

B. *Circulation Element*

Current national transportation policies are not producing the desired outcomes for our communities. Therefore, it is essential that transportation reform be implemented at the local level to address community efficiency and livability. Traffic engineers have discovered that regions cannot build their way out of congestion, and increasing road capacity typically leads to additional traffic. Americans want transportation solutions that lead to greater social equity, a stronger sense of community, better air quality, a healthier population, improved public safety, and a more robust economy. The ability to move people and goods throughout the region while mitigating the traditional transportation conflicts that plague the nation's largest communities will be the result of a well designed and efficient transportation system.

The design of streets plays a role in keeping communities "livable." If neighborhood traffic is slow, pedestrians, bicyclists, and children are more likely to be safe. An interconnected street system where there are multiple pathways throughout the community will allow residents, employees, and visitors to choose the shortest and most direct route to their destination. In addition, a unified network of streets ensures that no single street will be burdened by excessive traffic.

According to The Camden County Public Transportation Plan (DVRPC-1997), seventy-seven percent (77%) of Township residents drive alone to work, ten percent (10%) car pool and seven percent (7%) use public transportation. The Ashland PATCO Station averages 2,350 boarders per weekday. The Woodcrest PATCO Station averages 3,150 boarders per day. Public transit needs to become an increasingly viable alternative for both commuters and residents. The new Garden State Park will provide transit-oriented opportunities for commuters to and from Philadelphia. The Camden County Public Transportation Plan identifies ten potential park-and-ride centers throughout Cherry Hill Township. NJDOT is advancing feasibility studies to determine the suitability for these centers.

The municipal transportation systems consist of regional highways, county roads, township streets and public transportation. Regionally, State Highway Route 70 and State Highway Route 38 serve the community in the east/west direction. Interstate Route 295 with two interchange locations within the Township serves as a major transportation and commuter route in the north/south direction.

This Circulation Element is advancing the following goals and objectives:

Goals

- Work with Camden County and the State of New Jersey to prioritize areas for improvements to resolve issue that conflict with Township goals.
- Coordinate with NJ Transit for improved service to the community.

- Balance land uses with the capacity of the circulation system to ensure that new and redeveloped land uses do not create an over capacity of the transportation system.
- Promote a pedestrian and bike friendly environment that provides for ease of movement from place to place.
- Promote the use of energy efficient technologies for transportation.
- Coordinate with NJ Transit for improved services to the community.
- Encourage the development of specialized transit services to meet the needs of the elderly, disabled, schoolchildren, and other transportation dependent groups.
- Encourage less use of the automobile for intra-township travel.
- Encourage the development of shared parking facilities in appropriate areas.
- Encourage enforcement of pedestrian safety in signed and marked pedestrian zones and crosswalks.



Route 38 and Chapel Avenue

Objectives

- Promote the interconnection of roads and neighborhoods.
- Establish a series of recommendations of specific road improvements and traffic controls that will be presented to NJDOT and the Camden County Highway Department.
- Encourage pedestrian traffic by providing well-designed sidewalks within the public right-of-way.

- Promote transportation management strategies that reduce peak-hour trips to or from non-residential developments.
- Improve traffic safety along the Route 70 corridor by eliminating the number of crossovers and establishing left-hand turning lanes at key locations and encourage improvements to remedy deficient intersections.
- Require that traffic-calming techniques be implemented where necessary to create a pedestrian friendly street environment and reduce the number vehicles cutting through residential neighborhoods.
- Use contrasting material for sidewalks and crosswalks to create a pedestrian friendly environment.
- Petition the NJDOT to improve signage for east bound travelers who wish to travel north on Kings Highway.
- Petition the NJDOT to improve traffic flow and safety through Erlton without widening the roadway.
- Petition the NJDOT to reconstruct the overpasses on Route 38 to allow for the free flow of all lanes at Haddonfield Road and Cuthbert Boulevard.
- Petition the NJDOT to align the crossovers at Covered Bridge Road and Westgate Drive to allow for simultaneous left hand turns and prevent back-ups on Route 70 through Barclay. Realignments should be designed and engineered in a manner that will preserve the entryway characteristics of residential neighborhoods. The efficiency of these intersections may also be improved in the short term by modifying the signal operation to allow for smoother traffic flow. The capacity of the intersections may be improved by phasing the signals to allow motorists to make left turns onto Route 70, which does not require immediate realignment.
- Investigate the purchase of land along Route 70 adjacent to Brighton Gardens so that the potential for a turn around is eliminated.
- Improve the drainage condition at the Route 38 and Cuthbert Road intersection to reduce flooding of these roadways during periods of heavy rain.
- Improve the drainage condition within the Downs Farms neighborhood to reduce flooding of these roadways during periods of heavy rain.
- Petition the County to install a center lane in Church Road to accommodate left-hand turning maneuvers.

Livable Neighborhood Streets

Neighborhood streets should be safe for children, comfortable for bicycling, and provide a pleasing environment for walking. Narrow, tree-lined streets should incorporate living spaces so residents can know and identify their neighbors

thereby creating a safer environment. Traffic calming is an essential ingredient for creating an effective network of streets.

Speeding in residential areas is the top citizen complaint in many municipalities. However, traffic experts say that tougher law enforcement is not the only answer. Public education and changes in traffic patterns are equally important.

According to the National Highway Traffic Safety Administration, speeding was a contributing factor in 29 percent of the nations fatal accidents. More than 20 percent of those accidents occurred where posted speed limits were 35 mph or less. Speeding happens throughout Cherry Hill Township and it compromises neighborhood livability and safety. It makes playing outdoors hazardous to children, increases background noise, and makes walking, bicycling, and driving dangerous for all citizens.

Traffic conditions near schools can seriously compromise the safety of school children. Although school zones have a 25 mph speed limit when children are present, these limits alone do not ensure the safety of children crossing streets within a school zone. The most common problems in school zones are excessive vehicle speed and traffic volume in areas where students must cross streets and where they are picked up and dropped off.

Combating residential speeding is not an issue unique to Cherry Hill Township. It has also been identified as a national concern. "Traffic calming" is defined as measures implemented to reduce speeding and discourage cut-through traffic. Following are initiatives that will encourage traffic calming.

Education alerts people to ways they can help ease traffic problems- for example, by reducing their speed or traveling by bus or bicycle instead of automobile. In addition, awareness campaigns such as speed watch programs and better driver training.

Engineering tools include a variety of traffic calming devices that can reduce speed, decrease volumes, and improve safety. Speed humps, pedestrian crosswalks, traffic circles, neckdowns and narrower road widths are physical improvements that can be constructed to reduce speeding.

Enforcement enlists the help of the Traffic Division of the Cherry Hill Police Department to focus enforcement efforts on a designated street and increase community awareness of speeding problems. Speed display signage, banners and photo radar programs slow speeding in neighborhoods contribute to livability and safety.

Cherry Hill has experienced success in controlling speeding on many residential streets. Through signage and enforcement along Chapel Avenue, for example, the number of speeding violations has been reduced. Cherry Hill should continue these efforts on Chapel Avenue and other designated street segments. All of these approaches can be considered when designing a traffic-calming project. Residents can also help by identifying neighborhood characteristics that should be taken into account when deciding the most effective approach.



Tree-lined residential street

Citizen involvement is an important part of all traffic calming projects. The people who live and work in the identified area should have an opportunity to become actively involved in the planning and decision-making process.

During the Master Plan neighborhood meetings, several streets were identified as areas of excessive speeding. The following chart presents street segments that require attention. These segments are designated on the District Traffic and Circulation Maps (**Maps B1 thru B8**).

Table B1 Street Segments in Need of Traffic Calming	
<i>Districts</i>	<i>Traffic Calming Improvements</i>
#1-East of the New Jersey Turnpike, South of Kresson Road to Evesham Road	(1) Morris Drive between Haddonfield-Berlin Road and Springdale Road. (2) Walt Whitman Boulevard between Haddonfield-Berlin Road and Burnt Mill Road.
#2-East of the New Jersey Turnpike, North of Kresson Road to the Pennsauken Creek.	(1) Birchwood Park Drive North between Springdale Road and Greentree Road. (2) Birchwood Drive South between Greentree Road and Route 70. (3) Beginning at Route 70, Wexford Drive to Tendring Road to Weston Drive to Dorset Road to Springdale Road. (4) Beginning at Tendring Road, Ashford Road to Dunbarton Road to Wexford Drive to Market Street to High Gate Lane to Evans Lane to Old Orchard Roads. (5) Beginning at Kresson Road, Cooper Run Road to Fox Hallow Drive to Cropwell Road.
#3-North to Cherry Hill Twp., East to the New Jersey Turnpike, South to Route 70, West to Kings Highway.	(1) Chapel Ave between Kings Highway and Interstate 295. (2) Beginning at Chapel Ave, Greenvale Road to Park Road to Frontage Road. (3) Chelten Parkway between Kings Highway and Route 70. (4) Edgemore Road between Chelten Parkway and Abington Road. (5) Kingston Drive between Chelten Parkway and Abington Road.

<p>#4-East to the New Jersey Turnpike, North to Route 70, South to the Pennsauken Creek, West to Kings Highway.</p>	<ol style="list-style-type: none"> (1) Pearl Croft Road between Brace Road and Kresson Road. (2) Covered Bridge Road between Kresson Road and Route 70. (3) Borton Mill Road between Brace Road and Pearl Croft Road. (4) Midway Road between Saw Mill Road and Brook Mead Drive. (5) Pelham Road between Boxwood Drive and Sawmill Road. (6) Sawmill Road between Pelham Road and Route 70. (7) Boxwood Drive between Brace Road and Pelham Road. (8) Brook Mead Drive between Midway Road and Pelham Road.
<p>#5-North to Chapel Ave, East to Kings Highway, South to the Cooper River, West to Haddonfield Road.</p>	<ol style="list-style-type: none"> (1) North Park Boulevard between Kings Highway and Haddonfield Road. (2) Maine Avenue between Route 70 and Kings Highway. (3) New York Avenue between Cooper Landing Road and Maine Avenue (4) Pennsylvania Avenue between Cooper Landing Road and Maine Avenue. (5) Miami Avenue between Kings Highway and Cooper L anding Road. (6) McGill Avenue between Cooper Landing Road and Miami Avenue. (7) Roads around Cherry Hill West High School including Murry, Martin, Bedford, and Marlboro Avenues.
<p>#6-North to Maple Ave, East to Haddonfield Road, South to the Cooper River, West to Pennsauken</p>	<ol style="list-style-type: none"> (1) North Park Boulevard between Haddonfield Road and Pennsauken Township.
<p>#7-North to Church Road, East to Kings Highway, South to Chapel Ave, West to Haddonfield Road.</p>	<ol style="list-style-type: none"> (1) Cherry Hill Blvd between Chapel Ave and Rte 38. (2) Knollwood Dr between Chapel Ave & Kings Hgwy. (3) Beginning at Knollwood Drive, Ivy Lane East to Ivy Lane to Columbia Boulevard to Lake Drive East to Church Road.
<p>#8-North to Pennsauken Twp., East to Kings Highway, South to Church Road, West to the Church Circle.</p>	<ol style="list-style-type: none"> (1) Delwood Road between Church Rd and Coles Ave. (2) Harvest Road between Millstream Lane and Cherry Tree Lane East. (3) Friendship Lane between Harvest Road and Church Road. (4) Oakview between Church Road and Maple Avenue.



Exhibit B2
Traffic Calming Example



Exhibit B3
Traffic Calming Example

There is a variety of possible traffic calming solutions. **Exhibits B1 and B2** above provide examples of design features that may be implemented to control speeding. Neighborhood residents often raise concerns about the effects that a traffic-calming project will have on the project street or a nearby street. For example, will the number of vehicles using the project street decrease? If so, where does the traffic go? Will traffic on adjacent local streets increase? The intent of a traffic-calming project is to reduce traffic speed and associated problems. For example, some drivers may prefer not to use the project street after speed humps are installed. In addition, drivers who have been using the

street as a through street (rather than just for local purposes) may choose to use an arterial street instead. This is an appropriate use of the arterials, since they are intended to serve through traffic. It is not acceptable for any traffic calming projects to result in excessive traffic increases on adjacent local service streets.

Prior to the implementation of any traffic project, a traffic impact assessment should be conducted that evaluates how much additional traffic will be created and is appropriate, based in part on the streets existing traffic levels. In addition, all traffic calming projects should provide for and encourage citizen involvement. It is recommended that a dialogue be maintained with neighborhood residents to develop an acceptance of traffic calming plans.

Road and Intersection Improvements

Improvements of any existing roadway or intersection require cooperation and funding at various governmental levels. As a basic premise, existing roadways should be utilized and upgraded to the greatest extent possible. Where new roadways are necessary, the majority could be realized through the process of subdivision and site plan development review with right-of-way and construction being completed as necessary to service developments.

The road and intersection improvement recommendations are conceptual and therefore not intended to reflect exact roadway alignments. These recommendations are planning principles to be followed within the Township's circulation network. During implementation of the master plan, and through the development application process, detailed studies will be necessary to evaluate and rank which roadway improvements should be undertaken.

