Walkable Community Workshop

held: September 15, 2010

Newark-Pompton Turnpike, Pequannock, NJ



prepared by: County of Morris Department of Planning & Development Division of Transportation February 2011

Table of Contents

- I. Purpose of Workshop
- II. Workshop Methodology
- III. Local Insights
- IV. Findings & Recommendations
 - A. Summary of Existing Conditions
 - 1. Pedestrian Needs/Issues/Opportunities
 - Safety
 - Comfort
 - Convenience
 - Access & Design
 - B. Summary of Priority Recommendations
 - 1. Improve Visibility of Crossing Locations
 - 2. Traffic Calming Reduce Speeds
 - 3. Reduce Crashes and Simplify Circulation
- V. Steps to Advance Recommendations
- VI. Next Steps

APPENDIX

- A Workshop Flyer
- B Agenda
- C Project Team & Attendee Listing
- D Traffic Volume & Travel Speed
- E Crash Data
- F Issues, Needs & Group Recommendations
- G Sample Improvements
- H Concept Plans

I Purpose of the Workshop

The Morris County Division of Transportation (MCDOT) began conducting the Walkable Community Workshops in the fall of 2006. Since that time a total of five (5) workshops have been completed including:

- Town of Dover November 2006
- Washington Township December 2007
- Borough of Lincoln Park April 2008
- East Hanover (Hanover Park Regional High School Safety Committee) April 2009
- Washington's Headquarters Neighborhood, Morristown September 2009

The intent of the Walkable Community Workshop is to educate attendees on how to identify common barriers, benefits, and solutions to enhance pedestrian safety, mobility, and accessibility. The half-day workshop does this by reviewing common deficiencies using a presentation of examples, then viewing conditions first hand in a defined study area via a field walk. Attendees then propose solutions to address their specific concerns seen in the field. The results of the workshop identify the group's top priorities for improvement and recommended solutions.

The workshop also strives to advance a number of mutual goals that have been identified by state, regional and county policies that strive to improve safety and accessibility for pedestrian travel including:

- Incorporation of walking facilities in community planning and redevelopment efforts throughout the region.
- Incorporation of sidewalks into the transportation network.
- Improved access to existing and new transit stations and stops, retail/commercial centers, schools and parks.
- Completion of links between residential areas and nearby shopping, schools, employment and recreational centers by towns and counties.
- Promotion of safe walking through information campaigns to school children, law enforcement agencies and community organizations.

The workshop attendees include advocates, residents, and professionals to identify barriers to walking and improve pedestrian safety.

MCDOT representatives work with local representatives and municipal officials to develop a diverse list of stakeholders including local leaders, planners and engineers, interested business owners, and residents. The workshops are also intended to train staff and other professionals on how to conduct similar assessments in other locations. Appendix A includes a flyer that gives a brief description of the workshop. The flyer was distributed as part of each invitation.

The outcome of each workshop is to identify and prioritize specific improvements that will increase safety and accessibility for pedestrians. The workshops serve as a blue-print for local communities to implement short, medium, and long-term improvements locally by working with internal departments and to seek out funds through state and regional transportation funding agencies for planning and construction of the recommendations.

Walkable Community Workshop Summary Township of Pequannock

II Workshop Methodology

The half-day workshop consists of four parts: 1) an initial briefing by local stakeholders; 2) a presentation by MCDOT representatives on best practices of walkable communities; 3) a guided walking audit of a study area identified by the local host and facilitator; and 4) small group sessions from which recommendations for improvements are made. An agenda is included as Appendix B.

Each workshop begins with an initial briefing by a local representative, such as the mayor, police chief, county planner, or representatives from the department of public works—among other groups.



Pequannock Walking Audit

During the initial briefing the workshop facilitator is

alerted to existing pedestrian safety hazards, locations of walkable destinations (libraries, schools, municipal buildings, shopping, employment centers, and parks), existing plans for infrastructure improvements, and any other considerations relevant to the outcome of the workshop. The workshop facilitators also get a chance to ask questions of the local representatives during this informal briefing. The briefing may include a walk of the study area (time and weather permitting) or it may be conducted with aid of an aerial map of the township and walking audit area.

Approximately one hour of the workshop is devoted to a PowerPoint presentation highlighting elements of a walkable community. The presentation begins with an overview of typical barriers and benefits to walking. Also discussed are the reasons people commonly cite for not walking. Those reasons form the basis of the second part of the presentation in which best practices of walkable communities are described. The example solutions consider a range of options from simple short-term to more complex longer-term solutions. The final portion of the presentation is dedicated to implementation strategies. Presented are: public health rationale for increasing pedestrian safety and levels of physical activity, economic benefits to individuals and communities of becoming more walkable, and the relationship between walkability and improved quality-of-life. Each presentation is customized to reflect local conditions and concerns.

