areas range from a 6/10ths of a mile radius for convenience goods, to 2½ to 3 miles for comparative goods and entertainment. In retail terms, however, Rahway's downtown is most closely akin to a community shopping area with which it shares several similar characteristics, including: amount of floor area, types of goods and services offered, main tenant stores and associated smaller stores, and the radius of the market area and size of population within their market areas (see Table 5.1). Recognition of this helps to provide the downtown retail area with an identity and also can help Rahway to develop a market vision or strategy for its future revitalization. It is, however, also important to note the differences (as shown in Table 5.1). First, the absence of a supermarket or large discount store (e.g., K-Mart) that typically anchors a Community Shopping Center, means there is no real retail anchor present in downtown Rahway. The second key difference is in regard to the types of customers in the secondary trade area. In a Community Shopping Center, the key for customers is proximity and convenience. Thus, Community Shopping Centers have strong primary and secondary market area penetration. In downtown Rahway, secondary market penetration is weak; it is the presence of people who are in the downtown primarily for purposes other than shopping, or are there for single purpose/

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<sup>5</sup>Only one-third of the non-residential space in the downtown in Rahway, according to the 1990 CBD study, was comprised of retail space. Even accounting for a 7% vacancy rate and space devoted to governmental and institutional space, a large proportion of the remaining space can be considered service and office uses.

<sup>6</sup>According to the Kay Group's study, employees within the market area add an additional 20% to the available spending dollars that exist within the market area.

TABLE 5.1

COMPARISON OF DOWNTOWN RAHWAY'S RETAIL CHARACTERISTICS  
WITH THOSE OF A COMMUNITY SHOPPING CENTER<sup>7</sup>

<u>Characteristic</u>	<u>A Community Shopping Center</u>	<u>Downtown Rahway's Retail Sector</u>
● Gross Leasable Area	100,000 to 300,000 s.f.	±150,000 s.f.
● Types of Goods and Services Offered	Convenience and Comparison (i.e., no department stores)	Convenience and Comparison (no department stores)
● Main Tenant Stores	Supermarket or Discount Store	Discount Store and Super-convenience store
● Other typical stores and services	Drug stores, banks, beauty, cleaners, and other daily services	Drug stores, banks, beauty, cleaners, other daily services
	Clothing, hardware, appliance, shoes and other specialty stores	Clothing, hardware and other specialty stores
● Trade Areas:		
▶ Primary:		
- Radius	● ½ to 1½ miles	6/10ths of a mile
- Population	● 5,000 to 40,000 people	±6,500 people
- Customer Characteristics	● Customers who live within walking distance	● Customers who live within walking distance
	● CBD or office workers who shop at lunch hours	● CBD or office workers who shop at lunch hours
	● Nearby customers who shop for convenience goods	● Nearby customers who shop for convenience goods
▶ Secondary:		
- Radius	● 2 to 5 miles	● 2½ to 3 miles
- Driving time	● 15 to 20 minutes	● 10 to 15 minutes
- Customer Characteristics	● Customers who have no closer source of convenience and comparison goods	● People who work, bank in Rahway Or who commute from the train station
		● People who visit one-of-a-kind specialty stores for highly specialized items or due to customer loyalty

<sup>7</sup>The source of characteristics of the Community Shopping Center is derived from the Shopping Center Handbook, Urban Land Institute, 1978.

single destination trip (i.e., to visit a highly specialized shop that does not locate in traditional highway shopping centers or regional malls), that bring customers from beyond the primary trade area.

### **Downtown Rahway's Competition**

Downtown Rahway has numerous shopping centers, freestanding stores, strip centers and even regional and community shopping centers within its secondary market area with which it competes. The question is to what extent does this competition limit the potential expansion of downtown Rahway and its ability to capture some of the retail dollars being spent in these shopping areas.

Woodbridge, to the south, provides the bulk of the competition. Just over the Rahway border in Avenel, on Route 35, is a Bradlees- and Foodtown-anchored shopping center. Across the road is a K-Mart- and Pathmark-anchored center. Each has smaller retail stores providing both convenience and comparative stores that are associated with national and regional retail chains. On Route 35 itself, and along US Route 1 & 9, are numerous highway-oriented businesses (automotive, hotel, fast food, convenience stores), but also small strip centers, freestanding stores, discount centers and "big box" retail outlets (e.g., office Max, Sports Authority, the Jewelry Exchange, Kids "R" Us) providing a vast array of retail goods and services.

Further south on US Route 1 & 9, but within a 10-minute drive of Rahway, is the Woodbridge Mall, anchored by five department stores (Sears, J.C. Penney, Fortunoff, Steinbach's, and Stern's), and numerous additional smaller retail stores. In addition, Menlo Park Mall, a large community shopping center, is only a further 5-minute drive away.

In Linden, just across the Rahway border on US Route 1 & 9, is a new K-Mart store. Close by is the Linden Shopping Center, anchored by Caldor and Foodtown, with several discount comparative stores. Just west of St. Georges Avenue, on Stiles Street north of Rahway, is a large Pathmark Supercenter, adjacent to which a strip center is being expanded. On St. Georges Avenue itself is a National Liquidators freestanding store.

On Westfield Avenue in Clark, not far from Rahway, is a Foodtown supermarket, and on Central Avenue adjacent to the Garden State Parkway is a Bradlees/Marshalls-anchored shopping center. At the

Central Avenue and Raritan Road intersection is a ShopRite supermarket. Another A&P supermarket is located on Clarkton Drive and Raritan Road.

Within Rahway itself, the only "supermarket"—Demblings, a store of ±8,000 square feet—is outside of the downtown, located on Grand Avenue close to St. Georges Avenue. Another retail convenience shopping center anchored by Drug Fair is a short distance to the south on St. Georges Avenue.

According to the Kay Group's retail potential study conducted 2 years ago, the following major shopping facilities are within a 3-mile radius of downtown Rahway<sup>8</sup>:

- 8 department stores (excluding Woodbridge and Menlo Park Malls)
- 11 shopping centers
- 13 supermarkets
- 12 drug stores
- 3 variety stores
- 2 appliance stores
- 126 restaurants
- 28 apparel stores
- 11 shoe stores
- 20 furniture stores
- 31 liquor stores
- 4 lumber stores
- 2 lawn stores
- 11 paint stores
- 3 flooring stores
- 8 hardware stores.

While the Kay Group's analysis indicates there was room for several additional stores of the type within the market area, they did not consider the extent to which downtown Rahway as a destination point would be able to capitalize upon unspent dollars in the trade area. Analysis of the mix and type of stores which are found in the downtown, interviews with realtors and City officials familiar with the downtown, and results of the shopper survey indicate that the downtown simply cannot compete with

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<sup>8</sup>Demographic Analysis of the Retail Potential of Rahway City Center, 1993.

or capitalize upon such opportunities. A new shopping center (in Linden) and several new or rebuilt supermarkets and freestanding department stores and big box retailers have opened up in adjacent municipalities within the trade area in the past few years, while retail vacancies have increased in the downtown (including the loss of the downtown's single junior department store—McCrorry's). Unfortunately, there is not much which downtown Rahway can do to attract this type of retail business and to recapture these types of retail businesses.

Whereas the above analysis provides a fairly bleak outlook for downtown Rahway's retail sector, there are other, albeit fairly esoteric categories of the retail market that Rahway is able to capture, and where its share of the region's available spending dollars may be increased. Stores which are highly specialized and require a more "mixed use" main street, cultural type of image, which is not fostered in malls, strip centers and highway business corridors, appear to do well in Rahway. This includes stores that cater to the performing arts, graphic and fine arts, jewelry, antiques, home decorating, and to entertainment, most notably restaurants with ethnic cuisine. Fostering a "Soho" or "Greenwich Village" type of image, where this retail presence is mixed with some service business and residential space, is a natural direction that Rahway can pursue, due to a variety of factors. First, the Union County Arts Center is a strong presence and magnet. Second, the proliferation of antique stores and restaurants and bars have further enhanced Rahway's image in this regard. Third, downtown Rahway's train station is within commuting distance of New York and Jersey City; with the availability of both moderately-priced apartments and work/office/retail storefront space, it is the logical place for such businesses to start up, or for its tenants to both live and work in the same space.

### **Downtown Rahway's Future Economic Potential**

In attempting to determine Rahway's future economic potential and devising strategies to revitalize the downtown, it is important to understand what spending dollars are available in the trade area, and where besides the downtown most of the dollars are being spent. Whether spending dollars could support an increase in retail in the CBD, and in what categories such spending could be increased is also an important question to be answered. A determination should also be made as to what stores are missing, how they can be recruited to the downtown, and where they should be located. Also important are considerations of whether commuter parking can help to revitalize downtown and what goods and services could capitalize upon their proximity to the train station.



In a typical shopping center market analysis, the amount of retail dollars within a primary and secondary market area, and the extent to which they are being spent at competing shopping facilities, are identified. This usually helps to identify the extent of the leakage of local potential spending out of the market area (i.e., being spent elsewhere) and provides an idea of how these could be recaptured (i.e., how specific types of stores which are missing in the shopping center could, by their presence, induce customers to come to that shopping center rather than visit the competition which is now further away).

The demographic and market data for the primary and secondary trade areas are provided in Tables 5.2 and 5.3. The enormous amount and types of retail facilities that exist within the secondary trade area (especially just outside of Rahway in Woodbridge and Linden primarily) and the fact that these facilities are more convenient to potential customers within the secondary trade area (i.e., those who live further than 6/10ths of a mile from the downtown center), translates into a picture in which there is an overwhelming amount of leakage of secondary trade area dollars to competitive shopping facilities.

These competitive shopping facilities which cater to daily, weekly and monthly convenience shopping trips and for comparison and specialty shopping have overwhelming advantages over downtown Rahway. The amount of vehicular traffic which passes by (on US Route 1 & 9 and St. Georges Avenue, for example), at over 40,000 vehicular trips a day, is approximately ten times the amount of traffic which passes through downtown Rahway's streets. The competitive shopping facilities all have large, convenient free parking areas; provide a staggering variety of goods and services at prices which are generally more reasonable and a quality which is competitive. Their shopping environments are perceived to be safe, attractive and new. Under these circumstances, downtown Rahway—which by its very location and accessibility, let alone the variety, price and quality of goods it offers, aesthetics, and shopper perception—is simply unable to compete with and recapture the leakage of retail trade dollars from its secondary trade area. Thus, even though Rahway has made progress with respect to providing convenient shopper parking, and making itself more attractive and safe, it is unable to attract the numbers of retail customers (and therefore tenants) which are found in the competitive facilities.

What spending dollars are available and where besides the Rahway CBD they are being spent, need not necessarily be quantified in order for the analysis to yield a useful conclusion. In truth, the size of the primary trade area for Rahway is small—a 6/10ths of a mile radius, meaning that the spending dollars within this trade area are insubstantial (despite income levels which compare favorably with

TABLE 5.2

DEMOGRAPHIC AND MARKET CHARACTERISTICS OF  
DOWNTOWN RAHWAY'S PRIMARY TRADE AREA

1.	Radius from City Center (% Irving and Cherry Streets)		6/10ths of a mile
2.	Population Estimate (1993/94)		6,515 persons
3.	Population Projection (1998/99)		6,215 persons
4.	Percent Change (1990-1993/94)		-3.5%
5.	Population by Race (%):		
	White		43.5%
	Black		52.8%
	Hispanic		9.9%
	Other		3.3%
6.	Households Estimate (1993/94)		2,341 persons
7.	Average Household Size (1993/94)		2.77 persons
8.	Median Age of Population	34.7 years	
9.	Per Capita Income		\$18,090
10.	Average Household Income		\$49,780
11.	Total Retail Expenditure (\$1,000s):		
		<u>1994 Estimate</u>	<u>1994 Projection</u>
	Apparel Store	2,929	3,121
	Appliance Store	259	208
	Auto-Aftermarket Store	3,810	3,822
	Convenience Store	1,953	1,934
	Department Store	2,491	2,547
	Drug Store	1,677	1,945
	Electronics Store	880	989
	Fast Food Restaurant	2,263	2,079
	Full Service Restaurant	2,230	2,032
	Furniture Store	980	863
	Grocery Store	9,492	10,253
	Hardware Store	373	367
	Home Centers	1,657	1,604
	Jewelry Store	405	353
	Liquor Store	640	542
	Mass Merchandiser Store	3,212	3,358
	Photo Store	45	43
	Shoe Store	446	525
12.	Retail Support Potential	265,000 s.f.	266,325 s.f.

NOTE: The information in this table and others in this report was derived from demographic data provided by Strategic Mapping. Demographic information derived from other market information/demographic information services companies (notably CACI) indicate discrepancies in the population totals within the trade area—in one case a population of over 2,000 more. Such a discrepancy would not alter any of the conclusions of this report, since it would have little impact on available retail dollars, nor call for a significantly larger floor area of retail space to be provided to serve this trade area population.

TABLE 5.3

DEMOGRAPHIC AND MARKET CHARACTERISTICS OF  
DOWNTOWN RAHWAY'S PRIMARY AND SECONDARY TRADE AREAS

1.	Radius from City Center (% Irving and Cherry Streets)	3 miles
2.	Population Estimate (1993/94)	120,225
3.	Population Projection (1998/99)	118,428
4.	Percent Change (1990-1993/94)	-1.9%
5.	Population by Race (%):	
	White	84.8%
	Black	4.5%
	Hispanic	6.1%
	Other	4.6%
6.	Households Estimate (1993/94)	47,031
7.	Average Household Size (1993/94)	2.54
8.	Median Age of Population	39.7
9.	Per Capita Income	\$21,165
10.	Average Household Income	\$53,917
11.	Amount of Additional Square Feet of Retail Space that Can Be Supported by Spending Dollars (1993):	

<u>Retail Space</u>	<u>Square Feet</u>
Supermarket	+ 84,000
Drug Store	+ 42,000
Variety Store	+ 20,000
Appliance Store	+ 11,000
Restaurant	+ 11,000
Department Store	+124,000
Apparel Store	+140,000
Shoe Store	- 20,000
Furniture Store	- 86,000
Grocery Store	+ 84,000
Liquor Store	- 40,000
Hardware	+ 11,000
Lumber	+132,000
Lawn	+ 11,000
Paint	- 66,000
Flooring	+ 18,000
Catalogue	<u>- 37,000</u>

Total (Over) Under Supply of Space: 395,767 s.f.

those of the County in general). While this population and the spending dollars can support some convenience retail facilities, it is probably insufficient to support even a small supermarket. For example, a supermarket of 40,000 s.f. (small by today's standards) would require a population of 20,000 people<sup>9</sup> to support it: the primary trade area in the downtown is only 6,500 persons. In more general terms, a healthy downtown without a major anchor store should capture about 25 to 30 percent of the available retail dollars in its primary market area. Utilizing the market data provided by **Strategic Mapping**, the dollars and population in the 6/10ths of a mile primary trade area in downtown Rahway should generate between 60,000 to 80,000 s.f. of retail space.<sup>10</sup> A secondary trade area, which typically accounts for another 40 to 50 percent of the customers and retail dollars spent at a downtown or shopping center, would under normal circumstances generate demand for another 50,000 to 80,000 s.f. Since the trade area penetration is weak in downtown Rahway's case, the demand generated is probably only half of this, i.e., 35,000 to 40,000 square feet of space. Thus, the available dollars in downtown Rahway's market area should support between 90,000 and 120,000 square feet of retail space. The existence of 150,000 s.f. (or somewhat less) of retail space in Rahway indicates that many of the stores probably have sales per square foot volumes which are much below regional and national averages, and the presence of many marginal businesses. Most businesses are able to survive because of very low rents (compared to space at competitive facilities), and because overhead is kept low: small inventories, few employees, low labor rates, little spent on capital improvements, advertising, furnishings, etc. Some of the businesses are in fact marginal.

Several conclusions can be drawn from this analysis. First, Rahway cannot and should not compete directly with the retail shopping centers, malls and freestanding stores which exist on the regional highways within its trade area. Second, there is little prospect for expanding the amount of retail space in the downtown; to the contrary, retail shrinkage may be necessary and desirable, to allow the businesses which do exist to be more economically viable. Third, any market changes or regulatory requirements which call for even a moderate increase in the cost of running a business—e.g., rent, labor costs, requiring capital expenditures or advertising—may mean that certain marginal businesses will, in fact, go out of business. Fourth, filling retail space in Rahway may be difficult, and utilizing such space for other economically productive uses should be sought. Fifth, the types of retail uses

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<sup>9</sup>The rule of thumb for supermarkets is 2 s.f. of floor space per capita.

<sup>10</sup>According to the **1990 CBD Study**, the downtown had 150,000 s.f. of retail space, a number which has somewhat declined, but not substantially over the past 5 years.

which should be sought for downtown Rahway should build on what businesses currently seem to thrive most. These include businesses with the following characteristics.

1. Convenience businesses that serve the local captive primary trade area market.
2. Convenience businesses that capitalize upon the presence of commuters in the downtown on their way to and from work.
3. Businesses that need to be generally within Union County/Rahway area that need low rents and do not need high visibility or good access (particularly start-up businesses).
4. Esoteric or unique one-of-a-kind businesses that traditionally do not or cannot go into traditional regional, community or neighborhood shopping centers, or in strip centers or freestanding stores along highways. Of the above businesses, those that need small spaces, low rents, and prefer an historical downtown image would do best.
5. Start-up businesses that seek an arts/crafts/antique type of image, that cannot afford high rents, and need or would prefer work space (workshops, studio space) and living space close to or in association with such retail space.

With regard to the convenience stores to be recruited to the downtown, the key is for Rahway to capitalize upon the train station rebuilding. First, this development will dramatically enhance the image of the station and make it a competitive origination point for commuters. Second, the availability of additional convenient and reasonably priced commuter parking will help draw even more commuters to Rahway. (N.J. Transit ridership is increasing at  $\pm 3$  percent per year). Third, the removal of retail stores in front of the train station on Irving Street and a physical reconfiguration of this space will create a downtown community plaza and event space. This will enhance the value of stores and developable sites within the vicinity of the train station for commuter-oriented convenience stores: florists, video stores, laundries and dry cleaners, barber shops, beauty salons, convenience stores, bakeries, card stores or stationers, gift shops and take-out foods (pizza, Chinese, deli). The amount and variety of retail space in proximity to the train station at present underserves the 2,000 commuters who use Rahway's train station each day.

With regard to the unique specialized comparative and arts-oriented stores, a public relations effort as well as a focused recruitment strategy are necessary. Rahway's image as a growing, inexpensive "incubator" for performance, fine and decorative arts-oriented businesses needs to be made known, not just generally but to that business community which would most likely be attracted to Rahway. This campaign must also work with the realtor and real estate community in understanding what space is available, where it is available, what its characteristics are, what the costs are (both in terms of rent and start-up business expenses), and how the Rahway Center Partnership, Chamber of Commerce and the City of Rahway can aid in their development. It should be noted that presently the Rahway Center Partnership's Business Advocate is making contact with commercial property owners in the downtown in an effort to attract more business to Rahway. The most likely location for such businesses are in the vicinity of the Union County Arts Center—including West Main Street, Irving Street north of the Arts Center, and even Main Street itself. More flexible zoning requirements which allow a more mixed-use environment, i.e., a mix of business/workshop and residential space, with no on-site parking requirements, would also help in this effort.

Finally, unique comparative specialty stores which are located elsewhere in Union County—those in failing or changing downtowns or retail areas and looking for new locations, and other businesses which are successful and looking to open a second store—ought to be contacted directly.

### **Market Strategy for Downtown Rahway**

The market strategy first has to look at what other uses can be found in the CBD and attracted to Rahway in general, and specifically whether there is a demand for service uses, professional offices and general business offices in the CBD. The determination of what locations and spaces in the downtown can they be attracted to, and what zoning and other incentives can aid in this effort is also an important part of the strategy. This is described below.

As stated before, service uses, professional office and general business office space is prevalent in the downtown. This is due to a variety of factors. First, the downtown provides an accessible central location for employees—both for Rahway/Union County employees and for those who choose to commute by train. Second, rental prices for space, even ground floor space, is reasonable, and often competitive with retail rents. As the demand for retail space declines, the large inventory of space has yielded more vacancies, and the rent demanded for such space has fallen to levels which make their

use for service businesses or general or professional office use reasonable (i.e., at \$4.50 to \$5.00 per square foot). Since many of these spaces provide a place to work, and a central location from which employees can then serve Rahway and Union County (i.e., going out to client or customers rather than having them come in or relying upon a walk-in trade), the downtown is a good office location. In addition, there are support services in close proximity: the post office, restaurants, and convenience shopping facilities.

In terms of a revitalization strategy, the current trend—a shrinkage of retail space and a growing demand for small, moderately-priced office and service business space—can be capitalized upon. Current trends nationally indicate that more people are choosing to work at home or away from large central office locations. Furthermore, with the aid of reasonably-priced, modern office equipment—computers, fax machines, small copiers, answering machines, etc.—it is possible for people to start up a service or consulting type business with few, if any clerical staff or employees, and with low overhead. Many of these small businesses, if successful, need more space than a home can provide, or a more business-oriented environment. A cluster office arrangement, where each business has their own office but shares a secretary or receptionist, and conference space and office equipment, is becoming more prevalent in older downtown locations. The arts-oriented, architecturally historic "main street" image also aids in this regard; such an environment is conducive to establishing non-related service and professional offices. The development of downtowns in other New Jersey communities that have undergone similar transformations—Hoboken, Jersey City, Red Bank—illustrate this trend. The contrast of these types of downtown environments to the malls and retail centers on Wood Avenue, US Route 1 & 9, and St. Georges Avenue (i.e., Rahway's major competition) is a positive draw.

Since the retail service and office uses can help to fill vacant space in the downtown, and aid in the downtown revitalization as a true community center and business district, the question is where should they be located? This question is actually comprised of two parts: where in the downtown should they be located (in horizontal terms) and on what floors should they be permitted (in vertical terms). In any retail-oriented downtown or shopping area, it is important not to create any "gaps" in the downtown, i.e., space which at ground level is of no interest to walk-in pedestrian shoppers. For this reason, certain automotive-oriented service retail uses—such as automobile service stations, drive-in banks, drive-in restaurants or motels are not appropriate uses in such a downtown. Furthermore, certain office uses which do not serve a walk-in trade—such as attorneys, medical offices or accountants' offices—also create gaps in the retail frontage. However, other service retail uses—

such as travel agencies, insurance, finance, real estate, etc.—do serve the pedestrian retail trade and should be permitted on the ground level. It is recommended that in the downtown core area, i.e., Irving Street and Main Street, and the cross streets in between (the logical place to create a pedestrianized walk-in environment), that such purely office- and automotive-oriented service retail uses not be permitted on the ground floor. All businesses in the retail core should have a visible "retail" type frontage, which invites the walking public to stop in. Certainly a more mixed-use approach to upper floor levels, allowing service office and even residential uses, would help to fill space in the downtown.

The remainder of the downtown—notably West Main Street—is evolving into more of a mixed-use type of area where office, service businesses as well as residential uses are well established. Relaxation of the zoning code to allow this transition to occur—i.e., permitting these uses on all floors—will help to fill some of the persistent vacancies, and improve its physical image. While Irving Street and Main Street south of the railroad trestle are anchored by the train station and the post office and City Hall at one end and the Union County Arts Center at the other, as well as the banks and YMCA—all of which draw customers from the primary and secondary market areas—and create the necessary "walk-in" trade to support retail in the future, West Main Street lacks retail anchors. Current trends indicate that with the shrinkage of retail dollars and demand for retail space in Rahway, West Main Street will be the location where the ground floor space cannot be supported or filled entirely with pedestrian-oriented retail and retail service uses. On the other hand, the demand for professional and general office uses, as well as residential, can help to fill space and contribute positive to the community center, mixed-use environment into which the downtown is evolving.

### **The Role of Residential Uses in the CBD**

The **1990 CBD Study** reported that despite zoning regulations which prohibit residential uses within the CBD, 264 apartments do exist in downtown Rahway. Moreover, interviews with realtors indicated a strong demand for residential apartments in the downtown, especially small studio or efficiency apartments. Thus, a strategy for the downtown should include a consideration of whether residential uses can play a role in its revitalization. Where in the downtown these should be permitted and encouraged, how much of it is possible, and what price categories it will offer are spelled out below.

Most of the above-ground space in the downtown is presently utilized for residential rather than office, retail or other non-residential uses. A small 300 to 400 square foot space, if clean and neat and in



good condition, can rent for \$350 to \$400 per month (i.e., ±\$10 per square foot), which is a higher rent than some ground floor retail uses.<sup>11</sup> Such space is currently being rented to singles who commute to New York City, Newark or Elizabeth. Other larger apartments which are not necessarily in good condition are often rented to Section 8-eligible households, i.e., where the federal government makes up the difference between what the household can afford to pay (30% of their income) and a fair market rent.

During the late 1980s' real estate boom, small 2-bedroom apartments were being rented to couples and small households for as much as \$650 per month. However, due to the flood of units on the market and a general decline in demand for such housing, rents for apartments in neighboring towns or on St. Georges Avenue have fallen, drawing the market away from the CBD. Still, with low residential vacancy rates in the downtown and a seemingly high demand for small, reasonably-priced space which is in good condition, the residential market in the downtown is strong, and may out-compete service or other office uses. Space for young singles and older empty-nesters in particular would appear to be in greatest demand and would command the highest rents. It is this particular market which the residential units in the downtown should be targeted: singles, couples, older empty-nesters, commuters to Newark or New York, downtown business owners, merchants or artists. This market requires smaller studio or one-bedroom markets for the most part, with reasonable rents. These units would also be different from the types of larger, more family-oriented multi-family units which are to be encouraged in other more residential environments in Rahway (see the Housing Plan Element). High rental levels may well spur the construction of new apartment projects in the downtown, as well as the rehabilitation of existing space. Nevertheless, a relaxation of zoning restrictions for smaller residential apartments above ground floor may help existing units to be improved, for vacant existing space to be converted or rehabilitated, and perhaps for new units to be constructed within new mixed use projects.

#### B. Review of the 1990 CBD Study<sup>12</sup> in Light of the Supplementary Economic Analysis

The **1990 CBD Study** included a number of recommendations for the revitalization of downtown Rahway. In light of the supplemental economic analysis, it is necessary to review these recommendations

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<sup>11</sup>Retail space starts at ±\$5.00 per square foot and goes up to \$9.00 a square foot for small spaces at prime locations.

<sup>12</sup>Central Business District Study, Harvey Moskowitz & Planners Diversified, 1990.

to affirm, amend or supplement them. Such a review is provided below. Recommendations for improving the downtown are summarized in map form in Figure 5.2.

## **Problems**

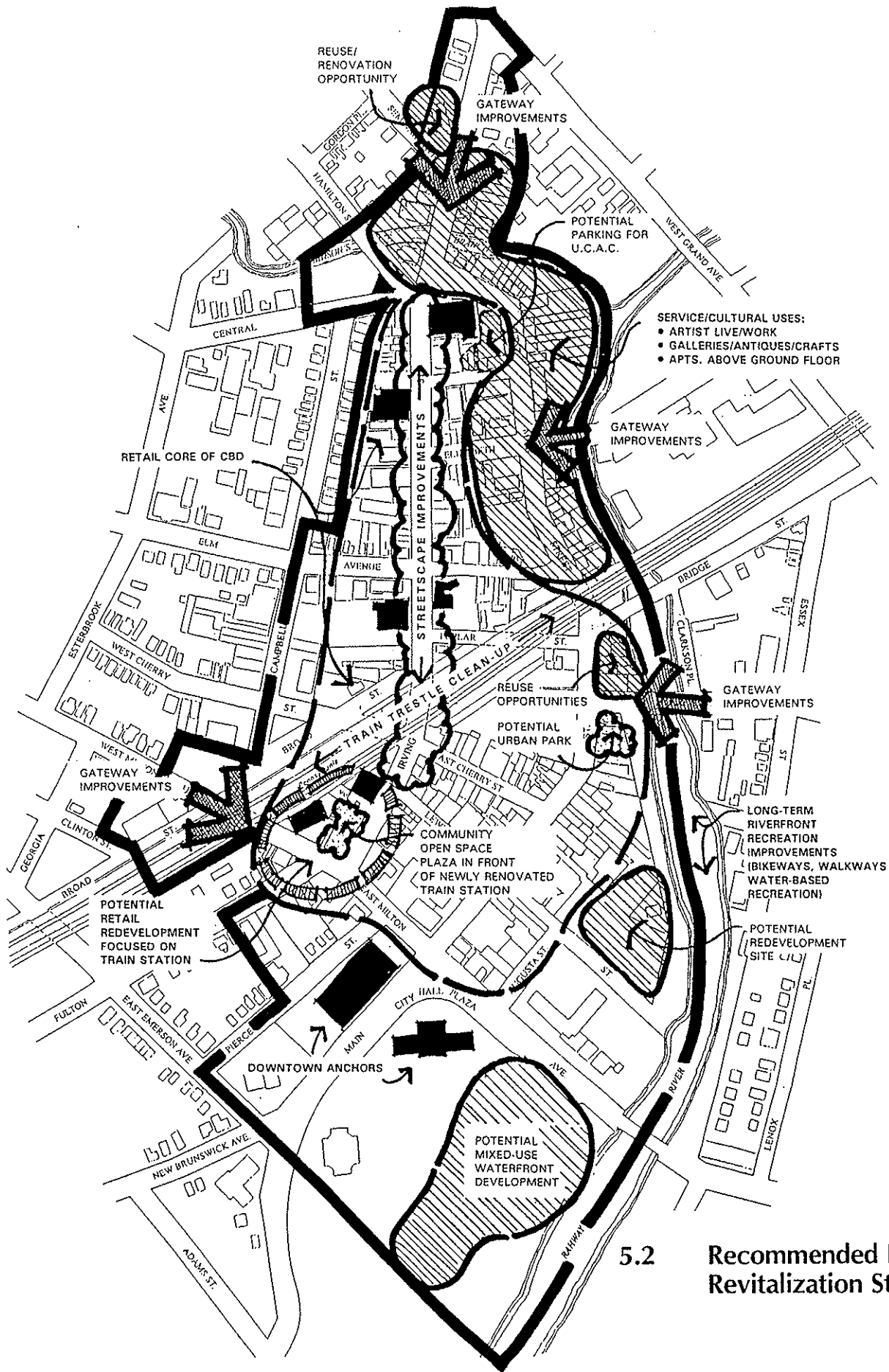
The **1990 CBD Study** raised the following factors as the chief underlying problems in the downtown.

1. Lack of major retailers
2. High store vacancies and business turnover
3. Service and office uses in prime CBD retail space
4. Marginal business activity.

**Lack of Major Retailers.** The trend towards loss of or absence of major retailers (i.e., a department store or junior department store or even a large supermarket) has afflicted all small CBDs in New Jersey and similar communities across the USA. This is a national trend in retailing; such stores now locate in regional or community shopping centers or along highly accessible regional highways. Even relatively healthy downtowns (such as in Chatham Borough or in Montclair Township) have no major retailer, and yet manage to thrive by fulfilling specialized or niche markets with smaller, one-of-a-kind stores as well as convenience stores serving local needs, rather than national or regional chain stores. There is little chance that Rahway would be able to attract a major retailer of any kind, and for that reason should not expend any great effort in doing so.

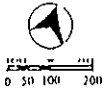
**Store Vacancy and Turnovers.** A certain amount of business turnover is present in all retail areas, malls, strip centers and older downtowns. Businesses often fail because of the businesses themselves, rather than a lack of demand or desirability within a particular retail area. High vacancy rates are obviously a concern. The 13 percent vacancy rate which existed at the time the **1990 CBD Study** was conducted was an indication of the lack of strength in the overall demand for retail goods and services. However, this was a symptom of downtown distress, not the cause of it. Moreover, due to the influx of several retail tenants in the past year, the vacancy rate in the CBD has fallen to only 7 percent.

**Service and Office Uses in Prime CBD Retail Space.** The presence of service and office uses in prime retail space reinforces the notion of a weak demand for retail space, coupled with the fact that in



**5.2 Recommended Downtown Revitalization Strategy**

BASEMAP PRODUCED BY HARVEY MOSKOWITZ, PP PA



purely economic terms rents charged for service and office uses are equal to or higher than that for retail space. This both hurts and helps the downtown. If the future vision of the downtown is a central pedestrianized shopping environment, where the sale of goods and services to the general public is its primary function, then this is obviously not a positive development. To the extent, however, that space is being occupied—generating rents, providing employment and ratables—it is preferable to vacant space. The strategy in Rahway's case is to fill the ground floor of the retail core with pedestrianized retail uses, but allow service, office and residential uses on the upper floors. In the fringe areas of the downtown, all uses should be permitted on all floors.

**Marginal Business Activity.** The presence of marginal business activities in the downtown once again illustrate low demand for retail space and a weak market. However, these do help to fill space, and do not always hurt the image of the downtown.

In summary, the four problems mentioned above are actual symptoms, and not causes, of the downtown's decline. The decline has much more to do with market conditions, particularly the loss of disposable retail dollars to competitive shopping areas. Fortunately, Rahway's CBD appears to be in stronger economic shape today than it was when the **1990 CBD Study** was conducted.

## **Assets**

With respect to the assets of the downtown, the **1990 CBD Study** listed the following:

1. The undeveloped area behind City Hall—which could be used to increase retail space in the CBD by 50%.
2. Condominium conversion and residential construction
3. The Union County Arts Center
4. The Train Station
5. Other public facilities such as the post office
6. The Rahway River.

**Undeveloped Area Behind City Hall.** While the 11-acre parcel behind City Hall does provide future development opportunities which could have a positive impact on the downtown, too much space devoted to retail uses at this location, particularly those uses which duplicate services that are or

could be provided in the CBD itself, may have a negative impact on the downtown. Given that this site is separated from the CBD (by City Hall, the post office and church)—any visitor to this site may be able to utilize its retail facilities without having to visit the downtown at all (i.e., uses on Irving Street, Main Street or Cherry Street). Since the market area for the CBD is fixed, and the number of dollars spent in downtown Rahway is stable or even declining, competitive convenience retail facilities at this location (such as a supermarket or drug store) may siphon further dollars out of the downtown. However, it may also attract shoppers to the downtown from further away and from neighboring communities. In particular, existing convenience stores in the CBD, providing daily shopping goods (small supermarkets, convenience stores, drug stores, etc.) which are currently at the economic margins may shrink and/or disappear. The overall strategy for the downtown should not be to increase the available space for retail uses by 50%; it should be to fully utilize and consolidate the existing ground floor space in the downtown for retail and other uses to create a mixed use community center environment.

One type of retail facility that could complement rather than compete with the downtown would be a retail facility with a regional draw. However, these types of facilities may be difficult to attract. A regional entertainment or cultural facility (similar to the Union County Arts Center) or a regional recreation facility (e.g., sports courts, hockey rink, etc.) may be possible. A more detailed targeted market analysis would be needed to identify possible uses, and determine their feasibility.

The most logical alternative uses for this site are office and housing. Offices are preferable, since it would bring employment, additional disposable dollars, an improved image, a spinoff demand for services (restaurants, copying services, stationers, etc.), daytime retail uses, and attract workers from a wider market area. While residential uses do bring disposable dollars to the downtown, even a high density residential development adds only marginally to the demand for the amount of retail space (i.e., 2 or 3 more stores). The probability for either of these uses is dependent upon the real estate market. Consistent with regional trends, however, it would appear that at present the demand for housing outweighs that for offices.

Irrespective of the specific type of land use to be developed on the 11-acre site, it is important that this site take advantage of its waterfront location and that it provide strong pedestrian linkages to the existing CBD. The siting of buildings and parking areas should be careful so as to provide public access to the river, as well as public views of the river from the site. The site should also be devel-

oped with a comprehensive pedestrian circulation plan, allowing pedestrians to walk to and from both the river and the CBD.

**Condominium Conversion and Residential Construction.** Condominium conversion and residential construction in Rahway connote a healthy residential market in Rahway in general. As far as the downtown is concerned, any additional population would increase the demand for retail facilities. However, the amount of retail space in the CBD has been declining over the past decade, and despite the new residential construction, the population in Rahway is actually decreasing. This trend is true also for the areas immediately adjacent to the downtown, thus further reducing the amount of retail dollars available within the market area. The strength of the residential market may indicate the potential for filling above ground floor space with residential tenants, rather than having such space remain vacant.

**Arts Center, Train Station, Post Office and Rahway River.** Among downtown Rahway's greatest assets are the Arts Center, the Train Station and public facilities like the Post Office, which can be used as a focus for revitalization efforts. This is because they all have market areas and customers well beyond the retail market area for the CBD. While the Rahway River is a potential asset, how this feature would be used for revitalization is more complex. First, there is much work to be done to enhance the River as a scenic resource. Second, the height of the levee adjacent to Rahway's CBD means that only second and third floor uses have a view of the River, not ground floor uses which are most suitable for retail use. Third, the downtown actually turns its back on the River—stores located on Main Street have their service areas (garbage storage, deliveries, parking, etc.) facing the River, creating an image problem. While the River is an asset which has long-term possibilities, Rahway's efforts in the next few years should be focused on more attainable, less expensive solutions in the short and intermediate term. This does not mean that if the opportunity arises to create a waterfront type project, that Rahway not take advantage of it. Continued work on the riverfront as a walkway, bikeway and park, and clearance of flood-prone dilapidated structures on both sides of the River, would create the conditions which would make a major downtown waterfront project a reality.

## **Land Use**

With respect to land use, the **1990 CBD Study** indicated:

1. The CBD was comprised of 62 acres, on which there were 430,000 square feet of non-residential space, 150,000 square feet of which is retail.
2. In June of 1989, the vacancy rate was 11%. (It further increased to 13% in 1994, but has now declined to only 7%, according to the Rahway Center Partnership.)
3. There were 260 residential units, mostly on upper floors in the CBD.
4. The appearance of the downtown was felt to be poor.

The downtown appears to be developing into less of a retail center and into more of a service/office and residential center than most traditional small city downtowns. Vacancy rates have fortunately declined in the past year due to efforts of the Rahway Center Partnership and an improved economic climate. There is still work to be done, but Rahway should be cautioned from overreacting. (For example, in the retail core area, non-retail uses should not be permitted on the ground floor, simply because they can fill vacancies.) While the visual appearance of the downtown could stand for improvement, the major offenders are the train track trestles. If this were to be improved (the cost of which could be substantial), other, less costly improvements—landscaping, lighting and facade improvements—could greatly enhance downtown Rahway's image. Most of the existing buildings in the CBD could be substantially improved by simply a new coat of paint, a new sign, some new lighting, and not by costly major construction.

### **Historic Assets**

The 1990 CBD Study indicated that the historic nature of Rahway's downtown buildings could be used to create an image and focus of revitalization efforts. A more detailed discussion on this is provided in the Historic Preservation Element (see in particular District V, Lower Rahway/Main Street). The recommendation of the Historic Preservation Element is to have the downtown area within the Special Improvement District (SID) designated as an "historic district." Thus all applications for alterations of existing structures or new buildings in the downtown would be subject to review by the Historic Commission, whose recommendations would be sent on for consideration to the Planning or Zoning Board. The historic district regulations would also include design guidelines including signage, landscaping and prohibition of metal gates on storefront windows.

## **Circulation**

The **1990 CBD Study** did not recommend any changes in the circulation pattern, but only certain intersection improvements. Based upon the experience of downtowns elsewhere and in observing the traffic and pedestrian movement in Rahway, there may be certain benefits to changing certain one-way routings to two-way roads. The aim of this would be to improve the visibility of the retail spaces, engendering a more pedestrian-friendly environment, and enhancing traffic safety. Two-way traffic slows down vehicular movement and exposes the traveling public to views of both sides of the street. Currently Irving Street and Main Street provide a convenient and quick way for traffic to drive through the downtown (i.e., for regional through-traffic) instead of making the downtown a destination center. Certainly Main Street is wide enough to accommodate parking on both sides of the street; while Irving Street is somewhat narrower, it may also be able to accommodate a two-way traffic flow. Changing them to two-way streets has the potential to enhance accessibility, visibility, without compromising safety. It is therefore recommended that the changing of Irving Street and Main Street from one- to two-way streets should be seriously considered in the future. A more detailed analysis of the traffic flows and their potential impact on land use would have to be undertaken. The details of such circulation pattern would have to be refined, and their impact on certain intersections analyzed. In the meantime, there are other traffic calming techniques which could be implemented in the short or intermediate term to achieve these goals. These include narrowing streets, widening sidewalks, installing signage, installing brick paver crosswalks, and angled parking. This also needs to be carefully considered, since the costs for these traffic calming techniques could be significant with respect to the changes to two-way circulation, and the cost for altering the circulation pattern could be substantial if a number of intersections require signalization.

In addition, some measures to stop large tractor-trailer truck traffic from utilizing Irving and Main Streets as a through route should be adopted. Only those making deliveries to downtown stores should be permitted on local streets.

## **Parking**

The **1990 CBD Study** had the following conclusions with respect to parking:

1. There was considered to be sufficient short-term parking.



2. More commuter parking was felt to be needed. (The study recommended adding parking decks over existing lots.)
3. Parking fees were considered low and it was suggested that these be raised.
4. Additional parking spaces were felt to be needed for the Union County Arts Center.

It appears that sufficient short-term (i.e., shopper parking) is provided in the CBD. However, with the rebuilding of the train station, which is expected to significantly increase train ridership substantially, more commuter parking needs to be provided. (See the Circulation Plan Element, Section 9.5A for a discussion on this issue.) With regard to the latter, the construction of parking garages or decks should only be considered as a last resort, and only if it proves to be economically and operationally feasible (a dubious probability). Parking decks (1) are very expensive; typically the costs of providing a single parking space in a parking deck is \$10,000 to \$12,000 (not including the cost of land); (2) they are difficult to design and operate in a way which makes them secure (particularly at night or even winter evenings when it is dark); (3) they tend to become "dead spaces" within a downtown and obstruct views and access; (4) they are often perceived as unattractive; and (5) they are perceived of by residents or tenants of adjacent land uses as blocking light, air, access and as a threat to safety. Rahway Parking Authority should concentrate on acquiring vacant land, or land on which marginal uses exist at the edges of the downtown for additional parking lots. Making better uses of existing space already owned by Rahway (such as the very large right-of-way of Broad Street) would also contribute substantially. (See also Section 7.7, the Rahway Parking Authority for other planned acquisitions and improvements to long-term commuter parking for the train station.)

More parking should be provided for the Union County Arts Center. Due to the fact that the timing of its parking need is different from that of commuters, the most logical solution is to provide a shared parking facility convenient to both. An ideal location for this parking facility would be on the block containing the Arts Center, which would require the acquisition of privately-owned property.

### **Urban Framework**

The **1990 CBD Study** characterized three distinct areas in the CBD as follows: the upper Irving Street institutional character, the mixed commercial/residential character of West Main, and the higher den-

sity business uses on Main Street and around the train station. The strategy to be developed should be as follows:

1. Future retail activity should be encouraged along Irving Street, between Milton and Central Avenues, along Main Street from Milton to the train trestle, and along East Cherry Street, Lewis Street and East Milton Avenue from Augusta Street to the railroad trestle. (This area is referred to as the “retail core” or “downtown core.”) Service retail should also be permitted in these areas.
2. Residential development should be permitted in the retail core of downtown, but only above the ground floor. In addition, office and service retail should be permitted above the ground floor in the retail core.
3. Along West Main Street and other fringe areas of the downtown (e.g., Irving Street from Central Avenue to Seminary Avenue), residential uses and all commercial uses should be encouraged on the ground floor and upper levels.
4. Artist live/work space should be permitted on the ground floor only within an overlay zone which encompasses that portion of the downtown north of the railroad trestles. Artist live/work space typically consists of an artist’s or craftperson’s studio in the front of a store, also utilized to display the artist’s or craftperson’s artworks or wares for retail sale to pedestrian customers who walk by, behind which living space (i.e., kitchen/bathroom, bedroom, etc.) is provided on the same level. The idea behind this concept is to encourage vacant storefronts to be utilized in a way that encourages pedestrian traffic and interest on the street, although the amount of goods or services actually sold may be small. The rents paid are thus not predicated on generating large amounts of sales as is typical in most retail ground floor space, but on the economies afforded to the artist by allowing him or her to also live and work in such space. Artists and craftspersons can vary from decorators or craftspersons that reupholster furniture or restore antiques, to those who paint works of art or make jewelry or pottery. Encouraging artist live/work space can help to fill existing vacant storefronts, enhance the cultural/artist image of the CBD, provide a residential presence to the downtown and generate additional retail activity in the CBD.

Streetscape and facade improvements should initially be targeted to gateway areas of the downtown.

### **Dock Street Redevelopment**

In the **1990 CBD Study**, this 3-acre area is recommended for medium density residential use. Similar to the area behind City Hall, however, is an opportunity to bring in a commercial use which has a regional draw because of (1) its large size, (2) the availability of parking (on-site or at-grade below a commercial use), and (3) its potential waterfront orientation. A supermarket would make sense (if one could be attracted to the site) or a commercial recreation/entertainment type of use unique to the region.

### **Private Redevelopment**

The **1990 CBD Study** suggested that zoning and other incentives are needed to encourage private sector redevelopment on vacant or underutilized properties. However, the strength of the real estate market is the ultimate determinant of the feasibility of reinvestment by the private sector.

### **Recommendations—Phased Improvement Strategy**

1. The **1990 CBD Study** recommended that a "Rahway Future" organization be established. This has been accomplished with the establishment of the Rahway Center Partnership.
2. The study also recommended a coordinated marketing and public relations strategy. This is presently underway in Rahway.
3. The study recommended that a 24-hour presence be encouraged through new residential development. This should be encouraged only on upper floors in core retail area, but on all floors in other parts of the downtown.
4. The downtown core should be strengthened through (a) prohibition of office, laboratory, residential and storage uses on the ground floor, (b) by targeting loan programs for building improvements, capital investment and business relocation in certain areas of the downtown most in need of improvements (without targeting, loans will not be made and/or they will not have their great-

est impact); (c) developing and implementing downtown design standards for signage, facade improvements, new construction, architectural standards and street furniture (however, standards for renovation and new construction must be one and the same; sign and street furniture standards must not be too restrictive or result in high developer expenditures); (d) streetscape improvements should focus on gateways but not on river frontages—Rahway must wait until any proposed riverfront development is proven to be financially feasible and imminent; expenditures of scarce resources without the above assurances may be wasteful in the short term); and (e) use of upper-story space should include residential uses.

5. Future parking expansion should be provided by acquiring selected properties adjoining municipal lots. Acquisition should include any suitable, available properties within or adjacent to the downtown provided that this cost is reasonable and can be justified on the basis of a municipal parking use only (not upon the success of expected future redevelopment); such portions should not be provided by deck construction, unless this proves to be absolutely necessary—more economically feasible than acquisition of properties as described above—and only if it can overcome the potential pitfalls enumerated above.

One of the major incentives that can be used to attract both new commercial and residential uses to the downtown is not to require such uses to provide their own on-site parking. The availability of parking on the street, and in both private and municipally-owned lots, should be sufficient to accommodate new uses or retenant vacant spaces. Residential conversions on upper floors are particularly well-suited to the downtown since they can share parking with other commercial uses, i.e., the residents, most likely singles and empty-nester couples, only need parking at night or on weekends when then long-term commuter spaces are available. If the City is concerned with exactly how and where such parking should be accommodated, it could require the developers or owners of such space to demonstrate specifically where their tenants would park, and require such tenants to purchase “overnight parking stickers” for City-owned parking lots.

6. Rahway should work with N.J. Transit to clean up, upgrade and maintain trestle abutment and train station areas. The new train station should help tremendously with the downtown's image, but will fall short of expectation if the trestles are not dealt with. This is an expensive undertak-

ing, which N.J. Transit must be pressed into providing assistance with. If N.J. Transit cannot or will not help, other creative and less costly solutions will be required.

The recommendations contained within this section of the Master Plan also endorse New Jersey Transit's policy of creating a "transit-friendly" environment around the train station in the downtown. The downtown plan's aim is to create around the train station—throughout the downtown, in fact—a mix of uses in a safe, clean, vibrant and active pedestrian environment that supports transit use. This is to be accomplished by a number of means:

- By creating a more mixed-use environment by encouraging additional residential use and more diversified employment-generating land uses in the downtown. The additional employees would be encouraged to use mass transit to get to work in Rahway, while the residents could use mass transit to get from Rahway to other major employment centers such as Elizabeth, Newark, Hoboken or New York.
- The rehabilitated train station will be a major focus point in the downtown, and significantly more visible through the removal of the row of retail stores in front of it (i.e., on Irving Street), and the use of such space as a community/special events space.
- By creating bikeway and pedestrian links from the riverfront to the CBD and from the adjoining residential and new mixed-use zone (behind City Hall) to the train station.
- By increasing the availability of safe and convenient long-term parking for commuters within and adjacent to the downtown and train station.
- By encouraging convenient retail services adjacent to the train station in the downtown that can be used by commuters on their way to and from the train station.
- By providing within the train station environment safe, well-lit, attractive places to be dropped off, picked up or to wait.
- By increasing safety and security in the downtown through better lighting and police patrols.

7. Rahway Center redevelopment (i.e., the parcel behind City Hall) should be linked to the downtown with pedestrian walkways, landscaping, streetscaping and by orientation. The key is to provide land uses which complement (e.g., regional commercial recreation, office, housing), not compete (e.g., convenience retail) with the downtown. With qualitative design criteria regarding pedestrian links, orientation and streetscape, these connections can be achieved. These provisions should be flexible and allow the designers freedom to choose how such connections can be made (i.e., strict technical design controls should not be used).

8. According to the **1990 CBD Study**, Rahway zoning standards for the downtown should be amended, as follows:

a. The study suggested that new institutional/cultural/service uses should be permitted in the zone north of the railroad. To attract these cultural/institutional uses, however, a whole new zone is not necessary. The present zoning could be amended to permit or encourage such uses being established in this area, in addition to retail uses. Irving Street north of the railroad has among the best prospects for attracting pedestrian-oriented retail uses and must be part of a downtown pedestrian-oriented retail zone.

Office, service, institutional and residential uses should all be permitted in the non-core areas of the CBD. For the core area, retail and service retail, as well as institutional uses, should be permitted on ground and upper floors, and office and residential uses on the upper floors only. Regulatory redevelopment incentives (e.g., increasing site coverage and building height) should be adopted. Highway-oriented uses should be prohibited. On-site parking standards should be reduced. A Cultural Arts District at the Union County Arts Center to encourage development is not necessary, however. While cultural uses should be permitted and encouraged, more liberal use policies (i.e., retail and other commercial recreation uses) may be needed to fill such space. Artist live/work space, as already discussed, should be permitted as an overlay zone in the downtown north of the railroad trestles. Residential and commercial uses should be encouraged on the ground and upper levels along West Main Street.

b. The zoning in the retail core should be amended to (1) permit upper-story residential and office use; (2) restrict professional office and lab uses to above ground space; and (3)

permit a regional commercial/recreational use or a mid-rise residential use for the Dock Street redevelopment.

The **1990 CBD Study** suggested that a Special Design District for downtown<sup>13</sup> could be adopted which has comprehensive design standards. This function could instead be carried out within the context of historic preservation review (see Historic Preservation Plan Element). However, the design standards must be flexible and not overly restrictive and costly. A sign and facade review committee is unwarranted since alternative methods for such a review are effective and not as burdensome. Municipal streetscape improvements should be implemented based upon the special downtown design plan. Once again, such a scheme must be flexible and include ways in which it is inexpensive to comply with.

### C. Market Vision for the Downtown

Downtown Rahway no longer is a traditional retail business district whose primary purpose and function is to provide for the shopping needs of the residents of the City. Its retailing function, while still important, has shrunk and become more specialized, and other uses—service businesses, general and professional offices, institutional and residential uses—are more prevalent. This evolution has occurred in response to changing market conditions in the trade areas which the downtown serves, retailing trends which are national and regional in nature, and due to locational and accessibility advantages which competitive shopping areas have over downtown Rahway.

The retail market areas which downtown Rahway serves have undergone change from the time when the downtown was the retail center of the community. The primary market area—that area where half the customers originate and from whom half the revenues of the retail sector are drawn—has shrunk from what was probably the whole or the majority of Rahway (a  $\pm 1$  mile radius and over 20,000 people), to 6/10ths of a mile and only 6,500 people. Whereas the secondary trade area itself has remained constant—that area within 2½ to 3 miles from the City center—the penetration is weak. Rather than coming to Rahway for convenience shopping and for comparative shopping purposes (i.e., household goods, appliances, furniture, garden equipment, toys, etc.), that population now fre-

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<sup>13</sup>Such standards should not be adopted separately or as an overlay zone, since their presence often scares off private sector reinvestment/redevelopment and adds another bureaucratic layer to an already burdened review process.

quents shopping malls, strip centers and freestanding stores on regional highways. A few select customers will make downtown Rahway a destination for a particular, specialized item not sold in the competitive shopping centers, and for purposes other than shopping: for work in the downtown, to the train station for commuting, to the local banks, the post office, to City Hall, to the YMCA, to the Union County Arts Center, or to the restaurants and bars in town.

The future economic health of downtown Rahway is dependent upon a strategy which recognizes how to capitalize upon these trends and how to reinvent the image of the downtown, rather than trying traditional strategies of enlarging the trade area or attempting greater market penetration by going head-to-head with competitive shopping centers. In regard to the latter, Rahway is not as accessible, does not have the necessary pass-by traffic volumes, cannot offer the same convenient free parking, variety of goods and services, competitively priced goods and newer shopping environments that these centers offer.

What it can do is provide a place for more esoteric, specialized retail businesses which favor older, historic downtown environments, linked to arts, entertainment and dining, and which do not fit in with the mall and newer shopping center environments. Rahway will still be able to hold on to its function as a convenience center for its primary trade area, provided it continues to offer such goods or services in a clean, safe and attractive environment. Such a function can be strengthened by taking advantage of the renovation of the train station, but will not occur simply with this single action alone. Making the train station more visible and accessible; creating community/special event space in front of it; more convenient and reasonably-priced long-term commuter parking spaces, and improving the image of the train trestles and perception of safety are all necessary if this is to occur.

In the future, downtown Rahway will probably have the same or fewer retail dollars captured from the market area and thus even less retail floor area than at present. To the extent that available retail space is not reduced and consolidated and permitted to be used for other purposes, such as office or residential uses, it will continue to be vacant, or occupied by marginal businesses which are not able to contribute to a positive image in the downtown. The prevalence of other non-retail uses, especially residential space, live/work space, studio/workshop/service space that has already begun to occur on West Main Street, can have a positive impact on the downtown. It fills vacancies, generates rents and real estate taxes, provides employment, allows space to be rehabilitated and improved, provides a 24-hour presence, brings in additional customers and dollars, and contributes to a more positive image.



A downtown retail core consisting of Irving Street, Main Street south of the railroad trestle, and Milton Avenue and Cherry Street between Irving and Main should become the focus for retail activity in the traditional "Main Street" sense, i.e., ground floor, pedestrianized retail and service retail uses, with both convenience and comparative shopping, intermingled with the more institutional or community-oriented facilities, such as the train station, the Arts Center, the YMCA and the banks. In this respect, it may be worthwhile exploring the idea of turning Irving Street from a one-way street (which it encourages fast-moving through-traffic), to a two-way street, which slows traffic, encourages more localized, destination-type trips, and is more pedestrian-friendly. Two-way traffic also significantly enhances the street's visibility and accessibility. Facade renovations and lighting, street furniture and landscaping improvements should be focused on making this street more pedestrian-friendly.

Assuming the above-mentioned improvements regarding the train station can be undertaken, the creation of a community space in front of the train station and additional commuter parking are very important improvements. This will increase the amount of exposure that Irving Street has to pedestrian traffic, especially to those who are from the secondary trade area, and encourage more retail stores. Cherry Street and Milton Street between the train trestle and the post office will also be strengthened by these improvements and the focusing of retail activities on Irving Street. Above ground floor space, and space on cross-streets, because of their proximity to Irving and their accessibility, will also become more desirable space for office, service and residential uses.

West Main Street unfortunately does not have the same long-term, stable anchors as the retail core, which bring customers to it from the secondary trade area. Other than for shopping at specific retail stores, there is no reason to come to West Main Street itself. The one-way traffic pattern of Main (and Irving) allows customers to get to the post office and train station without driving on West Main Street. Even the location of the commuter parking lots does not provide much exposure to West Main Street itself. The one-way traffic pattern also encourages through-traffic to speed through the downtown, and as such does not provide as much exposure to its stores as it could if it were a two-way pattern. West Main Street, which is far-removed from downtown's anchors (the train station, post office, banks, etc.) has evolved into a more eclectic mix of service, office and residential uses, in addition to a few retail stores. Since the available retail dollars and amount of retail space are likely to shrink even more in the future with the shift of a retail focus to Irving Street, West Main Street should be allowed to develop into a more mixed-use service/residential environment. While retail use should not be prohibited, zoning should permit all types of uses so that vacant spaces and empty or underutilized lots can

be filled. Relaxing use restrictions, bulk standards and parking requirements should have a positive impact, but standards of good design, encouraging the small scale, historic downtown mixed use (Greenwich Village, Soho) type of visual environment is important. If parking requirements are to be relaxed, particularly for residential uses permitted above ground-floor uses, a comprehensive parking policy by the City must be developed to address future parking needs.

North of the Union County Arts Center on Irving Street, up to the Claude Reed Center, a more mixed use approach should also be attempted. The presence of historic buildings—the Arts Center, the Atom Tabloid building, Claude Reed Center, and the intervening retail spaces, several of which have antique stores—could be used as a means of attracting more of a cultural/arts focus. Art galleries, arts and crafts workspace, artist live/work space, antique stores, fine and performing arts instructional space (music, dance, martial arts) should be encouraged at this location.

### 5.3 RAHWAY HOSPITAL

Rahway Hospital is located within a block bounded by Stone Street on the south, Madison Avenue to the west, Trussler Place to the north, and Jefferson Avenue to the east. The Rahway Hospital Health System provides preventive services and acute and chronic care to patients both in Rahway and the region. Aside from Rahway, the other communities from which it draws its patients are Linden, Roselle, Roselle Park, Winfield Park, Cranford, Westfield, Clark, Woodbridge, Avenel, Colonia, Iselin, Carteret, Scotch Plains and Fanwood. The hospital is affiliated with Robert Wood Johnson Hospital and has contracts with 35 health maintenance organizations (HMOs), including all of the major insurers except US Health and Cigna. Medical services and facilities in the hospital include a general medical clinic, healthways (for pregnant women and newborns), diabetic counseling, cardiac rehabilitation, and screenings. Rahway Hospital is also to be affiliated with Rahway Geriatric Center and Clark Convalescent Home.

The hospital was founded in 1917, when the first building was constructed at the corner of Hazelwood and Jacques Avenue. It was later moved to its current location. In the intervening 80 years, 4 or 5 major building projects have been undertaken. The most recent major construction project occurred in 1988, when the “west wing” was added, including a radiology lab, respiratory therapy and operating rooms. (No additional beds were provided, and only clinic support space was added). During the same period, the existing hospital facilities were renovated. The total cost of this project was approxi-

mately thirty-four million dollars. The hospital also recently obtained approval for a new MRI (Magnetic Resonance Imaging) unit, which is currently under construction. The Hospital is a non-profit (a 501 C3) organization and operates generally at a break-even point. The hospital has 1,000 employees or hospital staff, all of which are non-physicians. Most of this staff (300) are registered nurses. After Merck & Company, the hospital is the second-largest employer in Rahway.

The hospital has 297 hospital beds for primary and acute care, with 15,000 admissions and 40,000 outpatient visits per year. While there are no plans currently to expand inpatient care, outpatient visits and outpatient activities are growing. In fact, the hospital currently only operates approximately 250 of its 297 beds and anticipates that by the year 2000 the number of hospital beds will number only 214. The same volume of admissions is anticipated, but the hospital anticipates that patients' stays in the hospital will be shorter. The space vacated by the hospital beds will be utilized for more intensive outpatient usage. This would include increased testing, wellness, fitness, same-day surgery and conference room space.

The hospital is in need of a separate ambulance facility. (The Rahway First Aid Emergency Squad has facilities within the hospital property.) Also, more off-street parking spaces are needed. As many as 200 to 300 more spaces may be needed to satisfy the hospital's parking needs in the future, when outpatient activity increases. In light of this, the hospital has purchased several residential properties on the north side of Trussler Place, but as yet have filed no formal application or presented any proposal for expansion. Within the hospital itself, the internal remodeling has created temporary space shortages, requiring them to use trailers in the short term. As the needs of the health industry change, however, the internal space within the hospital would require additional remodeling.

Also on the property within the same block as the hospital, but not owned by the hospital, is the Rahway Regional Cancer Center building. This facility is owned and operated by an oncology/cancer organization based in Atlanta, Georgia. The hospital has also indicated that it would support and serve (but not as an investor or owner) the development of new health care-related residential facilities in Rahway, such as an assisted living facility.

The hospital's mission, and therefore its space needs and master plan, is fluid and evolving, an outgrowth of the rapid pace of change in the health care sector of the US. Nevertheless, its mission continues to be to promote wellness and provide a continuum of care to its patients. This would in the future include providing services beyond the hospital walls, in the community itself.

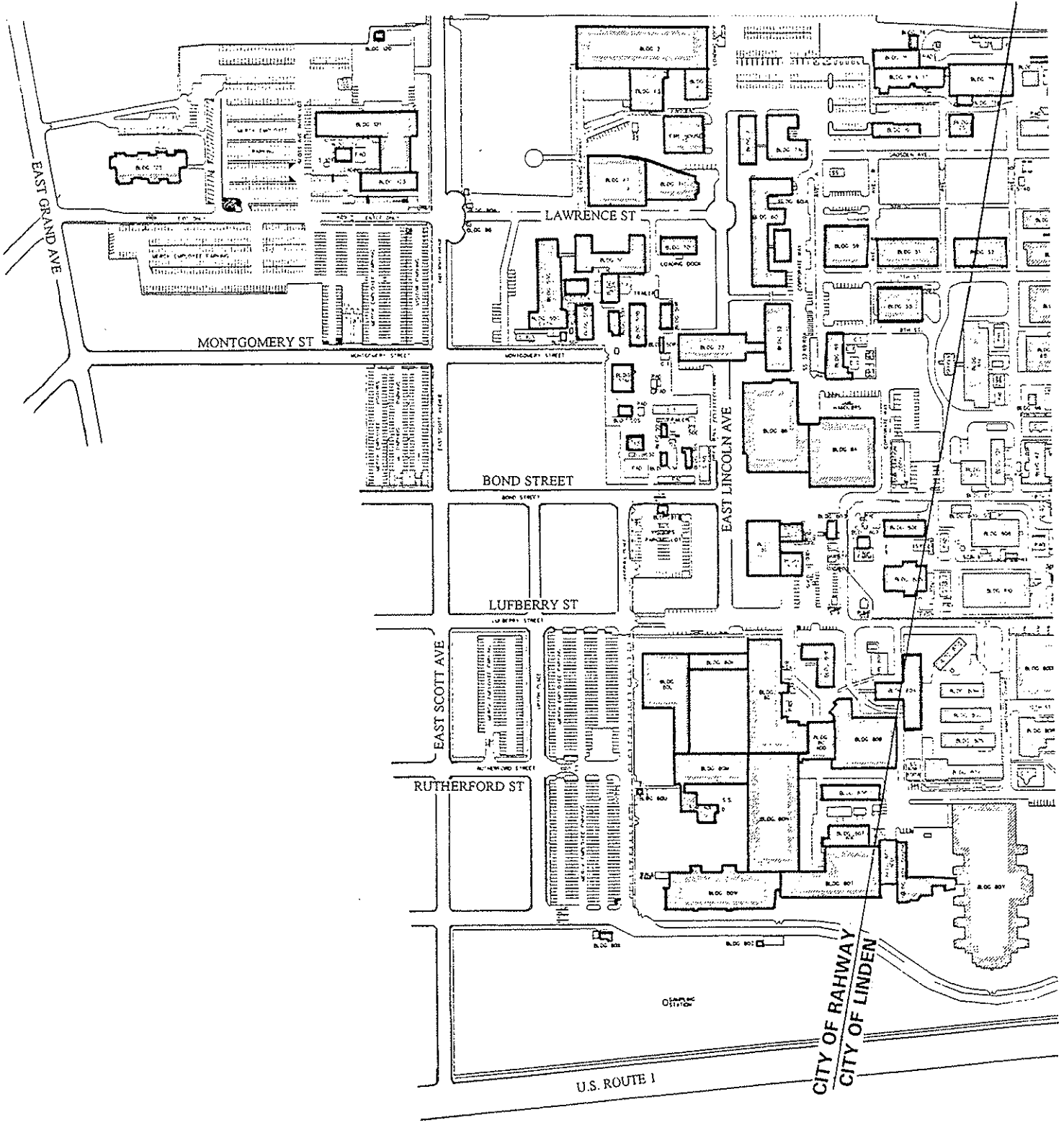
Rahway Hospital, both as a provider of health care services to Rahway residents as well as a major source of employment and other direct and indirect revenue, is an important economic resource within the community. The master plan recognizes that the hospital's continuing economic viability will depend upon its ability to change and adapt to the health care needs of the region, which may include changes and additions to its physical plant.