In a properly designed circulation system, each roadway should be designed in accordance with its function; i.e., the service that it will be expected to perform. Generally, roads can be classified into four functional categories: Principal Arterial, Minor Arterial, Collectors (major & minor) and Local. Principal Arterials are usually the highest traffic volume corridors with the longest trip desires. They commonly carry traffic across counties and/or states and serve major centers of activity. Minor Arterials interconnect and augment the principal arterial system. They connect cities, larger towns, and other traffic generators. Collectors provide land access service by collecting traffic from local streets and channeling it into the arterial system. Lastly, local systems consist of all roads not included in the higher classifications. They provide direct access to abutting lands, offering the lowest level of mobility.

State Controlled Roadways

The dominant east/west traffic corridors throughout Cherry Hill Township are New Jersey Route 70, and New Jersey Route 38. These are State controlled roadways administered and maintained by the New Jersey Department of Transportation. Consequently, the location and type of all access drives and roadways that intersect Routes 70 and 38 are governed by the New Jersey State Highway Access Management Code (Title 16, Chapter 47).

New Jersey Route 70

New Jersey Route 70 is classified as an urban principal arterial. The roadway extends between New Jersey Route 38 in Pennsauken, Camden County to Wall Township, Monmouth County. In Cherry Hill, this section of New Jersey Route 70 is 6.71 miles long and has a 45 MPH speed limit.

Route 70 varies in the number of lanes depending upon the location within the community. Beginning at the Pennsauken boundary the roadway is three (3) lanes in each direction widening to four (4) lanes in the area between the New Jersey Transit rail line and Haddonfield Road. Route 70 narrows to two (2) lanes in each direction through the village of Erlton and widens again to three (3) lanes for a short distance on both sides of the Kings Highway intersection. A two (2)-lane roadway once again exists between Kings Highway and Interstate Route 295. The section of the roadway between Interstate 295 and Springdale Road has been widened to provide three (3) lanes in each direction over the past ten years.

Previously, New Jersey Route 70 consisted of two travel lanes in each direction, separated by a grass median along its entire length. Median cuts were interspersed along the grass median to allow motorists to make turns into access drives located along the opposite side of Route 70 or to make U-turns to travel in the opposite direction. Various sections of Route 70 including the area within the Erlton section, between Kings Highway and Interstate 295, and east of Springdale Road are still configured in this manner.

There are twelve traffic signals located along New Jersey Route 70 in Cherry Hill Township. These traffic signals are located at Hampton Road, Cornell Avenue, the Garden State Park, Haddonfield Road, Georgia Avenue, Kings Highway, Kingston Drive, Covered Bridge Road, Marlkrass Road, Greentree Road, Springdale Road, and Old Orchard Road. These traffic signals have been interconnected with each other and other traffic signals along New Jersey Route 70 in order to promote free flow of traffic.

The basic premise of the plan concerning NJ Route 70 is to augment this east-west route so that congestion can be dispersed through a variety of points. Described below are the various road improvement proposals. They have been advanced in recognition of the potential future traffic volumes possible from various land use proposals.

- It is recommended that as a condition of all suggested road improvements along Route 70, the median should be maintained except for improved cross turning movements.
- It is recommended that New Jersey Route 70, east of Springdale Road to the County border remain two (2) lanes in each direction. Presently, the eastbound third travel lane ends just east of Springdale Road. The eastbound traffic not being able to efficiently merge back into two (2) lanes creates backups at the Springdale traffic signal. This disarray is exacerbated by traffic trying to safely use the median cuts to make a U-turn in order to travel in the opposite direction. A proper turning lane is warranted.

- It is recommended that New Jersey Route 70, between Kings Highway and Interstate Route 295 remain two (2) lanes in each direction. The eastbound third travel lane ends just east of the Kings Highway traffic signal and the third travel lane westbound ends at the Covered Bridge Road traffic signal. Traffic traveling in both directions is unable to efficiently merge back into two (2) lanes creating backups along this entire road segment. Motorists who make U-turns or cut across traffic to use median cuts further aggravate this condition. Providing the proper turning lanes while maintaining a median is essential in this location.
- As part of the Garden State Park Redevelopment, two improvements to NJ Route 70 are being recommended. These include the widening of NJ Route 70 from just east of Haddonfield Road through to the proposed Garden State Boulevard and the reconstruction of the traffic signal at NJ Route 70 and Sayer Avenue. It is recommended that NJDOT and NJ Transit review the existing train overpass at Route 70 to eliminate the compression of lanes at this location.
- Median cuts along portions of NJ Route 70 have historically disrupted the flow of traffic in both directions, have led to numerous collisions and generally create unsafe traffic movements (U-turns and cross traffic conditions). Currently, sixteen (16) median cuts exist along NJ Route 70 in Cherry Hill Township. It is recommended that these median cuts be eliminated and replaced with left hand turning and stacking lanes at key locations along the highway. Turning lanes should be provided at the following locations:
 - Westbound at Edison Avenue
 - Westbound at Park Drive
 - Westbound at the entrance to the Barclay Shopping Center
 - Eastbound at the entrance to the Executive Mews Office Development
- Unacceptable traffic delays and an unsafe traffic maneuver condition exists at the intersection of NJ Route 70 and Frontage Road/Covered Bridge Road intersection during the AM and PM peak traffic periods.
- It is recommended that the traffic signal equipment and operation at this intersection be modified to improve this condition. The timing of the lights should be adjusted so that Frontage Road traffic and the Covered Bridge Road traffic each have separate green light movements. The driveway entrance across from Covered Bridge Road should also be eliminated.
- The traffic light at the intersection of NJ Route 70 and West Gate Road is not entirely visible from all directions. It is recommended that this traffic light be repositioned to alleviate this condition.
- Unacceptable traffic delays occur at the intersection of NJ Route 70 and the Chelton Parkway intersection during the AM and PM peak traffic periods. It is recommended that this traffic signal equipment and operation at this intersection be modified to improve this condition.

- The geometry of the NJ Route 70 and Cooper Landing Road intersection is a safety concern. It is recommended that geometric improvements be provided to this intersection.



Route 38 eastbound approaching Cooperlanding Road

New Jersey Route 38

New Jersey Route 38 is classified as an urban principal arterial. The roadway extends between US Route 130 in Pennsauken, Camden County to US Route 206 in Southampton, Burlington County. In Cherry Hill, this section of New Jersey Route 38 is 3.05 miles long and has a 50 MPH speed limit.

Generally, Route 38 consists of three (3) travel lanes in each direction for its entire length in Cherry Hill. The roadway narrows to two (2) lanes in each direction at the underpass near the New Jersey Transit rail line and for a short distance from the Church Road traffic circle to the municipal boundary with Maple Shade Township. The roadway briefly widens to four (4) lanes in the eastbound direction along the frontage of the Hill View Shopping Center.

There are five traffic signals located along New Jersey Route 38 in Cherry Hill Township. These traffic signals are located at Longwood Avenue, Chapel Avenue, Cherry Hill Mall Drive, Church Circle, and Mill Road. Similar to the signals on NJ Route 70, these traffic signals are also interconnected with each other and other traffic signals along New Jersey Route 38 in order to promote free flow of traffic.

Similarly to NJ Route 70, the basic premise of the plan concerning NJ Route 38 is also to augment this east-west route so that congestion can be dispersed through a variety of points.

NJ Route 38 was reconstructed from a two-lane roadway in each direction in the 1960's to primarily a three-lane roadway. Since this reconstruction, NJ Route 38 functions at an acceptable level of service with few exceptions. Described below are the various road improvement proposals. They have been advanced in recognition of future traffic volumes potentially possible from various land use proposals.

- The Church Road Circle operates at an unacceptable level of service in the AM and PM peak. This circle is a six (6) legged approach resulting in traffic backing up on Church Road on both sides of the circle. It is recommended that the circle be eliminated and replaced with a four-legged intersection consisting of NJ Route and Church Road. Jug-handles can be constructed to eliminate the number of approaches.
- It is recommended that New Jersey Route 38 near the New Jersey Transit rail line be widened to three (3) lanes in each direction. Presently, the eastbound third travel lane ends just east of Longwood Avenue and the westbound travel lane ends just west of Chapel Avenue. Currently traffic is not able to efficiently merge back into two (2) lanes creating backups in both directions during the AM and PM peak periods.
- Chapel Avenue and NJ Route 38- Motorists traveling north on Chapel Avenue that desire to travel westbound on NJ Route 38 fail to follow the appropriate turning movement. Generally, motorists will attempt to execute a left-hand turn onto NJ Route 38 instead of proceeding to the jug-handle north of the intersection. It is recommended that additional signage be provided that directs these motorists to the jug-handle.
- During heavy rains, the Cuthbert Boulevard/NJ Route 38 intersection floods. This results in traffic being detoured into the Kenilworth neighborhood. It is recommended that NJDOT and the Township engineering department investigate a drainage solution to this problem.



Coles Cemetery Building from Kings Highway

New Jersey Route 41 (Kings Highway)

New Jersey Route 41 is classified as an urban principal arterial. The roadway extends between US Route 70 in Cherry Hill to US Route 38 in Maple Shade Township, Burlington County. In Cherry Hill, this section of New Jersey Route 41 is 2.38 miles long and has a 45 MPH speed limit. There are seven (7) traffic signals located along Kings Highway. These traffic signals are located at New Jersey Route 70, Ellisburg Shopping Center, Miami Avenue, Chelton Parkway, Chapel Avenue, Church Road, and Ramble Road.

The basic premise of the plan concerning NJ Route 41 is to augment the north-south route so that congestion can be dispersed through a variety of points.

In the late 1980's, the New Jersey Department of transportation reconstructed Kings Highway to two travel lanes in each direction and a center turning lane. Previously, Kings Highway consisted of one (1) travel lane in each direction. Since this reconstruction, NJ Route 41 functions at an acceptable level of service. Accordingly, additional improvements are not being advanced.

Highway Access Management Code

In 1992, the New Jersey Department of Transportation (NJDOT) adopted a Highway Access Management Code. This document contains goals and objectives intended to coordinate transportation planning, and land use planning for any development that has frontage on any roadway under the jurisdiction of NJDOT. Access to these roadways may be denied should the proposal not meet the design criteria as established in the code.

The Master Plan must be consistent with the Municipal Land Use Law, which in turn requires conformance with the State Highway Access Management Code. Zoning ordinances that are developed as a result of the Master Plan will govern lot sizes and length of frontages. In this fashion, local zoning regulations will be consistent with the management code.

County Controlled and Municipal Controlled Roadways

According to the Camden County Highway Circulation Plan (1997), the emerging vision is that future transportation needs and programs should be clearly tied to land use patterns. For example, where land uses and transportation systems are mature (as in Cherry Hill Township), the emphasis should be on maintaining the existing transportation infrastructure and making it more efficient. Several County designated roadways totaling over 37 miles exist within Cherry Hill Township. These County Routes serve motorists traveling completely through the Township both in the north-south and east-west directions. Municipal controlled roadways primarily provide access to individual residential properties. Over 250 miles of municipally controlled roadway exist in Cherry Hill Township.

Future transportation needs are determined by analyzing the existing transportation infrastructure and existing and proposed land use patterns. Recommendations established for each planning district take into account the land use and zoning characteristics, infrastructure and travel demand. In this fashion, transportation and land use are linked in providing appropriate recommendations for roadway improvements. The Circulation Maps in each district indicate the average annual daily traffic flow (AADT) for all county roads throughout Cherry Hill Township. The PM peak hour is generally ten percent (10%) of the AADT flow. Although this methodology is not infallible, it serves as a general guide for comparison. Following is a listing of specific recommendations for County and Municipal road improvements for each planning district.



Springdale Road approaching Evesham Road

Districts 1 & 2

Districts 1 and 2 comprise all lands east of the New Jersey Turnpike (Maps B1 & B2). Districts 1 and 2 have several County designated roadways within it. These roadways include Evesham Road (CR 544), Haddonfield-Berlin Road (CR561), Burnt Mill Road (CR 670), Kresson Road (CR 671), Marl-kress Road (CR 672), Springdale Road (CR 673), and Cropwell Road (CR 675). An analysis has been completed of these county roadways and adjoining municipal roadways to determine whether any intersection or roadway improvements are warranted based on both current and future traffic conditions.

Haddonfield-Berlin Road (CR 561) Within this area, Haddonfield-Berlin Road is classified as an urban principal arterial. The roadway extends east from the New Jersey Turnpike to Evesham Road and is 1.63 miles long. It consists of four (4) travel lanes two (2) lanes in each direction with no shoulders along the roadway. In 1992, the Average Annual Daily Traffic of this road segment totaled 27,444 trips. Haddonfield-Berlin Road within this area has a posted speed of 40 MPH. There are five (5) traffic signals along this section of Haddonfield-Berlin Road. These traffic signals are located at Burnt Mill Road and Browning Lane, Cranford Road, Morris Drive, Walt Whitman Boulevard, and Evesham Road.

It is recommended that intersection and roadway improvements along Haddonfield/Berlin Road be advanced at the following locations:

- Cranford Road- Provide Left turn lanes at the traffic signal; modify the existing traffic signal equipment and operation to include an actuated left turn phase.
- Morris Drive- Provide Left turn lanes at the traffic signal; modify the existing traffic signal equipment and operation.
- Walt Whitman Boulevard- Provide Left turn lanes at the traffic signal; modify the existing traffic signal equipment and operation.