A walking audit follows the presentation. The walk follows a defined study area designated by local representatives and varies from an individual intersection to a corridor where each participant records their observations and ideas. The purpose of the walking audit is to apply the concepts and solutions discussed during the earlier presentation to identify specific problems, as well as to point out positive features that increase pedestrian safety. The facilitator stops at various points along the route and asks the group to make observations, and to suggest remedies. Attention is paid to pedestrian safety, comfort, convenience, and access and design, which include the ease of crossing the road, the quality of the walking experience, driver behavior, and connectivity between destinations—among others.

The third part of the workshop is devoted to a group mapping exercise. The participants divide into small groups and gather around maps of the study area. The groups note the location of specific problems observed and develop potential solutions. The groups are encouraged not to be constrained in the scope of their suggestions or to worry about jurisdiction or cost of improvements. The groups are instructed to think beyond physical improvements, and are encouraged to consider comprehensive approaches, such as a program that educates and encourages more walking to

school, work and to businesses in the area.

Finally, each group is asked to present its recommendations to the group at large. This is an interactive portion of the workshop and other participants are encouraged to comment on the suggestions presented. Once each group has presented, the facilitator moves the participants to identify a consensus of what are the highest priority improvements of those discussed.

III Local Insights

Pequannock Township officials sought to address concerns expressed by local residents regarding their inability to cross the Newark-Pompton Turnpike due to the constant and uninterrupted flow of traffic through the southern end of this corridor. The community feels that there are very few opportunities to cross and that drivers do not stop to give way for pedestrians to cross. With that, Pequannock Township contacted the Morris County Division of Transportation (MCDOT) regarding their interest in conducting a Walkable Community Workshop.



Pedestrian waiting for gap in traffic

Upon coordinating with municipal leaders and the Township's Environmental Commission

representatives, it was agreed that a Walkable Community Workshop would be a suitable program to assist the community with addressing their in needs along the southern "Main Street" area of the Newark-Pompton Turnpike, which is also County Route 504 (CR 504).

The Pequannock Township Environmental Commission served as the local contact and in conjunction with MCDOT staff a Walkable Community Workshop was conducted on Wednesday September 15, 2010 from 9:00 am until 12:30 pm. Denise Chaplick of the MCDOT was the workshop facilitator, and Tom Andrea was the lead representative from the Environmental Commission. The workshop was held at Engine Company No. 2 located immediately adjacent to the study area. A listing of project team contacts and workshop attendees is included as Appendix C.

IV Findings & Recommendations

Although the focus of the workshop and the reports recommendations are geared toward pedestrian safety and access we strive to address all deficiencies identified within practical limits.

A. Summary of Existing Conditions

The study area consists of the southern section of Newark-Pompton Turnpike from the south beginning at the municipal boarder with Wayne (mile post 5.24) extending north for approximately ³/₄ of a mile to the intersection of Franklin Avenue (mile post 4.5). Figure 1 shows a vicinity map of the study area.

Newark-Pompton Turnpike (CR 504) is under the jurisdiction of Morris County, and is classified as an Urban Minor Arterial roadway. The roadway in this area varies between 38 feet and 42 feet wide, and consists of one travel lane in each direction. Wide travel lanes exist as you enter the Borough from Wayne to the south. Although on-street parking is permitted here, it is not striped as such. On-street parking is permitted only on the west side between Irving Street and Oak Avenue. The parking spaces in this location are outlined with paint. A center median is painted between Irving Street north to Richards Street, and is dropped to provide an exclusive left turn lane onto

Walkable Community Workshop Summary Township of Pequannock

Oak Avenue for northbound traffic.

The study area of the Newark-Pompton Turnpike serves as the Main Street for the surrounding neighborhoods. Destinations located along and adjacent to the study area include a variety of services, retail shops, restaurants, a pocket park, bus stops, civic buildings, and a post office. The close proximity combined with an adequate sidewalk network puts the Newark-Pompton Turnpike corridor within easy walking distance for area residents, workers, shoppers, and visitors.

The existing crosswalks in the study area are red stamped asphalt and are outlined with white strips. The color differentiation and edge lines assist to highlight the crossing locations. However there are only five designated crosswalks (Irving Street, Demott Avenue, New Read Street, Richards Street and Franklin Avenue) located within the ³/₄ of a mile study area.

There are no traffic control devices along the Newark-Pompton Turnpike within the study area. The nearest traffic signal is located approximately ¼ mile to the north of the study area at the intersection of Jacksonville Road (MP 4.23). The streets crossing the Newark-Pompton Turnpike are stop controlled.

The Newark-Pompton Turnpike is heavily utilized by drivers avoiding congestion on nearby NJ 23, which is parallel to the roadway. This is particularly evident during peak commuting hours. Traffic counts taken in September 2010 show an average daily volume of 16,334 vehicles, which is a slight decrease from the previous traffic counts taken in 2002 where the average daily volume was 17,818 vehicles.

