Moving Mindfully: Monmouth/Mercer

THE COMPREHENSIVE FREIGHT RELATED TRANSPORTATION STUDY FOR WESTERN MONMOUTH AND SOUTHERN MERCER COUNTIES

Appendices

September 23, 2019

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NJTPA

COUNTY OF MONMOUTH 1683 NEW JERSEY

APPENDIX

A. PUBLIC OUTREACH TECHNICAL MEMORANDUM

Moving Mindfully: Monmouth/Mercer

COMPREHENSIVE FREIGHT RELATED TRANSPORTATION STUDY

PUBLIC OUTREACH SUMMARY

JUNE 26, 2019

PUBLIC OUTREACH SUMMARY

COMPREHENSIVE FREIGHT RELATED TRANSPORTATION STUDY

MONMOUTH COUNTY AND SOUTHERN MERCER COUNTY

PUBLIC OUTREACH SUMMARY

JUNE 2019

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1 NEEDS ASSESSMENT

1.1 PUBLIC OUTREACH

Informing, involving, and engaging the public is essential in transportation and land use planning.Outreach must be responsive to community values, build an understanding of the purpose and benefits of proposed plans and initiatives to the area, and enlist participation in the study process. As part of this study a variety of avenues were utilized to solicit public participation, including a Study Advisory Committee, focus group meetings, interviews and public meetings as well as a project website and an interactive WikiMap web page.

The project website (www.movingmindfully.net) was used to provide updates on the project, announce meetings, and allow for questions to be sent to the project team for response.

The website also hosted a survey in the form of a "WikiMap". A WikiMap is a survey, the first question of which is, "Where is your concern?" After logging in, respondents answer this question by clicking on a map, clearly communicating to the study team where the issue they wish to discsuss is located. Respondents then have the option to select from several categories of concern, and leave detailed notes with photographs. All submissions are visible to users of the Wikimap, and a feature that encourages further input is the ability to comment on someone else's note; for example, a second respondent can provide additional information on the original note. There were 95 unique users and 190 comments shared with the study team via the WikiMap, including those transposed by staff from markable maps at public meetings. A screen capture of the WikiMap page and an example comment is displayed in Figure 1.

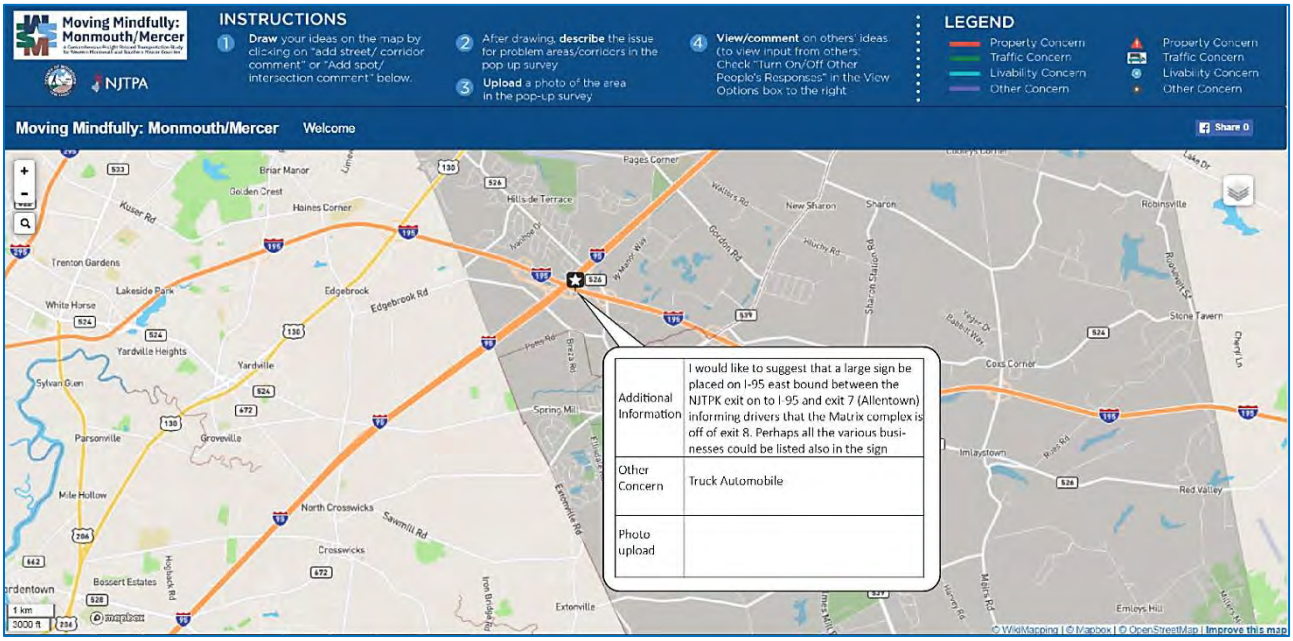

Figure 1 - WikiMap Screen with Example Comment

Between October of 2018 and early June of 2019, a total of 92 features were drawn on the Wikimap (Figure 2). This includes 43 lines and 49 points, each representing an area of concern. In addition, a total of 32 comments were made. In total, 124 user inputs were recorded. While users provided a diverse set of comments and concerns, they were directed to focus on freight related needs compatible with the needs in Allentown, Robbinsville, and Upper Freehold Township.

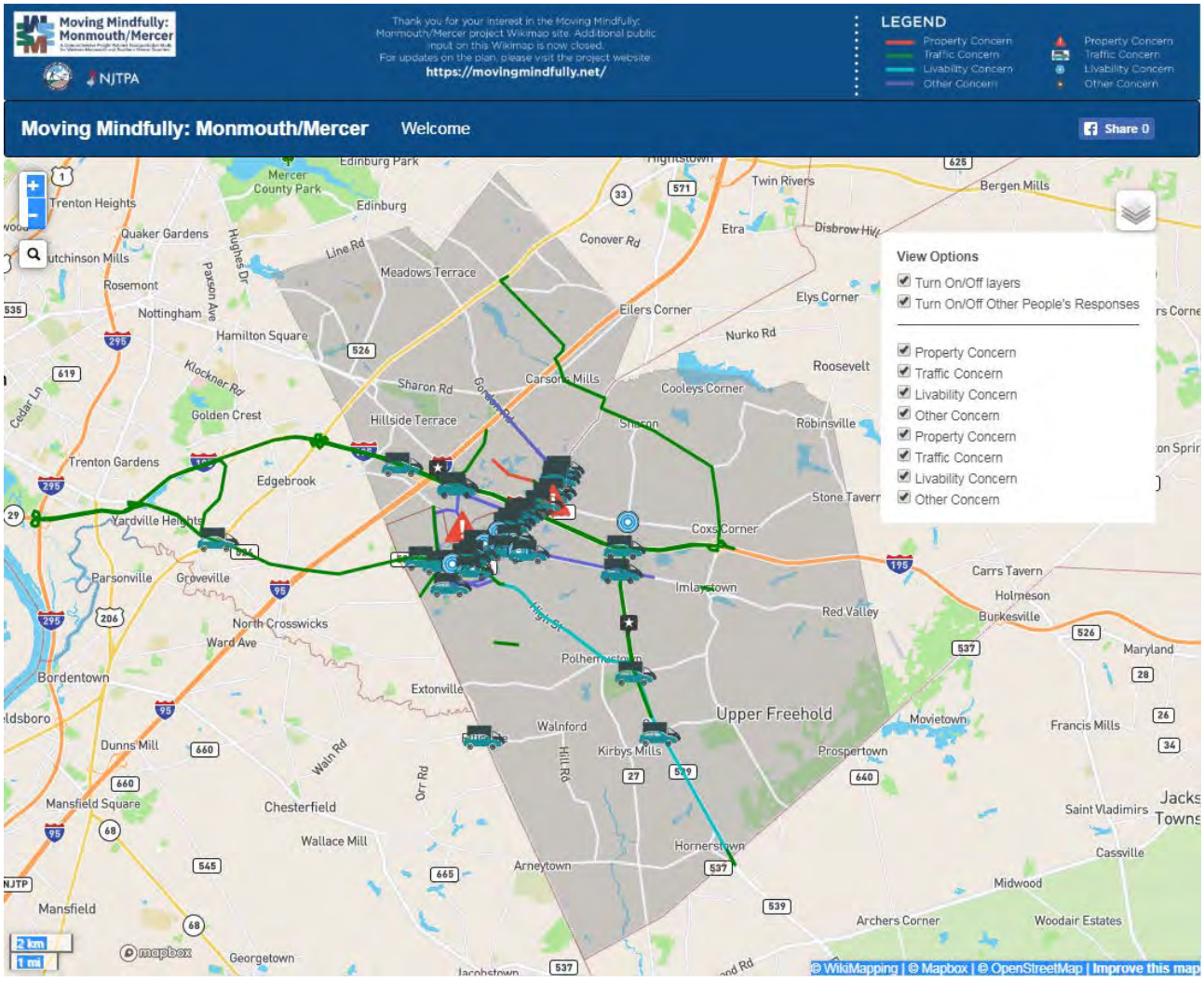

Figure 2 - WikiMap Screenshot Depicting Comments (June 2019)

From the comments received, the major themes included:

- Comments for and against the construction of the Westerly Bypass.
- Several requests to pave Breza Road
- Many comments on signage for the Easterly Bypass to and from Interstate 195, and the New Jersey Turnpike to and from the industrial sites in Robbinsville,
- Many comments on vehicles avoiding congestion on Interstate 195 by using County Roadways through the study area.
- Several locations in need of improved pedestrian accommodations including sidewalks and pedestrian crossings

A full listing of comments received via the Wikimap is included in Appendix A.1.

In addition to the Wikimap input, comments were received through the Moving Mindfully website (Figure 3). During the duration of the project, a total of 8 user comments were received. A full listing of comments received at this website is included in Appendix A.2.