#### 5.4 MERCK & COMPANY, INC.

Merck and Company, Inc. is an international research-intensive health products company focusing on the discovery, development, marketing and manufacture of human and animal health products. Established in 1891, Merck's Rahway campus was purchased in 1900. Manufacturing began in 1903 in a small brick building. In 1933, Merck's first research laboratories were developed on the property (known as building #50). In 1992 Merck's corporate offices were relocated to Whitehouse Station in Hunterdon County.

Currently the Merck site is 211 acres in size, of which 89 acres are in Rahway and 122 acres are in Linden. There is 2.3 million square feet of floor space in 120 buildings, of which 1.4 million square feet is in Rahway and 900,000 s.f. of which is in Linden. Most of the space located in Rahway is devoted to research facilities and most of the manufacturing facilities are located in Linden. Figure 5.3 shows the location of roads, buildings and parking lots within Merck's property in Rahway. In fact, the manufacturing presence on the whole Rahway-Linden site is shrinking, easing the need for space. Most of the manufacturing facilities are not production-oriented, but pilot plants, used for the initial launching of products.

The total number of employees at the Rahway-Linden site is 3,650. After 1,500 persons moved out to the corporate headquarters at Whitehouse Station, between 550 and 600 employees were moved back from Woodbridge to Rahway-Linden. Merck's employee population is somewhat less than it was 5 years ago, but it is stabilizing.



5.3 Existing Development within Merck's Rahway Property



The most recent addition of space in Rahway took place in 1994, when a 65,000 square foot, 4-story research and development building—an organics pilot plant—was added, along with a 100,000 square foot, 4-story biological support laboratory. Merck also built a ±14,000 square foot day care center, which has an enrollment of 120 children, and is in the process of adding another 6,000 square feet of space. The day care facility is run by an independent organization, but is subsidized and supported by Merck. The day care facility is open not only to Merck employees' children, but to children outside of the Merck community. Care is provided for infants, toddlers all the way up to kindergarten. In the summer a camp for older children is provided.

Merck is still in the midst of conducting an analysis of its parking needs, and is anticipating that at some point in the future a parking garage with a capacity of between 800 and 1,000 spaces may need to be built.

Merck has also acquired property in five single-family residential blocks adjacent to its facility, and has cleared this property of homes. A few scattered single-family homes remain, but Merck owns over 85 percent of the property in this area. The cleared space has been grassed and landscaped, but is otherwise barren land. This land, along with some of Merck's existing parking lots, was the subject of a rezoning application which was approved in 1992. This land is currently zoned OR Office Research (see Figure 5.3, the Land Use Plan), while the remainder of the Rahway property is currently zoned I-2 Heavy Industrial.

Merck's plans for the future include constructing a biology and chemical research facility with 322,000 square feet of space. The building would be three (3) stories in height and be located in the area of the present Bond Street entrance.

In addition, a 700-space parking deck will be constructed adjacent to the new office/research facility. The parking deck is being designed to accommodate an expansion for additional spaces. A new surface parking lot will also be constructed. The goal for providing additional off-street parking with the proposed deck and surface parking lot is to reduce on-street parking by Merck employees. A new East Scott Avenue entrance to the Merck campus will also be constructed as part of this overall project. It is anticipated that this project will begin construction in early 1997.

Rahway's power plant consists of 6 boilers, of which 5 are currently active. Plans are underway to upgrade them and generate steam. Currently the plants have limited cogeneration capacity (i.e., the generation of both electricity and steam). The steam would be a cleaner and more efficient form of energy for processing and heating. Merck also plans to upgrade its high-voltage electrical supply by adding another electrical substation.

Within the Rahway portion of the Merck site, additional support facilities aside from office/research and pilot manufacturing space are provided. These include space for corporate functions, an incinerator, space for solid waste collection and storage, a firehouse, a health care center, a heliport, a cafeteria, a credit union, a dry cleaning service, a gym and jogging track, and the aforementioned day care center.

The Merck property has no direct access to US Route 1 & 9; access is provided via East Scott Avenue. Merck's employees use private passenger vehicles predominantly, although a car pooling program and a shuttle from the Rahway train station are provided as part of Merck's trip-reduction program. Subsidies for utilizing mass transit are also provided.

Merck has a Community Advisory Board made up of representatives of the community, the hospital, and the real estate industry which meets 4 to 5 times a year to discuss issues of concern to the Rahway and Linden communities. Merck is also involved in many community activities and charitable events. It provides support to the JFK Community Center, the Merck Institute for Science and Education (which works with schoolchildren during the summer), the Union County Arts Center, the Rahway Center Partnership, and the Union County Alliance. It stages a variety of events during the year, at the Rahway library, and helps to maintain the grounds of the library. Merck has also provided support and funding for Rahway's Riverfront programs, the Girl Scouts, the "Welcome to Rahway" organization, and sponsors the Merck Environmental Champion Award. Merck has a neighborhood call visitation program, to deal with neighboring residents' questions and concerns. It runs a softball league and has other athletic programs (such as Sports Challenge) at its gym and jogging track.

Due to the sheer size of the Merck site, the number of people employed, the amount of real estate taxes it pays, the amount of dollars its employees and visitors spend in Rahway businesses, and its many charitable and community activities within the community, Merck is an extremely important economic resource in Rahway. Part of this relates to Merck's long history of successful partnership with

the local government and leadership in the community, in facing issues and problems relating both to its operations and the community's quality of life.

## 5.5 UNION COUNTY RESOURCE RECOVERY FACILITY

In February 1994, the Union County Resource Recovery Facility, located on the northbound side of US Route 1 & 9 in Rahway (see Figure 7.1), was opened and began operation. The facility is the key element in the County's Solid Waste Management Plan, in that it receives all non-recyclable solid waste from all twenty-one municipalities in Union County. The facility combusts the waste, and then disposes the residue by having it trucked to a number of landfills in Pennsylvania. The incineration of the waste also produces energy in the form of electricity, which is sold directly to a utility company (Public Service Electric & Gas Company), and in the form of steam.

The Resource Recovery Facility is located on a 22-acre site which includes 3 acres of parkland—essentially a greenway which runs along the Rahway River behind the property (see Figure 8.1). The site was a former unregulated landfill which was closed, capped and treated before construction of the facility commenced.

Planning of the facility commenced in 1982, at a time when a much smaller percentage of the waste stream was being recycled. Currently 56 percent of the total waste stream is being recycled. As a result, the plant opened with a much larger incineration capacity than the amount of waste that was being generated for combustion in the facility. As a result, the Union County Utility Authority negotiated a contract with the Bergen County Utility Authority to utilize its excess capacity by accepting waste from Bergen County. Thus, 60 percent of the waste it receives is from the 21 municipalities in Union County and 40 percent is from Bergen County.

The waste is brought to the facility by truck via mandated truck routes (see The Circulation Plan Element). The ash residue (approximately 20 truckloads per day) is hauled to disposal sites in Pennsylvania. In addition, 20 tons of ferrous metals are recovered from the residue each year and is separated and recycled. Through increased recycling and regionalization, the number of waste hauling trucks from Union County was reduced from 193 to 155 between 1989 and 1994, then further down to 143 by 1996. Approximately 30 trucks originate from Bergen County, while the remainder are from Union County. The amount of solid waste generated by Union County is not expected to grow in the



future, since the residential population is unlikely to increase substantially. Moreover, the plant has the capacity to add a fourth combustion unit (it has three now) if this were to occur.

There are a total of 78 employees at the facility. Fifty of these work for the Ogden Martin Corporation, the private sector operator of the plant, with whom the County has a 20-year operating contract. The remaining 28 employees work directly for the Union County Utility Authority.

The UCUA is looking to sell more of the energy generated by the plant in the form of steam directly to local customers, such as the Woodbridge Developmental Center (i.e., the correctional facility just south of Rahway, on Woodbridge Road), rather than convert the steam into electricity. The steam could be sold as low-pressure, low-temperature steam, which is ideal for heating purposes, or if required by the customer, as high-pressure, high-temperature steam. Sale of steam was initially explored with Merck & Company in Rahway and the General Motors plant in Linden, but has not been considered feasible both because of the need to cross US Route 1 & 9 and also because of the long distance between these operations and the Resource Recovery Facility.

A recent court decision which deemed it unconstitutional for County utility authorities to mandate that municipalities must utilize their facilities for solid waste disposal (as opposed to finding cheaper, alternate waste disposal facilities), could have a serious impact on the UCUA's feasibility. The court has imposed a two-year stay on the implementation of this decision to allow operators and facilities to make adjustments to this ruling. However, it is possible that some municipalities in Union County could opt to haul their waste to plants in Delaware or Pennsylvania, where fees are much cheaper and even with the additional transportation costs and tipping fees, undercut the Resource Recovery Facility's changes. The court decision is being appealed; however, the UCUA is developing contingency plans in the event the decision is upheld and implemented.

The City of Rahway does receive a substantial fee for having the Resource Recovery Facility sited within the community, which has helped to stabilize property tax rates and also fund capital improvements in the neighborhood in which the facility is located.

## 5.6 UNION COUNTY ARTS CENTER

In 1928, the Rahway Theater, a 1,300-seat vaudeville and movie theater located at the intersection of Irving Street, Main Street, Hamilton Street and Central Avenue in downtown Rahway, opened. After many years of success and as a cultural and entertainment institution in Rahway, the theater deteriorated, and its operators fell on hard times.

By 1979, a group of concerned local citizens, who recognized the theater's cultural and historical legacy, formed a non-profit corporation, the Rahway Landmarks, Inc., whose aim was to raise funds, purchase the theater and use it as an arts center. In the meantime, the theater struggled as a budget cinema theater. In 1981 it was leased to a New York City groups of operators who began showing X-rated movies. The resulting community outcry helped to close the theater in November 1981, and provided the impetus for fund-raising which resulted in the Rahway Landmarks, Inc. purchase of the theater in September 1985. Restoration work proceeded thereafter, and in October 1985 the theater was renamed the Union County Arts Center (UCAC) and the Rahway Landmarks, Inc. was renamed Union County Arts Center, Inc.

Following partial but continuing restoration efforts, the theater was reopened on January 12, 1986. In June 1986, the UCAC was placed on the New Jersey Register of Historic Places, and on August 13, 1986 it was given national historic recognition. Restoration work continued, both inside and out, for the next five years, and today the building is fully restored, although a new heating, ventilating and air conditioning system is yet to be installed, which would allow events to be held year-round (i.e., between May and September).

Events staged at the theater include a variety of quality entertainment from concerts, movies, magic shows, to children's theater and world-class performer appearances. The UCAC also offers ethnic programs which incorporate diverse cultural programs and an arts partnership with local high schools and colleges.

The UCAC has become the central focus for cultural, entertainment and community events in Rahway, as well as one of the most significant anchors of the downtown and a building block for the future economic revitalization of the downtown.

## 5.7 RECLAMATION AND REDEVELOPMENT OF "BROWNFIELD SITES" IN RAHWAY

A "brownfield" is defined as an abandoned, idled, or underutilized industrial or commercial facility whose use is currently complicated by real or perceived soil or groundwater contamination. Both the state and federal governments are in the process of developing and implementing programs and regulatory tools to encourage the reclamation and redevelopment of brownfield sites. Some of these include voluntary cleanup programs; state assistance through grants and/or loans under the New Jersey Hazardous Discharge Site Remediation Fund; and tax incentives offered through a recently enacted state law creating environmental opportunity zones.

In 1995, a New Jersey Department of Environmental Protection (NJDEP) report listed twenty-six known contaminated sites in the City of Rahway. Only three of these sites are owned by the City of Rahway itself. These three sites have either already been remediated or a remediation plan is being prepared for implementation. The remaining twenty-three sites are privately-owned and are either undergoing or waiting cleanup action under the guidance of NJDEP. However, actions on some of these other properties may be stalled due to financial hardship or foot-dragging on the part of the owner. Many of these properties exhibit the "brownfield" characteristics as defined in the above paragraph.

While the City of Rahway has only a few sites that could be referred to as "brownfields," they represent both areas of concern because of their environmental condition, but at the same time present opportunities for redevelopment. Because many of these sites are tax delinquent, the City is actively marketing them for redevelopment by offering various incentives and funding available through state and federal programs. One brownfield site in the City of Rahway, known as Warwick Laboratories, is a good example of government efforts to market this property for redevelopment and thus have it generate taxes. The Warwick Laboratories site is presently in tax delinquency and has soil and groundwater contamination.

The City anticipates receiving a grant in excess of \$200,000 to complete a remedial investigation and to develop a remediation plan that can be utilized by the City or potential purchasers in reviewing the economic feasibility of redeveloping such sites. In many cases uncertainty as to the extent of contamination and the costs of cleaning up discourages redevelopment. The City believes that by performing a remedial investigation and plan to determine cleanup costs, these sites will be more attractive for

redevelopment. In addition, the City is exploring the utilization of the Environmental Opportunity Zone Act to assist in the redevelopment of former commercial property located outside of the Central Business District.

## APPENDIX "A"

### ECONOMIC PLAN ELEMENT

#### Results of Downtown Shoppers Survey

Abeles Phillips Preiss & Shapiro, Inc. undertook a survey of 98 shoppers in the downtown on a week-day (Friday, May 12, 1995) and a Saturday morning (May 13, 1995) in order to supplement market data provided by the **1990 CBD Study**, and other sources (realtor interviews, market and demographic profiles, prior market analyses, etc.). A blank survey form is provided as Appendix "B," and the results are provided below.

It should be borne in mind that the survey was not designed to provide a scientifically or statistically accurate survey of shopper opinion, either by its sampling size or the survey method undertaken. It is designed to provide a realistic picture of the downtown environment from a shopper's viewpoint, a representation of the types of persons who shop in the downtown, their place of origin, and their shopping patterns.

- Question 1—How often do you come to downtown Rahway? (Responses add up to 100%)

Several times a week	39%
Every day	38%
Once a week	12%
Other	11%

- Question 2—When do you generally come to the downtown?

Weekday	92%
Weekend	66%
Evenings	32%

- Question 3—For what purposes do you come to downtown Rahway?

Shopping	70%
Entertainment (including dining)	55%
Train	44%
Work	27%
Other	14%

- Question 4—In what stores in downtown do you generally shop? (97 responses)

Responses are both general classifications (restaurants, drug stores, etc.) and specific establishments (Cindy's, Bell's Pharmacy). Number of responses given for general classifications does not include number of responses for specific establishments.

Barber/salon	16	Grocery	2
Beauty supply	2	Grocery on Irving	2
		Bueno Grocery	1
Drug store	27		
Skaff	5	Clothing	1
Verneau	4	B&J	2
Bell	6	Repeat Performance	3
		Wise Choice	1
Liquor store	7		
Beverage Shop	6	C&D	6
		Antique stores	14
Hardware	6	Thrift store	3
Cliff's	5	Auction Holiday	5
Restaurants	4	Jeweler	5
Chinese	8	Camera	8
Cindy's	4	Sound-a-rama	6
Bagel Depot	5	Bank	4
Fish Hut	4	Florist	4
Costa Nova	3	Bar	1
El Bodegon	3	Waiting Room	1
Bakery	4	Post Office	2
International Bakery	2	Pipe Shop	4
Deli	2	Stationery	1
"Greek Deli"	4	Carpet	1
Bread Board	4	"Craft store"	2
Pizza	3	Fine Fare	2
Gino's Pizza	4	Tony's	1
Sub Shop	2	Spellbound	1
"Peruvian restaurant"	1	Sporting Goods	1
Coffee shop/Diner	3	Insurance	1
		Accountant	1
		Travel	1

- Question 5—What other places in the downtown do you visit?

Post office	93%
Union County Arts Center	53%
Train station	52%
YMCA	13%
Other	1%

- Question 6—Including downtown Rahway and other neighborhood shopping areas and malls in the region, where do you do most of your shopping for the following items?

Responses are both municipalities (Woodbridge, Rahway) and specific shopping centers in those municipalities (Woodbridge Center, Rahway CBD). The number of responses given for a municipality does not include the number of responses given for shopping centers within those municipalities. (97 responses)

	<u>Food</u>	<u>Drug/ Laundry</u>	<u>Clothing</u>	<u>Household Goods Hardware</u>	<u>Furniture/ Antiques</u>	<u>Banking</u>	<u>Doctor</u>	<u>Eating Out/ Entertainment</u>
- Rahway	2	24	2	9	29	28	31	29
CBD		21	2	11	8	24		5
Rte. 27	1	14	1		6	3	2	
Dembling's	9							
Other	1	1	1	1		4		1
- Woodbridge	17	12	22	18	7	7	9	10
Woodbridge Center			19	2				
Pathmark	24	4		1				
Home Depot				12				
Bradlee's		4	3					
K Mart		3	4					
- Edison	1	1		1	1	4	9	3
Menlo Park			6					1
- Clark	11	5	6	4		7	7	2
Foodtown	7							
- Linden	10	4	12	10	1	4	2	1
Pathmark	6			1				
- Elizabeth			7	2		2	3	1
- NYC			2			1	1	5
- Westfield							3	1
- Union							3	
- Roselle	1	1					2	
- Catalogue			4					
Other	<u>6</u>	<u>5</u>	<u>3</u>	<u>—</u>	<u>1</u>	<u>2</u>	<u>9</u>	<u>1</u>
Total	96	92	94	79	53	86	81	60

- Question 7—What are the three things you like best about downtown Rahway?

Small town character	17	Arts Center	4
Nice people	16	Cherry Street	4
Restaurants	15	Church/church activities	4
Convenient to get to	9	Nice streetscape	4
Safe	9	Schools	3
Train station/public transportation	9	Bars	2
Antique stores	7	City services	2
Existing stores	6	Craft stores	2
Quiet	6	Drug stores	2
Beauty parlor/Barber	5	Nice merchants	2
Clean streets	5	Parking	2
Library	5	Post Office	2

The following had one mention each: Not too many bars, Location close to NYC, Location close to Clark, Good rents, Historic character, YMCA, Main Street, Thrift stores, Fulton Street.

- Question 8—For each of the following, is downtown Rahway good, fair or poor?

The following ratings were assigned to the responses:

Good = 1  
Fair = 2  
Poor = 3

	<u>Mean</u>
Special events	1.33
Access	1.35
Personal services/attention	1.40
Street furniture/landscaping	1.42
Historic character	1.42
Store hours	1.71
Price of goods and services	1.74
Cleanliness	1.75
Safety	1.78
Parking	1.83
Store appearance	1.99
Quality of goods and services	2.09
Variety of stores	2.62



- Question 9—What types of stores, services or cultural facilities would you like to see in the downtown?

Department store	31	Fish store	5
Better grocery store	28	Better video store	4
Clothing stores	26	Ethnic grocery/restaurant	4
Shoe stores	10	Sporting goods store	4
Recreation for children/youth (including roller rink)	9	Sports/rec facilities	4
Movie theater	8	Card store	3
Butcher	8	Massage parlor/nail salon/tattoo	3
Fruit/vegetable store	7	Outdoor café	3
Book store	6	Arts and crafts	2
More restaurants	6	Convenience store	2
Name brand stores	6	Health clinic	2
Children/youth store	5	Senior activities	2
		Toy store	2

The following had one mention each: health club, bakery, bingo, less vacancies, record store, copy/fax, pet food, good drug store, garden store, music store, more antiques, nice deli.

- Question 10—What kinds of improvements would make you visit the downtown more often?

Fill vacancies; attract more stores	26
Provide better and less restrictive parking	14
Make downtown safer; more police on streets	13
Improve train station, other public transportation	11
Renovate facades, improve streetscaping, better lighting	8
Clean up downtown	6
More activities for children/youth	5
More activities for seniors	5
Provide movie theater and other entertainment	5
Stop drug dealing	5
End loitering	4
Street fair	4
Better restaurants	2
Farmer's market	2
Get rid of bars/liquor stores	2
Lower taxes	2
More offices	2

The following had one mention each: health care, eliminate truck traffic on Main Street, prohibit fast food restaurants.

- Question 11—Where do you live?

Rahway	71
Woodbridge	11
Other	8
Clark	5
Linden	3

APPENDIX B

RAHWAY SHOPPER SURVEY FORM

Shoppers/Visitors Survey  
Rahway Central Business District  
May 1995

Surveyor's Initials \_\_\_\_\_  
Survey Location (cross-streets) \_\_\_\_\_  
Date/Time \_\_\_\_\_

We are doing a survey in order to better serve the shoppers and visitors to downtown Rahway. Would you mind answering a few questions? It will only take 3 or 4 minutes. Thank you.

1. How often do you come to downtown Rahway?

- \_\_\_\_\_ Several times a week
- \_\_\_\_\_ Once a week
- \_\_\_\_\_ Never
- \_\_\_\_\_ Other (please specify) \_\_\_\_\_

2. When do you generally come to the downtown? (Check as many as appropriate.)

- \_\_\_\_\_ Weekdays
- \_\_\_\_\_ Evenings
- \_\_\_\_\_ Weekends

3. For what purposes do you come to downtown Rahway? (Check as many as appropriate)

- \_\_\_\_\_ Shopping
- \_\_\_\_\_ Work/Business
- \_\_\_\_\_ Entertainment/Dining Out
- \_\_\_\_\_ Catch the train
- \_\_\_\_\_ Other (specify) \_\_\_\_\_

4. In which stores in the downtown do you generally shop?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5. What other places in the downtown do you visit, and how often?

Places visited:	Number of visits:
Post Office _____	Per Month _____
Arts Center _____	Per Month _____
YMCA _____	Per Month _____
Train Station _____	Per Month _____
Other (please specify) _____	Per Month _____

6. Including downtown Rahway and other neighborhood shopping areas and malls in the region (e.g., Woodbridge, Linden), where do you do most of your shopping for the following items?

- Food items (daily needs) \_\_\_\_\_
- Drug store/laundry/video (daily needs) \_\_\_\_\_
- Clothing/shoes \_\_\_\_\_
- Household goods/hardware \_\_\_\_\_
- Furniture/antiques \_\_\_\_\_
- Banking \_\_\_\_\_
- Doctor/dentist \_\_\_\_\_
- Eating out/Entertainment \_\_\_\_\_
- Other (please specify) \_\_\_\_\_

7. What are the three things you like best about downtown Rahway?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

8. For each of the following, do you think downtown Rahway is good, fair or poor?

	Good	Fair	Poor	Don't Know
- Variety of stores	___	___	___	___
- Quality of goods and services	___	___	___	___
- Price of goods and services	___	___	___	___
- Personal services/attention	___	___	___	___
- Parking	___	___	___	___
- Access/traffic flow	___	___	___	___
- Safety	___	___	___	___
- Cleanliness	___	___	___	___
- Store appearance	___	___	___	___
- Street furniture/landscaping	___	___	___	___
- Store hours	___	___	___	___
- Special events	___	___	___	___
- Historic character	___	___	___	___

9. What types of stores, services or cultural facilities would you like to see in the downtown?

\_\_\_\_\_

\_\_\_\_\_

10. What kinds of improvements would make you visit the downtown more often?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

11. Where do you live?

Community: \_\_\_\_\_

Name of street you live on and nearest cross-street:

Street \_\_\_\_\_ Cross-street \_\_\_\_\_

Thank you very much for your time. Enjoy the rest of your day.

## APPENDIX C

### ECONOMIC PLAN ELEMENT LIST OF USES IN DOWNTOWN RAHWAY (SUMMER 1995)

#### Irving Street (East Milton to Lewis Street)

- [ Moose Lodge
- [ Vic's Barber
- [ Vacant—1 story
- [ Toshi Restaurant (Spanish American Food)—1 story (alley)
- [ The Carlton House (apartments)
- [ The Waiting Room (Bar)
  - 1 apartment above

#### Irving Street (Lewis Street to East Cherry)

- Irving Electronics (1439)
  - second floor offices
  - ITO Design
  - Dex Security
  - Malter & O'Donnell Architects
  - PC 101
  - Y Marketing
- Stephen Insurance Agency (1449)
- Garden State News (1457)
  - apartments above (2nd + 3rd floors)
  - 8 units total

#### Irving Street (East Cherry to Poplar Street)

- [ Verneau's Drug Store
- [ Vacant
  - entrance to Mid Jersey Body Building Club (2nd floor)
- RAILROAD
- Rahway Parking Authority

#### West Cherry Street (Campbell Street to Irving Street)

- {Office}
- Professional Service (Auto)
- 4 Color Laser (Printing/Copy Shop)
- Dry Cleaner
  - apartments above

#### Irving Street (Railroad to Elm Avenue)

- MUNICIPAL PARKING—Lot F
- Rahway Savings
- St. Paul's Episcopal Church

APPENDIX C

ECONOMIC PLAN ELEMENT  
LIST OF USES IN DOWNTOWN RAHWAY (SUMMER 1995)  
(Continued)

Irving Street (Elm Avenue to Central Avenue) West

- [ Fit to be Ties (Apparel)
- [ The Academy of Music (instruction)
  - apartments above
- [ Rentec Design Studio (copy shop/printing/advertising) (1520)
- [ Bragg's Hair Stylists (1522)
- [ Mr. Apple Pie Restaurant
- [ Private parking for B+F Enterprises
- [ OFFICE (B+F Enterprises)
- [ Baumann's Florist (1534)
- [ The Jersey Devil II (Bar)
- [ Irving Street Laundromat
- [ Chinese Restaurant - Coming Soon (1540)
- [ Vacant (recently renovated)
- [ Vacant (recently renovated) (1546)
  - second floor offices
    - Max Lefsky, CPA
    - Barry Lefsky, CPA
    - C& J Industries (Office)
    - Royal Treasures Antiques, Inc. (Office)
  - third floor offices
    - Apple Center (Office)
    - Financial Services Co.
    - Phoenix Management
  - side offices
    - Pascal Inc.
    - Laura Molle Photography
- [ Masonic Temple
- [ Wines/Liquors
- [ Bell's Drugs
- [ YMCA (1564)
- [ Gino's Pizza
  - apartments (2nd floor)
- [ Le P'tit Cafe (Coffee/Ice Cream)—1 story
- [ Motivations Hair Salon - 1 story (1580)
- [ Bueno Latin Grocery
  - apartments above
- [ Spellbound II (Metaphysical shop—retail)
  - apartments above
- [ Cindy's Luncheonette
  - apartments above
- [ Nick's Bar
  - apartments above
- [ Vacant

APPENDIX C

ECONOMIC PLAN ELEMENT  
LIST OF USES IN DOWNTOWN RAHWAY (SUMMER 1995)  
(Continued)

Irving Street (Elm Avenue to Elizabeth Avenue) East

- Crossland Savings
  - parking/entrance/exit
- Anthony's Bike & Key Shop
- Cliff's Hardware
  - 1 apartment above
  - warehouse/storage above

Irving Street (Elizabeth Avenue to Coach Street) East

- Bianca's Deli (1561)
- Twice "S" Nice Consignment Shop (1563)
- ┌ Entrance to 2nd Floor Apartments (1565)
  - 5 apartments
- └ Lyn Kristie LTD Hair Stylists (1565)
- Latin American Video (1567)
- Caravan Associates (international phone/fax) (1569)
- ┌ Entrance to 2nd Floor Offices (1571)
  - 2nd floor offices
    - Carol Realty & Development
    - Teresa Ford, Esq.
    - Star-Ledger
    - Vacant—Office
    - Great Eastern Shipping
    - Vacant - Office
- Vacant Ground Floor Retail/Office (1573)
- All State Billiards

Irving Street (Coach Street to Central Avenue) East

- Axia Federal Savings (moving soon w/i Rahway)
  - parking and drive-thru
- Union County Arts Center (corner)
  - Art Studio Fine Art Gallery (within UCAC)

Irving Street (Central Avenue to Seminary Avenue) West

- ┌ Rich's Baseball Cards
- └ Vacant (formerly a deli)
- Apartment building
- RIVER
- Apartment building (~15 units)
- EMJAY Fishing & Boating (tackle shop)
  - apartments above
- Scorpio's Pub

APPENDIX C

ECONOMIC PLAN ELEMENT  
LIST OF USES IN DOWNTOWN RAHWAY (SUMMER 1995)  
(Continued)

**Irving Street (Central Avenue to Grand Avenue) East**

Vacant (formerly Castor Insurance Agency)

RIVER

Vacant (1645)

- apartments above

Vacant (1647)

- apartments above

Vacant (1649)

- apartments above

Rahway Electric Motor (1651)

- apartments above

St. Georges Art Glass Studio (1657)

The Collectors Shelf (1659)

- apartments above

Mary's Lotto Tickets (1663)

- apartments above

Ken's Antiques/private house (1667)

**Elizabeth (Irving Street to West Main) North**

Banks Deli (fronts on Irving Street)

Procraft Construction (office)

- parking in rear

F& M Ceramics & Crafts

- apartments above

Apartments

**Elizabeth (West Main to West Grand) South**

T&L Caterers

RIVER

Vacant (office/restaurant)

Gaffney Kroese Electrical Supply (1697)

Offices (4 suites)

American Cabinetry

Dason Stainless

**West Main (Railroad to Elizabeth Avenue) East**

Apartments (2 story bldg)

Apartments (2 story bldg)

Parking (very small)

Oriental Food Convenience Store

Apartments (2 story bldg)

Madalyn's Beauty Salon (w/i apartment)

Apartments (2 story bldg)

American Legion Hall (old Fire Dept. and Jailhouse)

private house

private house

T & L Caterers



APPENDIX C

ECONOMIC PLAN ELEMENT  
LIST OF USES IN DOWNTOWN RAHWAY (SUMMER 1995)  
(Continued)

Main (Railroad to Monroe Street) East

Vacant lot (very small)  
Community Barber (1593)  
- apartments above

[ Oriental Herb Store (1591)  
Jenkar Building ( office) (1589)  
Office (1587)  
-apartments above

Vacant lot  
Vacant lot  
Vacant lot  
Vacant lot

Southwest corner of Poplar Street and Main

New Flamingo Bar (on Poplar Street)

Main (Poplar to Cherry Street) West

Next Exit Hand Car Wash  
MAS Fabric Outlet (retail/wholesale)(1562)  
Falcon Sales Co. (office)(1558)  
Charlie's Subs

[ Kitchen Cupboard  
WJSE Choice (M&W apparel)  
Just About Anything Antiques  
- apartments above

[ Jay Dee Furniture  
- parking in rear  
American Carpet & Tile Showroom  
- apartments above both stores

Landmark Liquors  
Vacant (Just About Anything Antiques Coming Soon)  
Jomad Real Estate  
- apartments above  
Greek American Deli  
- apartments above  
Skaf Pharmacy  
- apartments above

APPENDIX C

ECONOMIC PLAN ELEMENT  
LIST OF USES IN DOWNTOWN RAHWAY (SUMMER 1995)  
(Continued)

Main (Monroe Street to Lewis Street) East

- Vacant
- Vacant
- Vacant
- Auction Holiday Sales (comparison) (1551)
  - apartments above
- [ CKJ Services Inc. (moving company) (1541)
  - Apartment entrance (1539)
    - apartments above
- Vacant (formerly Hallmark Cards)
- Vacant (former Wine Store)
- Vacant (formerly Robbinson Carpet)
- Rahway Restaurant & Bar Supplies
- [ Vacant (1,000 sq.ft.)
  - apartments above
- Tokar Offices (1519)
  - apartments above
- Vacant (1513)
  - apartments above
- [ No. 1 Chinese Kitchen Take-out (1507)
- Rahway Beauty Salon (1505)
  - second floor
    - vacant office space
  - third floor
    - Golden Hands Salon
- A+R Distributing Furniture (1501)
- ALLEY
- [ Karate School
- Community Camera Center
- Sound-A-Rama
  - apartments above (2 apts.)
- [ Images, Inc. (Photography by William Osterfeld) (1477)
  - apartments above (4 apts.)
- Vacant Office (1475)
- Scoreboard Sports Pub

Main (Cherry Street to Lewis Street)

- [ Kennedy Jewelers (1464)
- Sportsjam (sneakers and Sportswear)
- Niece's Pieces (clothing and crafts)
- Vacant lot
- Bridges Book Center/Card Shop
- Costa Nova (Portuguese restaurant and cocktails)
  - apartments above
- Smith Income Tax and Bookkeeping
  - apartments above
- Dennis Unisex Barber Shop

## APPENDIX C

### ECONOMIC PLAN ELEMENT LIST OF USES IN DOWNTOWN RAHWAY (SUMMER 1995) (Continued)

#### Cherry Street (Irving Street to Main) South

- [ Garden State News (newsstand)
- Rahway Finest Unisex
- Rahway Grill
- Vacant lot
- C&D Hosiery (apparel)
- Linens for All
- Royal Treasure Antiques
- INDOOR MALL (between Cherry and Lewis Streets)
  - 1st Floor: IBEW Union
  - Oil/Chemical/Atomic Workers Local
  - Merck Local
  - Giacobbe & Sons Contractors
  - Able Agency (Real Estate)
  - Garden State Industrial Cleaning Service
  - Information Processing Technologies
  - Bread Board Deli
  - QL Crochet
  - 2nd Floor: Holmes Security Investigation
  - Stockton Association (audio/visual)
  - International Union Tool Die Mold
  - Candace
  - Mystice Dolphin
- Anne Murray Antiques
  - apartments above for rent
- [ Antique Crafts (For Rent sign in window)
- Vacant (former fish store)
- Vacant (former Pizza/Sub Shop)
- Dennis Barber Shop

#### Cherry Street (Irving Street to Main) North

- [ Verneau's Drugs
- Second time Around (vintage clothing)
- International Pasta
- Woods Fish Hut (restaurant)
- Ken's Beauty Salon
- The Beverage Shop
- ENTRANCE TO MUNICIPAL PARKING
- Vacant (formerly McCroy's Department Store)
- The Tarnished Swan
  - apartments above
- The Travel Hut
  - apartments above
- Adrienne's Unisex Salon
  - apartments above
- Repeat Performance (vintage clothing)
  - apartments above

APPENDIX C

ECONOMIC PLAN ELEMENT  
LIST OF USES IN DOWNTOWN RAHWAY (SUMMER 1995)  
(Continued)

Main (Lewis Street to E. Milton)

Paolini's Townhouse Bar/Restaurant  
*Coming Soon* CJ Villa Furniture Co.  
[ Vacant  
[ Vacant  
China Art Linen Inc. (partially vacant)  
Fashion Fabric Interior Decoration (partially vacant)  
[ Rahway Center Partnership  
Soda Shop/newsstand  
Universal Chiropractic

East Milton (Main Street to Pierce Street) South

U.S. Post Office  
- parking lot

East Milton (Pierce Street to Fulton Street) South

House  
Domino's Pizza  
- second floor offices  
RTB Contracting Co.  
Kemco Enterprises  
Coordinate Construction Service  
[ Vacant (formerly City Federal Savings)  
[ Vacant (former Dance Studio)  
[ Vacant office  
- vacant second floor

East Milton (Main Street to Irving Street) North

Trinity Methodist Church  
Rahway Radiator (Auto Service)

East Milton (Irving Street to Railroad) North

[ Rahway Pizza  
[ PS Newsstand  
[ Bagel Depot  
[ NJ Transit Train Station

APPENDIX C

ECONOMIC PLAN ELEMENT  
LIST OF USES IN DOWNTOWN RAHWAY (SUMMER 1995)  
(Continued)

Irving Street (East Milton to Cherry Street) West

Ester's Petal Boutique (florist)  
B&J Shoes  
Changing Hands (thrift shop/vintage clothing)  
Ultimate Swim Shop  
Rahway Supermarket

National State Bank Building  
- second floor offices  
    Anthony Caruso, Esq.  
Behind National State Bank Building (small lot)  
    Marsh & Lawrence Civil Engineering & Surveying  
    Armstrong & Little (Attorneys)  
Core States NJ National Bank  
Parking for Core States NJ National Bank

## 6. UTILITY PLAN ELEMENT

### 6.1 WATER SUPPLY

Public water in the City of Rahway is derived from two sources. The primary source is the Division of Water administered under the City Department of Public Works. The Division of Water draws its water from the North Branch of the Rahway River, which is treated at the Rahway Water Treatment Plant located at 1045 Westfield Avenue in the northern central portion of Rahway, just below the City border with Clark Township. The Water Treatment Plant was built in 1872 for the purpose of providing a reliable source of potable water for the City, and still serves that function today. The design capacity of the treatment plant is currently 6 million gallons per day (MGD), although its average daily production in 1994 was 5.3 MGD. The service area of the Division of Water coincides with the boundaries of the City.

The secondary source of water in the City of Rahway is the Elizabethtown Water Company, a private company which is regulated by New Jersey's Board of Public Utilities. Rahway is one of more than 50 municipalities which are supplied by the Elizabethtown Water Company, whose service areas include eight counties, from Union County to Burlington County. The average daily water usage of Rahway in 1994 was 6.5 MGD. Thus, 1.2 MGD of water over and above the 5.3 MGD supplied by the Rahway Division of Water was provided for by the Elizabethtown Water Company. There are daily fluctuations in the amount of water supplied by the Elizabethtown Water Company to the City, corresponding closely with the demands of Merck, Inc., the pharmaceutical company in Rahway and adjacent Linden, which is the largest water consumer in the City.

Rahway's Division of Water has no plan to expand the treatment plant's capacity, given that the City is essentially fully developed, and given that consumption levels have actually fallen over the past 20 years. In 1974, for instance, the average daily consumption was 7.4 MGD. In that year the Division of Water had projected consumer demand to reach 10 MGD by 1985, but in actual fact water consumption fell by over 13 percent over the next 20 years.

In looking to the future, with the exception of Merck, Inc., there are no major industrial establishments which "spike" or create unusually high peak water demands. Most of the remaining residential and commercial establishments create only minor fluctuations in water demands, such as in the

summer, when watering lawns and filling swimming pools generate higher residential demands. This allows the City to meet the majority of its water demands through its treatment plant supplemented by the Elizabethtown Water Company supply. The only major new user of water in Rahway in recent years is the Union County Resource Recovery Facility, built in 1994. It uses water for its steam generation process; however, the water superintendent's office indicates that its usage is relatively small.

In contrast to the Rahway Division of Water, the Elizabethtown Water Company is continuing to expand its service territory and its capacity. It is currently in the process of increasing the capacity of one of its treatment facilities located at the confluence of the Raritan and Millstone Rivers from 185 MGD to 225 MGD to meet the future water demands of the growing communities in its service area. In addition to this expansion, it has both the space and technological capability to increase its treatment capacity by a further 200 MGD, should demand warrant it. Thus, for the foreseeable future, Rahway, with its own treatment plant and its contract with the Elizabethtown Water Company, will be able to provide for any increased demands well into the future.

The Division of Water maintains four major water storage facilities in Rahway. The largest of these is a 3 million gallon low level tank, located on Union County parkland on the other side of the Rahway River from the Water Treatment Plant in the north. A 1.5 million gallon elevated tank is located at the Rahway Public Works yard on Hart Street, in the southern industrial area of Rahway. Finally, on the grounds of the Water Treatment Plant itself on Westfield Avenue are a 500,000 gallon water sphere and a 350,000 gallon clear well.

While there are no plans to increase the capacity of the Rahway Water Treatment Plant, the Division of Water is taking steps to upgrade the purity and taste of its potable water. The plant is currently undergoing an \$8 million improvement project comprised of three phases. Phase one is aimed towards improving the plant's capability of removing pollutants from the water supply. In phase two, a new gravity filter media including sand and anthracite is to be used to improve its filtering capability. Phase three involves the installation of a new "polishing" facility, referred to as the Granular Activated Carbon Polishing Filter Facility, which will improve the taste and odor of the water. This project is being largely funded by the New Jersey Department of Environmental Protection's (DEP's) Office of Environmental Claims, with the remainder financed by municipal bonds. Construction is to be completed in 1996.

In addition to this improvement project, the Division of Water has an ongoing program of replacing worn, outdated and undersized portions of its water distribution system to improve water pressure, capacity and reliability.

Figure 6.1 shows proposed improvements to Rahway's Water Distribution System. This figure indicates the location of water mains recently replaced, those scheduled for replacement, and those in need of replacement in the future.

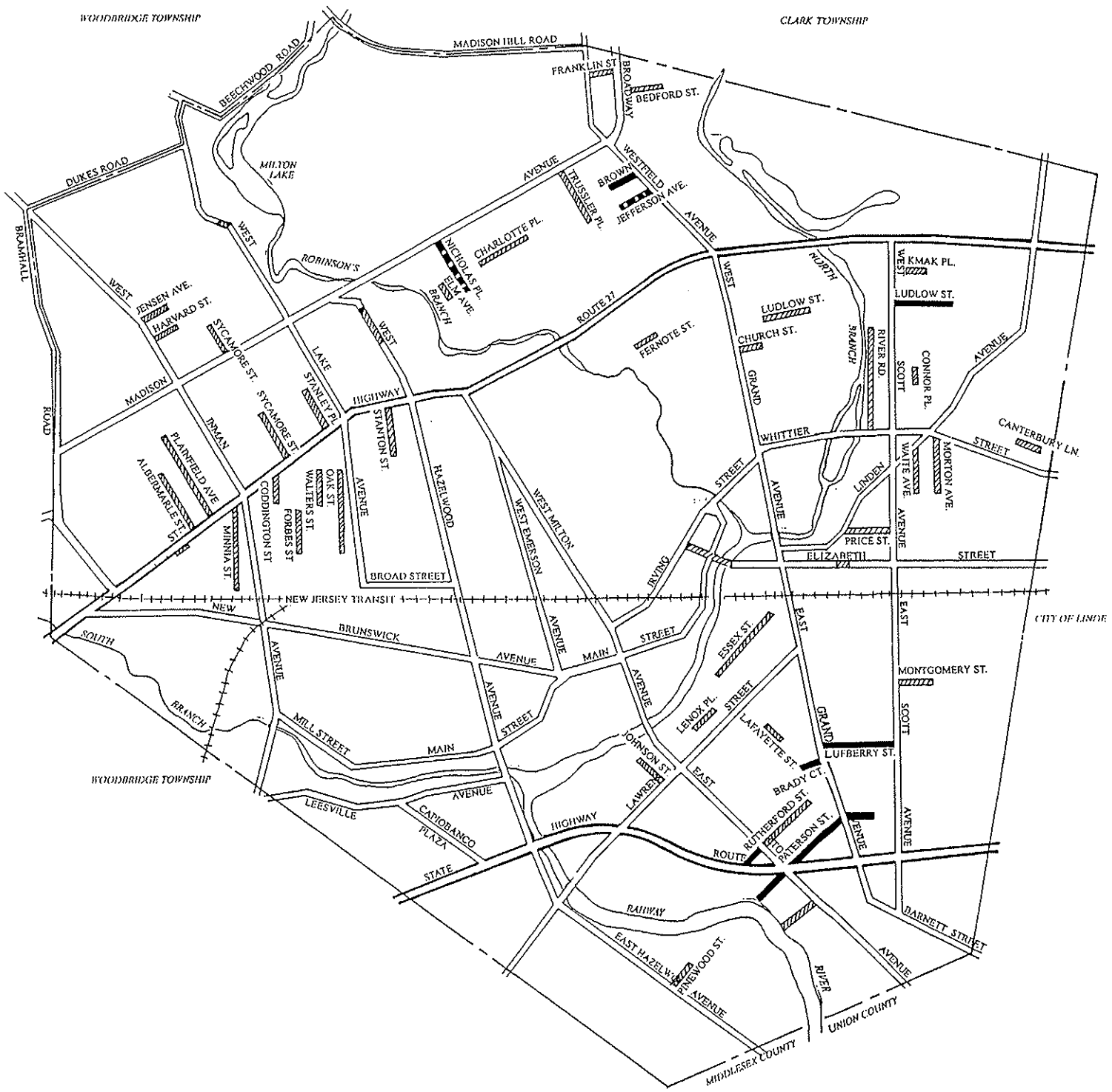
## 6.2 SEWERAGE SYSTEM




The sewerage system which serves the City of Rahway is comprised of two parts and is under the jurisdiction of two entities. The first is the collection system, a series of interconnected mains which collect the sewage from their source in Rahway (residences, businesses, industries, etc.) which is owned and maintained by the City of Rahway. The second is comprised of the interceptor sewer line into which the collection system flows, and the sewage treatment plant, which treats the sewage effluent. The interceptor lines and treatment plant are owned and operated by a regional utility authority known as the "Rahway Valley Sewerage Authority."

The Rahway Valley Sewerage Authority serves seven member municipalities other than the City of Rahway, as well as three customer municipalities. Impetus for the creation of the Authority came from the City of Rahway itself in the late 1920s, predicated on providing an efficient sewage collection and treatment facility which could serve the combined needs of several municipalities. The sewage treatment plant is located in Woodbridge, just south of the Rahway border at 1050 East Hazelwood Avenue. The plant has a permit to treat up to 40 million gallons per day (MGD) and can pump as much as 62 MGD. The current average dry weather flow is 28 MGD, well within the plant's capacity. However, due to the infiltration and inflow of the member collection systems following periods of precipitation, and the fact that part of the collection system in Rahway combines both wastewater and stormwater, the treatment plant receives flows well in excess of its capacity.

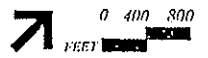
The interceptor line feeding the treatment plant has a design capacity of 70 MGD to accommodate the additional flows generated by infiltration and inflow. In addition, the treatment plant has a sewage detention basin to handle flows in excess of the plant's capacity. Furthermore, even when the capacity of the interceptor line and detention basin are exceeded, the excess sewage flows (actually





-  WATER MAINS SCHEDULED FOR REPLACEMENT
-  AREAS IN NEED OF WATER MAIN REPLACEMENT
-  WATER MAINS RECENTLY REPLACED

## 6.1 Proposed Water Supply Main Improvements



a combination of sewage flows, groundwater infiltration and stormwater inflow from various sources, are discharged into the Rahway River. Thus, there is no way of determining the actual amount of sewage flows which are discharged into the system during heavy precipitation.

The infiltration of groundwater into the sewage collection system and the stormwater inflow is itself not unusual; all areas experience this problem. What makes this infiltration and inflow problem particularly troublesome in Rahway's case, however, is that in the older sections of the City, the sanitary sewer system is combined with the stormwater drainage system. In fact, no other municipality in the Rahway Valley Sewerage Authority service area has such a combined system. Sending this combined effluent to the wastewater treatment plant unnecessarily takes up a large proportion of the treatment plant's capacity to no benefit at all. The stormwater which enters the collection system and ends up in the treatment plant is not in need of treatment. The net result of this is that to handle the excess flow into the plant, the combined flow is discharged, untreated at Combined Sewerage Overflow (CSO) points into the Rahway River. The Sewerage Authority has two CSO points on the Rahway collector system and an additional five CSO points on the interceptor sewer line within the City.

To this point, Rahway has been fortunate in that such overflow discharges have not yet affected the quality of potable water drawn from the River. All the CSO discharge points are in fact downstream of water treatment plant intake. However, Federal regulations may eventually necessitate the development of a treatment plan to capture the excess flows which are currently discharged at the CSOs. (Union County is also currently examining the CSO problem.) Such a system would be designed to address the overflow only—i.e., it would only be pressed into service during peak flow conditions—and would parallel the current interceptor sewer system. Such a system would only extend as far upstream as the sewer overflow.

While Rahway has attempted to deal with the direct inflow of stormwater into its sewage collection system, such as installing elevated and watertight manhole covers on trunk lines in low-lying flood-prone areas, a more effective means of tackling this problem, and one which has a much greater potential for reducing excess flows, is separating the stormwater drainage system from the sewage collection system. In fact, over the past fifteen years the City has focused its efforts on separating the combined system, rather than on tackling infiltration. This task is still the City's first priority and indeed, less than five percent of the drainage area within Rahway now requires separation of the

combined systems. There are two portions of Rahway where such separation is still required. The first area is bounded by New Brunswick Avenue, Regina Avenue, East Hazelwood Avenue and Main Street. The second includes West Hazelwood Avenue from Broad Street to Pierpont Street, and streets that are tributary to West Hazelwood Avenue—Bryant Street, Jaques Avenue and Pierpont Street. It should be noted that most, but not all of the sewer lines and storm drains in these two areas need to be separated.

Inflow occurs in a variety of ways: street flooding, the discharge of water in basements and through sump pumps and floor drains in buildings. Once the process of completely separating the sewage collection system from the storm drainage system is completed, Rahway will be able to focus its efforts on remediating groundwater infiltration, i.e., that which occurs through porous and leaky sewage mains.

Should it become necessary, the Rahway Valley Sewerage Authority would address the CSO discharge into the Rahway River, only when the separation of the combined sewer system is complete. The plan would involve the installation of a new interceptor line which would parallel the existing one, and would extend as far as the most upstream overflow. This new interceptor line would be sufficiently sized to capture the overflow from the existing interceptor, and flow into the sewage treatment plant. It is unlikely that the sewage treatment plant's capacity would have to be increased to handle the peak flows from both interceptors, due to the fact that flows from most communities served by the Authority are declining. The size and length of the interceptor and the amount of increased treatment capacity in the treatment plant would only be determined once the separation project is complete, and the amount of flow is actually determined.

At the present time, the Rahway Valley Sewer Authority is in the process of rehabilitating the trunk line which Rahway and Woodbridge use to convey the untreated sewage collected from the City to the treatment plant. The trunk line parallels the south branch of the Rahway River. This remediation process includes raising manholes, putting in sheeting and replacing piers.

Each municipality served by the Rahway Valley Sewerage Authority is allocated a share of the total sewage processed by the treatment plant. Because the average dry weather flows in Rahway have decreased in the past few years, Rahway recently sold a portion of its allocation to the Township of Clark. As shown in Table 6.1, over the past three years the total amount of sewage treated by the

TABLE 6.1

TOTAL SEWAGE TREATED BY THE RAHWAY VALLEY SEWERAGE AUTHORITY  
FOR THE CITY OF RAHWAY, 1993 TO 1995

	<u>1993</u>	<u>1994</u>	<u>1995*</u>
Flow (million gallons)	1,919.90	1,657.10	1,273.85
Biological Oxygen Demand (tons)	879.90	642.40	613.20
Suspended Solids (tons)	1,301.255	700.8	1,087.70

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\* The invoiced year 1993 covers November 1991 to September 30, 1992; 1994 covers October 1992 to September 30, 1993; and 1995 covers October 1, 1993 to September 30, 1994.

Rahway Valley Sewerage Authority for the City of Rahway decreased by one-third in flows and BODs, and by sixteen percent in suspended solids.

The decrease in flows can be attributed in large measure to improved inter-municipality metering, the slight decrease in population (which accounts for 75 percent of the flows), as well as the adoption of water conservation techniques and installation of modern water saving household appliances and plumbing equipment. With the completion of the collection system separation, and the continued adoption of measures to halt or ameliorate inflow into the sewer mains in the City, the trend of decreasing demand should continue. On a region-wide basis, the trend is similar: only two municipalities served by the Rahway Valley Sewerage Authority have had to purchase additional flow rights due to increased demand.

The Rahway Valley Sewerage Authority serves approximately 265,000 residents now, or slightly over half of Union County's residents. The Authority has no plans in the near future for expanding the treatment plant's capacity. The Authority believes the current capacity to be adequate even if, as projected by the New Jersey Department of Labor, the population of Union County increases to 523,000 in the year 2010 (from 493,819 in 1990).

The Sewerage Authority will soon be undertaking two improvement projects at the sewerage treatment plant. The first is the installation of new sludge de-watering equipment and the addition of sludge thickening equipment. One million dollars of the total \$1.5 million cost is being provided in the form of an interest-free loan from the Port Authority of New York and New Jersey. The Sewerage Authority is also hoping to phase out the use of chlorine in the secondary treatment process by utilizing sand filtration and ultraviolet disinfection instead. Estimates on the cost of such an improvement range from between \$10 million to \$15 million.

### 6.3 STORMWATER DRAINAGE

The entire City of Rahway lies within the watershed (the natural drainage basin) of the Rahway River. Three major streams, all tributaries of the Rahway River, pass through the City: (1) the North Branch of the Rahway River, the largest tributary, originates in the northern part of Union County entering Rahway from the Township of Clark and flows in a southeasterly direction through the city; (2) the Robinson's Branch of the Rahway River, which originates to the west of the City (primarily in

Clark Township) and flows west to east more or less through the City's center; and (3) the Southern Branch of the Rahway River, the smallest tributary, which originates primarily in Rahway and also flows west to east more or less along the southern boundary of Rahway. The confluence of the Robinson's Branch and the Northern Branch is located just to the east of the intersection of West Main Street and Irving Street in the downtown, while the Southern and Northern Branches join one another (at the start of the Rahway River) just to the northeast of the intersection of Main Street and Hazelwood Avenue. At this point, the Rahway River flows eastward, emptying into the Arthur Kill approximately three miles due east of the City.

The topography of Rahway is generally level and unvaried. Precipitation which falls on the City is collected by a system of interconnected stormwater drainage pipes and drains directly into the three branches of the Rahway River. Aside from this system of storm drains which are found throughout Rahway, a few other drainage retention or detention facilities exist. A combination of factors has led to problems of flooding within Rahway at several locations. The first is the fact that the watershed area of the three tributaries of the Rahway River (and the Rahway River itself) includes not only the City of Rahway, but other large areas to the north and west and even south of the City. Added to this is the fact that these areas, as well as Rahway itself, are highly urbanized, i.e., covered to a large extent by buildings, streets, parking areas and other impervious surfaces. Thus, a large percentage of the precipitation which falls within the watershed which would otherwise be absorbed into the ground, instead flows overland into storm drainage pipes and is then discharged directly into watercourses, creeks, streams and rivers that make up the drainage system in the area. Because Rahway became urbanized prior to the advent of measures to control the rate and velocity of stormwater runoff—such as detention areas or limiting impervious surface coverage—the volume of runoff exceeds the capacity of the natural drainage system to absorb precipitation at certain times following heavy precipitation events. The result is flooding, both in localized areas and along the City's watercourses.

The Federal agency charged with the responsibility of remediating such flooding problems, the US Army Corps of Engineers, along with State, County and City agencies, have undertaken improvements in the past to deal with these problems. The most important of these improvements are the flood control projects along the main branch and south branch of the Rahway River, designed and constructed by the Army Corps of Engineers. Others include: the removal of structures and homes that were subjected to periodic flooding such as at the confluence of Robinson's Branch and the

North Branch, in the vicinity of Union and Allen Streets, and where the South Branch runs along East Hazelwood Avenue; the rehabilitation of the Central Avenue Bridge and the replacement of the Maple Avenue Bridge; the adoption of more frequent maintenance of the stormwater drainage system such as removal of debris in culverts; the adoption of a flood control and prevention ordinance that prohibits or limits the extent of construction, filling and disturbance in the 100-year floodplain; and the installation of new stormwater sewers, and replacement or separation of stormwater sewers from the sanitary sewer system.

The most recent project is the installation of a new storm drain and pump station at the Resource Recovery Facility. It is aimed to address the failure of the storm drainage sewer which passes through the Resource Recovery Facility property, resulting in the flooding of the automobile dealerships located across US Route 1 & 9. The cost of the project is \$500,000, being shared by the City and the Union County Utility Authority. The City has also requested that the County continue to provide funding to separate the storm sewer and sanitary sewer lines in the Hazelwood Avenue area.

Most of the areas of Rahway outside of the flood hazard areas of the three branches of the Rahway River are not subjected to flooding problems, and many of the areas within the flood hazard area have been cleared and are thus no longer threatened by flooding problems. However, while many homes within the floodplain areas of the City experience periodic flooding within their basements, the Army Corps of Engineers have no plans for any major flood control projects. Owing to the fact that flooding continues to be a major threat to the health and safety of those who live within the 100-year floodplain, the Army Corps of Engineers should undertake a comprehensive review of the flooding problems in Rahway to recommend additional remedial measures.

#### 6.4 SOLID WASTE

The City of Rahway has a contract with a private hauler for removing solid waste from all residences in the City and most businesses. The present contract began in January 1995 and expires in 1997. Some businesses contract with their own private haulers, while the City picks up solid waste from businesses in the Central Business District.

The Resource Recovery Facility on Route 1 processes all Type 10 solid waste for Rahway. The facility, which is managed by the Ogden Martin Company under the administration of the Union County

Utility Authority (UCUA), began its operation in February 1994. The proposed construction and operation of the plant encountered some resistance from area residents, largely over environmental and traffic concerns. Solid waste is incinerated into ash at the Facility, which significantly reduces the waste that needs to be trucked and dumped at landfills, which in turn significantly reduces tipping fees. Rahway currently pays \$83.05 per ton for the reduction and disposal of its solid waste, versus a cost of \$138 per ton before the plant was built. This rate will be increased by 7% in January 1997. Prior to the building of the plant, waste was collected and hauled to the AMS Transfer Station on Lower Road in Linden and then shipped to landfills in Ohio and Pennsylvania.

All municipalities in New Jersey are now required to process waste within the region in which they are located. Thus, Rahway is required to have its solid waste processed at the Resource Recovery facility. The New Jersey Supreme Court is currently considering the legality of state requirements that municipalities process waste at operations in their region. If the Court declares such a requirement to be illegal, municipalities would be free to have their waste hauled and processed out of the region once again. However, the cost savings which have resulted from sharply reducing waste tonnage at the Resource Recovery Facility give Rahway an incentive to continue using the Resource Recovery facility even in the absence of such requirements.

The cost of solid waste collection and disposal is included in the property taxes charged to homeowners. An increase of \$5 per ton will go into affect in January 1997.

## 6.5 GAS SERVICE

Rahway is within the service area of the Elizabethtown Gas Company. The Elizabethtown Gas Company serves a large regional area comprising 5 counties in northwest New Jersey and all of Union County with the exception of Springfield, Berkeley Heights and Summit.

The source of the gas is the Interstate Pipeline Network which originates in the southwestern United States. The main operating station of the Company is in Elizabeth. The closest "gate" station to Rahway which regulates and monitors the flow of gas to customer households is located in Woodbridge.



While liquefied natural gas (LNG) is most often used, propane is sometimes substituted in extreme weather conditions in the winter. The Company has the capacity and network to serve all household and commercial customers in Rahway. The service network, built in Rahway in the 1950s, is comprised primarily of cast iron mains. Every year the Elizabethtown Gas Company evaluates the conditions of its gas mains, and makes improvements to the current system. Replacements of the older cast iron mains are most often undertaken in conjunction with the City's repaving of its streets.

## 6.6 ELECTRIC SERVICE

The Public Service Electric and Gas Company (PSE&G) provides all electricity to residents and businesses within the City of Rahway. The only capital improvement that PSE&G is considering within Rahway at present is an upgrade and rerouting of the power lines feeding Merck out of the Rahway substation (on Monroe Street) and the Linden Switching Station.

## 6.7 CABLE TELEVISION SERVICE

Comcast is the cable television company which serves the City of Rahway, and in fact all of Union County. The Comcast network is able to hook up any household in the City with cable TV service. While its present service is limited to video, it has the ability to extend any public communication systems which are computer-based, such as telephone and computer-based services. The Company is currently in the process of rebuilding and upgrading its system to provide expanded channel capacity and to increase its reliability. The 10-year contract awarded by the City of Rahway for cable service will expire in 1999.

## **7. COMMUNITY FACILITIES PLAN ELEMENT**

### **7.1 SCHOOL**

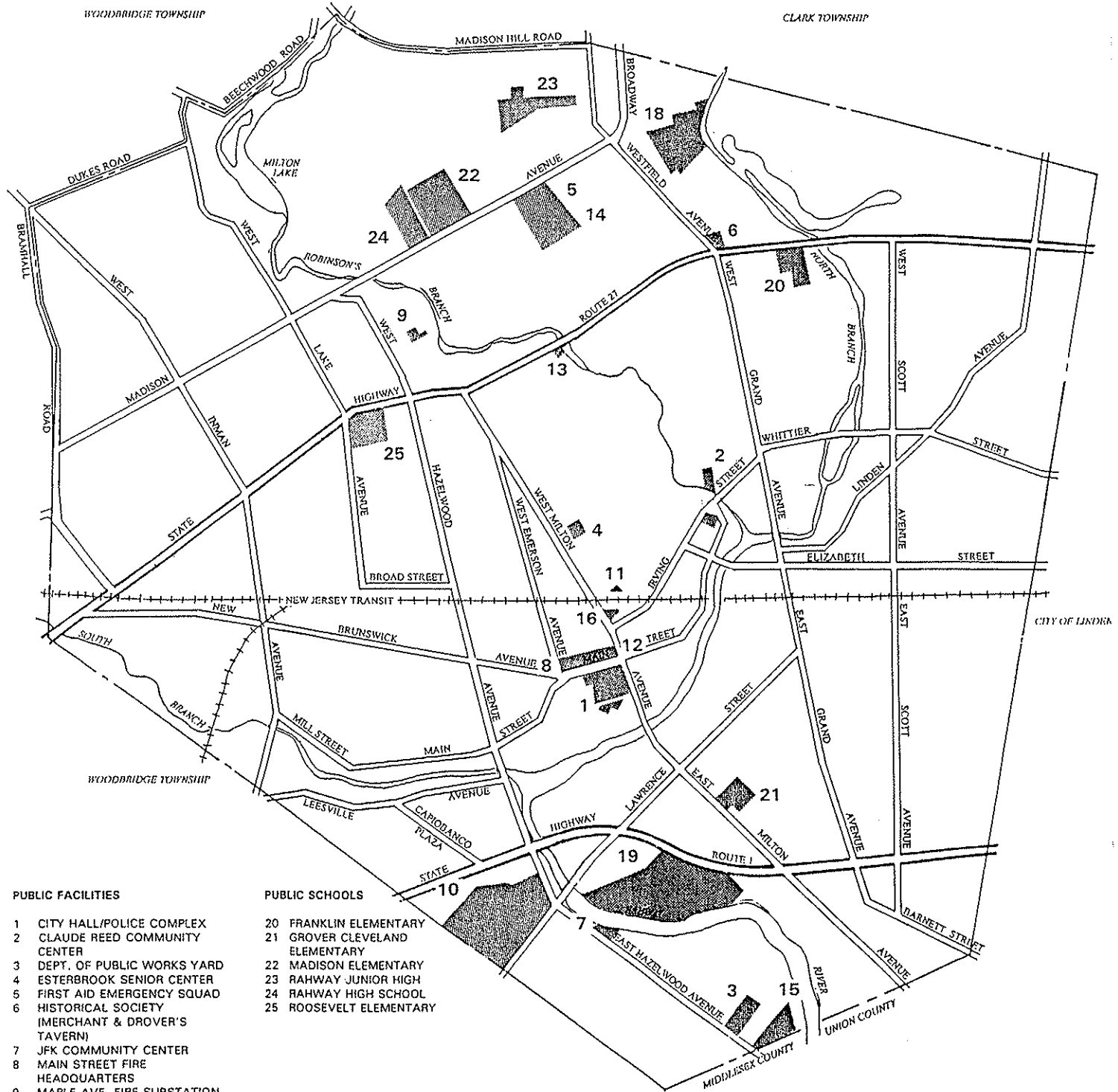
#### **Introduction**

The Rahway Public School System is comprised of four elementary schools, one intermediate (or junior high) school and one high school (see Figure 7.1 and Table 7.1). The four elementary schools, which cover grades from pre-kindergarten to 5th grade, are: Grover Cleveland Elementary School, located at 486 East Milton Avenue in southeastern Rahway; Franklin Elementary School, located at 1809 St. Georges Avenue at the north-central end of Rahway; Roosevelt Elementary School, located at 811 St. Georges Avenue in south-central Rahway; and Madison Elementary School, located at 944 Madison Avenue adjacent to the Rahway High school in west-central Rahway.

Rahway Intermediate (or Junior High) School is located on Kline Place in north-central Rahway, close to the Madison Elementary and Rahway High Schools. The Intermediate School serves all of Rahway's public school-going children in grades 6 through 8. Rahway High School, serving grades 9 through 12, is located adjacent to the Madison Elementary School at 1012 Madison Avenue.

#### **Schools' Physical Plants**

Three of the four elementary schools were built in 1925 or 1926—Franklin, Grover Cleveland and Roosevelt, with the remaining elementary school, Madison Elementary, being added in 1953. The Intermediate School, which is the most recently built public school, was constructed in 1963. Rahway High School was built in 1940. Various additions to the school's physical facilities have taken place over the years, with the most recent being the cafeteria addition to the Grover Cleveland Elementary School in 1979 (see Table 7.1). The addition to the High School, which took place in the same year the Intermediate School was constructed (1963), was a time when the post-war baby boomers were reaching intermediate and high school age. No major additions save for the cafeteria at Grover Cleveland have occurred since then. By the 1960s Rahway had for all intents and purposes become fully developed, and its resident population and school-age population was stabilizing.