In addition to high traffic volumes MCDOT's data collection revealed that the 85th percentile speed in the study area is 45 mph, which is 10 mph above the posted speed limit. It would appear that motorists are comfortable with continuing the speed limit of adjacent areas through the southern "Main Street" area of the Newark-Pompton Turnpike. The speed limit immediately to the south, in Wayne, and north of the study area is posted at 40 mph.

During discussions with the Pequannock Police Department, they did not perceive the study area as having a speeding problem. However, they had not completed a speed study to confirm their perception. Appendix D provides more details regarding traffic volumes and travel speeds in the study area.







Top: Existing enhanced crosswalk Middle & Bottom: Traffic along CR 504

Figure 1 - Newark-Pompton Turnpike



Walkable Community Workshop Summary Township of Pequannock

Prior to the workshop MCDOT also conducted an evaluation of crash data to determine locations of recurring crashes and the predominant type of crashes occurring in the study area. We reviewed crashes along Newark-Pompton Turnpike between Jacksonville Road to Marlin Avenue (MP 4.2 to 5.0) during the three year period covering 2007, 2008, and 2009. Over the three year period a total of 43 crashes occurred. The intersections of Demott Avenue and Franklin Avenue ranked highest as intersections with the most crashes. The top three crash types occurring in the study area are Right Angle (14), Rear End (11), and Fixed Object (4) and Bicycle (4) tied for third. The top two crash types (right angle and rear end) account for more than half (58%) of the crashes that occur along the study corridor. These findings were consistent with the feedback received from the local community. Appendix E provides more detailed summary of the crash analysis completed for the study area.

The continuous flow of traffic combined with high travel speeds pose a dual threat to pedestrians and drivers along Newark-Pompton Turnpike. The steady flow of traffic does not provide adequate gaps for pedestrians to cross the street and also makes it difficult for motorists to turn to and from side streets. These conditions cause pedestrians to cross at inappropriate and unexpected locations and force drivers to act hastily and pull out in traffic. This is the most likely reason for the high frequency of right angle crashes. As noted above the prevailing speeds along the corridor are 10 mph above the posted speed limit of 35 mph, which indicated that there is a speeding issue. Additionally, the existing posted speed limit of 35 mph is not the most fitting to promote pedestrian mobility and poses a greater risk of a pedestrian crash being fatal.

Although the Township has an adequate sidewalk network in place there are several obstacles that disrupt pedestrian access along the Newark-Pompton Turnpike corridor forcing them to walk in the street and cross at inappropriate locations. This mainly occurs along the northbound travel lanes between Hilton Street and Richard Street. The existing parking configuration in front of the shops encroaches onto the sidewalk and no physical barrier prevents drivers from exiting the parking lot over the sidewalk, a frequent occurrence according to some workshop attendees.



Parking area encroaches onto sidewalk

1. Needs/Issues/Opportunities

Many communities and neighborhoods like Pequannock experience increased traffic volumes due to "cut-through" traffic attempting to avoid nearby congested roadways. As a result, safety and accessibility for pedestrians and drivers are negatively impacted. Based on feedback from workshop attendees and our in-field observations, we found the major obstacles that hinder pedestrian safety and access within the Newark-Pompton Turnpike study area include:

- High traffic volumes
- Higher than posted travel speeds
- Posted speed limit inconsistent with pedestrian accessibility
- High crash rates
- Cut-through traffic
- Distracted drivers
- Drivers do not stop for pedestrians to cross street
- Wide travel lanes
- Confusing intersection (Franklin Avenue)
- Rolling stops from side streets
- Limited number of marked crosswalks
- Lack of advanced warning signs at existing crosswalks
- Existing signs are obstructed or faded
- Excessive number of driveways and access points
- Sidewalk blocked by parking spaces
- Unexpected mid-block crossings
- Limited sight distance from:
 - East Franklin Avenue
 - Richard Street
 - Driveway opposite Demott Avenue

The majority of workshop participants joined the walking audit where the group made numerous stops along the route. Particular attention was paid to the following locations along Newark-Pompton Turnpike:

- Intersection of Franklin Avenue
- Between Franklin Avenue & Oak Avenue
- Intersection of Demott Avenue





Top: Faded signs along CR 504 Bottom: Intersection of CR 504 & Franklin

The following section elaborates further on each need/issue as they relate to the four focus areas of safety, comfort, convenience, and access and design. They include:

Safety

Ensuring safety is the primary consideration for walkable communities. Crossings must be safe and well-marked. Motor vehicles must travel at appropriate speeds. The following have been identified as safety issues within the study area:

- Travel speeds are higher than existing posted speed limit
- Posted speed limit is inconsistent with pedestrian access
- Drivers do not stop for pedestrians to cross the street
- Traffic control and driver orientation is confusing at the intersection of Franklin Avenue
- High crash rates throughout the study area, particularly at the intersections of Franklin Avenue and Demott Avenue
- Lack of advanced warning signs for existing crosswalks
- Several of the existing signs are blocked and/or faded
- Pedestrians are forced into the street due to parked vehicles obstructing the sidewalks in front of strip shopping center
- Pedestrians unexpectedly cross mid-block in area of Rita's Water Ice (most likely caused by the above)
- Pedestrians are at risk when drivers make rolling stops from side streets looking only in one direction for on-coming traffic (Oak Avenue)
- Limited sight distance for traffic exiting westbound from East Franklin Avenue to see southbound traffic on Newark-Pompton Turnpike
- Limited sight distance for vehicles exiting and turning left from Richard Street and the strip shopping center to see southbound traffic on Newark-Pompton Turnpike
- Limited sight distance for vehicles exiting driveway opposite Demott Avenue due to onstreet parking
- The excessive number of driveways and access ways along the corridor present numerous conflict points for pedestrians and drivers.
- Limited gaps in traffic cause driver from side streets to act hastily and pull out in front of traffic

Comfort

Aesthetics are an important determinant in the decision whether to walk. A well-designed pedestrian space encourages more walking. The following have been identified as deterrents to walking within the study area:

- Sidewalks are blocked by parking spaces in front of strip shopping center
- Traveling speeds and the posted speed limit are inconsistent with pedestrian safety and access
- The continuous flow of traffic leaves limited opportunities for pedestrians to cross the street and makes turns from side streets difficult for vehicles
- Drivers do not stop for pedestrians to cross street
- Drivers are in a hurry to "get through" the area (cut-through traffic)
- There are a limited number of crosswalks in the area

Convenience

Good routes and short distances between destinations encourage trips on foot. The following have been identified as elements that make walking inconvenient within the study area:

- The steady flow of cut-through traffic make it difficult to cross the street
- The excessive number of driveways and access points makes for constant interruptions

and conflict points for pedestrians

• The limited number of crosswalks, excessive traffic, and threatening speeds discourage walking to major destination points along the corridor and limit pedestrian access, mobility

Access & Design

The pedestrian space must reflect the various levels of mobility. Proper design benefits all users, and allows accessibility throughout the community. The following have been identified as access and design deficiencies within the study area:

- Excessive speeds
- Cut-through traffic
- High crash rate
- Parking encroachments
- Geometry at intersection of Franklin Avenue
- Large corner radii at Oak Avenue
- Access Management (numerous access point, many that are to close to intersections)
- Inadequate sight distance

B. Summary of Priority Recommendations

During the workshop the Pequannock stakeholders agreed that the following recommendations should have the highest priority. The text below outlines specific details of each and **Figure 2** on page 15 provides a brief summary along with the main safety benefit, projected timeframe, and agencies involved. Participants broke out into two groups. A complete listing of each working group's recommendations, comments, and feedback can be found in Appendix F.

1. Improve Visibility of Crosswalk Locations

There was a consensus among workshop attendees that the highest priority for improvement should be to increase the visibility of existing pedestrian crosswalks and add more crossing locations in the area. The improved visibility of crosswalks is intended to bring increased awareness of locations where drivers should expect pedestrians, and reinforce the law that drivers should stop for pedestrians attempting to cross. Improved crosswalk striping will also provide better direction for pedestrians as to where they should cross.



Example of high visibility crosswalk

Although the existing crosswalks are nicely

distinguished in red and outlined with a white strip, more can be done to increase their visibility, such as adding:

- Ladder style markings
- Advanced warning signs
- Reflective strips on sign poles
- Advanced stop bars, indicating to drivers where to stop
- Curb extensions (painted or raised) at intersecting streets and driveways (where appropriate)
- Pedestrian scale lighting
- Crosswalks on all legs of an intersection (where appropriate)
- Pedestrian activated flashing sign

• In-road bollards

Another way to increase the visibility of crossing locations is to remove several of the existing parking spaces that obstruct visibility because they are located too close to crosswalks and intersecting streets. NJ Statute R.S.39:4-138 states that parking spaces must not be located within 25 feet of the nearest crosswalk.

Currently there are five designated crosswalks in the study area. However, more should be added at primary crossing locations to reinforce that these areas of the corridor have increased pedestrian activity. Additional crossing locations should include:

- Pequannock Avenue
- Industrial Road/Fairview Avenue
- Marlin Avenue
- Greenwood Avenue
- Irving Street
- Oak Avenue

Also, crosswalks should be enhanced north of the study area at the intersections of Edwards Avenue and Jacksonville Road given these locations are primary crossing locations in the community.

2. Traffic Calming – Reduce Speeds

The constituents identified their second highest priority as the need for traffic calming to reduce travel speeds and deter cut through traffic. Traffic calming measures change the physical features of the roadway to influence a driver's behavior to reinforce how they should be operating. There are a wide variety of measures that can be used. Some are completed simply with road marking while others need to be constructed. Regardless which are used, the best results are achieved when a combination of treatments are employed. The following traffic calming measures are recommended for the Newark-Pompton Turnpike.