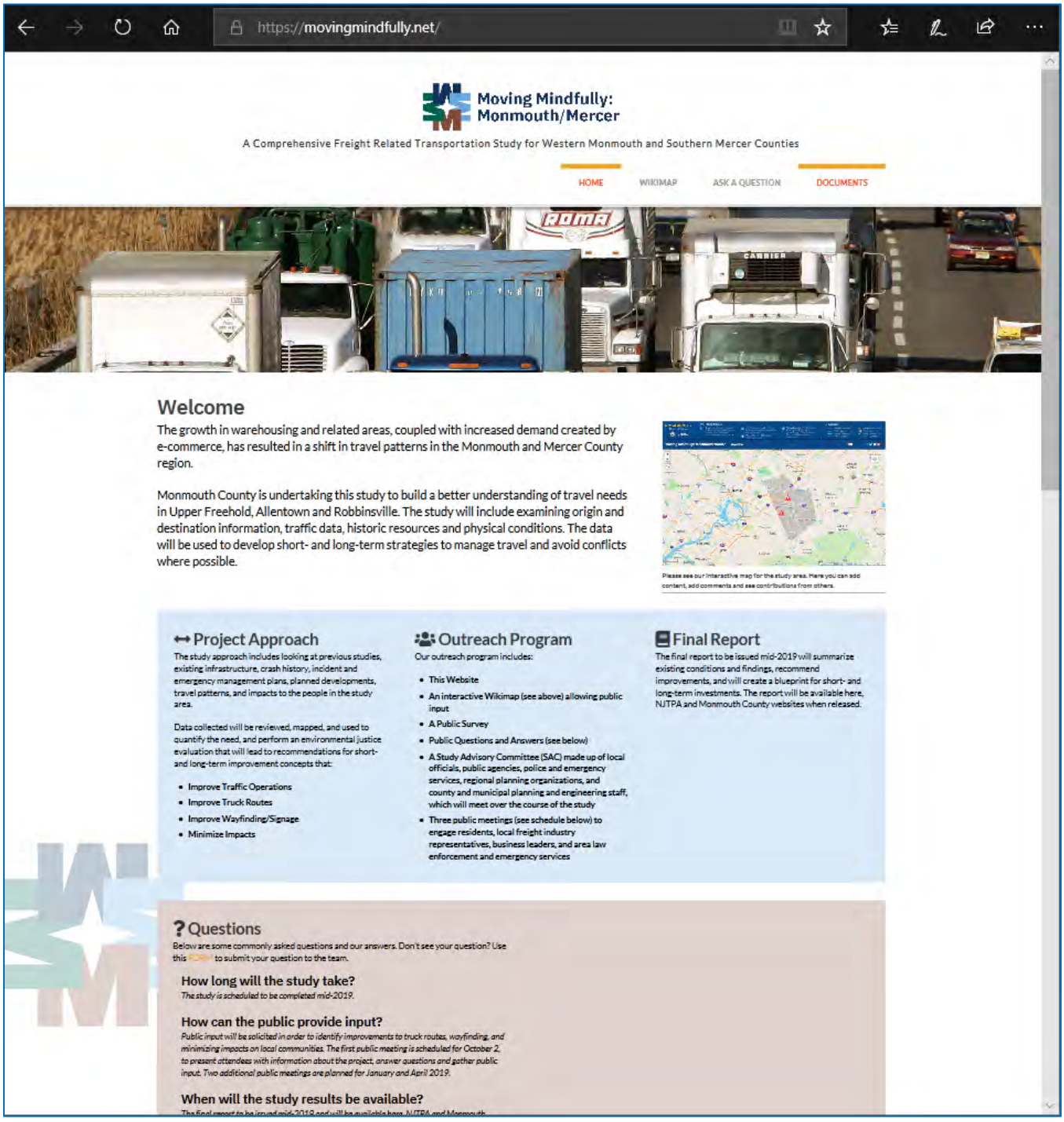

Figure 3 – Project Website www.movingmindfully.net Screenshot

1.1.1 STUDY ADVISORY COMMITTEE MEETINGS

The Study Advisory Committee (SAC) was comprised of professional staff from:

- New Jersey Department of Transportation (NJDOT)
- North Jersey Transportation Planning Authority (NJTPA)
- Delaware Valley Region Planning Commission (DVRPC)
- Greater Mercer Tranportation Management Assocation (GMTMA)
- EZRide Transportation Management Association
- Mercer County Planning
- Monmouth County Transportation Council (MCTC)
- Monmouth County Department of Planning
- Monmouth County Department of Public Works and Engineering
- Monmouth County Department of Parks
- Elected officials from Upper Freehold Township, Allentown Borough and Robbinsville Township
- Police and Emergency Services
- The consultant project team

The SAC met three times during the study to provide input on the overall study goals and objectives, provide data and input on study area needs, and provide input on study findings and recommendations. The following is a summary of the three SAC meetings; full meeting summaries are included in Appendicies A.3 through A.5.

SAC #1, AUGUST 7, 2019 – ALLENTOWN, NJ

At the first SAC meeting project goals were agreed upon by the group —to improve traffic operations, truck routes, and wayfinding, as well as mitigating the impacts of trucks in the study area. The SAC requested that the project consider future growth in the area as well as new developments may increase the number of vehicles and trucks on the roads. The SAC then divided into three groups to discuss key issues and mark up study area maps to identify problem areas, suggest potential solutions, and record other concerns. Selected items of discussion included the preserved properties in the study area, prevalence of dump trucks and independent truckers, FedEx trucks, signage issues at Interchanges 7 and 8 on Interstate 195, and the lack of connections between the Matrix industrial parks.

SAC #2, JANUARY 29, 2019 – ROBBINSVILLE, NJ

The second SAC meeting focused on the findings of the data collection and analysis. It began with a presentation summarizing the public and focus group input to date: land uses, an inventory of infrastructure in the study area, future growth areas, the environmental justice evaluation, traffic volumes, Level of Service (LOS) data, crash data, and truck and vehicle origin/destination data.

An interactive session followed with several stations headed by project team members including displays of maps depicting initial data collected. Stakeholders were encouraged to review and provide feedback. Member

input included recommendations for additional crosswalks in Allentown, building a roadway connection between the two Matrix sites, and questions related to whether there may be an impact from vibrations on historic structures in Allentown. Stakeholders also asked the project team to review origin/destination data from December 2018 to measure the impact of Amazon deliveries on local roadways and to conduct an origin/destinations analysis for the Thanksgiving/Black Friday holiday period as well. A desire to connect Allentown with the Union Transportation Trail via an extended shoulder or a dedicated bike facility along CR 526 (Allentown-Lakewood Road) was also expressed as well as that the reevaluation of directional and truck signage along Interstate 195 in order to mitigate confusion and missed exits by trucks, which result in unplanned trips through Allentown.

SAC#3, APRIL 23, 2019 – ALLENTOWN, NJ

The meeting began with an affirmation of the project issues: safety, mobility, truck movements, and wayfinding; followed by a summary of the findings from the interviews with the freight community. It closed with a presentation of tentative study area recommendations from the project team. SAC members provided feedback on the study area recommendations for consideration.

In conclusion, it was suggested that an ongoing working committee with representatives from all impacted communities be established to resolve issues. This working committee would continue to meet after the final report is submitted in order to continue the dialogue and build consensus among the townships as well as pursue grants and funding for selected initiatives. The SAC also recommended the study team expand their evaluation of truck prohibitions, the easterly and westerly bypass and the possibility of an Interchange 9 along Interstate I-195.

1.1.2 FOCUS GROUPS AND INTERVIEWS

Engaging with affected and interested stakeholders is essential to providing recommendations beneficial to the larger community. Two focus groups and several supplemental phone interviews were conducted to garner targeted feedback from residents, business owners, first responders, and the freight community. This outreach provided important insight into specific patterns, challenges, opportunities and concerns within the Study Area. The comments and feedback provided by these stakeholders helped identify improvements and mitigate unintended consequences from study recommendations. This information assisted in providing recommendations that balance the needs of residents, business owners, truck drivers, and freight haulers.

NEW JERSEY MOTOR TRUCKING ASSOCIATION (NJMTA)

The project team spoke with a representative of the New Jersey Motor Truck Association. This interview was conducted to determine the most effective methods of outreach to the freight community, as well as several topics summarized below.

Most dump truck providers are independent operators hired by landscapers, private companies and construction projects. They often pick-up from quarries and thus their travel patterns are best determined by speaking with representatives from the quarries. Customers can require drivers to take a specific route, however this is rarely enforced. An origin/destination survey could be conducted by stopping the trucks and asking 3-5 questions during peak periods, but is not preferred because of the inconvenience of interrupting a driver's delivery schedule, the need for law enforcement involvement, and the difficulty finding a safe place to conduct it.

The best person to contact concerning warehouse trucks is whomever is "routing the freight," which is typically dispatch, traffic, or logistics representatives. The study team was informed that warehouse drivers do not want to traverse downtown roads, but do so either because of local deliveries or unfamiliarity with the area. Additionally, many drivers are not part of national fleets and do not have access to truck specific GPS (which provides preferred trucking routes), which is provided at an extra cost to the company. It was recommended to the study team that drivers be educated by their employers about routes and be provided with maps outlining their trips preferred route. Internal site signing would also be helpful.

Although it was not a specific element of this study, the study team was told parking is an issue for all trucks. Drivers can get stuck in a location for days waiting to pick-up freight; needing to find a place to park. It would be helpful if warehouse sites provided parking.

INDUSTRIAL BUSINESSES

The project team communicated via phone and email with representatives from several industrial businesses located throughout the region including Cookstown, New Egypt, Allentown, and Kingston. A complete list of industrial businesses contacted is provided in Appendix A.11. The businesses interviewed provide a variety of products including, concrete, stone, topsoil and lumber. There were several attempts to interview members of the Matrix Industrial Park, however calls and emails were not returned.