**PUBLIC FACILITIES**

- 1 CITY HALL/POLICE COMPLEX
- 2 CLAUDE REED COMMUNITY CENTER
- 3 DEPT. OF PUBLIC WORKS YARD
- 4 ESTERBROOK SENIOR CENTER
- 5 FIRST AID EMERGENCY SQUAD
- 6 HISTORICAL SOCIETY (MERCHANT & DROVER'S TAVERN)
- 7 JFK COMMUNITY CENTER
- 8 MAIN STREET FIRE HEADQUARTERS
- 9 MAPLE AVE. FIRE SUBSTATION
- 10 NJ DEPT. MOTOR VEHICLES INSPECTION STATION
- 11 PARKING AUTHORITY
- 12 POST OFFICE
- 13 PUBLIC LIBRARY
- 14 RAHWAY HOSPITAL
- 15 RAHWAY VALLEY SEWAGE AUTHORITY TREATMENT PLANT
- 16 TRAIN STATION
- 17 UNION COUNTY ARTS CENTER
- 18 WATER TREATMENT PLANT
- 19 UNION COUNTY RESOURCE RECOVERY FACILITY

**PUBLIC SCHOOLS**

- 20 FRANKLIN ELEMENTARY
- 21 GROVER CLEVELAND ELEMENTARY
- 22 MADISON ELEMENTARY
- 23 RAHWAY JUNIOR HIGH
- 24 RAHWAY HIGH SCHOOL
- 25 ROOSEVELT ELEMENTARY

## 7.1 Rahway Public Schools and Public Facilities

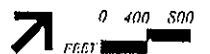


TABLE 7.1

SCHOOLS IN THE RAHWAY PUBLIC SCHOOL DISTRICT

<u>Schools</u>	<u>Address</u>	<u>Grades</u>	<u>Year Built</u>	<u>Most Recent Additions</u>
<b>Elementary:</b>				
Franklin School	1809 St. Georges Avenue	Pre-K-5	1926	1956
Grover Cleveland School	486 E. Milton Avenue	Pre-K-5	1925	1979
Madison School	944 Madison Avenue	Pre-K-5	1953	none
Roosevelt School	811 St. Georges Avenue	Pre-K-5	1925	1959
<b>Intermediate:</b>				
Intermediate School	Kline Place	6-8	1963	none
<b>High School:</b>				
Rahway High School	1012 Madison Avenue	9-12	1940	1963, 1979

SOURCE: Rahway School District

While there have been fluctuations in enrollment over the past 30 years, the relative stability of Rahway's population, and the fact that new residential development is waning (particularly in the detached single-family sector, which is the largest generator of school-age children), no major additions to the public schools are anticipated. Upgrading and modernization will be the major focus of capital expenditures in the future, since physical inadequacies due to the aging building structures will demand attention. For example, a few years ago several classrooms were classified as substandard due to a lack of proper ventilation. These rooms are no longer used as classrooms; however, the inability to use such spaces for classes puts a higher demand on the remaining school facilities.

### **School Enrollments**

It has not been unusual for many school systems in New Jersey to experience enrollments which exceed their schools' rated capacity for periods of spiked demand, such as for the post-war baby boomers, and for the children of baby boomers (also referred to as the baby boom echo). Only two of Rahway's schools in 1995-96 had an enrollment which exceeded their capacity, and only marginally so. Roosevelt Elementary School, which has a capacity of 512, had an enrollment of 515 students. Grover Cleveland School had an enrollment of 274 students compared to a capacity of 266 students. In actuality, enrollment at Roosevelt Elementary School has dropped consistently from a high of 672 in the 1991-92 school year, indicating that enrollment should fall below capacity in the next few years.<sup>1</sup> Grover Cleveland's enrollment has experienced wider fluctuations, dropping from 269 in 1992-92 to 247 in 1993-94, before increasing to 274 in 1995-96.

The overall school enrollment in the entire Rahway School District in 1995-96, at 3,172 students, is almost the exact same number it was in 1994-95, which had the highest enrollment in the past six years (see Table 7.2). This high enrollment is largely attributable to two trends. The first is the higher school age population present in Rahway attributable to the aforementioned baby boom echo. The second is the school district's belief that more parents are choosing to keep their schoolchildren in Rahway public schools through intermediate school rather than placing them in parochial (or private) schools after elementary school (hence the burgeoning intermediate school enrollments in the past 5 years). To a large extent this trend followed the Rahway School Board's decision in 1993 to shift the sixth grade from the elementary schools to the intermediate school. Enrollment patterns seem to indicate that the baby boom echo has passed from the elementary to the intermediate and

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<sup>1</sup>Roosevelt School's rated capacity was reduced due to removal of substandard classrooms from active use.

TABLE 7.2

ENROLLMENT IN THE RAHWAY PUBLIC SCHOOL DISTRICT (1990-1995)

	<u>1990-91</u>	<u>1991-92</u>	<u>1992-93</u>	<u>1993-94</u>	<u>1994-95*</u>	<u>1995-96*</u>	<u>Capacity</u>
Grover Cleveland School	222	269	258	247	262	274	266
Franklin School	499	487	513	509	472	488	550
Madison School	376	359	366	352	342	310	388
Roosevelt School	589	672	614	589	515	515	512
Intermediate School	392	458	471	522	695	711	722
Rahway High School	<u>868</u>	<u>892</u>	<u>869</u>	<u>855</u>	<u>890</u>	<u>874</u>	<u>981</u>
TOTAL	2,946	3,137	3,091	3,074	3,176	3,172	3,419

\* As of March 31 of that school year; attendance for all other school years is reported as of June 30.

SOURCE: Rahway School District

high schools, with the former's total enrollment dropping from 1,751 in 1992-93 to 1,591 in 1994-95, while the latter (combined intermediate and high school enrollment) increased from 1,340 in 1992-93 to 1,585 in both 1994-95 and 1995-96.

While the recent increases in enrollments at the Intermediate School have been most pronounced, it is still slightly below the current rated capacity. While this would appear to provide little margin for growth, recent enrollment trends in the elementary schools seem to indicate that enrollment at the Intermediate School may have peaked. Furthermore, five classrooms at the Intermediate School are occupied by the central administration of the school district. Should it become necessary, the school district could temporarily rent office space elsewhere and free up the space at the school for classroom use.<sup>2</sup> While this does not appear to be necessary, such a solution would be preferable to expanding the school's facilities or even to renting portable classrooms.

### **Future Plans**

Despite the recent increases in school enrollments, the school district has no plans for expanding any of its facilities in the near future. Rather, the emphasis in the future would be on upgrading and a modernization of the aging physical plant. Recent capital improvement projects indicate that such efforts are already underway. For example, an elevator was installed at the Intermediate School at a cost of \$140,000. A Computer/Technology Center was installed in the High School and computers were purchased for all schools. The High School gym was expanded and a new weight room was added. Together, the cost of these improvements was \$3,495,000.

### **Private Schools and Adult Education Facilities**

In addition to the public schools in Rahway, the City has one parochial school, St. Mary's School, located in the center of Rahway at 244 Central Avenue. St. Mary's, which has been in Rahway for 125 years, serves students from pre-kindergarten through the 8th grade. Current enrollment is approximately 200 students, a considerable drop from its peak of 1,000 students in the mid-1970s. The Rahway Adult School has fallen victim to the recent budget cuts in education in New Jersey, having terminated its programs in 1994. However, the school district still maintains an Adult Basic Education Program.

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<sup>2</sup>The Intermediate School was originally built to accommodate 1,300 students.

## **Quality, Staffing and Expenditures in Education**

Rahway's public school education still remains a cornerstone in the community's quality of life, and a reason for Rahway's continued stability in population and housing value. In 1994, 85.9 percent of the 11th grade students passed the High School Proficiency Test for writing, 80.4 percent for reading, and 79.1 percent for mathematics. The percentage of students passing in mathematics increased by 10 percent between 1993 and 1994, decreased by 10 percent for writing and remained virtually the same for reading.

The school district had a total of 260.7 FTE (full-time equivalent) staff in 1994-95. The pupil-teacher ratio in 1994-95 was thus 12.2; this compares favorably with a ratio of 13.5 for the State of New Jersey (compiled in 1990-91, the last year for which such an average is available).

The property tax rate to support the Rahway Public School District has increased steadily over the past several years (as indicated in Table 7.3), having risen from \$1.30 per \$100 in 1992 to \$1.59 per \$100 in 1996. This became necessary due to decreases in state aid which Rahway received from the State of New Jersey over the same period of time. Thus, while state aid fell by \$2.7 million in four years (from (\$9,094,665 in 1992-93 to \$6,355,298 in 1995-96), the overall expenditure in the school district went up by almost \$2 million, from \$27,435,034 in 1992-93 to \$29,415,940 in 1995-96 (see Table 7.4).

### **7.2 DAY CARE FACILITIES**

Five day care facilities are located within Rahway; the Rahway Day Care Center, Busy Bee, Rahway Community Action Organization, the Magic Carpet, and Kids First Child Care Center. In addition, Merck operates a day care facility, primarily for its employees. It plans to double the size of its day care facility. The Rahway YMCA also plans to open a day care facility in September 1996 which will accommodate 45 children. The percentage of students who are Rahway residents varies widely by facility. At the Community Action Organization (which has as its mission the empowerment of local residents), virtually all of the children are from Rahway, whereas at the Busy Bee Day Care Center, only 50 percent of its students reside in Rahway. At Rahway Day Care Center approximately 70 percent of its students are from Rahway.



TABLE 7.3

CITY OF RAHWAY  
PROPERTY TAX RATE FOR RAHWAY PUBLIC SCHOOL DISTRICT

<u>Year</u>	<u>Tax Rate</u>
1992	\$1.30/\$100
1993	\$1.35/\$100
1994	\$1.46/\$100
1995	\$1.52/\$100
1996	\$1.59/\$100

SOURCE: Rahway School District

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TABLE 7.4

RAHWAY PUBLIC SCHOOL DISTRICT  
SCHOOL EXPENDITURES AND STATE AID

<u>School Year</u>	<u>Total Expenditures</u>	<u>State Aid*</u>
1992-93	\$27,435,034	\$9,094,665
1993-94	\$27,290,836	\$7,155,774
1994-95	\$28,984,878	\$6,954,417
1994-96	\$29,415,940	\$6,355,298

\* Does not include Trust, Enterprise Funds or Capital Project Funds.

SOURCE: Rahway School District

Demand for Day Care programs is strong—very little space for additional students is left at Busy Bee; the Rahway Day Care Center has a waiting list of 45 children. The Merck day care center is being expanded. The City of Rahway used to provide financial support to the Rahway Day Care Center in the past, but can longer afford to do so. Additional day care facilities are currently being discussed by the City administration.

### 7.3 LIBRARY FACILITIES

The Rahway Public Library is located in the center of Rahway, at 1175 St. Georges Avenue (see Figure 7.1). It serves the entire City of Rahway, as well as Winfield Township via a contractual arrangement with Rahway. The library was built in 1967. The library has 84,818 volumes (including videos and books on tape). The library is open to the public for 60 hours per week, and occupies a space of 18,000 square feet.

In the spring of 1995, there were 23 persons on the staff, with a full-time staff equivalency (FTE) of 18. Commensurate with the general trend of downsizing staff and increasing efficiency within government, the library would like to reduce its staff to 17 FTE in the future. The state-wide average of staff for a library of Rahway's size is 13 FTE, so the Library's staff should be adequate even after the reduction. In keeping with the current emphasis on austerity, the Library's budget increased a mere 0.3% over the last year, going up from \$702,459 in 1994 to \$704,754 in 1995.

The Rahway Library maintains a contractual relationship with Winfield Township which does not have a library; about 100 families from Winfield have borrowing privileges at Rahway. The Library belongs to a consortium along with most municipalities in Union and Middlesex Counties, which vastly expands the range of materials available to its borrowers.

One way of gauging the adequacy of the Rahway Public Library is to compare its collection and programs to other New Jersey libraries serving roughly the same population size. Serving a population of 25,652 (including Winfield families contracting for library service), and with a collection of 84,818 volumes, it offers 3.3 volumes per capita (see Table 7.5). In comparison, the average volumes per capita for libraries in New Jersey serving a population of 25,000 to 37,499 is 3.26.

TABLE 7.5

COMPARISON OF RAHWAY'S PUBLIC LIBRARY TO THE  
AVERAGE FOR SIMILARLY-SIZED MUNICIPALITIES IN NEW JERSEY

	Rahway (1990 Population Est.: <u>25,652</u> )	Libraries serving municipalities of <u>25,000 to 37,499 pop.</u>
Volumes per capita	3.73	3.27
Expenditures per capita	\$26.59	\$30.63
Circulation per capita	3.9	5.7
Equalized Valuation per capita	\$53,237	\$66,843

SOURCE: New Jersey State Library, Analyses of New Jersey Public Library Statistics: 1993.

Because Rahway's population is close to the dividing line in the State report (25,352 persons with 25,000 as the lower limit of the comparable populations), a comparison to the next lower population table is worthwhile. This population group has 3.69 volumes per capita versus 3.3 for Rahway. Libraries with comparable budgets in New Jersey have an average of 4.22 volumes per capita and the average for all Union County libraries is 4.04 volumes per capita.

Reporting total expenditures of \$687,380 in 1993, the Library's per capita expenditure was \$26.89 per year. The average library in its population classification spent \$30.63 per capita. While Rahway spends less than comparable municipalities do on their libraries, it has a smaller tax base from which to draw library financial support. Its equalized valuation per capita is \$53,237, versus \$66,843 for other towns in New Jersey in its population class. As indicated by circulation per capita, Rahway's library is used less frequently than similarly-sized libraries.

The 18,000 square feet of space for 25,657 people translates into 0.7 square feet of space per capita. In regard to space, Rahway Library is slightly above the recommended size for libraries serving towns in its population classification, which is 0.65 square feet per capita.<sup>3</sup> However, many library consultants agree that rather than apply a strict population/space ratio to the desired library size, the more pertinent question is simply whether a Library has adequate space for each of the different functions and programs it administers.

Children's programs are especially prominent at the Rahway Library. The children's department accounts for 55 percent of circulation, well above the national average of 38 percent. Story hours and cultural events are featured at the library. The library is building upon its already excellent children's program by enriching its programs for juveniles and young adults, particularly since the baby boom echo (or children of the baby boom generation) will be moving into their teens in several years, greatly increasing demand for services for that population. The library may also be open to the possibility of increasing its programming for other age groups/special needs populations.

The library is completing an evaluation of the entire collection, during which they have been removing all out-of-date material. The 1995 year-end figures show their inventory is at its lowest point in many years. As we move into electronic information, the library's reliance on print sources in reference is expected to decline. They do expect an increase in usage of the library, however, through

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<sup>3</sup>Wheeler & Goldhor, Practical Administration of Public Libraries, 1981.

the demand for leisure materials in print for adults, and even more use of the children's department. Their volume count should remain constant for a few years—even while adding electronic resources—and their circulation should increase.

Elsewhere, the library is concentrating on upgrading its reference collection through greater use of CD-ROMs and other electronic media. A survey which the library distributed throughout the City indicated that residents are particularly interested in access to a solid collection in basic reference materials.

The library recently replaced the roof of its building. Other physical improvements that would benefit the library include replacing the HVAC (heating, ventilating and air conditioning) system, upgrading the security system and improving barrier-free access by replacing the stair lift with an elevator.

Many libraries are finding that they need to retrofit their buildings to meet the demands of computer systems. Rahway Library may be able to run wiring through the ceiling and along columns. However, the preferred method would be to channel the cabling through the floor, which may present problems since the floor is poured concrete.

The design of the library is not conducive to public service. Chief among the thirty-year-old building's deficiencies are:

- the lack of barrier-free access into and through the building;
- public rest rooms, which are in need of renovation;
- the need for more space for children's materials and services;
- the disproportionate amount of library space (it takes up approximately 25% of main floor); and
- the inability to segregate study space from areas where library activity occurs (i.e., circulation area, reference desk)

The library plans to install an automated circulation system toward the end of 1996. The system will cost between \$100,000 to \$125,000, and will reduce the need for personnel hours on circulation responsibilities, freeing them up to do more program-oriented work. The library's budget over the past few years has declined very slightly and runs at approximately \$700,000 per year.

The heating system was to be replaced on an emergency basis in 1996.

#### 7.4 POLICE

The Police Department, with its headquarters at City Hall, had 83 sworn officers and 13 additional staff members as of July 1996. The number of sworn officers represents an appreciable increase from the 70 officers that were on the force in 1991.

The Police Department is divided into two (2) major divisions, the Patrol Division and the Detective Division. The Patrol Division consists of two platoons of uniformed officers who perform street patrol. In 1995, the Patrol Division conducted approximately 25,000 investigations. The Traffic Bureau, which is under the Patrol Division, is responsible for enforcement of traffic regulations and maintenance of traffic signs and signals. The Detective Division is responsible for general, juvenile, and special investigations. It also includes the Evidence Unit and Records Bureau. In addition, the Division administers the following programs: Crime Prevention, Community Relations, DARE (drug abuse resistance education), a drug abuse prevention program administered through the schools to schoolchildren, and Police Explorer Unit for youths fourteen to nineteen years old (an extension of the Boy Scouts).

The Division of Emergency management is also under the Police Department and is responsible for assisting City departments with the coordination of emergency efforts in regard to the preparation of plans; mitigation of potential problems; and response to and recovery from emergencies and disasters that go beyond the normal resources and capabilities of the individual departments. The Police Auxiliary is a unit of the Division of Emergency Management, and it supplements the regular police division during emergencies and citywide civic functions.

The central business district has been the recipient of an increase in deployed officers since 1995 as a result of an annual grant received by the department for a foot patrol. The area around the train station, in particular, is perceived to be one of the city's least secure environments. In reality, the Police Department reports that the CBD has a relatively low crime rate. However, the perception that an area is dangerous is sometimes sufficient to discourage pedestrian activity in a downtown. The presence of an officer on regular foot patrol has helped to alleviate some of these concerns. In 1995, the downtown walking beat responded to two hundred and two calls, twelve percent of which

were related to the four major crimes of theft, burglary, robbery and assault. In addition, the creation of a bicycle patrol in mid-1996 has proven effective in increasing the police presence in the CBD and surrounding areas, as well as an excellent public relations tool.

Table 7.6 presents the five-year trend for theft, burglary, robbery, and assaults. The number of thefts reported in Rahway has declined over the past five years. Burglaries, robberies and assaults all decreased from 1993 to 1994, but had shown inconsistent trends prior to that.

The Police Headquarters has the space to accommodate additional officers and personnel should the need arise. The Department reports, however, that some of the hallways and rooms at the Headquarters are larger than needed, and the total space is thus not used as efficiently as possible. The report-writing room, on the other hand, is inadequate in size. The Police Department has suggested that an indoor pistol range would be a desirable addition in the future. It is presently utilizing an outdoor range located at the rear of Hart Street Park.

The Police Department maintains a fleet of 43 vehicles, consisting of 15 patrol, 17 unmarked, and 11 miscellaneous vehicles for Emergency Management, prisoner transportation and traffic. Each year the department replaces two to four patrol vehicles with the vehicles taken out of patrol utilized as unmarked vehicles or provided to other City departments for their use.

Another special program administered by the Police Department is the Police Athletic League (PAL) which runs sports and community relations programs. It was revived in 1995 after years of inactivity.

## 7.5 FIRE

The Fire Department for the City of Rahway is headquartered at 1300 Main Street, across the street from City Hall (see Figure 7.1). The headquarters was built in 1976, and houses 4 platoons of 10 firefighters each. The Fire Department substation, at 619 Maple Avenue, was built in 1956. It houses 4 platoons of three firefighters each. The total force consists of 57 uniformed personnel, and 2 civilians.

Firefighting equipment at the headquarters and the 619 Maple Avenue substation are shown in Table 7.7. The Department would like to purchase a new 750 gallon, 1,500 GPM pumper in the 1997-98

TABLE 7.6

REPRESENTATIVE CRIME STATISTICS IN RAHWAY FOR 1990-1994

	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>
Theft	682	679	624	591	572
Burglary	243	250	260	276	190
Robbery	59	76	61	68	52
Assaults	254	302	229	258	248

SOURCE: Rahway Police Department



TABLE 7.7

FIREFIGHTING EQUIPMENT AT RAHWAY HEADQUARTERS STATION  
AND THE 619 MAPLE STREET SUBSTATION

Headquarters

<u>Equipment</u>	<u>Year</u>
Pumper (1,500 gpm; 500 gal. tank)—reserve	1971
Command car	1985
95-foot tower ladder with pumper (1,500 gpm; 260 gal. tank)	1988
Pumper (1,250 gpm; 500 gal tank)	1988

Substation

<u>Equipment</u>	<u>Year</u>
Pumper (for parades)	1919
Alarm truck (30-foot aerial boom)	1973
Pumper (1,500 gpm; 500 gal. tank)	1976

fiscal year. This, in turn, would permit the Fire Department to phase out its 1969 pumper, and shift the 1976 pumper to reserve status. This action would enable the Fire Department to maintain a replacement cycle such that no equipment is more than 25 years old.

Perhaps the most impartial—and most critical—evaluation of the adequacy of fire protection in a New Jersey municipality is undertaken by the Insurance Service Organization (ISO). The ISO assigns a rating to all municipalities, and this rating has a strong influence on fire insurance premiums. The ISO's rating takes many factors into consideration, such as the distance between fire stations and areas to be protected, the size of engine crews, and the height and physical composition of structures in the protected area. On a scale of 1 to 8, with 1 being the best, Rahway's fire protection in 1995 is ranked a 3, which is well above average. The Fire Department's ISO rating had been 4 as recently as 1988. A lack of manpower was cited by ISO as responsible for the average rating. A personnel reorganization begun in 1988 proved effective in improving the rating. The Fire Department's average response time to a fire is three minutes, well within the desirable five-minute standard.

The order in which firefighters are dispatched from the two firehouses depends on whether the reported fire is in their "first due" area. The first station called to the fire begins the attack on the fire. The attack generally cannot reach its full effectiveness until both stations turn out, as most attacks should involve at least 12 firefighters and a chief, as recommended by the National Fire Protection Association (NFPA). The NFPA also recommends that at least four men accompany engines on all calls. The House at 519 Maple Street puts three men on its fire truck, which is below the recommended standard. This unfortunately reflects the staffing constraints typically encountered in smaller towns. When the three-man crew from 619 Maple attends a fire first, they begin set-up procedures, such as pulling the hose and connecting the water supply. Equipment will thus be ready to use for an attack by the time the crew from headquarters arrives.

## 7.6 DEPARTMENT OF PUBLIC WORKS

The Department of Public Works (DPW) has its office at 999 Hart Street (see Figure 7.1). The building which houses its offices is about twenty-five years old. Recent improvements to the Public Works complex include a new roof on the office building; seven new garage doors with seven remaining to be replaced; and new windows and lighting in the office. In addition, new locker rooms

and bathrooms for Public Works staff have been completed. The garage roof is projected to have about five years of life remaining, and then will require replacement. In addition to these improvements, and as part of the City's Storage Tank Management Plan prepared in 1993, all underground storage tanks at the complex will be removed and replaced with compartmentalized underground storage tanks with a new fuel dispensing area, and with a fuel management and leak detection system. A five-hundred gallon above-ground waste oil storage tank will also be installed at the complex. In light of these improvements, the complex should remain adequate for DPW functions.

Department of Public Works responsibilities include the maintenance of roads, sewers, playgrounds, curbing, sidewalks, shade trees, river dikes and public buildings. It also performs snow removal and leaf pickup, and installs holiday decorations. The Department of Public Works also maintains all City vehicles except for fire equipment (see Table 7.8). In addition, DPW is responsible for the management of solid waste disposal and recycling. The DPW has thirty-seven personnel organized under the general category of Streets and Roads (which encompass other areas of maintenance as well), and twenty-eight personnel in its Division of Water.

The DPW has explored the feasibility of performing its own garbage collection rather than contracting with a trash hauler for all solid waste removal. At this time the anticipated savings do not appear to justify the assumption of this responsibility. The DPW is also considering the possibility of hauling the City's recyclable materials in the future.

The Department of Public Works has a continuous program for replacement of Public Works vehicles and equipment. Over the past two years, a number of new vehicles and equipment have been acquired by the Department. DPW has more than forty (40) vehicles and numerous other pieces of equipment for use in carrying out its various responsibilities (Table 7.8).

In 1993, a Storage Tank Management Plan for the City of Rahway was prepared by Killam Associates. The Division of Engineering has been overseeing the implementation of the recommendations contained in this plan. Eighteen tanks were identified in this plan, all of which will be removed (see Table 7.9). Some will be replaced with new underground storage tanks, others with above-ground storage tanks, and those for heating oil will be converted to gas (see Table 7.10).

TABLE 7.8

DEPARTMENT OF PUBLIC WORKS VEHICLES

<u>Truck #</u>	<u>Year</u>	<u>Vehicle</u>
PW Wagon	1993	Chevy 4WD Blazer
Yard Car	1990	Chevy Caprice 4 dr
PW3	1985	Chevy S-10 Blazer
1	1994	Dodge Pickup 4WD
2	1992	Dodge Pickup 4WD
3	1992	Dodge Pickup 4WD
4	1992	Dodge Pickup 4WD
5	1992	Dodge Pickup
6	1980	Chevy Pickup 4WD
7	1992	Dodge Pickup 4WD
8	1984	Chevy Pickup 4WD
9	1993	Chevy Van
10	1982	Dodge Van
11	1986	Chevy Pickup 4WD
12	1979	Chevy Dump
13	1989	Chevy Dump
14	1989	Chevy Dump
15	1985	Chevy Dump
16	1980	Chevy Dump
17	1985	Chevy Dump
18	1985	Chevy Dump
19	1980	Chevy Dump
20	1995	Ford Dump
20A	1977	Chevy Dump
21	1995	Ford Dump
21A	1995	Ford Mason Dump
22	1996	Elgin Pelican Sweeper
23	1992	Elgin Pelican Sweeper
24	1968	White Vac-All
25	1980	Ford Sewer Jet
26	1984	Asplundh Aerial Truck
26A	1984	Whisper Chipper
26B	1996	GMC Baker Tree Truck
26C	1995	Vermeer Chipper
27	1985	Chevy Winch
27B	1985	Vermeer Stump Cutter
28	1977	John Deere 444 Loader
29	1988	John Deere 444E Loader
30	1988	Giant Vac Leaf Loader
31	1984	Giant Vac Leaf Loader
32	1973	Sullair Compressor
33	1973	Mitts & Merrill Chipper
34	1973	John Deere BackHoe
35	1984	Ford Tractor
36	1981	Eager Beaver Toller
37	1978	Douglas Trailer
38	1979	Aeroil Tar Kettle

**TABLE 7.8**  
**DEPARTMENT OF PUBLIC WORKS VEHICLES**  
**(Continued)**

<u>Truck #</u>	<u>Year</u>	<u>Vehicle</u>
39	1989	Kut Kwick Mower
40	1981	Wenzel Trailer
41	1975	Epoke Spreader
42	1977	Epoke Spreader
43	1984	Kut Kwick Dike Mower
44	1984	Utility Trailer (Dike Mower)
45	1989	Tarco Salt Spreader
46	1984	Epoke Salt Spreader
48	1987	Portable Vacuum (Billy Goat)
49	1978	Dodge Van (City Hall)
50A	1988	Pennystyle Trailer (cub mower)
50B	1992	Parker Trailer
52A	1992	Toro Groundsmaster
52B	1992	Toro Trailer
53	1988	Gravely Mower (w/snow blower)
54	1988	Toro Mower (w/snow blower)
55	1987	Sears Snow Blower
56	1987	Sears Snow Blower
57	1988	Daton Portable Generator
58	1988	Sears Mower Tractor 14HP
59	1982	5 - A1/2" Homelite Pumps
	1975	4 - 3" Homelite Pumps
	1987	1 - 3" Homelite Pumps
60	1989	4 - 16" Chain Saws
	1977	1 - 23" Chain Saw
	1978	1 - 23" Chain Saw
	1981	1 - 23" Chain Saw
	1994	1 - 32" Magnum Chain Saw
61	1993	6 - Hand Lawn Mowers
	1994	6 - Hand Lawn Mowers
62	1990	Kelly Log Splitter
63	1973	Miller Cement Mixer
64A	1993	Rayco Stump Cutter
64B	1993	Rayco Stump Cutter-Utility Trailer
65	1993	Parker-8HP Leaf Blower
66	1993	Generator for Sewer Camera
67	1994	Chief Salt Spreader
68	1994	TS760 Kut Kwick Cement Saw
69	1994	BS 60Y Wacker-Rammer
70	1994	Bunton Mower
<b>RECYCLING DIVISION</b>		
R-1	1994	Chevy Pickup
R-2	1991	Dodge Pckup
R-3	1995	Ford Pickup

TABLE 7.9

CITY OF RAHWAY  
 U.S.T. MANAGEMENT PLAN—FACILITY PRIORITY RANKINGS

<u>Rank</u>	<u>Age (Years)</u>	<u>Capacity</u>	<u>Contents</u>	<u>Construction</u>
Sewage Pumping Station:				
1	56	50	Gasoline	Steel
2	Unknown	275	Heating Oil	Steel
Water Department: 1045 Westfield Avenue:				
3	31	1,000	Unleaded Gasoline	Steel
4	31	550	Diesel	Steel
5	5	1,000	Heating Oil	Steel
6	< 20	2,000	Heating Oil	Steel
Public Works: 999 Hart Street				
7	15	6,000	Unleaded Gasoline	Steel
8	15	2,000	Diesel	Steel
City Hall:				
9	13	10,000	Unleaded Gasoline	Steel
10	15	4,000	Diesel	Steel
Fire Headquarters: 1300 Main Street				
11	10	5,000	Unleaded Gasoline	Steel
12	10	550	Waste Oil	Steel
13	10	5,000	Diesel	Steel
14	10	5,000	Heating Oil	Steel
Library:				
15	Unknown	3,000	Heating Oil	Steel
Fire House Maple Street:				
16	Unknown	550	Diesel Fuel	Steel
Senior Center:				
17	Unknown	1,000	Heating Oil	Steel
Recreation Center:				
18	Unknown	1,000	Heating Oil	Steel

Notes: Facilities Listed in order of Decreasing Priority  
 NR - Not Regulated as an UST

SOURCE: Killam Associates, Inc.

TABLE 7.10

CITY OF RAHWAY  
 U.S.T. MANAGEMENT PLAN—RECOMMENDED ACTIVITIES

<u>Facility/ID #</u>	<u>Age</u>	<u>Capacity</u>	<u>Contents</u>	<u>Type</u>	<u>Recommendation</u>
Sewage Pumping Station:					
E-1	56?	50	Gasoline	Steel	Convert Generator to Diesel Fuel and Replace these two tanks with a single AST
Not Regulated	Unknown	275	Heating Oil	Steel	
Water Department:					
MS0-2	31	1,000	Unleaded Gasoline	Steel	Remove Only
MS0-3	31	550	Diesel	Steel	Remove Only
MS0-1	5	1,000	Heating Oil	Steel	Remove and Convert to Gasoline
OPS-1	< 20	2,000	Heating Oil	Steel	Remove and Convert to Gasoline
Public Works:					
E-1	15	6,000	Unleaded Gasoline	Steel	Remove USTs and Replace with single Compartmentalized UST
E-2	15	2,000	Diesel	Steel	
City Hall:					
E-1	13	10,000	Unleaded Gasoline	Steel	Remove and Replace UST
E-2	15	4,000	Diesel	Steel	Remove and Replace with UST
Fire Headquarters:					
E-1	10	5,000	Unleaded Gasoline	Steel	Remove Only
E-2	10	5,000	Diesel	Steel	Remove Only
E-4	10	550	Waste Oil	Steel	Remove and Replace with AST
E-3		5,000	Heating Oil	Steel	Remove Only
Library:	Unknown	3,000	Heating Oil	Steel	Remove and Convert to Gasoline
Fire House:	Unknown	550	Diesel Fuel	Steel	Remove Only
Senior Center:	Unknown	1,000	Heating Oil	Steel	Remove and Replace with AST

Source: Killam Associates, 1996

Tank removal and replacement has been completed at the sewer pumping station, the Water Department, Maple Avenue Firehouse, and Public Works complex. Removal of the underground storage tanks at City Hall, Library, Esterbrook Senior Center, and the Claude Reed Recreation Center will be completed over the next few years. The total estimated cost to implement the Underground Storage Tank Management Plan is approximately \$750,000, and is being funded through the City's Capital Improvement Budget.

## 7.7 PARKING AUTHORITY

The Parking Authority for the City of Rahway operates out of a building at 18 Poplar Street in the downtown (see Figure 7.1). It has 1 full-time and 3 part-time employees, and carries out policies approved by a City-appointed Board of Directors. It controls parking on-street, as well as in nine City-owned lots spread throughout the downtown. The lots have 522 parking spaces, which are utilized either on the basis of monthly permits ("sticker lots") or by parking meters (see Table 7.11). While there are still some metered parking on some streets, such as Elizabeth Avenue, the City has removed parking meters from its primary streets in the downtown. The meters on Main and Irving Streets were removed in 1993, while those on East and West Milton were removed in 1994. The City's intent in removing parking meters in the downtown is to encourage more shopping and business activity.

The long-term metered parking spaces in Rahway are often unoccupied. The sticker lots, on the other hand, are in high demand, particularly by commuters. According to the Parking Authority, commuters from as far south as Monroe Township, Jamesburg and South River in Middlesex County utilize Rahway's commuter parking lots. Despite this, other train stations on the Northeast Corridor train line are confronted with waiting lists longer than Rahway's, indicated by a shortfall of commuter parking spaces in the region, upon which Rahway could capitalize. With the completion of the New Jersey Train Station scheduled for 1998, New Jersey Transit is projecting an increase in ridership at the station from its present level of about 2,500 per day. This projected increase in ridership should increase the demand for commuter parking. The Parking Authority has begun to plan for this increased demand by purchasing a parcel at the intersection of Broad Street and East Milton Avenue. The lot is presently being leased to New Jersey Transit for use in the station rehabilitation project as a storage area. Upon completion of that project, New Jersey Transit will undertake up to \$125,000 in improvements to create a commuter parking lot with 40-50 spaces. The Authority has also assumed



TABLE 7.11

RAHWAY PARKING AUTHORITY'S  
PUBLIC PARKING LOTS (as of 5/4/95)

<u>Lot</u>	<u>Type of Space</u>	<u>Number of Spaces</u>
A	8-hour spaces	39
	2-hour spaces	16
A-1	Sticker spaces*	45
B	4-hour spaces	20
	2-hour spaces	46
C	12-hour spaces	78
	2-hour spaces	7
D	Sticker spaces	72
E	12-hour meter spaces	77
F	12-hour meter spaces	36
F-1	Sticker spaces	26
G	Sticker spaces	<u>60</u>
	TOTAL	<u>522</u>

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\* Sticker spaces are reserved, all-day spaces, purchased through monthly permits.

Source: Rahway Parking Authority, 1995

control of two City-owned lots at the intersection of Main and Monroe Streets which may accommodate 14 spaces. In addition, the Authority has identified a number of other properties in the Central Business District that may be suitable for parking. These properties are all privately owned and would require improvements to make them suitable for parking. Two areas where such properties exist are the area located behind Main Street's commercial buildings which front on Dock Street, and properties in the area of the Rahway YMCA and Union County Arts Center. The properties in the Dock Street area could support at least 100 additional parking spaces, and the properties in the YMCA/Arts Center area could provide much-needed parking for commuters during the weekdays and for patrons of the YMCA and Arts Center at night and on weekends.

Some merchants and property owners in Rahway have profited from the strong demand for parking by renting the parking spaces behind their stores to commuters, and parking their vehicles on the street, which is meant for short-term shoppers. Unfortunately, this makes parking more difficult for shoppers and discourages visits to the downtown. The City has permitted this practice by downtown property owners and merchants; however, many of these lots do not provide adequate drainage, lighting, paving, spaces or circulation. These lots, therefore, have a competitive advantage over the Parking Authority, whose lots are fully improved and maintained for the convenience of its customers. In order to encourage safe and secure parking for shoppers and commuters in the downtown, the City will require that all private-owned and -operated parking lots meet the minimum site plan requirements for paving, drainage, lighting, signage, and circulation.

## 7.7 RAHWAY FIRST AID EMERGENCY SQUAD

Ambulance service in the City of Rahway is provided by a wholly volunteer organization, the Rahway First Aid Emergency Squad. The squad has 39 volunteers and has been in existence for 45 years. The City Police dispatcher dispatches the Emergency Squad on emergency calls. The office of the First Aid Emergency Squad is next to the Emergency Room at the Rahway Hospital (see Figure 7.1). Its ambulances are housed in a garage on hospital property on Stone Street. The squad uses 3 ambulances (purchased in 1993), a suburban command vehicle (also purchased in 1993) and a rescue truck (purchased in 1994). The First Aid Emergency Squad tries to replace all vehicles every 4 to 5 years. Purchases are funded through donations and fund drives.

## 7.8 RAHWAY COMMUNITY CENTERS

The City owns and operates two community facilities in Rahway, the Esterbrook Senior Center and the Claude Reed Center. In addition, the JFK Community Center and YMCA are important community centers in the City.

### **Esterbrook Senior Center**

The Esterbrook Senior Center, which is located on Esterbrook Avenue, is a building that previously served as Rahway's Post Office from 1936 until the Post Office outgrew the space and moved to a leased building at the corner of Main Street and Milton Avenue in the downtown (see Figure 7.1). The City has invested approximately \$500,000 of City funds and Community Development Block Grant funds for the renovation of the Esterbrook Senior Center.

The renovation was conducted in two phases. The first phase focused on the correction of code violations, including fire, electrical and plumbing code violations. In addition, new bathrooms and new skylights were installed, and new ceilings and walls were constructed to create a large central meeting room with high ceilings illuminated by the new skylights. The second phase included installation of a new heating/ventilation and air conditioning system. The building's heating system underwent a conversion from oil to gas, and air conditioning was installed for the first time. Additional exterior improvements have been proposed, including parking lot repaving and landscaping.

### **Claude Reed Center**

The other community facility operated by the City is the Claude Reed Center, located at the corner of Irving Street and Seminary Avenue (see Figure 7.1). It was previously used as headquarters for the City's Recreation Department, and continues to be used for recreation programming. This historic building, formerly the first home of the Rahway Library, is in need of rehabilitation. A professional firm with experience in historic rehabilitation conducted a Historic Research Study in 1996. The study included a conditions survey; materials analysis; structural analysis; historical research; mechanical systems analysis; a determination of preservation priorities; and cost estimates.

The following is the key finding of the study:

The Claude Reed Center is an excellent example of 19th century public architecture and is an important physical reminder of Rahway's rich architectural and social history. The building qualifies for nomination for inclusion on both the state and national registers of historic places. Architecturally, the building retains a remarkable degree of early building fabric, although some of it is hidden by suspended ceilings and inexpensive paneling. The building is structurally sound but will require some minor remedial work, regardless of the reuse. One of the most pressing issues that must be dealt with is barrier-free accessibility. The building systems (mechanical, electrical, plumbing) are outdated, undersized and inefficient. Any reuse will require complete replacement and updating. There are a variety of potential reuses of the building that can take advantage of the architectural features that exist. A successful reuse will depend on market need, as well as other factors. As a result, cost of restoring the building for different uses will vary and can be effected by phasing the work, deferring certain elements or utilizing alternative materials.

### **JFK Community Center**

The JFK Community Center is located on East Hazelwood Avenue. It is operated by the Rahway Community Action Organization (RCAO), which is a non-profit, multi-social services agency which delivers a variety of services to residents of Rahway and the greater Union County area. Some of the services which it provides include youth employment, training, counseling, referral and placement, child care, senior citizen service, and an emergency food pantry program.

The JFK Community Center is presently in the midst of a major physical expansion which was approved in 1995, and will include the addition of a second floor of approximately 5,000 square feet for three classrooms, an office, library, rest rooms, and an elevator. These improvements will permit the JFK Center to better provide the services which it already offers, and in addition will allow it to expand its after-school program, expand the Merck-supported science/math lab, and establish a computer lab center. This expansion is being supported in part by the City of Rahway, with \$150,000 in funds from the host community payment from the Union County Utilities Authority (UCUA). This expansion is expected to be completed in 1997.

### **Rahway Branch YMCA**

The YMCA is located on Irving Street in downtown Rahway. The Rahway YMCA merged with the YMCA of Eastern Union County in early 1996. The merger was accomplished to ensure the long-term survival of YMCA services in the Rahway community. In order to continue services from the

YMCA's present location on Irving Street, the YMCA will be completing an estimated \$500,000 in repairs and modernization to the current usable areas of the building. The repairs will accomplish two objectives: first, correct health and safety code violations, and second, renovate space to introduce new community program services.

The YMCA presently provides a wide variety of programs, including after-school child care, recreational programs for all ages, fitness programs including use of the gymnasium and pool, and an aquatics program utilizing the only indoor pool facility in Rahway. The \$500,000 investment for immediate improvements to the building will enable the YMCA to create two major new programs: one for pre-school child care and the other for a new adult fitness program utilizing the existing YMCA athletic facilities. The City of Rahway is contributing to the cost of these immediate improvements through Community Development Block Grant (CDBG) funds.

Once the immediate improvements have been completed and new programming implemented, a plan will be developed for the portions of the building that were damaged by fire in the early 1980s. Improvements to these portions of the building will further enable the YMCA to expand its programming for the benefit of its users and the citizens of Rahway. Any plan developed to improve these portions of the building will require significant capital expenditures and will require the cooperation and support of all sectors of the Rahway community.

### **New Community Center**

The City is proposing to develop a new community center behind City Hall to provide additional space for recreation programs, to provide a permanent home for the Rahway Police Athletic League (PAL) and to provide a facility for the City's teenagers to gather. The current proposal envisions a 15,000 square foot facility containing a gym with a regulation-size basketball court and seating for over 300 spectators, multi-purpose rooms, an arts/crafts room, a kitchen, offices, a conference room and storage. This facility would be state-of-the-art and would provide significantly more programming space for City recreation programs, the PAL and community organizations. It would replace space currently being utilized at the Claude Reed Center, as well as space which the City leases from the Rahway Board of Education. Construction of this community center is projected for 1997.

## 8. OPEN SPACE AND RECREATION PLAN ELEMENT

### 8.1 INVENTORY OF EXISTING PARKS IN RAHWAY

Rahway has approximately 230 acres of parkland, comprised of 182 acres of County parkland, 36 acres of City parks, and 12 acres of recreational open space owned by the Rahway Board of Education.

The County parks, of which there are five, include: (1) the Rahway River Park, located west of St. Georges Avenue on the north branch of the Rahway River, which is 133.4 acres in total, of which 72.5 acres is located in Rahway; (2) the Milton Lake County Park, a 50.4 acre park located adjacent to Milton Lake and the south branch of the Rahway River; (3) Rahway River Parkway, located along the north branch of the Rahway River between St. Georges Avenue and Elizabeth Avenue and comprising 39.6 acres; (4) the Madison Avenue Park, a 16.6 acre park located at the intersection of Madison Avenue and Westfield Avenue; and (5) the Union County Utility Authority Conservation Area, comprising 3 acres, comprised of a floating boardwalk and viewing platforms located along the Rahway River behind the Union County Resource Recovery Facility. (See Table 8.1 and Figure 8.1.) In combination, these parks provide both passive recreational opportunities (walkways, trails, picnic areas) as well as active recreational facilities (ballfield, courts, pool, play equipment) for the citizens of the City of Rahway.

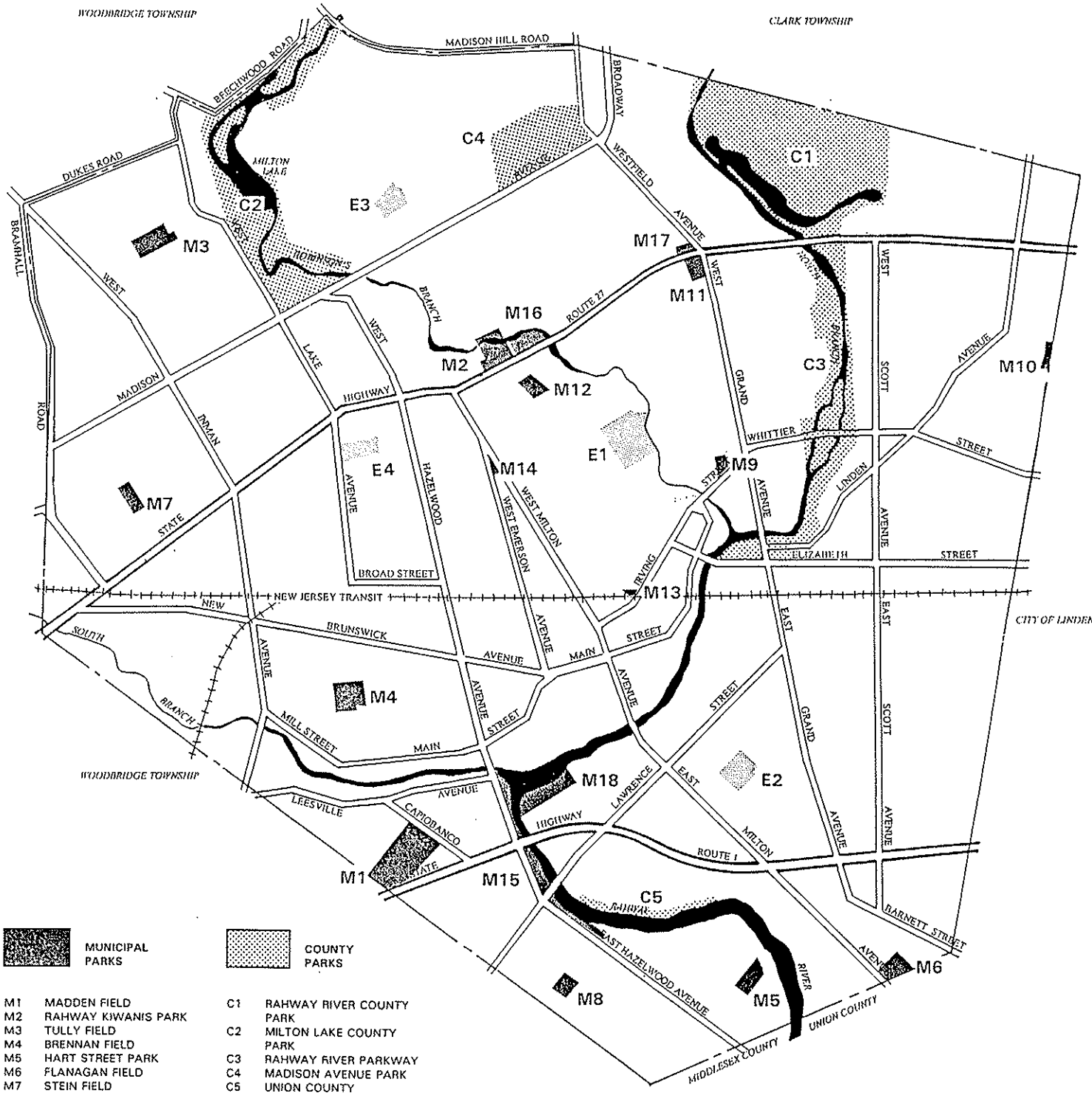
The City of Rahway owns 18 parcels of parkland (see Table 8.2 and Figure 8.1), which include: (1) Madden Field, a 7.09 acre park with 3 ballfields, 2 basketball courts, and associated play equipment and facilities located at Capobianco Plaza and Elston Street; (2) Rahway Kiwanis Park, a 3.35 acre park located between St. Georges Avenue and the north branch of the Rahway River; (3) Tully Field, a 3.01 acre park located at Grove Street and Princeton Avenue comprising a softball field, basketball court and other play facilities; (4) Brennan Field, a 3-acre park at East Lake Avenue and Ferndale Place, which has a soccer field, softball field, a basketball court and play equipment; (5) Hart Street Park, a 2.38 acre park with a pavilion area, barbecue facilities, 2 horseshoe pits and a play area located at Hart and Edgewood Streets; (6) Flanagan Field, a 1.67 acre park on East Milton Avenue and Wall Street, which, following completion of renovation, will include a softball field, basketball and volleyball courts, and play areas; (7) Stein Field, a 1.27 acre park with two basketball courts and play areas located at Jefferson Avenue and Murray Street; (8) Howard Field on Stockton Street, a 1.24




TABLE 8.1

INVENTORY OF COUNTY PARKS IN THE CITY OF RAHWAY

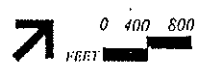
	<u>Name</u>	<u>Location</u>	Size of Park (Acres)	<u>Active Recreation Facilities in Park</u>
1.	Rahway River County Park	West of St. Georges Avenue, north of Westfield Avenue	72.5*	4 softball fields 1 baseball field Combined football and soccer field 3 picnic areas Playground Outdoor swimming pool Fitness trail Ice skating pond Tennis courts
2.	Milton Lake County Park	Madison Avenue and West Lake Avenue along South branch of Rahway River	50.4	Softball field
3.	Rahway River Parkway	Along North branch of Rahway River between St. Georges Avenue and Elizabeth Avenue	39.6	--
4.	Madison Avenue Park	Madison Avenue and Westfield Avenue	16.6	Playground Baseball field Soccer field
5.	Union County Utility Authority Conservation Area	Behind Resource Recovery Facility on the Rahway River	3.0	--
			<hr/> 182.1	

\* The total area of the park, including that section which falls in Clark Township, is 133.4 acres.



- |   |                                 |   |  |
|---|---------------------------------|---|--|
|  | MUNICIPAL PARKS                 |  | COUNTY PARKS                                     |
| M1  | MADDEN FIELD                    | C1  | RAHWAY RIVER COUNTY PARK                         |
| M2  | RAHWAY KIWANIS PARK             | C2  | MILTON LAKE COUNTY PARK                          |
| M3  | TULLY FIELD                     | C3  | RAHWAY RIVER PARKWAY                             |
| M4  | BRENNAN FIELD                   | C4  | MADISON AVENUE PARK                              |
| M5  | HART STREET PARK                | C5  | UNION COUNTY UTILITY AUTHORITY CONSERVATION AREA |
| M6  | FLANAGAN FIELD                  |   |  |
| M7  | STEIN FIELD                     |   |  |
| M8  | HOWARD FIELD                    |   |  |
| M9  | SHOTWALL FIELD                  |   |  |
| M10   | WILLIAMS FIELD                  |   |  |
| M11   | MEMORIAL SQUARE                 |   |  |
| M12   | LIBRARY PARK                    |   |  |
| M13   | MARTIN LUTHER KING PARK         |  | BOARD OF EDUCATION PARKS                         |
| M14   | GIRL SCOUT PARK                 | E1  | VETERANS MEMORIAL FIELD                          |
| M15   | EAST HAZELWOOD PARK             | E2  | GROVER CLEVELAND FIELD                           |
| M16   | ARTS CENTER PARK                | E3  | MADISON SCHOOL                                   |
| M17   | MERCHANTS & DROVERS TAVERN PARK | E4  | ROOSEVELT SCHOOL                                 |
| M18   | LOWER ESSEX STREET              |   |  |

## 8.1 Rahway Parks





**TABLE 8.2**  
**INVENTORY OF MUNICIPAL PARKS IN THE CITY OF RAHWAY**

	<u>Name</u>	<u>Location</u>	<u>Size of Park (Acres)</u>	<u>Active Recreation Facilities in Park</u>
1.	Madden Field	Capobianco Plaza and Elston Street (Block 301, Lot 1)	7.09	Play equipment Three ballfields Two basketball courts Storage shed Concession stand
2.	Rahway Kiwanis Park	St. Georges Avenue and North branch of Rahway River (Block 140, Lot 1)	3.35	--
3.	Tully Field	Grove Street and Princeton Avenue (Block 50, Lot 1)	3.01	Play equipment Play structure Basketball court Softball field Storage shed
4.	Brennan Field	Lake Avenue and Ferndale Place (Block 288, Lot 1)	3.00	Play structure Soccer field Basketball court Softball field Storage shed
5.	Hart Street Park	Between Hart Street and Edgewood Street (Block 340, Part Lot 5)	2.38	Play equipment Grills Pavilion area Restrooms
6.	Flanagan Field <sup>1</sup>	E. Milton Avenue and W. Wall Street (Block 358, Lot 1)	1.67	Softball field Basketball court Volleyball area Off-street parking Play structure
7.	Stein Field	Jefferson Avenue and Murray Street (Block 19, Lot 1.01)	1.27	Play equipment Play structures Two basketball courts
8.	Howard Field	Stockton Street (Block 348, Lot 10)	1.24	Basketball court Play structures

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<sup>1</sup>As of May 1995, Flanagan Field was being redesigned; the listed equipment represents the facilities expected to be in place by the end of 1996.

**TABLE 8.2**  
**INVENTORY OF MUNICIPAL PARKS IN THE CITY OF RAHWAY**  
**(Continued)**

	<u>Name</u>	<u>Location</u>	<u>Size of Park (Acres)</u>	<u>Active Recreation Facilities in Park</u>
9.	Shotwall Field	Seminary Avenue and Irving Street (Block 164, Lot 1)	1.00	Play equipment Basketball court
10.	Williams Field <sup>2</sup>	Lower Alden Drive (Block 258, Lot 78)	1.00	Play structure Basketball court Soccer area Picnic area Off-street parking
11.	Memorial Square	West Grand Avenue and St. Georges Avenue (Block 174, Lot 1)	1.17	Park benches
12.	Library Park	Behind Library at Central Avenue and Pierpont Street (Block 143, Part Lot 1)	0.50	Play structure Boccie court
13.	Martin Luther King Park	Broad Street and West Cherry Street (Block 150, Lot 1)	0.13	--
14.	Girl Scout Park <sup>3</sup>	West Milton Avenue and West Emerson Avenue	0.12	--
15.	East Hazelwood Park	East Hazelwood Avenue (Block 305, Lot 3)	0.78	Pocket park
16.	Arts Center Park	St. Georges Avenue and Central Avenue (Block 178, Lot 4)	1.17	Electrified sign for Arts Center Pocket park
17.	Merchants & Drovers Tavern Park	St. Georges Avenue and Westfield Avenue	1.74	Electrified City sign Pocket park
18.	Essex Street Park	Foot of Essex Street (Block 305, Part Lot 3)	<u>5.00</u>	
	Total		35.62 Acres	

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<sup>2</sup>As of May 1995, Williams Field was being redesigned; the listed equipment represents the facilities expected to be in place by the end of 1996.

<sup>3</sup>City cuts the grass, but the appearance is maintained by the local Girl Scout troop.

acre park with a basketball court and play structures; (9) Shotwell Field, on Seminary Avenue and Irving Street, a 1-acre park with basketball court and play equipment; (10) William Field, another 1-acre park located on Lower Alden Road with a basketball court, a soccer play area, and picnic and play structure; (11) Memorial Square, a 0.76 acre park with benches located on the corner of St. Georges Avenue and West Grand Avenue; (12) Library Park, a 0.5 acre park located behind the library on Central Avenue and Pierpont Street, which has a bocce court and play structure; (13) Martin Luther King Park, a 0.13 acre triangular parcel next to the train station on Broad Street which honors the civil rights leader; (14) Girl Scout Park, on West Milton Avenue and West Emerson Avenue, a 0.12 acre park maintained by a local Girl Scout troop; (15) East Hazelwood Park, on East Hazelwood Avenue, a pocket park of three-quarters of an acre; (16) Arts Center Park, a one-acre green space located at the intersection of St. Georges Avenue and Central Avenue which has an electrified informational sign for the Union County Arts Center; (17) Merchants and Drivers Tavern Park, a 1.74 acre green space named after one of Rahway's most significant historic landmarks (which is across the street), and which has an internally illuminated municipal bulletin board located at the intersection of St. Georges Avenue and Westfield Avenue; and (18) the Lower Essex Street Park, located at the foot of Essex Street, comprised of floodplain land which the City has acquired and cleared of structures and intends to improve as a waterfront park comprised of 5 acres of land. These recreational facilities are spread throughout Rahway (see Table 8.2 and Map 8.1), and comprise a total of 35.62 acres.

The Board of Education owns parkland located mostly adjacent to school facilities and used primarily to accommodate scholastic sports programs, comprised of four parks<sup>1</sup>: (1) Veterans Memorial Field is the largest, at 5.28 acres, comprised of a football and baseball field, and located between Central Avenue and the Robinson's branch of the Rahway River; (2) Grover Cleveland Field, a 2.38 acre park adjacent to Grover Cleveland School at Washington Street and Montgomery Street which provides a basketball court, a softball field and a play structure; (3) Madison School fields, which have tennis courts and a softball field on ±2.2 acres on Madison Avenue; and (4) Roosevelt School, a half-acre park with play equipment on West Lake Avenue and Pierpont Streets (see Table 8.3 and Map 8.1). All of these parks are owned by the Board of Education.

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<sup>1</sup>The exact size of the Board of Education parks is not known, as the demarcation line between the school facilities and the parks is not always clear.

TABLE 8.3

BOARD OF EDUCATION PARKS\*

	<u>Name</u>	<u>Location</u>	<u>Size of Park (Acres)</u>	<u>Active Recreation Facilities in Park</u>
1.	Veterans Memorial Field	Central Avenue and Robinson's branch of Rahway River	5.28	Baseball field
2.	Grover Cleveland Field	Washington Street and Montgomery Street	2.38	Basketball court Play structure Softball backstop (field has not been maintained)
3.	Madison School	Madison Avenue	±2.20	Tennis court Softball field
4.	Roosevelt School	West Lake Avenue and Pierpont Street	<u>2.00</u>	Play equipment
	Total		11.86	

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\* Owned by Board of Education.

## 8.2 PLANNED ADDITIONS OR IMPROVEMENTS TO PARKS IN THE CITY OF RAHWAY

Renovations are currently underway or are planned for several parks (see Table 8.4 and Map 8.1).

### **Madison Avenue Park Improvements**

Madison Avenue Park has probably been the least maintained park in the City. This is perhaps due to the fact that it is owned by the County, but is really used mostly by City residents. A dirt path runs the length of the park's side on Madison Avenue, the grass worn by pedestrians due to the absence of a sidewalk. Despite the presence of adequate room elsewhere in the park, a playground structure is placed in center field of the baseball field. A large fallow patch of weeds and dirt lies on the edge of the park, adjacent to the Intermediate School parking lot. It is apparent that Madison Avenue Park would greatly benefit from a moderate amount of landscaping, as well as an improved design. Fortunately, the City, County of Union and Rahway public schools have entered into an agreement to redevelop a portion of this park, resulting in the development of one much-needed soccer field. The estimated cost of the renovation is \$70,000. In fact, work is presently underway, and other improvements to the park are expected in the future, since it is County-owned.

### **Redevelopment of Flanagan Field and Williams Field**

Redevelopment of two other City-owned parks, Flanagan Field and Williams Field, are underway. A half million dollars of Green Acres funds have been committed to their redevelopment. Half of the funds are a grant; the other half is a low-interest loan. At Flanagan Field, the existing masonry building and basketball court have been removed to make way for a larger softball field and two tot lots. A new basketball court has been constructed in the southeast corner of the park adjacent to the volleyball court and an off-street parking lot for 17 cars has been improved. Work is to be completed in 1996.

Williams Field is also being redeveloped. A full-size basketball court will replace the existing small court. A soccer practice area is planned for the center of the park, and two new tot lots adjacent to the Alden Drive entrance will be provided. Work is also to be completed in 1996.

TABLE 8.4

PLANNED ADDITIONS AND IMPROVEMENTS TO  
THE CITY OF RAHWAY'S PARKLAND

<u>Name of Park</u>	<u>Planned Addition or Improvement</u>	<u>Status</u>
Rahway River Bike Trail	Development of recreational bike trail through County-owned parkland in Rahway through \$150,000 ISTEAA grant	Grant recently awarded
Madison Avenue Park	Redevelopment of portion of County park, including development of 1 new soccer field at a cost of \$70,000.	Under construction
Flanagan Field, Williams Field	Redevelopment of active recreation areas with \$500,000 of Green Acres funding.	Scheduled completion: Fall 1996
Essex Street Park Project	Acquisition of 10 acres of land on Rahway River between Milton Avenue and Route 1 with Green Acre and N.J. Conservation Foundation funding	Acquisition approved
Union/Allen Street	Acquisition of 1½ acres of flood-prone residential property and returned to natural state	Acquisition approved
Kiwanis, Merchants & Drovers Tavern, Arts Center & Memorial Square Parks	Upgrades of each park by DPW personnel and use of CDBG funds. Improvements include two electrified signs; planting of 70 trees; sidewalk replacement; monument upgrades; and tree pruning/thinning	Completed in 1995/1996

### **The Rahway River Recreational Bike Trail**

The City of Rahway has also received a \$150,000 grant under the ISTEA Transportation Enhancement Grant program for the creation of a one-mile bicycle trail through portions of County-owned parks along the Rahway River, and along city streets into the downtown area, where it will continue along the levees to East Hazelwood Avenue. The trail will provide a bicycle trail and pedestrian walk. The trail will physically link downtown Rahway with the Grand Avenue neighborhood and Union County Parks. In so doing, the shopping, community, cultural facilities and the train station in the downtown, as well as the active recreational facilities, the County parks, and natural areas along the Rahway River, will be more accessible to pedestrians and cyclists alike. The trail will serve as a non-pollution producing transportation alternative, for local trips to either downtown or the parks. It will also serve as a recreational resource for schoolchildren, seniors and workers in the downtown and other employment centers in Rahway during lunch hours, and before and after work. The trail may also help to spur interest in and help revitalize the downtown and neighborhoods through which the trail will pass. It is another element of the City's overall effort to improve the quality of life in the City, of which other programs are a part, including: park and recreation space improvements (such as the Rahway River Park improvements described below); the revitalization of neighborhoods (such as the Grand Avenue Revitalization project in which new roads, street trees and streetscape improvements are planned); the revitalization of the Central Business District (see Economic Development Plan Element); and the renovation of the train station (see Circulation Plan Element).

### **Lower Essex Street Park Project**

As part of the City's efforts to conserve additional property along the Rahway River, and add such natural waterfront property to its inventory of open space, ±10 additional acres of land along the river is to be acquired. The properties to be acquired are on both sides of Essex Street south of East Milton Avenue. This area will be added to the 5 acres of parkland which the City already owns. The 10 acres will become a new City-owned park, to be known as the Essex Street Park. The acquisition will be funded by a \$1 million grant and loan from the Green Acres fund, and from a \$15,000 contribution of the New Jersey Conservation Foundation. The new park will provide passive and active recreational facilities which are riverfront oriented, including a boardwalk over the wetlands along the Rahway River, and a fishing pier.

## **Union/Allen Street Property Acquisition**

The City recently received approval for the acquisition of one-and-a-half acres of residential property in the flood-prone Union Street/Allen Street area. The City will acquire property which contains residential structures and is currently subjected to flooding due to their location within the floodplain of the Rahway River. Following acquisition, the residential structures will be demolished and the land will be returned to its natural state. The acquired property will provide access to and connections with other County-owned property along the Rahway River.

### **8.3 THE QUALITY OF OPEN SPACE AND RECREATIONAL FACILITIES IN RAHWAY**

The National Recreation and Park Association (NRPA) has established standards by which to evaluate the quantity of parkland available to residents within a municipality. The NRPA recommends that a municipality provide between 6.25 to 10.5 acres per 1,000 residents within local, or close-to-home space. Naturally, since communities can vary widely according to location, the degree to which they are urbanized, the density of development, their proximity to regional (County or State) parks, parkland or agricultural areas, the standard used by the NRPA is a broad and generalized standard. Furthermore, since the standards represent an ideal, such a standard must be used as a goal rather than a mandate. However, such a standard can be used to determine as a broad measure, the adequacy of the amount of space that should be devoted to such uses.

For the purposes of this analysis, "local or close-to-home parks" in Rahway would include: (a) mini- or pocket parks serving a block or street (say within a ¼ to ½ mile radius); (b) neighborhood parks, serving residents within a ½ to 1 mile radius; and (c) community parks, which serve residents within a 2-mile radius, or in this case, the whole City of Rahway. In this context, all of the parks within Rahway, including the County-owned parks, can be classified as local, since these are all well within a 2-mile radius of all residents in the City, and furthermore have the types of facilities which serve local community needs rather than the whole County or region.

The present total of park space within Rahway is 229.58 acres. Following proposed acquisitions to add to Lower Essex Street Park (another ±5 acres of land) and the Union/Allen Street area (1½ acres), this total will be 236 acres. Utilizing the NRPA standards of 6.25 to 10.5 acres per 1,000 residents, the City should ideally provide between 156 and 262 acres of park space. The City's



inventory, at 230 acres, represents slightly over 9 acres per 1,000 of population, closer to the upper end of the ideal range, and unusual given the fact that Rahway is an older, fully developed and urbanized community, where the ratio of open space per capita is likely to be closer to the lower end of the range or even below the 6.5 acres per 1,000 residents.

Aside from meeting a quantitative standard, the evaluation of parkland and open space should also take into account the variety of space provided (i.e., recreational choice) as well as the quality of the facilities provided. With respect to small local facilities, some areas within Rahway are somewhat remote from small pocket parks or tot lots or local parks. However, the variety of recreational opportunities, which range from natural riverfront areas to active ballfields, courts and play equipment, is excellent. Rahway River Park is one of the better parks in Union County, and, in fact, draws visitors not just from the County but from the greater New York metropolitan area. It is well designed and has a fine array of recreational facilities, including an outdoor swimming pool. The pool was renovated and received a new bathhouse in the early 1980s. The historic Bathhouse, dating back to 1929, still exists but is dilapidated. Union County continues to make other improvements to Rahway River Park, such as the planting of 33 additional cherry trees in 1994, and the recent repaving of the recreation path within the Park.

The Rahway River Parkway, a greenbelt which snakes through seven Union County municipalities, including Rahway, is also an important regional park. Rahway River Park may be considered a link in the chain of this greenbelt. The addition of the bike trail and pedestrian path as proposed will provide an important link in this linear park system, both on a regional, community and neighborhood level.