Evesham Road (CR 544). Within this area, Evesham Road is classified as an urban minor arterial. The roadway serves as the boundary between Cherry Hill Township and Voorhees Township. Evesham Road extends northeast from the boundary with the Borough of Lawnside to Kresson Road and is 4.85 miles long. It consists of four (4) travel lanes two (2) lanes in each direction, with the appropriate pavement markings. In 1992, the Average Annual Daily Traffic of this road segment totaled 21,810 trips. Evesham Road has a posted speed limit of 40 MPH.

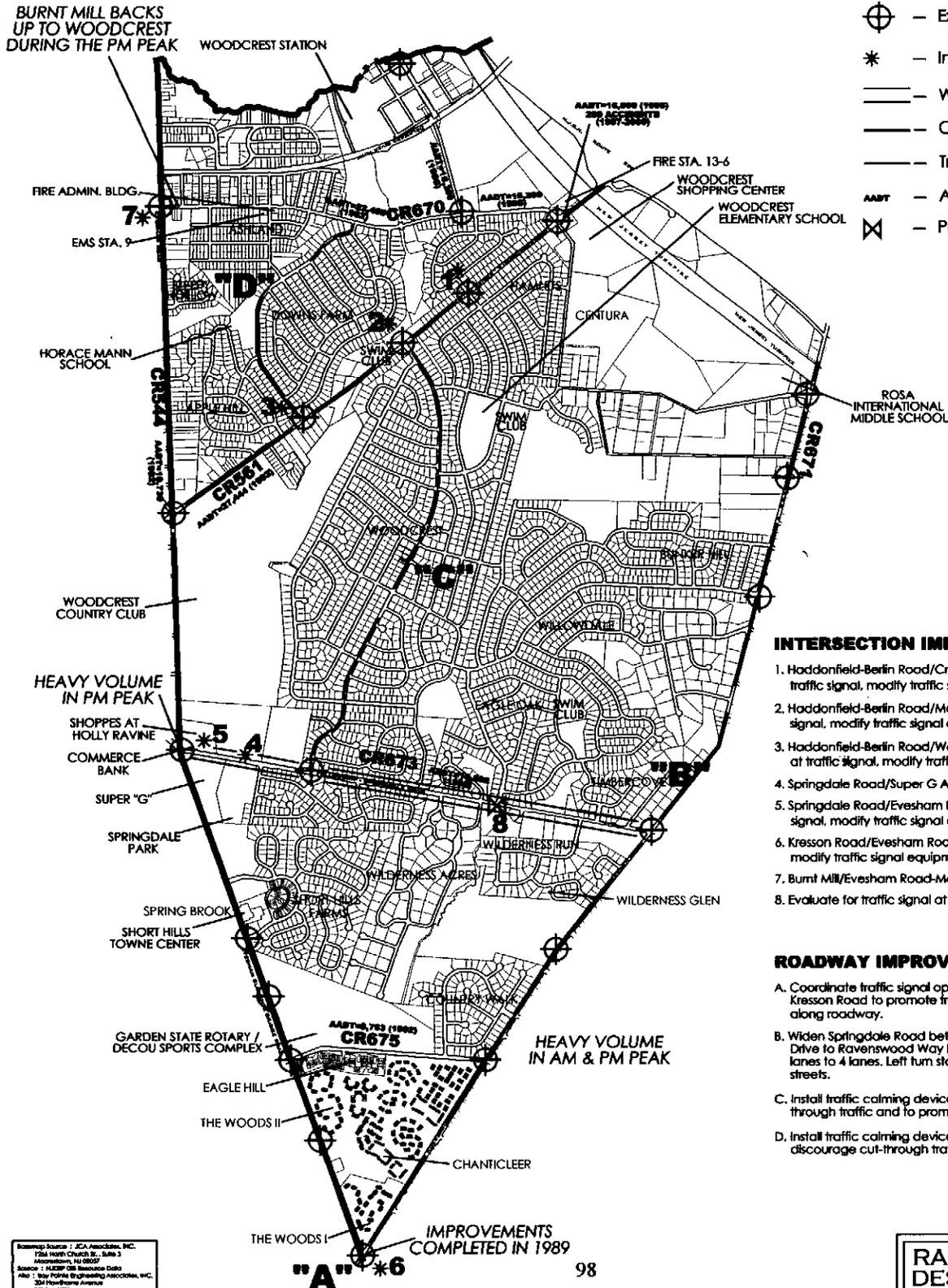
CHERRY HILL TOWNSHIP

CIRCULATION MAP DISTRICT 1 MAP B1



LEGEND

- Existing Traffic Signal
- Intersection Improvement
- Widen Road To 4 Lanes
- Coordinate Traffic Signals
- Traffic Calming
- Average Annual Daily Traffic
- Proposed Traffic Signal



INTERSECTION IMPROVEMENTS

1. Haddonfield-Berlin Road/Cranford Road-Provide left turn lanes at traffic signal, modify traffic signal equipment and operation.
2. Haddonfield-Berlin Road/Morris Drive-Provide left turn lanes at traffic signal, modify traffic signal equipment and operation.
3. Haddonfield-Berlin Road/Walt Whitman Blvd.-Provide left turn lanes at traffic signal, modify traffic signal equipment and operation.
4. Springdale Road/Super G Access Drive-Install traffic signal.
5. Springdale Road/Evesham Road-Provide left turn lanes at traffic signal, modify traffic signal equipment and operation.
6. Kresson Road/Evesham Road-Provide left turn lanes at traffic signal, modify traffic signal equipment and operation.
7. Burnt Mill/Evesham Road-Modify signal and stop bar.
8. Evaluate for traffic signal at Lark Lane and Springdale Road.

ROADWAY IMPROVEMENTS

- A. Coordinate traffic signal operations along Evesham Road and Kresson Road to promote free-flow travel conditions along roadway.
- B. Widen Springdale Road between a point 500+ feet north of Chateau Drive to Ravenswood Way in order to widen Springdale Road from 2 lanes to 4 lanes. Left turn stacking lanes to be installed at major cross streets.
- C. Install traffic calming devices along Morris Drive to discourage cut-through traffic and to promote safer driving speeds.
- D. Install traffic calming devices along Walt Whitman Blvd. to discourage cut-through traffic and to promote safer driving speeds.

Scale: 1" = 600'

Mapwork Source: JCA Associates, Inc.
1704 North Church St., Suite 3
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Source: NJDEP GIS Database Data
Also: New York State Engineering Association, Inc.
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THE WOODS I *6
IMPROVEMENTS COMPLETED IN 1989
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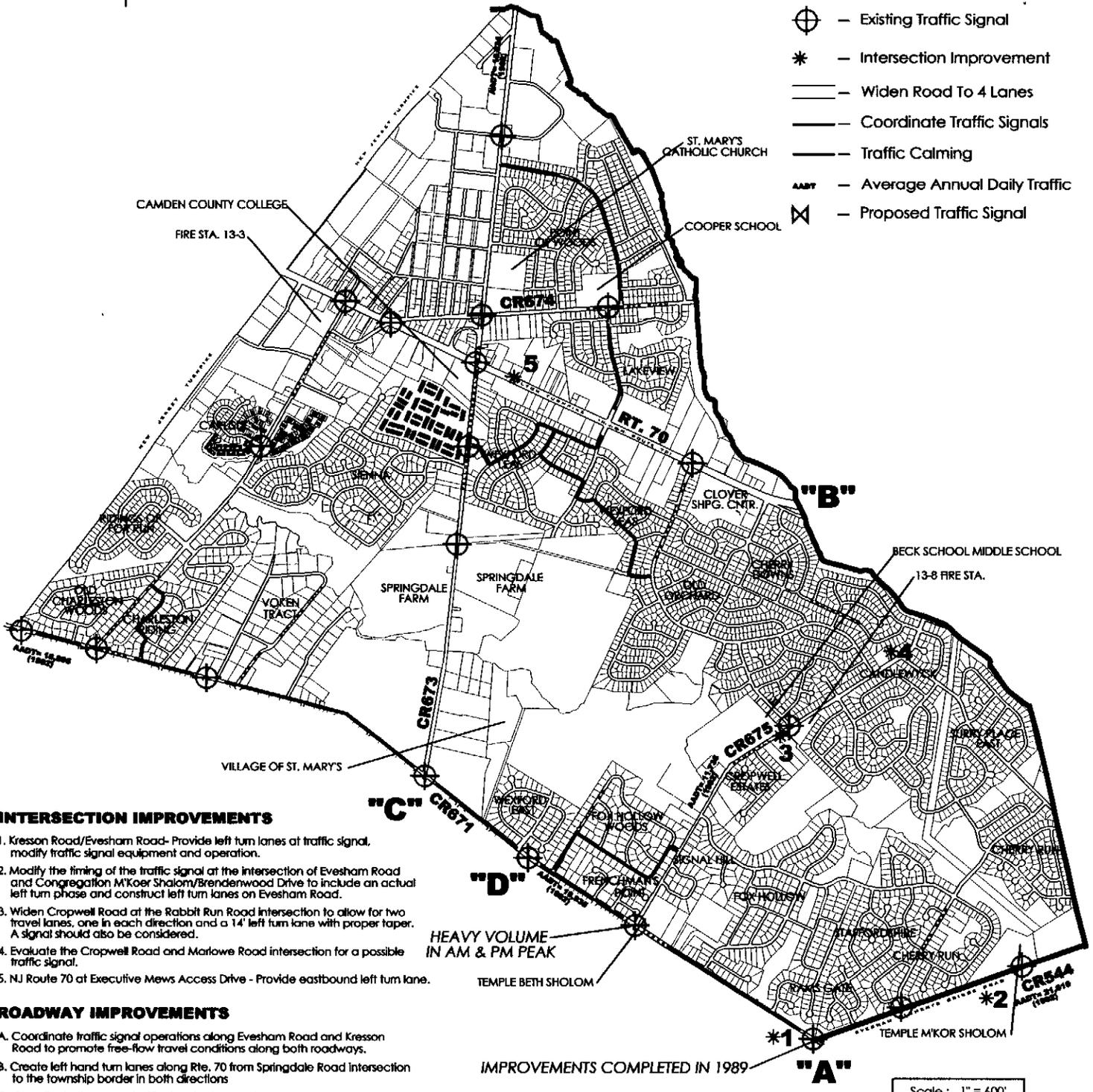
CHERRY HILL TOWNSHIP

CIRCULATION MAP DISTRICT 2 MAP B2



LEGEND

- Existing Traffic Signal
- Intersection Improvement
- Widen Road To 4 Lanes
- Coordinate Traffic Signals
- Traffic Calming
- Average Annual Daily Traffic
- Proposed Traffic Signal



INTERSECTION IMPROVEMENTS

1. Kresson Road/Evesham Road- Provide left turn lanes at traffic signal, modify traffic signal equipment and operation.
2. Modify the timing of the traffic signal at the intersection of Evesham Road and Congregation M'Koer Shalom/Brendenwood Drive to include an actual left turn phase and construct left turn lanes on Evesham Road.
3. Widen Cropwell Road at the Rabbit Run Road intersection to allow for two travel lanes, one in each direction and a 14' left turn lane with proper taper. A signal should also be considered.
4. Evaluate the Cropwell Road and Marlowe Road intersection for a possible traffic signal.
5. NJ Route 70 at Executive Mews Access Drive - Provide eastbound left turn lane.

ROADWAY IMPROVEMENTS

- A. Coordinate traffic signal operations along Evesham Road and Kresson Road to promote free-flow travel conditions along both roadways.
- B. Create left hand turn lanes along Rte. 70 from Springdale Road intersection to the township border in both directions
- C. Coordinate the seven traffic signals along Springdale Road to promote free-flow travel conditions.
- D. Widen Kresson Road to allow for a bi-directional center left turn lane.

IMPROVEMENTS COMPLETED IN 1989

Scale: 1" = 600'

Map Source: JCA Associates, Inc.
1786 North Church St., Suite 3
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Source: NJOSP GIS Resource Data
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There are ten (10) traffic signals along Evesham Road. These traffic signals are located at Burnt Mill Road, Hadonfield/Berlin Road, Springdale Road, Short Hills Drive, Carnie Boulevard, Cropwell Road, Chanticleer access drive, Kresson Road, Brick Road/Bryce Road and at the Congregation M'Kor Shalom's site driveway and Brendenwood Drive.

It is recommended that intersection and roadway improvements along Evesham Road be advanced at the following locations:

- Kresson Road - Provide Left turn lanes at the traffic signal; modify the existing traffic signal equipment and operation.
- Springdale Road - Provide left turn lanes at the traffic signal; modify the existing traffic signal equipment and operation.
- The traffic signal located at the Congregation M'Kor Shalom access drive and Brendenwood Drive is not operating at an acceptable level. Evesham Road consists of a combination left turn/through lane and a combination through/right turn lane. Both Congregation M'Kor Shalom's access drive and Brendenwood Drive consist of a single lane from which all movements are made. It is recommended that the traffic signal be modified to include an actuated left turn phase and left turn lanes be constructed on Evesham Road for traffic turning left onto either side street.
- The Burnt Mill Road intersection does not function at acceptable levels during the PM peak. Traffic delays occur in all directions and are particularly severe on Burnt Mill Road north of the intersection. In addition, traffic turning left onto Evesham Road typically blocks the intersection. It is recommended that the traffic signal and operation be modified and that the stop bar location be modified and enforced.
- Coordinate traffic signal operations along Evesham Road to promote free-flow travel conditions.