Most interviewees, with one exception, either discourage or do not allow their drivers to enter Allentown. One company stated that due to the length of their trucks, they are not allowed in Allentown. Others stated they direct their drivers to use either Interstate 195 Interchange 8 to the Easterly Bypass or Interstate 195 Interchange 11 to CR 526 (Allentown-Lakewood Road) and Sharon Station Road. The company that does not discourage the use of routes through Allentown noted that their materials are time sensitive (particularly concrete) and drivers are legally permitted to utilize the most efficient allowable route to make deliveries.

Numerous contacts commented on inadequate signage and that GPS often lead drivers to take Interstate 195 Interchange 7 into Allentown rather than Interchange 8. Some Drivers unfamiliar with the area know their destination is near Allentown, and mistakenly take Interchange 7 because the signage at both Interchanges 7 and 8 are for "Allentown." Gordon Road, a small residential road adjacent to the Matrix Complex is often also used by larger semi-trucks unfamiliar with the area.

Multiple businesses stated they have noticed an increase in trucks traveling within the study area, primarily due to growth in residential and industrial construction. Truck traffic increases during times of economic growth. Additionally, new developments in Robbinsville with large footprints require substantial deliveries of stone and other base materials. This sudden need for large quantities of materials creates temporary spikes in truck traffic in the area. One representative stated he has met with local officials in the past to discuss ways to mitigate concerns while another stated local police are often unaware of the rules concerning where trucks are permitted.

FREIGHT HAULERS

A member of the public provided the study team with 22 freight haulers identified while traveling thought the study area. A complete list of these identified freight haulers is provided in Appendix A.11. The project team researched these haulers and found that the size of these companies ranged from those with just a single truck and driver to companies with multiple trucks and drivers (as many as 17); and that the freight haulers are located throughout the region in Ocean, Burlington, Monmouth, Mercer, Middlesex and Camden Counties in

New Jersey and Levittown in Bucks County, Pennsylvania. Two freight haulers who travel to or through the Study Area were interviewed with a focus on how decisions are made with regards to trip timing and routing in the study area.

The project team spoke to the operators of MK Century Transportation of Levittown, Pennsylvania, who function with 7 trucks and drivers, and T&P Trucking in Blackwood, New Jersey, who function with 17 trucks and drivers. In response to the number of trucks in the area from various haulers, one representative stated that many local small trucking companies are often mobilized by larger haulers who are in need of additional trucks. Both operators stated their drivers travel through the study area approximately twice per week, typically from suppliers south of Allentown hauling supplies to the Trenton region, or hauling rock north on U.S. 130 for construction projects. The representative from MK Century stated he advises his drivers to avoid traveling through Allentown unless absolutely necessary due to the traffic situations. He also noted that many truck drivers get lost in the area and suggested there be better signage and that warehouses supply local maps to drivers.

FIRST RESPONDERS AND LAW ENFORCEMENT – ALLENTOWN, NJ

A focus group of first responders was conducted on December 17th, 2018 at the Allentown First Aid Station. First responder work relates to freight in terms of responding to crashes or disabled commercial vehicles, citizen complaints, traffic laws, and traffic conditions. The focus group included representatives from the Robbinsville Police, Allentown First Aid Squad, Allentown Police, Upper Freehold Township, and New Jersey State Police. The discussion covered a variety of topics, summarized below.

TRAFFIC

At certain times and locations, traffic congestion can be a serious issue in the Study Area. There was a congestion issue outside of the Matrix complex until Robbinsville Police began manually operating the signal during shift changes and Amazon began running staggered shifts in their fulfillment center. Additionally, the intersection of Sharon Station Road and CR 526 (Allentown Lakewood Road) experiences congestion, and would benefit from the installation of left turn lanes.

There is a significant amount of development along CR 539 (Allentown Davis Station and Forked River Roads) towards the Jersey Shore, which has led to increased traffic and freight volumes. Congestion can exacerbate the negatives of high truck volumes and complicate emergency responses. Trucks often encroach on the opposing travel lane to make turns at tight intersections, and this may impede the response times of police, fire, and emergency services.

ALLENTOWN

While Downtown Allentown has benefited from construction of the highly utilized Easterly Bypass between CR 524 (Main Street) and CR 526 (Allentown Lakewood Road), the community still significant of freight traffic. Focus group members noted that there have been recommendations to build a westerly bypass near Allentown High School and Breza Road, and that Breza Road is currently unfit for truck usage as it is narrow and includes an unpaved section.

Pedestrian safety and parking in Allentown are challenging due to truck volumes. The vibrant downtown area attracts high volumes of pedestrian and places a algre deman for on-street parking. Streets in the area are narrow and require parking motorists to fold their side-view mirrors in to avoid being hit by larger vehicles.

Additionally the presence of on-street parking creates visibility concerns for turning vehicles and crossing pedestrians. Four girls were hit while traversing a crosswalk at the intersection of CR 524 (Main Street) and CR 526 (Church Street). Having no signalized intersections creates difficulties for pedestrians as many motorists do not stop, as required by law. There have also been several pedestrian crashes at the intersection of CR 524 (S Main Street) and Ellisdale Road which lacks crosswalks and has substantial pedestrian volumes traveling south on Ellisdale Road to Byron Johnson Park.

SIGNAGE

Focus group members believed that poor signage is partially to blame for the high truck volumes traveling through downtown Allentown and residential neighborhoods. Due to small signs for Interstate 195 on intersecting streets, many truck drivers miss the entrance to the highway and consequently must find a place in Allentown to turn around. Frequently, drivers mistakenly take the southbound exit from Interstate 195 at Interchange 7 into Allentown rather than the northbound exit to their destinations off of Manor Way. Visibility of the Matrix Complex can also be improved by installing more signage at the entrance to the Complex so trucks do not continue north on CR 539 (Old York Road), necessitating turning around in residential neighborhoods. Additional issues are present at ramps at Interstate 195 Interchanges 7, 8 and 11 as lanes reduce from two to one on on-ramps. The signage for these on-ramps are not provided until after the lane is lost causing conflicts between merging drivers.

TRUCK ROUTES

Focus group participants provided information as to where trucks are going to and coming from For instance, many sand and gravel trucks are coming from Southern Ocean County where there are more than five sand and gravel facilities on Lacey Road alone. The Study team also learned increases in freight traffic are due to increases in construction activity within the region And that many truck drivers are paid by the load and thus will take the most efficient route for them. This included trucks from Upper Freehold who are making local deliveries.

PUBLIC COMPLAINTS

The focus groups acknowledged that the area is largely a farming community, and must continue to accommodate trucks necessary for maintaining this industry. Complaints concerning trucks include loud engine rumbling and braking, including Jake braking (engine braking), aggressive driving, tailgating, and speeding. The focus group believed that speeding is more prevalent among motorists than truck drivers, but due to the size of trucks, trucks are perceived as traveling faster.

ACTIVE TRANSPORTATION

In addition to high pedestrian volumes within the center of Allentown, many bicyclists travel through the study area, particularly during the summer. This includes packs of 10-20 enthusiastic cyclists who often travel four or five abreast. Many cyclists travel to the study area from the west on CR 641 in West Windsor. Additionally, Allentown holds fall and summer events where CR 524 (Main Street) between CR 526 (Church Street) and CR 539 (High Street) is shut down and made available to pedestrians.

FOCUS GROUP RECOMMENDATIONS

In addition to recommendations cited in the previous sections, focus group participants presented several recommendations:

- Installing flashing crosswalk signage at busy intersections is supported by first responders, but opposed by some member sof the public because of the potential conflict with Allentown's historic character
- Installation of curb extensions are supported by first responders, but they are concerned with the ability for fire trucks to turn
- Installation of speed tables was met with skepticisim by first responders and members of the public
- Add a mid-block crossing on CR 524 (North Main Street) in Allentown
- Implement "No Left Turn" regulations at CR 526 (Church Street) and CR 524 (Main Street). This may be implemented for specific times of day or at all times
- The first responders are in support of installing traffic signals, but skeptical that this would be approved by local officials due to their potential conflict with the historic character of the town

LOCAL RESIDENTS

Six attendees from the three Study Area municipalities participated in a focus group covering potential strategies to implement in the study area. Residents and were provided information on various strategies and asked for their feedback on each.

TRAFFIC CALMING

The project team presented potential traffic calming techniques including:

- Gateway treatments
- Raised pedestrian crossings and intersections
- Curb extensions
- Speed limit VMS signage
- Center islands

Tactics such as these are recommended to reduce speeding in the area and improve pedestrian crossings. The attendees spoke about excessive truck speeds through the area, noted that there are not pedestrian crossings in many locations, and that the addition of visual cue's (VMS speed signage) should help to slow traffic down.

Participants discussed that they would like to utilize center islands in locations with large paved cartways such as CR 524 (N Main Street) north of CR 526 (Church Street) to the Upper Freehold line in Allentown. It was noted that this type of treatment in this location would prevent residents from making left turns into or out of their driveways. Participants however, voiced concerns with utilizing a two way turn lane or median striping instead of a raised median as they felt that vehicles would utilize this area for passing when there is traffic.

It was noted that dedicated turn lanes might be beneficial on CR 539 (Forked River Road) in Upper Freehold. Two way left turn lanes were not preferred by attendees for CR 524 (Main Street) in Allentown or for CR 539 (Forked River Road) in Upper Freehold.

Many agreed with the addition of speed limit VMS signage entering town and along roadways with speeding issues.

Curb extensions were viewed positively. Some viewed raised pedestrian crossings positively although there was concern related to noise. The project team explained that raised crossings are much more gradual and longer than speed humps and would not have the same noise associated with them.

INTERSECTIONS

Several methods of improving intersection safety, congestion, and pedestrian crossings were discussed including signalization, roundabouts with mountable center islands, raised intersections, and dedicated turn lanes.

The addition of a dedicated left turn lanes and right turn lanes along Sharon Station Road at CR 526 (Allentown Lakewood Road) was viewed positively.