The existing painted median should be enhanced and extended. The purpose of the median is to reduce the width of existing travel lanes-squeezing traffic, in turn reducing speeds. The median can be dropped at strategic locations to allow for allow for turns, but continued through others locations to limit the excessive number of access points.





Top: Example of Rapid Red Flashing Beacon (RRFB) Bottom: Example of center median

Raised medians are also beneficial to pedestrians by reducing the crossing distance and their exposure to traffic by providing a staging point to cross one travel lane at a time. Medians also assist to make drivers more aware of pedestrians attempting to cross the street. Raised medians also provide an opportunity to incorporate landscaping as part of the streetscape. Raised medians are proposed to begin just north of Franklin Avenue and extend south to Greenwood Avenue.

Curb extension, also referred to as bulb-outs or neckdowns are also a recommended traffic calming measure. They serve to enhance and open up the visibility of crossing locations, so that pedestrians can see oncoming traffic and drivers can see pedestrians attempting to cross. Curb extensions also serve as pinch points for drivers, squeezing them at critical locations such

as crossings. Curb extensions can be painted or raised, but are most effective if they are raised.

Curb extensions are proposed along Newark-Pompton Turnpike at the intersections of:

- Oak Avenue (reconstruct to reduce corner radii)
- New Read Street (west side)
- Demott Avenue (west side)
- Irving Street (both)

Speed Limits

Although not a physical traffic calming feature, speed limits dictate how fast traffic

show be flowing. The existing posted speed limit in the study area is 35 mph. This limit should be lower to be more compatible with pedestrian activity and existing land uses. A 25 mph is recommended.

Signs & Markings

Traffic calming can also include in-road striping. This is accomplished mostly by taking up excess asphalt by delineating parking areas, marking wide shoulders, and creating center median areas. In-road striping can also be used to create curb extensions and high visibility crosswalks to highlight crossing locations.

Striping modifications/additions are proposed along Newark-Pompton Turnpike as follows:

 4 feet striped shoulder with 11 feet travel lanes (Franklin Avenue to Oak Avenue)



Example of advanced warning signs of pedestrian crossings

- 8 feet striped parking with 12 feet travel lanes (Oak Avenue to Irving Street)
- 3 feet striped shoulder with 11 feet travel lanes 10 feet striped center median (Greenwood Avenue to Riverside Drive). Enhanced striping should be placed in the center median to prevent this lane from operating as a travel lane.



Example of curb extension

Walkable Community Workshop Summary Township of Pequannock

High visibility ladder style crosswalks should be located at:

- Franklin Avenue (west side)
- Richards Street (west side)
- Oak Avenue (east side)
- New Read Street (both)
- Demott Avenue (both & enhanced center)

The combined goal of advancing priorities 1 and 2 above are to reduce speeds and increase driver's compliance with the law "Stop for Pedestrians". Therefore, additional signs should be installed that will reinforce these as important community goals. Signs should include:

- MUTCD advanced warning signs
- "Stop for Pedestrians" in-road bollards
- Announcements on Variable Message Sign indicating that speed limits and stopping for pedestrian laws are enforced. The fines for each of these offenses should also be announced.

3. Reduce Crashes and Simplify Circulation

The third priority identified was the need to reduce crashes and simplify circulation along Newark-Pompton Turnpike at the intersections of Franklin and Demott Avenue. Feedback from Police and EMS representatives attending the workshop indicated that they see a lot calls at these locations. They felt the main contributor to crashes were driver confusion. Our review of crash data confirms that the majority of crashes occur at Franklin Avenue and Demott Avenue.

We have made the following recommendations to address existing deficiencies contributing to these high crash locations.

Franklin Avenue

Upon review, it would appear that crashes at the intersection of West Franklin Avenue can be attributed to the short distances between Lincoln Park Boulevard and Newark-Pompton Turnpike. Additionally, the limited sight distance for traffic turning left onto Newark-Pompton Turnpike from East Franklin Avenue contributes to high crashes.

- Greenwood Avenue (both)
- Marlin Avenue (both)
- Fairview Avenue (both)
- Pequannock Avenue (both)



Example of in-road bollard, "Stop for Pedestrians"





Top & Bottom: Examples of center median

The following modifications are recommended:

- Create a T-intersection at West Franklin Avenue by closing this short (70 feet long) section between Lincoln Park Boulevard and Newark Pompton Turnpike. This will prevent through traffic to Newark Pompton Turnpike forcing eastbound traffic left or right to more appropriate intersections for exiting. Northbound traffic can exit from Lincoln Park Boulevard, and southbound traffic can exit from Oak Avenue. Additionally, this change will also assist to reduce confusion by reducing the number of conflict points and introducing a more controlled intersection with the stop control from eastbound West Franklin Avenue.
- Closing this short section of West Franklin Avenue will allow an opportunity to expand the existing park.
- Install a raised center median along Lincoln Park Boulevard between West Franklin Avenue and Newark Pompton Turnpike. This will assist to squeeze southbound traffic and reduce speeds as they enter.
- Install raised center median at the intersection Newark Pompton Turnpike and Franklin Avenue. This will prevent traffic from turning left from East Franklin Avenue. This restriction is necessary due to the limited sight distance of oncoming southbound traffic. Traffic desiring to make a left can exit from a more visible intersection, such as New Read Street.