Kresson Road (CR 671) Within this area, Kresson Road is classified as an urban minor arterial. The roadway extends east from the New Jersey Turnpike to Evesham Road and is 3.16 miles long. It consists of two (2) travel lanes, with the appropriate pavement markings. In the vicinity of Springdale Road, Kresson Road consists of three (3) travel lanes with two (2) eastbound lanes and one (1) westbound travel lane. In 1992, the Average Annual Daily Traffic of this road segment totaled 18,895 trips. East of Marlkrass Road, Kresson Road has a 40 MPH speed limit, west of Marlkrass Road the posted speed limit is 35 MPH.

There are seven (7) traffic signals along Kresson Road. These traffic signals are located at Browning Lane, Marlkrass Road, Heartwood Drive, Springdale Road, Cherry Hill High School East access drive, Cropwell Road, and Evesham Road.

It is recommended that intersection and roadway improvements along Kresson Road be advanced at the following locations:

- Coordinate the seven (7) traffic signals to promote free-flow travel conditions on this roadway.

Marlkress Road (CR 672) Marlkress Road is classified as an urban minor arterial. The roadway extends north from Kresson Road to New Jersey Route 70 and is 1.48 miles long. It consists of two (2) travel lanes, with the appropriate pavement markings. In the roadway section located between the jughandle onto New Jersey Route 70 and Greentree Road and Lummis Park, the roadway has a bi-directional center left turn lane. North of St. Lucerne Boulevard, the roadway has a 35 MPH speed limit, south of this, the posted speed is 25 MPH. (the speed limit changes at St. Lucerne Boulevard).

There are two (2) traffic signals along Marlkress Road. These traffic signals are located at New Jersey Route 70 and Kresson Road. Marlkress Road currently operates at an acceptable level of service. Therefore, improvements are not being recommended as part of this Master Plan.

Springdale Road (CR 673) Within this area, Springdale Road is classified as an urban minor arterial. The roadway extends north from Evesham Road to the boundary with Mount Laurel Township and is 4.18 miles long. It consists of two (2) travel lanes in each direction, with a bi-directional center left turn lane. This roadway has appropriate pavement markings. In 1992, the Average Annual Daily Traffic of this road segment totaled 18,024 trips. Springdale Road has a posted speed limit of 40 MPH.

There are eight (8) traffic signals along this roadway. These traffic signals are located at Evesham Road, Morris Drive, Kresson Road, Evans Lane, Dorset Road, New Jersey Route 70, Greentree Road, and Carnegie Plaza/Esterbrook Lane.

It is recommended that intersection and roadway improvements along Springdale Road be advanced at the following locations:

- Coordinate the nine (9) traffic signals to promote free-flow travel conditions on this roadway.
- Widen Springdale Road between a point ± 500 feet north of Chateau Drive to Ravenswood Way to facilitate the widening of Springdale Road from two (2) lanes to four (4) lanes. Left turn lanes should be installed at all major cross streets.
- Evaluate the need for a traffic signal at the Lark Lane intersection.
- Evaluate the need for additional traffic improvements including signals and road widening to improve the safety of traffic flows into the Industrial Park.

Greentree Road (CR 674) Greentree Road extends between New Jersey Route 70 and the county border, a distance of 1.07 miles. Between New Jersey Route 70 and Springdale Road, it is classified as an urban local road. The remaining section of the roadway is an urban collector. It consists of two (2) travel lanes, with the appropriate pavement markings. The roadway has no posted speed limit, with the exception of a roadway section near the county border (approximately 0.21 mile long). This section has a 35 MPH speed limit. There

are three (3) traffic signals along this roadway. These traffic signals are located at New Jersey Route 70, Springdale Road, and South Birchwood Park Drive. Greentree Road currently operates at an acceptable level of service. Therefore, improvements are not being recommended as part of this Master Plan.

Cropwell Road (CR 675) Cropwell Road is classified as an urban minor arterial. The roadway extends north from Kresson Road to the boundary with Evesham Township and is 2.14 miles long. It consists of two (2) travel lanes, with the appropriate pavement markings. In 1992, the Average Annual Daily Traffic of this road segment totaled 11,736 trips. Between Evesham Road and Signal Hill Road, Cropwell Road has a posted speed limit of 40 MPH. North of Signal Hill Road to the vicinity of Rabbit Run Road, Cropwell Road has a 30 MPH posted speed limit. The remainder of Cropwell Road has a posted speed limit of 35MPH. One (1) traffic signal exists along this roadway at the intersection of Kresson Road.



Road work at the intersection of Route 70 and Springdale Road

It is recommended that intersection and roadway improvements along Cropwell Road be advanced at the following locations:

- The intersection of Cropwell Road and Rabbit Run Road is a 'T' intersection. Traffic at this intersection is currently controlled by a STOP sign. Widen Cropwell Road to allow for two travel lanes, one in each direction, and a left turn lane with a width of 14 feet. Signalization of this intersection should also be considered, if measures can be taken to impede cut-through traffic using this intersection.
- Evaluate the Marlow Road intersection for a traffic signal.

Districts 3 & 4

Districts 3 and 4 comprise all lands west of the New Jersey Turnpike to Kings Highway (**Maps B3 & B4**). The county roads in Districts 3 and 4 include Brace Road (CR 154), Haddonfield-Berlin Road (CR 561), Kings Highway (CR 573), Kresson Road (CR 671), and Old Borton Mill Road (CR 757). An analysis has been completed of these county roadways and adjoining municipal roadways to determine whether any intersection or roadway improvements are warranted based on both current and future traffic conditions.

Brace Road (CR 154) Brace Road is classified as an urban minor arterial. The roadway extends north from Haddonfield-Berlin Road to New Jersey Route 70 and is 1.72 miles long. It consists of two (2) travel lanes, with the appropriate pavement markings. In 1992, the Average Annual Daily Traffic of this road segment totaled 23,431 trips.

There are five (5) traffic signals along Brace Road. These traffic signals are located at New Jersey Route 70(2), Borton Mill Road, Kresson Road, and Haddonfield-Berlin Road. Brace Road currently operates at an acceptable level of service. Therefore, improvements are not being recommended as part of this Master Plan.

Haddonfield-Berlin Road (CR 561) Within this area, Haddonfield-Berlin Road is classified as an urban principal arterial. The roadway extends east from the boundary with the Borough of Haddonfield to the New Jersey Turnpike and is 1.38 miles long. The road consists of four (4) travel lanes two (2) lanes in each direction with no shoulders along the roadway. In 1992, the Average Annual Daily Traffic of this road segment totaled 30,051 trips. Haddonfield-Berlin Road within this area has a posted speed of 40 MPH.

There are five (5) traffic signals along this section of Haddonfield-Berlin Road. These traffic signals are located at Interstate Route 295, Valleybrook Road, Uxbridge Drive, South Mansfield Boulevard, Brace Road, and Kresson Road.

It is recommended that intersection and roadway improvements along Haddonfield-Berlin Road be advanced at the following locations:

- Kresson Road/Potter Street - Provide left turn lanes at the traffic signal; modify the existing traffic signal equipment and operation.

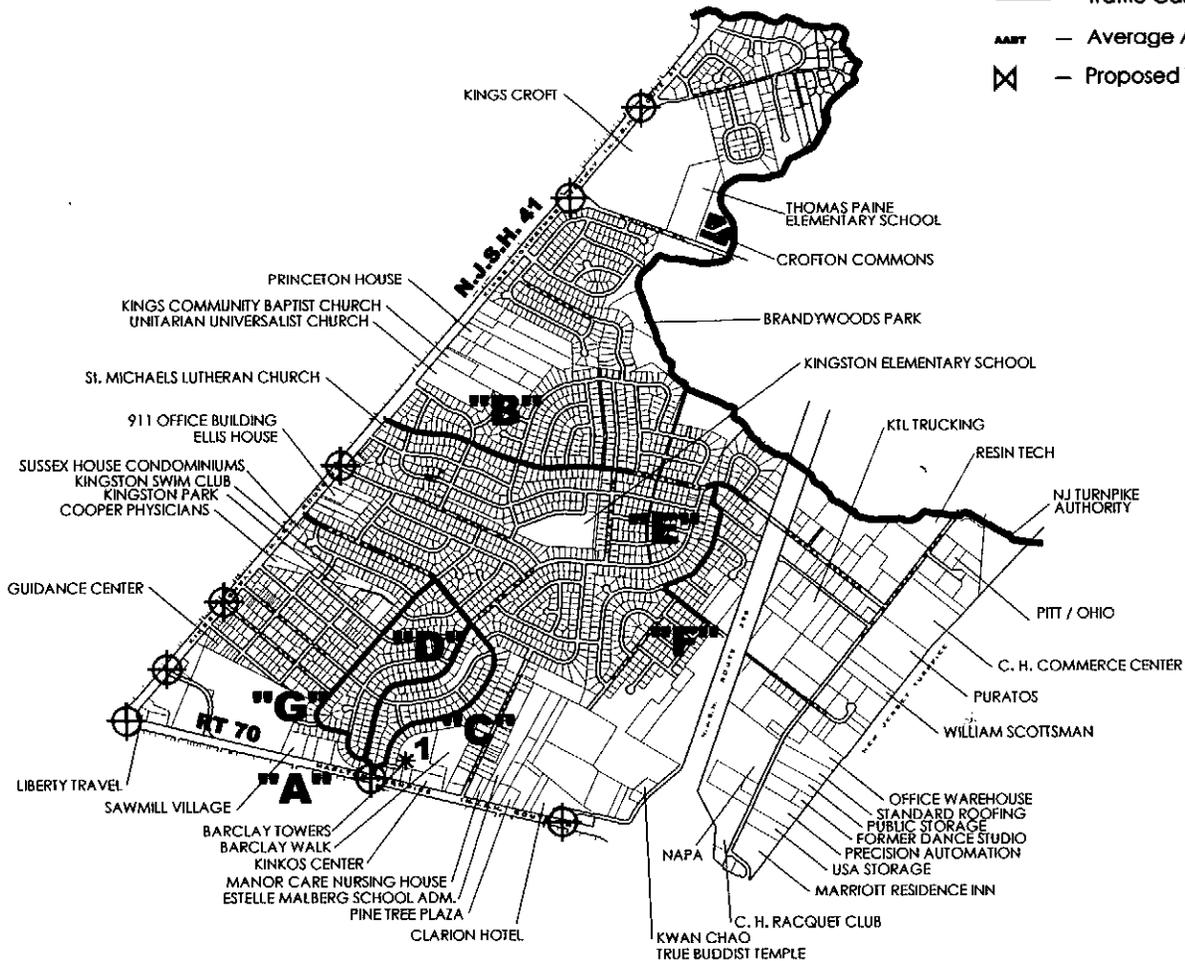
CHERRY HILL TOWNSHIP

CIRCULATION MAP DISTRICT 3 MAP B3



LEGEND

- Existing Traffic Signal
- Intersection Improvement
- Widen Road To 4 Lanes
- Coordinate Traffic Signals
- Traffic Calming
- Average Annual Daily Traffic
- Proposed Traffic Signal



INTERSECTION IMPROVEMENTS

1. Chelton Parkway @ Rt. 70
Provide turning lane and signal improvements to reduce "Back-ups" in the AM & PM peak.

ROADWAY IMPROVEMENTS

- A. Remove median cuts, replace with stacking and turning lanes in appropriate locations.
- Install traffic calming devices along the following roadways to discourage cut-through traffic and to promote safer driving speeds.