There was concern with adding signals in an historic district. While it would improve safety and congestion, there was in interest by participants in seeking alternate solutions that better fit with the local context.

Roundabouts as gateways and traffic calming were viewed positively as long as they had a small footprint.

Similarly to raised crossings, raised intersections were met with some skepticism while others showed interest.

SIGNAGE

Concerns about a lack of signage were also discussed. As elaborated upon in other focus groups, many drivers, particularly those not familiar with the area, do not take the ideal route to their destination and sometimes accidentally drive through residential neighborhoods. The project team presented examples of larger, taller signs than can be installed along major routes. These signs can indicate destinations and upcoming entrance and exit ramps to drivers at a greater distance. It was suggested that overhead signage and painting shields on roadways should be considered approaching Interstate 195 near Interchange 7.

It was also agreed that better signage to and from Interstate 195 and the New Jersey Turnpike should be provided along County Roads within the study area.

PEDESTRIANS AND CYCLISTS

In addition to the difficulty for pedestrians to cross certain corridors, the need for improved sidewalks to and from the local schools was discussed. Concerns were also expressed about the ability of cyclists to safely navigate portions of the Study Area to reach the Union Transportation Trail. A separated trail along CR 526 (Allentown Lakewood Road) was viewed favorably to connect to the Union Transportation Trail to Allentown.

OTHER

Other "big picture" items discussed included revisiting the construction of a westerly bypass, considering previous ideas concerning adding an Interchange 9 along Interstate 195, and creating a forum for continued communication and consensus building between the study area agencies.

1.1.3 PUBLIC INVOLVEMENT MEETINGS

As part of this effort, three public meetings were held to determine the concerns and goals that communities have regarding regional and local freight-related transportation. The meetings were held in the following places and dates, and a summary of each meeting follows. Meeting summaries are included in Appendicies A.6 through A.8.

Meeting No.	Place	Location	Date	Time
1	Stone Bridge Middle School	1252 Yardville-Allentown Road, Allentown, NJ (located in Upper Freehold)	10/02/2018	7:00 PM
2	Newell Elementary School	27 High Street, Allentown, NJ	01/30/2019	7:30 PM
3	Stone Bridge Middle School	1252 Yardville-Allentown Road, Allentown, NJ (located in Upper Freehold)	04/29/2019	7:00 PM

PUBLIC MEETING #1. OCTOBER 2, 2018 – UPPER FREEHOLD, NJ

Over 60 members of the public attended the first meeting which began with a presentation detailing the study purpose, scope of work, project timeline, project goals and key issue identification. The presentation was followed by an interactive session comprised of stations staffed by team members. These included several stations with maps of the project area at which participants used stickers to identify truck, pedestrian, congestion, and other issues throughout the study area. Another station encouraged participants to add additional project goals and assign priority to them. The final station included a laptop with the project Wikimap, which allowed participants to learn how to use the tool while team members facilitated recording comments. Some common key issues included: signage improvements, traffic congestion and pedestrian concerns (specifically near schools and in downtown Allentown), a westerly bypass, and the installation of a traffic signal at the intersection of CR 526 (Church Street /Waker Street) and CR 524 (Main Street) in Allentown.

PUBLIC MEETING #2, JANUARY 29, 2019 – ALLENTOWN, NJ

Over 35 members of the public attended the second meeting, in which the goal was to share the initial data collection effort with the public and obtain feedback. The meeting began with a presentation which summarized the public and focus group input collected to date, land uses, future growth areas, environmental justice evaluation, an inventory of infrastructure in the study area, traffic volumes, Level of Service data, crash data, and truck and vehicle origin/destination data.

A 15-minute question and answer session followed the presentation, which highlighted many public concerns:

- Directional and truck signage along Interstate 195 should be re-evaluated and improved
- School traffic at CR 539 (High Street) and CR 524 (Main Street) in Allentown is a major concern

- An additional interchange at Sharon Station Road on Interstate 195 should be considered
- Increased weight restriction enforcement and truck speeds are needed along Sharon Station Road
- A review of destination signage should be conducted at interchanges 7 and 8 along Interstate I-95
- New Jersey Turnpike/Interstate 195/Interstate 95 directional signs are recommended along the easterly bypass
- Signs at Interstate 195 Interchanges 7, 8, and 11 should be evaluated.

Several attendees voiced support for the construction of a driveway to Ellisdale Road to establish a second entrance/exit to Allentown High School while others expressed concerns regarding structural impacts to historical buildings from truck traffic and the feasibility of enforcing truck weight restrictions in designated historic districts.

An interactive session comprising of several stations followed the question and answer period where maps were displayed for the public to comment on. Input was provided on several topics including the following: new developments slated near Six Flags Great Adventure; the calculated Level of Service at CR 524 (Main Street) at CR 539 (High Street) does not reflect delays experienced by residents during peak hours; a Level of Service analysis should be conducted for other roadways outside Downtown Allentown; and there are safety concerns related to road geometry and traffic patterns at the intersection of CR 539 (Allentown Davis Station Road) and Sharon Station Road. In addition, the safety of bicyclists along CR 524 (Main Street) and the need for sidewalks in the vicinity of Allentown High School were discussed and a recommendation was put forth that a bike lane should be considered between Allentown and the Union Transportation Trail.

PUBLIC MEETING #3, APRIL 29, 2019 – UPPER FREEHOLD, NJ

Over 40 members of the public attended the final public meeting for the study. The presentation summarized study area issues identified at previous meetings, reported on findings from the freight interviews, summarized future no-build Level of Service, and summarized study area recommendations and resultant Level of Service. The presentation was followed by an interactive session comprised of several stations focused on project recommendations staffed by the project team.

Positive comments were received on signing, connections to the Union Transportation Trail, additional sidewalks, and new or improved pedestrian crossings. Many attendees supported the addition of a traffic signal at CR 539 (High Street) and at CR 526 (Church Street) along CR 524 (Main Street) while others were also opposed.There was a nearly even number of attendees opposed to or supportive of the westerly bypass however, some attendees were under the impression that the Westerly Bypass had been previously approved.

Slowing traffic using traffic calming in Allentown, and improved signage throughout the study areawas widely supported. The iddue of speeding vehicles and lost trucks had been common discussion topics thorught the study and attendees were glad to see them being addressed. Traffic concerns however, were reiterated, especially the traffic avoiding congestion on Interstate 195 by going through Allentown. Additionally, several attendees requested that the unpaved segment of Breza Road be paved.

APPENDIX

A.1 WIKIMAP COMMENTS

ID	Date	Type of Concern	Description of Feature	Comments from Others
1	10/2/2018	Other Concern - Bicycle	Add a bike lane from Allentown to the RR bike path east of Sharon Station Rd.	N/A
2	10/2/2018	Other Concern - Automobile	Proposed bypass, 30 years ago. Never been built	A new road around the school from High Street to Elisdale Street would alleviate traffic on Main Street and improve emergency access and evacuation from the schools. (12/18/2018) Westerly bypass has land issues as it is currently proposed (12/18/2018) Times have changed. Dangerous to build Bypass. Scary to think of squeezing a 45 mph road at the place where every child in both towns gather and play at school fields. Put a parking lot entrance into school parking lot from Elisdale for pick up and drop off times as an alternative.(01/31/2019)
3	10/2/2018	Other Concern - Automobile	Proposed Bypass never built	N/A
4	10/2/2018	Other Concern - Truck & Automobile	Amazon employees exiting at 7 and using local roads to access to site to avoid traffic	Church Street has a lot of speeding vehicles who doesn't slow down when entering Allentown which is where the speed limit changes from 35 to 25 MPH (12/18/2018) Significant numbers of dump trucks along this road (12/18/2018) Robbinsville and Allentown should investigate banning trucks on CR 526 between exit 7 and downtown Allentown (12/18/2018)
5	10/2/2018	Other Concern - Truck & Automobile	Proposed alternate route, discussed long time ago	N/A
6	10/4/2018	Other Concern - Truck, Automobile, Bicycle & Pedestrian	Narrow Roadway for traffic. Heavy bicycle use. No sidewalks for pedestrians	N/A
7	11/2/2018	Other Concern - Truck	Large tractor trailers cannot make turn from/Rt 539 without going into other lane. Lot of close calls here	N/A
8	1/28/2019	Other Concern - Truck & Automobile	Bypass never completed. Was planned long before housing was built. Needs to be finished to help with traffic issues.	That was 30 years ago. Hundreds of more kids using school fields and Byron Johnson. Should not put a Bypass where every kid in the district gathers. Westerly Bypass is a very dangerous alternative. However, an entrance to school parking lot off Elisdale would be an alternative to reduce school traffic during drop off and pick up times. (01/31/2019)
9	2/1/2019	Other Concern - Truck	Site of artesian well. There used to be a weight limit sign, but sign is long gone. Spot is easily identified by wet spot on road.	N/A
10	5/14/2019	Other Concern - Truck & Automobile	I would like to suggest that a large sign be placed on I-195 east bound between the NJTPK exit on to I-195 and exit 7 (Allentown) informing drivers that the Matrix complex is off of exit 8. Perhaps all the various businesses could be listed in also in the sign.	N/A
11	10/2/2018	Property - Private	Private driveway for matrix development	N/A
12	12/18/2018	Property - Private	Historic Property's foundations shake from passing trucks along Church Street	I agree (2/5/2019)
13	1/24/2019	Property - Private	Some houses have been hit by cars on South Main	N/A
14	2/7/2019	Property - Private	There is a new development here, with streets and has been here for a few years.	N/A
15	10/5/2018	Livability - Noise, Pollution, Safety, Vibrations	Since the warehouses have gone up, our community has undone more traffic (some with very questionable driving skills), truck traffic and vibrations are heard through the night, especially during the holidays, we have the brunt of the pollution, coupled by being just north of 195.	N/A