Milton Lake is used by fishermen from around the County, but its relative seclusion serves to moderate the number of people who might otherwise fish there. Milton Lake Park covers 50 acres, and is an important quantitative resource of open space.

The City-owned and Board of Education-owned parks are well distributed throughout the City. In a number of instances young children that wish to ride their bikes to use playground equipment or play softball or basketball may do so without having to cross busy roads such as St. Georges Avenue, US Route 1 & 9, or West Grand Avenue. Interestingly, one of the most popular parks, Hart Street Park,

is largely surrounded by industrial uses and is relatively secluded. It is a "reservation-only" park for special functions. It is booked virtually every weekend from May through October.

The much-needed improvements and redevelopment of the neighborhood parks—Madison Avenue Park, Williams Field and Flanagan Field—represent an upgrade in the quality of active recreational facilities in the City which are in much demand—such as softball/baseball and soccer fields. The Division of Parks and Recreation may wish to consider other needed improvements to the City's recreation facilities. Besides ongoing maintenance needs, new facilities—such as a skateboard park or a rollerblading rink—may be a desirable recreational asset. A rollerblading rink, in particular, has been the subject of much interest from children and their parents. One of the lesser-utilized parks owned by the Board of Education is at Roosevelt School. A grassy field behind the school has a swing set without swings; it has no other play equipment, and would easily host other recreational facilities. Other needs include recreational facilities and programs for special populations, such as pre-school children or senior citizens. The Division of Parks and Recreation would also like to make specialized recreational facilities available for disabled people.

Another recommendation being considered by the City is the establishment of a new community recreation center behind City Hall (see Section 7.9, Rahway Community Centers). Such a center would provide meeting space and athletic facilities.

Rahway residents have expressed strong interest in providing greater visual access to the Rahway River throughout the central business district. A few structures in the CBD lie within the 100-year flood plain of the Rahway River, impeding access to the River and, not incidentally, resulting in problems with flooded basements. The owners of these structures are prohibited from enlarging or substantially improving such structures, per City ordinance. Acquisition of all of these lots, clearing such structures and the building of a park—that is, installing vegetation and a sidewalk—may require considerable expenditures, and may not be practicable in the near future. As a long-term goal, however, the City should consider the beautification of the view of the Rahway River between the Robinson's Branch and the South Branch.

## 9. CIRCULATION PLAN ELEMENT

### 9.1 INTRODUCTION

The Circulation Plan Element for the City of Rahway is composed of several sections, which include: the regional transportation system, street classification, bus and rail service, planned major improvements to the circulation system in Rahway and the Union County Utility Authority truck traffic problem in Rahway.

In general, the circulation and transportation facilities within Rahway have not changed significantly since the completion of the prior master plan (the circulation element of which was completed in 1974). Some improvements such as repaving, widenings, bridge repair and the addition of better drainage systems have helped to improve the condition of the transportation network, as well as its efficiency and effectiveness. Even with the planned realignment of US Route 1 & 9 and the renovation of the train station (presently underway), the circulation system has and will remain relatively unchanged in the years to come.

### 9.2 REGIONAL TRANSPORTATION NETWORK

The City of Rahway is well located with respect to the regional transportation network, with access to regional highways nearby, the presence of a rail station which provides direct connection to New York and Trenton and points in between, bus service to New York and other parts of New Jersey, and proximity to Newark International Airport and Linden Airport nearby.

Rahway is a few miles to the west of the New Jersey Turnpike, which is accessed via Exit 12 in Carteret via Woodbridge Road and Randolph Road. This route is somewhat congested by regional traffic, especially truck traffic, and is narrow and in somewhat poor condition in places given the volume of traffic it carries. The New Jersey Turnpike is the State's most heavily-traveled highway, stretching from New York City in the north to Pennsylvania and Delaware in the south.

Likewise, the Garden State Parkway, the second-most heavily-traveled highway in New Jersey (although prohibited to commercial traffic) is accessed via Exit 135 on Central Avenue in Clark Township. The most direct route to Rahway is via Westfield Avenue, which is also a somewhat heavily congested collector road. The Garden State Parkway is linked to the New York State Thruway above Bergen County in the north, and runs southward all the way to the bottom of Cape May County.

Route 287, essentially an interstate highway that encircles the New York City metropolitan area, is a few miles south of Rahway and can be accessed via the Turnpike or US Route 1 & 9. Route 78, an east-west interstate highway stretching from Newark to eastern Pennsylvania, is a few miles to the north.

Rahway is also a stop on New Jersey Transit's Northeast Corridor rail line, which runs between Penn Station in New York and Newark, New Jersey to Trenton (and connects with SEPTA from Trenton to Philadelphia). It is also a stop on the North Jersey Coast line, which runs from Penn Station to Bay Head in Ocean County, New Jersey. Rahway's train station is located in the downtown at the intersection of Broad Street and Milton Avenue.

New Jersey Transit bus lines also traverse Rahway, providing service to Newark and New York City.

Rahway is also close to Newark International Airport, approximately 20 minutes to the north along US Route 1 & 9. Newark Airport is one of the three major airports in the New York metropolitan region, and has flights to all over the United States and the world on a frequent basis. Linden Municipal Airport, a regional airport which carries mostly commercial and private traffic rather than regular flights, is located 5 minutes from Rahway via US Route 1 & 9.

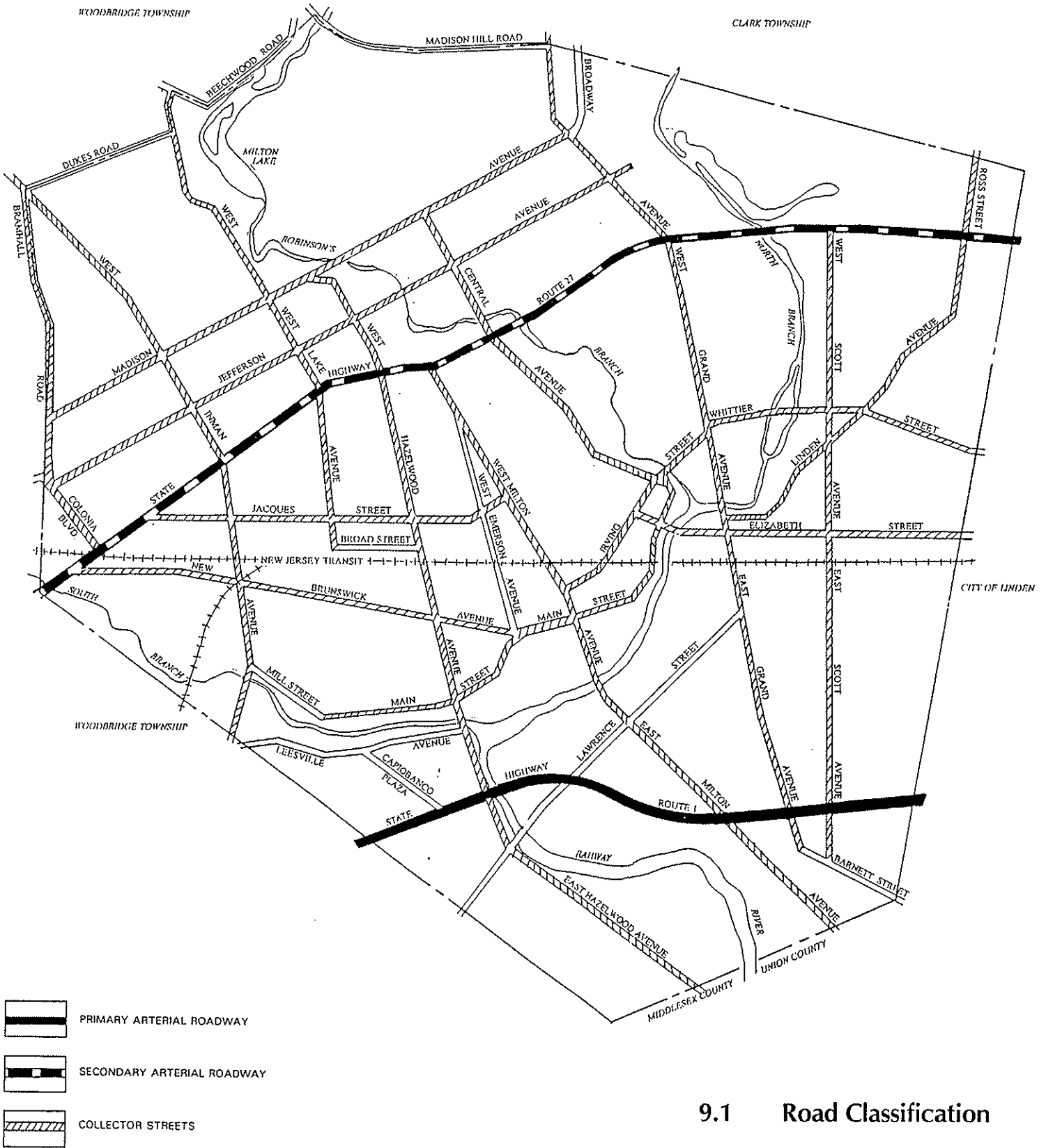
### 9.3 CLASSIFICATION OF ROADS IN RAHWAY

The following classification of roadways in Rahway is consistent with Uniform Functional Classification of Streets established by the US Department of Transportation in conjunction with the New Jersey Department of Transportation (see Figure 9.1).

#### A. Freeways or Expressways

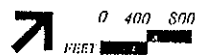
Freeways or expressways are high-speed, high-capacity, limited access highways devoted entirely to the movement of motor vehicles and which provide no direct access to abutting properties. They generally traverse large areas, often an entire state, and connect with freeways of adjoining states.

Design features of freeways include the separation of opposing traffic lanes by a continuous center barrier or median strip and full access control and grade separations at intersections or interchanges which are generally widely spaced. Freeways usually have right-of-way widths of 150 to 300 feet,



## 9.1 Road Classification

\*ALL OTHER STREETS IN RAHWAY ARE CLASSIFIED AS LOCAL STREETS



carry multiple lanes of traffic in each direction, and are generally designed for a capacity of between 1,000 to 1,500 vehicles per lane per hour.

None of the roadways in Rahway qualify for classification as a freeway or expressway.

#### B. Primary Arterial Roads

Primary arterial roads serve as major feeder roads to and from the freeway systems and carry major movements of traffic between the principal traffic generators in a region. In Union County, they also act as carriers for major regional traffic flows.

Primary arterial roads usually have four or more traffic lanes and provide direct access to abutting properties. Curb openings are a secondary function of arterial roads which often interfere with the flow of traffic. Primary arterial roads are usually intersected at grade and utilize timed traffic signals, jughandle intersections, center barriers and lane markings to facilitate traffic flow. The desired right-of-way should range from 114 feet to 140 feet. Primary arterial roads are anticipated to carry traffic volumes ranging from 10,000 to 24,000 vehicles per day.

Only US Routes 1 & 9 can be classified as a primary arterial that passes through Rahway. Its right-of-way width is predominantly 100-feet, although the width varies between 50 feet (over the Rahway River) to 135 feet in other locations.

#### C. Secondary Arterial Roads

Secondary arterial roads generally connect collector streets with primary arterial roads and freeways and often act as alternate routes for primary arterial roads. Like primary arterial roads, they serve abutting properties, utilize signalized intersections, but carry less traffic and often have only one traffic lane in each direction. Wherever practical, secondary arterials should be widened to provide a separate left-turn lane, even if the road contains only one traffic lane in each direction. Secondary arterial roads are anticipated to carry traffic volumes ranging from 3,000 to 10,000 vehicles per day.

Secondary arterial roads which are municipal streets should have a minimum right-of-way of 66 feet. The desired right-of-way for heavily-trafficked County secondary arterial roads should be 80 feet. St. Georges Avenue (or Route 27) is the only secondary arterial in Rahway with an 80-foot right-of-way.

#### D. Collector Streets

Collector streets provide access between local streets and primary and secondary arterial roads. They provide access to abutting properties and carry traffic from residential neighborhoods to arterial roads. Collector streets which are municipal roadways should have a minimum right-of-way width of 60 feet, with one moving traffic lane in each direction. Collector streets which are County roads should contain a right-of-way of at least 66 feet in width. Recommended traffic volumes for collector streets range from 1,500 to 3,000 vehicle trips per day.

Collector streets in Rahway include: Bramhall Road (80-foot right-of-way (ROW)); Central Avenue (66-foot ROW); Colonia Boulevard (80-foot ROW); Elizabeth Avenue (80-foot ROW); Grand Avenue (66-foot ROW); Hazelwood Avenue (66-foot ROW); Inman Avenue (66-foot ROW); Irving Street (40-foot ROW); Jacques Avenue (66-foot ROW); Jefferson Avenue (66-foot ROW); Lawrence Street (66-foot ROW); Linden Avenue (66-foot ROW); Madison Avenue (80-foot ROW); Main Street (66-foot ROW); Milton Avenue (58- to 66-foot ROW); New Brunswick Avenue (6-foot ROW); Ross Street (66-foot ROW); Scott Avenue (66-foot ROW); Westfield Avenue (60-foot ROW); West Lake Avenue (66-foot ROW); and Whittier Street (66-foot ROW).

#### E. Local Streets

Local streets have the primary function of providing access to abutting properties. They also serve as easements for the various public utilities and provide light and air to adjacent buildings. Local streets should have minimum right-of-way width of fifty feet (50') with suitable shade tree and underground utility easements. Local streets could be expected to provide access to less than 150 lots with a normal traffic volume of less than 1,500 vehicles per day. All of the remaining streets in Rahway not classified as one of the above are classified as local streets.

### 9.4 RAIL AND BUS SERVICE

#### A. Rail Service

One of Rahway's major assets as a community is the presence of its rail line and rail station in the downtown. This provides several benefits. First, with direct access to Newark/New York City, Trenton as well as the New Jersey shore, residents of Rahway have access to convenient, safe travel for commuting and pleasure trips. This has a direct positive impact on real estate values, particularly

residential property values. Second, the rail station attracts a number of commuters and visitors from communities in the region to the downtown, which is a potential source of shopping dollars for the downtown. Third, the rail also serves as a mode of transportation for industries within the community. Despite the manufacturing sector's decreasing dependence on rail, there are still several manufacturing companies for whom rail service is an essential part of their business.

Rahway is on both the Northeast Corridor line and the North Jersey Coast line of New Jersey Transit. The Northeast Corridor line is the major regional in-state passenger rail link in New Jersey, connecting Newark and New York with Trenton and Philadelphia, and provides stops at major points in-between. A New Jersey Transit passenger rail survey (conducted in 1990) indicated that 870 persons boarded the line at the Rahway train station daily. Just under fifty percent of the passengers were from Rahway itself, the remainder from communities outside of Rahway. Train service runs frequently (about every half-hour) from 5:30 AM to 12:00 PM.

The North Jersey Coast line links communities on the New Jersey coast as far south as Bay Head in Ocean County with Newark and New York via Rahway and communities in Middlesex and Union Counties. This is a commuter line with concentrated service northward during the AM peak hours and southward during the PM rush hours. Service at off-peak times and weekends and holidays is much less frequent. Nevertheless, the New Jersey Transit survey indicated 669 passengers boarded the line at Rahway train station, with 46 percent of the passengers originating within Rahway itself.<sup>1</sup>

#### B. Bus Service

There are two New Jersey Transit bus lines which operate service through Rahway. Bus #62 provides service between Rahway and Newark, while bus #115 provides service between Rahway and New York. Both are commuter-oriented services with concentrations of bus trips during the peak hours.

### 9.5 MAJOR PLANNED IMPROVEMENTS IN RAHWAY

There are two major improvements, planned or underway, in Rahway, to transportation facilities: the Rahway train station rehabilitation project and the realignment of US Route 1 & 9. These are de-

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<sup>1</sup>Such figures are somewhat dated and probably underestimate the number of commuters originating from Rahway. Moreover, at the time the survey was undertaken, the North Rahway train station still operated, with 60 passengers a day, all of whom were Rahway residents.



scribed below. In addition, the County of Union, which is responsible for maintaining all bridges in the County, is planning to complete replacement and/or rehabilitation of the Milton Avenue Bridge in 1997, and the Lawrence Street Bridge in 1998. It should also be noted that the City of Rahway spends ±\$150,000 in street resurfacing projects annually, utilizing federal, state, county and city funds. The City's engineering office maintains a priority list of streets which are in need of resurfacing. As money becomes available, streets at the top of the list are resurfaced.

A. The Rahway Train Station Rehabilitation Project

The Rahway train station is undergoing a three-year, \$15 million rehabilitation in the central business district. The train station is located on an elevated section of the Northeast Corridor line, and serves as a key transfer point between the Northeast Corridor line and the North Jersey Coast line.

The rehabilitation project, which includes several different elements, has just recently been started. The first element involves the demolition of the existing train station building, a somewhat plain, utilitarian brick structure. This building will be replaced by a handsome new stucco and tiled roof building which is of a neo-traditional design. New waiting rooms, both on the platform level and inside the station, are to be provided. Renovation to the platforms and canopies (which protect passengers at platform level from precipitation during embarkation) is to be performed. New rest rooms will be added, as well as a new ticket office, and a concession and taxi area at street level.

The project will also be ADA compliant (i.e., accessible to the handicapped) by providing two elevators between street level and the boarding platforms. In addition, to improve accessibility, the tunnel connecting the two sides of the train station (i.e., the north-traveling New York-bound platforms and the south-traveling Trenton-bound platforms) will be provided at street level, as opposed to the current elevated location.

The project will also include improvements outside of the rail station building. Street level kiosks for passengers and community information, landscaping, sidewalk and street improvements are planned, and parking and drop-off areas are to be reconfigured.

The City of Rahway is also considering the creation of a community space, or open plaza, in front of the train station, making the new building more visible to pedestrian and vehicular traffic on Irving Street and Milton Avenue, and providing a permanent open community space for festivals and events in the downtown. This project would require the acquisition of property, the relocation of a number of

downtown businesses, and the demolition of one or perhaps two buildings. Additional commuter parking is also planned as part of an effort to capitalize upon the anticipated increase in ridership when the rehabilitation project is completed.

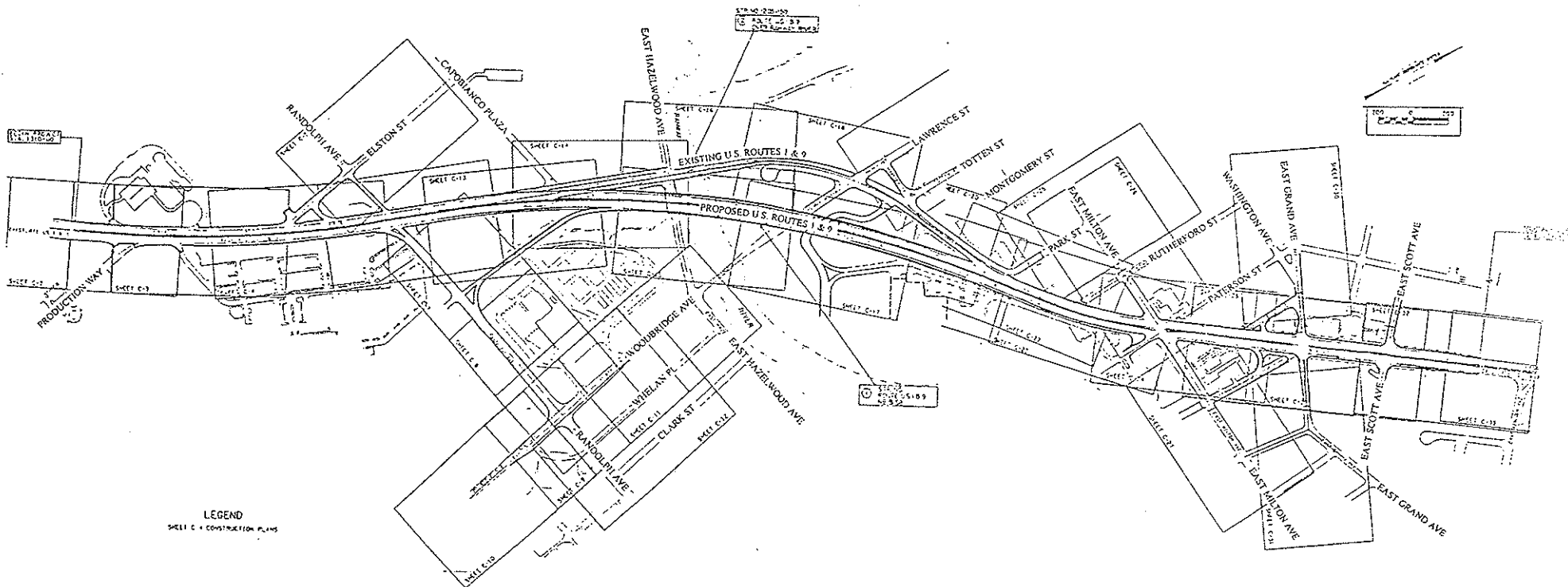
#### B. The Realignment of US Route 1 & 9

Plans have been several years in the making by the New Jersey Department of Transportation to realign a portion of US Route 1 & 9 in Rahway. The actual realignment will only include that southern portion of the highway which crosses the Rahway River, although improvements will be instituted as far north as East Lincoln Avenue (see Figure 9.2).

The proposed realignment would involve several elements. Improvements, widening and modifications to the paved roadway would occur at the intersection of US Route 1 & 9 with East Lincoln Avenue, East Scott Avenue, East Grand Avenue, Lennington Avenue (where the current obliquely-angled access would be closed off, moved south and restricted to exit-only movements), Turner Street (where the easterly portion of Turner Street would be closed off from direct access to US Route 1 & 9), East Milton Avenue, and Rutherford Street (where direct access to US Route 1 & 9 would occur between East Scott Avenue and Rutherford Street).

Starting at Rutherford Street at the north end to a point between Capobianco Plaza and Randolph Avenue, the whole alignment of US Route 1 & 9 would be moved southward, thus straightening out the present curve of the highway. This portion of the highway would also be elevated above grade. No at-grade intersections would be provided along this elevated portion of realigned US Route 1 & 9, nor would direct access from adjoining properties be provided. The present portion of US Route 1 & 9 which it would replace would serve this purpose and be utilized to provide on- and off-ramps to the southbound side of newly-aligned US Route 1 & 9. In addition, intersection improvements and new service road connections would be provided. These are described below.

Park Street would be connected directly with Lawrence Street via an extension of Hancock Street parallel to and utilizing part of the present US Route 1 & 9 roadway. This extension would be separated from a new off-ramp to be provided from the new US Route 1 & 9 alignment, and would start at Park Street and be connected to Lawrence Street. (Totten Street would intersect with the Hancock Street connection.)



## 9.2 Proposed Realignment of U.S. Route 1 & 9

A new service road connection under the new elevated US Route 1 & 9 alignment would be provided just north of Lawrence Street, primarily to allow the Union County Resource Recovery Facility to have a direct connection to the southbound side of US Route 1 & 9. (A service road connection to the northbound side is provided at the Paterson Street intersection.)

An on-ramp to the southbound side of US Route 1 & 9 will be provided utilizing the present US Route 1 & 9 alignment between East Hazelwood Avenue and Capobianco Plaza. Actual access to this on-ramp, as well as US Route 1 & 9 from Capobianco Plaza, will be cut off. A new on-ramp will be provided to the northbound side of US Route 1 & 9 opposite the southbound off-ramp, via Randolph Avenue. Since the new alignment will be at-grade at the Randolph Avenue intersection, an exit off both the northbound and southbound sides of US Route 1 & 9 via Randolph Avenue will be provided. However, Randolph Avenue will no longer be a through-street. Slightly further south, another on-and-off access point is provided on the southbound US Route 1 & 9 at Elston Street in Woodbridge.

This realignment will provide for a smooth and more efficient traffic flow on this section of US Route 1 & 9, with easier and safer entrance and exit movements. However, with the roadway's elevation above grade and its realignment, current properties which have direct access to and visibility from US Route 1 & 9 will be cut off and be located below the new roadway. Commercial uses located in this vicinity will be impacted by the new alignment. In particular, highway commercial uses between East Milton Avenue and Elston Avenue will be most severely impacted. Such uses on the southern side include fast food restaurants, hotels and motels, and automobile sales, while on the northbound side they are a shopping center (Granite Plaza), a hardware/lumber store, gas stations, fast food restaurants, and a go-go bar. (The Union County Resource Recovery Facility will have a portion of its property taken, but will not otherwise be impacted.) This newly-elevated and realigned highway will also have an impact on the opportunities for development and redevelopment on vacant parcels and parcels utilized for other uses (a park, industrial uses, and residential uses) located along the present US Route 1 & 9 alignment.

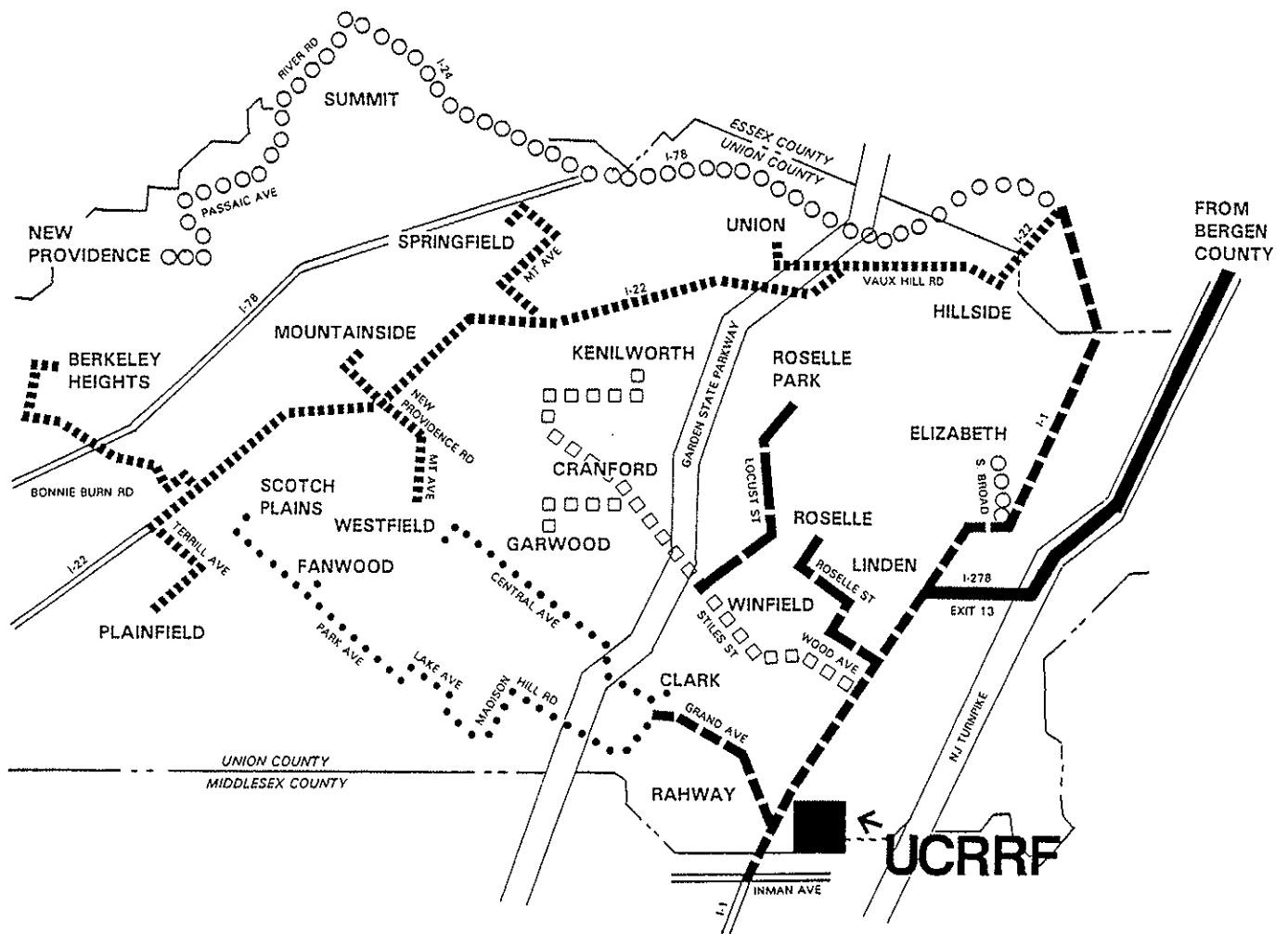
On the southbound side little property will be taken for the new alignment. The old alignment will be utilized as on- and off-ramps. This, together with closure of direct access via streets that intersect with US Route 1 & 9, will affect access to adjacent properties, and the elevated nature of the new alignment will also affect the visibility of these properties. This will diminish these properties' attractiveness for commercial use. On the northbound side, not only will access and visibility be impacted, but certain properties will be taken in whole or in part. This will have an even more severe impact on their value as highway commercial properties.

## 9.6 UNION COUNTY UTILITY AUTHORITY TRUCK TRAFFIC

One of the issues of greatest concern related to the siting of the Union County Resource Recovery Facility in Rahway was the amount and routing of truck traffic through Rahway. Considerable effort was spent in studying and analyzing this issue, resulting in the adoption of a truck routing plan. The routing plan was mutually agreed to by the Utility Authority, the county and the City of Rahway. Following the initial operation of the facility, additional traffic counts and studies were undertaken, leading to a modification in the plan and the agreement.

Essentially, the plan sets forth the routes that trucks are required to utilize when traveling from Bergen County and all 21 municipalities in Union county which bring their non-recyclable garbage to the Resource Recovery Facility (see Figure 9.3). The plans also set forth: the hours in which scheduled deliveries are permitted to occur on weekdays and Saturdays; the types of trucks to be utilized, the weight restrictions and operational procedures that such trucks are required to follow; the on-site traffic control measures that must be implemented to control off-site impacts; and a number of other requirements. The plan includes required routing both with the current alignment of US Route 1 & 9, and the routing that would be required if US Route 1 & 9 were to be realigned.

The major issue resulting from the implementation of the mutually-agreed to plan has been the non-adherence of certain of the truck operators to the mandated routes. The Rahway Truck Traffic Group, a group of local citizens who have been most severely impacted by the utilization of private residential streets by garbage trucks going to and from the Resource Recovery Facility instead of the mandated routes, has expressed their dissatisfaction with the current state of affairs, but apparently to no avail. The problem appears to lie in the difficulties associated with the enforcement of the truck routing plan. The plan is supposed to operate as follows. Each municipality that sends its trucks to the Resource Recovery Facility must follow a mandated route (see Figure 9.3). Each route is designed to restrict trucks to county roads and state highways to avoid municipal collector and local streets. Each truck which delivers garbage to the Resource Recovery Facility has a color-coded decal indicating the mandated route which the truck must follow. If the truck is found by the County or State police to be on a road which is not on the mandated route, or not within the mandated delivery time, it is subject to a fine. However, the Rahway Police Department cannot enforce this, nor can the Union County Utility Authority itself. The Rahway Truck Traffic Group would like enforcement efforts to be stepped up, or to have the routes changed so that trucks would not travel on either Lawrence Avenue or Grand Avenue.



### 9.3 Mandated Truck Routes for Union County Resource Recovery Facility

SOURCE: UNION COUNTY UTILITIES AUTHORITY, 1995



The Group is also concerned with other potential traffic problems. The first concern is related to a possibility that a new recycling center may be built in the area, which would generate additional truck traffic through the neighborhood. The second relates to a plan which has been proposed which would have a Garden State Parkway exit connected directly to Inman Avenue in Clark Township, the extension of which would possibly cross the Department of Motor Vehicle Inspection property, bringing more traffic into the neighborhood. The third relates generally to the notion that the redevelopment of vacant or underutilized land in the neighborhood (for example, the DMV property) may also increase the present truck activity in the area. However, none of these projects have been discussed in concrete terms, and are probably unlikely. Nevertheless, the traffic and neighborhood impacts of such projects should be very carefully studied if they were to materialize, in light of the current circumstances.

## 10. HISTORIC PRESERVATION ELEMENT

### 10.1 INTRODUCTION

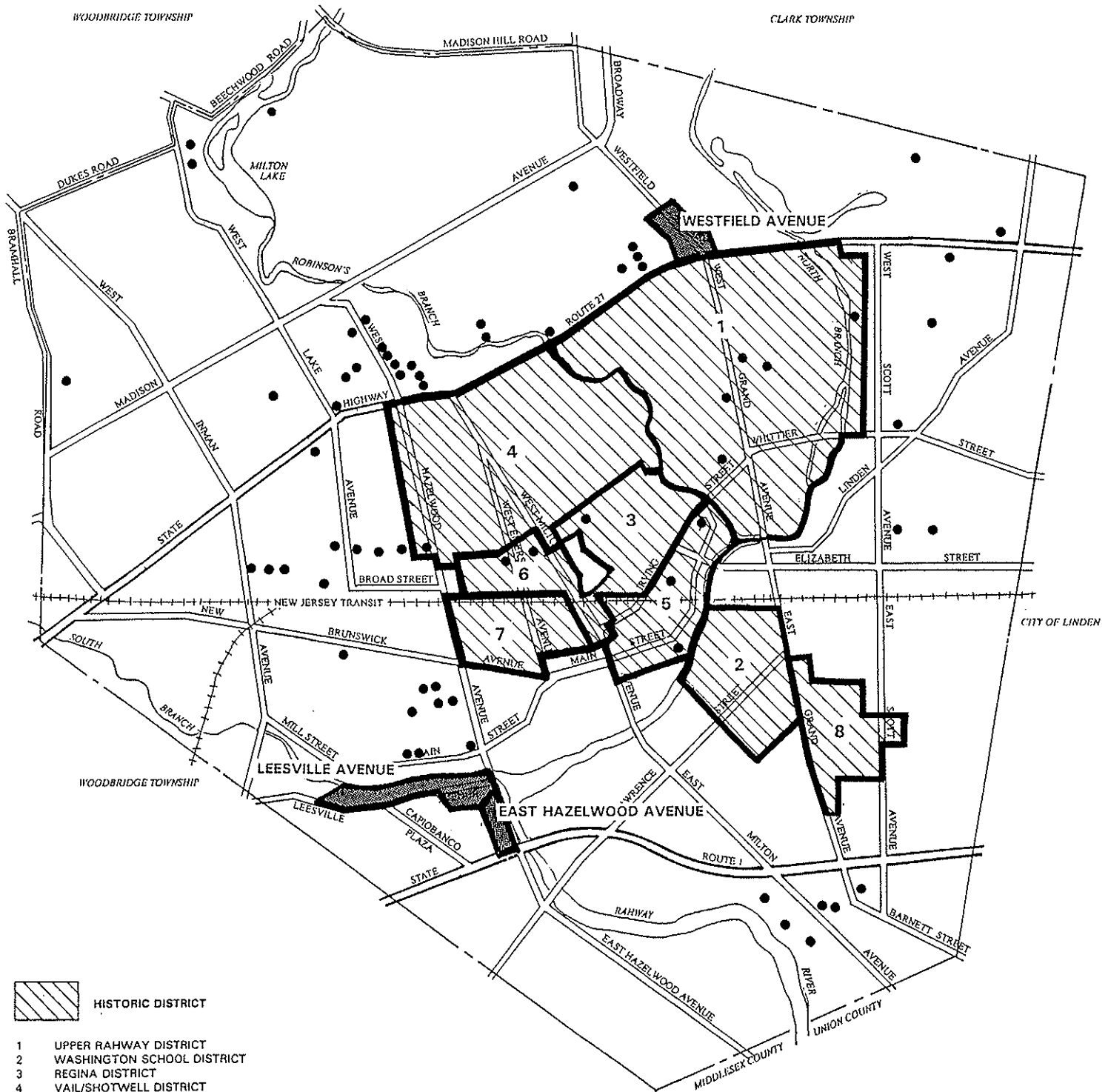
The basis for this historic preservation element was derived from the Union County Historic Sites Inventory, undertaken between 1980 and 1982 under a matching grant from the New Jersey Office of Cultural and Environmental Service to Union County under the direction of the Union County Cultural and Heritage Programs Advisory Board. The survey covered all municipalities in Union County, including Rahway, but with the exception of Plainfield. This County survey was incorporated into the State Historic Site Survey.


The survey identified the following: (1) historic districts, which are districts in which one or more historic sites and intervening or surrounding property significantly affect or are affected by the quality and character of the historic site or sites; (2) historic streetscapes, which are areas comprised of one or more historic sites which, when collectively viewed from the street, are of historical, cultural, scenic or architectural significance; and (3) historic structures, which are individual structures which have been recognized as being of historical, archaeological, scenic or architectural significance (see Figure 10.1). The survey unfortunately has not been updated; many of the districts, streetscapes and structures on the list have lost some of their architectural or historical significance due to deterioration, through historically inappropriate alterations and even demolition in some cases. As a result, some of the survey's findings or recommendations are now outdated. Nevertheless, the County survey is an excellent resource and still an appropriate basis upon which to consider for some form of local community historic preservation intervention or action.

The criteria used in the County survey to identify historic structures were as follows:

1. A structure had to be at least 50 years old (built prior to 1930).
2. Later-built structures that were outstanding examples of more contemporary architecture or a site of a significant historical event could be included.



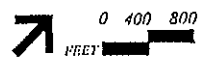


-  HISTORIC DISTRICT
- 1 UPPER RAHWAY DISTRICT
- 2 WASHINGTON SCHOOL DISTRICT
- 3 REGINA DISTRICT
- 4 VAIL/SHOTWELL DISTRICT
- 5 LOWER RAHWAY/MAIN STREET DISTRICT
- 6 SECOND PRESBYTERIAN DISTRICT
- 7 FULTON STREET DISTRICT
- 8 GRAND STREET CHAPEL DISTRICT

 HISTORIC STREETSCAPE

 HISTORIC STRUCTURE

## 10.1 Rahway's Historic Districts, Streetscapes and Structures



3. Districts, streetscapes, structures and objects were viewed and evaluated from field surveys of the exterior (i.e., from a public right-of-way). Archaeological sites were identified through research.
4. Structures considered good examples of an earlier architectural style, either "high style" or "vernacular" buildings, were to be included.
5. Structures in good condition, or suffering from slight defects which detract or obscure a significant architectural feature, could be included.
6. Deteriorated, substandard buildings could only be included if they were the last remaining example of either a particular architectural style or the last remaining structure associated with a significant historical event.
7. Buildings had to have retained a semblance of historical integrity; some visible original features such as siding, windows, doors, lights, porches, porch trim, cornices or other decorative features. Completely remodeled structures could only be included if they were the only remaining structure associated with a significant historical event.
8. Sites that were a primary location for an event of community, state or national historical significance were to be included.
9. Sites which had contained structures of historically important events, and former major architecturally significant structures could be included even if they were now vacant or replaced by a later non-significant structure.
10. Later structures incorporating elements of or built over earlier structures of historical significance could be included.

It is important to note that the survey was intended to provide information about the County's and the community's historical resources. Its aim was to alert the community about such sites and to help protect them during the planning of major housing, transportation, energy or other projects. It was not intended to serve as a basis for governmental land acquisition.

## 10.2 HISTORY OF RAHWAY<sup>1</sup>

Rahway is the southernmost municipality of Union County. Bordered by Linden on the northeast, Clark on the northwest, and Woodbridge (Middlesex County) on the south, it is a small, compact residential/industrial community of approximately four square miles with a population of 25,000. Its most significant geographical feature is the Rahway River, whose three branches, the North Branch, Robinson's Branch, and the South Branch, flow into Rahway and unite within the city's boundaries. The river and the city's location on major highway and railroad routes between New York and Philadelphia have caused Rahway to figure prominently in county and state history.

Elizabethtown's boundaries included what is now Rahway, and within a year of the former's creation, in 1665, settlers from Long Island and New England were given land grants in the Rahway area. The area's major attraction was the Rahway River, which was named after a Lenni-Lenape chief, Rahwack. Men who received land on or near the river in 1666, or shortly thereafter, included Robert Morse, Samuel Marsh, William Oliver, John Jaques, and William Robinson. The land south of the Robinson's Branch of the Rahway River was granted to the Woodbridge Associates in December, 1666, by Philip Carteret, provincial governor, and the Elizabethtown associates John Ogden and Luke Watson. This grant later resulted in the settlements along the Rahway River coming within different county's boundaries when Middlesex and Essex Counties were created in 1682.

The river's commercial potential did attract settlers from both Elizabethtown and Woodbridge. North of Robinson's Branch, a settlement called Rahwack, later known as Upper Rahway, was the earliest. (District 1 in Figure 10.1) Another settlement grew on the Woodbridge side near what is now the Main Street business district. This section became known as Bridgetown, or Lower Rahway (District 5 in Figure 10.1). In addition, districts known as Milton (comprising historical structures numbered 47 to 51 on Maple Avenue in Table 10.1) and Leesville (Leesville Avenue Streetscape in Figure 10.1) were also developed, giving Rahway four distinct sections.

Some of the early settlers built mills along the river. In 1683 John Marsh built a sawmill near what is now Bridge Street (District 2 in Figure 10.1). A year later he built a grist mill a little farther south, near what is now the lower part of Main Street. Jonathan Bishop, a freeholder from Woodbridge,

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<sup>1</sup>This section was excerpted almost in its entirety from the Union County Historic Sites Inventory, 1982. References to historic districts, streetscapes and structures have been altered to be consistent with Figure 10.1.

constructed a grist mill on the South Branch near the present Hazelwood Avenue bridge, and in 1686, near his mill, he constructed the first bridge over the river. Several landings, Bishop's and Wright's, were created nearby (East Hazelwood Streetscape, on Figure 10.1).

By 1700 there were several roads to Rahway. In 1687 a road to Woodbridge from Wright's Landing had been built. Another important road ran from Elizabethtown to Rahway and followed what is now Linden Avenue to Main Street. Eventually, St. Georges Avenue, known also as the King's Highway, ran through Rahway on its course from Elizabethtown to Philadelphia.

In the early years of the eighteenth century, Rahway residents traveled to Elizabethtown or to Woodbridge for religious services. However, by 1741 the Presbyterians of Rahway had built a church on the west side of St. Georges Avenue, just north of the Road to West Fields (Westfield Avenue Streetscape, on Figure 10.1). The following year, Rahway Quakers left the Woodbridge Society of Friends, and by 1757 they had built a meeting hall on Main Street.

By 1770, the traffic on St. Georges Avenue was heavy enough to sustain five inns. They included the Merchants and Drovers Tavern and the Terrill Tavern (Westfield Avenue Streetscape, on Figure 10.1). Other inns were located in the Milton area.

Rahway Township was created by the Legislature on February 27, 1804, and included present day Rahway and Clark and sections of Cranford and Linden. Shortly after, an article in Boston's American Gazetteer described Rahway as "a lively commercial village of mid country...contains Presbyterian church and about fifty or sixty houses." The river continued to contribute to the growth of the area. Town orders had reserved public docks which aided the development of a shipping industry. By the latter part of the eighteenth century, Rahway was sending ships directly to Bristol, England, and in the 1820s vessels such as the "Nonpareil" and the "Bridgetown Rocket" were making weekly trips to New York from Rahway, carrying the many products which were manufactured in town. Brickmaking had been a local industry since the colonial period, and sloops regularly transported bricks to Manhattan. This was such a thriving enterprise that Rahway port was often referred to as Bricktown.

It was during this same period that Oliver Martin's Peace Tavern on Main Street (number 46 in Table 10.1) was the scene of a great celebration. On August 24, 1824, the Marquis de Lafayette was

**TABLE 10.1**  
**HISTORIC SITES INVENTORY**

<u>MAP #</u>	<u>STREET ADDRESS</u>	<u>COUNTY NUMBER</u>	<u>HISTORIC NAME</u>	<u>DEMOLISHED</u>	<u>HISTORIC INTEGRITY INTACT</u>	<u>LOCAL HISTORIC DESIGNATION RECOMMENDED</u>
1	263 E. Albert Street	201319		No	No	No
2	1853 Barnett Street	201320		No	No	No
3	1922-24 Barnett Street	201321		No	No	No
4	537 Bramhall Road	201313	McKenzie House	No	Yes	Yes
5	640 Central Avenue	201322		No	No	No
6	652 Central Avenue	201323		No	No	No
7	44 Elm Avenue	201305-1	Irving House	No	No	No
8	196 Elm Avenue	201304-2	Carolyn Wells House	No	No	No
9	215 Elm Avenue	201304-1	Jacob Shotwell House	Yes	No	No
10	104 W. Emerson Avenue	201303-1		No	Yes	Yes
11	688 & 692 E. Grand Avenue	201325		No	Yes	Yes
12	466 W. Grand Avenue	201301-1	First United Methodist Church	No	Yes	Yes
13	561 W. Grand Avenue	201301-2		No	Yes	Yes
14	994 Hamilton Street	201325-a		No	Yes	Yes
15	829 Hamilton Street	201325-b		No	Yes	Yes
16	809 Hamilton Street	201325-c		No	Yes	Yes
17	806 Hamilton Street	201325-d		No	Yes	Yes
18	575 W. Hazelwood Avenue	201326		No	No	No
19	593 W. Hazelwood Avenue	201318-a		No	Yes	Yes
20	622-626 W. Hazelwood Avenue	201327		No	No	No
21	647 W. Hazelwood Avenue	201328		No	Yes	Yes
22	1597-1600 Irving Street	201305-2	Union County Arts Center	No	Yes	Yes
23	1670 Irving Street	201301-3	Claude Reed Center	No	Yes	Yes

**TABLE 10.1**  
**HISTORIC SITES INVENTORY**  
**(Continued)**

<u>MAP #</u>	<u>STREET ADDRESS</u>	<u>COUNTY NUMBER</u>	<u>HISTORIC NAME</u>	<u>DEMOLISHED</u>	<u>HISTORIC INTEGRITY INTACT</u>	<u>LOCAL HISTORIC DESIGNATION RECOMMENDED</u>
24	549 Jacques Avenue	201335		No	No	No
25	609 Jacques Avenue	201334		No	No	No
26	629 Jacques Avenue	201333		No	No	No
27	800 Jacques Avenue	201332		No	Yes	Yes
28	860 Jacques Avenue	201331		No	Yes	Yes
29	940 Jacques Avenue	201330		No	No	No
30	978 Jacques Avenue	201329		No	No	No
31	616 Jefferson Avenue	201337		No	Yes	Yes
32	777 Jefferson Avenue	201336		Yes	No	No
33	149 E. Lake Avenue	201338*		Yes	No	No
34	24 W. Lake Avenue	201342		Yes	No	No
35	541 W. Lake Avenue	201341		No	Yes	Yes
36	1019 W. Lake Avenue	201340		No	Yes	Yes
37	1067 W. Lake Avenue	201339		No	Yes	Yes
38	Westfield Avenue	201315	Rahway Water Works	No	Yes	Yes
39	1797 Lawrence Street	201302-1	Washington Public School	Yes	No	No
40	1797 Lenington Street	201316-a	Housman House	No	Yes	Yes
41	656 W. Lincoln Avenue	201343		No	Yes	Yes
42	532 Linden Avenue	201316	Tingley House	No	Yes	Yes
43	946 Main Street	201344		Yes	No	No
44	958 Main Street	201345		Yes	No	No
45	1074 Main Street	201346		No	No	No
46	1541-1543 Main Street	201305-3	Peace Tavern	No	No	No

**TABLE 10.1  
HISTORIC SITES INVENTORY  
(Continued)**

<u>MAP #</u>	<u>STREET ADDRESS</u>	<u>COUNTY NUMBER</u>	<u>HISTORIC NAME</u>	<u>DEMOLISHED</u>	<u>HISTORIC INTEGRITY INTACT</u>	<u>LOCAL HISTORIC DESIGNATION RECOMMENDED</u>
47	515 Maple Avenue	201351		No	No	No
48	519 Maple Avenue	201350		No	No	No
49	545 Maple Avenue	201349		No	No	No
50	550 Maple Avenue	201348		No	No	No
51	560 Maple Avenue	201347		Yes	No	No
52	1024 Maurice Avenue	201352		No	No	No
53	1134 Midwood Drive	201353		No	Yes	Yes
54	738 E. Milton Avenue	201354		No	No	No
55	122 W. Milton Avenue	201303-2	William Mershon House and Mershon & Co. Printing Office	No	No	No
56	775 New Brunswick Avenue	201355		No	No	No
57	1433 New Church Street	201357		No	No	No
58	1437 New Church Street	201356		No	No	No
59	131-135 Oak Street	201358		No	No	No
60	1729 Patterson Street	201359		No	No	No
61	2062 Price Street	201317	Cladek House	No	Yes	Yes
62	2182 Price Street	201360		Yes	No	No
63	548 Race Street	201361		No	No	No
64	651 River Road	201301-6	Archibald Jardine House	No	Yes	Yes
65	701 St. Georges Avenue	201367		No	Yes	Yes
66	1276 St. Georges Avenue	201366		No	Yes	Yes
67	1500 St. Georges Avenue	201314	Mershon House	No	Yes	Yes

in character. Rahway families began subscribing to telephone service, and by the end of the decade trolleys, operated by the Rahway Electric Street Railway Co., ran through the city. The gas lamps were replaced by more modern electric fixtures, and the W.L. Mershon Company (number 55 in Table 10.1) was about to become the country's largest printing and publishing firm.

The turn of the century marked the end of the carriage industry in Rahway, but the city's location on the railroad spurred the growth of many new enterprises, most notably Merck and Co., which began as a small chemical company in 1903 along the rail line just north of East Scott Avenue. In 1906 the Mershons sold their business to Quinn and Boden, and in 1907 the Wheatena Company was established at the corner of Elizabeth Avenue and East Grand Avenue. Due to the concentration of industry in that area, lots were laid out on Elizabeth Avenue for small workers' houses, and the surrounding area began to develop. However, most residential development was spreading south and west. The area south of Hazelwood Avenue was largely undeveloped, and there was a vast uninhabited section west of St. Georges Avenue. By the 1930s, development had begun in both sections. The industrial growth of the previous two decades had resulted in the need for three new schools and two more banks, and the landscape of the city was changing. Open space was disappearing. The railroad had been elevated in 1914, and in the 1920s State Highway 25 (later U.S. Route 1) had cut through the eastern portion of town. The poor farm land west of St. Georges Avenue on the North Branch was no longer needed for that purpose, and Rahway River Park, a large county park, was created to serve the recreational needs of the growing community. Downtown, houses had been converted to commercial use with the addition of storefronts, and on the corner of Main and Irving, the million dollar Rahway Theater (now the Union County Arts Center, number 27 in Table 10.1) had been built.

Although the Depression and World War II undoubtedly had an impact on the city, the post-war period was to have the greatest impact of the modern era. There was a rash of housing development in the western part of Rahway. Between West Lake Avenue and the Colonia border, a development of colonial-style houses was begun in the 1940s. West of Jefferson Avenue, the area between Westfield Avenue and Milton Avenue was subdivided into small lots, and a large development of Cape Cod style houses was constructed in the 1950s, drawing many new residents to the city. In addition, because of a need for low-income housing, a low-rise project was erected on Leesville Avenue. Many older houses throughout the city, but particularly on St. Georges Avenue, were destroyed and their lots were subdivided to make room for newer houses and apartments. Others were con-



verted to two-family dwellings. Hurricanes and street widenings caused tree losses, and the character of some neighborhoods was altered. The 1960s era of urban renewal saw the razing of many of Rahway's older structures along the Rahway River, between East Milton Avenue and East Hazelwood Avenue (District 6 in Figure 10.1).

### 10.3 RAHWAY'S HISTORIC DISTRICTS

#### **District I: Upper Rahway**

**History:** Development in the district first appeared in the late seventeenth century, possibly as early as 1666, as parts of Elizabethtown, the first English settlement in New Jersey. The Battle of Spanktown of the Revolutionary War is thought to have been fought at the edge of the district, near Rahway River Park. George Washington visited this area of Rahway during the war and traveled on St. Georges Avenue on the way to his inauguration. The first state mint was operated in the district in the late eighteenth century, the first to print coins which included "E Pluribus Unum." A thriving carriage industry developed in the district in the nineteenth century, many former factory buildings of which are still standing.

**Description and Significance:** An area of 30 to 32 blocks with over 600 structures dating from the eighteenth and nineteenth centuries, most structures are frame single and two-family units with mixed residential and residential/commercial buildings. It includes six churches (including two from the mid-nineteenth century), a nineteenth century firehouse, Rahway's original library and three stone arch bridges. While many of the homes have undergone historically inappropriate renovations or alterations—such as the addition of storefronts, front porches or modern siding or roofing—the district still retains some semblance of the integrity and coherence of a mid-nineteenth century city with respect to the scale, pattern and architectural detail of the vernacular housing.

#### **District II: Washington School District**

**History:** The area was first developed in the late 1660s. In 1683 a saw and planing mill was constructed on the Rahway River west of the present railroad tracks. Several homes were added along the west bank of the river by the end of the eighteenth century, with a total of more than 50 homes by the mid-nineteenth century. During the next half-century it developed as a small commercial-

**TABLE 10.1**  
**HISTORIC SITES INVENTORY**  
**(Continued)**

<u>MAP #</u>	<u>STREET ADDRESS</u>	<u>COUNTY NUMBER</u>	<u>HISTORIC NAME</u>	<u>DEMOLISHED</u>	<u>HISTORIC INTEGRITY INTACT</u>	<u>LOCAL HISTORIC DESIGNATION RECOMMENDED</u>
68	2004 St. Georges Avenue	201318*	Marsh House	Yes	No	No
69	2223 St. Georges Avenue	201365		No	No	No
70	2344 St. Georges Avenue	201364		No	No	No
71	972 Thorn Street	201368		No	No	No
72	978 Thorn Street	201369		No	No	No
73	995 Thorn Street	201371		No	No	No
74	1019 Thorn Street	201371		No	No	No
75	537 Union Street	201301-5	Terrill House	No	Yes	Yes
76	2100 Whittier Street	201372		No	Yes	Yes

entertained there. He was greeted on St. Georges Avenue by the town cavalry and escorted into town. A floral arch extended from the tavern across Main Street, and thirteen young ladies, representing the thirteen colonies, threw flowers in his path.

The coming of the New Jersey Railroad in 1835 accelerated the development of Rahway; many new firms and residents were attracted to the town. In 1837, there were 3,000 people living in Rahway. By 1856 the town's population had grown to 7,000. At the same time, Rahway grew to be the new county's most industrialized municipality (1860), employing 1,793 men and women and producing over half the dollar value of manufactured goods in the County. Foremost among Rahway's industries was carriage making. Thirty-nine shops employing 710 men produced \$803,900 worth of goods, which amounted to thirty percent of the county's manufacturing income. Rahway was aptly labeled "Carriage City of the World." Most of the carriages were sold in the South, and the Civil War threatened to drive Rahway into bankruptcy. However, most firms were able to survive and many prospered by producing equipment for the Union army. Although there was a slight decline in the number of carriage businesses after the war, the industry thrived until the advent of the automobile. Another important industry in Rahway in the mid-nineteenth century was manufacture of clothing. Five firms employing 750 men and women—mostly the latter—produced \$229,000 in clothing.

Rahway was incorporated as a city on May 12, 1858, the year following the formation of Union County. In 1861, with the formation of Linden Township, and the addition of a ward to the city, the Township of Rahway came to an end. Three years later, in 1864, the last ward added became the separate Township of Clark.

The year of incorporation, 1858, also marked the inception of the Rahway Library, which was chartered in 1864. In 1869 a library building was erected at the corner of Seminary Avenue and Irving Street (now the Claude Reed building, number 23 in Table 10.1). This was just one indication that Rahway was becoming a sophisticated, urban community. The Rahway Gas Light Company (1857) (District 3 on Figure 10.1) was lighting the city streets, and there were three banks and three hotels in the central business district. In 1874 George Gordon, inventor of the Fordham printing press, built a \$100,000 opera house on Irving Street, and by the 1880s Rahway's wealthier residents were building new houses in a previously undeveloped section of the city west of the Irving Street/Main Street area (District 4 in Figure 10.1). Large houses soon lined both Elm Avenue and Milton Avenue. Unlike older sections of the city where mixed use prevailed, this new section was completely residential

industrial center, and more homes were added. Washington School was added in 1894. (This structure was demolished a few years ago to make way for the Rahway Geriatric Center). A hotel (at 285-289 Monroe Street) and a three story commercial/residential block (246 Monroe Street) was also built around this time.

**Description and Significance:** The district contains 160 structures, and while the Washington School has been demolished and modern commercial establishments have been added (on Essex Street), the district is still comprised primarily of late eighteenth and nineteenth century vernacular homes—single-family houses built on small lots close to the street. While some homes still have their original clapboard siding and slate or metal roofs, most now have had these replaced with synthetic siding and roofing, and modernized fenestration. Until a few years ago the retention of a significant amount of architectural detail in many of these homes imparted the feel and character of nineteenth century development. The district also has late nineteenth and early twentieth century structures, of which the Washington School (1897), a large brick Georgian Revival school, was the most visible, until demolished in the early 1980s. The demolition of this school and other historic homes in the district has substantially diminished the area's historical character.

### **District III: Regina District**

**History:** In the mid-nineteenth century this district was lightly developed with a mix of commercial and residential uses (between Elm and W. Emerson Streets). Several coach-making establishments were located on Milton and Irving Streets, with a hub factory on Cherry Street. The latter half of the nineteenth century saw the development of St. Mary's Church (1856), the Black School, the Gas Right Company (in 1857—which was the first to provide street illumination for Rahway), and additional small houses, carriage sash and blind shops, two hotels, and a printer. The Regina Company established its factory in 1896, and was at that time one of Rahway's principal industries. Rahway High School was built on Campbell Street in 1909, later serving as Rahway City Hall (1930 to 1982). In the early 1930s the Rahway Post Office was built on Esterbrook. (Both the City Hall and post office operations have relocated, but these buildings remain.)

**Description and Significance:** The district encompasses a fringe of downtown Rahway, with mixed residential, commercial, civic, religious and manufacturing establishments. It comprises ±190 structures. The street pattern is a modified grid—patterned along the Rahway River and Robinson's

Branch. Buildings are sited close to the street, which, with the exception of Milton Avenue, are quiet neighborhood streets.

The majority of the buildings in the district are pre-1900 structures—small, single-family, front gabled frame houses, two or three bays across and two-and-a-half stories high. Asphalt roofing, modern siding and front porches have altered their appearance. While this dominates the district, double-houses in more simple vernacular styles in the latter half of the nineteenth century were built, as well as larger, formal houses on Emerson and Esterbrook Avenues.

Aside from these homes, the civic/religious and manufacturing structures of the late nineteenth and early twentieth century are historically and architecturally significant. Since the end of World War II, the neighborhood has lost much of its vitality and seems cut off from the downtown, although many of its nineteenth century elements remain.

#### **District IV: Vail/Shotwell**

**History:** Land in this district was originally owned by Jacob Shotwell and Benjamin Vail in the middle of the nineteenth century. The area remained largely undeveloped until the 1860s, when it was subdivided and residences were built for Rahway's growing number of merchants, professionals and industrialists and those who commuted to work in larger cities nearby. Besides the homes of a number of Rahway's prominent citizens (Jacob Shotwell himself, Carlyn Wells, and La Forge), it contained the Ilderon Club, the most prominent social organization in the city from 1890 onwards.

**Description and Significance:** It is a coherent residential district of the late nineteenth and early twentieth century with a variety of fashionable styles of the period. Homes are located on lots which are larger than those found in most districts in Rahway. The consistency of building setbacks, lot sizes, landscaping, and the quality of materials and scale of structures create an overall visual unity. The different architectural styles contribute to the richness and depth of controlled variation and chronicle the changing fashion in homestyles at the turn of the century. While homes on St. Georges Avenue have been replaced by modern commercial structures, the district is significant for its concentration of middle and upper-middle class housing from the late nineteenth century. While the demolition of several significant buildings (such as the Jacob Shotwell House and the Nicholas Mooney House) and the inappropriate alteration of others has diminished its architectural and historic

character, the architectural styles employed in the district over the seventy years of major development is varied, and representative examples of almost every popular classical and picturesque domestic style can be found within the district.

#### **District V: Lower Rahway/Main Street**

**History:** Once called Bridgetown or Lower Rahway, this district was one of the four early settlements in the Rahway area. Settled in the early 1700s, a Meeting House was built in the district in the mid-eighteenth century. This was an early sign of the independence of the people of Lower Rahway from the affairs of Woodbridge Township, of which Lower Rahway was a part until 1858.

By the early 1800s the area was "a lively commercial village" with shops and carriage factories. Two or more dozen of these manufacturers or related enterprises made Rahway one of the top carriage manufacturing centers of the world. The Rahway River was also an important center of transportation for the manufacturers and farmers of the area. The railway, laid out in 1834, served Rahway's importers as a commercial and light manufacturing center. The district was consolidated, and acquired its present scale by the turn of the century.

After the Second World War the commercial vitality began to dissipate, as business shifted to St. Georges Avenue. A trend toward smaller and more modern buildings accelerated. A renewed interest in the historic qualities of the downtown is one of the factors spurring revitalization efforts by merchants, citizens and the administration of Rahway.

**Description and Significance:** Since the early 1800s, this area has been the commercial center of Rahway. One-third of the buildings were constructed prior to 1900, another one-third between 1900 and World War II, and the remaining third since that time. The district encompasses Main Street and Irving Street from Milton Avenue to Hamilton Street. With buildings fashioned in a variety of styles, this district has the feeling of a small late-nineteenth century downtown. There is a continuity in the massing and scale of buildings, particularly along Main and East Cherry Streets, most of which are attached two- and three-story structures. Irving Street for the most part has unattached one- and two-story buildings. Although primarily commercial in nature, aspects of the village residential scale still persist, such as along Elm Street. The renovation of the Old Rahway Theater—now the Union County Arts Center—has given historic preservation in the district a tremendous boost.

## **District VI: Second Presbyterian Church/Columbia School**

**History:** This district derives its historic importance from a number of factors: first, a revolutionary war skirmish was fought here (on the site of the Second Presbyterian Church); second, a number of notable Rahway families lived here (the Edgars, Shotwells and Jaques); and third, several educational and religious institutions were founded here.

This district is a portion of the area that was originally known as Leesville, named after a prominent family of local landowners. It was one of four communities located on the Rahway River which collectively became the Township of Rahway in 1804, and incorporated as the City of Rahway in 1858. This district began to develop in the late eighteenth century, and by the mid-nineteenth century was well established. The Second Presbyterian Church and one of Rahway's first two public schools, the Columbian, were constructed in 1851. Several forgers, a pottery and a carriage factory were established in the area. The area continued to be subdivided and transformed from farmland to housing into the early twentieth century.

**Description and Significance:** The district consists of three blocks and more than 100 structures. Most are frame single- and two-family residences, with a few commercial buildings and one apartment house. The district includes the Columbian School (built in 1897), now the Rahway Day Care Center, and the mid-nineteenth century Second Presbyterian Church. Homes are located on small, narrow lots close to the street. Common alterations, many of which are inappropriate, include the addition of porches, modern windows and synthetic siding. From an architectural viewpoint, the district is testament to a variety of nineteenth and early twentieth century vernacular residential architecture.

## **District VII: Fulton Street**

**History:** This district was at the perimeter of Lower Rahway at the time of the city's incorporation in 1858. At that time, the streets had been laid out, but only a few buildings had been constructed. Development concentrated along the New Jersey Rail Road, laid down in 1853. Development intensified thereafter and became integrated with burgeoning development from the center of the city. Many of the older homes along the railroad were demolished to make way for track expansion.

**Description and Significance:** Containing 72 structures, this district embodies Rahway's architectural development since the mid-nineteenth century and maintains the consistency in the pattern of development established in the downtown in the nineteenth century. Representative of small city growth in New Jersey during this era, many important structures to the district's east were eliminated to make way for the new municipal center, fire station and post office.

#### **District VIII: Grand Street Chapel District**

**History:** Little development took place in this area prior to the mid-nineteenth century. Thereafter, the area was subdivided into building lots and a few homes were constructed. New industries began to locate along the railroad, and worker housing was constructed. Merck began manufacturing chemicals just north of the district in 1903, and numerous smaller industries followed.

**Description and Significance:** The district contains 100 residential structures, several commercial buildings and a church. The homes—predominantly single-family, with a few two-family homes—are modest in size and set close to the street on narrow lots. The majority are vernacular Victorian structures built prior to 1905. The majority of the buildings have undergone alterations such as the application of synthetic siding, alteration of porches and fenestration, and removal of architectural detail. The most prominent structure in the district was the Grand Street Chapel, which has been demolished. The district's historical significance relates to its development in response to the location of modern industry along the railroad.

### 10.4 HISTORIC STREETS CAPES

#### **Streetscape I: Westfield Avenue**

**History:** St. Georges Avenue, the King's Highway, was an early road between Elizabethtown and Philadelphia, and Westfield Avenue was originally an Indian trail from the Watchung Mountains to the Arthur Kill. With its proximity to the North Branch of the Rahway River slightly north of these cross-roads, the area was an ideal location for a settlement, and indeed was developed as such in the latter part of the seventeenth century. The First Presbyterian Church was constructed at the cemetery in 1741, and several inns and taverns were built. (The church is now gone.) The Merchant's and Drover's Tavern, which is perhaps Rahway's most historically significant remaining building, was



constructed in 1750, and the Terrill Tavern, now standing behind it, was constructed north of the Robinson's Branch on St. Georges Avenue. Both taverns were active during the Revolutionary War, and many soldiers and patriots from that era are buried in the adjacent cemetery. The grave site of Abraham Clark, a signer of the Declaration of Independence, is in this cemetery.