- B. Chapel Ave.
- C. Chelton Parkway
- D. Kingston Road
- E. Green Vale Road
- F. Park Road
- G. Edgemoor Road

Scale : 1" = 600'

Surveying Source : JCA Associates, Inc.
1266 North Church St., Suite 3
Middletown, NJ 08055
Source : NJDOT GIS Database Data
Also : Royal Public Engineering Associates, Inc.
304 Rowland Avenue
PO Box 1731
Parsippany Beach, NJ 08054

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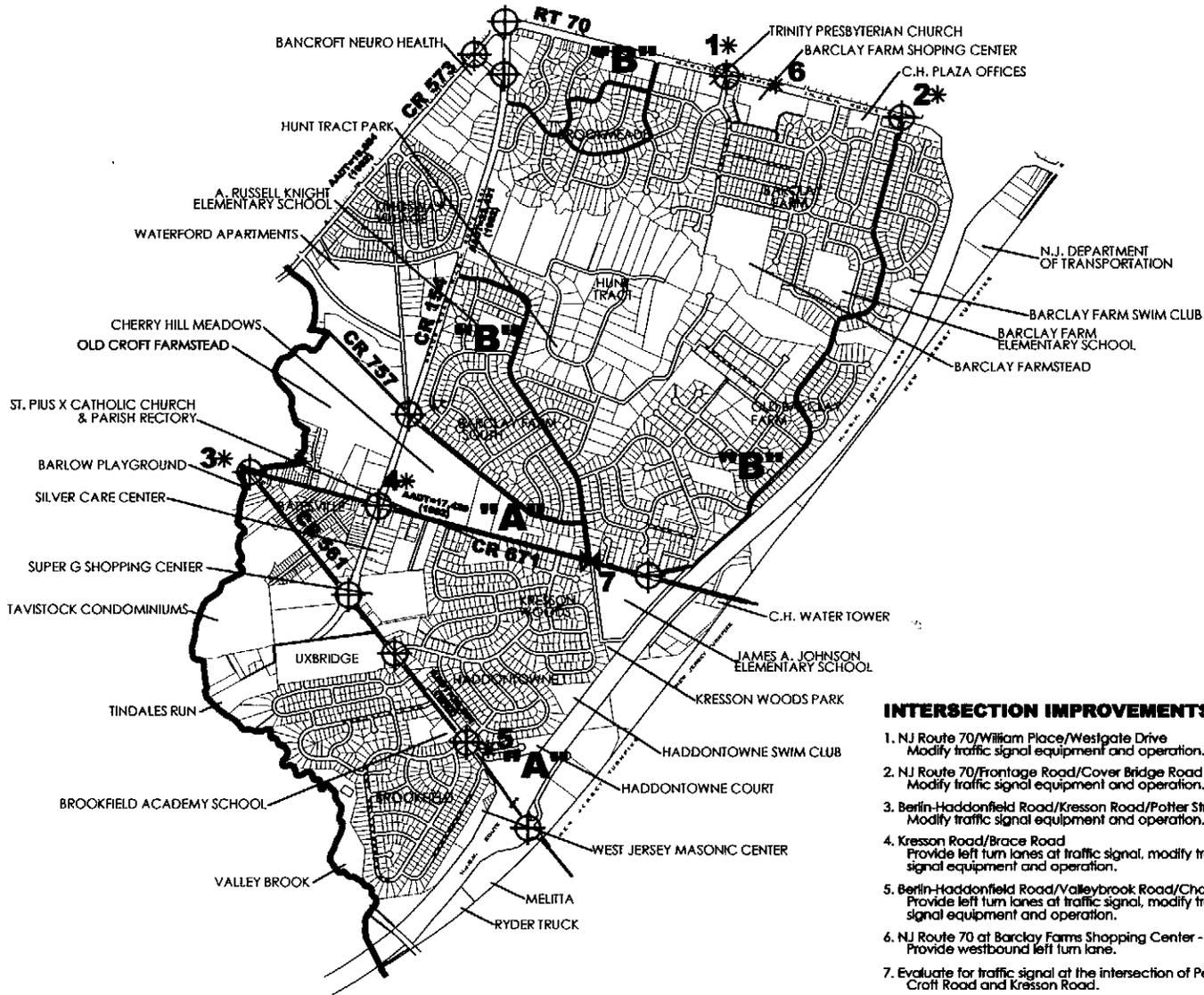
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CIRCULATION MAP DISTRICT 4 MAP B4



LEGEND

- Existing Traffic Signal
- Intersection Improvement
- Widen Road To 4 Lanes
- Coordinate Traffic Signals
- Traffic Calming
- Average Annual Daily Traffic
- Proposed Traffic Signal



INTERSECTION IMPROVEMENTS

1. NJ Route 70/William Place/Westgate Drive
Modify traffic signal equipment and operation.
2. NJ Route 70/Frontage Road/Cover Bridge Road
Modify traffic signal equipment and operation.
3. Berlin-Haddonfield Road/Kresson Road/Potter Street
Modify traffic signal equipment and operation.
4. Kresson Road/Brace Road
Provide left turn lanes at traffic signal, modify traffic signal equipment and operation.
5. Berlin-Haddonfield Road/Valleybrook Road/Chandler Terrace
Provide left turn lanes at traffic signal, modify traffic signal equipment and operation.
6. NJ Route 70 at Barclay Farms Shopping Center -
Provide westbound left turn lane.
7. Evaluate for traffic signal at the intersection of Pearl Croft Road and Kresson Road.

ROADWAY IMPROVEMENTS

- A. Coordinate traffic signal operations along Kresson Road to promote free-flow travel conditions along both roadways.
- B. Install traffic calming devices along the following roadways, Covered Bridge Road, Pearlcroft Road, Boxwood Drive, Pelham Road, Midway Drive, and Sawmill Road to discourage cut-through traffic and to promote safer driving speeds.

Scale : 1" = 600'

Inventory Source : ACA Associates, INC.
1266 North Church St., Suite 3
Morristown, NJ 08857
Source : NJDEP GIS Resource Data
Also : New Jersey Engineering Associates, INC.
204 Montgomery Avenue
PO Box 178
Parsippany Branch, NJ 07054

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- Valleybrook Road/Chandler Terrace - Provide left turn lanes at the traffic signal; modify the existing traffic signal equipment and operation.

Kings Highway (CR 573) Within this area, Kings Highway is considered an urban minor arterial. The roadway extends north from the boundary of Haddonfield to New Jersey Route 70 and is .95 of a mile long. It consists of two (2) travel lanes, with the appropriate pavement markings. In 1992, the Average Annual Daily Traffic of this road segment totaled 19,884 trips. Within this area, Kings Highway has a posted speed limit of 35 MPH. There are two (2) traffic signals located along this section, both in relation to the intersection with New Jersey Route 70. Kings Highway currently operates at an acceptable level of service. Therefore, improvements are not being recommended as part of this Master Plan.

Kresson Road (CR 671) Within this area, Kresson Road is classified as an urban minor arterial. The roadway extends west from the New Jersey Turnpike to the Borough of Haddonfield and is 1.53 miles long. It consists of two (2) travel lanes, with the appropriate pavement markings. In 1992, the Average Annual Daily Traffic of this road segment totaled 17,429 trips. Kresson Road has a speed limit of 40 MPH. There are three (3) traffic signals along this section of Kresson Road. These traffic signals are located at Haddonfield-Berlin Road, Brace Road, and Covered Bridge Road.

It is recommended that intersection and roadway improvements along Kresson Road be advanced at the following locations:

- Brace Road - Provide left turn lanes at the traffic signal, modify the existing traffic signal equipment and operation.
- Coordinate the three (3) traffic signals with the other signals along Kresson Road to promote free-flow travel conditions on this roadway.
- Evaluate the need for a traffic signal at the Pearl Croft Road intersection.

Old Borton Mill Road (CR 757) Old Borton Mill Road is a small section of road (.39 of a mile) and serves as an access to the Camden County Challenge Grove Park and the Cherry Hill Township owned Croft Farmhouse. The roadway extends west from the Brace Road terminating at the Cooper River. It consists of two (2) travel lanes, with the appropriate pavement markings. This lightly used road currently operates at an acceptable level of service. Therefore, improvements are not being recommended as part of this Master Plan.

Districts 5, 7 & 8

Districts 5, 7 and 8 comprise all lands west of Kings Highway to Haddonfield Road (**Maps B5, B6 & B7**). The county roads in Districts 5, 7, and 8 include Cooper Landing Road (CR 267), Maple Avenue (CR 537), Church Road (CR 616), and Chapel Ave (CR 626). An analysis has been completed of these county roadways and adjoining municipal roadways to determine whether any intersection or roadway improvements are warranted based on both current and future traffic conditions.

Cooper Landing Road (CR 267) Cooper Landing Road extends north from New Jersey Route 70 to the Church Circle. It is classified as an urban minor collector and is 1.87 miles in length. It consists of two (2) travel lanes with appropriate pavement markings. Cooper Landing Road has a posted speed limit of 35 MPH. There are two (2) traffic signals along Cooper Landing Road; one located at the intersection of Chapel Avenue and the second located at the Church Circle.

It is recommended that intersection and roadway improvements along Cooper Landing Road be advanced at the following locations:

- Pennsylvania/ Georgia Avenues - Evaluate geometric improvements and the warrants of a traffic signal at this three-way intersection. Evaluate the proposal of making Georgia Avenue one-way in the northbound direction (away from NJ Route 70).

Maple Avenue (CR 537) Maple Avenue is a small section of road (.74 of a mile) from the intersection of Haddonfield Road east to the south branch of the Pennsauken Creek. It consists of two (2) travel lanes with appropriate pavement markings. This roadway was improved in 2000 adding bike lanes within the roadway, one in each direction. One (1) traffic light exists at the intersection of Haddonfield Road. This road currently operates at an acceptable level of service. Therefore, improvements are not being recommended as part of this Master Plan.

Church Road (CR 616) Within this area, Church Road is classified as an urban minor collector. The roadway extends east from Haddonfield Road to the south branch of the Pennsauken Creek and is 3.0 miles long. The road consists of two (2) travel lanes in each direction and a center turning lane between Haddonfield Road and Mall drive. East of Mall Drive, the road narrows to two (2) travel lanes. In 1992, the Average Annual Daily Traffic of this road segment totaled 18,486 trips. Church Road has a posted speed limit of 25 MPH. There are four (4) traffic signals along this section of Church Road. These traffic signals are located at Haddonfield Road, Cherry Hill Mall Drive, the Church Circle, and Kings Highway.

It is recommended that intersection and roadway improvements along Church Road be advanced at the following locations:

- Haddonfield Road - Provide an actuated left turn phase in all directions of this intersection.
- Cherry Hill Mall Drive - Provide left turn lanes at the traffic signal; modify the existing traffic signal equipment and operation.

- Re-stripe Church Road to provide a center left turn lane between Cherry Hill Mall Drive and the Church Circle.
- Kings Highway - Evaluate widening the roadway to provide for two (2) left turn lanes onto northbound Kings Highway.
- Coordinate the four (4) traffic signals to promote free-flow travel conditions on this roadway.
- Woodland Falls - Provide left turn lane into the office park.
- Evaluate opening Cadbury Drive between Church Road and NJ Route 38.

Chapel Avenue (CR 626) Within this area, Chapel Avenue is classified as an urban minor collector. The roadway extends east from Haddonfield Road to Kings Highway and is 1.83 miles in length. It consists of two (2) travel lanes with appropriate pavement markings. Chapel Avenue has a posted speed limit of 25 MPH. There are five (5) traffic signals along this section of Chapel Avenue. These traffic signals are located at Haddonfield Road, Garden State Boulevard, Cooper Landing Road, the Towers at Windsor Park and Kings Highway.

It is recommended that intersection and roadway improvements along Chapel Avenue be advanced at the following locations:

- Coordinate the five (5) traffic signals to promote free-flow travel conditions on this roadway.
- Evaluate the need for left turn lanes at the Cooper Landing Road intersection in all directions.



Ellisburg Circle Shopping Center

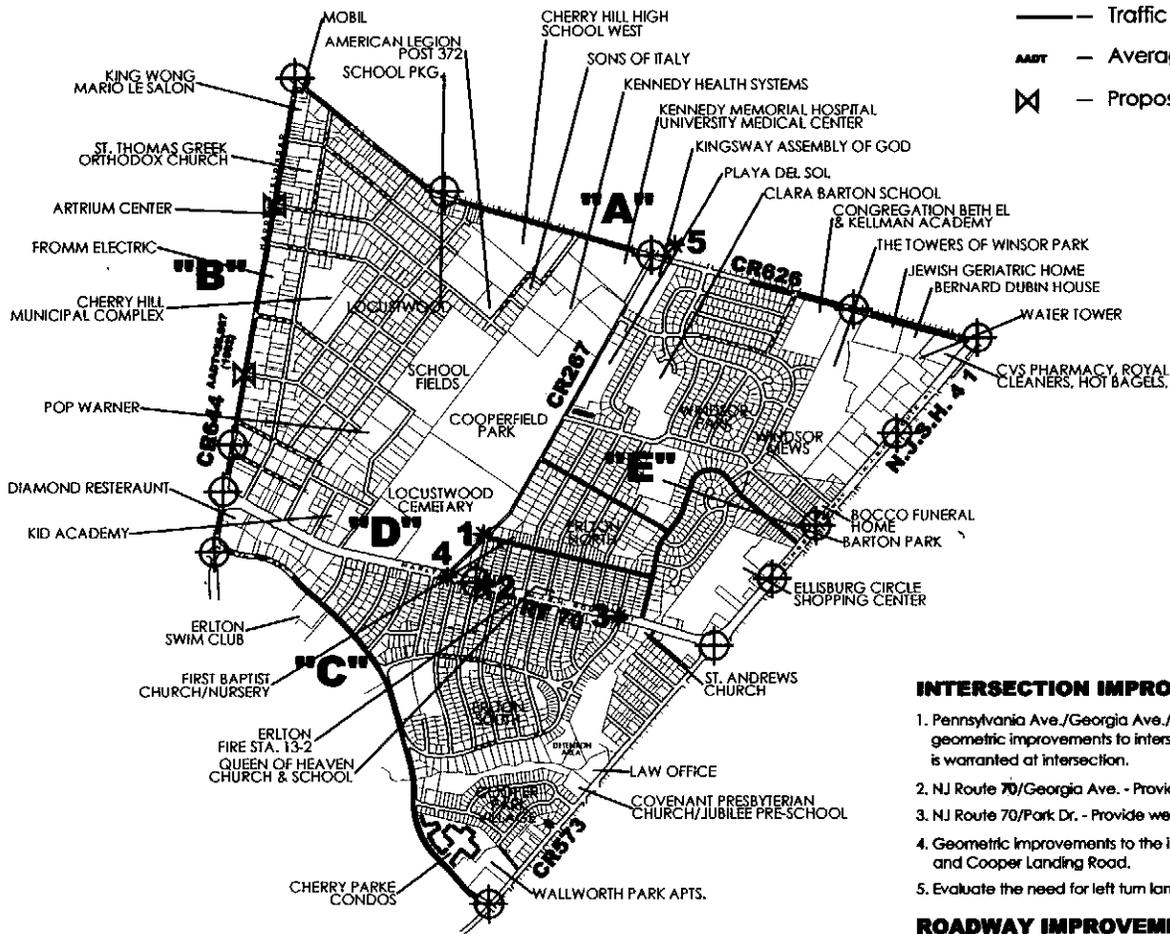
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CIRCULATION MAP DISTRICT 5 MAP B5



LEGEND

- Existing Traffic Signal
- Intersection Improvement
- Widen Road To 4 Lanes
- Coordinate Traffic Signals
- Traffic Calming
- Average Annual Daily Traffic
- Proposed Traffic Signal



INTERSECTION IMPROVEMENTS

1. Pennsylvania Ave./Georgia Ave./Cooper Landing Road-Explore geometric improvements to intersection, evaluate if traffic signal is warranted at intersection.
2. NJ Route 70/Georgia Ave. - Provide westbound left turn lane.
3. NJ Route 70/Park Dr. - Provide westbound left turn lane.
4. Geometric Improvements to the intersection of NJ Rte. 70 and Cooper Landing Road.
5. Evaluate the need for left turn lanes in all directions.