16	10/5/2018	Livability- Safety	Traveling through Allentown is risky for drivers and pedestrians alike. I propose have blinking-lights for all crosswalks.	I suggest opening up the shoulder on 195 about a mile prior to Yardville exit all the way until you reach the turnpike during morning and evening commute. This is done headed in the Trenton area and has vastly improved the traffic flow. this would allow a more expedient route to the turnpike and create less overflow into Yardville. Many use the shoulder already which is very dangerous and this overflow takes Yardville Allentown Road all the way into Allentown only to get back on Route 195 past the turnpike to avoid all of the heavy traffic on the highway (11/02/2018)
17	10/7/2018	Livability - Noise, Pollution, Safety, Vibrations	N/A	N/A
18	12/18/2018	Livability- Noise & Vibrations	Dump trucks hauling materials from Ocean County along CR 539 start very early in the morning and they prefer to engine brake which is extremely loud and disruptive to residents	N/A
19	12/18/2018	Livability - Pollution	Diesel smell/soot! Summer traffic sets off smoke alarm (Waker Ave at S Main St)	N/A
20	1/28/2019	Livability - Noise, Safety & Vibrations	Without bypass being completed for this side of town, heavy trucks have no other route around town.	N/A
21	1/28/2019	Livability - Safety	When cars are parked on the side of the street, there is not enough room for two way traffic without substantially crossing the center line.	N/A
22	1/28/2019	Livability - Safety	very dangerous stop street due to traffic speed and sun glare. Many accidents, including fatality. Stop light needed.	N/A
23	10/2/2018	Traffic - Automobile	Traffic congestion, going eastbound during evening rush hour	N/A
24	10/2/2018	Traffic - Truck	Trucks making left turn heading to Amazon, instead of using I-195 ramps	Vehicle congestion at Church Street and Main Street, specifically caused by left turns (12/18/2018) The left turn from Church to Main Street backs up traffic, suggested to allow traffic to use Hamilton Street as an alternate route around the intersection (12/18/2018) Intersection needs management but a regular traffic signal wouldn't be able to accommodate for the constant changing flows of traffic and would cause further congestion, but an intelligent traffic signal that monitors traffic and adjusts timing on demand would be able to improve the intersection (12/18/2018) This intersection should have a 3-way stop (12/18/2018)
25	10/2/2018	Traffic - Automobile & Truck	Traffic bypassing the stop sign	N/A
26	10/2/2018	Traffic - Automobile	I-195 off ramp backs up at the light.	N/A
27	10/2/2018	Traffic - Automobile	Left turn backs up and blocks	Speed Bump needed approaching Main St on Church St (12/18/2018)
28	10/4/2018	Traffic - Truck	Trucks traveling east on Gordon Rd. To Warehouse Complex are not allowed to enter complex via Gordon Rd Entrance	Increased trucks from US 130 via Gordon Rd, need connectivity on Gordon to Matrix (12/18/2018)
29	10/4/2018	Traffic - Automobile & Truck	Traffic leaving West Manor Way does not Yield to southbound traffic on Rt 539	Trucks swing right and take up a large portion of the road to be able to make a safe left turn into the Matrix development, re designing the road to have two lanes to accommodate for through travel as well as left turns or possibly shifting travel lanes further away from the site will allow the trucks to make the left turn without having to swing their trucks out to the right (CR 539 at Montgomery Way) (12/18/2018)
30	10/4/2018	Traffic - Truck	Truck speed avg 30 mph	N/A
31	10/4/2018	Traffic - Truck	Trucks park on Emergency shoulder of acceleration lane	N/A
32	10/4/2018	Traffic - Truck	Trucks park on shoulder on emergency acceleration lane	N/A
33	10/4/2018	Traffic	N/A	N/A
34	10/4/2018	Traffic	N/A	N/A

35	10/5/2018	Traffic - Automobile & Truck	There should be a warning sign, because so many drivers go around to the right, thinking the third lane continues over the bridge but it really goes down to two lanes (inevitably drivers get cut off or have to slam on the brakes). It's an accident waiting to happen.	N/A
36	10/5/2018	Traffic - Automobile & Truck	My concern is the southern intersection of Cliffwood drive and Route 529, especially in the Spring and Summer months, it is very difficult to see past the trees on the street (east side of 539), and oncoming traffic has only gotten heavier and faster.	Traffic Island should be installed at Cliffwood Drive (12/18/2018)
37	10/5/2018	Traffic - Automobile & Truck	During school drop off and pick hours, this are at least needs someone to direct traffic. The backup is horrendous!	Congestion at High Street and Main Street, specifically caused by left turns (12/18/2018)
38	10/7/2018	Traffic - Automobile & Truck	N/A	Speeding at this intersection (12/18/2018)
39	10/7/2018	Traffic - Automobile & Truck	N/A	
40	11/2/2018	Traffic - Automobile	A threeway stop sign here would reduce the backups without changing the historic aspects of our town. I have seen this work very well in other communities.	Congestion at High Street and Main Street, specifically caused by left turns (12/18/2018)
41	11/2/2018	Traffic - Truck	Heavy truck through traffic (including 18 wheelers and large dump trucks) at the intersection of High Street and South Main St. This intersection has a huge amount of elementary school and high school children in the mornings and afternoons corresponding to heavy commercial traffic.	Congestion at High Street and Main Street, specifically caused by left turns (12/18/2018)
42	11/2/2018	Traffic - Truck	Trucks shouldn't be on this road	Increased trucks from US 130 via Gordon Rd, need connectivity on Gordon to Matrix (12/18/2018)
43	11/3/2018	Traffic - Automobile, Truck & Non-motorized	A 4 way stop because roads intersect at an angle and visibility is poor	N/A
44	12/18/2018	Traffic - Automobile, Truck & Non-motorized	This intersection needs a traffic signal due to volumes and poor sight distances	N/A
45	12/18/2018	Traffic - Automobile, Truck & Non-motorized	Pedestrian issues exist on Main Street, drivers regularly ignore crosswalks and tend to damage mid road pedestrian crossing signs	Drivers are not slowing down even though the speed limit changes from 35 to 25 MPH (Main St) (12/18/2018) Common truck route, high number of trucks causes congestion (S Main St) (12/18/2018) Pedstrians and Kids are frequently walking along CR 524 eastbound from 7:30 AM to 2:30 PM. Road diet with bike lanes may help accommodate and slow vehicular traffic (12/18/2018)
46	12/18/2018	Traffic - Non-motorized	The bridge has a pedestrian sidewalk on one side and not the other, it is difficult and dangerous to cross the road here to get to the pedestrian path across the bridge	N/A
47	12/18/2018	Traffic - Non-motorized	There are no crosswalks present for pedestrians and the area sees a lot of children on bicycles (Main St at Allentown Yardville Rd)	N/A
48	12/18/2018	Traffic - Non-motorized	No sidewalks present (CR 524 Allentown Yardville Rd)	N/A
49	12/18/2018	Traffic - Non-motorized	No sidewalks present (CR 28 S Main St)	N/A
50	12/18/2018	Traffic - Automobile	Traffic created by the High school would benefit from an entrance on Elisdale Road	Agree with an entrance to high school on Elisdale, but not a Westerly Bypass. A Bypass would be dangerous for the amount of kids using school fields. (01/31/2019)
51	12/18/2018	Traffic - Automobile	Rush hour traffic to and from Trenton backs up 195 and drivers regularly exit and travel through Allentown to avoid growing congestion. Either to skip to the next exit along 195 or switch to CR 526	When Six Flags Great Adventure is busy, this stretch of road sees a rise in vehicles (I-195) (12/18/2018)

52	12/18/2018	Traffic - Truck	Trucks are using this exit instead of the following exit closer to the warehouses. Trucks then travel through Allentown to reach the warehouses	N/A
53	12/18/2018	Traffic - Truck	The raised median triangle on the ramp from 195 is too large and trucks canâ€™t navigate it causing them to run over it, damage it, and disrupt other lanes of traffic trying to avoid hitting it	N/A
54	12/18/2018	Traffic - Truck	Repaving Breza Road would give trucks an alternate route, and allow for emergency access and evacuation of Allentown	N/A
55	12/18/2018	Traffic - Non-motorized	A lot of Students travel here creating a lot of pedestrian concerns (High School)	N/A
56	12/18/2018	Traffic	Add Sharon Station Road to the NJ Access Network to encourage trucks to use it instead of High Street	Turning movements are dangerous onto Sharon Station Rd (12/18/2018)
57	12/18/2018	Traffic - Automobile	Left turns from Clifford Drive developments	N/A
58	12/18/2018	Traffic - Automobile	Speeding at this intersection is a problem	N/A
59	12/18/2018	Traffic - Automobile & Truck	Difficult Convergence (at Davis Station Rd at Forked River Rd CR 539)	N/A
60	12/18/2018	Traffic - Truck	Truck moves to Turnpike result in one lane of auto traffic on I-195	N/A
61	12/18/2018	Traffic - Automobile & Truck	Fatal Crashes Recorded at this intersection	I Agree (01/23/2019)
62	12/18/2018	Traffic - Automobile & Truck	Dangerous speeding on Forked River Rd (CR 539) at Burlington Path Rd	N/A
63	12/18/2018	Traffic - Automobile & Truck	Exit 7 is missing the eastbound I-195 movement from northbound Robbinsville-Allentown Rd (CR 526	N/A
64	12/18/2018	Traffic - Automobile & Truck	Better Warehouse identification is needed at exit 7 and 8.	N/A
65	12/18/2018	Traffic - Automobile & Truck	Better Warehouse identification is needed at exit 7 and 8.	Investigate installing a cloverleaf interchange here to remove all traffic signals (12/18/2018)
66	12/18/2018	Traffic - Automobile & Truck	W Manor Way becomes quite congested from 6 PM- 7 PM	N/A
67	12/18/2018	Traffic - Automobile	Car lanes not aligned correctly at S Main St & Ellisdale Rd	N/A
68	12/18/2018	Traffic - Automobile & Truck	Need speed feedback device intalled on Main St approaching Allentown just before the easterly bypass. Investigate speed bumps entering town	N/A
69	12/18/2018	Traffic - Automobile	Speeding High Street to Main St, plus high westbound volumes in the PM	N/A
70	12/18/2018	Traffic - Automobile & Truck	New interchange at this junction?	I Disagree (01/23/2019)
71	1/4/2019	Traffic - Automobile & Truck	Heavy traffic on bypass	The eastern bypass sees 800 trucks a day, especially dump trucks (01/04/2019)
72	1/24/2019	Traffic - Truck	Trucks moving slowly up the hill from I195 to CR539 can impede traffic	N/A
73	1/24/2019	Traffic - Truck	Lost trucks seen at Waker and Lakeview	N/A
74	1/24/2019	Traffic - Automobile & Truck	High Traffic at Sharon Station and Forked River Roads	N/A
75	1/28/2019	Traffic - Automobile & Truck	bypass needs to be completed to alleviate traffic at stop streets for both truck and shore volumes	N/A
76	1/28/2019	Traffic - Automobile & Truck	heavy traffic during morning and evening commute. Bypass needs to be utilized.	N/A
77	1/28/2019	Traffic - Automobile & Truck	Just look at the map. Traffic coming the south on 539 has no other alternative to go west on 524. Major back up in a tight intersection.	N/A