Demott Avenue

Upon review, it would appear that crashes at the intersection of Demott Avenue can be attributed to two factors: 1) limited gaps in traffic cause drivers to act hastily pulling in front of on-coming traffic, and 2) difficult visibility of on-coming traffic, especially making a left turn onto southbound Newark-Pompton Turnpike, which is blocked by other traffic waiting to make left turn into Demott.

The following modifications are recommended

- Install curb extensions and crosswalks to better define the entire intersection.
- Enhance the center area of the intersection to reinforce pedestrian crossing activity.
- Restrict left turns from the two access points of the parking area located behind the strip shopping center to prevent traffic obstructions. Direct them instead to the main entry/exit opposite Demott Avenue.
- Install pedestrian activated Rectangular Rapid Flashing Beacon (RRFB). Warning signs and flashers are recommended overhead and adjacent to the roadway, given the volume of traffic.

In addition we recommend that the Township conduct a signal warrant analysis to evaluate the need for a traffic signal at the intersection of Demott.





Appendix G includes photos examples of some of the recommendations outlined here. Additionally, we prepared conceptual level plans depicting most of the recommendations outlined as part of this report. These are included under Appendix H.

Although not highlighted as a priority during the workshop, we have identified additional recommendations including:

- Conduct an Access Management Study to make recommendations for the elimination and/or consolidation of the excessive number of existing driveways and access points throughout the area.
- Align the intersection of Industrial Avenue with Fairview Avenue. This will reduce confusion (and crashes) of turning traffic.

Figure 2

PRIORITY RECOMMENDATIONS								
Project / Location	Safety Benefit	Timeframe	Government Agency Responsible					
Improve Visibility of Crosswalk Locations	PRIORITY RECOMMENDATION Safety Benefit Safety Benefit • Improves pedestrian safety and visibility • Reinforces drivers to stop for pedestrians • Directs pedestrians where to cross • Reinforces speed limit • Improves pedestrian safety and visibility • Reinforces speed limit • Improves pedestrian safety and visibility • Improves pedestrian safety and visibility	Short to Medium	Pequannock & Morris County Pequannock & Morris County					
Traffic Calming Reduce Speeds	 Reinforces speed limit Improves assess management Improves pedestrian safety and visibility 	Medium to Long						
Reduce Crashes & Simplify Circulation	Improves safety	Medium & Long	Pequannock & Morris County					

Timeframe:

Short = < One Year Medium = One to Two Years Long = > Two Years

It should be noted that the Walkable Community Workshop was conducted over a half-day period and did not involve in-depth evaluation or engineering analysis of existing conditions. The above recommendations are conceptual ideas that are potential solutions to address issues and concerns in the study area. With the exception of volume, speed, and crash data the recommendations outlined here were based on observed conditions and anecdotal feedback. Therefore, further study and analysis is required to determine what treatments are most appropriate and feasible.

V Steps to Advance Recommendations

The Township has a number or options to advance the recommendations annotated in this report. These include:

A) Crosswalk Striping. The Township can advance this recommendation without permission or review from the County. This can be done using paint or thermoplastic. At a later date, when the County resurfaces the roadway, the County would replace the crosswalk with thermoplastic striping.

B) Raised Medians and Curb Extensions. Installation and maintenance would be the responsibility of the Township. The municipality can advance this recommendation by sending a letter of request to the County Engineer for their review. Additional steps may require a concept plan, engineering design, a road opening permit, and construction plan.

C) Reducing Speed Limits. In order to reduce the posted speed limit to below its current 35 MPH posted limit, the Township police force should enforce the limit to reduce the 85th percentile below its current 45 MPH. The Township can then conduct a new speed study showing the reduction in the 85th percentile. The Morris County Department of Planning & Development can assist with this speed study. Once a reduction in speed can be justified through the study, the Township should send a letter to the County Engineer requesting a lowering of the posted speed limit.

D) Signage. All requests for additional signage should be directed via a letter of request to the County Engineer. The county will install and maintain this signage. In-street pedestrian safety bollards do not require County approval; however, they should be the type that is able to be removed during the winter.

E) Road closures and intersection modifications. Any street closures or intersection modifications on municipal roads can be conducted without County's permission.