ROADWAY IMPROVEMENTS

- A. Coordinate traffic signal operations along Chapel Ave. to promote free-flow travel conditions along roadway.
- B. Coordinate traffic signal operations along Haddonfield Road to promote free-flow travel conditions along roadway.
- C. Install traffic calming devices along Park Boulevard to discourage cut-through traffic and promote safer driving speeds.
- D. Cooper landing Road Sidewalk Project (CR 627).
- E. Install traffic calming devices along New York, Maine, and Pennsylvania avenues to discourage cut-through traffic and promote safer driving speeds.

Scale : 1" = 600'

Base Map Source : JCA Associates, Inc.
1286 North Church St., Suite 3
Morristown, NJ 07960
Source : NJDEP GIS Resource Data
Also : Ray Public Engineering Associates, Inc.
264 Northanna Avenue
PO Box 1751
Cherry Hill, NJ 08034

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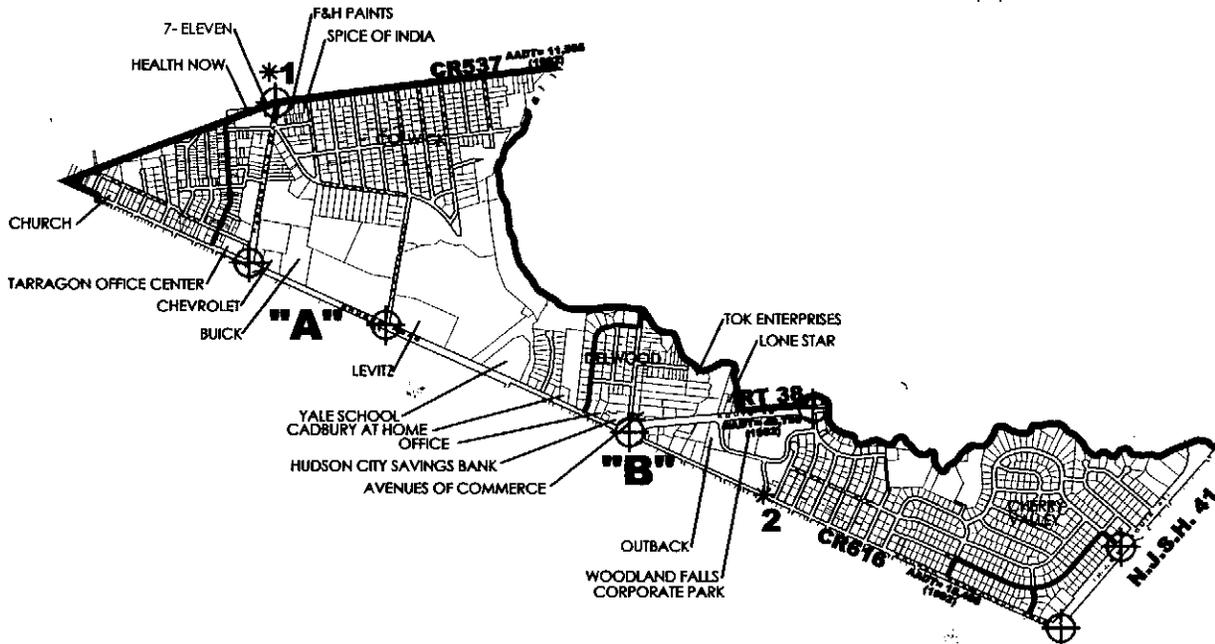
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CIRCULATION MAP DISTRICT 8 MAP B6



LEGEND

- Existing Traffic Signal
- Intersection Improvement
- Widen Road To 4 Lanes
- Coordinate Traffic Signals
- Traffic Calming
- Average Annual Daily Traffic
- Proposed Traffic Signal



INTERSECTION IMPROVEMENTS

1. Provide left turn arrows in all directions.
2. Provide one turn lane into Woodland Falls.

ROADWAY IMPROVEMENTS

- A. Restripe Church Road to provide center left turn lane in order to separate left turning vehicles from the Church Road traffic flow.
- B. Remove traffic circle to improve traffic flow from Church Road and Cooper Landing Road.

Scale : 1" = 600'

Boundary Source : JCA Associates, Inc.
1264 North Church St., Suite 2
Haddonfield, NJ 08033
Source : NJDEP GIS Resource Data
AEC : Day Puhler Engineering Associates, Inc.
304 Eastwinds Avenue
PO Box 1731
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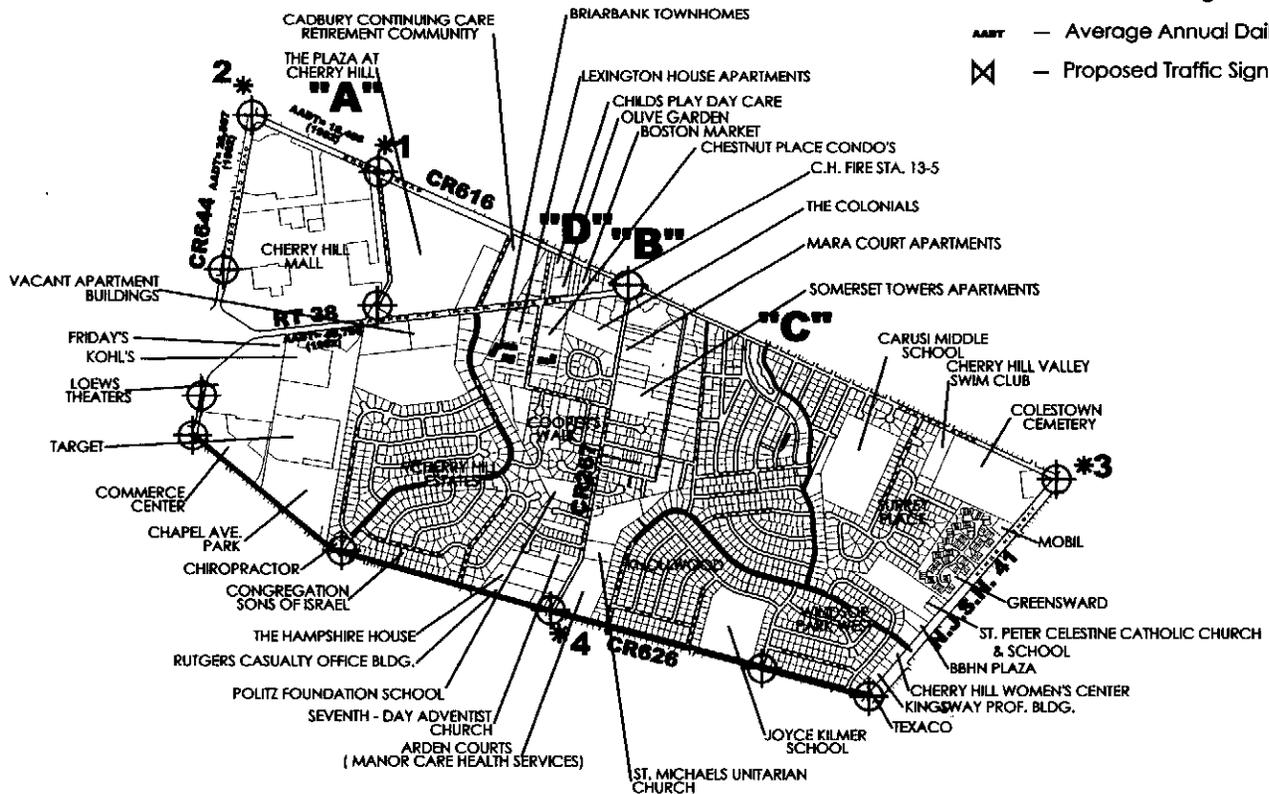
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CIRCULATION MAP DISTRICT 7 MAP B7



LEGEND

- Existing Traffic Signal
- Intersection Improvement
- Widen Road To 4 Lanes
- Coordinate Traffic Signals
- Traffic Calming
- Average Annual Daily Traffic
- Proposed Traffic Signal



INTERSECTION IMPROVEMENTS

1. Provide left turn lanes on Church Road at the Cherry Hill Mall Drive.
2. Provide actuated left turn phase in all directions.
3. Evaluate for the widening of Church Road to provide for two left turn lanes onto North bound Kings Highway.
4. Evaluate the need for left turn lanes and signal phasing in all directions.

ROADWAY IMPROVEMENTS

- A. Restripe Church Road to provide center left turn lane in order to separate left turning vehicles from the Church Road traffic flow.
- B. Remove traffic circle to improve traffic flow from Church Road and Cooper Landing Road.
- C. Coordinate 7 signals along Church Road to provide free flow travel conditions.
- D. Open Cadbury Road between Church Road and NJ Rte. 38.

* Future traffic needs and improvements are predicted upon the Garden State Park development.

Scale : 1" = 600'

District 6

District 6 comprises all lands west of Haddonfield Road to the Pennsauken boundary (**Map B8**). The county roads in District 6 include Church Road (CR 616), Cuthbert Boulevard (CR 623), Chapel Avenue (CR 626), and Haddonfield Road (CR 644). An analysis has been completed of these county roads to determine whether any intersection or roadway improvements are warranted based on both current and future traffic conditions.

Church Road (CR 626) Within this section, Church Road extends west from the intersection of Haddonfield Road to the Merchantville Borough boundary. The .50 mile section of road consists of two (2) travel lanes with appropriate pavement markings. One (1) traffic light exists at the intersection of Haddonfield Road. Church Road has a posted speed limit of 25MPH. This road currently operates at an acceptable level of service. Therefore, improvements are not being recommended as part of this Master Plan.

Cuthbert Boulevard (CR 623) Cuthbert Road extends north from the Cooper River to NJ Route 70. This section of roadway consists of four (4) travel lanes, two (2) in each direction with appropriate markings. In 1992, the Average Annual Daily Traffic of this road segment totaled 25,920 trips. Cuthbert Boulevard has a posted speed limit of 35 MPH.

It is recommended that intersection and roadway improvement along Cuthbert Boulevard be advanced at the following location:

- Evaluate the redesign of the existing driveway at building number four of the executive campus to improve the sight distance of vehicles exiting onto Cuthbert Boulevard.

Chapel Avenue (CR 626) Within this area, Chapel Avenue is classified as an urban minor collector. The roadway extends west from Haddonfield Road to the boundary with Pennsauken Township and is .56 of a mile in length. It consists of two (2) travel lanes with appropriate pavement markings. Chapel Avenue has a posted speed limit of 25 MPH. There are four (4) traffic signals along this section of Chapel Avenue. These traffic signals are located at Haddonfield Road, NJ Route 38, Evergreen/Franklin Avenue and Hampton/Euclid Avenue.

It is recommended that intersection and roadway improvement along Chapel Avenue be advanced at the following locations:

- Coordinate the four (4) traffic signals to promote free-flow travel conditions on this roadway.
- Evaluate the impact of designating Third Avenue one-way for its entire length. Currently, Third Avenue is one-way from the 400 block towards Chapel Avenue.

Haddonfield Road (CR 644) Haddonfield Road is classified as an urban principal arterial. The roadway extends north from the Borough of Haddonfield to the boundary of Maple Shade Township and is 2.16 miles long. The road consists of two (2) travel lanes in each direction, a center turning lane in the vicinity across from the Cherry Hill Mall, and a widening to four and five lanes at the intersection

of NJ Route 70. In 2000, the Average Annual Daily Traffic of this road segment totaled 56,240 trips. Haddonfield Road has a posted speed limit of 45 MPH. There are eight (9) traffic signals along Haddonfield Road. These traffic signals are located at Park Boulevard, NJ Route 70, Wynwood Avenue, between Hollis and Martin Avenues, Chapel Avenue, Loews Theater access road, Princeton Avenue/Cherry Hill Mall access road, Dudley Avenue/Mall entrance and Church Road.