78	1/29/2019	Traffic - Automobile & Truck	Traffic routinely backs up at Exit 2 on I-195 (Yardville Exit) and results in traffic moving on County Route 524 through Yardville and Allentown Borough on to points north including the Matrix development (Amazon).	N/A
79	2/1/2019	Traffic - Automobile & Truck	I-195 interchange was on original plans, but removed during construction. This interchange would eliminate much of the traffic on residential roads.	N/A
80	2/1/2019	Traffic - Automobile & Truck	Shoulder too wide. Traffic drives on shoulder until it runs out at bridge.	N/A
81	2/4/2019	Traffic - Automobile & Truck	Trucks especially using Broad st/Wilbur/Johnson as a short cut to bypass Main and Church. These are small streets with narrow turn radii resulting in trucks damaging property and overhead wires. Additionally, trucks that cannot make the turn from Broad onto WIlbur, then proceed strainght onto Hamilton, ignoring the one-way only/do not enter sign and completely blocking that street.	N/A
82	2/4/2019	Traffic - Truck	Amazon warehouse truck not able to keep on one side of road. Almost got hit because he kept coming over double yellow line. Also bicycle following to closely.	N/A
83	2/7/2019	Traffic - Truck	Truck turning right off Gordon Rd. Heading to West Manor Way. Trucks are not allowed to enter Matrix at Gordon Rd entrance.	N/A
84	2/7/2019	Traffic - Automobile & Truck	Are there signs on 526 (both directions) approaching this intersection, that advise motorists that 195 is accessible by turning here on County 43?	N/A
85	2/7/2019	Traffic - Truck	I heard from a source in Ocean County that OC is widening 539 to 4 lanes, from the Wawa in Plumstead (a few miles south of here) to the Monmouth County Line - this may cause issues at the merge,	N/A
86	2/7/2019	Traffic - Automobile & Truck	This is a county road now, where are the signs saying so?	N/A
87	2/7/2019	Traffic - Truck	Trucks park on this section of 195 all the time, where are the police to enforce this?	N/A
88	2/7/2019	Traffic - Automobile & Truck	New Quick Check just opened here, end of January. A lot of traffic goes straight at this light, intersection should allow a turning right lane back to 195.	N/A
89	2/7/2019	Traffic - Automobile & Truck	Connect these roads! It would allow a natural bypass of Allentown.	N/A
90	2/7/2019	Traffic - Automobile & Truck	The road is not aligned here, needs to be centered.	N/A
91	2/7/2019	Traffic - Automobile & Truck	A lot of increased traffic here over the past few years, the Waze effect. A lot of 195 motorists are using this path to 130 North as opposed to 195 to Exit 5 to 130 North, Especially with the increased construction in Robbinsville which has slowed 130 traffic down due to all the lights.	N/A
92	2/7/2019	Traffic - Automobile & Truck	Popular work around route for when 195 is backed up, which is every evening rush hour. Taking Exit 2 is faster than waiting to get to Exit 7 or 8 if one is going to Allentown.	N/A

APPENDIX

A.2 MOVING MINDFULLY.NET COMMENTS

Post #	Date	Question
1	9/30/2018	Impact of proposed improvements to integrity of the Allentown historic District
2	10/3/2018	When is the next meeting scheduled date and place? I was unable to attend on October 2, 2018 and hope to attend the next meeting.
3	10/5/2018	Thank you for this opportunity to have the public's opinion heard. I'm looking forward to seeing some, if not all changes made. Many changes, do not need to involve committees and expensive surveys, just some common sense solutions, so I hope that will be considered as well.
4	12/7/2018	Just a recommendation to the project that bicycle and pedestrian plans be completed for Robbinsville, Allentown and Upper Freehold. Hamilton and East Windsor have completed their plans, though prior to the latest revision of NJDOT's Complete Streets Guidebook. At the county level, a recommendation that Mercer and Monmouth complete bicycle and pedestrian plans for their roads and ideally, off road network as well. Mercer's efforts are underway, not sure about Monmouth. Separately, a suggestion that lane widths be recommended at 11 ft where possible, contrary to the usual 12 ft for large vehicles. The 11 ft recommendation is to provide more clear space for passing bicyclists in the bike lane or shoulder. In the future, automated vehicles will make the provision of narrower lanes less problematic (from the driver comfort POV) and more desireable (from the safe passing of bicyclists POV). Last, a thought that a park/ride with shuttle bus transportation to the worksites be considered, perhaps even via automated vehicle guideway, with adjacent multi-use path. Thanks!
5	1/21/2019	Thank you for the informative meeting last night. A few questions: 1) From your presentation, it appeared that you only counted trucks with > 3 axles; what about over sized 2 axle box trucks? Where they counted as they are a large volume of traffic on Rt 526 west of Sharon Station Rd? 2) The count of trucks was done in percentage, can you give the actual number of trucks in the scoped area? 3) If your staff recorded incorrect, missing, or in poor condition road signs, why hasn't Monmouth Co Road Dept taken care of this situation? It seems like a low cost safety action.
6	4/12/2019	Johnson Drive – big trucks cutting through instead of using Church. Fast. House shakes. Noisy. One particular truck turned down Johnson Drive, and he was going so fast I couldn't take a picture. A few moments later I see the same truck going South on Church - again fast! I was then told that the truck crushed the corner plot of the garden and knocked down a street sign. I was told the police were looking for him. I am also concerned about pedestrians, cyclists, and kids in the neighborhood. I spoke to Prime Trucking, and was put through to a claims adjuster. I received a check to reimburse me for damage. This had clearly not been the first incident. Johnson Drive is cracking. I've told the town. The answer is that these trucks should not be going down Johnson Drive or Church Street. People are complaining about burst pipes, related to trucks. Something must be done about trucks going through town, and they should stay on the main routes. Signs should be put up that say "trucks only" on the routes that are allowed. I know Church is a County Road, but it is a smaller one. I don't believe it is structurally sound to carry trucks. On I-195 trucks should use Exit 8 – not Exit 7. The signage needs to guide them to do that. Other roads are more suitable than Church Street. There is a little bridge on Church Street and I am concerned that the truck traffic is damaging the bridge. Heading toward Robbinsville, trucks have such wide turning distances that they have to use the middle lane just to make right hand turn into the warehouse area.
7	4/15/2019	People are driving too fast on Church Street. Too many trucks. With the big trucks, there are potholes and irregularities on the road, they bump, and shake the house. Damaging the houses also, in a historic district. My house was built in 1860 or before then, when Lincoln was alive. In general, there is too much traffic. For school buses trying to get to the school or 539, there is bumper-to-bumper traffic, and the same thing happens in the afternoon. The warehouses in the have added traffic in the afternoon, and the AM and PM rush hours. There is only one entrance and exit to the school, which is a safety issue for getting ambulances or fire trucks onto the site, or parents picking up children. There should be another entrance to the school, even if it is only for limited hours during the day, when activities happen or the school is open. There should be another way out of there. The fact that the bypass that was promised back in 1972, when I bought my home, was one of the selling points. I was told that the traffic will be improved. The bypasses were approved but they never happened. The bypasses have been approved for 50 years, and people who moved in were aware that the bypasses would be built. They certainly would help alleviate a lot of problems. It is difficult for walkers to cross the street safely because of the traffic, you have to make sure nothing is coming either way to safely get across. There are no sidewalks for children to walk on to get to the Middle School, and there are missing sidewalks on the way to Newell and the High School. The development beyond the highschool, towards New Egypt/Cream Ridge, there are no sidewalks to walk on to get to that development, and it is dangerous. I am frustrated that there have been many studies over the last 47 years, and very little has been done to improve the situation, and putting in the Westerly bypass would eliminate so many of the problems. There should be a campaign for the westerly bypass.
8	4/15/2019	There is an extremely high traffic time in the afternoon for travelers headed to the beach on Friday, and coming back on Sunday night. People use 539 to get to LBI and the Parkway. Starts as early as 3:30, to 6:30.

APPENDIX

A.3 ADVISORY COMMITTEE MEETING 1

MEETING NOTES

PROJECT NAME	Monmouth County Freight Study
PROJECT NUMBER	52301
DATE	07 August 2018
TIME	10:00-12:00
VENUE	Allentown First Aid Squad
SUBJECT	Study Advisory Committee (SAC) Kickoff
CLIENT	Monmouth County
PRESENT	See Attached

Dave Schmetterer (Monmouth County) thanked everyone for attending the first Study Advisory Committee for the Moving Mindfully: Monmouth-Mercer study. He then turned the meeting over to Jenn Grenier (WSP) for the attached presentation.