F) Lighting, including Rectangular Rapid Flashing Beacon (RRFB). The Township may install any new lighting. The RRFB requires prior County approval since it is considered a signal or flashing device and would be installed on a County roadway. It will be up to the municipality to pay for and maintain this lighting.

Additionally, although the above recommendations are the result of Morris County's Walkable Community Workshop program, this does not obligate the County to evaluate, construct, or advance the recommendations outlined here. The recommendations are intended as a starting point for the local community to advance.

VI Next Steps

In addition to completing the above physical improvements, additional efforts should be pursued to support and complement the goals of improving pedestrian safety and mobility. These activities should be ongoing in order to be effective. Some examples include:

- Education
 - Utilize variable message signs to make drivers aware of the posted speed limit and stage speed limit feedback signs to show drivers what their current speeds are.
 - Publicize goals and objectives as well as progress using media announcements, press releases, and websites.
- Enforcement
 - Set up routine police enforcement, issuing warnings then tickets to all violators (vehicles, bikes, and pedestrians). Create a standard where the corridor gains a reputation as a place where speeding in not tolerated.
 - Adherence to and enforcement of New Jersey Statue 39:4-36: "The driver of a vehicle must stop and stay stopped for a pedestrian crossing the roadway within any marked crosswalk..........."
- Encouragement
 - Develop programs that encourage and engage walking, such as exercise programs, identifiable walk to school routes, and discounts or souvenirs to individuals who walk to area destinations.
- Evaluation
 - Collect and communicate statistics regarding pedestrian safety and mobility pre and post improvements, such as:
 - Crash data (including pedestrians)
 - Speed study
 - Traffic volumes (including pedestrians)
 - Origin/destination study
 - Monitoring the impacts of improvements made. This will be imperative to show their level of success.

APPENDICES

Appendix A Workshop Flyer

Walkable Community Workshop Pequannock Township

Wednesday September 15, 2010 9:00 am to 12:30 pm ENGINE COMPANY NO. 2 24 Oak Avenue, Pequannock, NJ

> Newark Pompton Turnpike (Franklin Ave to Riverside Dr)

The Pequannock Township Environmental Commission and the Morris County Division of Transportation invites you to attend a half-day workshop to assess existing conditions and brainstorm potential solutions to improve safety and accessibility for pedestrians traveling along and across Newark Pompton Turnpike.

The workshop focuses on identifying issues and concerns affecting pedestrian travel and develops and prioritizes specific solutions that will increase safety and accessibility for pedestrians. Potential solutions include engineering improvements such as addressing missing sidewalk links, intersections, crosswalks, signage and traffic calming. Recommendations will also consider non-engineering solutions such as enforcement and educational initiatives. The workshops are intended to serve as a catalyst for local communities to implement the improvements among themselves by developing problem statements, which can be submitted for funding of the recommendations.

Specific goals of the workshop strive to:

- Educate stakeholders
- Reach a consensus on existing issues
- Establish priorities for improvement
- Identify acceptable trade-off
- Identify potential projects that can incorporate recommendations

RSVP: Tom Andrea 973-224-1395 or email ta2689@att.com

25 Max Participants - Please confirm your attendance by September 8



Appendix B Agenda

Pequannock Township Walkable Community Workshop

Wednesday September 15, 2010 9:00 am to 12:30 pm ENGINE COMPANY NO. 2 24 Oak Avenue

Ag	jenda Activity	Time Allotted
1.	Welcome & Introductions by Morris County	10 min
2.	Elements of a Walkable Community	45 min
	Barriers, benefits and real world examples	
	Site Introduction and Review	
3.	Walking Audit	45 min
	In field assessments	
4.	Design Solutions (Breakout Sessions)	60 min
	Small team working groups	
5.	Presentation of Recommendations	40 min
6.	Next Steps, Questions and Wrap up	10 min
7.	Adjourn	12:30

For information on this and other regional transportation and pedestrian safety programs, visit: <u>www.morrisdot.og</u>, <u>www.njtpa.org</u>, <u>www.walkinginfo.org</u>,

Appendix C **Project Team & Attendee Listing**

Staff members from the Morris County Division of Transportation and representatives from Pequannock Administration and Environmental Council assisted to complete this event.