**Description and Significance:** The streetscape includes two colonial taverns, a colonial cemetery and building, and several historic homes dating from the late eighteenth and mid-nineteenth centuries. The key structures are the Merchant and Drover's Tavern, Terrill Tavern, and Rahway Cemetery House—all colonial structures.

Although this streetscape is heavily traveled, the properties are in good condition and the streetscape retains much of its character. The Rahway Historical Society owns both taverns, and owners of the homes in the streetscape, aware of their historical significance, have made commendable efforts to preserve their homes. The Merchant's and Drover's Tavern is now a museum, and recent research and an historic structures report have yielded plans and specifications for full interior restoration. Permanent exhibits and interpretive events are planned, pending funding being made available for these purposes.

### **Streetscape II: Leesville Avenue**

**History:** The street was named after the Lee family, early property owners in the area. Leesville Avenue was at the eastern boundary of one of the four original communities within Rahway. In the 1850s several houses had been built on the east side of the street; Leesville Pond was located south of the Mill Street bridge and the Leesville Dyeing and Printing Establishment was located on the west side of the avenue.

At the time the County's historic survey was undertaken, the streetscape consisted of approximately a dozen homes based on vernacular Georgian and Federal house plans from the mid-eighteenth century and Victorian homes from the late nineteenth and early twentieth centuries. Many of these houses have since been demolished. Of the remainder, alterations such as the addition of front porches or application of synthetic siding has diminished their historic appearance. Others have deteriorated and have been abandoned.

### **Streetscape III: East Hazelwood Avenue**

**History, Description and Significance:** The four homes originally in this district were built in 1780, 1819, 1856 and 1875 respectively, demonstrating a progression of architectural/historical development in Rahway. Originally part of the Village of Leesville, nearby demolition of homes for commercial development has somewhat isolated this area. Furthermore, all but one of the four homes is still standing.

## 10.5 HISTORIC SITES

A listing of all historic sites in Rahway identified by the 1982 County Survey is provided in Table 10.1 and shown on Figure 10.1. It should be noted that such historic sites are found both inside and outside of the above-referenced historic districts and historic streetscapes.

Recently, the City conducted a review of all of the historic sites listed in the County Survey, in order to update the list and verify the sites' or structures' historic appearance. The survey, conducted in 1996, approximately fourteen years after the County Survey, revealed that several structures had been entirely demolished, while a number of others had undergone such substantial alteration as to have lost their original historic appearance. Table 10.1 thus reflects which properties from the County survey have been demolished and of the remainder, those which are still worthy of local historic designation. A total of 31 structures are thus considered worthy of local historic designation.

## 10.6 RECOMMENDATIONS

The County's identification of historic districts streetscapes and sites provides an excellent basis upon which to review the City's historic resources. It also helps to provide an understanding of Rahway's history, and of the events and time periods within which the City's commercial, industrial and residential areas were developed and occupied. In this respect, the above analysis can also provide an additional context in which to review applications for new development or redevelopment, particularly those that require discretionary reviews, i.e., variances or rezonings. The character of the existing neighborhoods and the impact that new development or redevelopment will have on these areas will to some extent be dictated by their historical context, and the era in which they were developed.

In many situations such reviews can rely upon the above analysis for information and for a context in which to judge their merits or shortcomings. At the same time, as evidenced in the analysis, many of these districts have lost all or some semblance of their character. The demolition of particular historic landmarks or buildings, or the substantial alteration of buildings within these districts with features, elements and materials which are inconsistent with their original or vernacular design, have so altered their appearance that they are not representative of the era in which they were built. Whereas in some areas of Rahway such alterations are neither substantial nor ubiquitous, in most of the historic districts they are so commonplace and widespread that the "consistency" of historic design, that ingredient which is paramount in designating a district worthy of special protection and preservation, is missing. Moreover, these alterations are of such a nature that the basic historic elements cannot easily be restored. Some have been altered substantially, so as to have lost all of their historic appearance; in other cases additions, or siding or windows, doors or roofs, have been changed to such a degree that their historic appearance is totally masked.

As such, these areas are not suitable and appropriate for local designation as an historic district. Nevertheless, it is important to note that where individual or small groups of buildings which are not themselves designated as historic buildings or streetscapes, but which do have recognizable historic elements or are representative of a particular vernacular design, that reviewing agencies encourage their redevelopment in a manner which retains their historic character. While such reviews may not carry the weight of historic designation and as such, such buildings would not have to meet the legally-adopted standards or criteria for review, nevertheless, such historically appropriate alterations or redevelopment should be encouraged. This may take the form of encouraging an applicant to have the siding material, or the door and window sizes, shape and placement to be consistent with the existing design and elements of the home. The placement, scale and massing of new additions should complement rather than overwhelm buildings which have retained their historic design. New features or elements should not mask views of such buildings. Design which is sensitive to historic features and architecture should be encouraged everywhere where it is appropriate in Rahway, whether these buildings or areas have been included in the locally designated historic districts or streetscapes or not. In this regard, the above analysis can provide the staff, officials and reviewing agency with a context or reference within which to view such development or redevelopment applications. Finally, new buildings which are placed in the context of neighborhoods or streets which ex-

hibit some semblance of historic character should also be designed in such a way as to be consistent with and complement the neighborhood or street. Jarringly different designs should be discouraged.

Based upon the above analysis it is recommended that the area identified as "District V: Lower Rahway/Main Street," be designated as a "local historic district," and the streetscape identified as "Westfield Avenue Streetscape," be designated as a "local historic streetscape," and the list of buildings identified as "Historic Sites," which remain standing and have retained their historic integrity, be designated as "historic sites."<sup>2</sup> As per the Municipal Land Use Law, the City Council of Rahway should pass an historic preservation ordinance with just such a designation. The Council should also appoint an Historic Commission to review and recommend to all reviewing agencies (i.e., Planning Board, Zoning Board and City Council) any application for development or building permit that is within an historic districts, an historic streetscape or involving any historic site, or which is within two hundred feet of such historic districts, streetscapes or sites. In addition, the city planner, zoning officer or any of the reviewing agencies should at their discretion be permitted to send any application for a building permit or development that in their opinion has the potential to impact historic resources identified in this element of the master plan, to the Historic Commission for their review and recommendation. It should be noted that in all circumstances the role of the Historic Commission would be solely advisory, and not binding upon any reviewing agency. In order to aid the Historic Commission in their review, an objective list of standards or criteria for review should be established in the historic preservation code.

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<sup>2</sup>The "Lower Rahway/Main Street District" should be modified to coincide with the SID boundaries of the Central Business District.

## **11. RECYCLING PLAN ELEMENT**

### **11.1 INTRODUCTION**

The New Jersey Statewide Mandatory Source Separation and Recycling Act of 1987 requires that municipal master plans include a recycling element which incorporates the State's Recycling Plan goals for the collection, disposition and recycling of materials designated in the City's Recycling Ordinance. In addition, the New Jersey Statewide Mandatory Source Separation and Recycling Act requires that site plan and subdivision ordinances include provisions for the collection, disposition and recycling of designated recyclable materials within any development proposal for the construction of:

- 50 or more single-family homes
- 25 or more units of multi-family residential housing
- any commercial or industrial development proposal for the utilization of 1,000 square feet or more of land.

The City of Rahway, in adopting its Recycling Plan, recognizes that separating recyclable materials from the solid waste stream will extend the life of existing landfill facilities, conserve energy and valuable natural resources, and increase the supply of reusable raw materials for industry. The City also recognizes that recycling will reduce demands on the Union County Resource Recovery Facility which will, in turn, result in significant cost savings in fees paid by the City to this facility.

### **11.2 RAHWAY'S RECYCLING PROGRAM**

#### **Materials Collected and Recycled**

In response to the Statewide Mandatory Recycling Act, Rahway adopted an ordinance in December of 1987 establishing a mandatory recycling program and authorizing the position of recycling coordinator to manage the program. Since then, the program has grown as the Union County Recycling Plan has become more comprehensive, and as new markets for recycled materials have developed. The City now requires that all residents separate the following materials from their regular solid waste for recycling:

- Vehicle batteries
- Used motor oil

- Glass containers
- Newspaper
- Corrugated cardboard
- PET and HDPE plastics
- Mixed paper
- Tin and bimetal cans
- Grass, brush and wood
- Household batteries
- White goods (appliances)

Commercial, institutional and governmental entities must also separate office paper. Window glass, drinking glasses, mirrors, crystal and Pyrex are not accepted for recycling.

### **Collection of Recyclables**

Two Rahway agencies are responsible for the recycling program: the Public Works Department, which collects yard and construction waste, and the Office of Recycling, which collects all other recyclables (see Table 11.1).

Newspaper, aluminum cans, glass containers, corrugated cardboard, mixed paper, tin and bimetal cans, and household batteries are collected from residences twice a month at curbside by a private hauler under contract by the Office of Recycling. The Office of Recycling itself collects these materials from businesses downtown; most other businesses have independent haulers. Yard waste is picked up by the Public Works Department along with regular garbage pickup. Bulky items, such as household appliances, scrap metal, concrete, asphalt and stone are picked up at curbside by appointment. Some materials must be dropped off at collection points for recycling. Vehicle batteries are returned to the point of sale or taken to a salvage yard. The firehouse on Main Street accepts motor oil and aluminum cans. The City also provides containers for books and used clothing behind City Hall, and at two other locations in the City. After they are collected, most recyclables are taken to a private materials recycling facility in Union County, where they are sorted, separated and marketed.

To prepare materials for curbside pickup, tenants, occupants and owners of residences without a management system in place must separate, bundle and tie newspapers, mixed paper and corrugated cardboard. Glass and metal containers are commingled in sturdy reusable containers, and household batteries are put in clear plastic bags.

TABLE 11.1

RECYCLING PROGRAM IN RAHWAY

Material	Origin	Collection Agency/Hauler	Destination
<ul style="list-style-type: none"> <li>• Glass containers</li> <li>• HDPE and PET plastics</li> <li>• Mixed paper (inc. office paper)</li> <li>• Newspapers</li> <li>• Aluminum, tin, bimetal</li> <li>• Corrugated cardboard</li> </ul>	Residences	Advance Recycling Technology Systems (ARTS) (Linden)	ARTS Materials Processing Facility
	Businesses	Recycling Office	ARTS
<ul style="list-style-type: none"> <li>• Household batteries</li> </ul>	Residences	ARTS	ARTS Materials Processing Facility
	Businesses	Recycling Office	ARTS
	Battery recovery containers distributed around Rahway	Recycling Office	ARTS
<ul style="list-style-type: none"> <li>• Yard waste</li> </ul>	Residences & Businesses (Oct.-Mar.)	Public Works Dept.	Highest bidder
	Residences & Businesses (Apr.-Sept.)	White Brothers Trucking (Elizabeth)	Various markets
<ul style="list-style-type: none"> <li>• White goods (appliances)</li> </ul>	Residences & Businesses	Recycling Office	Riverside (Avenel), and other local junk yards
<ul style="list-style-type: none"> <li>• Concrete, asphalt, stone</li> </ul>	Residences & Businesses	Public Works Dept.	SD&G Aggregates (Carteret) and Grasselli Point Industries (Linden)
<ul style="list-style-type: none"> <li>• Household hazardous waste</li> </ul>	Various collection points in Union County, 6 times/year	Various municipalities in Union County (Rahway is the collection point once a year)	Highest bidder
<ul style="list-style-type: none"> <li>• Clothing and used books</li> </ul>	Three collection points; City Hall, Dairy Farms, Galaxy Diner	Renaissance Books and others	Overseas

Waste from Union County that is not separated and recycled is received by the Union County Resource Recovery Facility, opened in February of 1994, and combusted. Waste combustion produces energy in the forms of steam and electricity which is sold to utility companies. The Resource Recovery Facility separates and recycles 20 tons of ferrous metals from the residue after combustion, then trucks the rest to disposal sites in Pennsylvania. (The operation of the Union County Resource Recovery Facility, which is located in Rahway, is more fully described in the Economic Plan Element.)

### 11.3 RECYCLING PLAN RECOMMENDATIONS

In 1991, Union County endorsed a goal of recycling 60% of all solid waste by January 1995. In Union County in 1995, 56 percent of the solid waste stream was recycled. The County is working on new programs to increase the proportion of solid waste that is recycled. Rahway is currently working with the County Solid Waste Authority on one new initiative, a program to collect, de-manufacture and re-use or recycle electronic equipment such as televisions, stereos, computers and other electronic equipment. This and other new recycling programs may be implemented in the future.

It is also recommended that Rahway revise their site plan and subdivision regulations in order to comply with the New Jersey Statewide Mandatory Source Separation and Recycling Act. These amendments should be as follows:

1. For each application for 50 or more single-family dwelling units, the applicant shall provide a storage area of 12 square feet within each dwelling unit to accommodate a four-week accumulation of designated recyclable materials. The storage area may be located in a laundry room, garage, basement, or kitchen.
2. For each application for 25 or more multi-family dwelling units, the applicant shall provide a storage area of 3 square feet within each dwelling unit to accommodate a one-week accumulation of designated recyclable materials. The Municipal Agency (Planning Board or Zoning Board of Adjustment) may require the applicant to designate a centralized storage area for recyclable materials.
3. For each application for commercial or industrial development utilizing 1,000 or more square feet of land, the applicant shall provide the Municipal Agency with estimates of the amount of recyclable materials to be generated each week. The Municipal Agency may require the appli-



cant to provide metal receptacles for the storage of recyclable materials within the refuse storage area.

CHAPTER 12 -  
MUNICIPAL STORMWATER  
MANAGEMENT PLAN

# **Municipal Stormwater Management Plan**

for the

**City Master Plan**

**in the City of Rahway, Union County, New Jersey**

**March 2005**

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## **Introduction**

This Municipal Stormwater Management Plan (MSWMP) documents the strategy for the City of Rahway (“the City”) to address stormwater-related impacts. The creation of this plan is required by N.J.A.C. 7:14A-25 Municipal Stormwater Regulations. This plan contains all of the required elements described in N.J.A.C. 7:8 Stormwater Management Rules. The plan addresses groundwater recharge, stormwater quantity, and stormwater quality impacts by incorporating stormwater design and performance standards for new major development, defined as projects that disturb one or more acre of land. These standards are intended to minimize the adverse impact of stormwater runoff on water quality and water quantity and the loss of groundwater recharge that provides baseflow in receiving water bodies. The plan describes long-term operation and maintenance measures for existing and future stormwater facilities.

The plan also addresses the review and update of existing ordinances, the City Master Plan, and other planning documents to allow for project designs that include low impact development techniques. The final component of this plan is a mitigation strategy for when a variance or exemption of the design and performance standards is sought. As part of the mitigation section of the stormwater plan, specific stormwater management measures are identified to lessen the impact of existing development.

## **Goals**

The goals of this MSWMP are to:

- reduce flood damage, including damage to life and property;
- minimize, to the extent practical, any increase in stormwater runoff from any new development;
- reduce soil erosion from any development or construction project;
- assure the adequacy of existing and proposed culverts and bridges, and other in-stream structures;
- maintain groundwater recharge;
- prevent, to the greatest extent feasible, an increase in non-point pollution;
- maintain the integrity of stream channels for their biological functions, as well as for drainage;
- minimize pollutants in stormwater runoff from new and existing development to restore, enhance, and maintain the chemical, physical, and biological integrity of the waters of the state, to protect public health, to safeguard fish and aquatic life and scenic and ecological values, and to enhance the domestic, municipal, recreational, industrial, and other uses of water; and
- protect public safety through the proper design and operation of stormwater basins. To achieve these goals, this plan outlines specific stormwater design and performance standards for new development. Additionally, the plan proposes stormwater management controls to address impacts from existing development. Preventative and corrective maintenance strategies are included in the plan to ensure long-term effectiveness of stormwater management facilities. The plan also outlines safety standards for

stormwater infrastructure to be implemented to protect public safety

### **Stormwater Discussion:**

Land development can dramatically alter the hydrologic cycle (See Figure C-1) of a site and, ultimately, an entire watershed. Prior to development, native vegetation can either directly intercept precipitation or draw that portion that has infiltrated into the ground and return it to the atmosphere through evapotranspiration. Development can remove this beneficial vegetation and replace it with lawn or impervious cover, reducing the site's evapotranspiration and infiltration rates. Clearing and grading a site can remove depressions that store rainfall. Construction activities may also compact the soil and diminish its infiltration ability, resulting in increased volumes and rates of stormwater runoff from the site. Impervious areas that are connected to each other through gutters, channels, and storm sewers can transport runoff more quickly than natural areas. This shortening of the transport or travel time quickens the rainfall-runoff response of the drainage area, causing flow in downstream waterways to peak faster and higher than natural conditions. These increases can create new and aggravate existing downstream flooding and erosion problems and increase the quantity of sediment in the channel. Filtration of runoff and removal of pollutants by surface and channel vegetation is eliminated by storm sewers that discharge runoff directly into a stream. Increases in impervious area can also decrease opportunities for infiltration which, in turn, reduces stream base flow and groundwater recharge. Reduced base flows and increased peak flows produce greater fluctuations between normal and storm flow rates, which can increase channel erosion. Reduced base flows can also negatively impact the hydrology of adjacent wetlands and the health of biological communities that depend on base flows. Finally, erosion and sedimentation can destroy habitat from which some species cannot adapt.

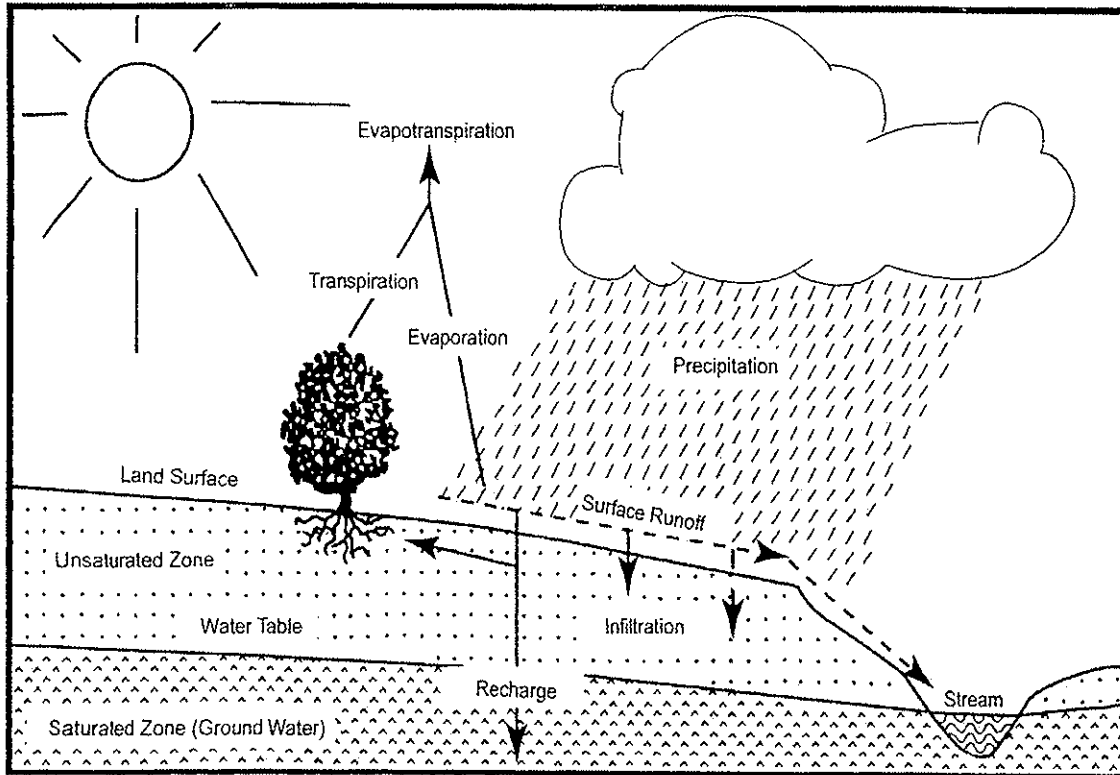


Figure C-1: Groundwater Recharge in the Hydrologic Cycle

Source: New Jersey Geological Survey Report GSR-32.

In addition to increases in runoff peaks, volumes, and loss of groundwater recharge, land development often results in the accumulation of pollutants on the land surface that runoff can mobilize and transport to streams. New impervious surfaces and cleared areas created by development can accumulate a variety of pollutants from the atmosphere, fertilizers, animal wastes, and leakage and wear from vehicles. Pollutants can include metals, suspended solids, hydrocarbons, pathogens, and nutrients.

In addition to increased pollutant loading, land development can adversely affect water quality and stream biota in more subtle ways. For example, stormwater falling on impervious surfaces or stored in detention or retention basins can become heated and raise the temperature of the downstream waterway, adversely affecting cold water fish species such as trout. Development can remove trees along stream banks that normally provide shading, stabilization, and leaf litter that falls into streams and becomes food for the aquatic community.

## **Background**

The City encompasses a four (4) square mile area in Union County, New Jersey. In recent years, the City has begun redevelopment in accordance with its Master Plan. The population of the City has increased from 25,325 in 1990, to 26,909 in 2002. This population increase has been accommodated primarily by projects of a

redevelopment nature on previously developed sites. While stormwater runoff increases are not significant, the need for stormwater quality management, and groundwater recharge, where possible, is necessary to enhance the overall watershed quality. Figure C-2 illustrates the waterways in the City. Figure C-3 depicts the City boundary on the USGS quadrangle maps.

The New Jersey Department of Environmental Protection (NJDEP) has established an Ambient Biomonitoring Network (AMNET) to document the health of the state's waterways. There are over 800 AMNET sites throughout the state of New Jersey. These sites are sampled for benthic macroinvertebrates by NJDEP on a five-year cycle. Streams are classified as non-impaired, moderately impaired, or severely impaired based on the AMNET data. The data is used to generate a New Jersey Impairment Score (NJIS), which is based on a number of biometrics related to benthic macroinvertebrate community dynamics. The two major rivers that run through the City are the Rahway River and Robinsons Branch of the Rahway River. Based on AMNET Data, these rivers have been classified respectively as severely and moderately impaired. (See Figure C-5 for 1999 Raritan Region Amnet Study)

In addition to the AMNET data, the NJDEP and other regulatory agencies collect water quality chemical data on the streams in the state. These data show that the instream total fecal coliform concentrations of the Rahway River and Robinsons Branch frequently exceed the state's criteria. This means that these rivers are impaired waterways and the NJDEP is required to develop a Total Maximum Daily Load (TMDL) for these pollutants for each waterway. NJDEP has not yet developed a TMDL prior to the preparation of this Municipal Stormwater Management Plan (MSWMP). (See Figure C-6 for applicable portion of the Total Maximum Daily Loads for Fecal Coliform to address 48 streams in the Raritan Water Region)

A TMDL is the amount of a pollutant that can be accepted by a waterbody without causing an exceedance of water quality standards or interfering with the ability to use a waterbody for one or more of its designated uses. The allowable load is allocated to the various sources of the pollutant, such as stormwater and wastewater discharges, which require an NJPDES permit to discharge, and nonpoint source, which includes stormwater runoff from agricultural areas and residential areas, along with a margin of safety. Provisions may also be made for future sources in the form of reserve capacity. An implementation plan is developed to identify how the various sources will be reduced to the designated allocations. Implementation strategies may include improved stormwater treatment plants, adoption of ordinances, reforestation of stream corridors, retrofitting stormwater systems, and other BMPs.

The New Jersey Integrated Water Quality Monitoring and Assessment Report (305(b) and 303(d)) (Integrated List) is required by the Federal Clean Water Act to be prepared biennially and is a valuable source of water quality information. This combined report presents the extent to which New Jersey waters are attaining water quality standards, and identifies waters that are impaired. Sublist 5 of the Integrated List (Figure C-7) constitutes the list of waters impaired or threatened by pollutants, for which one or more TMDLs are needed. Based on this list,

the Rahway River has a phosphorus, arsenic and TCE impairment, while the Robinson's Branch has a phosphorous and arsenic impairment. (See Figure C-7 for New Jersey 2004 Integrated Water Quality Monitoring and Assessment Report (305(b) and 303(d)).

A map of the groundwater recharge areas within the City of Rahway has been shown in Figure C-8. The map identifies the various soil types within the City based on the Union County Soil Survey issued 2002. As stated in the New Jersey Stormwater Best Management Practice Manual, dated February 2004, Table 9.5-1: Minimum Design Permeability Rates for Infiltration Basins, for groundwater recharge, a minimum design permeability rate of 0.2 in/hr is required for subsurface basins and 0.5 in./hr for surface basins. The attached recharge map and table shall only be used as a guide for groundwater recharge areas. Recharge requirements for all sites shall be subject to in-situ soil testing.

A map of the Well Head Protection Areas is shown in Figure C-9. No areas within the City of Rahway have been classified as well-head protected areas.

Portions of the City of Rahway are located within a flood plain as delineated in the Flood Insurance Rate Map (FIRM) by the Federal Emergency Management Agency (FEMA). The City regulates any development within the flood plain through the Flood Damage Prevention Ordinance (Chapter 213) and the Stormwater Runoff Ordinance (Chapter 361). The City also participates in FEMA's Community Rating System (CRS) to ultimately reduce the number of structures affected by flooding.

The SWMP has been prepared and the regulations will be adopted to ultimately reduce the quantity and improve the quality of stormwater runoff.

In the past, insignificant development has taken place within the City, however more recently, but primarily in the immediate future, property improvement will take place in the form of redevelopment projects. The MSWMP and subsequent NJDEP Regulation adoption by the City will provide the necessary control to reduce the quantity of stormwater runoff and increase the quality to improve the overall Rahway River eco-system.

### **Design and Performance Standards**

The City will adopt the design and performance standards for stormwater management measures as presented in N.J.A.C. 7:8-5 to minimize the adverse impact of stormwater runoff on water quality and water quantity. The design and performance standards include the language for maintenance of stormwater management measures consistent with the stormwater management rules at N.J.A.C. 7:8-5.8 Maintenance Requirements, and language for safety standards consistent with N.J.A.C. 7:8-6 Safety Standards for Stormwater Management Basins. The ordinances will be submitted to Union County for review and approval within 12 months of adoption of the



Stormwater Management Plan, or within 24 months of the effective date (April 1, 2004) of the Stormwater Management Rules.

During construction, City inspectors will observe the construction of the project to ensure that the stormwater management measures are constructed and function as designed.

### **Plan Consistency**

The City is located within a Regional Stormwater Management Planning Area (Robinson's Branch Regional Stormwater Management Plan) (RBRSMMP) and no TMDLs have been developed for waters within the City. The Robinson's Branch Regional Stormwater Management Plan is currently being generated. Upon completion of the RBRSMMP, and if any TMDLs are developed in the future, this Municipal Stormwater Management Plan will be updated to be consistent.

The development of the Municipal Stormwater Management Plan will be consistent with the Residential Site Improvement Standards (RSIS) at N.J.A.C. 5:21. The City will utilize the most current update of the RSIS in the stormwater management review of residential development. This Municipal Stormwater Management Plan will be updated to be consistent with any future updates to the RSIS.

The City's Stormwater Management Ordinance requires all new development and redevelopment plans to comply with New Jersey's Soil Erosion and Sediment Control Standards. During construction, City inspectors will observe on-site soil erosion and sediment control measures and consult with the Somerset-Union Soil Conservation District.

### **Nonstructural Stormwater Management Strategies**

The City has reviewed the master plan and ordinances, and has provided a list of the sections in the City land use and zoning ordinances that are to be modified to incorporate nonstructural stormwater management strategies. The City of Rahway currently has an ordinance relating to stormwater runoff (Chapter 361 in the Code of the City of Rahway). This ordinance will be amended through the adoption of a Stormwater Management Control Ordinance. This ordinance will adopt the design standards presented in N.J.A.C. 7:8-5 (Design and Performance Standards for Stormwater Management Measures). Once the ordinance text is completed, they will be submitted to the County review agency for review and approval within 12 months upon adoption of the SWMP or 24 months of the effective date (April 1, 2004) of the Stormwater Management Rules. A copy will be sent to the Department of Environmental Protection at the time of submission.

The Land Use Legislation of the Code of the City of Rahway was reviewed with regard to incorporating

nonstructural stormwater management strategies. In addition, several changes were made to Chapter 349 Site Plan Review to incorporate these strategies.

**Section 349 – 3.I.: General Standards** – This section will be added to ensure that any residential development and residential re-development projects comply with the Residential Site Improvement Standards (RSIS) for Stormwater Management (N.J.A.C. 5:21-7).

**Section 349 - 3.J.: General Standards** – This section will be added to ensure compliance with the City's Stormwater Runoff Ordinance, or, upon completion, the new Stormwater Management Control Ordinance.

**Section 349-5: Off-street Parking – Provision for Proper Drainage and Maintenance** – This section will be amended to allow for flush curb with curb stop, or curbing with curb cuts, to encourage developers to allow for the discharge of impervious areas into landscaped areas for stormwater management. Also, language will be added to allow for use of natural vegetated swales for the water quality design storm, with overflow for larger storm events into storm sewers.

**Section 349-7: Landscaping and Buffering** – Landscaping and buffering is required to enhance the aesthetic and environmental appeal and character of buildings and sites being developed within the City. The landscape requirements for these buffer areas in the existing section do not recommend the use of native/urban tolerant vegetation. The language of this section will be amended to require the use of native vegetation, which requires less fertilization and watering than non-native species. Additionally, language will be included to allow buffer areas to be used for stormwater management by disconnecting impervious surfaces and treating runoff from these impervious surfaces.

**Section 361-5.I: Design of Stormwater Detention Facilities** – This ordinance requires developers to comply with the New Jersey Soil Erosion and Sediment Control Standards and outlines some general design principles. Detention and sediment and erosion control facilities shall be designed in conformance with the Standard for Soil Erosion & Sediment Control in New Jersey. This section will be amended upon adoption of the new Stormwater Management Control Ordinance.

**Section 369-10.B: Curbs and Gutters** – Curbs and gutters are required in all subdivisions, with specific details listed in RSIS. This section will be amended to allow for curb cuts or flush curbs with curb stops to allow vegetated swales to be used for stormwater conveyance and to promote the disconnection of impervious areas.

**Section 421-34 R: Townhouses or Row Houses and Section 421-35 T. Low-rise Apartments** – These sections describe sidewalk requirements for the City for townhouses or row houses and low-rise apartments.

Sidewalks are to be a minimum of four feet wide and shall provide access to the municipal street serving the development, whether or not a sidewalk exists on that municipal street. Although sidewalks are not required along all streets, this section will be amended to include that the City can require them in areas where the probable volume of pedestrian traffic, the development's location in relation to other populated areas and high vehicular traffic, pedestrian access to bus stops, schools, parks, and other public places, and the general type of improvement intended indicate the advisability of providing a pedestrian way. Language will be added to this section to require developers to design sidewalks to discharge stormwater to neighboring lawns where feasible to disconnect these impervious surfaces, or use permeable paving materials where appropriate.

**Section 421-72 Storage and Waste Disposal** – This section provides pollution source control. It prohibits materials or wastes to be deposited upon a lot in such form or manner that they can be transferred off the lot, by natural causes or forces. It also requires that all materials and wastes that might create a pollutant or a hazard be enclosed in appropriate containers. No amendments to this section will be made at present.

**Section 421-79: Nonconforming Uses, Structures or Lots** requires a variance for existing single or two (2) family homes from the Board of Adjustment for expansion of an existing non-conforming use. If the additional impervious coverage falls under “major development” (as defined in NJDEP’s Stormwater Regulations), the builder will be required to mitigate the impact of the additional impervious surfaces unless the stormwater management plan for the development provides for these increases in impervious surfaces. This mitigation effort must address water quality, and quantity which will be described in the City’s new Stormwater Management Control Ordinance.

Several changes will be made to the Code of the City of Rahway. The City has four (4) types of residential districts. Each district has a maximum percent allowable impervious surface coverage, ranging from 50 percent for the R-1 District, which has a minimum lot size of 7,500 square feet for detached single-family homes, to 60 percent for the R-2, R-3 and R-4 Districts, which have a minimum lot size of 5,000 square feet for single-family detached homes. The City has 11 types of nonresidential districts. Each of these districts has a maximum allowable percent impervious surface coverage, ranging from 70 percent for the B-1 District to 100 percent for the B-5 District. Although each zone has a maximum allowable percent impervious coverage, the Code of the City of Rahway will be amended to remind developers that satisfying the percent impervious requirements does not relieve them of responsibility for complying with the Design and Performance Standards for Stormwater Management Measures to be contained in the new Stormwater Management Control Ordinance. Also, if a developer is given a variance to exceed the maximum allowable percent imperviousness and the proposed project is classified as a “Major Development” as defined by the NJDEP Standards, the developer must mitigate the impact of the additional impervious surfaces. This mitigation effort must address water quality, and quantity as described in the new Stormwater Control Management Ordinance. A detailed description of how to develop a mitigation plan is included in this Municipal Stormwater Management Plan.

## **Land Use/Build-Out Analysis**

As shown on the official Zoning Map of the City of Rahway (Figure C-6), the City currently has a combined total of less than one square mile of vacant land (0.14 square miles), mostly, if not all of which is active park land. A Land Use Map has also been attached indicating the highly urbanized nature of the City. The City is therefore not required to complete a build-out analysis.

## **Mitigation Plans**

This mitigation plan is provided for a proposed development that is granted a variance or exemption from the stormwater management design and performance standards. Presented is a list of examples of mitigation projects. The available mitigation measures shall be established by the City and the available options can be amended as needed. Upon finalization of the Robinson's Branch Stormwater Management Plan, additional mitigation measures will be available.

### **Mitigation Project Criteria**

1. The mitigation project must be implemented in the same drainage area as the proposed development. The project must provide protection from stormwater runoff quality and quantity from previously developed property that does not currently meet the design and performance standards outlined in the Municipal Stormwater Management Plan. The developer must ensure the long-term maintenance of the project, including the maintenance requirements under Chapters 8 and 9 of the NJDEP Stormwater BMP Manual.

The applicant can select one of the following projects listed to compensate for the deficit from the performance standards resulting from the proposed project. More detailed information on the projects can be obtained from the City Engineer. Listed below are specific projects that can be used to address the mitigation requirement.

### **Groundwater Recharge**

- The City of Rahway is located within the Metropolitan Planning Area (PA1) delineated in the New Jersey State Plan Policy Map. Any redevelopment within the Urban Redevelopment Area defined as previously developed portions of areas (N.J.A.C.7:8-1.2) located within the PA1 area does not require groundwater recharge. The New Jersey State Plan Policy Map is available from the New Jersey Department of Community Affairs website at [www.nj.gov/dca/osg/resources/maps/index.shtml](http://www.nj.gov/dca/osg/resources/maps/index.shtml) (Figure

C-7).

#### **Water Quality**

- Retrofit an existing public parking lot's drainage system to provide for water quality in accordance with the NJDEP Standards. Due to site constraints, the retrofit BMP may be installed underground and cannot reduce the existing number of parking spaces.
- Retrofit the existing stormwater inlets to provide enhanced water quality.

#### **Water Quantity**

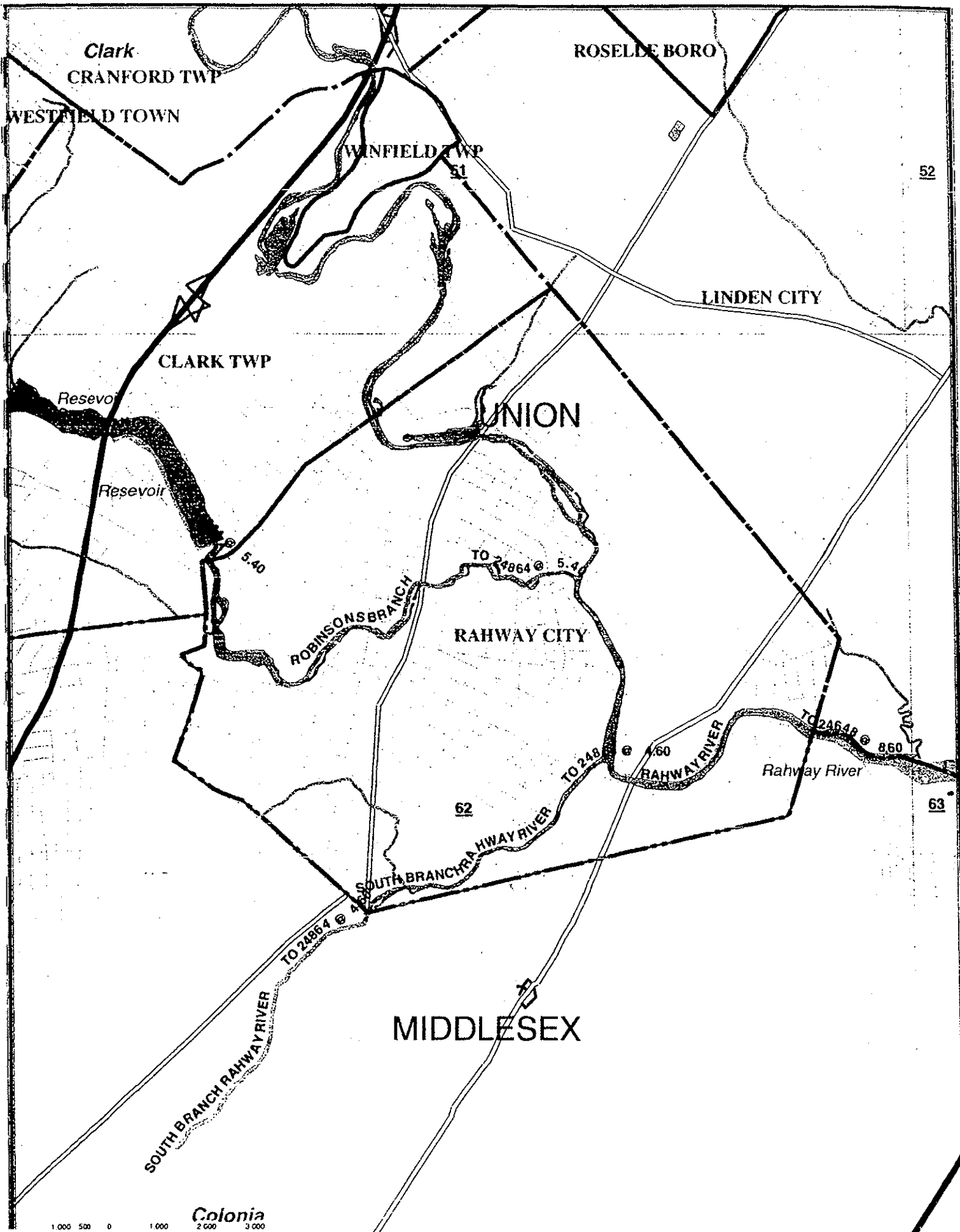
- Some properties located within the City's tidally influenced areas are exempt from compliance with the NJDEP Stormwater Runoff Quantity Standards as stated in 7:8-5.4(a)3.iv. Exemptions from these standards for development within this area will be reviewed on a case-by-case basis and exemption shall be determined by the City Engineer.
  - Install stormwater management measures in existing municipally owned properties to reduce the peak flow from the upstream development on the receiving stream by 20 cfs, 35 cfs and 100 cfs for the 2-, 10-, 100-year storms respectively.
2. If a suitable site cannot be located in the same drainage area as the proposed development, as discussed in Option 1, the mitigation project may provide mitigation that is not equivalent to the impacts for which the variance or exemption is sought, but that addresses the same issue. For example, if a variance is given because the 80 percent TSS requirement is not met, the selected project may address water quality impacts due to a fecal impairment. Listed below are specific projects that can be used to address the mitigation option.

#### **Water Quality**

- Re-establish a vegetative buffer (minimum 50 foot wide) along 1,500 linear feet of the shoreline at the listed public parks in the City as a goose control measure and to filter stormwater runoff from the high goose traffic areas.
- Provide goose management measures, including public education at the various City parks.

The municipality may allow a developer to provide funding or partial funding to the municipality for an environmental enhancement project that has been identified in a Municipal Stormwater Management Plan, or towards the development of a Regional Stormwater Management Plan. The funds expended must be equal or greater than the cost to improve the site to comply with the NJDEP Standards.

FIGURE C-2:  
CITY OF RAHWAY AND ITS WATERWAYS



Clark  
CRANFORD TWP

ROSELLE BORO

WESTFIELD TOWN

WINFIELD TWP

52

LINDEN CITY

CLARK TWP

UNION

Reservoir

Reservoir

5.40

TO 24864 @ 5.40

ROBINSONS BRANCH

RAHWAY CITY

TO 248 @ 460

RAHWAY RIVER

Rahway River

TO 24648 @ 860

63

SOUTH BRANCH RAHWAY RIVER

62

MIDDLESEX

SOUTH BRANCH RAHWAY RIVER

TO 24864 @ 460

1,000 500 0 1,000 2,000 3,000

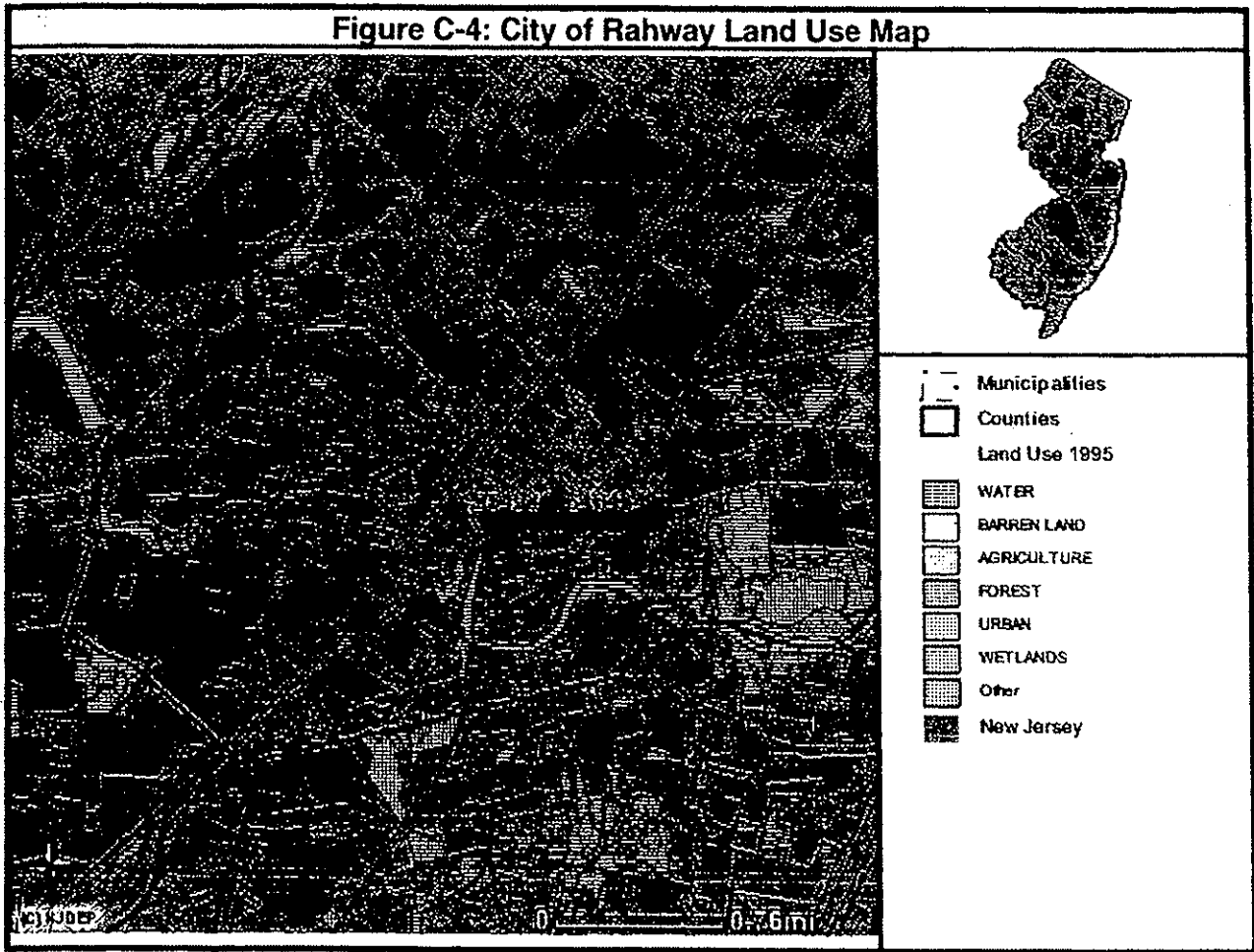
Colonia



FIGURE C-3:  
CITY OF RAHWAY BOUNDARY ON USGS  
QUADRANGLE



FIGURE C-4:  
OFFICIAL ZONING MAP OF THE CITY OF  
RAHWAY  
AND CITY OF RAHWAY LAND USE MAP



# AREAS DESIGNATED AS OPEN SPACE/VACANT LAND

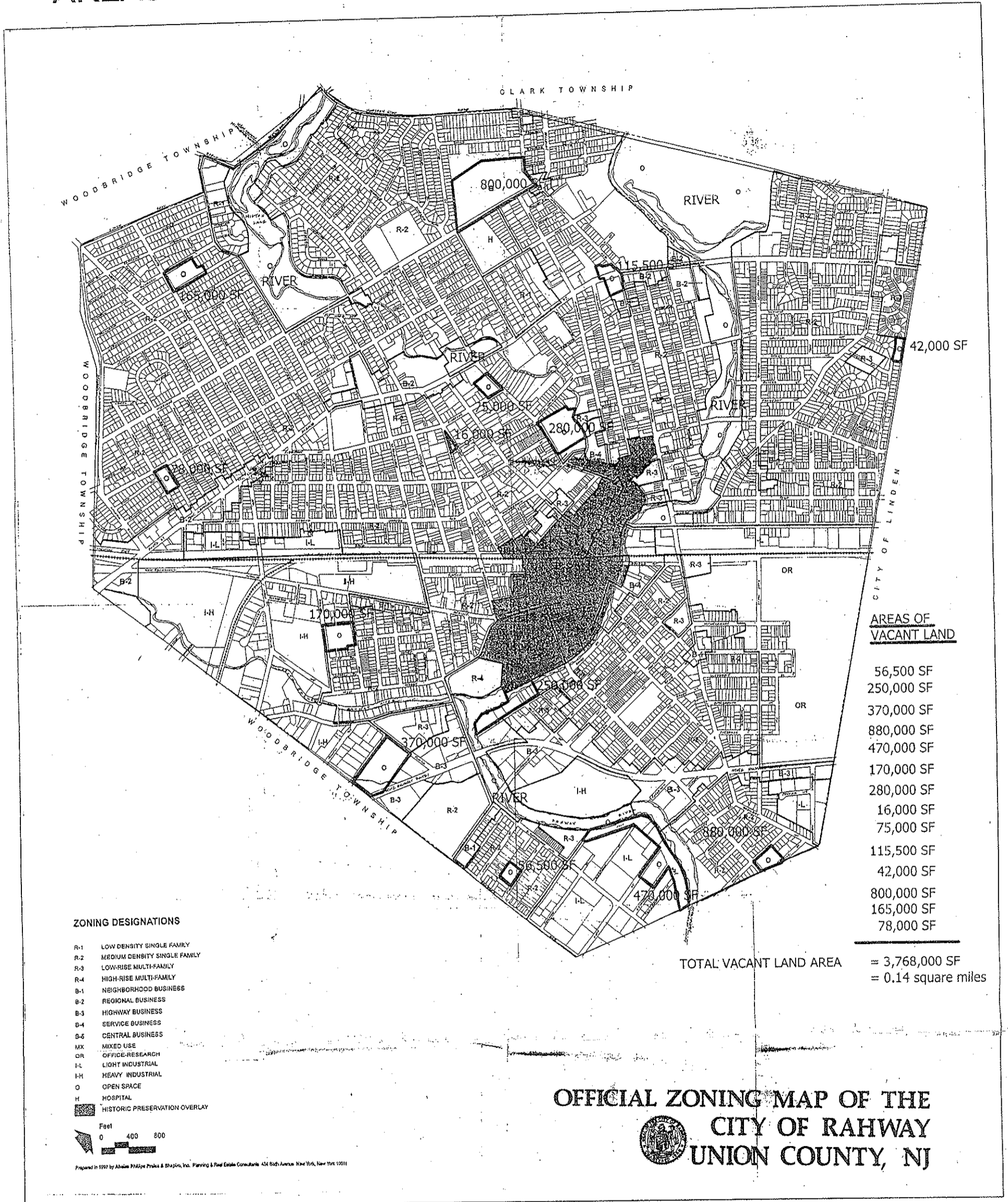


FIGURE C-5:  
1999 RARITAN REGION AMNET STUDY



Station: AN0195  
Rahway R, River Rd & Church St , Rahway, Union County  
Perth Amboy USGS Quadrangle  
Date Sampled: 02/04/99

---

Family	Family Tolerance Value (FTV)	Number of Individuals
Tubificidae	10	70
Gammaridae	4	16
Asellidae	8	2
Chironomidae	6	2
Simuliidae	6	2
Lymnaeidae	6	2
Urnatelliidae	0	2
Enchytraeidae	10	1
Empididae	6	1
Plagiostomidae	4	1
Heptageniidae	4	1

---

Statistical Analysis

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Number of Taxa: 11  
Total Number of Individuals: 100  
% Contribution of Dominant Family: 70.00 % ( Tubificidae )  
Family Biotic Index: 8.40  
Scraper/Filterer Collector Ratio: 0.25  
Shredder/Total Ratio: 0.02  
E+P+T (Ephemeroptera, Plecoptera, Trichoptera): 1  
% EPT: 1.00  
EPT/C: 0.50  
NJIS Rating: 6  
Biological Condition: Severely Impaired  
Habitat Analysis: 112  
Deficiency(s) noted: Tubificidae Family Overwhelmingly Dominant -  
- Significant Organic Pollution - Paucity of Clean Water Organisms -

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Observations

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Streamwater: Slightly Turbid....Flow: Slow....Width/Depth (ft): 65/2  
Substrate: Cobbles, gravel, sand....StreamBank Vegetation/Stability: Trees, shrubs/Unstable  
Canopy: Mostly Open....Other: Urban/Forested; Water temp.5.2 /pH 7.7 /DO 13.8 /Cond.547  
Trash & debris in water;

---



Station: AN0199  
 Robinsons Br, Rt 27 , Rahway, Union County  
 Perth Amboy USGS Quadrangle  
 Date Sampled: 02/04/99

Family	Family Tolerance Value (FTV)	Number of Individuals
Asellidae	8	17
Plagiostomidae	4	16
Tubificidae	10	12
Chironomidae	6	9
Planariidae	4	8
Planorbidae	6	7
Gammaridae	4	5
BloodRed Chironomidae	8	5
Naididae	7	5
Hydropsychidae	4	3
Lymnaeidae	6	3
Urnatellidae	0	3
Hydrobiidae	8	1
Glossiphoniidae	8	1
Hydridae	5	1
Veliidae	9	1
Physidae	7	1
Psychodidae	10	1
Tipulidae	3	1

-----  
 Statistical Analysis  
 -----

Number of Taxa: 19  
 Total Number of Individuals: 100  
 % Contribution of Dominant Family: 17.00 % ( Asellidae )  
 Family Biotic Index: 6.23  
 Scraper/Filterer Collector Ratio: 0.82  
 Shredder/Total Ratio: 0.23  
 E+P+T (Ephemeroptera, Plecoptera, Trichoptera): 1  
 % EPT: 3.00  
 EPT/C: 0.21  
 NJIS Rating: 15  
 Biological Condition: Moderately Impaired  
 Habitat Analysis: 114  
 Deficiency(s) noted:  
 - Paucity of Clean Water Organisms -

-----  
 Observations  
 -----

Streamwater: Slightly Turbid....Flow: Moderate....Width/Depth (ft): 37/2  
 Substrate: Cobbles, gravel, sand....StreamBank Vegetation/Stability: Trees/Unstable  
 Canopy: Mostly Open....Other: Urban/Middlesex Res. upstream; Water temp.5.0 /pH 7.7 /DO 14.1 /Cond.287  
 Trash in water;

-----

FIGURE 6:  
TOTAL MINIMUM DAILY LOADS FOR FECAL  
COLIFORM TO ADDRESS 48 STREAMS IN THE  
RARITAN WATER REGION

**Amendment to the  
Lower Raritan/Middlesex Water Quality Management Plan,  
Mercer County Water Quality Management Plan,  
Monmouth County Water Quality Management Plan,  
Northeast Water Quality Management Plan,  
Upper Raritan Water Quality Management Plan, and  
Sussex County Water Quality Management Plan**

**Total Maximum Daily Loads for  
Fecal Coliform to Address 48 Streams in the  
Raritan Water Region**

**Watershed Management Area 7**

(Arthur Kill, Newark Bay, Elizabeth River,  
Rahway River/Woodbridge Creek, Morses Creek)

**Watershed Management Area 8**

(North and South Branch Raritan)

**Watershed Management Area 9**

(Lower Raritan, South River, and Lawrence and Manalapan Brooks)

**Watershed Management Area 10**

(Stony Brook, Millstone River)

Proposed: April 21, 2003

Established:

Approved (by EPA Region 2):

Adopted:

**New Jersey Department of Environmental Protection  
Division of Watershed Management  
P.O. Box 418  
Trenton, New Jersey 08625-0418**

## 1.0 Executive Summary

In accordance with Section 305(b) of the Federal Clean Water Act (CWA), the State of New Jersey developed the 2002 *Integrated List of Waterbodies*, addressing the overall water quality of the State's waters and identifying impaired waterbodies for which Total Maximum Daily Loads (TMDLs) may be necessary. The 2002 *Integrated List of Waterbodies* identified several waterbodies in the Raritan Water Region as being impaired by pathogens, as indicated by the presence of fecal coliform concentrations in excess of standards. This report, developed by the New Jersey Department of Environmental Protection (NJDEP), establishes 48 TMDLs addressing fecal coliform loads to the waterbodies identified in Table 1.

**Table 1 Fecal coliform-impaired stream segments in the Raritan Water Region, identified in Sublist 5 of the 2002 Integrated List of Waterbodies, for which fecal coliform TMDLs are being established.**

TMDL Number	WMA	Station Name/Waterbody	Site ID	County(s)	River Miles
1	7	WB Elizabeth River near Union	01393350	Essex Union	4.2
2	7	Elizabeth River at Ursino Lake at Elizabeth	01393450	Union	5.7
3	7	West Branch Rahway River at Northfield Ave. at West Orange	01393960	Essex	4.4
4	7	Rahway River near Springfield	01394500	Essex	26.3
5	7	Rahway River at Rahway	01395000	Union	8.6
6	7	Robinson Branch at Scotch Plains	01395200	Union	3.3
7	7	Robinson Branch at St Georges Ave at Rahway	01396003	Middlesex Union	20.7
8	8	Stony Brook at Fairview Avenue at Naughtright	01396219	Morris	3.4
9	8	South Branch Raritan River at Middle Valley	01396280	Morris	15.2
10	8	South Branch Raritan River Arch St at High Bridge	01396535	Hunterdon	4.3
11	8	Spruce Run at Newport	01396550	Hunterdon	8.6
12	8	Spruce Run near Glen Gardner	01396588	Hunterdon	3.6
13	8	Mulhockaway Creek at Van Syckel	01396660	Hunterdon	16.5
14	8	South Branch Raritan River at Stanton Station	01397000	Hunterdon	8.3
15	8	South Branch Raritan River at Three Bridges	01397400	Hunterdon	7.4
16	8	Neshanic River at Reaville	01398000	Hunterdon	37.0
17	8	South Branch Raritan River at South Branch	01398102	Somerset	7.1
18	8	North Branch Raritan River near Chester	01398260	Morris	8.5
19	8	North Branch Raritan River at Burnt Mills	01399120	Somerset	5.8
20	8	Lamington River near Ironia	01399200	Morris	2.7
21	8	Lamington River near Pottersville	01399500	Morris	12.8
22	8	Rockaway Creek at Whitehouse	01399700	Hunterdon	3.6
23	8	Lamington River at Burnt Mills	01399780	Somerset	10.0
24	8	Chambers Brook at North Branch Depot	01399900	Somerset	8.5
25	8	North Branch Raritan River near Raritan	01400000	Somerset	7.9
26	9	Peters Brook at Rt 28 at Somerville	01400395	Somerset	12.2
27	9	Raritan River at Manville	01400500	Somerset	10.8

FIGURE C-7  
NEW JERSEY 2004 INTEGRATED WATER  
QUALITY MONITORING AND ASSESSMENT  
REPORT (305(b) AND 305(d)), JUNE 2004

**NEW JERSEY 2004 INTEGRATED WATER QUALITY  
MONITORING AND ASSESSMENT REPORT (305(b) AND  
303(d)).**

June 2004

**A Report on the Water Quality In New Jersey Pursuant to The New Jersey Water Quality  
Planning Act, and Sections 305(b) and 303(d) of the Federal Clean Water Act**

State of New Jersey  
Department of Environmental Protection  
Water Assessment Team

James E. McGreevey, Governor  
Bradley M. Campbell, Commissioner  
Ernie Hahn, Assistant Commissioner

Companion Water Quality Inventory Reports for interstate waters are prepared by:

Delaware River Basin Commission  
P.O. Box 7360  
West Trenton, New Jersey 08628-0360  
609-883-9500

Interstate Environmental Commission  
311 West 43<sup>rd</sup> Street  
New York, New York 10036  
212-582-0380

**Part I: Introduction and Executive Summary/Major  
Finding**

305(b)) and identifies waters that are impaired and need TMDLs as required under section 303(d) of the Act. The Integrated Report also identifies waters that are being removed from the 303(d) List because they are attaining water quality standards.

The Integrated Report describes attainment of designated uses specified in New Jersey's Surface Water Quality Standards (SWQS) which includes: aquatic life, recreation, drinking water, fish and shellfish consumption, industrial and agricultural. In addition, ongoing and planned strategies to maintain and improve water quality statewide are described.

The Integrated Report provides water resources managers and citizens with information regarding the following:

- Methods used to assess water quality standards attainment status;
- Water quality standards attainment status;
- Pollutants and waterbodies requiring Total Maximum Daily Loads (TMDLs);
- Management strategies (including TMDLs) under development to attain water quality standards;
- Delineation of water quality assessment units providing geographic display of assessment results;
- A delineation of the State's monitoring needs and monitoring project schedules;
- Progress toward achieving comprehensive assessment of all waters.

### **Sublists**

The Integrated List consists of five categories or lists (New Jersey terms them sublists). All assessed waterbodies are placed on a sublist based upon: 1) the degree of support of designated uses; 2) how much is known about the waterway's water quality status; and 3) the type of impairment preventing use support. Based on USEPA's assessment and listing methodology (USEPA, 2001; USEPA, 2002), each waterway should be placed in only one of the five unique assessment sublists. Each sublist is described below as per USEPA's guidance:

**Sublist 1. Attaining the water quality standard and no use is threatened.** Threatened is defined as currently supporting uses but information suggests that such uses will not be met within the next two years. Waterways are listed in this sublist if there are data and information that meet the requirements of the state's assessment and listing methodology and support a determination that the water quality standard is attained and no use is threatened.

**Sublist 2. Attaining some of the designated uses; no use is threatened; and insufficient or no data and information is available to determine if the remaining uses are attained or threatened.** Waterways are listed in this sublist if there are data and information which meet the requirements of the state's assessment and listing methodology to support a determination that some, but not all, uses are attained and none are threatened. Attainment status of the remaining uses is unknown because there is insufficient or no data or information.



**Sublist 3. Insufficient or no data and information to determine if any designated use is attained.** Waterways are listed on this sublist where the data or information to support an attainment determination for any use is not available, consistent with the requirements of the state's assessment and listing methodology. To assess the attainment status of these waterways, the state should obtain supplementary data and information, or schedule monitoring as needed.

This category also includes locations where there are sufficient data to make assessments, however, criteria or guidelines for making a use attainment assessment are currently not available.

**Sublist 4. Impaired or threatened for one or more designated uses but does not require the development of a TMDL.**

**4A. TMDL has been completed.** Waterways are listed on this sublist once all TMDL(s) have been developed and approved by USEPA that, when implemented, are expected to result in full attainment of the standard. Where more than one pollutant is associated with the impairment of a waterway, the water will remain on sublist 5 until all TMDLs for each pollutant have been completed and approved by USEPA.

**4B. Other pollution control requirements are reasonably expected to result in the attainment of the water quality standard in the near future.** Consistent with the regulation under §§130.7(b)(i), (ii), and (iii), waterways are listed on this sublist where other pollution control requirements required by local, state, or federal authority are stringent enough to attain any water quality standard applicable to such waters.

**4C. Impairment is not caused by a pollutant.** Waterways are listed on this sublist if the impairment is not caused by a pollutant but instead is due to factors such as habitat degradation, stream channeling, etc. States and territories should consider scheduling these waterways for monitoring to confirm that there continues to be no pollutant-caused impairment and to support water quality management actions necessary to address the cause(s) of the impairment.

**Sublist 5. The water quality standard is not attained. The waterway is impaired or threatened for one or more designated uses by a pollutant(s), and requires a TMDL.** This sublist constitutes the Section 303(d) list of waters impaired or threatened by a pollutant(s) for which one or more TMDL(s) are needed. A waterway should be listed on this sublist if it is determined, in accordance with the state's assessment and listing methodology, that a pollutant has caused, is suspected of causing, or is projected to cause an impairment. Where more than one pollutant is associated with the impairment of a single waterway, the waterway will remain on sublist 5 until TMDLs for all pollutants have been completed and approved by USEPA.