The following improvements are being advanced for Haddonfield Road in conjunction with the redevelopment of the Garden State Park:

- Chapel Avenue - Remove the existing racetrack drive entrance and the fifth leg of the intersection that provided access to this internal driveway.
- Proposed North Garden State Boulevard - To be located at the existing racetrack signalized intersection between Hollis and Martin Avenue. Provide a right turn lane and three-phase traffic signal.
- Proposed South Site Driveway - To be located south of the existing intersection with Severn Avenue. Provide a northbound left turn lane and a southbound right turn lane and a three-phase traffic signal.
- Proposed Retail Driveway - To be located opposite Sherwood Avenue. Provide a right turn in/right turn out driveway.
- Wynwood Avenue - Provide an enter-only driveway opposite Wynwood Avenue.



New Jersey Transit Train Station

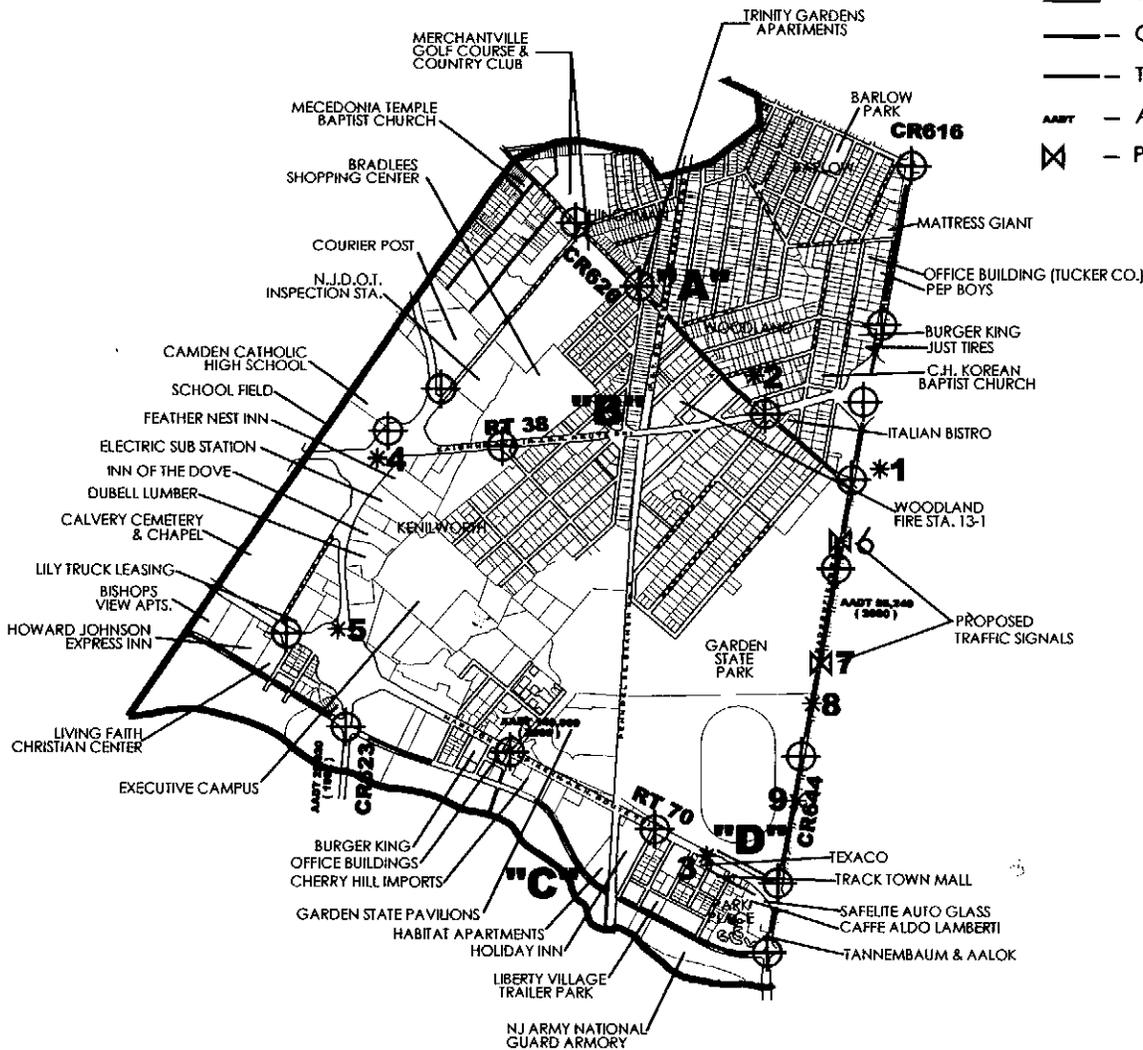
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CIRCULATION MAP DISTRICT 6 MAP B8



LEGEND

- Existing Traffic Signal
- Intersection Improvement
- Widen Road To 4 Lanes
- Coordinate Traffic Signals
- Traffic Calming
- Average Annual Daily Traffic
- Proposed Traffic Signal



INTERSECTION IMPROVEMENTS

1. Remove GSP Racetrack entrance at Haddonfield Road and Chapel Avenue.
2. Chapel Avenue and N.J. State Highway Route 38.
3. N.J. Route 70 and Sayer Avenue.
4. Improve drainage to alleviate flooding.
5. Redesign driveway at Building #4.
6. Add signal with right turn lane and three phase signal.
7. Add signal as well as North and South bound right turn lane and three phase signal.
8. Proposed retail driveway with right turn in, and right turn out.
9. Provide enter only driveway.

* future traffic needs and improvements are predicted upon the Garden State Park development.

ROADWAY IMPROVEMENTS

- A. Coordinate traffic signal operations along Chapel Ave. to promote free-flow travel conditions along roadway.
- B. Widen N.J. 38 at railroad bridge in order to maintain three travel lanes along this section of N.J. Route 38
- C. Install traffic calming devices along Park Boulevard to discourage cut-through traffic and promote safer driving speeds.
- D. Widen N.J. Route 70 from just east of Haddonfield Road through proposed Garden State Boulevard.

Scale : 1" = 600'

Planning Source : JCA Associates, Inc.
1766 North Church St., Suite 3
Haddonfield, NJ 08033
Source : N.J.D.P.C. Resources Data
Also : New Planning Engineering Associates, Inc.
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Fair Share Requirements for Off Tract Improvements

Fair share cost allocations from developers for off-tract improvements are based upon the circulation plan element of the Master Plan. The M.L.U.L. states that the circulation element shall establish fair and reasonable standards to determine the fair share assessment required of each developer, applicant or owner within a related and common area. This assessment will defray the cost of roadway improvements located outside the property limits of the subdivision or development but are required due to the intensity of the development or subdivision. When additional development occurs along a presently overburdened road, the review board may request a pro-rata contribution for off-site improvements. These improvements may not be required until the need is warranted. However, the mechanism for fair share contributions should be in place as part of the approval process. It is suggested that the Cherry Hill Land Development Ordinance include provisions for off-tract improvements for roads. The ordinance sections will provide a formula for the calculation of the pro rata share required of a developer, applicant or owner based upon recommendations contained within this Circulation Element.

Recent Case Law Regarding Pro-Rata Share

N.J.S.A. 40:55D-42 sets forth the requirements for imposing developer fee contributions for off-tract improvements and provides:

The governing body may by ordinance adopt regulations requiring a developer, as a condition of approval of a subdivision or site plan, to pay its pro-rata share of the cost of providing only reasonable and necessary street improvements and water, sewerage and drainage facilities, and easements therefore, located outside the property limits of the subdivision or development but necessitated or required by construction or improvements within such subdivision or development.

In *F & W Assocs. v. County of Somerset* 276 N.J. Super. 519, 528 (App. Div. 1994), Judge Havey comprehensively interpreted Section 42 of the MLUL. Judge Havey noted that Section 42 of the MLUL is a codification of the pre-MLUL decisional law, including the decision of *Divan v. Planning Bd. Of Wayne*. 66 N.J. 582 (1975), where the New Jersey Supreme Court upheld off-tract improvement ordinance standards based upon the number of trips a project will generate.

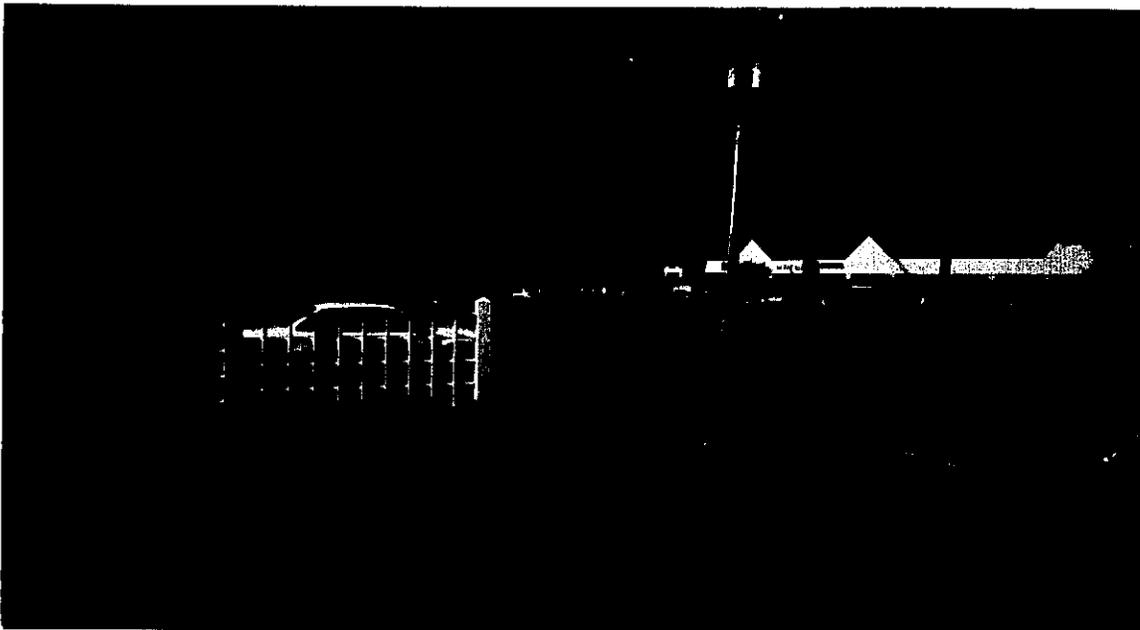
In his decision, Judge Havey stressed the two requirements for implementing off-tract improvement ordinance standards- 1) a "rational nexus"; i.e. a municipality's authority to charge developers is limited to improvements for which the need arose as a direct consequence of the particular subdivision or development under review; and 2) Equality of treatment", i.e. a developer may only be apportioned his pro rata share of the cost of the improvement.

Judge Havey concluded that the "rational nexus" requirement does not require "mathematical exactitude" on the part of the Township in devising an ordinance to collect pro-rata share contributions and that a developer may only challenge an assessment if a disproportionate share is imposed upon his property, which benefits other persons. Recommended ordinances will incorporate a trip generation methodology applicable to a discrete area of the Township providing

a rational nexus for the pro-rata share contributions allocated to each developer.

Traffic Impact Studies

It is recommended that a traffic study be required for all developments within Cherry Hill Township that generates 25 or more PM peak hour trips. If a traffic study is required of an applicant, it will be necessary to provide the various data as outlined below. The traffic study should address the various traffic generating characteristics of the proposed use and the interface of traffic from the proposed use and the existing uses in the area to assure that there will not be a degradation in the level of service in the area and so that there will not be any traffic hazards created in the area as a result of the traffic that is generated by the development. The traffic study should address the various concerns noted below using the standards outlined.



Holly Ravine Shopping Center

Traffic Volumes

It is recommended that existing 24-hour traffic counts summarized by hour and by direction and peak hour trips by movement be taken on all critical arterials and intersections affected by the proposed development. Traffic volumes utilized in the traffic report will be taken within 1 year preceding the date of the application.

Future Background Traffic Volumes

Future traffic volumes will be achieved by multiplying the peak hour traffic volumes by the NJDOT Access Permit Annual Background Growth Rate Table.

These factored traffic volumes will be surcharged with traffic volumes expected to be generated by impending development. Impending development would include traffic from developments that are expected to be completed in the immediate vicinity. This would include projects presently approved by the Township, projects in adjacent municipalities and projects that are presently in the planning process that are expected to be approved, in the near future.

Traffic Generation

Future traffic expected to be generated by the proposed development will be calculated by utilizing the latest copy of the Institute of Transportation Engineers (ITE) text Trip Generation. The values developed by using the Trip Generation method will be verified by typical counts when requested by the Township to verify the Trip Generation methodology results. If the Township requires trip generation data because the Trip Generation data methodology is not accurate due to local conditions or inadequate database in the Trip Generation text, the traffic data counts required verifying trip generation data will be provided in the ITE format. Traffic generation will include the amount of traffic to be generated for the projected 24-hour period and during the peak hour trip generation by the proposed project.

Future Build Traffic Volumes

Future background traffic volumes will be surcharged by adding the traffic volumes that are anticipated to be generated by the proposed development to the future background traffic volumes.