Jenn requested input from the SAC on the project goals which are:

- Improve Traffic Operations
- Improve Truck Routes
- Improve Wayfinding
- Minimize Impacts

The SAC agreed upon these goas and requested the project be forward looking (consider future development as well). Jenn noted that the focus groups would be utilized to solicit more feedback on the goals as well as collect key issues in the study area.

The SAC was broken into 3 groups to discuss key issues and mark up study area maps with potential solutions, problem areas, etc. Items identified include:

- Mercer County has several preserved properties in the study area to consider. Matt Lawson will provide to project team.
- There are many dump trucks in the study area
    - Many of these are independent truckers from quarries in Ocean County to/from Pennsylvania carrying sand and rock (70-80K)
    - Contact Clayton and/or Trap Rock for more information

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  - Will be difficult to get representation from independent truckers in focus groups
- There are also many FedEx truck
- I-195 has interchange and signing issues at exits 7 and 8
- There is poor signage on I-195
- The Matrix Industrial Park and the Northeast Business Park are not connected. Northeast connects to CR 526 and has access to/from I-195 at interchange 8 whereas Matrix is on CR 524 with access to I-195 at Interchange 7.
- One piece of data necessary to collect is additional planned development. A few comments on this topic include:
  - How much more industrial development is available in existing parks
  - A new boulevard development is planned along Sharon Station Road that includes retail and housing
  - A new mixed use (hotel and sports complex) is planned in Jackson/Millstone at CR 537 near I-195
- Are there TDM measures that can be considered such as
  - shifting delivery times out of peak commute times
  - Can the counties/towns require Park and Rides with new development to help manage traffic?
- There are weight limit enforcement issues that come up often however many times it is due to trucks being empty therefore not actually overweight.
- The signal phasing at exit 8 from I-195 is poor
- Are there plans to widen I-195?

Jenn and Dave thanked everyone for attending and requested all SAC members assist in getting the word out about the study for the public meeting, share the website and Wikimap when available, and provide any supportive data to Dave.

NEXT MEETING

- The next SAC meeting will be in January of 2019 to discuss the findings of the data collection and analysis.
- A public meeting will be held in September of 2018 to kickoff the project and gain input from the general public on key issues, problem areas and project goals.

Moving Mindfully: Monmouth/Mercer

August 7th, 2018

Sign-In Sheet

Full Name	Affiliation	E-Mail
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Mayor Alexander	Upper Freehold Township	
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DANNY ROSS	NJSP / NJDOT MANAGEMENT	
MICHAEL COLANERI	NJSP TRANSPORTATION SAFETY	

APPENDIX

A.4 ADVISORY COMMITTEE MEETING 2

Moving Mindfully Monmouth/Mercer

Study Advisory Committee (SAC) Meeting #2

Location: Mercer County Library – Robbinsville Branch, 42 Robbinsville Allentown Rd, Robbinsville, NJ 08691

Date: 1/29/2019

Time: 1:30 PM

Attendees: See attached

Meeting Notes

The project team conducted the second of three planned study advisory committee meetings for the Moving Mindfully Monmouth/Mercer Study. This meeting sought to share with the committee the initial data collection effort by the project team. Eighteen (18) stakeholders attended the meeting. The sign-in sheet is attached below.

The meeting began with a presentation conducted by WSP. The presentation, which is currently available on the Movingmindfully.net website, discussed the following topics:

- Summarized all public and focus group input collected up to January 30th
- Land uses in the study area and future growth areas
- Environmental Justice evaluation
- An inventory of infrastructure in the study area, including weight limits and clearances, bicycle and pedestrian facilities, a signage condition and location inventory, and an evaluation of truck turning radii at study area intersections
- Traffic volumes and level of service data
- Crash data
- Truck and vehicle origin and destination data

The presentation was followed by an interactive session comprised of several stations headed by the project team. Maps depicting the initial data collection effort described above were displayed on easels for the stakeholders to comment on. Participants were encouraged to cycle through all the boards and provide input for each one. The following input was received during this exercise:

- No crosswalks exist across Main Street north of Broad Street. More crosswalks across Main Street were recommended by advisory committee members.
- Advisory committee members noted that they believe crashes in the crosswalk at Church Street & Main Street may be attributed to turning vehicles. Enhanced signs for turning movements/ped conflicts should be considered. Specifically, at the Church Street southbound-right and the Main Street eastbound left.

- A large FedEx facility was recently built in Robbinsville near State Route 130 at Crosswicks-Hamilton Square Road.
- Stakeholders mentioned the need to examine the vehicles that use I-195 Exit 2 in Yardville (Hamilton Twp) as a cut-through to the Allentown area instead of staying I-195 when it is congested. It was noted that these trips utilize CR 524 to South Main St, through downtown Allentown, to the Matrix site or back onto I-195. Stakeholders recommended incorporating these flows into the origin-destination analysis to determine the extent to which these trips affect the study area.
- Committee members noted that building a roadway connection between the two Matrix sites could relieve local truck and auto congestion and serve as an internal circulator for truck drivers who take the wrong turn without the need to return to local roadways. Shuttle services would also operate much more efficiently when visiting both business parks. In addition, a trail connection between the business parks would improve pedestrian circulation, particularly for those arriving by transit.
- The impact of vibrations on historic structures in Allentown was cited as a major concern by the stakeholders.
- Stakeholders asked the project team to review origin-destination data for the month of December, the busiest month for Amazon, to see the impact on local roadways.
- It was suggested that the team conduct Origin and Destination analysis for the Thanksgiving/Black Friday holiday period due to the increase in truck activity for the Amazon Fulfillment center.
- Jackson Township has a new regional development near Six Flags, including recreational facilities and a hotel.
- The Union Transportation Trail continues north of the displayed terminus to Old York Road, though under different ownership.
- Stakeholders expressed a desire to connect Allentown with the Union Transportation Trail via extended shoulder or dedicated bike facility along Allentown Lakewood Road.
- Stakeholders noted that directional and truck signage along I-195 should be re-evaluated and improved to mitigate confusion and missed exits by trucks, resulting in unplanned trips through the heart of Allentown.
- Many cyclists ride along Main St, often 2-3 abreast, particularly in the summer months.

Moving Mindfully: Monmouth/Mercer

January 29, 2019

FIRST NAME	LAST NAME	AFFILIATION	E-MAIL
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Moving Mindfully: Monmouth/Mercer

STUDY ADVISORY COMMITTEE
MEETING #2
JANUARY 29, 2019

SIGN-IN SHEET

PLEASE PRINT CLEARLY

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Moving Mindfully: Monmouth/Mercer

APPENDIX

A.5 ADVISORY COMMITTEE MEETING 3

Moving Mindfully: Monmouth/Mercer

Study Advisory Committee (SAC) Meeting #3

Location: Allentown First Aid Station

Date: 4/23/2019

Time: 10:00 AM

Attendees: See attached

Meeting Notes

The project team conducted the third of three planned Study Advisory Committee (SAC) meetings for the Moving Mindfully: Monmouth/Mercer Study. This meeting sought to share with the committee the recommendations developed based upon the study findings. Twelve (12) stakeholders attended the meeting. The sign-in sheet is attached below.

The meeting began with a presentation conducted by WSP. The presentation, which is currently available on the Movingmindfully.net website, discussed the following topics:

- Summarized study area issues identified at previous meetings
- Findings from the freight interviews
- Study area recommendations
- Level of Service related to recommendations

The presentation was followed by question and answers with the project team. The following summarizes feedback received:

- One SAC member asked about interviews with members of the Matrix developments. The study team noted that attempts have been and will continue to be made to interview them. However, input on commercial fleets used by large industrial sites was collected from the NJ Motor Trucking Association (NJMTA). NJMTA noted:
    - most distribution centers will provide maps to their drivers if we provide them
    - many drivers are out of state and do not know the area
    - many drivers are seeking signage to I-95 not the NJ Turnpike
- One person in attendance noted that the Westerly Bypass is needed now and that Allentown is only 0.6 miles; therefore, trucks should avoid town. It was noted that new people have moved to the area since the Westerly Bypass was originally envisioned and they are opposed to the bypass as it is near their homes. However, the newer homes are further set back from the proposed roadway than the existing homes that are in Allentown as the Allentown homes have very small front yards.
- One SAC member noted that they do not want to shift the centerline on Church Street as they believe that will improve conditions for trucks and will lead to a greater volume of trucks along Church Street.

- One person in attendance was in favor of raised intersections but not signalization in Allentown.
- One SAC member was not in favor of raised intersections or signals as they would not fit with the context of an historic downtown. He asked if historic context was considered and if SHPO was involved. Kristen Norbut from the Monmouth County Parks System noted that any concept that is advanced to the next phase would go through a process with SHPO that involved discussing the need and treatments that would fit with the character, and that SHPO would work with the project team to identify the appropriate solutions considering historic character balanced with safety and current need.
- One SAC member asked if vibrations to buildings from trucks was considered. Kristen Norbut provided a summary of the challenges of identifying an effect from truck vibrations compared to other household activities as all of these activities can have impacts to historic structures.
- One person in attendance asked why we were not considering building an Interchange 9 instead of the Easterly Bypass, or in addition to the Easterly Bypass. Daria Jakimowska from the Monmouth County Division of Engineering noted that the Easterly Bypass was selected as the preferred alternative in previous studies and that Interchange 9 was not considered a viable alternative.

Moving Mindfully: Monmouth/Mercer

April 23, 2019

Study Advisory Committee Meeting #3

SIGN-IN SHEET

PLEASE PRINT CLEARLY

FIRST NAME	LAST NAME	AFFILIATION	E-MAIL
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A Andrew Ferrando	Ferrando	Allentown Traffic	AFerrando@SALLC.org

Sendlegues · NJTPA · wsp

APPENDIX

A.6 PUBLIC MEETING 1

Moving Mindfully: Monmouth/Mercer

Public Involvement Meeting #1

Location: Stone Bridge Middle School, 1252 Yardville-Allentown Rd, Allentown, NJ 08501

Date: 10/2/2018

Time: 7:00 PM – 9:00 PM

Attendees: See attached

Meeting Notes

The project team conducted the first of three interactive public meetings slated for the Moving Mindfully: Monmouth/Mercer Study. This meeting sought input from the public on current conditions, needs, and suggestions. Over 60 members of the public attended the meeting. The sign in sheet is attached.