The Integrated Report streamlined water quality reporting since data sources and assessment methods are the same in both CWA reporting requirements. However, these changes have also

New Jersey's Proposed  
2004 Integrated List of Waterbodies

June 22, 2004

Region	WMA	Station Name/Waterbody	Site ID #	Impairment	Data Source
Atlantic Coast	13	Point Pleasant Canal	1308C	Total Coliform	NJDEP Shellfish Monitoring
Southwest Delaware	19	Pompeston Creek at New Albany Rd in Moorestown	AN0177A	Benthic Macroinvertebrates	NJDEP AMNET
Southwest Delaware	18	Pompeston Creek at Rt 130 in Cinnaminson	AN0177	Benthic Macroinvertebrates	NJDEP AMNET
Southwest	03	Pompton Lake-03	Pompton Lake	Fish-Mercury	NJDEP Fish Tissue Monitoring
Southwest	03	Pompton River at Lincoln Park	Pompton River at Lincoln Park	Fish-Mercury	NJDEP Fish Tissue Monitoring
Southwest	03	Pompton River at Newark Pompton Inpk in Pequannock	AN0268	Benthic Macroinvertebrates, Unknown Toxicity	NJDEP AMNET
Southwest	03	Pompton River at Pequannock River	Pompton River at Pequannock River	Fish-Mercury	NJDEP Fish Tissue Monitoring
Southwest	03	Pompton River at Pompton Plains	01388500, 3-SITE-7	Lead	NJDEP/USGS Data, Metal Recon
Southwest	03	Pompton River at Pompton Plains Cross Rd in Pequannock	AN0268A	Benthic Macroinvertebrates, Unknown Toxicity	NJDEP AMNET
Southwest	03	Pompton River at Rt 202 in Wayne	01388910	Phosphorus	EWQ
Southwest	03	Pompton River Trib at Ryerson Rd	01388720	Fecal Coliform	NJDEP/USGS Data
Southwest	11	Pond Run at Rt 533 in Hamilton	AN0117	Benthic Macroinvertebrates	NJDEP AMNET
Atlantic Coast	12	Poplar Brook at Deal	01407630, 59	Phosphorus	NJDEP/USGS Data, Monmouth Co HD
Southwest	06	Powder Mill Pond-06	Tabor Lake Corporation	Fecal Coliform	Parsippany Troy Hills HD
Southwest	04	Preakness Brook at French Hill Rd in Wayne	AN0273	Benthic Macroinvertebrates	NJDEP AMNET
Atlantic Coast	14	Pump Branch near Waterford Works	01409408	pH	NJDEP/USGS Data
Southwest Delaware	18	Raccoon Creek at Ellis Mill Rd in Elk	AN0679	Benthic Macroinvertebrates	NJDEP AMNET
Southwest Delaware	17	Raccoon Creek at Rt 130 in Bridgeport	01477160	Phosphorus, Total Suspended Solids	EWQ
Southwest Delaware	18	Raccoon Creek at Tomlin Sta Rd in Harrison	AN0683	Benthic Macroinvertebrates	NJDEP AMNET
Southwest Delaware	18	Raccoon Creek near Swedesboro	01477120, 18-RAC-1	Phosphorus, Silver	NJDEP/USGS Data, Metal Recon
Southwest Delaware	18	Raccoon Creek S Br at High St in Harrison	AN0682	Benthic Macroinvertebrates	NJDEP AMNET
Southwest Delaware	17	Raccoon Ditch at Davis Mill Rd in Greenwich	AN0708	Benthic Macroinvertebrates	NJDEP AMNET
Southwest Delaware	18	Raccoon Creek at N Main St in Harrison	AN0680	Benthic Macroinvertebrates	NJDEP AMNET
Southwest	07	Rahway River at Kenilworth Blvd in Cranford	AN0194	Benthic Macroinvertebrates	NJDEP AMNET
Southwest	07	Rahway River at Rahway	01395000, 7-RAH-1	Phosphorus, Arsenic, TCE	NJDEP/USGS Data, Metal Recon, Drinking Water
Southwest	07	Rahway River at River Rd & Church St in Rahway	AN0195	Benthic Macroinvertebrates	NJDEP AMNET
Southwest	07	Rahway River at Washington Ave (Rt 82) in Springfield	AN0193	Benthic Macroinvertebrates	NJDEP AMNET
Southwest	07	Rahway River near Springfield	01394500	Phosphorus	NJDEP/USGS Data, Drinking Water
Southwest	07	Rahway River S Br at Colonia	01396030	Phosphorus, Fecal Coliform	NJDEP/USGS Data
Southwest	07	Rahway River S Br at Merrill Park in Woodbridge	AN0201	Benthic Macroinvertebrates	NJDEP AMNET
Southwest	07	Rahway River S Br at Parsonnage Rd in Edison	AN0200	Benthic Macroinvertebrates	NJDEP AMNET
Southwest	07	Rahway River W Br at Northfield AV at West Orange	01393960	Phosphorus, Dissolved Solids, Chloride	NJDEP/USGS Data
Southwest	06	Rainbow Lakes-06	Rainbow Lakes Comm. Club	Fecal Coliform	Parsippany Troy Hills HD
Atlantic Coast	12	Ramanessin Brook at Willow Rd in Holmdel	53	Phosphorus	Monmouth Co HD
Southwest	03	Ramapo River at Dawes Highway	01388100, 01388000	Phosphorus, Dissolved Oxygen, pH	NJDEP/USGS Data, EWQ
Southwest	03	Ramapo River near Mahwah	01387500, 3-SITE-9, 3-RAM-1	Phosphorus	NJDEP/USGS Data, Metal Recon

New Jersey's Proposed  
2004 Integrated List of Waterbodies

June 22, 2004

Region	WMA	Station Name/Waterbody	Site ID #	Impairment	Data Source
Raritan	08	Raritan River S Br at Middle Valley	01396280, EWQ0316, 8-SB-1	Phosphorus, Temperature	NJDEP/USGS Data, EWQ, Metal Recon
Raritan	08	Raritan River S Br at South Branch	01398102, 01398070, 8-SB-6	Phosphorus, pH, Arsenic, Chromium, Copper, Lead	NJDEP/USGS Data, Metal Recon
Raritan	08	Raritan River S Br at Stanton Station	01397000, 8-SB-3	pH, Temperature, Arsenic	NJDEP/USGS Data, Metal Recon
Raritan	08	Raritan River S Br at Station Rd in Raritan	AN0326	Benthic Macroinvertebrates	NJDEP AMNET
Raritan	08	Raritan River S Br at Three Bridges	01397400, 8-SB-4	Phosphorus	NJDEP/USGS Data, EWQ, Metal Recon
Raritan	08	Ravine Lake-08	Ravine Lake (Somerset Lake)	Fecal Coliform	Bernards Twp HD
Atlantic Coast	15	Reeds Bay	Unnamed Creek-1; Somers Cove-2; Somers Marsh-3; Reeds Bay-5,6,8	Total Coliform	NJDEP Coastal Monitoring, Shellfish Monitoring
Atlantic Coast	16	Richardson Sound	Old Turtle Thorofare-1; Unnamed Creek-2,7; Old Turtle Thorofare-3; Taugh Creek-4; Slaughter Gut-6; Stingere Creek-8; Grassy Sound-12	Total Coliform	NJDEP Coastal Monitoring, Shellfish Monitoring
Atlantic Coast	13	Ridgeway Branch at Rt 70 in Manchester	AN0528	Benthic Macroinvertebrates	NJDEP AMNET
Atlantic Coast	13	Ridgeway Branch of Toms River	Ridgeway Branch of Toms River	Fish-Mercury	NJDEP Fish Tissue Monitoring
Atlantic Coast	03	Ringwood Creek at Manor Rd in Ringwood St. Park	01384495	Temperature	EWQ
Raritan	07	Robinson Branch at Scotch Plains	01395200	Phosphorus	NJDEP/USGS Data
Raritan	07	Robinson Branch at St Georges Av at Rahway	01396003, 7-ROB-1	Phosphorus, Arsenic	NJDEP/USGS Data, Metal Recon
Raritan	07	Robinsons Branch at Goodmans Crossing in Scotch Plains	AN0196	Benthic Macroinvertebrates	NJDEP AMNET
Raritan	07	Robinsons Branch at Rt 27 in Rahway	AN0199	Benthic Macroinvertebrates	NJDEP AMNET
Raritan	10	Rock Brook at Burnt Hill Rd in Montgomery	AN0400, 10-RO-1	Benthic Macroinvertebrates	NJDEP AMNET, Metal Recon
Raritan	10	Rock Brook at Zion	01401560	Fecal Coliform	NJDEP/USGS Data
Raritan	08	Rockaway Creek at Whitehouse	01399700, EWQ0369, 8-RO-1	Phosphorus, Lead, Mercury	NJDEP/USGS Data, EWQ, Metal Recon
Raritan	08	Rockaway Creek S Br at Rt 22 in Readington	AN0368	Benthic Macroinvertebrates	NJDEP AMNET
Northwest	06	Rockaway River	Rockaway River	Fish-Mercury	NJDEP Fish Tissue Monitoring
Northwest	06	Rockaway River at Berkshire Valley Rd in Jefferson	AN0241	Benthic Macroinvertebrates	NJDEP AMNET
Northwest	06	Rockaway River at Boonton	01380500, 01380450, 6-SITE-11	Arsenic, Cadmium, Chromium, Lead, Mercury, Selenium, Zinc, Tetrachloroethylene, Trichloroethylene	NJDEP/USGS Data, EWQ, Metal Recon
Northwest	06	Rockaway River at Morris Ave in Boonton	AN0250	Benthic Macroinvertebrates	NJDEP AMNET
Northwest	06	Rockaway River at Pine Brook	01381200, 6-SITE-10, 6-ROC-1	Phosphorus, Tetrachloroethylene, Trichloroethylene	NJDEP/USGS Data, EWQ, Metal Recon
Raritan	10	Rocky Brook at Perrineville	01400585	Arsenic, Chromium, Lead, Zinc	NJDEP/USGS Data
Raritan	10	Rocky Brook at Rt 33 in Hightstown	AN0381	Benthic Macroinvertebrates	NJDEP AMNET
Raritan	10	Rocky Brook on Rte 130 in Hightstown	10-ROC-2	Chromium, Lead, Zinc	NJDEP Metal Recon
Raritan	10	Rocky Brook on Rte 33 in Hightstown	10-ROC-1	Arsenic, Chromium, Lead, Zinc	NJDEP Metal Recon
Raritan	08	Round Valley Reservoir-08	Round Valley Reservoir	Fish-Mercury	NJDEP Freshwater Fisheries, NJDEP Fish Tissue Monitoring
Atlantic Coast	14	Roundabout Creek Estuary	2001F	Total Coliform	NJDEP Shellfish Monitoring
Raritan	10	Royce Brook at Rt 533 in Manville	AN0413	Benthic Macroinvertebrates	NJDEP AMNET
Northwest	04	Saddle River at Dunkerhook Rd in Fair Lawn	AN0289	Benthic Macroinvertebrates, Unknown Toxicity	NJDEP AMNET

**FIGURE C-8**  
**CITY OF RAHWAY**  
**GROUNDWATER RECHARGE AREAS**

<b>Soil Map Symbol</b>	<b>Name</b>	<b>Permeability &gt;0.2 in./hr?</b>
Bog B	Boonton	Y
Bou D	Boonton/Urban Land	Y
Bov B	Boonton/Urban Land/Haledon	Y
FmhAt or Fmt	Fluvaquents	Y
Hak A	Haledon	Y
Hat B	Haledon/Urban Land/Hasbrouck	Y
PbpuAt or Pbs	Parsippany/Urban Land	Y
RarAr	Raritan	Y
TrkAv or SUCT	Sulfhemists and Sulfaquents	N
Udkt B or Udh	Udorthents, loamy	N
Udo B or Udy	Udorthents, organic substratum	N
UR	Urban Land	N

Note: The attached map is based on the Union County Soil Survey Map, issued 2002.

As stated in the New Jersey Stormwater Best Management Practice Manual, dated February 2004, Table 9.5-1: Minimum Design Permeability Rates for Infiltration Basins, for groundwater recharge, a minimum design permeability rate of 0.2 in/hr is required for subsurface basins and 0.5 in./hr for surface basins.

The above listed map and table shall only be used as a guide for groundwater recharge areas. Recharge requirements for all sites shall be subject to in-situ soil testing.

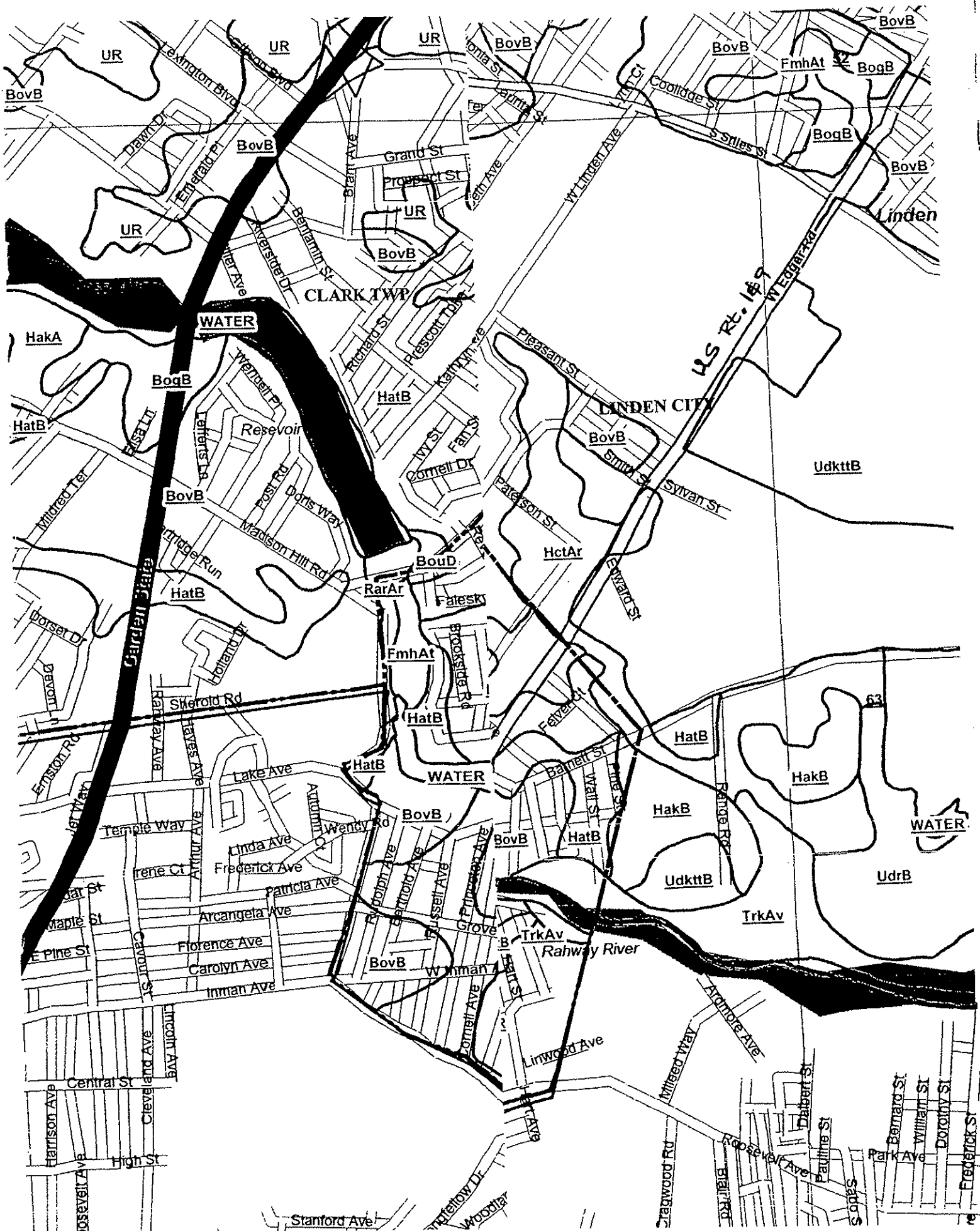
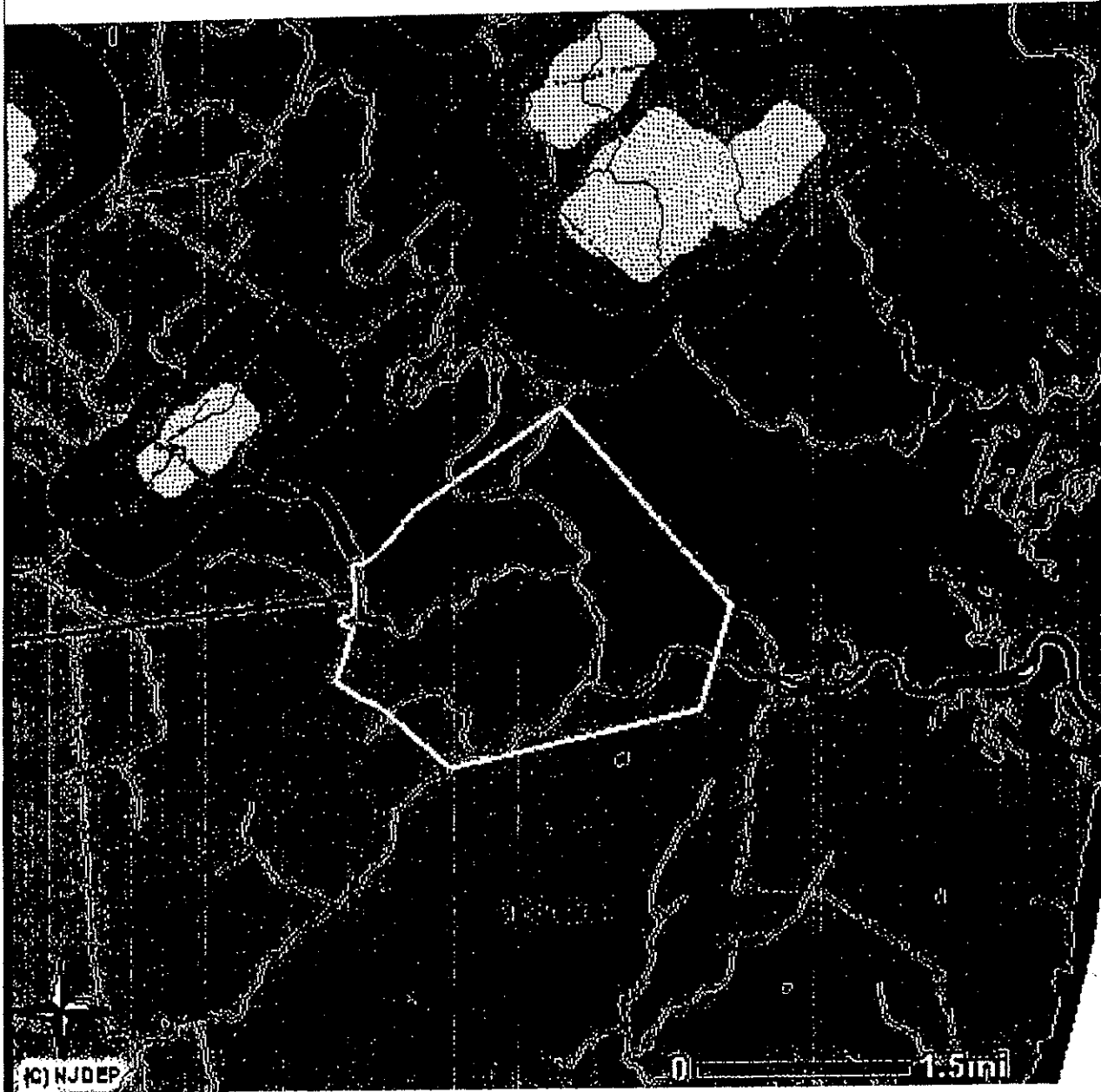


FIGURE C-9  
WELL HEAD PROTECTION AREAS

# Well Head (Rahway)



## Selected Features



Municipalities



Counties



Streams



Water Bodies

## Well Head Protection Areas

Tier 1: 2-Year



Tier 2: 5-Year



Tier 3: 12-Year



New Jersey

CHAPTER 13 -  
BIKEPATH PLAN FOR THE  
CITY OF RAHWAY

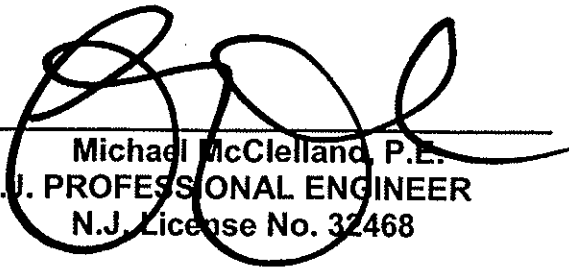
# ***BIKE PATH PLAN***

## ***FOR THE***

# ***CITY OF RAHWAY***

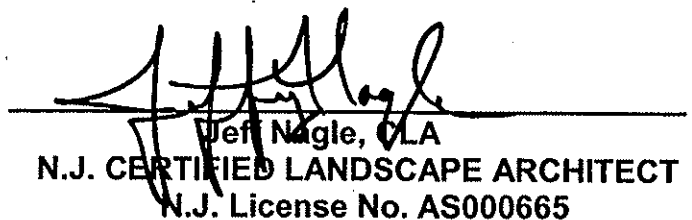
***DECEMBER 2004***

PREPARED BY



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February 8, 2005

Ms. Lenore Slothower, P.P., AICP  
Director of Community Development  
City of Rahway  
City Hall Plaza  
Rahway, NJ 07065

**Re: City of Rahway  
Bike Path Plan  
Our File No.: PRW00500.01**

Dear Ms. Slothower:

In accordance with your authorization, we have completed the above referenced Bike Path Plan and we are transmitting four (4) copies of same for your use.

We trust that this report is satisfactory and provides the City with a suitable plan for implementing a Bike Path System throughout Rahway.

Should you have any questions regarding the above, please do not hesitate to contact this office.

Very truly yours,

CME ASSOCIATES

Michael McClelland, P.E.

MM/wp  
Enclosure





## INTRODUCTION

In accordance with the City of Rahway's authorization, CME Associates has reviewed the City's potential for creating a "Bike Path System" to provide access and linkage to specific sites within the City as well as a citywide bike path system. The Rahway City Council authorized CME Associates to prepare the Bike Path Plan to promote and continue the City's efforts in comprehensive planning and revitalization that focuses on redevelopment sensitive to local community needs, along with protecting environmental, natural, historic and cultural resources. The funding for this bike path study has been provided through a "Smart Future Planning Grant", a "Smart Growth" program. To ensure future funding for the construction of the proposed City of Rahway "Bike Path Plan" it is essential that the plan meet the recommendations of the New Jersey Department of Transportation (NJDOT) as described in the "Bicycle Compatible Roadways and Bikeways, Planning and Design Guidelines".

Prior to commencing this project, the City Planning Office had determined specific target sites that should be connected to and afforded public access via the planned bike path. The targeted sites are; Rahway train station, City Hall, City Recreation Complex, Riverfront Park, Milton Lake, Rahway high school, Rahway Junior high school, and the Merck Pharmaceuticals site. In addition, our office identified existing City parklands, County parklands, historic sites, elementary school sites and property planned for redevelopment in the downtown area for the purpose of providing Bike access and contiguous, site-to-site connections. These specific target areas are identified on the "Bike Path Plans" and include:

- Madison School
- Grover Cleveland School
- Roosevelt School
- Rahway County Park
- Greenfield County Park
- Veterans Memorial Field
- Regina Avenue Park
- Flannigan Park
- Rahway Yacht Club
- Rahway Hospital

Another important aspect of the Bike Path planning process was the identification and the location of existing paths within the City that can be utilized to provide bicycle access, or segments of access within the proposed plan. The existing pathways are identified on the "Bike Path Plan" and are located at Rahway County Park at the northwest end of the City, along the Township of Clark boundary line, at Greenfield County Park providing a connection to the Rahway Junior High School and two separate pathways located along the Rahway River, one located between Monroe Street and the City Recreation Complex, on the north side of the river and the second located in Riverfront Park.





This information was collected and then plotted on the street map of the City, creating a valuable planning tool in this process by identifying the spatial relationship of the targeted sites in Rahway, allowing CME Associates to view the overall picture of the City and begin planning the bike path connections and contiguous circulation.

### **PLANNING ANALYSIS**

CME Associates has developed three (3) "Bike Path Plan Concepts" for the City of Rahway. Each plan has its own unique pros and cons, which will require further discussion by Rahway Officials and the Rahway Department of Planning. The purpose of this report is to present each of the "Bike Path Plan Concepts" and identify the differences.

Each concept proposes the construction of two multi-purpose pedestrian/bicycle bridges. The first bridge would be constructed in the northern part of the City near Clark Township. This bridge will replace a pedestrian bridge which existed approximately 30 years ago and will provide linkage between Rahway County Park and Madison Avenue. The second bridge has been considered for some time by the City. This multi-purpose pedestrian/bicycle bridge is proposed to be constructed over the Rahway River along E. Milton Avenue since the current width between curb on E. Milton Avenue is insufficient to accommodate the combination of bicycles and pedestrians.

#### **Bike Path Plan Concept No. 1**

Bike Path Plan Concept No. 1 has been developed to utilize the existing roadways or cartways throughout the City as shared bicycle routes. This plan utilizes the existing pathways located at Rahway County Park, Rahway Recreation Complex and Riverfront Park. The main intent of this plan is to utilize the existing infrastructure of the City's Road system to create a Bike Path Plan that requires minimal expenditures of City Funds. The plan lays out a bicycle circulation plan that stretches across the entire City reaching and providing connections between portions of the community to the north, south, east and west.

Following the determination of the bicycle path route, which will provide accessibility to the originally targeted areas, a substantial survey of the existing roadway widths was conducted to determine the extent of future road re-striping required to provide a minimum, shared, 6 foot wide bicycle lane within the existing vehicular traffic lanes. This plan if adopted would require a reduction of the currently afforded on-street parking, specifically in the downtown area of the Rahway business area and/or the widening of the roadways selected for the bike route. A typical Rahway road width varies from approximately 30' wide to approximately 50' wide and most of the roads permit on street parking on both sides. Generally by eliminating one of the on-street parking lanes; two (2), 6 foot wide bicycle lanes can be accommodated within the existing cartway where the same is a minimum of 44' wide. The typical cross-section required to accommodate the bicycle access, will consist of two (2) 6 foot wide bicycle lanes, two (2) 12 foot wide travel lanes, and an 8 foot wide on-street parking lane.





It should be noted that a minimum roadway width of 56 feet is required to provide a vehicle travel lane in each direction, on-street parking on both sides and a bike lane on both sides of the roadway.

The plan originates in the center of town at the Train Station, extending out of town in a northwesterly direction creating a double loop system. The first loop, beginning at the Train Station, extends east along East Milton, northerly along Main Street to Irving Street, westerly along Central Avenue, southerly along Madison Avenue, easterly along Murray Street, northerly along Jacques Avenue and finally easterly along West Milton and back to the Train Station. The second loop connects with the Madison Avenue bicycle route, extending around the Milton Lake area, providing a connection to Woodbridge and Clark Townships as well as Union County and Middlesex County, with access along Madison Hill Road, Beechwood Road, Lake Avenue and Dukes road, utilizing Bramhall Road as the connection back to the first loop on Madison. A bike route utilizing Whittier Street and Linden Avenue to provide a connection to the existing path system of Rahway County Park services the Northwest quadrant of the City. The southeast quadrant of the City is accessible by a proposed bike path from the downtown area out to Regina Avenue Park, along Main Street, New Brunswick Avenue, East Hazelwood Avenue, and Thorne Street. The northeast quadrant of the City is connected to the downtown area via Monroe Street, East Grand Avenue, and Rutherford Street, providing a bike path to the Merck Pharmaceuticals target. The east quadrant of the City connected via the existing path at the Recreation Complex, the construction of a bridge crossing over the Rahway River and the construction of an off-road bike path along the east side of the river along vacant land adjacent to Essex Street, continuing under the Route 1 overpass and ultimately connecting to the existing Riverfront Park path system, with a proposed extension to Wall Street.

A plan indicating the locations of the proposed bicycle path is included in the appendix.

#### Bike Path Plan Concept No. 2

Bike Path Plan Concept No. 2 has been developed to utilize the existing pedestrian sidewalk system, along the existing roadways creating a shared pedestrian and one-way Bike Path Plan, within the City. In an effort to eliminate the impact of a reduction in the City's already stressed parking facilities, we reviewed the feasibility of this one-way bicycle route system.

This plan will require the construction of additional sidewalk width along the existing pedestrian sidewalk routes as specified on the plan. In an effort to comply with the recommendations of the NJDOT, the existing 4 foot wide sidewalks will be widened to create a 6 foot wide shared pedestrian and one-way bike route on each side of the roadway. The limited Right-of-Way (ROW) width of the existing roadways dictates the limitations of the additional sidewalk width proposed with this concept. In most cases the existing ROW allows for only an additional 2 foot of sidewalk to be constructed without breaching the public roadway corridor while maintaining the existing buffer between the curb and sidewalk. The proposed path has been designed to provide a one-way outgoing route on one side of the roadway and a return route on the





opposite side of the same roadway. In addition the off-street path improvements, as described in Bike Path Plan Concept No. 1 are also proposed in this concept. The sidewalk improvement design for this system is not conducive to the downtown area of Rahway where the existing sidewalk is currently shared with existing commercial uses. Under this plan, the implementation of "Share The Road" signs in the downtown commercial center will complete the Bike Path Plan and should achieve the endorsement of NJDOT for future funding.

Similar to Bike Path Plan Concept No.1, the bicycle route originates in the center of town at the Train Station. A triple loop system provides bicycle accessibility throughout the western half of Rahway. The first loop, beginning at the Train Station, extends east along East Milton, northerly along Main Street to Irving Street, westerly along Central Avenue, southerly along Madison Avenue, easterly along Concord and Murray Streets, and finally northerly along Jaques Avenue, West Milton and back to the Train Station. The second loop connects with the Madison Avenue bicycle route, extending around the Milton Lake area, providing a connection to Rahway County Park to the north and Woodbridge and Clark Townships as well as Union County and Middlesex County, with access along Madison Hill Road, Beechwood Road and Dukes road, utilizing West Lake Road as the connection back to the first loop on Madison. The third loop in the northwest quadrant of the City utilizes Whittier Street and Saint Georges Avenue to connect to the first loop on Central Avenue. Whittier Street and Saint Georges Avenue bike path routes are connected via Linden Avenue, creating the northerly extent of the proposed Bike Path Plan. The Merck Pharmaceuticals target site is linked to the downtown area with a bicycle route along Elizabeth Avenue, to East Scott Avenue and finally Montgomery Street. The southeast quadrant of the City is accessible by a proposed bike path from the downtown area out to East Milton Avenue, Main Street, to Mill Street, to East Inman Avenue and finally connecting to the westerly loop of Jaques Avenue. The easterly extent of Rahway will be connected with a bike route along East Milton Avenue, providing access to Grover Cleveland School and ultimately connecting to the proposed off-road bike path along the north side of the Rahway River, through Riverfront Park.

A plan indicating the location of the proposed shared pedestrian and one way bicycle routes is included in the appendix.

### Bike Path Plan Concept No. 3

During the review process for the Bike Path Plan, we also considered a third Bike Path Plan concept. This plan was the genesis for the one-way bicycle path system described in Concept No. 2. The original intent was to create a single, one-way bicycle circulation route utilizing only one side of a specified existing roadway to provide access out of town and another specified roadway to provide access into town. This method was developed to provide the greatest amount of accessibility while limiting City expenditures for improvements. The proposed route was very similar to the route described in Bike Path Plan Concept No. 2, although only one side of the roadway would have required sidewalk improvements by widening.





However, upon review of this type of bicycle circulation system with the New Jersey Department of Transportation, it was clear that the NJDOT did not endorse this concept and indicated that trying to obtain funding grants would be quite difficult, if not impossible.

### **CONCLUSIONS AND RECOMMENDATIONS**

Concept No. 1 and Concept No. 2 are similar in that they provide access to the target sites identified by the City. Each concept proposes improvements to the bicycle circulation system in Rahway. Concept No. 1 provides for the widening of the roadways along the routes or the use of shared bicycle/vehicle routes while Concept No. 2 includes the widening of the existing sidewalks on both sides of the roadway in order to accommodate a 6' wide shared pedestrian and one-way bike route on each side of the roadway.

The variations must be weighed against what in our opinion are the primary differences which include the limits of disturbance, the need for property acquisition, the capital investment for each concept which could be significant depending upon whether or not the roadway widening option is selected in Concept No. 1, and finally the comfort level of City residents with the widening of the existing pedestrian sidewalks along their frontage in order to install shared pedestrian and bicycle routes.

Concept No. 1 and 2 provide the City with similar levels of service; however due to the cost associated with roadway widening it is our belief that the cost included in Concept No. 1 will be significantly higher than Concept No. 2.

It should be noted that the concept plans have been developed for overall planning purposes and are subject to a detailed engineering design in order that detailed cost estimates can be prepared, design constraints identified and compliance with current NJDOT Design Standards for sidewalks and bikeways verified.

The key policy decision the City must make is whether or not to construct the 6' wide shared bicycle/pedestrian one-way paths along the streets identified on the plan in place of the existing pedestrian sidewalks or to utilize the existing paved cartways and widen the same as necessary to accommodate the bike lanes.

Finally, it should be noted that based upon our various discussions with the NJDOT we believe that either Concept No. 1 or No. 2 are fundable under the NJDOT Trust Fund Grant Program and we encourage the City to make the aforesaid policy decision and begin taking advantage of the various funding sources while they still exist.



***Rahway River Greenway Concept Plan***

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CHAPTER 14 -  
RAHWAY RIVER  
GREENWAY PLAN

**RAHWAY RIVER GREENWAY CONCEPT PLAN**

**FUNDED BY A GRANT FROM THE MERCK FOUNDATION**

prepared for:

**Rahway River Association in partnership with  
The City of Rahway**

prepared by:

**The RBA Group**

**February 6, 2006**

# Rahway River Greenway Concept Plan

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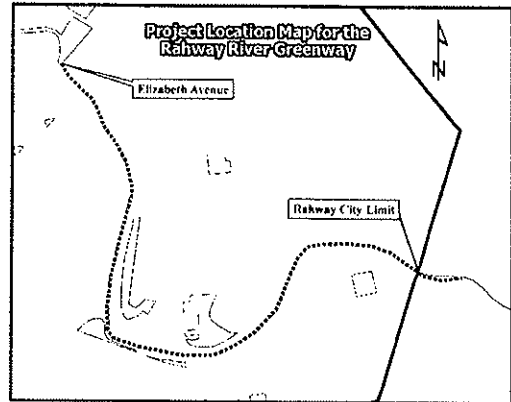
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# Rahway River Greenway Concept Plan

## Part 1: Introduction

The Rahway River winds through the heart of downtown Rahway, a significant natural feature in the midst of the City. The Rahway River could become an integral part of the City's identity, enhancing the quality of place and offering the fullest possible public access and recreational opportunities along a scenic and healthy waterway. Improvements in water quality and redevelopment along and near the Rahway River are creating new potential for river access and enjoyment. Activities such as canoeing, fishing, bicycling and walking, nature observation and bird watching and picnicking could become a part of life in Rahway. A system of bicycle facilities and walking paths connecting parks, boat launches, picnic areas and gathering places for community events could provide new recreational opportunities for residents.



The Rahway River Association, in partnership with the City of Rahway, initiated the development of the Rahway River Greenway Concept Plan to provide a vision for the future of the Rahway River corridor from Elizabeth Avenue to Wall Street, approximately 1-1/2 miles. With funding provided by Merck Foundation, the Rahway River Association secured planning assistance from The RBA Group in June 2005.

Several meetings were held to engage stakeholders and the public in discussion about the potential for a Rahway River Greenway. Stakeholder interviews were held and field visits along all accessible parts of the project area were conducted to evaluate existing conditions.

- Stakeholder Kick Off Meeting, Municipal Offices July 13, 2005
- Community Forum, Rahway Public Library September 20, 2005
- Vision Workshop, Rahway Recreation Center September 24, 2005

Relevant studies and plans were reviewed to identify greenway opportunities, including the Master Plan for the City of Rahway and the Bike Path Plan for the City of Rahway, both of which suggest the possibility of pathway facilities along the Rahway River. Other regional plans that are relevant to the Rahway River Greenway are:

East Coast Greenway Northern New Jersey Alignment Study, 2004

Recommends an alignment through the City of Rahway for a "city to city" bicycle and pedestrian facility that is proposed to extend from Maine to Florida Keys and to pass through 24 major cities on the eastern seaboard.

Greenways to the Arthur Kill, A Greenway Plan for the Arthur Kill Tributaries, New Jersey Conservation Foundation 1993

Identifies a Priority Habitat Area, the "Rahway River Mouth," that includes "the most extensive salt marches and mudflats in the watershed." The Plan recommends habitat protection and improvement for the nearly 1000 acres of salt march, brush and shrublands that extend from Edgar Road/Routes 1&9, City of Rahway to the Arthur Kill.

Greenway initiatives in Linden and continuing improvements to the Union County's growing network of regional greenways, including the Rahway River Parkway, offer the promise of future greenway connections through Rahway.

# ***Rahway River Greenway Concept Plan***

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## **Vision and Goals**

The Rahway River flows a block from the Main Street of Rahway and is part of the 130-square mile Arthur Kill Watershed, one of the earliest settled and most densely populated areas in the country, with 5,300 people per square mile – 5 times that of NJ as a whole. The 31 municipalities in the watershed include West Orange, Elizabeth and Perth Amboy. Though the quality of the Rahway River had been deeply compromised by industry and development along its shores over two centuries, there are still opportunities to establish greenways and protect remaining natural areas in the river corridor through the City of Rahway.

Greenways are linear corridors of protected land that create connections across the landscape. They often follow natural features, such as rivers, and provide connections among parks, historic sites, and other natural or cultural destinations. The benefits of greenways range from environmental, such as flood control and water quality and habitat protection, to recreational, providing scenic places for trails and other outdoor activities.

Most of the shoreline of the Arthur Kill and its New Jersey tributaries has been altered by development, and in places, the streams have disappeared into culverts and concrete channels to allow maximum use of the shoreline for industrial use. Early on, sawmills and gristmills used the river for power, followed by other industries. Eventually, the Arthur Kill itself was lined with chemical and petroleum industries.

The consequences are that the streams and rivers became polluted with human and chemical waste. The towns along the Rahway turned their backs on the River. The River was a detraction that smelled bad and looked bad. Another consequence of the intense development was the frequency of flooding that affected the homes, businesses and industries along the River. Without the buffering natural areas that absorb rising waters, and with ever increasing pavement of the developed landscapes that rapidly shunts water into streams, flooding is frequent and damages high.

Quietly, over time, land uses have been changing along the Rahway River. Industries have been replaced by residential development. Water quality has been improving because of landmark legislation since the 1972 Clean Water Act. Water quality improvements, stronger wetland protection and less pressure on shoreline for industry have transformed the Rahway River. Storm water management requirements are also relieving the stressed waterway and, with every improvement, the health and beauty of the River is returning.

The fragments of wetland areas that remained undeveloped are recovering and are now thriving with wildlife. The “Arthur Kill Tributaries Greenway Wildlife and Habitat Inventory found over 195 bird species in the Arthur Kill watershed (New Jersey Audubon Society). The study focused on the streamside areas, marshland and forested wetlands and found a wide variety of migrant shorebirds along the tributaries. In such a highly developed region, the remaining natural shoreline and wetlands are the only suitable natural lands for migrating birds.

Shorebirds and ducks reside here. Forested wetlands harbor flycatchers, tanagers, grosbeaks, orioles, blackbirds and sparrows, elegant herons, egrets and ibis fly from their colonies on islands in the Arthur Kill to feed in watershed salt marshes. The Rahway River is a critical habitat area for wildlife.

The River now offers a tremendous opportunity for the City of Rahway. The following vision statement and goals express the ideas and concepts of stakeholders and the public for the Rahway River Greenway:

## **Rahway River Greenway Concept Plan**

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### **Vision Statement**

The Rahway River Greenway can become an integral part of the City of Rahway's identity, enhancing the quality of place and offering the fullest possible public access and recreational opportunities along a scenic and healthy waterway.

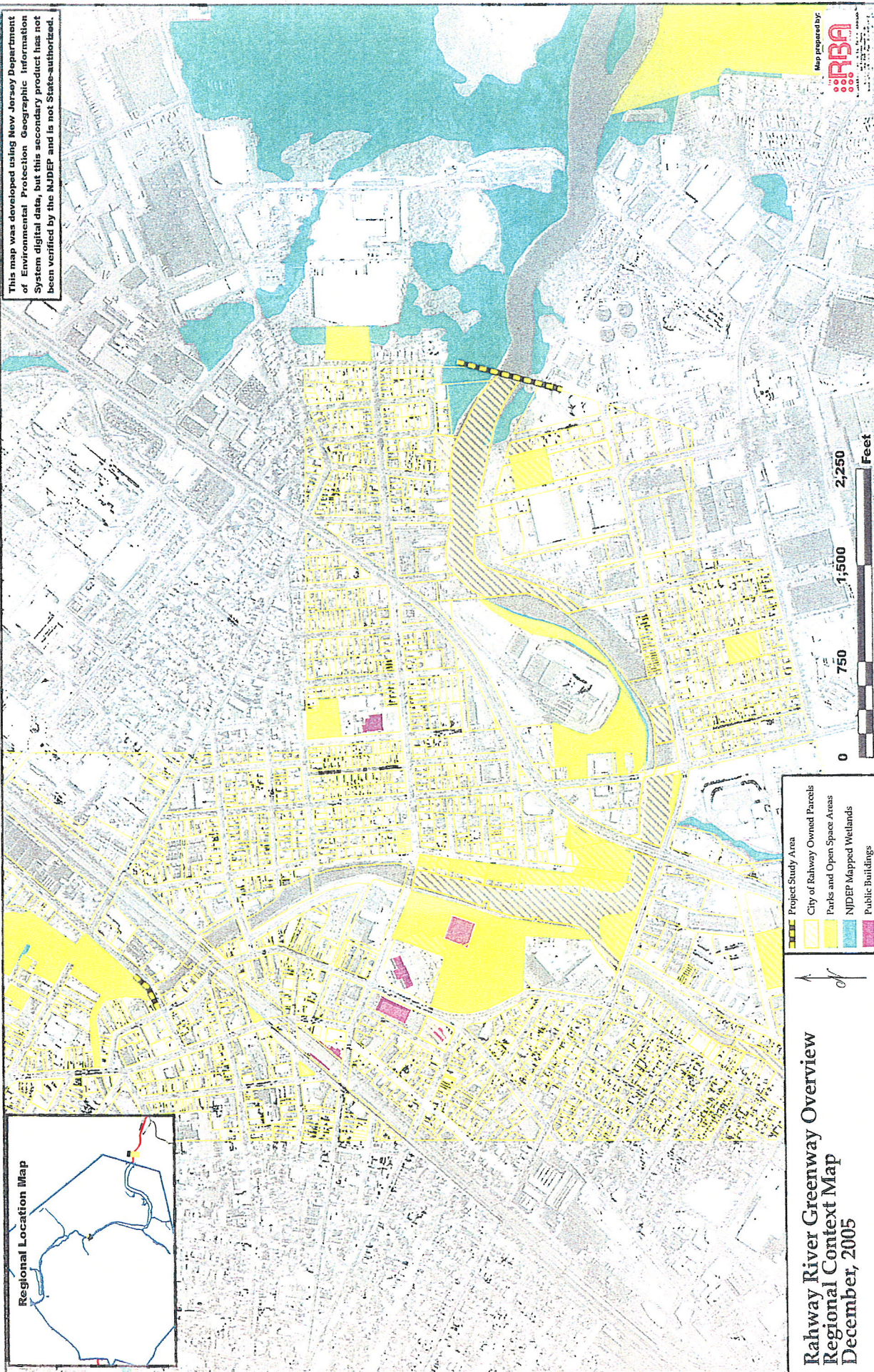
### **Goals**

Develop continuous pedestrian and bicycle facilities along the river and to public destinations (downtown, parks, river access points).

Provide public access to the river and facilities to support activities such as boating, fishing and birdwatching.

Provide public gathering places along the river and create and designate areas for viewing the river environment.

Manage the riverbanks to restore the natural river environment and create a litter free environment and improve river views.



# **Rahway River Greenway Concept Plan**

## **Part 2: Greenway Concepts**

### **Corridor Wide Greenway Concepts**

Raising the visibility and accessibility of the Rahway River will require a sustained effort to improve conditions and to manage development and changes within the river corridor. The City of Rahway can facilitate this process by formally adopting the Rahway River Greenway Concept Plan as a part of the Master Plan and incorporating greenway objectives into policy documents and regulatory measures, such as an overlay district to establish consistent standards for development or design within the greenway corridor. As private and public development opportunities arise, the City of Rahway would then be well positioned to acquire funding and leverage these opportunities to advance greenway recommendations.

#### **Primary Design Objectives:**

1. Protect, preserve and enhance the natural areas along the river.
2. Maintain the river's edge through appropriate vegetation and litter removal.
3. Provide public access where possible, with nearby parking and amenities.
4. Accommodate bicycle and pedestrian travel in the street and sidewalk systems along and to the river.
5. Develop and provide wayfinding strategies (identity and direction signs, kiosks and pavement markings) for a continuous pedestrian Rahway River Path from the Rahway River Parkway to Flanagan Park, using sidewalk connections where a waterfront path facility is not feasible.
6. Provide amenities for pedestrians and bicycles along and in the vicinity of the greenway, such as bike racks and seating areas.

### **Bicycle and Pedestrian Facilities**

Opportunities within the greenway corridor to provide a designated shared use path that accommodates both bicycle and pedestrian traffic, i.e., a shared use facility that meets state of the practice guidelines, are limited. The greenway corridor does provide sufficient width to accommodate relatively continuous, high quality pedestrian accommodations.

The American Association of State Highway and Transportation Officials (AASHTO) guidelines call for a minimum width of 10'-0 plus 2'-0 clear space on both sides in order to designate an "off-road" facility as a bike path or a shared use path. (They recommend an 8'-0 minimum - with 2'-0 clear space on either side- in certain rare circumstances.) While there may be stretches where this width can be accommodated, in general, the proposed greenway does not provide sufficient right of way width to accommodate such a facility.

It would not be appropriate to designate a facility as a "Bike Path" or otherwise explicitly indicate that it is intended to accommodate bicycle travel unless it does meet these guidelines (AASHTO). It would also not be desirable to provide and designate short, discontinuous segments of a shared use path. It is recommended that designated bikeway segments be approximately 1-mile in length. This distance can be traveled by bike within approximately 5-6 minutes, so anything less would have low utility as a bike path.

# Rahway River Greenway Concept Plan

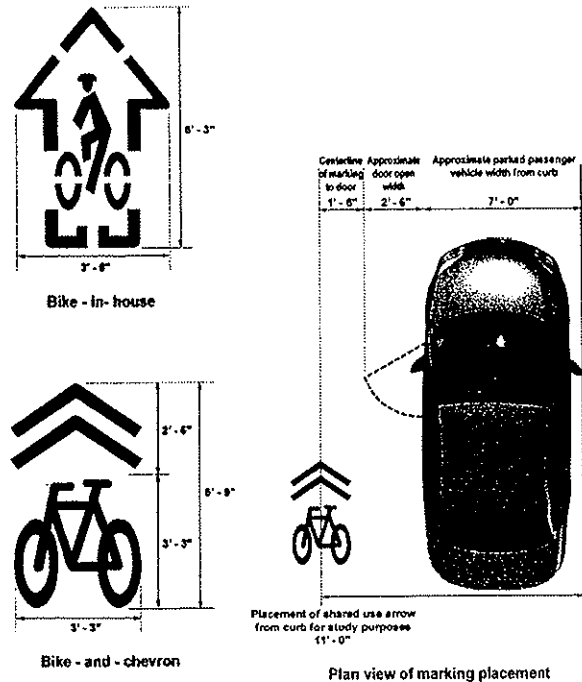
Bicycle traffic (both to the greenway and along the greenway corridor) should be accommodated "on road" by establishing designated on-road bike accommodations that meet state of the practice guidelines. These can include bike lanes and/or designated bike routes utilizing shared lane configurations on traffic-calmed streets with low-posted traffic speeds (25 mph or less). Shared lane designations such as a "sharrow" or "bike in a house" (currently under review by AASHTO) could be used to indicate that the roadway can comfortably accommodate bicycles.

Developing a path system within the greenway that is intended to meet the needs of and provide a high quality experience for pedestrians (i.e., is not specifically designated to accommodate bicycle traffic) is an appropriate and desirable approach. In general, pedestrian needs can be accommodated (where volumes are low) in as little as 5'-0" width, though wider is better.

Appropriate crossing treatments should be provided where the path intersects roadways at grade. These can be designed with a consistent, distinct design treatment that identifies the crossing with the Rahway River Greenway. All crossing treatments should meet ADA requirements.

### Action Plan Recommendations:

- Design and sign the greenway path a 5-foot (minimum) to 10-foot wide pedestrian facility (5 foot minimum only where necessary); do not sign the path as a bike facility; however, some bicyclists may choose to use it regardless.
- Develop a Rahway River Greenway logo to incorporate into the City of Rahway's proposed family of signs; apply the appropriate signs to identify the greenway path and provide directions to the path along intersecting streets (see appendices).
- Apply consistent pedestrian crossing treatments on roadways that intersect the path.
- Extend the Bicycle Circulation Plan to include on-street bicycle accommodation between all public destinations along the River Corridor, as much as possible following the pedestrian path.



Shared Roadway Pavement Marking

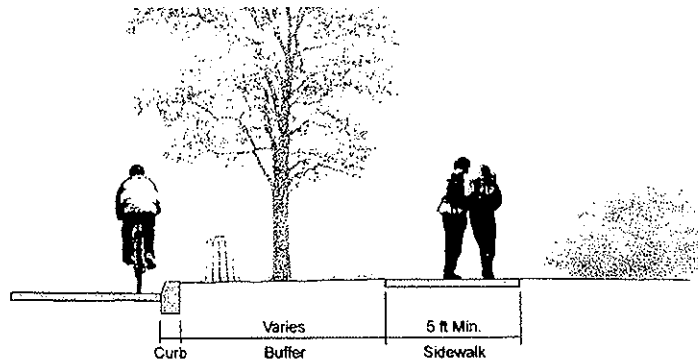
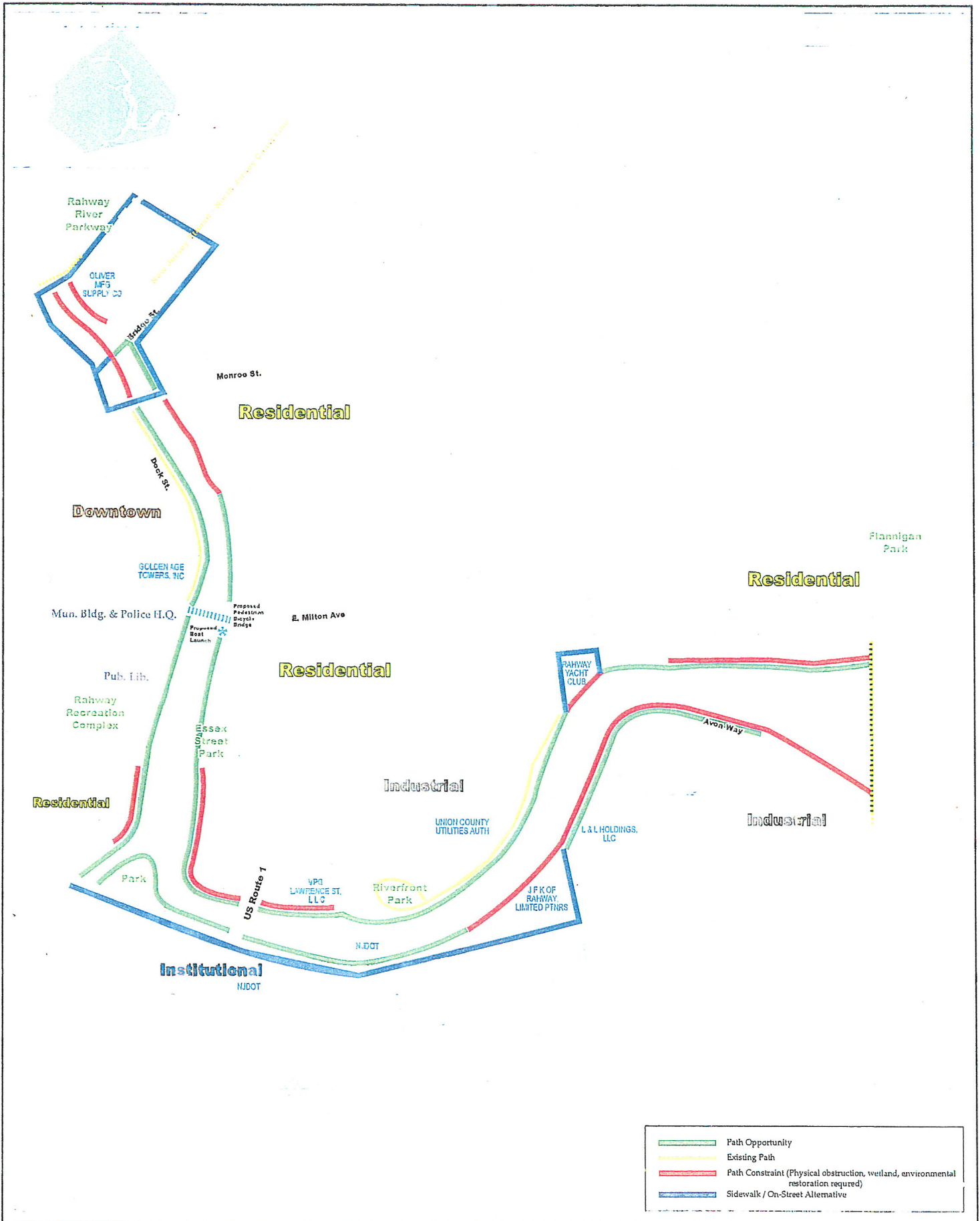






Figure 5: Sidewalk Cross Section



Rahway River Greenway Overview  
 Path Opportunities/Constraints Map  
 December, 2005

-  Project Study Limits
-  Parks and Open Space Areas
-  NJDEP Mapped Wetlands
-  Public Buildings

# **Rahway River Greenway Concept Plan**

## **Part 3: Design Objectives/Action Plan Recommendations by “Zone”**

The following “zones” suggest general categories of proposed improvements, activities and design treatments along the river corridor. Each zone complements adjacent land uses. Overall, the character of the adjacent land uses should extend to the River. Public access, activities and landscape treatments along the river should be compatible and complementary to the adjacent land uses. Principle design objectives and action plan recommendations are indicated for each zone. Describing the Rahway River Greenway zones from north to south, they are:

### **Downtown Gateway Zone (Elizabeth Avenue to Bridge Street)**

This corridor segment links the Rahway River Parkway with downtown Rahway. There is no public access to the River, as adjacent properties are privately owned businesses and residences with buildings that abut the River. Pedestrians and bicyclists must use the sidewalk and street system to continue along the river greenway.

From the Rahway River Parkway, pedestrians will follow Elizabeth to Main Street, passing under the Amtrak/NJ Transit rail line to Bridge Street. Because Main Street is one-way going north, bicyclists accessing the downtown should travel on-road, following Elizabeth to Irving (Bicycle Path Plan Concept 1). Bicycle access along the Rahway’s west bank would follow Elizabeth, Grand Avenue and Bridge Street.

#### **Primary Design Objectives:**

1. Orient pedestrians and bicyclists to Rahway’s downtown and river destinations.
2. Provide a high quality pedestrian and bicycle friendly environment along the adjacent street network.

#### **Action Plan Recommendations:**

- Gateway kiosk/signage at Rahway River Parkway trail access; include pedestrian and bicycle directions and information on downtown destinations and river path.
- Way finding for pedestrians and bicyclists along streets and sidewalks; signs, pavement/ sidewalk markings, or a combination.
- Streetscape improvements for pedestrians; especially under the Amtrak/NJ Transit rail line; special attention to lighting, sidewalk maintenance and the potential for public art.
- Bicycle accommodation along prescribed bike routes; bicycle parking facilities at destinations and nearby businesses.

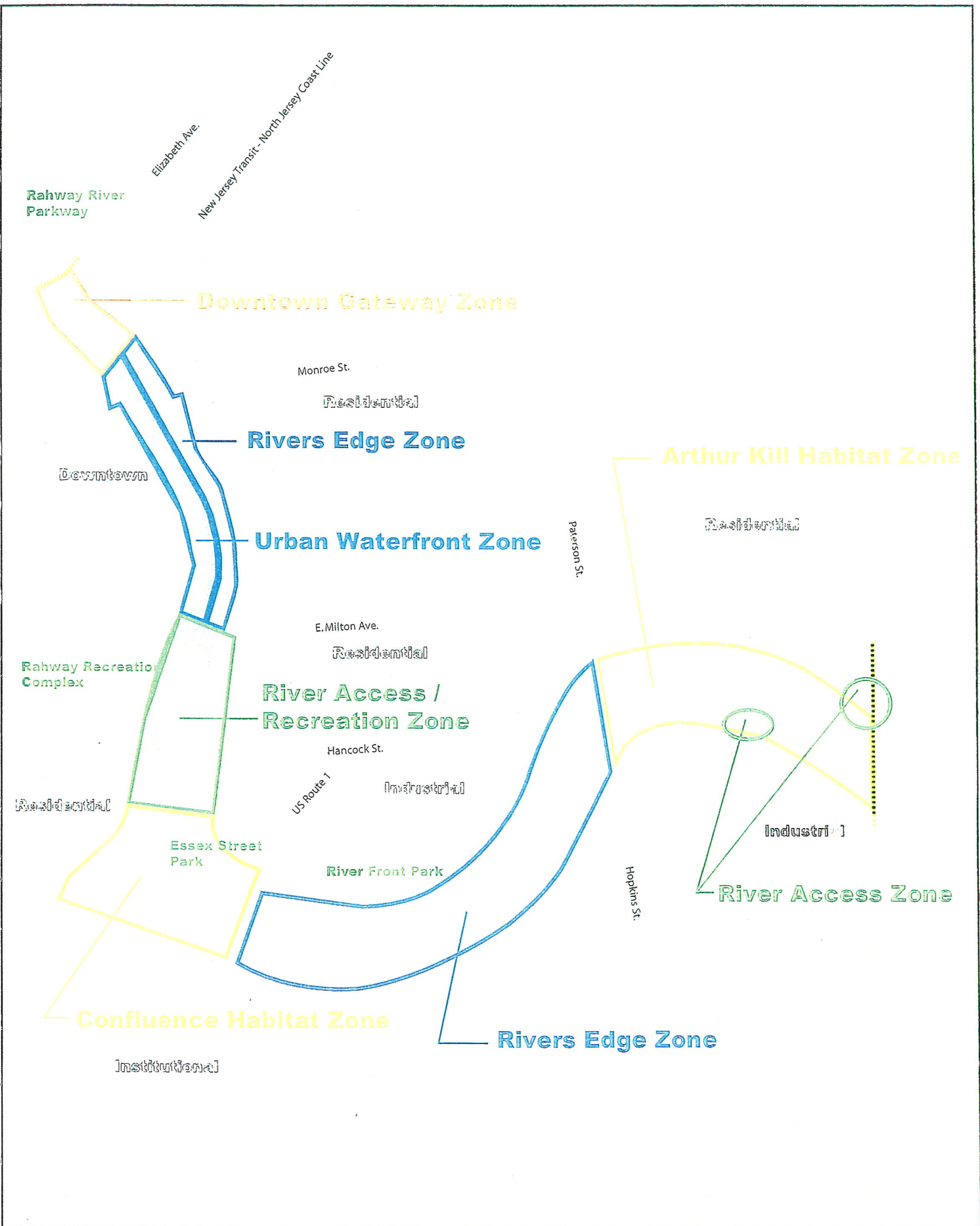
### **Urban Waterfront Zone (Bridge Street to E. Milton Avenue)**

This corridor segment along the River’s west side is adjacent to the Rahway’s downtown. There have been significant redevelopment and improvements that enhance public access to the river, most notably the pedestrian bridge over the river at Bridge Street. Additional improvements should reflect the urban “downtown” character and enhance connections to the business district.

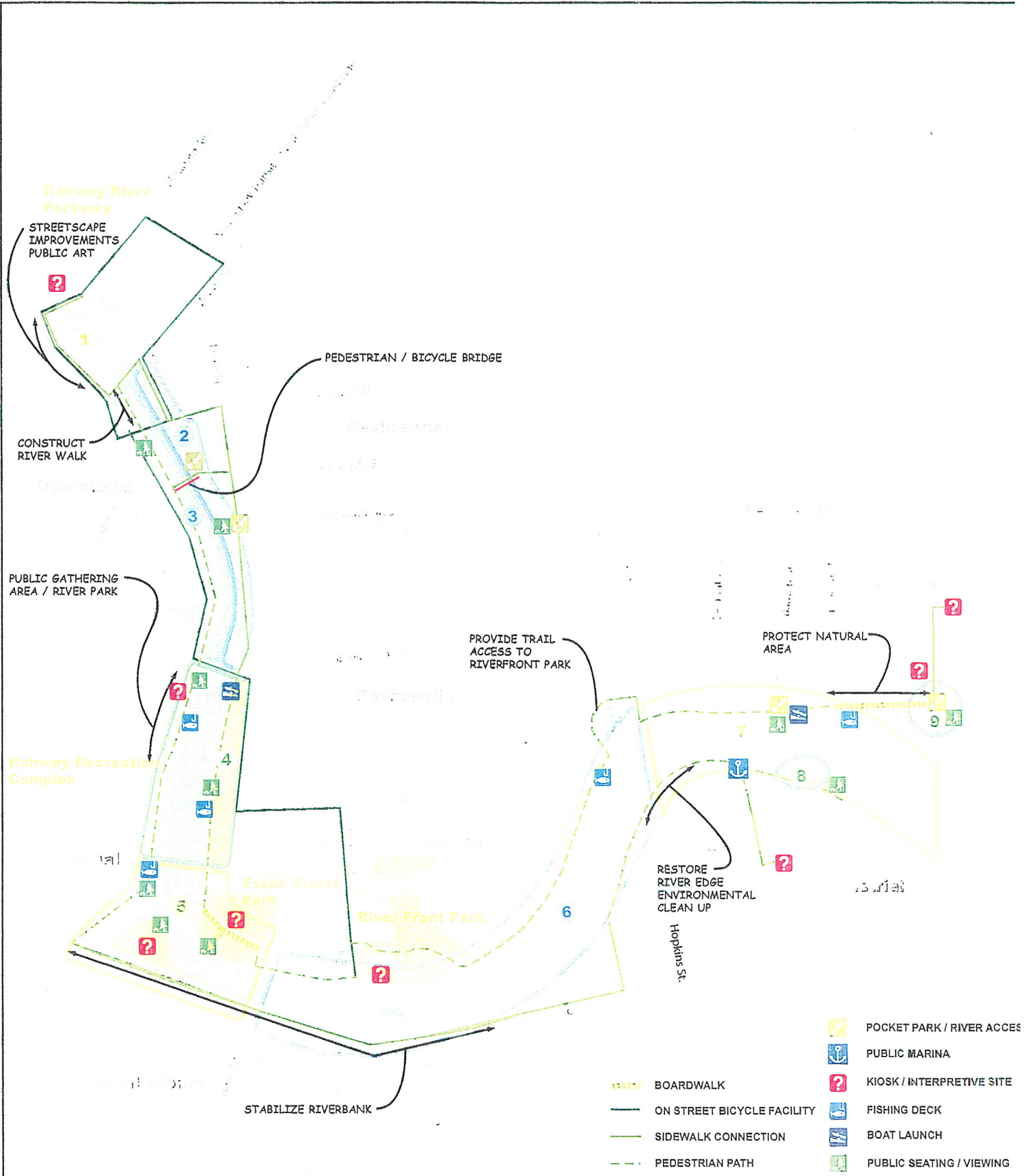
#### **Primary Design Objectives:**

1. Provide continuous pedestrian facilities and access appropriate for an “urban” waterfront environment.
2. Strengthen connections between the downtown and the river.





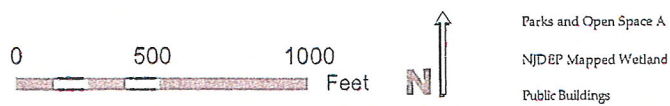
Rahway River Greenway Concept Plan  
 Concept Diagram  
 November, 2005



Rahway River Greenway Zones

1	3	5	Confluence Habitat
2, 6	4	7	Natural Habitat
		8, 9	River Access

Rahway River Greenway Concept Plan  
December, 2005



## **Rahway River Greenway Concept Plan**

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### **Action Plan Recommendations:**

- Extend the urban design elements of Bridge Street along the waterfront to Monroe Streets; where applicable, use consistent architectural features and design elements along levee path on Dock Street to E. Milton Avenue (lighting, seating, pavement, etc.)
- Redesign the river edge between Bridge and Monroe Streets to accommodate a public walkway overlooking the river.
- Public viewing areas overlooking the river at both Monroe Street and E. Milton Avenue, attractive destinations for pedestrians visiting downtown.
- Encourage appropriate commercial activity in the river corridor to support pedestrian traffic along the river (coffee houses, restaurants, seasonal outdoor markets)
- Accommodate bicycles and pedestrians along Dock Street; pedestrian path on top of the levee and stripe bicycle lanes on-road.

### **River's Edge Zones**

Although these corridor segments provide limited public access to the river, they can be improved through vegetation management along the river and through the bicycle and pedestrian accommodation that will complete greenway linkages between the parks and trail facilities.

There are two designated River's Edge Zones; on the east side of the river from Bridge Street along Clark and Essex Streets to East Milton Avenue, and on both sides of the river between US Route 1 to Hopkins Street and Avon Way.

### **Primary Design Objectives:**

1. Provide continuous and well-maintained pedestrian facilities and identify bike routes and improve accommodation to complete linkages between parks.
2. Improve vegetation and litter management along the rivers edge.

### **Action Plan Recommendations – Bridge to E. Milton (east side of the river)**

- Where possible, install missing sidewalks along the river-side of Clarke and Essex Streets to E. Milton and improve on-street bicycle accommodation.
- Explore the potential for neighborhood “pocket” parks at the river end of Lafayette and Washington Streets.
- Consider the opportunity for a second pedestrian bridge, similar to Bridge Street, at Lafayette to improve pedestrian/bicycle access to downtown Cherry Street, while creating a “loop walk” around the Urban Waterfront Zone. (This is in lieu of the one suggested in the Bicycle Path Plan near E. Milton).

### **Action Plan Recommendations – Route 1 to Paterson/Avon Way**

- Pedestrian crossing at Lawrence Street to connect the proposed off-road path from Essex Street Park to River Front Park.
- Provide access to River Front Park from Milton/Paterson Street, in collaboration with the Union County Utilities Authority, the Yacht Club and the Best Western Hotel currently under development.
- Address erosion along the south bank of the river.

### **River Access/Recreation Zone**

The proximity of the Recreation Complex, Library, City Hall, Train Station and the downtown make this an ideal location to highlight the Rahway River as a valued community asset. Already under public control, improving the riverside environment and developing facilities for river recreation and public gatherings should be feasible.

## **Rahway River Greenway Concept Plan**

Plans proposed for Essex Street Park are to restore the natural environment along the river's edge. Landscape treatment for the park should enhance the visual impact of views from the west side of the river. Low impact public use would complement this strategy, creating an ideal and accessible location for nature observation and environmental education.

### **Primary Design Objectives:**

1. Showcase the Rahway River's natural and scenic qualities.
2. Establish a recreational destination for river activities (fishing, boating) and an attractive public gathering place for community and family events.
3. Establish continuous pedestrian pathways to Hazelwood Avenue and to Riverfront Park.

### **Action Plan Recommendations**

- Fishing dock and boat launch (on one or both sides of the River, with cooperation from the Army Corps of Engineers (USACE).
- Public gathering area with supporting amenities.
- Informational/educational kiosk/signs.
- Collaborate with USACE and the apartment complex to develop a pedestrian path on top of the levee to Hazelwood Avenue.
- Pedestrian path/boardwalk system through Essex Street Park using a low impact, environmentally sensitive design.
- Establish bike route/path along Essex Street and Hancock Street, crossing Lawrence to River Front Park.
- Landscape improvements to enhance the natural environment and provide scenic vistas.