Traffic Analyses

- Capacity Analyses. Roadways and intersections will be analyzed using a capacity analysis. The capacity analyses will utilize the latest NJDOT approved Highway Capacity Program. Traffic will be analyzed for the existing traffic conditions; future background traffic and future build traffic conditions. Traffic analyses will optimize traffic signals. Thus the existing traffic conditions will show traffic conditions as they exist and with optimization of traffic signal timing. The future background traffic conditions will require the optimization of the traffic signal timings before the addition of the proposed traffic from the proposed development. After the addition of the future background traffic and the optimization of the traffic on the roadways, future traffic will be added and the traffic signal timings will be optimized for a final product.
- Accident Analyses. Accident data of critical intersections and roadways affected will be analyzed.
- Speed and Delay Analyses. Speed and delay analyses of critical roadways will be provided.
- Gap Analyses. Gap studies of critical intersections will be provided.
- Safety Analyses. Analyses will be made of all entrances and exits to determine if left turn lanes are warranted in accordance with Highway Research Record

211. In addition, deceleration and acceleration lanes will be analyzed to determine if they are needed.

- **Off-Tract Contributions.** The applicant's traffic consultant will provide a trip distribution that will distribute traffic to the surrounding roadway system. All intersections that have over 25 pm peak hour trips will be tabulated and listed with the amount of traffic from the proposed development and the total build traffic at that location.

The applicants engineer should provide the percent of the PM traffic that will be generated as a result of the ultimate build-out of the property for each intersection approach. If improvements are required as a result of development the need for the proposed improvement will be based on maintaining an acceptable level of service. The applicants pro-rata share of the intersection improvement shall be calculated by using the cost of the improvement multiplied by a factor consisting of the applicant traffic volume for that leg of the intersection alone, divided by the traffic volume at build out for that leg of the intersection alone.

Bicycle Transportation Network

Bikeways bring community benefits to both the cycling and non-cycling public. They attract more cyclists thereby reducing noise and air pollution and provide water quality benefits. They increase the carrying capacity of the transportation system and reduce road maintenance costs. Bikeways also help motorists to be more aware thus reducing vehicle speed and creating a safer environment for pedestrians. Bicycles also offer low-cost mobility to the non-driving public, including the young. The plan provides guidance for improvements that will encourage more bicycle trips on a daily basis.

The planning and execution of a bikeway system can be relatively simple and inexpensive such as the re-stripping of a roadway as part of a resurfacing project or complicated and expensive as with the widening of streets or the construction of a separate bikeway. The selection of bikeway locations should be determined based on their connection to land uses, ease and cost of implementation, need for safety improvements and continuity.

Goals and Objectives

The goal of the bicycle transportation system is to make bicycling an integral part of daily life in the community, particularly for trips of less than two miles by implementing a bikeway network, improving bicycle/transit integration, encouraging bicycle use, and making bicycling safer. The objectives of developing a bikeway program for Cherry Hill include:

- Complete a network of bikeways that serves bicyclists needs, especially for travel to employment centers, commercial districts, transit stations and recreational destinations.
- Provide bikeway facilities that are appropriate to the street classifications, traffic volume, and speed on all rights-of-ways.

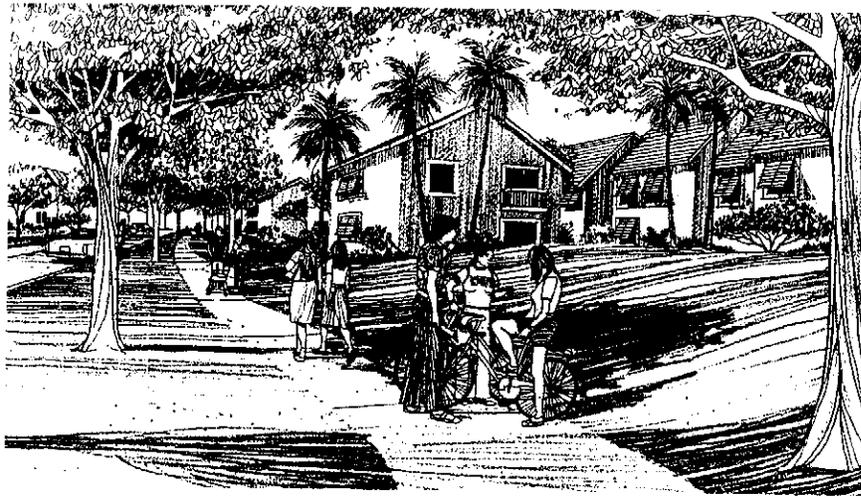
- Maintain and improve the quality, operation, and integrity of bikeway facilities.
- Provide bicycling parking in shopping areas, in employment centers, and multi-residential developments, at schools, industrial developments, recreation centers, and transit facilities.
- Promote bicycling as transportation to and from school.



Pedestrian and bicycle path at Barton Park

Cherry Hill Township's existing bikeway system generally courses in an east/west direction. It begins at the Park Place condominium development and terminates at Springdale Road. One spur of the bikeway courses to the Woodcrest Station of the PATCO High Speed Line. The current and planned bikeways exist on a street system that includes county and municipally owned roadways.

While the Township's existing bikeways are well used, there are a limited number of bikeways and their locations do not serve a wide populous of the community. Future Township bikeways should be planned to establish direct and convenient bicycle access to significant destinations such as the neighborhoods and regional centers including the Garden State Park, Cherry Hill Mall, Ellisburg Shopping Centers and others. In addition, the Township should develop a partnership with "Cross County Connections" for coordination and funding of bikeways.



Pedestrian circulation should be considered as well as the automobile.

While all streets should be accessible by bicycle, and the appropriate facilities phased in as streets are either constructed or reconstructed, the reality is that relying on street reconstruction for bikeway improvements will leave cyclists with few improvements in the near future. In a developed community such as Cherry Hill, streets are simply not built that often. Therefore, to provide a bikeway system that attracts cyclists and realizes the objective of integrating bicycling for recreation and as an alternative transportation alternative, the Township must pursue a system of selected streets on which bikeway facilities will be implemented.

The bikeway network is to provide a higher level of service for cyclists and encourage bicycle use. The streets proposed in the bikeway network were selected because they:

- Connect cyclists to desired destinations, such as employment centers, commercial centers, transit stations, and recreational destinations.
- Provide continuity with the existing bikeway system.
- Provide the most direct and convenient routes possible.

The network, including the recommended bikeway treatment for each segment, is proposed on the Bikeway Network Map (**Map B9**).

Implementation

Several techniques are being advanced as a means of implementing the expansion of the bicycle network in Cherry Hill.

- Implement bikeway facilities as part of all transportation improvements, including road construction and reconstruction and other transportation projects such as intersection improvements.
- Continue to allocate funding for individual bikeway projects.
- Develop and implement a destination-based signing system for the bikeway network.

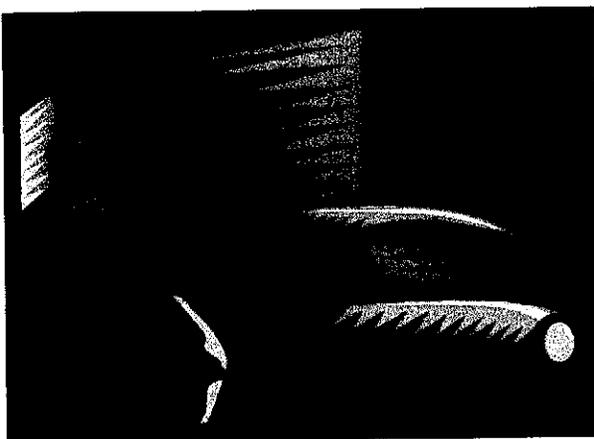
- Consider innovative design treatments where appropriate, such as different colored and/or textured bicycle lanes, and advance bicycle stop lines at intersections.

Street vacations create opportunities for the interconnection of bikeways. It is recommended that the Township evaluate opportunities and the need for a bikeway, walkway, or other transportation use when considering the vacation of a street. Where pedestrian and bicycle facilities are needed, the first preference is to retain the right-of-way for these uses. If retaining right-of-way is not feasible, a public easement can be obtained along with public improvements where they preserve or enhance circulation needs.

Land use ordinances and zoning codes dictate how a project should be developed. For example, if a new retail establishment is being considered, the development ordinance requires that a certain amount of bicycle parking be added.

Bicycling produces no air pollution, decreases traffic congestion, helps alleviate parking demand, saves energy, uses land and road space efficiently, provides mobility, improves health and fitness, and is fun! The success of the bicycle plan will only be assured by the continued support of the cycling community in Cherry Hill and other residents recognizing the benefits bicycling brings to all residents.

Sidewalks are also an important linkage that can be used in combination with bikeways. Many sidewalks are discontinuous throughout the community. This plan recommends the elimination of sidewalk gaps by installing new sidewalks each year until the gaps are completed. The safety of all pedestrians is of utmost concern. The following roads require sidewalks to complete the gaps: Kresson Road, Springdale Road, Marl-kress Road, Greentree Road, Cropwell Road, Haddonfield-Berlin Road, Brace Road, Church Road, Chapel Avenue and Cuthbert Road. Many of these roads are county roadways. A Capital Improvements Program using county and local funds could solve this deficiency.



Cyclists Ride for utilitarian...



And for recreational purposes

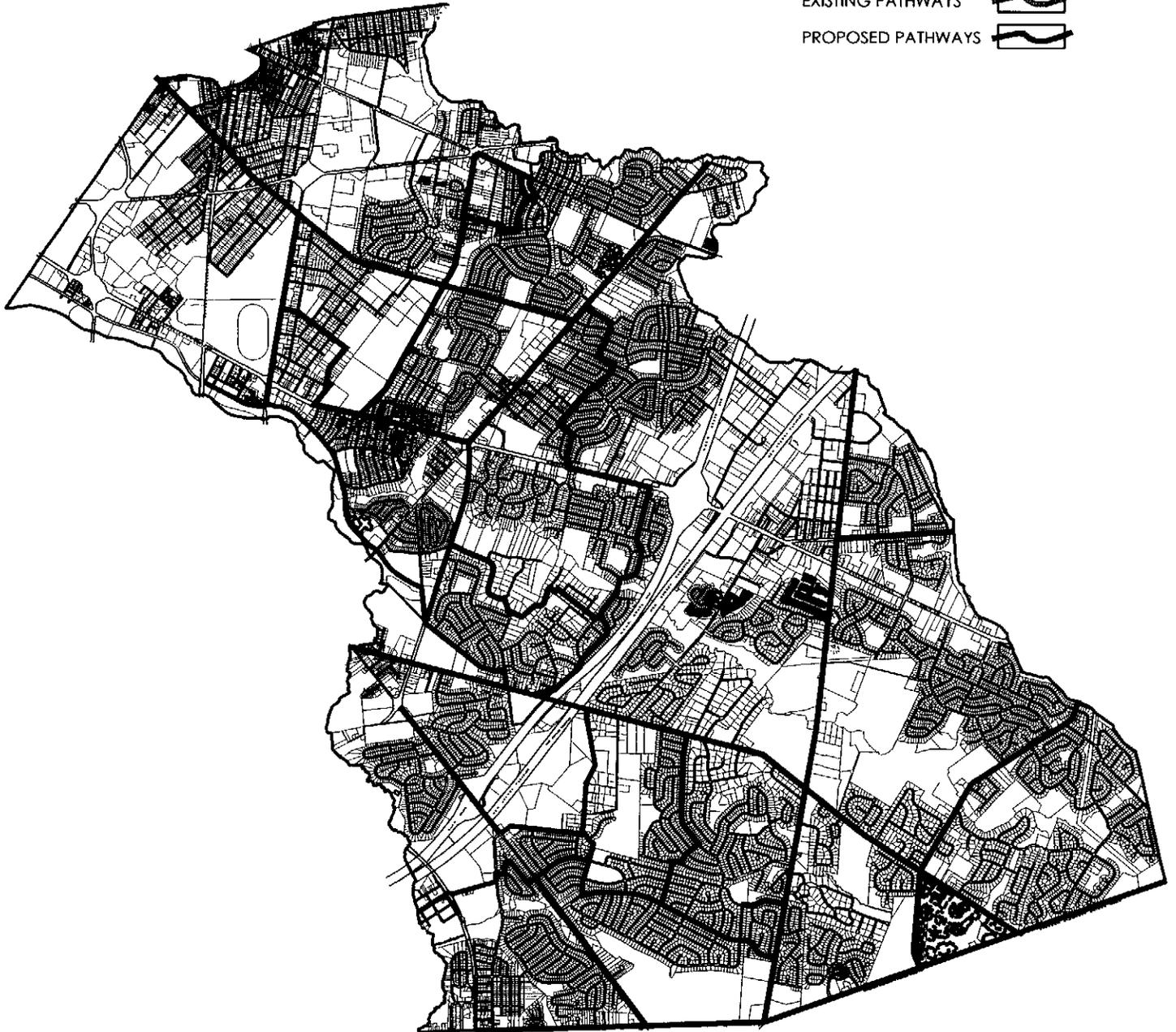
CHERRY HILL TOWNSHIP

PROPOSED BIKEWAY NETWORK MAP B9



LEGEND

- EXISTING PATHWAYS
- PROPOSED PATHWAYS



Scale: 1" = 1200'

Boundary Source: JCA Associates, Inc.
1264 North Church St., Suite 3
Aspen Grove, NJ 08027
Source: H&M GIS Resource Data
Also: Ray Public Engineering Associates, Inc.
204 Independence Avenue
PO Box 1781
Pittsford Research, NJ 08942

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