If you would like further information regarding this workshop or other related efforts, please contact:

Denise Chaplick, AICP/PP Morris County Division of Transportation 973-829-8101 dchaplick@co.morris.nj.us

Tom Andrea, Environmental Commission 973-224-1395 Ta2689@att.com

Websites that may be helpful include: New Jersey Department of Transportation www.state.nj.us/transportation

> North Jersey Transportation Planning Authority www.njtpa.org

Active Living by Design www.activelivingbydesign.org

Pedestrian and Bicycle Information Center www.walkinginfo.org

Morris County Division of Transportation www.MorrisDOT.org

Attendee Listing

- 1. David Hollberg
- **Township Manager** 2. Christopher Lotito **Environmental Commission**
- 3. Karen Evangelista TransOptions
- 4. Maxine Samek
- 5. Bobbie Jo Murphy
 - First Aid & Emergency Mgmt. **Township Mayor**
- 6. Ed Engelbart 7. Evelyn Justesen
- Resident

Environmental Commission

Resident

- 8. Sgt. Christopher DePuyt **Township Police**
- 9. Dan Harper Township DPW
- 10. A Frankalupo
- 11. Anthony Franchino
- 12. Tom Andrea
- 13. Anna Zeppetelli
- 14. Bill Riviere
- Resident

Acorn Hall

Resident

NJDOT

Appendix D Traffic Volume & Travel Speed

Newark-Pompton Turnpike Traffic Counts – September 2010 Source: Morris County Division of Transportation

1. Newark-Pompton Turnpike (between Pequannock Ave. & Fairview Ave.)

ADT: 16,334 Note: previous traffic counts at this location measured 17,818 ADT in 2002.

AM Peak Hour			PM Pe	eak Hour
Northbound	11am – 12pm = 388		Northbound	5pm – 6pm = 1024
Southbound	8am – 9am = 842		Southbound	3pm – 4pm = 560

ADT (Average Daily Traffic) - Measures how busy a road is and represents the number of motor vehicles on an average day (24 hour period) of traffic for the month the data was recorded.

2. The posted speed limit within our area of study is 35mph. The traffic counts conducted in September 2010 indicate that the 85th percentile speed is 45mph.

CRASH ANAL YSIS - COUNTY ROUTE 504 - NEWARK-POMPTON TURNPIKE Mile Post 4.2 to 5.0 (Jacksonville Rd to Marlin Ave) Pequannock Township	RECURRING SITE & MILE POST		E. Franklin = 4 (MP - 4.5)	= 6 Demott = 3 (MP - 4.76)	Demott = 3 (MP - 4.76)	= 4 Franklin = 2 (MP - 4.5) & Ne	Read = 2 (MP - 4.76)		Demott = 6 (MP - 4.76)	= 11 Greenwood = 3 (M.P 4.9)		= 21
	LOCATION		Intersection = 6	Non-Intersection :	Intersection = 9	Non-Intersection :			Intersection = 7	Non-Intersection	Intersection = 22	Non-Intersection :
		Total	12		13			100000	18		43	
		Bicycle			ļ				2		4	9.30%
	CRASH TYPE	Pedestrian	0		0				×		1	2.33%
		Backing	-		0				0		+	2.33%
		Animal	0		0						1	2.33%
		Rear End	-		2			in the second	8		11	25.58%
		Side Swipe	-		0			Anna an Anna an Anna Anna Anna Anna Ann	2		3	6.98%
		Fixed Object			2						4	9.30%
		Parked Vehicle	0		0						1	2.33%
		Right Angle	5		1			and an address of the	2		14	32.56%
		Left Tum/U- Tum	2						0		3	% of Total
	YEAR		2007		2008				2009		3-Year	Total

Appendix E Crash Data

SOURCE: Plan4Safety, Rutgers Center for Advanced Infrastructure & Transportation (CAIT)

Appendix F Newark-Pompton Turnpike Issues, Needs & Group Recommendations

Issues/Needs

All attendees were in general agreement that the following are issues and needs of the study area including:

- 1. Drivers do not yield to pedestrians
- 2. There are limited gaps in traffic for pedestrians to cross street
- 3. Reduce crossing distance
- 4. Add more pedestrians crossings and enhance the visibility of all crossing locations, especially at intersection of Demott (CVS)
- 5. Reduce crashes at Franklin
- 6. Reduce drivers speed

<u> Group #1</u>

- 1. *Increase visibility of crosswalks by using:
 - Highly visible markings
 - Advance stop bars
 - Enhanced signs and reflective tape on sign poles
 - Pedestrian actuated signals at Demott & Richards
- 2. *Highlight crossing locations using raised medians. They should be extended to the north and south from where they currently exist.
- 3. Install banners promoting stop for pedestrian law.
- 4. Conduct a pedestrian sting program with Township Police.

Group #2

- 1. *Simplify traffic circulation at intersection of Franklin.
- 2. *Improve crosswalks at Demott (CVS) by adding a pedestrian actuated signal and crosswalks along all sides.
- 3. Reduce speed limit to be more favorable to walking, 25mph.
- 4. *Extend painted median to the north and south from where they currently exist.
- 5. Install flashing speed limit warning signal
- 6. Install curb extensions at intersection of Franklin & Demott
- 7. Improve visibility at intersection of Oak

* - Indicates choice of highest priority

Striped Parking



Center Median & Rapid Red Flashing Beacon (RRFB)



Curb Extension with enhanced signs and striping



Curb Extensions

Curb Extension with enhanced signs and striping

Enhanced Intersection

Appendix G Example Improvements