### **Confluence Habitat Zone**

The confluence of the South Branch with the main stem of the Rahway River is a major "event" noted in "Greenways to the Arthur Kill, a Greenway Plan for the Arthur Kill Tributaries." The tidal mudflat supports numerous bird species and overall, this segment of the River offers the greatest scenic vistas available along the River in the City of Rahway. This zone is a major destination for nature observation.

Pedestrian pathways and public access should be carefully designed to be unobtrusive, with viewing platforms at the river and boardwalks through the wetlands. Bicycle accommodation is not recommended along the river's edge, but should be directed along streets and/ or a separate bike facility to River Front Park. Bicycle use should not be encouraged on Hazelwood Avenue because of roadway design limitations and heavy traffic volumes.

### **Primary Design Objectives:**

1. Protect and enhance the natural habitat and scenic vistas.
2. Establish the confluence as a nature sanctuary and provide facilities for pedestrian access and nature observation.

### **Action Plan Recommendations**

- Levee path to Hazelwood Avenue with viewing areas.
- Widen sidewalk along Hazelwood Avenue at the park; establish a path to the river with viewing platform and/or bird blind.
- Pedestrian nature trail and boardwalk to and through wetlands with viewing areas/bird blinds; continue to Riverfront Park under Route 1.
- Informational/educational kiosk/signs.

# **Rahway River Greenway Concept Plan**

## **Arthur Kill Habitat Zone**

This zone is the western extent of a 1000-acre "Priority Habitat Area-the Rahway River Mouth," as identified in the "Greenways to the Arthur Kill, a Greenway Plan for the Arthur Kill Tributaries." The Plan states "the salt marshes and mudflats along the lower Rahway River are the most extensive in the watershed and span four communities...species of gulls, many species of shorebirds, breeding clapper rail, herons, egrets, ducks, plovers, hawks, pheasants, wintering northern harrier and marsh wrens utilize the site, to name a few." Greenway initiatives in this zone should be seen in the larger context of the watershed and be supportive of conservation and restoration efforts extending to the Arthur Kill.

Avon Way, an undeveloped public right of way along the Rahway River, has been degraded by industrial/commercial encroachments, but could be restored as an important natural area with river access.

A pedestrian path/boardwalk can extend from Paterson Street to Wall Street along the River, with sidewalk connections to Flanagan Park. Sidewalks along Hazelwood Avenue and Witherspoon Street can be used to access Avon Way. A pathway system along Avon Way can be established, leading to the Hart Street Park. Future opportunities for greenway and trail connections in the City of Linden should be explored.

### **Primary Design Objectives:**

1. Restore, protect and enhance the natural habitat and scenic vistas.
2. Provide a continuous pedestrian path, using sidewalks as necessary, leading to Hart Street Park and Flanagan Park.

### **Action Plan Recommendations**

- Pedestrian path/boardwalk from Paterson Street to Wall Street, with sidewalk connections to Flanagan Park.
- Provide access to the river and greenway path from Lenington Street, Barnett Street and Wall Street.
- Provide a canoe dock, accessible fishing area and viewing platforms at Barnett Street (shown), Lenington or Wall Streets, depending on existing conditions; provide a limited number of parking spaces for the boat/canoe launch.
- Restore degraded land along Avon Way; develop a nature park with pedestrian paths, informal gathering areas and amenities.

## **River Access Zones**

Wall Street is the eastern terminus of the pedestrian path/boardwalk facility and the Rahway River Greenway and serves as the western trailhead. River access at the end of Wall Street could include or lead to a small fishing dock and boat/canoe launch along the greenway, which complements the boat launch in the River Access/ Recreation Zone.

Avon Way has the potential for providing river access for boating and fishing. Boating facilities may be limited to canoes, but there may be an opportunity to develop a public marina that accommodates yacht and small watercraft should there be further investigation and public support for this concept. The City of Rahway is the last practicable destination for motorized recreational boating from the Arthur Kill, and a public marina would provide another type of recreational amenity for Rahway residents. Because Avon Way will already require extensive cleanup and rehabilitation, installation of on river marina facilities could be an appropriate reuse on degraded land, without compromising intact natural areas.

## ***Rahway River Greenway Concept Plan***

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### **Primary Design Objectives:**

1. Provide river access and recreational amenities without compromising the natural area habitat.
2. Develop trailheads as destinations and entry points, with amenities such as seating and bicycle parking for pedestrians, bicyclists and other recreational users.

### **Action Plan Recommendations**

- Wall Street trailhead with river access facilities for boating and fishing.
- Avon Way trailhead with river access facilities for boating and fishing.
- Explore the feasibility and interest in developing a public marina.
- Provide information about the greenway at Hart Street Park and Flanagan Park.

# Rahway River Greenway Concept Plan

## Part 4: Implementing Greenway Recommendations

### Proposed Projects

Rahway River greenway concepts cover a broad range of recommendations, from updates to the Master Plan and municipal ordinances to substantial construction projects that will require significant planning and design. Some projects can be integrated into related initiatives, such as:

- Proposed flood protection improvements by the Army Corps of Engineers and the River path at Best Western development.
- Bicycle network improvements.

It is likely that a continuous pathway along the Rahway would be developed as separate projects. Each path segment that is developed separately should lead to rational destinations and public access at both ends (at a minimum). Below is a list of significant projects that could be initiated to advance the Rahway River Greenway, based on Concept Plan recommendations.

#### Pedestrian Path Projects:

West/South of River	East/ North of River
Main Street/NJ Transit underpass improvements	Sidewalks, Clarkson and Essex Streets
River walk (Bridge to Monroe, river edge)	Essex Street Park path with wetland boardwalk
USACE levee path (Monroe to Hazelwood Avenue)	Essex Street Park path to Riverfront Park path/ pedestrian crossing at Lawrence
Avon Way path (Witherspoon to Hart)	Riverfront Park path to Paterson Street/Best Western river path
	Best Western river path to Wall Street

Related projects, either construction or programmatic, that can advance the Greenway Concept are listed below:

#### Related Greenway Projects:

Construction	Programmatic
Pedestrian/ bicycle bridge (Lafayette/Dock Street)	Master Plan amendment to include Greenway Concept Plan
River Park at the Recreation Complex	Regulatory measures (zoning overlay, ordinances for viewshed protection and vegetation management)
Essex Street Park improvement	Design review standards for river access, pathway development and landscaping in river corridor
Hazelwood Avenue Park improvements	Cleanup programs
Riverfront Park improvements	Routine maintenance and vegetation management
Avon Way environmental mitigation and restoration	Rahway River Greenway identity and directional signage/kiosk program
Boat launch/docks	Educational and interpretive signage program
Accessible fishing areas	Public marina feasibility study

## **Rahway River Greenway Concept Plan**

### **Municipal Ordinances to Advance the Greenway**

The City of Rahway can supplement state regulations that guide development and landscape treatments along New Jersey's waterfronts. Although the Waterfront Development regulations stipulate "a linear waterfront strip accessible to the public," with clearly marked public access and "parking where appropriate," there is no additional design guidance (width, type, location, access, signs, etc.). As long as Rahway's regulatory measures are consistent with state regulations, Rahway can institute design guidelines to ensure that waterfront access is consistent throughout the river corridor and in keeping with the community vision for the Rahway River Greenway and pedestrian pathway. This could be accomplished through municipal ordinances and overlay zones.

Based on a review of the Waterfront Development regulations, NJAC7:7E, trails along the water's edge are encouraged in coastal areas. Since the river segments along which the proposed trail would border are tidal in nature, NJDEP Stream Encroachment regulations, which include the near watercourse protection provisions, would not apply. For development in areas within 500' of tidal waters, NJDEP's Waterfront Development Regulations do apply.

It will be necessary to coordinate with NJDEP to establish Rahway's regulatory measures regarding waterfront access, landscape management and pathway design. The Waterfront Development regulations specify that, "Development...shall conform with any adopted municipal, county or regional waterfront access plan, provided the plan is consistent with the Coastal Zone Management Rules" (7:7E-8.11(b)10 Public Access to the waterfront).

Trail design treatments can be purposefully developed to meet NJDEP guidelines while fulfilling the design objectives in the Rahway River Greenway Concept Plan. For example, an urban trail component between Bridge and Monroe Streets could be designed to minimize environmental impacts, such as a boardwalk, and be routed around major trees to reduce disturbances to the river's edge. Designing within the parameters established by NJDEP will make it possible to develop the pedestrian pathway and enhance the River's edge, meeting the objectives of the municipality and the state.

It is worth noting that the Waterfront Development regulations also specifically mention: "Municipalities that do not currently provide, or have active plans to provide, access to the waterfront will not be eligible for Green Acres or Shore Protection funding" (7:7E-8.11(b)2 Public Access to the waterfront).

### **Property Ownership**

The river corridor includes both public and private property. Improvements to publicly owned properties in the river corridor would benefit adjacent landowners and the general citizenry. However, it will be necessary to coordinate with controlling agencies, such as the Army Corps of Engineers, and private property owners to implement recommendations and meet the design objectives for the length of the river.

Securing right of way can be done through easements or acquisition/purchase, when major construction and public use is anticipated, to build public trail and recreational facilities.

### **Example Project Profile: Riverfront Park to Wall Street**

The following steps outline a typical level of effort and resources required to complete the greenway trail segment along the Rahway River from Riverfront Park to Wall Street. The facility type, width and extent – boardwalk and path – would be determined in the preliminary planning and design phase based on existing conditions. The need to secure necessary right of way would also need to be established. The **River Property Map** shows the project area with tax map boundary information (not geo-referenced, therefore approximate). The **Environmental Constraints Map** illustrates existing conditions based on



## **Rahway River Greenway Concept Plan**

state GIS database information. Potential permits/approvals that may be required for this or other proposed project implementation is listed in the Appendix.

Project phases and requirements, such as environmental clearances and permitting, are variable depending on whether federal and state funding are used. Preliminary Design, Environmental, and Right of Way take place concurrently because each provides necessary information to complete the others.

### **Phases:**

Funding -	identify and secure funding
Preliminary Design -	determine facility type, location and extent; limits of disturbance; baseline/topographic survey
Right of Way -	confirm property ownership and secure necessary right of way; boundary survey
Environmental -	environmental assessment, wetland delineation, flag location survey; secure environmental clearances and permits
Final Design -	Design refinement, construction documents
Construction -	Bidding process, contract award, construction

### **Typical Unit Cost Estimates**

Project costs will depend on many variables to be identified in future stages. At the conceptual stage, information about variables and existing conditions are yet unknown. Generalized unit costs, however, can provide some insight into the level of resources that will be required. These estimated cost ranges assume materials and installation only and are approximate based on other similar projects. They should be used as a guide only.

Walking path – paved	\$400,000 to \$900,000/mile
Walking path – crushed stone	\$250,000 to \$750,000/mile
Boardwalk (12')	\$300 to \$400/linear foot
Sidewalk (5')	\$20 to \$30/linear foot
Crosswalk	\$300 each
Bike lane striping	\$0.10 to \$0.30/linear foot
Boat dock	\$25,000 to \$25,000 each
Fishing access, ADA accessible	\$10,000 to \$20,000 each
Viewing area – benches, landscaping	\$1,500 to \$5,000
Kiosk	\$2,000 to \$5000
Interpretive signs	\$400 to \$600 each
Regulatory and directional signs	\$100 to \$200 each
Neighborhood parks	\$20,000 to \$40,000 each

### **Voluntary and Regulatory Measures**

Recommendations that do not require intensive development, such as vegetation management and litter pickup along the length of the corridor, can be implemented through voluntary measures, providing incentives and/or through regulatory measures. The following lists examples.

#### Voluntary Measures and Incentives:

- Create a community program to encourage local groups and business owners to donate time, services or money to local landscaping, vegetation management and clean-up efforts.
- Create a community fund for tree and vegetation replacement in designated areas.
- Encourage the donation of conservation easements.

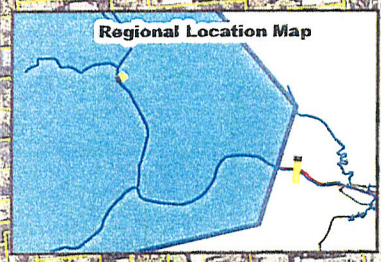
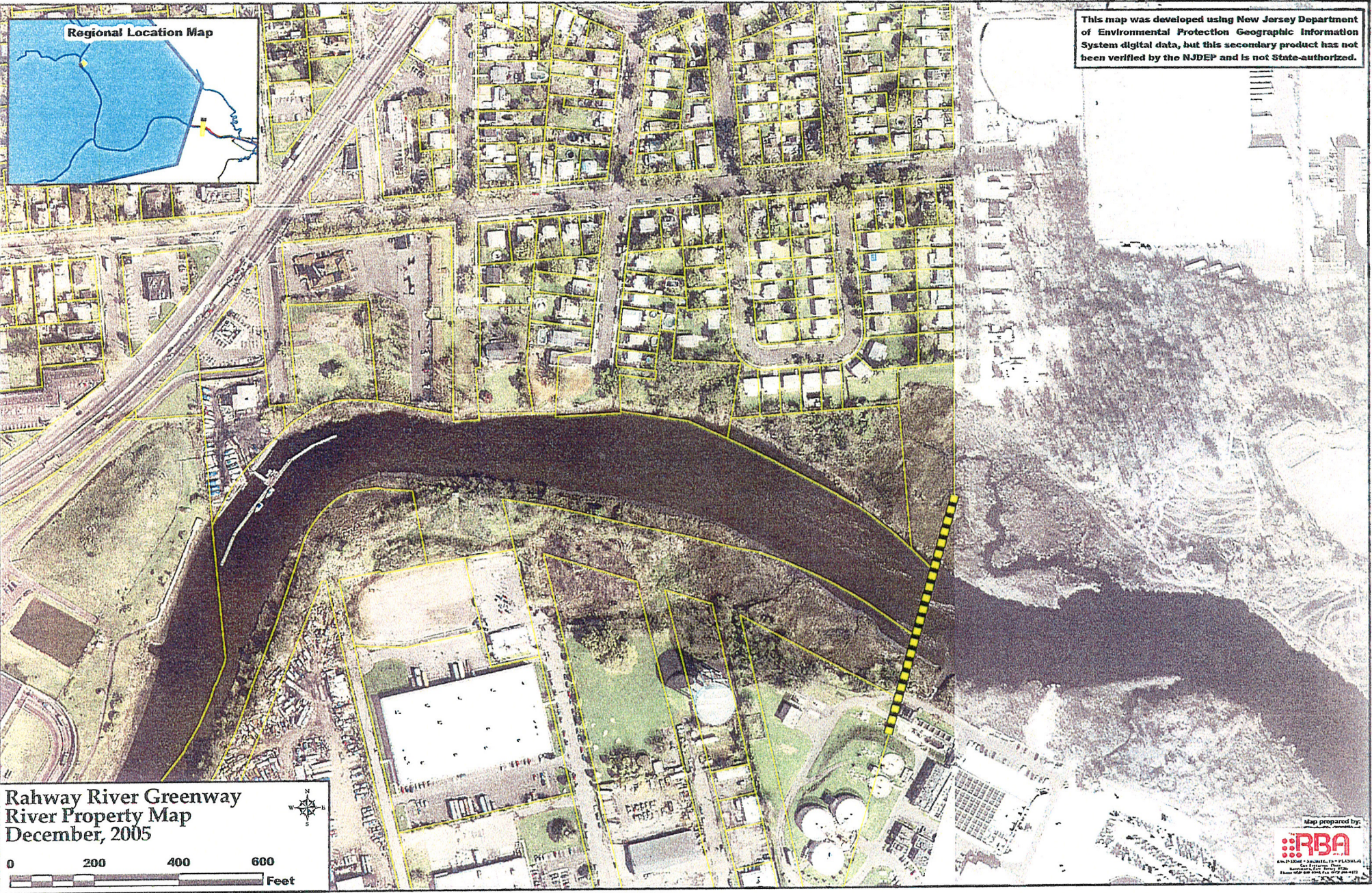
## ***Rahway River Greenway Concept Plan***

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- Provide tax, zoning or permit incentives to landowners and developers to preserve or enhance trees and vegetation.

### Regulatory Measures:

- Enact ordinances for viewshed protection, tree conservation, landscaping and vegetation management. Viewshed ordinances may include controls for building and site design to avoid impacting scenic resources or obstruction views.
- Establish an overlay district to establish consistent standards for development or design within the greenway corridor.
- Develop design review standards and requirements for development within the river corridor to ensure that greenway quality, character, public access and connections are incorporated into future development in keeping with the Rahway River Greenway Plan.

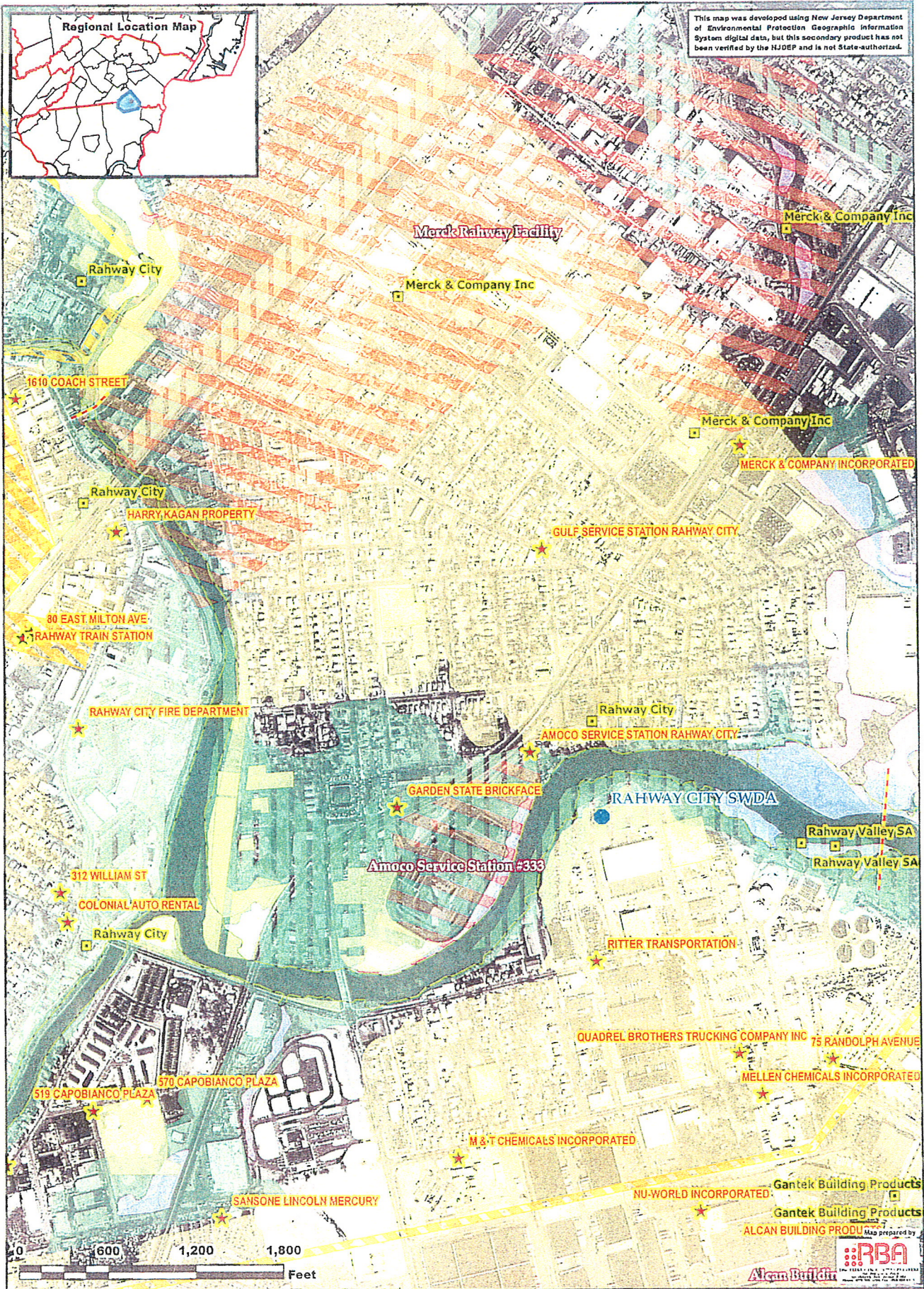


This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by the NJDEP and is not State-authorized.

**Rahway River Greenway  
River Property Map  
December, 2005**

0 200 400 600  
Feet

Map prepared by:  
**RBA**  
RBA CONSULTING, INC.  
1000 ROUTE 100, SUITE 200  
RAHWAY, NJ 07065  
TEL: 908.988.8888  
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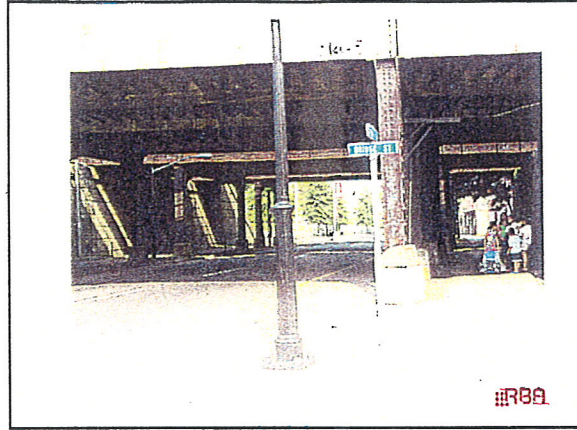
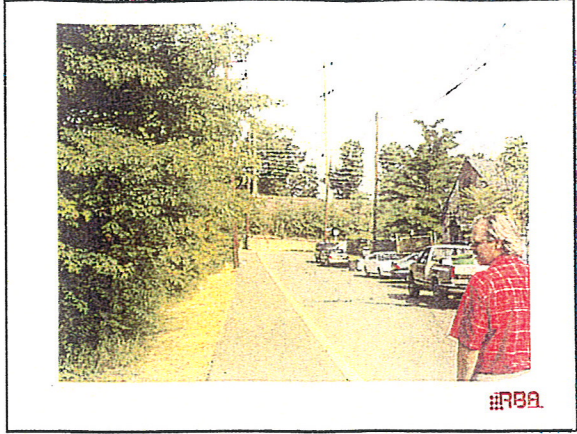
This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by the NJDEP and is not State-authorized.



Rahway River Greenway Overview  
 Environmental Constraints Map  
 December, 2005

- |   |                            |                             |
|---|----------------------------|-----------------------------|
| ★ NJDEP Known Contaminated Sites (2001) | FEMA Q3 Data               | USGS Areas of Historic Fill |
| ■ NJPDES Surface Water Discharges       | Minimal Flood Hazard Area  | NJDEP Mapped Wetlands       |
| ▲ Solid Waste Landfills                 | 500-year Flood (Zone X500) | NJDEP Historic Areas        |
| — Upper Wetlands Limit                  | 100-year Flood (Zone AE)   | NJDEP Mapped Open Spaces    |
| ■ NJDEP Classification Exception Areas  |                            |                             |







##RBA



##RBA



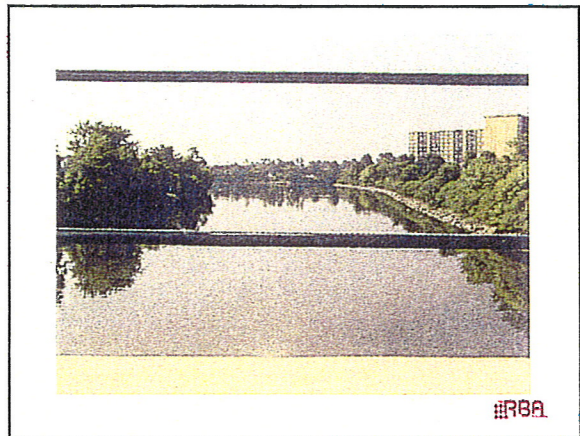
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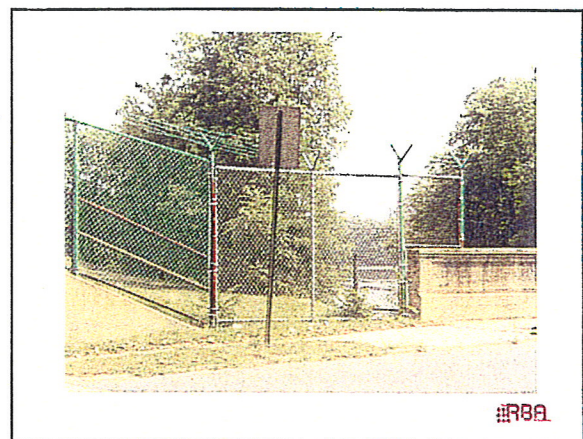
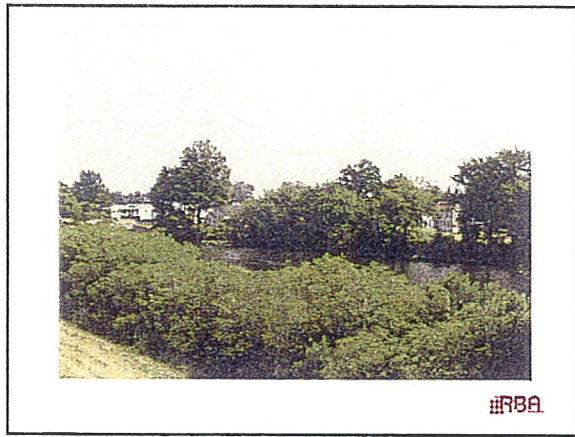
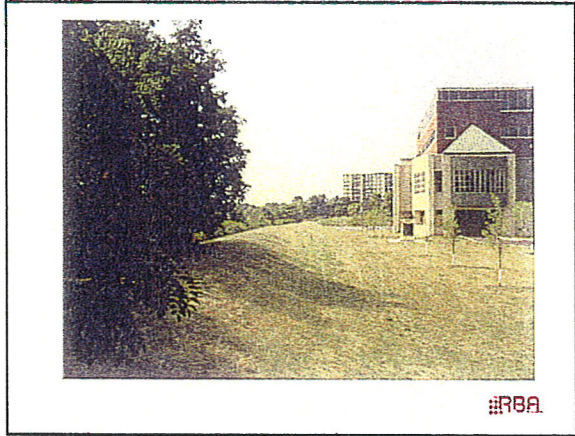
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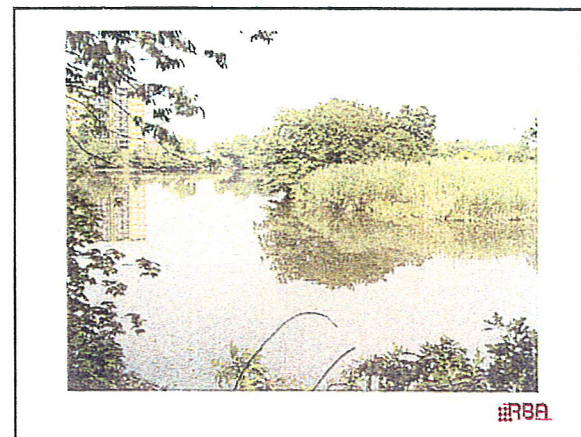
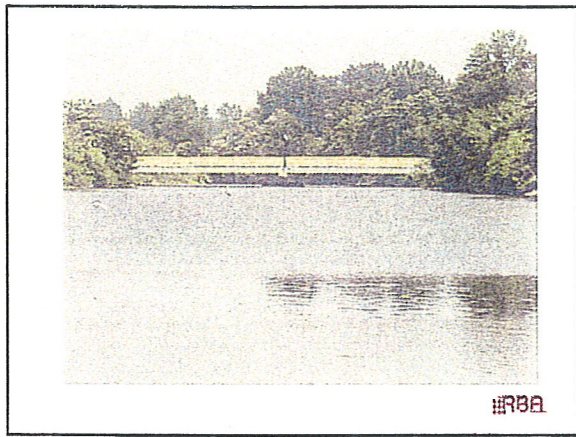


##RBA

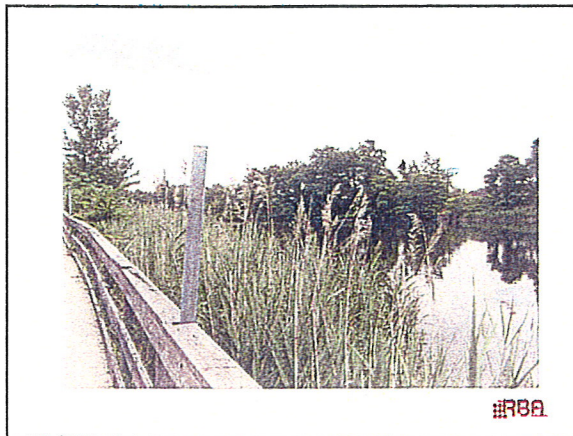
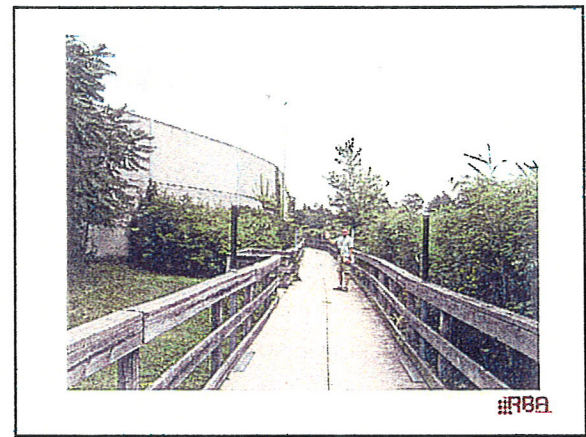
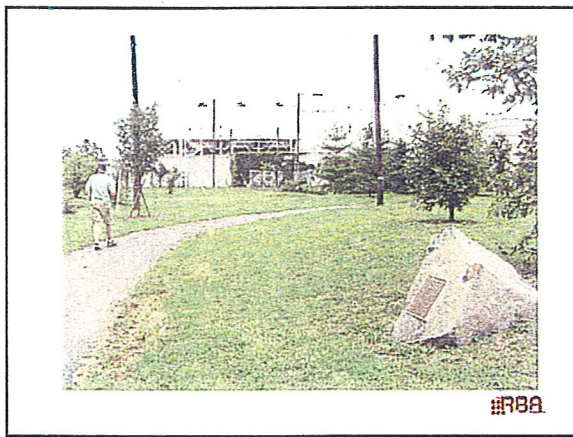


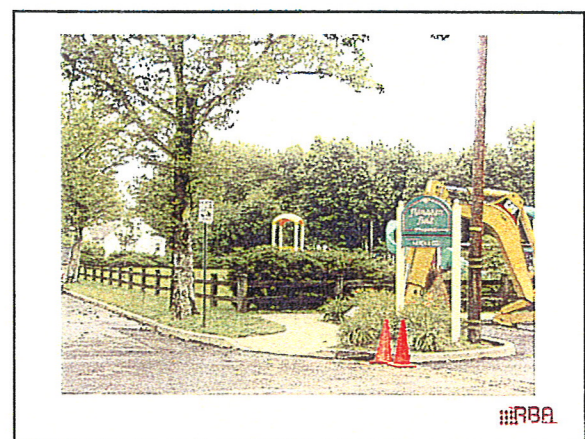
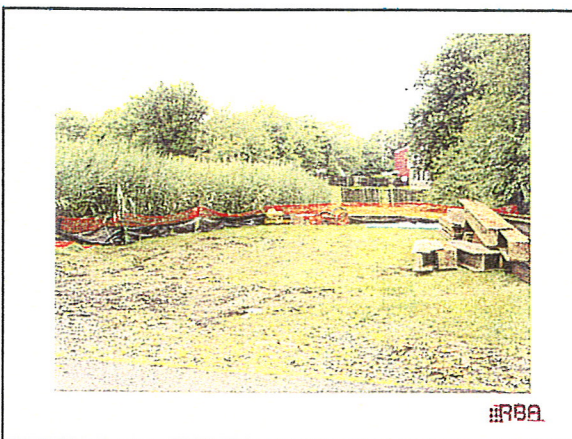
##RBA











***Appendices***



# **Rahway River Greenway Concept Plan**

## ***Potential Permits Required for Project Implementation***

- **Federal Permits/Approvals**

### ***Section 7 of the Endangered Species Act***

A brief review of GIS data concerning previously recorded occurrences of threatened/endangered species indicates no species either on or within the immediate vicinity of the proposed project area. A more thorough, formal database search should be conducted to confirm this finding, however. Should threatened/endangered species be reported on or within the immediate vicinity of the proposed project area, a formal Section 7 consultation may be required for project approval.

### ***US Army Corps of Engineers***

Wetlands and other waters of the United States within the project corridor may potentially be under the jurisdiction of the US Army Corps of Engineers, New York District (ACOE). Proposed impacts to wetlands associated with tributaries within 1000' of navigable waters are considered within ACOE jurisdiction. The ACOE maintains jurisdiction over any wetland impacts to wetlands within the HMD. As such, any impacts to wetlands west of the NYS&W railroad corridor would fall within the Corps regulatory jurisdiction and would potentially require a Section 10 and/or Section 404 permit.

### ***Essential Fish Habitat (EFH) Consultation/NOAA Fisheries, National Marine Fisheries Service***

As the project may potentially impact waters that are tributary to the Arthur Kill (Rahway River), an EFH Consultation may be required to address potential impacts to water quality of contributing watercourses.

An EFH Consultation refers to the process of satisfying the Federal agency consultation and response requirements of section 305(b)(2) and 305(b)(4)(B) of the Magnuson-Stevens Act, and the EFH Conservation Recommendation requirement of section 305(b)(4)(A) of that Act. When completed, an EFH consultation generally consists of: 1) notification to NMFS of a Federal action that may adversely affect EFH, 2) an EFH assessment provided to NMFS, 3) EFH Conservation Recommendations provided by NMFS to the Federal action agency, and 4) the Federal agency's response to NMFS's EFH Conservation Recommendations.

### ***Section 106***

Buildings, structures and properties that are either currently under or eligible for listing on the National Register of Historic Place (NRHP) are located within the project corridor. Impacts to lands listed on the NRHP will require a Section 106 consultation and approval from the State Historic Preservation Office. Proposed impacts will be reviewed and commented upon before approval is either given or denied.

- **State Permits/Approvals**

### ***NJDEP Waterfront Development Permit/Tidelands Conveyance***

Due to the tidal nature of the Rahway River adjacent to the project area, and given the potential for the final alignment to traverse within 500-feet of the Rahway River, an NJDEP Waterfront Development Permit may (potentially) be required for the proposed improvements. In addition, Tidelands Conveyances may be required from NJDEP's Bureau of Tidelands if areas formerly flowed by the tide will be impacted (crossed) by the proposed project.

## ***Rahway River Greenway Concept Plan***

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### ***Freshwater Wetlands/NJDEP Freshwater Wetlands Permits/Transition Area Waiver***

In areas of proposed disturbances and filling, a formal wetland delineation will have to be conducted to determine the extent of wetlands associated with the project study area. Freshwater Wetland Statewide General Permits and Transition Area Waivers are permits that will likely be required prior to construction.

The legislative vehicle for the NJDEP regulation of freshwater wetlands and waterways is the Freshwater Wetlands Protection Act Rules, N.J.A.C. 7:7A et seq. The Rules provide the guidelines for regulating these resources and is administered by the NJDEP Land Use Regulation Program. Specific permit conditions, criteria, and application cannot be determined until an alignment is developed. Permits would typically include the following:

A Letter of Interpretation (LOI) may possibly need to be obtained from the NJDEP for this project. An LOI is a process where confirmation of the wetland boundary and other regulated waterways and their resource classification is obtained.

Statewide General Permits would apply to those impacts that are likely to cause minimal impact to wetlands/waters. The general permit criteria relate to specific activities and quantify the allowable limit of the impact. An Individual Permit would be required if the impact could not meet the criteria sets for by the Statewide General Permit program. The Individual Permit program sets forth rigorous criteria and assessment procedures as well as compensatory mitigation requirements typically at a 2:1 ratio. Water Quality Certification would also be a component of either of these permit programs. Based upon current proposed alternatives, it appears that minor impacts may require a Statewide General Permit No. 10 (minor road crossings) or a Statewide General Permit No. 17 (public boardwalks).

A Transition Area Waiver would allow certain prohibited activities, as defined in NJAC 7:7A-6.2, to occur in a transition area. A transition area is an area, up to 150-feet from the freshwater wetlands boundary, serves as an integral component of the freshwater wetlands ecosystem. A Transition Area, Special Activity Waiver for Linear Development is anticipated for the completion of this project.

### ***Floodplains/ NJDEP Stream Encroachment Permits***

Construction of new facilities and/or drainage structures that result in fill within a State designated floodplain typically requires the acquisition of a NJDEP Stream Encroachment permit. Where floodplains area associated with tidal waters, a Stream Encroachment Permit may only be required in order to insure that adequate water quality measures are being incorporated into the proposed improvements. While the type and limit of disturbance associated with the proposed new roadway will determine if the project will qualify for either a Minor or Major permit, it is currently anticipated that a Major Stream Encroachment Permit will be required, unless NJDEP determines that a Waterfront Development permit will eliminate the need for said Stream Encroachment permit.

The legislative vehicle for the NJDEP to regulate floodplains is the Flood Hazard Control Act Rules, N.J.A.C. 7:13 et seq. The Rules provide guidelines for regulating floodplains and floodways and are administered by the NJDEP Land Use Regulation Program.

### ***NJDEP Bureau of Site Remediation Approval (Hazardous Materials)***

The objective of the hazardous materials screening is to identify the presence or likely presence of any hazardous substances within the corridor that may affect the soil, surface water and/or groundwater. A limited GIS database search was conducted for this proposed project. The limited database search revealed that there are known contaminated sites within the immediate vicinity. Although the proposed improvements are not anticipated to encounter contaminated soils or groundwater, further research will be required in areas of proposed ground disturbances and known contaminated sites to locate UST's, AST's and possible hot spots. NJDEP Bureau of Site Remediation approval may potentially be required for cleanup and disposal of any contaminated areas examined during Phase II testing during later design phases.

## ***Rahway River Greenway Concept Plan***

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### ***NJPDES Stormwater Construction Permit***

A NJPDES permit for construction stormwater is required for disturbances of 5 acres or greater. The permit would be obtained through a Request for Authorization (RFA) submitted to the NJDEP Bureau of Stormwater Permitting and implemented through the Soil Erosion and Sediment Control Plan developed by NJDOT.

# ***Rahway River Greenway Concept Plan***

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## ***NJDEP Waterfront Development Regulations Excerpt***

### **7:7E-8.11 Public access to the waterfront**

(a) Public access to the waterfront is the ability of all members of the community at large to pass physically and visually to, from and along the ocean shore and other waterfronts.

(b) Coastal development adjacent to all coastal waters, including both natural and developed waterfront areas, shall provide permanent perpendicular and linear access to the waterfront to the maximum extent practicable, including both visual and physical access. Development that limits public access and the diversity of the waterfront experiences is discouraged.

1. All development adjacent to water shall, to the maximum extent practicable, provide, within its site boundary, a linear waterfront strip accessible to the public. If there is a linear waterfront accessway on either side of the site and the continuation of which is not feasible within the boundaries of the site, a pathway around the site connecting to the adjacent parts, or potential parts of the waterfront path system in adjacent parcels shall be provided.

2. Municipalities that do not currently provide, or have active plans to provide, access to the water will not be eligible for Greenway or Shore Protection funding.

3. Public access must be clearly marked, provide parking where appropriate, be designed to encourage the public to take advantage of the waterfront setting, and must be barrier free where practicable.

4. A fee for access, including parking where appropriate, to or use of publicly owned waterfront facilities shall be no greater than that which is required to operate and maintain the facility and must not discriminate between residents and non-residents except that municipalities may set a fee schedule that charges up to twice as much to non-residents for use of marinas and boat launching facilities for which local funds provided 50 percent or more of the costs.

5. All establishments, including marinas and beach clubs, which control access to tidal waters shall comply with the Law Against Discrimination, N.J.S.A. 10:5-1 et seq.



# Rahway River Greenway Concept Plan

## COASTAL ZONE MANAGEMENT

7:7E-8.12

6. Public access, including parking where appropriate, shall be provided to publicly funded shore protection structures, beaches nourished with public funds and to waterfronts created by public projects unless such access would create a safety hazard to the user. Physical barriers or local regulations which unreasonably interfere with access to, along or across a structure or beach are prohibited.

7. Development located within the Hudson River Waterfront Special Area shall comply with the additional requirements of the Hudson River Waterfront rule, N.J.A.C. 7:7E-3.48.

8. Development along Raritan Bay within Monmouth County shall be consistent with the Bayshore Waterfront Access Plan (Monmouth County Planning Board and the Trust for Public Land for NJDEP, 1987).

9. Development within the Atlantic City Special Area shall comply with the additional requirements of the Atlantic City rule at N.J.A.C. 7:7E-3.49.

10. Development elsewhere in the coastal zone shall conform with any adopted municipal, county or regional waterfront access plan, provided the plan is consistent with the Coastal Zone Management rules.

11. The Department may require some or all of the public access portion of a site to be dedicated for public use through measures such as a conservation restriction.

12. Development adjacent to coastal waters shall provide fishing access within the provision of public access wherever feasible and warranted.

13. Development adjacent to coastal waters shall provide barrier free access within the provisions of public access wherever feasible and warranted by the characteristics of the access area.

14. For developments which reduce existing on-street parking that is used by the public for access to the waterfront, mitigation for the loss of these public parking areas is required at a minimum of 1:1 within the proposed development site or other location within 250 feet of the proposed project site.

(c) At sites proposed for the construction of single family or duplex residential dwellings, which are not part of a larger development, public access to the waterfront is not required as a condition of the coastal permit.

(d) Rationale: See the OAL Note at the beginning of this subchapter.

Amended by R.1985 d.715, effective February 3, 1986.  
See: 17 N.J.R. 1466(a), 17 N.J.R. 1797(b), 17 N.J.R. 1797(c), 18 N.J.R. 314(a).

(b)3-7 added.

Amended by R.1988 d.338, effective August 15, 1988.  
See: 20 N.J.R. 139(a), 20 N.J.R. 2058(b).

Deleted (b)7 and substituted new.

See: 31 N.J.R. 2042(a), 32 N.J.R. 503(a).

In (b), inserted a new 9, and recodified former 9 through 13 as 10 through 14.

Amended by R.2000 d.428, effective October 16, 2000.

See: 32 N.J.R. 864(a), 32 N.J.R. 3784(b).

In (b)11, substituted "restriction" for "casements".

Amended by R.2003 d.60, effective February 3, 2003.

See: 34 N.J.R. 74(a), 35 N.J.R. 632(a).

Rewrote the section.

### Law Review and Journal Commentaries

Resolving State Title Claims to Tidelands: Practice and Procedure.  
William E. Andersen, 168 N.J.Law. 8 (Mag.) (April 1995).

### Case Notes

Regulation requiring coastal development to permit access to the waterfront to the maximum extent practicable, including both visual and physical access, did not impose absolute prohibition against oceanfront development which interferes with the view of inland property owners. *Bubis v. Kassin*, 323 N.J.Super. 601, 733 A.2d 1232 (N.J.Super.A.D. 1999).

Project promoting public access and water dependent uses of waterfront property complied with Waterfront Development Act. Matter of Waterfront Development Permit No. 87-1235-1 by Dept. of Environmental Protection to Union County Utilities Authority, 257 N.J.Super. 524, 608 A.2d 973 (A.D.1992).

Shoreline development that limits public access and the diversity of shoreline experiences is discouraged (citing former N.J.A.C. 7:7E-9.12). *Lusardi v. Curtis Point Property Owners Assn.*, 86 N.J. 217, 430 A.2d 881 (1981).

# City of Rahway Family of Signs 5-12-05

Guidance  
Group



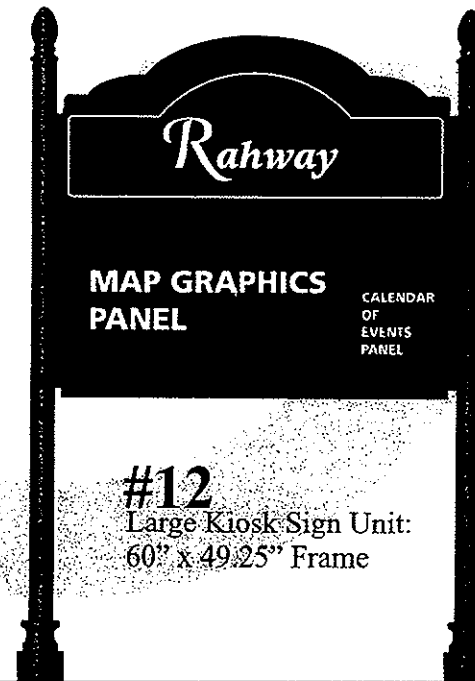
## Design 1 Structure A



**#10**  
Pedestrian Sign  
Unit:  
24" x 62" Frame



**#11**  
4-Sided Pedestrian  
Sign Unit:  
10" x 41.50"  
Sign Cube with  
Scroll and Cap



**#12**  
Large Kiosk Sign Unit:  
60" x 49.25" Frame

**CITY OF RAHWAY  
GREEN BUILDING AND SUSTAINABILITY  
MASTER PLAN ELEMENT**

*Prepared for:*

**ENVIRONMENTAL COMMISSION, CITY OF RAHWAY, NEW JERSEY**

*Funded by:*

**THIS PLAN WAS PREPARED WITH THE ASSISTANCE OF A  
SMART GROWTH PLANNING GRANT FROM THE  
ASSOCIATION OF NEW JERSEY ENVIRONMENTAL COMMISSIONS**

*Prepared by:*

**GREENER BY DESIGN  
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*Submitted on:*

**May 17, 2010**

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## 1.0 INTRODUCTION

### 1.1 Background

#### **Sustainability**

This Green Building and Environmental Sustainability Plan Element of the Master Plan has been prepared in accordance with the Municipal Land Use Law (M.L.U.L.). N.J.S.A. 40:55D-28a which provides that the Planning Board “may prepare and, after public hearing, adopt or amend a master plan or component parts thereof, to guide the use of lands within the municipality in a manner which protects public health and safety and promotes the general welfare.” The purpose of the Green Building and Environmental Sustainability Plan is to establish goals, policies and strategies to protect natural resources and to create a healthy and sustainable economy and society.

Sustainability is described by the American Planning Association as “the capability to equitably meet the vital human needs of the present without compromising the ability of future generations to meet their own needs by preserving and protecting the area’s ecosystems and natural resources. The concept of sustainability describes a condition in which human use of natural resources, required for the continuation of life, is in balance with Nature’s ability to replenish them.”<sup>1</sup>

In practice, sustainability is a process which leads to a sustainable condition. Sustainability encompasses the decision-making processes related to where and how to preserve and conserve, where and how to grow, protecting our natural resources and maintaining biodiversity, maintaining a healthy economy, and providing safe, healthy places to live, work and recreate. The sustainable equation balances the environment with the economy with societal needs. These are often referred to as the “triple bottom line.” In addition, this balancing act includes the impact of buildings and structures on the local, regional, and global environment. As stated in the Green Plans, Working Strategies for a Sustainable Future: A Primer, “success is not measured by imposing one agenda over another, but by finding solutions that integrate many needs and concerns.”<sup>2</sup>

The overriding goal of the Green Building and Environmental Sustainability Plan Element is to make sustainability inherent in community policies and regulations. The sustainability of the municipality’s resources, including the built and natural environments, is dependent on the implementation of the goals, policies and strategies of this plan element. Through the adoption of this plan element, municipal residents may learn the components of sustainability and how planning for sustainability advances the means for the environment, the economy and the community to become more sustainable. Understanding the interdependence of the three elements of sustainability, this plan element seeks to reduce activities that encroach upon nature, meet human needs fairly and efficiently, and reduce dependence upon fossil fuels, underground metals, and minerals.

#### **New Jersey Municipal Land Use Law**

The Municipal Land Use Law describes the contents of the Green Building and Environmental Sustainability Plan Element at N.J.S.A. 40:55D-28b (15), as a plan

<sup>1</sup> American Planning Association – Policy Guide on Planning for Sustainability – p. 3

<sup>2</sup> Resource Renewal Institute, “Green Plans, Working Strategies for a Sustainable Future, A Primer,” p. 6

*"which shall provide for, encourage, and promote the efficient use of natural resources; consider the impact of buildings on the local, regional and global environment; allow ecosystems to function naturally; conserve and reuse water; treat storm water on site; and optimize climatic conditions through site orientation and design."*

N.J.S.A. 40:55D-2 identifies the purpose of the M.L.U.L. and the statutory authority for municipal land use planning and regulation in New Jersey. More than one-half (nine of fifteen) of the purposes of the M.L.U.L. charge the Planning Board with a mandate to protect the environment, prevent urban sprawl, and protect the State's natural resources. This Green Building and Environmental Sustainability Master Plan Element has been prepared to conserve natural resources and promote the maintenance of a clean and healthy environment. Nine of the purposes of the law are listed below, which are consistent with the locally identified goals and objectives of this plan:

- To encourage municipal action to guide the appropriate use of or development of all lands in the state, in a manner which will promote the public health, safety, morals and general welfare;
- To secure safety from fire, flood, panic, and other natural and man-made disasters;
- To provide adequate light, air and open space;
- To ensure that the development of individual municipalities does not conflict with the development and general welfare of neighboring municipalities, the county and the State as a whole
- To promote the establishment of appropriate population densities and concentrations that will contribute to the well-being of persons, neighborhoods, communities and regions, and the preservation of the environment;
- To provide sufficient space in appropriate locations for a variety of agricultural, residential, recreational, commercial, industrial uses, and open space both public and private, according to their respective environmental requirements in order to meet the needs of all New Jersey citizens;
- To promote the conservation of historic sites and districts, open space, energy resources and valuable natural resources in the State and to prevent urban sprawl and degradation of the environment through improper use of the land;
- To promote utilization of renewable energy sources; and
- To promote the maximum practicable recovery and recycling of recyclable materials from municipal solid waste through the use of planning practices designed to incorporate the State Recycling Plan goals and to compliment municipal recycling programs.

#### **New Jersey State Development and Redevelopment Plan**

The 2001 State Development and Redevelopment Plan (SDRP), through the State Planning Commission, establishes policies to guide the formulation of local land management and natural resource conservation policy<sup>3</sup>. A revised State Plan has not yet been released by the Commission. However, the SDRP Cross Acceptance III process, started in 2004 and concluded in 2007, anticipated that a revised State Plan will be released sometime in 2009. Plan Endorsement, a municipally-voluntary continuation of cross acceptance, is a bottom up process which allows municipalities, working in concert with the Office of Smart Growth (OSG), to integrate local plans into the SDRP. Participation in the Plan Endorsement Process allows municipalities to move forward in coordinating local plans with the SDRP, even in the absence

<sup>3</sup> <http://www.nj.gov/dca/divisions/osp/plan/>

of having an updated and adopted SDRP. The Plan Endorsement process requires a municipality to include a Sustainability Statement that describes the town's intent to plan for sustainability. Municipalities may petition for Plan Endorsement at any time and may be a condition of receiving of certain state grants.

Aligning the goals of this Green Building and Sustainable Master Plan Element with the goals of the SDRP is an added line of defense and prudent reinforcement for the Township's vision of itself as a sustainable community.

### **Rahway City Master Plan**

Paraphrasing its Introduction, the *Master Plan for the City of Rahway*<sup>4</sup>, at a minimum, fulfills the requirements of State law to have a master plan and land use regulations which react to development in Rahway. However, the most recent plan also aims to perpetuate Rahway's proactive role in encouraging and fostering development that will have a positive impact on its future. While containing all of the necessary elements of a master plan called for in the state statute, the master plan focuses on the principal issues facing the City:

- Continuing efforts to revitalize the retail sector of the downtown
- Capitalizing on the success of the Union County Arts Center
- Utilizing the renovation and expansion of commuter parking at the train station to foster retail and service development
- Maximizing opportunities for development of vacant parcels in Rahway, particularly the 11-acre parcel behind City Hall to generate taxes and provide jobs and housing
- Retaining and improving the quality of community services, including the schools and indoor recreation for the young and elderly alike
- Retaining Rahway's employment base by accommodating the needs of its current industries and businesses (including Merck and the Hospital) in a way that protects citizens' right to a high quality of life
- Fostering opportunities for new housing development
- Catering to the needs of its growing elderly population in housing and recreation
- Encouraging the preservation of historic structures and areas
- Creating opportunities for small businesses in the retail, service and industrial sectors
- Taking measures to improve access to and use of the waterfront for recreation and development while protecting against flooding and negative environmental consequences

The plan was prepared by planning consultants in cooperation with the Rahway City Council, Planning Board and Zoning Board of Adjustment, as well as the Rahway Center Partnership, and working under the guidance of the City's Department of Building, Planning and Economic Development. The current Master Plan was adopted in February 1997, then revised in April 2002, March and December 2005, July 2006 and December 2008.

The Master Plan presents a series of goals and objectives and then follows with 12 elements, as follows:

- Land Use Plan Element
- Housing Plan Element
- Economic Plan Element

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<sup>4</sup> Master Plan, the City of Rahway, Union County, New Jersey, prepared for the Rahway Planning Board, prepared by Abelew Phillips Preiss & Shapiro, Inc., adopted February 1997, last revised December 2008.

- Utilities Plan Element
- Community Facilities Plan Element
- Open Space and Recreation Plan Element
- Circulation Plan Element
- Historic Preservation Plan Element
- Recycling Plan Element
- Municipal Stormwater Management Plan
- Bikepath Plan for the City of Rahway
- Rahway River Greenway Plan

Many of these existing plan elements are very relevant to the present effort to make the Rahway Master Plan greener and more sustainable through the adoption of a Green Building and Sustainability Master Plan Element.

### **Rahway Environmental Commission**

According to its March 1996 Mission Statement provided by Commission Chairman Jeffrey Robinson, the Rahway Environmental Commission's mission is to make a unified effort to eliminate or favorably resolve all local environmental problems so that each of our citizens can enjoy an excellent quality of life.

The EC's goals and objectives are:

- To protect natural resources and encourage their wise use; study and make recommendations concerning:
  - Open space preservation
  - Water resources management
  - Noise control
  - Soil and landscape protection
  - Environmental appearance
  - Marine resources
  - Protection of the flora and fauna
- To develop and maintain an accurate local data base of Rahway's environmental and natural resources (ERI, open space, etc.).
- To coordinate and integrate environmental activities in Rahway.
- To inform the public through educational programs, publications and meetings.
  - Play a public liaison role – both informing and listening
  - Provide a forum for city residents to present environmental issues for the attention of the commission
- To promote regional and long range planning.
- To review and comment on governmental actions.
- "Things" that can affect the Rahway environment but fall outside local review (Action by state agencies, neighboring municipalities)
- To function as the local pipeline to other governmental environmental agencies and organizations.

Rahway's Environmental Commission (EC), is strictly an advisory board. However, by taking advantage of a broad range of responsibilities it can and does contribute to the environmental health and welfare of the community in a number of ways; these include:

- Maintaining its Environmental Resource Inventory
- Performing studies and investigations
- Keeping an eye on our parks and greenways



- Advocating for positive environmental policies
- Education and informing residents
- Making recommendations to the City Council, Redevelopment Agency, Planning Board and Zoning Board

In its monthly meetings, the EC also conducts routine review of:

- NJ Department of Environmental Protection (NJDEP) notifications regarding hazardous substance discharges
- NJDEP notices regarding regulatory changes
- Wetland applications and stream encroachment permits between developers and NJDEP
- Sewer extension permits
- Site plans presented to the City Planning and Zoning Boards
- City Council resolutions and ordinances having environmental impacts

### **Association of New Jersey Environmental Commissions**

The Association of New Jersey Environmental Commissions, or ANJEC, was established, "To promote the public interest in natural resource protection, sustainable development and reclamation and to support environmental commissions and open space committees working with citizens and other non-profit organizations." This plan was prepared with the assistance of a Smart Growth Planning Grant from ANJEC with matching funds from the City of Rahway.

## **1.2 Vision for Rahway Green Building and Sustainability Master Plan Element**

### **Methodology**

This Vision Statement and Outline of the Green Buildings and Sustainable Master Plan Element (GB&SMPE) for the City of Rahway is based on input from the following sources:

- Background information provided on the Rahway Environmental Commission's relevant activities and initiatives at its October 2009 meeting
- Small breakout group presentations and discussions at the Environmental Commission's November 2009 meeting
- Tours of the City's downtown and redevelopment areas, as well as historic and cultural sites, parks and river corridors in November and December 2009
- Presentations by the Environmental Commissioners and follow-up discussion with Planning Board members and public at a joint meeting of the Environmental Commission and Planning Board in January 2010
- Review of the existing April 2002 Master Plan for the City of Rahway, including subsequent elements addressing municipal storm water management, the Rahway River greenway concept plan, and bike path plan
- Review of sustainable master plans and sustainable master plan elements prepared by other localities in New Jersey, as well as draft guidance provided by the New Jersey Chapter of the American Planning Association (NJ-APA). (Note that in the coming year it is anticipated that NJ-APA will issue final guidance for preparing GB&SMPEs and that Sustainable Jersey will incorporate that guidance into their certification program; however, these steps will come only after the Rahway GB&SMPE must be completed per the terms of the ANJEC grant.)

### **Goals and Objectives**

The City of Rahway's goals of achieving smart growth and preserving the environment were "spotlighted" by Sustainable Jersey in their guidance on how to prepare a climate action plan, and people are moving back into Rahway's downtown recognizing it as a desirable place to live

near downtown resources and transit convenient to Philadelphia, New York City (see Box below) and points between. The City of Rahway’s vision for a sustainable future is founded on the following four objectives of sustainability as applied to Rahway (taken from the APA-NJ Model Green Building and Environmental Sustainability Master Plan Element):

- Communities as good places to live, which offer economic and other opportunities to their inhabitants.
- Societal values – things like individual liberty and democracy.
- Biodiversity of the natural environment, both for the contribution that it makes to the quality of human life and for its own inherent value.
- Ability of natural systems to provide the life-supporting "services", or natural capital, that are rarely counted by economists, but which have recently been estimated to be worth nearly as much as total gross human economic product.

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**Box. Rahway’s Convenient Transit Connections to New York City**

Rahway has been touting its quick and easy accessibility to Newark Airport by train. It is a 15-minute ride from Rahway to the airport where riders can then transfer to and ride the Air Train (a monorail system) to all of the air terminals. Air travelers and airline personnel have been traveling from the airport to Rahway and staying at the Indigo Hotel across the street from the Rahway Train Station. The station stop at the airport was built by NJ Transit about five years ago. It has since become a big selling point for the city.

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**Guiding Principles**

In addition, the City applied the following practical guidelines in developing its Green Buildings and Sustainable Environment Master Plan Element:

- Recognize and build on what the City has already done or set in motion that relates to sustainable development, both in terms of Environmental Commission initiatives taken and Master Plan elements prepared. Conduct a gap analysis of the implementation and effectiveness of selected relevant existing master plan elements relative to the GB&SMPE components outlined below.
- Focus on SMPE components that address the City’s highest priorities for sustainable development in the most cost-effective way, e.g. by integrating several sustainability measures into a small number of specific, high-profile land use development initiatives that are the most vital to the future of Rahway (rather than pursue a long wish list that is less likely to be fully implementable and sustainable).
- Recommend plans that address all three pillars of sustainable development, i.e. environment, social and economic sustainability, and that provide benefits to all five categories of stakeholders, i.e. government, residents, businesses, schools, and civil organizations, present and of course future.
- Implement and sustain the recommended SMPE land use planning components by including a major component of public outreach, environmental education, and programming.
- Sustainable Jersey’s certification program was used wherever possible in recommending actions, because: (1) Sustainable Jersey is a widely accepted source of information on sustainable development actions, and their respective methodologies, stakeholders, timeframes and resource needs; and (2) Rahway plans to pursue certification by Sustainable Jersey so actions taken that would qualify for Sustainable Jersey points would provide an added advantage.

**Major Components of GB&SMPE**

Three major components of the Rahway SMPE include two high-profile land use / development initiatives and a stakeholder outreach and environmental education component. Where relevant, the existing master plan elements aided in specifying sustainability objectives and actions. In addition, the improved elements were integrated into a single sustainability approach to the City's downtown redevelopment.

**Downtown Redevelopment**

The following planning measures relate to downtown Redevelopment Areas in the City of Rahway but, by institutionalizing it in the redevelopment process, sustainability can also be applied to other redevelopment areas in the City.

- **Brownfields Cleanup & Redevelopment.** Remediate and utilize brownfields to gain needed space for redevelopment or parks, thus densifying downtown and providing needed open space and recreation, and to remove the stigma preventing redevelopment.
- **Transit Village & Circulation.** Create pedestrian, bike and transit friendly circulation that conserves energy by shifting to more energy-efficient urban forms and more efficient routing.
- **Green Buildings.** Conduct thorough sustainability audits (energy, water, solid waste, etc.) of not only all existing municipal buildings, but also all existing redevelopment projects, and conduct thorough green building assessments of all municipal buildings and redevelopment projects that are under construction or in the planning and design stages, and recommend energy efficiency, renewable energy and other measures to improve sustainability.
- **Parking Lots & Garages.** With fewer cars needed, densify parking lots into a fewer number of parking garages and utilize the resulting surplus parking lots for redevelopment sites or parks.
- **Parks & Recreation.** Review the number, size, accessibility, features and quality of downtown parks relative to downtown redevelopment plans and, using land generated by brownfield cleanups and parking lot conversions, identify optimal locations for new parks that can be incorporated into the downtown pedestrian, bike and transit circulation system, as well as into the citywide river/greenway system (see below).

**Citywide River/Greenway System**

The following planning measures focus on development of greenways along the rivers in the City of Rahway but, by institutionalizing it in the greenway system development process, sustainability can also be incorporated into the planning of other greenways in the City. This will entail effective partnership with the County, since many existing parks in the City of Rahway are owned by Union County, as well as with private sources of financing for parks.

- **Parks & Recreation.** Create new park space along the rivers and streams in the City and expand and improve existing parks.
- **Circulation.** Link the existing riverside parks with new riverside parks and other parks and greenways in the City to provide an efficient and comprehensive system for pedestrian and bike circulation while, at the same time, providing valuable corridors for wildlife to travel between protected habitats which improves their chances for survival in urban areas where a given habitat area may not be sufficient in terms of area, food, cover, reproduction, etc.

- **Flood Control and Wetlands.** Continue to prevent and remove development from the 100-year floodplain of the rivers and streams in the City, and restore or create wetlands and other natural floodplain uses and values.
- **Water Pollution Control and Green Infrastructure.** Incorporate green infrastructure into the riverside parks and greenways so that storm water is managed in a way that minimizes surface water runoff, soil erosion, and stream sedimentation.
- **Water Conservation.** Implement and replicate the water conservation project currently being designed with support from the State to reduce wastewater generation generally in the City.
- **Tree Planting and Maintenance.** Focus the city's tree planting and maintenance program on the riverside parks and greenways, being careful to choose trees that are not only survivable and manageable on the City's streets but which also are compatible with the ecological restoration themes of the riparian areas being recovered and converted to parkland.
- **Invasive Species and Control of Destructive Wildlife.** Encourage protection and growth of native plants and protection of native animals. Encourage elimination of invasive plants and control of non-native animals.

#### ***Environmental Education and Community Outreach and Development***

- **Stakeholder Outreach.** Develop and implement an effective public information, education and consultation program tailored specifically to implementing the SMPE.
- **Environmental Education in Schools.** Partner with the Board of Education to develop and implement a comprehensive environmental education curriculum at all levels in the City's school system that will utilize not only the school system's natural sciences teachers but also the physical resources of the City's parks and greenways systems themselves.
- **Environmental Education in Parks.** Develop an environmental education program for the city's parks and greenways systems, providing interpretive trails, signage and other physical resources, as well as human resources to provide guided tours and teach classes.
- **Environmental Education in Libraries.** Establish a green reading room in the City's Main Library, and green reading shelves in the City's schools, providing resources for planning, designing and constructing or refurbishing, operating and maintaining green homes, offices, businesses, shops, industries, neighborhoods, infrastructure and communities.

#### **Organization of GB&SMPE**

Within each of the above components and areas, activities were grouped according to whether they have been started / completed, high priority / near-term, and lower priority / needing more time to develop and implement. The APA New Jersey Chapter's Model SMPE and case studies from Highland Park, Hopewell and West Windsor were used as guidance for both organization/format and substance as appropriate to Rahway's unique needs and desires.

**Monitoring and Evaluation of GB&SMPE**

The implementation and effectiveness of the GB&SMPE will be monitored and evaluated over time. The Environmental Commission and Planning Board will hold an annual joint public meeting to review monitoring and evaluation results and recommendations. When the project work group is satisfied that sufficient progress has been made, a new set of GB&SMPE planning components will be developed from among the potential measures listed in the APA-New Jersey Model Green Building and Environmental Sustainability Master Plan Element (see box at end of Section 5).

## 2.0 SUSTAINABLE DOWNTOWN REDEVELOPMENT

### 2.1 Goals and Objectives

The following planning measures relate to downtown Redevelopment Areas in the City of Rahway but, by institutionalizing it in the redevelopment process, sustainability can also be applied to other redevelopment areas in the City.

#### **Brownfields Cleanup & Redevelopment**

Remediate and utilize brownfields to gain needed space for redevelopment or parks, thus densifying downtown and providing needed open space and recreation, and to remove the stigma preventing redevelopment.

#### **Transit Village & Circulation**

Create pedestrian, bike and transit friendly circulation that conserves energy by shifting to more energy-efficient urban forms and more efficient routing.

#### **Green Buildings**

Conduct thorough sustainability audits (energy, water, solid waste, etc.) of not only all existing municipal buildings, but also all existing redevelopment projects, and conduct thorough green building assessments of all municipal buildings and redevelopment projects that are under construction or in the planning and design stages, and recommend energy efficiency, renewable energy and other measures to improve sustainability.

#### **Parking Lots and Garages**

With fewer cars needed, densify parking lots into a fewer number of parking garages and utilize the resulting surplus parking lots for redevelopment sites or parks.

#### **Parks and Recreation**

Review the number, size, accessibility, features and quality of downtown parks relative to downtown redevelopment plans and, using land generated by brownfield cleanups and parking lot conversions, identify optimal locations for new parks that can be incorporated into the downtown pedestrian, bike and transit circulation system, as well as into the citywide river/greenway system (see below).

### 2.2 Action Plan

The Action Plan below presents recommended actions, organized according to the goals and objectives outlined above, and identifies who should be involved, priority/status and timeframe, and estimated project costs and other resources needed for implementation. Many of the recommended actions can earn the City points toward Sustainable Jersey certification if the action is implemented and documented according to the Sustainable Jersey guidelines. The Sustainable Jersey actions and corresponding possible points are indicated in the action descriptions which also provide a link to the corresponding Sustainable Jersey webpage.

**ACTION PLAN: SUSTAINABLE DOWNTOWN REDEVELOPMENT****LAND USE AND ZONING*****Utilize LEED-ND in Downtown Redevelopment***

Utilize and seek certification for the Leadership in Energy and Environmental Design for Neighborhood Development Rating System (LEED-ND) in future downtown redevelopment planning. LEED certification provides independent, third-party verification that a development's location and design meet accepted high levels of environmentally responsible, sustainable development. LEED-ND integrates the principles of smart growth, urbanism and green building into the first national system for neighborhood design, developed by a collaboration of the US Green Building Council, Congress for the New Urbanism, and the Natural Resources Defense Council. Categories of LEED-ND project evaluation include:

- Smart Location and Linkage
- Neighborhood Pattern and Design
- Green Infrastructure and Buildings
- Innovation and Design Process
- Regional Priority Credit

Given these evaluation categories, LEED-ND can be used to guide many of the below components of this Sustainable Downtown Redevelopment theme of the Rahway GB&SMPE. Appendix A presents the LEED-ND Project Checklist. More information can be found at the USGBC LEED-ND webpage: <http://www.usgbc.org/DisplayPage.aspx?CMSPageID=148>

***Zoning to Promote Desired Downtown Development***

*What the City is already doing:* The City has established a series of over a dozen redevelopment areas, many implemented via innovative public private partnerships, comprising a broad redevelopment ring zone surrounding the downtown. Zoning can be tailored flexibly by the Rahway Redevelopment Authority to the needs and characteristics of each of the dozen-plus individual redevelopment areas. In addition, The Rahway Arts District Board, a 501(c)(3) organization representing downtown businesses, has recently taken over management of the Downtown Special Improvement District from the Rahway Center Partnership to reflect the City's recent initiative to move away from a retail emphasis to more of an arts and historical focus as a way of bringing more visitors to downtown restaurants, cafes, and businesses. The Board allocates about \$140,000 per year of funds generated by the 7% property tax surcharge levied on the District's approximately 165 businesses. Many projects have already been completed or are ongoing, including the restoration of the Union County Performing Arts Center and the development of a 1,200-seat amphitheatre and combination 225-seat black box theatre and dance studio (soon to be occupied by the world-renowned Nai-Ni Chen Dance Company). The proposed arts district would also provide one or more buildings with artists' lofts, e.g. in the YMCA or some other adaptively re-used existing building, where they could live, work and exhibit inexpensively.

*Make it a priority:* Although project-specific zoning can be advantageous from an individual site development perspective, the downtown arts district initiative described above could benefit from some form of overall downtown zoning or design review focusing on the aesthetic treatment of buildings, sites and infrastructure. Examples of such improvements include:

- Commissioning sculptures of famous Rahway citizens to be placed downtown, making the commissioning competitive and contingent upon the sculptor relocating to Rahway's arts district.
- Converting the unattractive railroad bridge across Milton Avenue at the train station in town center into a creative gateway to downtown by appropriate repainting, lighting and signage.

More generally, the Master Plan calls for the transformation of the downtown through both changing zoning to reflect current development, and enforcing current zoning that is mutually exclusive with undesirable development; the two actions the Master Plan recommends are:

- Reexamine zoning downtown, especially along Milton, Hazlewood, Fulton, Emerson, West Cherry St., Campbell St., Clinton St., and Elm Ave., and ensure that they are properly zoned to encourage mixed use, medium density development.
- Reexamine development west of Routes 514/27 to ensure that this area is compliant with low density, single family development.

## **BROWNFIELDS CLEANUP AND REDEVELOPMENT**

### ***Brownfields Redevelopment Opportunities***

*What the City is already doing:* The NJ DEP recently designated Rahway as a "Brownfield Development Area", thus providing it with one-stop shopping at NJ DEP for brownfield funding and financing up to a raised ceiling of \$5 million per year.

The Master Plan calls for reviewing remaining brownfields to identify those within 0.6 miles of downtown, and then look for funding and financing for their assessment, cleanup and redevelopment. State funding and financing is available under the NJ Hazardous Site Discharge Remediation Fund (HSDRF); designation as a Brownfields Development Area (BDA) would bring additional funding.

### ***Brownfield Areas Land Use Planning and Zoning***

The Master Plan calls for reexamining existing land use planning and zoning on and near brownfield sites to allow for new zoning to expedite redevelopment.

## **TRANSIT VILLAGE & CIRCULATION**

*What the City is already doing:* Rahway was designated as one of the first "transit villages" in New Jersey with a commitment to concentrate its redevelopment efforts and maximize the concentration of workers and residents within a one-half mile radius of the train station. The City wants to take advantage of this important designation to become a more pedestrian-friendly city and add to and enhance its mass transit options. Merck already operates a shuttle bus to ferry its employees from the train station to its campus; there is also a senior citizens' shuttle bus that makes a downtown circuit. The system of one-way streets for automobile circulation that reigned for 50 years was converted 3 years ago to the present more convenient two-way street system.

In addition, Rahway has been touting its quick and easy accessibility to Newark Airport by train. It is a 15-minute ride from Rahway to the airport where riders can then transfer to and ride the Air Train (a monorail system) to all of the air terminals. Air travelers and airline personnel have been traveling from the airport to Rahway and staying at the Indigo Hotel across the street from the Rahway Train Station. The station stop at the airport was built by NJ Transit about 5 years ago. It has since become a big selling point for the city.



**Mass Transit**

- Incentivize large local businesses to develop Transportation Management Plans providing alternative ways for employees to commute to work (mass transit, ride sharing, biking, walking)
- Review transit stops and schedules to improve convenience for riders
- Improve bike and pedestrian access to transit stations and stops (see Bikeways and Walkways below)
- Institute a citywide ride sharing website
- Publicize Rahway's convenience to Newark Airport by train.

**Alternative Transport**

- Gradually replace municipal public works, school and commercial vehicle fleets with more fuel-efficient alternative fuel vehicles
- Bring back horse-drawn carriage rides for downtown Rahway (ensuring humane treatment of the horses)

**Bikeways**

*What the City is already doing:* While there is an existing master plan element entitled, "Bike Path Plan for the City of Rahway (prepared by CME Associates in December 2004), that plan has apparently not been implemented. The bike paths that have been developed pre-date the existing bike path and greenway plans (see Section 3 below); these include the path developed by Union County beginning at Grand Avenue and going northwest through the County's Rahway River Park and the path going west along and the west toe of the levee north from Milton Avenue to Monroe Street. Despite these paths, there is a lack of bike-friendly routes across the City.

The downtown is home to many governmental and educational facilities as well as commercial and public transportation infrastructure. In light of the Rahway Master Plan, which calls for the redevelopment of the downtown into a walk-able, arts oriented, mixed-use setting, these different assets and resources can be connected via designated pedestrian and bikeway systems and integrated into a holistic downtown setting.

Implement, or complete implementing, one or more bikeway proposals presented in the Bike Path Plan for the City of Rahway to provide the benefits listed below. Where funds are limited, consider implementing elements of the bikeway proposals in the following order of priority from sustainability perspective:

- Bike access to and from downtown relative to outlying areas of the City – including the East Coast Greenway connecting to towns and regions north and south – emphasizing bike access to and storage at downtown transit centers, especially train station, to relieve rush hour traffic (reducing congestion, idling, etc.).
- Bike circulation and bike storage facilities elsewhere around downtown, emphasizing bike access to and storage at downtown parks, schools and other community facilities and services – link to Public Outreach and Environmental Education theme (see Section 5 below).
- Bike connectivity to downtown intersections with existing and proposed river greenway systems -- link to Sustainable River Greenways theme (see Section 4 below).

Bikeway design principles:

- Where street widths are insufficient to safely accommodate bike paths, consider building another downtown parking structure to alleviate the need for on-street parking on one side thus freeing up that side to establish a bike lane.
- Include pervious surface along all bikeway redevelopment, thus reducing storm water near vulnerable floodplains downtown.
- Provide signage along all bikeway redevelopment (especially on high traffic Milton Avenue and at transit center) to educate populace about pervious surface, storm water, and other environmental topics as well as direct downtown pedestrian traffic to designated pedestrian circulation systems.
- Follow recommended guidelines for corridor routing, setbacks, widths, surfaces, lighting, fencing, multiple uses and other safety provisions.

### **Walkways**

*What the City is already doing:* The City has replaced virtually all of the old sidewalks in the downtown area with new brick-paved walkways and other attractive pedestrian infrastructure, including street trees, benches and lamp posts.

Review pedestrian improvements proposed in the Master Plan and elsewhere and implement or complete implementing those relating to the downtown and which improve sustainability using as models the proposals and guidelines described above for bikeways. Where funds are limited, consider implementing walkway proposals in order of priority from a sustainability perspective. The following Monroe Bridge proposal in the Master Plan is illustrative.

Modify Monroe Bridge on East Milton Ave. by adding barriers between the busy road and pedestrian sections of the bridge to link the Essex / Main St. areas with resources within several blocks and currently separated by the river. These elements include:

- The new Library, which could effectively administer green education
- City services (City Hall, Firehouse, and Police Department, all right by the bridge) and Post Office
- Food service and entertainment downtown
- Rahway River Association as part of downtown entertainment zone with river walk, bikeway, and community center integration
- Grover Cleveland School
- Community Centers such as the Esterbrook senior center, the Claude Reed Community Center

### **GREEN BUILDINGS**

#### **Building Energy Audits**

*What the City is already doing:* In 2008, the Environmental Commission received a presentation on the NJ Bureau of Public Utilities' Local Government Energy Audit (LGEA) Program. Since then, the City has initiated participation in the LGEA Program which provides municipal building energy efficiency and renewable energy audits. In addition, solar photovoltaic equipment has been or is planned to be installed on several existing buildings in Rahway, including:

- Rahway Middle School & High School
- Merck & Co., Inc.
- Zion Evangelical Lutheran Church
- Walgreen Eastern Co., Inc.
- Resident
- Other commercial

*Make it a priority:* Energy conservation and renewable energy audits should be conducted of all major municipal, commercial and residential buildings in downtown redevelopment projects in particular and in the downtown area in general. Audits and/or retro-commissioning could be conducted of existing buildings and plans for buildings still in the design stage can be reviewed by energy specialists to identify opportunities for improving energy efficiency and adding renewable energy generation capability. Audit results can be used to identify opportunities to install energy efficiency retrofits and renewable energy equipment on the existing buildings. This will entail completion of the current NJ BPU LGEA audits, but the City can work with equipment vendors and service providers in the sustainable energy industry to find innovative ways to finance audits and retrofits of additional buildings.

**Green Building Policy/Resolution (SJ: 5 points)**

Develop and adopt a policy by resolution that supports green building design and operating practices for municipal facilities.

[http://www.sustainablejersey.com/actiondesc.php?arr\\_num=35&id\\_num=5!1](http://www.sustainablejersey.com/actiondesc.php?arr_num=35&id_num=5!1)

**Green Building Training (SJ: 5 points)**

Status: As part of the EC's promotion of "green friendly" and environmentally sustainable building practices, the EC organizes and promotes relevant sustainable development presentations each year. In 2007, the EC sponsored a presentation entitled, "High Performance Redevelopment: Sustainable Architecture in Rahway and Beyond" which covered the Leadership in Energy and Environmental Design program (LEED) and was well attended by participants in Rahway redevelopment, including developers, city officials, board members, and elected officials including the Mayor. In 2008, the EC sponsored a talk, "New Jersey's Clean Energy Program for Rahway Residents" which dealt with financial incentives, programs and services available to residential customers that can save energy, money and the environment.

Municipal staff and volunteers (board members) that regularly interact with builders and developers can participate in one or more green building training sessions to improve knowledge of green building to facilitate its implementation throughout the community.

[http://www.sustainablejersey.com/actiondesc.php?arr\\_num=36&id\\_num=5!2](http://www.sustainablejersey.com/actiondesc.php?arr_num=36&id_num=5!2)

**Green Building Scorecard for Commercial & Residential Buildings (SJ 10 points)**

Developing a green building scorecard as a voluntary element in their Site Plan approval process. A green building scorecard lists various green building design strategies that can be implemented as part of a residential or commercial development, whether part of a designated redevelopment area or not.

[http://www.sustainablejersey.com/actiondesc.php?arr\\_num=38&id\\_num=5!3](http://www.sustainablejersey.com/actiondesc.php?arr_num=38&id_num=5!3)

**Site Plan Green Design Standards for Commercial & Residential Buildings (SJ 20 points)**

In order to earn 20 points toward Sustainable Jersey certification, municipalities can amend their Site Plan checklist to include green design standards. This will require the adoption of an ordinance to amend the Site Plan checklist. Site Plan approval would then become conditional on fulfillment of these items, for which statutory authority is given by N.J.S.A. 40:55D-41 (contents of Site Plan ordinance).

[http://www.sustainablejersey.com/actiondesc.php?arr\\_num=39&id\\_num=5!4](http://www.sustainablejersey.com/actiondesc.php?arr_num=39&id_num=5!4)

**Green Building Education for Commercial & Residential Buildings (SJ 5 points)**

Municipalities are encouraged to provide educational information to residents to facilitate the incorporation of green building elements to residential projects. Each municipality can determine

the best ways in which to accomplish this, however it is strongly suggested that green building educational materials be provided at the municipal construction office.

[http://www.sustainablejersey.com/actiondesc.php?arr\\_num=40&id\\_num=515](http://www.sustainablejersey.com/actiondesc.php?arr_num=40&id_num=515)

#### ***New Construction for Municipal Buildings (SJ 20 points)***

Municipalities that achieve a recognized green building standard when constructing new municipal buildings and facilities can earn 20 points toward Sustainable Jersey certification.

[http://www.sustainablejersey.com/actiondesc.php?arr\\_num=42&id\\_num=516](http://www.sustainablejersey.com/actiondesc.php?arr_num=42&id_num=516)

#### ***Upgrade/ Retrofit - Water Conservation for Municipal Buildings (SJ 10 points)***

*What the City is already doing:* The City is already participating in a NJ Department of Environmental Protection sponsored water conservation pilot project involving only five localities in the state.

Water conservation is the most cost-effective and environmentally sound way to reduce our demand for water. This action helps municipalities to identify and implement water conservation measures in their own facilities. The Green Building Policy/Resolution action is a pre-requisite

[http://www.sustainablejersey.com/actiondesc.php?arr\\_num=43&id\\_num=517](http://www.sustainablejersey.com/actiondesc.php?arr_num=43&id_num=517)

#### ***Upgrade/ Retrofit - Light Pollution for Municipal Buildings (SJ 10 points)***

The goal of the Reduce Light Pollution action is to create an outdoor lighting policy that helps prevent misdirected or excessive light caused by inappropriate or misaligned light fixtures. The Reduce Light Pollution action aims to reduce annoying and destructive impacts like glare, light trespass, and sky glow. A Reduce Light Pollution policy also helps encourage energy conservation, improve nighttime public safety, and prevent annoying and destructive light pollution.

[http://www.sustainablejersey.com/actiondesc.php?arr\\_num=44&id\\_num=518](http://www.sustainablejersey.com/actiondesc.php?arr_num=44&id_num=518)

#### ***Construction Waste Recycling for Municipal Buildings (SJ 10 points)***

The goal of this action is to increase recycling of construction and demolition debris through the adoption of a municipal policy. Such a policy would require that a certain percentage of the construction and demolition (C&D) debris generated from municipal projects be diverted from landfill disposal and instead managed through reuse and recycling options. These actions divert construction, demolition, and land-clearing debris from disposal in landfills and incinerators and can direct recyclable recovered resources back to the manufacturing or construction process.

[http://www.sustainablejersey.com/actiondesc.php?arr\\_num=45&id\\_num=519](http://www.sustainablejersey.com/actiondesc.php?arr_num=45&id_num=519)

### ***PARKING LOTS AND GARAGES***

*What the City is already doing:* The City has developed one parking structure to accommodate downtown visitors and plans two more. While financing is being sought for the additional parking structures, the City is beginning development of a surface parking facility both as an interim parking measure and as a means of banking that land for future redevelopment.

#### ***Onsite Parking at Redevelopment Projects***

The Master Plan notes that standalone parking facilities tend to encourage community blight while onsite parking incorporated into larger and denser new downtown redevelopment projects, e.g. as implemented by MERCK, will make downtown more walk-able.

#### ***Parking Requirements and Alternative Transport***

Evaluate zoning requirements for parking in downtown redevelopment projects to ensure that they do not encourage residents and visitors to drive to and around downtown as opposed to using mass transit, bicycling and walking.

***Incorporate Solar Energy in Parking Facilities***

Evaluate existing and planned parking lots and garages for potential opportunities to install photovoltaic solar energy panels.

***Incorporate Alternative Vehicle Charging Stations***

Estimate demand and prepare a plan and design for installing alternative vehicle charging stations at selected downtown parking facilities.

***Parking Facility Design***

Parking facilities should be designed to include safety features and be aesthetically pleasing to encourage downtown visitors to use them.

***PARKS AND RECREATION***

***Downtown Parks Integration with Redevelopment***

The Master Plan calls for increased attention to downtown parks and to provide park features for commercial and government development in downtown. Evaluate downtown parks and open space needs – function, location, size, design and programming – relative to planned redevelopment projects and projected population increase, demographics and density to ensure that parks meet the needs of the people who live in work in downtown. In addition to the larger traditional public parks, builders and developers of larger scale developments should be encouraged to incorporate attractive courtyards and green spaces into their developments.

***Environmental Education in Parks***

Emphasize environmental education in park facilities and program design – link to Public Outreach and Environmental Education theme in Section 5.

***Community Garden Integration with Redevelopment and Parks***

Where possible provide garden space for residents.

***Downtown Parks Connectivity***

Evaluate and plan multi-modal connectivity among downtown parks and between downtown parks and river corridors and other parks beyond downtown via greenways and other sustainable transport – link to Citywide River Greenways them in Section 4.

### 3.0 SUSTAINABLE RIVER GREENWAY SYSTEM

#### 3.1 Goals and Objectives

The following planning measures focus on development of greenways along the rivers in the City of Rahway but, by institutionalizing it in the greenway system development process, sustainability can also be incorporated into the planning of other greenways in the City. This will entail effective partnership with the County, since many existing parks in the City of Rahway are owned by Union County, as well as with private sources of financing for parks.

##### **Parks and Recreation**

Create new park space along the rivers and streams in the City and expand and improve existing parks.

##### **Circulation**

Link the existing riverside parks with new riverside parks and other parks and greenways in the City to provide an efficient and comprehensive system for pedestrian and bike circulation while, at the same time, providing valuable corridors for wildlife to travel between protected habitats which improves their chances for survival in urban areas where a given habitat area may not be sufficient in terms of area, food, cover, reproduction, etc.

##### **Flood Control and Wetlands**

Continue to prevent and remove development from the 100-year floodplain of the rivers and streams in the City, and restore or create wetlands and other natural floodplain uses and values.

##### **Water Pollution Control and Green Infrastructure**

Incorporate green infrastructure into the riverside parks and greenways so that storm water is managed in a way that minimizes surface water runoff, soil erosion, and stream sedimentation.

##### **Water Conservation**

Implement and replicate the water conservation project currently being designed with support from the State to reduce wastewater generation generally in the City.

##### **Tree Planting and Maintenance**

Focus the city's tree planting and maintenance program on the riverside parks and greenways, being careful to choose trees that are not only survivable and manageable on the City's streets but which also are compatible with the ecological restoration themes of the riparian areas being recovered and converted to parkland.

##### **Invasive Species and Control of Destructive Wildlife**

Encourage protection and growth of native plants and protection of native animals. Encourage elimination of invasive plants and control of non-native animals.

#### 3.2 Action Plan

The Action Plan below presents recommended actions, organized according to the goals and objectives outlined above, and identifies who should be involved, priority/status and timeframe, and estimated project costs and other resources needed for implementation. Many of the recommended actions can earn the City points toward Sustainable Jersey certification if the action is implemented and documented according to the Sustainable Jersey guidelines. The Sustainable Jersey actions and corresponding possible points are indicated in the action descriptions which also provide a link to the corresponding Sustainable Jersey webpage.

**ACTION PLAN: SUSTAINABLE RIVER GREENWAY SYSTEM****PARKS AND RECREATION**

*What the City is already doing:* Three greenway plans have been prepared over the past 20 years that are relevant to the City of Rahway; these include:

- *Greenways to the Arthur Kill: A Greenway Plan for the Arthur Kill Tributaries, prepared by Dunrie A. Greiling and published by New Jersey Conservation Foundation, dated 1993. It covers all of the river basins feeding into the Arthur Kill.*
- *Rahway River Greenway Concept Plan, prepared by The RBA Group, dated February 6, 2006, and adopted in 2006 as an element of the Master Plan for the City of Rahway. It focuses only on that stretch of the Rahway River that flows through the City of Rahway, and on public transport, public access and aesthetics issues. The Rahway River Association played a role in commissioning the plan as a means of getting Union County to consider the greenway concept.*
- *Rahway River Greenway Plan, which covers the entire river basin (prepared by Rutgers Edward J. Bloustein School of Planning and Public Policy, February 2009). It addresses the entire Rahway River Basin, including jurisdictions beyond the City of Rahway.*

*The 2006 greenway master plan element was based on concepts included in the very substantial 1993 Arthur Kill greenway plan. However, implementation of the existing greenways in Rahway, i.e. the Rahway River Park and Milton Lake Park (on Robinson's Branch), was part of a Union County river greenway plan extending from Rahway upstream to Springfield. Implementation of that County plan took place 80 years ago and therefore greatly pre-dated both the 2006 greenway master plan element and 2009 Rutgers greenway plan. The latter two plans apparently have not been implemented due mainly to lack of funding. Further, no greenway plan yet been implemented for the stretch of Rahway River extending downstream from Rahway to Carteret and Linden.*

*The Rahway River Association has been since 1992 the region's leading voice in championing the cause of preserving open space, improving water quality and protecting natural resources of the Rahway River watershed which encompasses 24 municipalities including the City of Rahway. In this capacity, the Association has been instrumental in implementing many environmentally sustainable projects along the river in Rahway and maintains an excellent cooperation with the City of Rahway.*

*Recent notable projects that the Rahway River Association has completed or ongoing – with financial, engineering/technical or construction support obtained from private, City, County, Federal (e.g., US Army Corps, FEMA) sources, include:*

- *Acquiring flood-prone properties, demolishing the existing buildings and replacing them with constructed wetlands, native species plantings, community gardens, parks and open space to improve floodplain hydraulic and ecologic functioning, e.g. at St. George's and Central Avenue (community gardens) and Union and Allen Streets (Bezega Park)*
- *Restoring stream banks on Robinson's Branch, Orchard Brook and Albemarle*
- *Restoring wetlands on the Rahway River at Monroe Street and Routes 1&9*
- *Controlling non-point water pollution to Robinson's Branch*
- *Managing invasive vegetation at Bezega Park on the Rahway River*
- *Establishing a park near the Covanta facility*

*A summary of the Association's accomplishments and activities can be found at their website: [www.rahwayriver.org](http://www.rahwayriver.org). While the Association has been established and continuously active for nearly 20 years, and is stable in its officers and membership, the recent economic downturn has jeopardized both sustaining grants and project-specific funding. Presently, the Association can afford only one part-time assistant to organize events and conservation projects can be developed only one at a time.*

#### **Evaluate and Revise Existing Greenway Plan**

*Make it a priority: This Sustainable River Greenway System theme of the Rahway GB&SMPE is intended to address all major waterways in Rahway, including Robinson's Branch and South Branch as well as Rahway River, and cover flood control, water quality and other sustainability issues as well as public access and transport via greenways and aesthetics issues. The following initial steps are recommended:*

- Review the existing Open Space and Recreation Plan element of the Master Plan relative to the City's rivers and streams, and their associated floodplains and wetlands.
- Evaluate the status of implementation and the extent of effectiveness of the existing greenway master plan element (Rahway River Greenway Concept Plan, 2006) in achieving sustainable development goals and identify any obstacles to implementation or effectiveness.
- Update and revise the existing Rahway River Greenway Plan addressing obstacles and gaps to improve the likelihood of implementation and effectiveness. In addition, the 2006 plan element could also benefit from integration of concepts and information from the 2009 Rutgers Rahway River greenway plan (see below).

#### **Prepare Financing and Implementation Action Plan**

Provide a rigorous action plan detailing how the all measures will be financed and implemented.

- Prepare a detailed implementation plan, identifying priorities, responsible parties, timeframes, resources needed, and indicators and targets to monitor and evaluate. Focus on measures and actions that have low or no cost, such as the voluntary and regulatory measures recommended in the existing greenway master plan element.
- Conduct a rigorous analysis of financial feasibility, identify relevant and available financial resources, and prepare a plan for obtaining those financial resources. Section 4: Funding Sources, in the Rutgers 2009 greenway plan describes several sources of funding; this summary should be reviewed and updated to determine which sources are most feasible and appropriate to fund the measures recommended in the 2006 greenway master plan element.

#### **Voluntary Measures**

*What the City is already doing: Each year the EC actively participates in the activities of the Rahway River Association. In 2007, the Rahway EC commemorated the Year of the Rahway River by joining other ECs based in the Rahway River Basin in an Earth Day basin-wide garbage cleanup. In 2008, the Rahway EC participated in the annual Earth Day cleanup again, as well as in a special 1-day conference, "The State of the Rahway Watershed" and a Rutgers University workshop, "Rahway River Greenway". The Rahway EC participated in the Annual Earth Day cleanups in 2009 and 2010 as well.*

*Make it a priority: The following voluntary measures were recommended in the 2006 Rahway River Greenway Concept Plan and are still valid:*

- Create a community program to encourage local groups and business owners to donate time, services or money to local landscaping, vegetation management and clean-up efforts.



- Create a community fund for tree and vegetation replacement and clean-up efforts.
- Encourage the donation of conservation easements.
- Provide tax, zoning and permit incentives to landowners and developers to preserve or enhance trees and vegetation.

### **Regulatory Measures**

Make it a priority: The following regulatory measures were recommended in the 2006 Rahway River Greenway Concept Plan and are still valid:

- Enact ordinances for viewshed protection, tree conservation, landscaping and vegetation management. Viewshed ordinances may include controls for building and site design to avoid impacting scenic resources or obstruction views.
- Establish an overlay district to establish consistent standards for development or design within the greenway corridor.
- Develop design review standards and requirements for development within the river corridor to ensure that greenway quality, character, public access and connections are incorporated into future development in keeping with the Rahway River Greenway Plan.

### **Public Transport and Access Measures**

What the City is already doing: The existing Rahway greenway master plan element's Vision Statement is: "The Rahway River Greenway can become an integral part of the City of Rahway's identity, enhancing the quality of place and offering the fullest possible public access and recreational opportunities along a scenic and healthy waterway." The Goals of the existing greenway master plan element are:

- Develop continuous pedestrian and bicycle facilities along the river and to public destinations (downtown, parks, river access points)
- Provide public access to the river and facilities to support activities such as boating, fishing and bird watching.
- Provide public gathering places along the river and create and designate areas for viewing the river environment.
- Manage the riverbanks to restore the natural river environment and create a litter free environment and improve river views.

Make it a priority:

- Review, update and prioritize the action plan design recommendations presented in the 2006 existing City greenway master plan element as presented overall and by river zone in Parts 2 and 3 of the plan.
- Review, update and prioritize the general recommendations in Section 2 of the 2009 Rutgers Rahway greenway plan; pay particular attention to the proposed and potential acquisition sites in Tables 1.2 and 1.3 of the Appendix that are located in the City of Rahway.
- Reconcile and integrate the recommendations of the 2006 and 2009 greenway plans, set priorities for implementation, evaluate financial feasibility and identify and seek financing.

### **FLOOD CONTROL AND WETLANDS**

What the City is already doing: As described above, several projects in recent years have acquired and demolished homes in flood-prone areas that are costing both the residents and the City additional money to protect and insure against, and repair and cleanup after, severe flood events. The City is now involved in efforts to improve the City's overall flood rating so that residents' flood insurance premiums can be reduced.

Make it a priority:

- Identify additional properties within the 100-year floodplain that could be acquired and converted to parkland thus restoring floodplain hydraulic and ecosystem functioning and values while also reducing the costs of repairing flood damage to buildings and properties.
- Identify areas where wetlands can be protected, enhanced, restored or created (constructed), develop a prioritized plan for such measures and search for relevant funding and financing.
- Implement the water conservation measures described below.
- Reduced property tax revenues from converted parcels may be offset ultimately by increases in property values of homes outside the floodplain but adjacent to the expanded and improved parklands and greenways

**WATER POLLUTION CONTROL AND GREEN INFRASTRUCTURE**

What the City is already doing: The City has recently become the beneficiary of a \$1 million technical assistance grant, to be shared with the Town of Clark, from the US Army Corps of Engineers and NJ Department of Environmental Protection under Section 404 of the Federal Clean Water Act to the Rutgers University Extension Service to carry out projects to control non-point source water pollution (i.e., especially floatable trash like plastic bottles, suspended solids from erosion, and nutrients such as nitrogen and phosphorus from fertilizer). The Environmental Commission and Rahway River Association have for the past 4 years sponsored river cleanup days as well.

Make it a priority:

- Solid waste (plastic bottles and bags, tires) – Encourage recycling by providing recycling containers as well as trash receptacles at all public trash collection points thus reducing solid waste deposited in the streams and floodplains; also continue to hold annual river cleanup days
- Sedimentation (suspended solids) – Develop a citywide education and incentivization effort to utilize rain barrels, rain gardens and permeable surfaces (permeable pavers, gravel, etc.) on park lands and other land uses to reduce the volume and velocity of runoff and thus reduce soil erosion and stream sedimentation; revise rules to allow gravel driveways as long as they are maintained in an attractive way
- Nutrients (nitrogen and phosphorus) – Develop a citywide education and incentivization effort to reduce curb-side yard waste and other sources of excess nutrient pollution of surface water runoff by reducing the use of nitrogen lawn fertilizers, encouraging the use of mulching mowers and backyard composting, and replacing lawns areas with native shrubs and groundcovers
- Chlorides (sodium chloride) – Utilize an eco-friendly chloride (e.g., magnesium, potassium or calcium chloride) and/or other sustainable means of melting snow on roads and walks thus reducing the need to plow as well as reducing water pollution

**WATER CONSERVATION**

What the City is already doing: Rahway is one of five New Jersey municipalities chosen to participate in the New Jersey Water Conservation Program funded by the Rutgers Cooperative Extension, NJ DEP and US EPA. The 3-year pilot project will develop a model community-based water conservation education program with the aim of reducing residential water use by

10%. RHS will have two "green" restrooms by the end of the school year for free. This may lead to entire school being updated with low flow technologies next year. Benefits include:

- RHS and the community will serve as a model of water conservation within the region.
- Complete implementation of the New Jersey Water Conservation Program funded by the Rutgers Cooperative Extension, NJ DEP and US EPA.
- The 3-year pilot project will develop a model community-based water conservation education program with the aim of reducing residential water use by 10%.

Make it a priority: In addition to completing and looking for funding to extend the water conservation pilot project described above, the public outreach and environmental education program described in Section 4 below should be utilized to encourage residents to practice water conservation; illustrative activities include:

- Making rainwater collection barrels
- Creating rain gardens
- Landscaping for water conservation (e.g., native species and xeri-scaping)
- Converting lawn areas to natural state with native trees, shrubs and wildflowers (versus invasive species)

### **TREE PLANTING AND MAINTENANCE**

What the City is already doing: The City of Rahway is very aggressive in protecting and maintaining Rahway's existing street tree stock. The City takes advantage of Union County's Green the Streets Fund to plant new street trees.

Make it a priority:

- Besides planting and maintaining trees throughout the city, emphasize saving trees that are threatened with redevelopment and routine street repairs, consulting a certified NJ arborist to help make these decisions.
- Plant greenway and park areas with native tree, shrub and flower species.

### **INVASIVE SPECIES AND CONTROL OF DESTRUCTIVE WILDLIFE**

Make it a priority:

- Encourage protection and growth of native plants and protection of native animals.
- Encourage elimination of invasive plants and control of non-native animals.

## 4.0 COMMUNITY OUTREACH AND ENVIRONMENTAL EDUCATION

### 4.1 Goals and Objectives

In order for the community to reach the vision together, there must first be a shared understanding of the vocabulary of sustainability. That understanding will be developed as residents generate a personal rationale for sustainability and feel that they contribute to the shift toward a sustainable future. Through continual education the concept of, and work toward, a more sustainable future will become an inherent ideal in the community. This plan is the first step in that effort.

#### **Stakeholder Outreach**

Develop and implement an effective public information, education and consultation program tailored specifically to implementing the SMPE.

#### **Environmental Education in Schools**

Partner with the Board of Education to develop and implement a comprehensive environmental education curriculum at all levels in the City's school system that will utilize not only the school system's natural sciences teachers but also the physical resources of the City's parks and greenways systems themselves.

#### **Environmental Education in Parks**

Develop an environmental education program for the city's parks and greenways systems, providing interpretive trails, signage and other physical resources, as well as human resources to provide guided tours and teach classes.

#### **Environmental Education in Libraries**

Establish a green reading room in the City's Main Library, and green reading shelves in the City's schools, providing resources for planning, designing and constructing or refurbishing, operating and maintaining green homes, offices, businesses, shops, industries, neighborhoods, infrastructure and communities.

### 4.2 Action Plan

The Action Plan below presents recommended actions, organized according to the goals and objectives outlined above, and identifies who should be involved, priority/status and timeframe, and estimated project costs and other resources needed for implementation. Many of the recommended actions can earn the City points toward Sustainable Jersey certification if the action is implemented and documented according to the Sustainable Jersey guidelines. The Sustainable Jersey actions and corresponding possible points are indicated in the action descriptions which also provide a link to the corresponding Sustainable Jersey webpage.

**ACTION PLAN: COMMUNITY OUTREACH AND ENVIRONMENTAL EDUCATION****STAKEHOLDER OUTREACH**

What the City is already doing: See descriptions of annual green buildings workshops in Section 2 and annual Rahway River cleanup campaigns in Section 3 above for examples of ongoing public environmental outreach and education.

**Establish "Green Team" (SJ: 10 points)**

Make it a priority: This could be the same group as recommended in Section 5.1 to oversee GB&SMPE adoption and implementation, etc.

[http://www.sustainablejersey.com/actiondesc.php?arr\\_num=1&id\\_num=111](http://www.sustainablejersey.com/actiondesc.php?arr_num=1&id_num=111)

**Survey and Evaluate Environmental Outreach and Education**

Make it a priority: Survey and evaluate public environmental information, education and consultation. Design and administer a comprehensive annual sustainability survey that assesses resident awareness, and knowledge of and participation in both Township wide and individual sustainable activities, and that gathers information for indicators that is not readily available by other methods of data collection.

**Illustrative Outreach and Education Delivery Systems**

Make it a priority:

- Develop an environmental guideline or owner's manual for residents, as well as a program to distribute it. Consider using the *New Jersey Green Home Remodeling Guidelines* which can be found at [www.greenbuilding.rutgers.edu](http://www.greenbuilding.rutgers.edu) or the *Hopewell Township Living Greener Guide*, which covers a very broad range of sustainability topics. It could be pressed into the public eye by its being placed in between an essential city service online, and the user. When someone downloads tax forms, for example, it should include this document.
- Develop an information kit for electronic distribution to local schools and non-profit groups regarding participation in sustainability efforts
- Develop a municipal awareness campaign using messages in local publications, e.g. a regular column in local newspapers and township newsletters about sustainability issues such as local air quality; radio broadcasts; local public television channel presentations; and outreach efforts at community events, etc.
- Distribute free energy efficiency starter kits to interested individuals and groups or wherever township staff is communicating with the public (farmers market, community meetings, etc.); the starter kit could be a collection of information and simple energy efficiency measures, such as CFLs, low flow showerheads (< 1.5 gpm), and faucet aerators, along with information on the actions residents can take and how to go about taking them (e.g. how to sign up for wind power, how to plant trees for electricity savings, or how to take advantage of and apply for Energy Star rebates)
- Facilitate the certification of Energy Star Homes by providing a listing of qualified certifiers, and by marketing the program to homeowners

**Illustrative Environmental Education Events**

Make it a priority:

- Hold free viewing of environmental awareness videos
- Have at least one "green event" featuring green local products.
- Have at least two "clean your parks" events.
- Sponsor city wide or neighborhood wide garage sales to encourage re-use.
- Create Rahway river summer events.

- Host block parties at local parks and community facilities.
- Host "Local Garden Tours" of area homes, businesses, and organizations (e.g., organic fruits and vegetables, natural vegetation, wildlife habitat gardens, water efficient landscaping, green roofs, and organic lawn and gardens).
- Organize a series of Community Sustainability Events that help to raise awareness about local air quality (i.e., Walk Your Child to School Day, Bike to Work Day, Car Free Day etc.)

### ***Illustrative Environmental Education Grants, Contests and Challenges***

#### ***Make it a priority:***

- Involve residents and children of all ages in Green Challenges.
- Celebrate residents or local businesses that have helped promote sustainability within Rahway through public recognition.
- Conduct contests with prizes in the form of local tax breaks as awards to recognize green leaders within the community.
- Provide mini-grants to promote recycling awareness; small grants (\$500-1500) can encourage schools, community groups or non-profits to develop innovative projects that promote source reduction, reuse, or recycling in the community.
- Recruit businesses and organizations into the federal Energy Star program, utilizing pledges, peer exchanges, and public recognition programs to sustain involvement.
- Publicize every grant, certification or award achieved or maintained by the Township by the following three means; a press release; posting of a plaques or certificate in the municipal building lobby; and posting an announcement on the Township web page.

### ***Illustrative Content for Environmental Education***

#### ***Make it a priority:***

- Encourage trading in of gas mowers for electric or battery powered mowers
- Using green or high reflectance roofs on buildings and other reflectance and shading techniques for parking lots and impervious
- Raising awareness about Energy Star business partnership and Energy Star Home program
- Changing light bulbs and unplugging unused equipment
- Recycling solid waste
- Using green cleaning products and practices
- Making rainwater collection barrels
- Creating rain gardens
- Landscaping for water conservation (e.g., native species and xeri-scaping)
- Maintaining lawns in natural state with native trees, shrubs and wildflowers (versus invasive species)
- Using vegetation to shade buildings and to reduce the urban heat island effect
- Composting yard waste
- Reducing motor vehicle emissions
- Complying with idling laws
- Walking to school

### ***Community Education and Outreach (SJ: Six sub-actions at 10 points each)***

***Make it a priority:*** Community Education and Outreach is an essential element of any effort to make change. It provides community members with an understanding of sustainability as it relates to their everyday lives by giving them an understanding of how the choices they make can lead to a more sustainable future for themselves and their communities. This action promotes sustainability literacy and builds awareness, understanding, and action by educating

municipal staff, residents, and the business and non-profit sectors of the community about the need for sustainable choices and behaviors. In addition to promoting action outside of local government, it can build support within the community for local government to take bolder steps. Through Community Education and Outreach, the Green Team and other partners offer opportunities for various stakeholders to learn about sustainability initiatives and to implement sustainable practices. SJ offers six "sub-actions" worth 10 points each:

- Organize a Community Energy Outreach Program  
[http://www.sustainablejersey.com/actiondesc.php?arr\\_num=4&id\\_num=1!3](http://www.sustainablejersey.com/actiondesc.php?arr_num=4&id_num=1!3)
- Purchasing Clean and Green Energy  
[http://www.sustainablejersey.com/actiondesc.php?arr\\_num=5&id\\_num=1!4](http://www.sustainablejersey.com/actiondesc.php?arr_num=5&id_num=1!4)
- Efficient Home Heating and Cooling Subsidies  
[http://www.sustainablejersey.com/actiondesc.php?arr\\_num=7&id\\_num=1!6](http://www.sustainablejersey.com/actiondesc.php?arr_num=7&id_num=1!6)
- Home Energy Audits and Upgrades  
[http://www.sustainablejersey.com/actiondesc.php?arr\\_num=7&id\\_num=1!6](http://www.sustainablejersey.com/actiondesc.php?arr_num=7&id_num=1!6)
- ENERGY STAR Appliances and Products  
[http://www.sustainablejersey.com/actiondesc.php?arr\\_num=8&id\\_num=1!7](http://www.sustainablejersey.com/actiondesc.php?arr_num=8&id_num=1!7)
- Refrigerator-Freezer Recycling  
[http://www.sustainablejersey.com/actiondesc.php?arr\\_num=9&id\\_num=1!8](http://www.sustainablejersey.com/actiondesc.php?arr_num=9&id_num=1!8)

### ***Green Challenges & Community Programs (SJ: 10 points)***

*Make it a priority:* Local government alone does not have the capacity to solve many sustainability problems. For example, local government facilities and operations usually account for 2-3% of all local greenhouse gas emissions. Achieving targets recommended by scientists (80-98% reductions) will require broad community participation. A Green Challenge Program is a strategy to engage individual residents and businesses in a community effort towards sustainability. Challenges help individual people and households make a significant collective impact in achieving broader goals. Green Challenges engage residents to join in achieving common community goals. With a high rate of participation, residents will be able to track and monitor progress within their communities and to see results to which they can easily relate. Reporting the success and progress of the Program will show people their participation contributes to a community-wide movement, which is the first step to recognizing one's role in a global movement. See for more information:

[http://www.sustainablejersey.com/actiondesc.php?arr\\_num=12&id\\_num=1!11](http://www.sustainablejersey.com/actiondesc.php?arr_num=12&id_num=1!11)

## ***ENVIRONMENTAL EDUCATION IN SCHOOLS, PARKS AND LIBRARIES***

### ***Schools***

*Make it a priority:*

- Develop one or more projects with schools to install solar energy systems and conduct associated classroom activities.
- Create a compost pile at local schools to dispose of waste from cafeterias. Use this compost to start a vegetable garden to supplement school lunch ingredients. Use this program to teach students life cycle analysis of food. Students will begin to appreciate problems involved in getting a group of anyone, especially fellow students to follow a program. Responses to problems, such as inappropriate material ending up in compost can include student led school wide PR campaigns, student government initiatives, etc.

### ***Parks, Conservation Areas, Greenways and Trails***

*Make it a priority:*

- Develop and install appropriate interpretative signs and information brochures on biodiversity values at Rahway parks, conservation reserves, greenways and trails
- Recommend to Union County that they develop "Wolf's Farm" (also called "Graywill Acres"), located on Bramhall Road in Rahway as a park and education facility; recruit local volunteers to operate it; and use the farm and adjacent natural areas to provide horseback rides for children, establish community vegetable gardens, bring back chicken coops to produce organic locally grown Grade A eggs, etc.

#### *Libraries and Other Community Facilities*

- Create a Sustainable Development Reading Room at the Library
- Create sustainability educational displays in municipal buildings

#### *Downtown Redevelopment Area*

- Provide developers and property owners with information, education and training relating to green building design and construction, e.g. using green roofs or high reflectance roofs on buildings and other reflectance/shading techniques for parking lots and impervious surfaces.
- Work with local stores to promote Energy Star products and educate consumers about the Energy Star label. Provide links to ENERGY STAR's product locator and buyer's guide on Rahway website
- Bring back humane carriage rides, or tram-type shuttle buses, in downtown Rahway

#### ***School-based Energy Conservation Programs (SJ: 10 points)***

The purpose of the School Energy Conservation Programs action is to promote school participation in existing energy conservation/education programs. See for more information: [http://www.sustainablejersey.com/actiondesc.php?arr\\_num=10&id\\_num=1!9](http://www.sustainablejersey.com/actiondesc.php?arr_num=10&id_num=1!9)

#### ***Education for Sustainability Programs (SJ: 10 points)***

Sustainability is about the future, and students are our future. Education for sustainability will provide students with a broader context for the choices they make and will give students insight into the implications of their consumption habits. Students will be able to apply what they are learning in school to real-world issues that directly affect their local communities, and that can have global implications. Students, and by extension their families, can gain an understanding of what achieving sustainability requires and why it is important to use natural resources efficiently, engage the whole community, and maintain a viable economy. The goal of education for sustainability is to prepare students to make informed decisions about their lifestyles and consumption habits. Many sustainability issues can provide a meaningful context for what students are already learning in school. Educating the next generation about sustainability issues is a logical role for schools, and it is one that will help us to move toward a more sustainable future. See for more information:

[http://www.sustainablejersey.com/actiondesc.php?arr\\_num=11&id\\_num=1!10](http://www.sustainablejersey.com/actiondesc.php?arr_num=11&id_num=1!10)

#### ***Green Fairs (SJ: Two sub-actions at 10 points each)***

*Make it a priority:* A Green Fair is a community-wide event that educates and encourages people of all ages to adopt a more sustainable lifestyle. Green Fairs allow participants to visualize how their seemingly small individual efforts can make a huge difference in their community. SJ offers two "sub-actions" worth 10 points each:

- Hold a Green Fair:  
[http://www.sustainablejersey.com/actiondesc.php?arr\\_num=14&id\\_num=1!12](http://www.sustainablejersey.com/actiondesc.php?arr_num=14&id_num=1!12)
- "Green" Your Green Fair  
[http://www.sustainablejersey.com/actiondesc.php?arr\\_num=15&id\\_num=1!13](http://www.sustainablejersey.com/actiondesc.php?arr_num=15&id_num=1!13)



## 5.0 PLAN ELEMENT IMPLEMENTATION AND FOLLOWUP

### 5.1 Plan Element Adoption and Implementation

The SMPE will first need to be accepted at a meeting of the City of Rahway Environmental Commission, and then formally adopted by a vote of the City of Rahway Planning Board.

The GB&SMPE presented in Sections 2, 3 and 4 above can be converted to a set of tables to facilitate implementation by providing information on who should implement each action, with what priority and schedule, and with what level and source of money and other resources. While the City's Planning Department is the logical organization to implement the GB&SMPE, it is recommended that a GB&SMPE Oversight Committee, which could be called the "Green Team", be established with representatives from the Environmental Commission, Planning Board, City Council, City Administration, Redevelopment Agency, Rahway Arts District Board, Rahway Center Partnership, Rahway River Association, School Board and general public.

### 5.2 Plan Element Monitoring and Evaluation

The Green Team will monitor and evaluate the completeness of GB&SMPE implementation on a quarterly basis, and will monitor and evaluate effectiveness in meeting GB&SMPE goals and objectives on an annual basis. This will provide feedback to the City of Rahway as to whether changes are needed in order to speed and complete implementation of individual measures or to meet goals and objectives for effectiveness.

The most systematic means of monitoring and evaluation for implementation is to expand the implementation tables described in Section 5.1 above into tracking tables using the actions presented in Sections 2, 3 and 4 of this plan element as the row headings and then adding columns for implementation or completion progress, actual or projected completion date, person reporting and person reported to, etc. Systematic monitoring and evaluation of effectiveness, however, is best aided by first establishing a series of indicators and associated targets. Indicators are measurable parameters representing particular objectives, e.g. solid waste recycled annually, while targets are the quantitative expression of the respective indicators, e.g. a specific number of tons of solid waste recycled or percentage of total solid waste recycled in a year, which can be regularly monitored. Indicators and targets could be set for each component of the three themes in this plan, for each of the three themes in general, or for the overall City.

Setting indicators and targets is not a requirement for GB&SMPEs and is a significant task requiring stakeholder input; however, it can pay significant dividends over the long run in setting and achieving realistic goals. If the City pursues certification under the Sustainable Jersey program, perhaps the most cost-effective way of establishing indicators and targets for the Rahway GB&SMPE is for the City to conduct a Carbon Footprint Analysis and then prepare a Climate Action Plan which requires that indicators and targets be established to track progress in achieving reductions in greenhouse gases.

### 5.3 Plan Element Updating and Revision

When the Green Team is satisfied that sufficient progress has been made, a new set of GB&SMPE planning components will be developed from among the potential measures listed in the APA-New Jersey Model Green Building and Environmental Sustainability Master Plan Element (see box below). Through this process, additional existing Master Plan Elements will be reviewed and amended to be made more sustainable.

The ultimate goal will be to make the entire Master Plan a Sustainable Master Plan the next time the Master Plan must be updated. An interim goal would be to check at the end of the first year to confirm that the GB&SMPE meets the criteria established for such plan elements by the New Jersey Chapter of the American Planning Association and Sustainable Jersey, when they finalize their guidance for GB&SMPEs in the coming year. Then the City of Rahway can submit the GB&SMPE to Sustainable Jersey to obtain points under the Sustainable Jersey's certification program.

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***Sustainable Community Components (Source: Model Green Building and Environmental Sustainability Plan Element, American Planning Association – NJ Chapter)***

Community Development

This section can be crafted to create complete communities that are multi-faceted, healthy and balanced. This should include, and is not limited to, sufficient housing, jobs, community services, recreation and transportation.

Land Use, Landscapes, and Ecology

Development of the land, eco-friendly or not, places an impact on the surrounding environment. Establishing sustainable design objectives will encourage development and preservation – or restoration – practices to limit environmental impact. Agricultural lands, open spaces, soils, and greenways then have the opportunity to become productive landscapes for people and for wildlife.

Water

As development in a community occurs, the natural hydrology of individual sites is modified and often times only restored through the use of expensive remediation techniques. Limiting the disruption from the outset can prevent water quality degradation, in turn saving money on remediation or restoration to its natural state. In the same respect, efficient indoor water use puts less of a strain on the water supply and lowers water bills. Innovative measures to address stormwater, wastewater, and water efficiency enable the community to alleviate negative effects on individual sites and reduce the overall impact on the system.

Energy

Buildings consume approximately 37% of the energy and 68% of the electricity produced in the United States annually, according to the U.S. Department of Energy. In addition, fossil-based generation of electricity releases carbon dioxide, which contributes to global climate change.<sup>5</sup> Changing energy practices within a building helps to reduce the amount of electricity used and reduces the demand on the source. Innovative technologies, such as solar, wind, and geothermal power, can also reduce the need for raw materials to create electricity. Additionally, communities may choose to promote better insulated homes, the use of more energy-efficient appliances, and other techniques discussed in this section.

<sup>5</sup> US Green Building Council, *New Construction & Major Renovation Version 2.2 Reference Guide*, 2<sup>nd</sup> Edition, September 2006.

Materials & Resources

While the greenest building may be the one that is already built, new construction practices can utilize renewable resources that have been harvested responsibly, transport materials from nearby sources, and reduce construction waste to minimize using landfill space. New construction and renovations can also recycle and re-use demolition materials from other nearby projects. On the land, materials management may include reducing the use of pesticides and fertilizers that degrade local waterways and groundwater sources.

Public Education & Outreach

Throughout the process of developing a Sustainability Plan Element, the most important factor of ensuring its success is educating the public. A municipality creating a sustainability program should provide encouragement, support, and education about short- and long-term actions to reduce the individual, as well as the community, environmental footprint.

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## 6.0 REFERENCES

Master Plan for the City of Rahway, prepared for the Rahway Planning Board, adopted February 1997, last updated December 2008.

Model Green Building and Environmental Sustainability Plan Element (Sustainability Plan Element), Draft, January 8, 2009, prepared by the Sustainability Committee of the American Planning Association – New Jersey Chapter.

Sustainable Jersey, Green Design Commercial & Residential Buildings, Draft, February 16, 2009.

The Sustainable West Windsor Plan 2007, prepared by the Center for Green Building at Rutgers University Edward J. Bloustein School of Planning and Public Policy  
[http://www.greenbuildingrutgers.us/uploaded\\_documents/West\\_Windsor.pdf](http://www.greenbuildingrutgers.us/uploaded_documents/West_Windsor.pdf)

Greening of Hopewell Township's Land Use Ordinances  
[http://www.greenbuildingrutgers.us/uploaded\\_documents/Living\\_Greener\\_6\\_10\\_08.pdf](http://www.greenbuildingrutgers.us/uploaded_documents/Living_Greener_6_10_08.pdf)

"Highland Park 2020" Green Community & Green Redevelopment Plan  
[IS THERE A RUTGERS LINK?]

Rahway River Greenway Plan, February 2009, prepared by Rutgers University Edward J. Bloustein School of Planning and Public Policy.

## APPENDIX A LEED 2009 FOR NEIGHBORHOOD DEVELOPMENT PROJECT CHECKLIST

### Smart Location and Linkage 27 possible points

- Prerequisite 1 Smart Location Required
- Prerequisite 2 Imperiled Species and Ecological Communities Required
- Prerequisite 3 Wetland and Water Body Conservation Required
- Prerequisite 4 Agricultural Land Conservation Required
- Prerequisite 5 Floodplain Avoidance Required
- Credit 1 Preferred Locations 10
- Credit 2 Brownfield Redevelopment 2
- Credit 3 Locations with Reduced Automobile Dependence 7
- Credit 4 Bicycle Network and Storage 1
- Credit 5 Housing and Jobs Proximity 3
- Credit 6 Steep Slope Protection 1
- Credit 7 Site Design for Habitat or Wetland and Water Body Conservation 1
- Credit 8 Restoration of Habitat or Wetlands and Water Bodies 1
- Credit 9 Long-Term Conservation Management of Habitat or Wetlands and Water Bodies 1

### Neighborhood Pattern and Design 44 possible points

- Prerequisite 1 Walkable Streets Required
- Prerequisite 2 Compact Development Required
- Prerequisite 3 Connected and Open Community Required
- Credit 1 Walkable Streets 12
- Credit 2 Compact Development 6
- Credit 3 Mixed-Use Neighborhood Centers 4
- Credit 4 Mixed-Income Diverse Communities 7
- Credit 5 Reduced Parking Footprint 1
- Credit 6 Street Network 2
- Credit 7 Transit Facilities 1
- Credit 8 Transportation Demand Management 2
- Credit 9 Access to Civic and Public Spaces 1
- Credit 10 Access to Recreation Facilities 1
- Credit 11 Visitability and Universal Design 1
- Credit 12 Community Outreach and Involvement 2
- Credit 13 Local Food Production 1
- Credit 14 Tree-Lined and Shaded Streets 2
- Credit 15 Neighborhood Schools 1

### Green Infrastructure and Buildings 29 possible points

- Prerequisite 1 Certified Green Building Required
- Prerequisite 2 Minimum Building Energy Efficiency Required
- Prerequisite 3 Minimum Building Water Efficiency Required
- Prerequisite 4 Construction Activity Pollution Prevention Required
- Credit 1 Certified Green Buildings 5
- Credit 2 Building Energy Efficiency 2
- Credit 3 Building Water Efficiency 1
- Credit 4 Water-Efficient Landscaping 1
- Credit 5 Existing Building Reuse 1
- Credit 6 Historic Resource Preservation and Adaptive Use 1
- Credit 7 Minimized Site Disturbance in Design and Construction 1
- Credit 8 Stormwater Management 4
- Credit 9 Heat Island Reduction 1
- Credit 10 Solar Orientation 1
- Credit 11 On-Site Renewable Energy Sources 3
- Credit 12 District Heating and Cooling 2
- Credit 13 Infrastructure Energy Efficiency 1
- Credit 14 Wastewater Management 2
- Credit 15 Recycled Content in Infrastructure 1
- Credit 16 Solid Waste Management Infrastructure 1

- Credit 17 Light Pollution Reduction 1

**Innovation and Design Process 6 possible points**

- Credit 1 Innovation and Exemplary Performance 1–5
- Credit 2 LEED® Accredited Professional 1

**Regional Priority Credit 4 possible points**

- Credit 1 Regional Priority 1–4

**LEED 2009 for Neighborhood Development Certification Levels**

100 base points plus 6 possible Innovation and Design Process and 4 possible Regional Priority Credit points

Certified 40–49 points

Silver 50–59 points

Gold 60–79 points

Platinum 80 points and above

**APPENDIX B**

RAHWAY CITY – 2009 Smart Growth Grant – *Green Building/Sustainability Master Plan*

SUBMITTED BY: \_\_\_\_\_ e-mail \_\_\_\_\_

DATE OF REPORT: May 15, 2010

TASKS AND TIMETABLE:

June 1 through Aug. 15, 2009	<ul style="list-style-type: none"> <li>• ANJEC Agreement signed by both parties</li> <li>• City contracts with Greener by Design (GbD)</li> <li>• Kickoff meeting with GbD, Project Team (PT) and ANJEC liaison; develop goals/objectives and list of topics for preliminary Vision document; identify stakeholders and develop outreach program for project</li> <li>• PT issues press release on project and opportunities for public input to local media, City website and newsletter</li> </ul>	<ul style="list-style-type: none"> <li>• Previously reported by the City.</li> </ul>
Aug. 16 through Sept. 30, 2009	<ul style="list-style-type: none"> <li>• GbD submits work plan and deliverables schedule to PT for review; drafts preliminary Vision document</li> <li>• PT publicizes first public input meeting to be held at joint Environmental Commission Planning Board meeting; invites City boards, staff, residents, interest groups, press, ANJEC</li> <li>• PT and GbD host first public input meeting</li> </ul>	<ul style="list-style-type: none"> <li>• The kickoff meeting was held September 10, 2009. Due to time constraints, completion of the kickoff meeting had to be deferred. The agenda and other handouts for the meeting are attached in a zip file.</li> </ul>
Oct. 1 through Nov. 15, 2009	<ul style="list-style-type: none"> <li>• GbD outlines GB/Sustainability Plan Element; presents to PT</li> </ul>	<ul style="list-style-type: none"> <li>• The kickoff meeting was continued at the next regular meeting of the EC on October 15, 2009. During the meeting, the EC and GbD prepared preliminary elements of the vision, outlined the stakeholder/public outreach program, and laid out the work plan/schedule going forward. The agenda, meeting notes and other handouts for the meeting are attached in a zip file.</li> </ul>
Nov. 16 through Dec. 30, 2009	<ul style="list-style-type: none"> <li>• GbD revises GB/Sustainability Plan Element</li> <li>• PT publicizes second public input meeting; invites City boards, staff, residents, interest groups, press, ANJEC</li> </ul>	<ul style="list-style-type: none"> <li>• At its regular meeting in November, the EC set 20 Jan 2010 as the date for a joint meeting of the EC and Planning Board (PB), to which the public would be invited, and at which a formal vision for the SMPPE will be developed.</li> <li>• In December, the EC issued a press release on the project identifying opportunities for public input on the GB/Sustainability Plan Element in local media, City website and newsletter and inviting the public to the joint EC/PB meeting 20 Jan 2010.</li> </ul>
Jan. 1 through Jan. 31, 2010	<ul style="list-style-type: none"> <li>• PT and GbD host second public input session</li> </ul>	<ul style="list-style-type: none"> <li>• On 20 Jan 2010 a joint public meeting of the EC and PB was held at which the EC</li> </ul>



		<p>members presented background information on the GB/Sustainability Plan Element project and their concepts for inclusion in the Element and answered questions and noted comments posed by the PB members and public.</p> <ul style="list-style-type: none"> <li>Based on input from the joint public meeting, GbD drafted the Vision for the GB/Sustainability Plan Element, including introduction, objectives, guiding principles, and outline of the Plan Element, as well as an update of the Work Plan/Schedule (see attachment).</li> <li><i>NOTE: Because of the EC's full agenda of usual business, it took 2 months to accomplish the internal EC kickoff/ visioning meeting in September-October 2009. And because of the difficulty in scheduling a joint public visioning meeting of the EC and PB, especially around the holidays, the schedule slipped an additional 2 months, so that overall the schedule has slipped 3 months. However, as the updated Work Plan/Schedule included at the end of this Project Report shows, the team still plans to complete the project within the 12 months originally allotted by ANJEC.</i></li> </ul>
Feb. 1 through Feb. 28, 2010	<ul style="list-style-type: none"> <li>GbD develops Draft Report presenting the Final Draft GB/Sustainability Plan Element; presents to PT</li> </ul>	<ul style="list-style-type: none"> <li>See updated Work Plan / Project Schedule at the end of this Progress Report.</li> </ul>
Mar. 1 through May 31, 2010	<ul style="list-style-type: none"> <li>GbD submits Final Report presenting the Final GB/Sustainability Plan Element, including recommendations for consistency revisions for other Master Plan elements, to PT</li> <li>PT delivers Final GB/Sustainability Plan Element to Planning Board with recommendation to adopt into Master Plan</li> <li>PT helps to publicize adoption hearing (ANJEC invited)</li> <li>PT presents GB/Sustainability Plan Element at adoption hearing</li> <li>PT posts GB/Sustainability Plan Element on website</li> <li>PT submits final report, documentation on expenditure of funds, copies of all outreach materials, and one paper and one digital copy of the GB/Sustainability Plan Element and Report to ANJEC to request reimbursement</li> </ul>	<ul style="list-style-type: none"> <li>GbD presented a partial Draft Report at the April 8 Rahway EC meeting; a revised schedule for completing the report was agreed (as outlined below).</li> <li><i>NOTE: The Consultant felt there were some additional items that would improve the report, but these were taking longer than anticipated to incorporate so additional time was requested by the Consultant and granted by the EC.</i></li> <li>GbD met with Rahway RDA Director Peter Pelissier May 3 and Rahway River Association Chairman Jeff Jotz May 4.</li> <li>GbD submitted the full Draft Report to the EC for review and comment May 6 (see attached file).</li> <li>GbD will attend the May 13 Rahway EC meeting to obtain their comments on the Draft Report.</li> <li>GbD will revise the Draft Report and submit by May 18 a Final Draft Report to the Rahway EC and Planning Board for review. ANJEC is invited to this meeting.</li> </ul>

**PLANNING BOARD  
CITY OF RAHWAY**

**RESOLUTION ADOPTING GREEN BUILDING AND SUSTAINABILITY MASTER  
PLAN ELEMENT**

**WHEREAS**, the Municipal Land Use Law (“MLUL”) provides at N.J.S.A. 40:55D-28 that “[t]he Planning Board may prepare and, after public hearing, adopt or amend a master plan or component parts thereof . . . .”; and

**WHEREAS**, N.J.S.A. 40:55D-28 goes on to provide that the master plan must include elements 1 and 2 namely, a statement of objectives, principles, assumptions, policies and standards and a land use plan element and may include other elements as described in the statute; and

**WHEREAS**, the current City master plan, which was adopted in February 1997 and revised through December 2008, does not include a green building and sustainability element as authorized by N.J.S.A. 40:55D-28b(16); and

**WHEREAS**, the City Environmental Commission, with the assistance of a Smart Growth Planning Grant from the Association of New Jersey Environmental Commissions, retained Greener by Design, of New Brunswick, New Jersey to prepare a green building and sustainability element.

**WHEREAS**, a public hearing, as required by the MLUL at N.J.S.A. 40:55D-28, 40:55D-10, and 40:55D-11, was held on June 29, 2010; and

**WHEREAS**, the Planning Board finds that the proposed green building and sustainability element will guide the use of lands within the City of Rahway in a manner which protects public health and safety and promotes the general welfare;

**NOW, THEREFORE, BE IT RESOLVED** by the Planning Board of the City of

Rahway in the County of Union, New Jersey, as follows:

1. The City of Rahway Green Building and Sustainability Master Plan Element prepared by Greener By Design and dated May 17, 2010 is hereby adopted and added to the City's 1997 Master Plan, as preciously supplemented and amended.
2. The Board Secretary is hereby directed to publish notice of the adoption of the Green Building and Sustainability Element and to file a copy of the amendment as adopted with the Union County Planning Board.

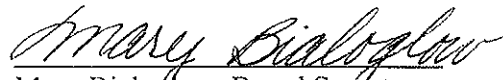
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The motion to approve this resolution was made by Commissioner Hering and seconded by Commissioner Caverly and was approved by the following roll call vote:

Those in favor:	Commissioners Hardoby, Hering, Caverly, Davis, Tapia, Simon, Lopez Chairman Robinson
Those opposed:	None
Those abstaining:	None

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The foregoing is a true copy of a Resolution adopted by the Planning Board of the City of Rahway at its meeting held on June 29, 2010.

  
Mary Bialoglow, Board Secretary  
City of Rahway

Dated: *June 30, 2010*