The meeting began with a presentation detailing the study purpose, scope of work, project timeline, project goals, and key issue identification. A copy of the presentation is available on the Movingmindfully.net project website.

The presentation was followed by an interactive session comprised of several stations staffed by the project team. Three stations displayed a map of the project area and participants were given stickers to paste on the map to identify truck issues, pedestrian issues, congestions issues, and other issues throughout the study area. One station contained a board with the initial project goals listed. Participants were asked to add new goals, add to existing goals, prioritize goals, and provide input on desired outcomes. The final station was a laptop displaying the project Wikimap and participants were shown how to use this interactive input tool. The project team recorded real-time comments as they were provided using the Wikimap during the meeting. Comments obtained from the maps and goals board are attached below. Up-to-date Wikimap input can be accessed via the following URL: bit.ly/mmwikimap. The Wikimap will remain available for viewing after the completion of the study, and a detailed accounting of comments and locations will be included in the appendices of the final report.

Common themes in the feedback received include:

- Suggestions for signage improvements
- Traffic congestion issues in Allentown specifically during school times, making left turns, and when there are incidents on I-195
- Pedestrian concerns near schools and downtown Allentown
- Suggestions to build the westerly by-pass
- Suggestions to install a traffic signal at Church/Waker and Main Street for congestion and pedestrian concerns
- Speeding concerns in several locations

Moving Mindfully: Monmouth/Mercer

(1)

October 2nd, 2018

Sign-In Sheet

Full Name	Affiliation	E-Mail
ANTHONY GARAGUSO	MCTC	ANTHONYGARAGUSO@OUTLOOK.COM
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Salvatore Diecidue	UFT	
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NJTPA WSP

Moving Mindfully: Monmouth/Mercer

(2)

October 2nd, 2018

Sign-In Sheet

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Mary Flores	Allentown	mjmuflores@yahoo.com
Regina Finn	Allentown	regina@finn-email.org

Input Station #1

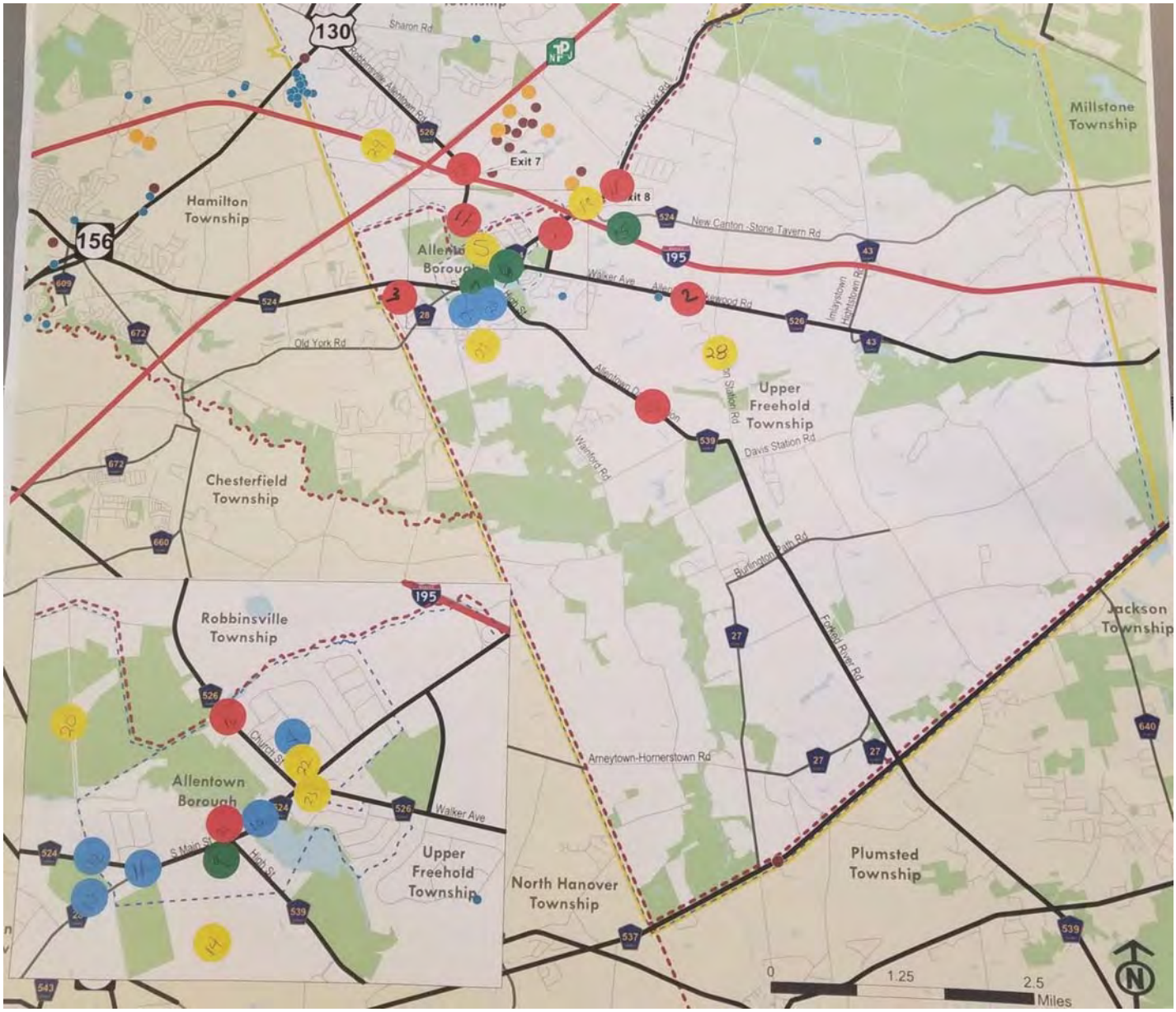


Figure 1: Input Map #1

Location Type	Type of Concern	Comment
Corridor	Intersection	1. This intersection needs a traffic signal due to volumes and poor sight distances
Corridor	Property, Livability	2. Dump trucks hauling materials from Ocean County along CR 539 start very early in the morning and they prefer to engine brake which is extremely loud and disruptive to residents
Corridor	Traffic	3. Would like to know the status of the Westerly Bypass and Sharon Station Road construction
Corridor	Property	4. Historic Property's foundations shake from passing trucks along Church Street
Corridor	Safety	5. Church Street has a lot of speeding vehicles who don't slow down when entering Allentown which is where the speed limit changes from 35 to 25 MPH
Intersection	Traffic	6. Vehicle congestion at Church Street and Main Street, specifically caused by left turns
Intersection	Traffic	7. Congestion at High Street and Main Street, specifically caused by left turns
Corridor	Safety	8. Pedestrian issues exist on Main Street, drivers regularly ignore crosswalks and tend to damage mid road pedestrian crossing signs
Corridor	Safety	9. Drivers are not slowing down even though the speed limit changes from 35 to 25 MPH (Main St)
Bridge	Safety	10. The bridge has a pedestrian sidewalk on one side and not the other, it is difficult and dangerous to cross the road here to get too the pedestrian path across the bridge
Intersection	Livability, Safety	11. There are no crosswalks present for pedestrians and the area sees a lot of children on bicycles (Main St at Allentown Yardville Rd)
Corridor	Livability	12. No sidewalks present (CR 524 Allentown Yardville Rd)
Corridor	Livability	13. No sidewalks present (CR 28 S Main St)
School	Traffic	14. Traffic created by the High school would benefit from an entrance on Elisdale Road
Corridor	Traffic	15. Rush hour traffic to and from Trenton backs up 195 and drivers regularly exit and travel through Allentown to avoid growing congestion. Either to skip to the next exit along 195 or switch to CR 526
Corridor	Traffic	16. Significant numbers of dump trucks along this road

Corridor	Traffic	17. Trucks are using this exit instead of the following exit closer to the warehouses. Trucks then travel through Allentown to reach the warehouses
Intersection	Traffic	18. Trucks swing right and take up a large portion of the road to be able to make a safe left turn into the Matrix development, re designing the road to have two lanes to accommodate for through travel as well as left turns or possibly shifting travel lanes further away from the site will allow the trucks to make the left turn without having to swing their trucks out to the right (CR 539 at Montgomery Way)
Interchange	Other	19. The raised median triangle on the ramp from I-195 is too large and trucks can't navigate it causing them to run over it, damage it, and disrupt other lanes of traffic trying to avoid hitting it
Corridor	Traffic, Livability	20. Repaving Breza Road would give trucks an alternate route, and allow for emergency access and evacuation of Allentown
Corridor	Traffic	21. Common truck route, high number of trucks causes congestion (S Main St)
Intersection	Traffic	22. The left turn from Church to Main Street backs up traffic, suggested to allow traffic to use Hamilton Street as an alternate route around the intersection
Intersection	Traffic	23. Intersection needs management but a regular traffic signal wouldn't be able to accommodate for the constant changing flows of traffic and would cause further congestion, but an intelligent traffic signal that monitors traffic and adjusts timing on demand would be able to improve the intersection (Waker Ave/Church St/Main St)
Corridor	Traffic	24. When Six Flags Great Adventure is busy, this stretch of road sees a rise in vehicles (I-195)
School	Traffic, safety	25 & 26. A lot of Students travel here creating a lot of pedestrian concerns (High School)
School	Traffic, safety	27. A new road around the school from High Street to Elisdale Street would alleviate traffic on Main Street and improve emergency access and evacuation from the schools
Corridor	Traffic	28. Add Sharon Station Road to the NJ Access Network to encourage trucks to use it instead of High Street
Corridor	Traffic	29. Trucks often ignore the bypass and travel up High Street to Main Street instead

Input Station #2

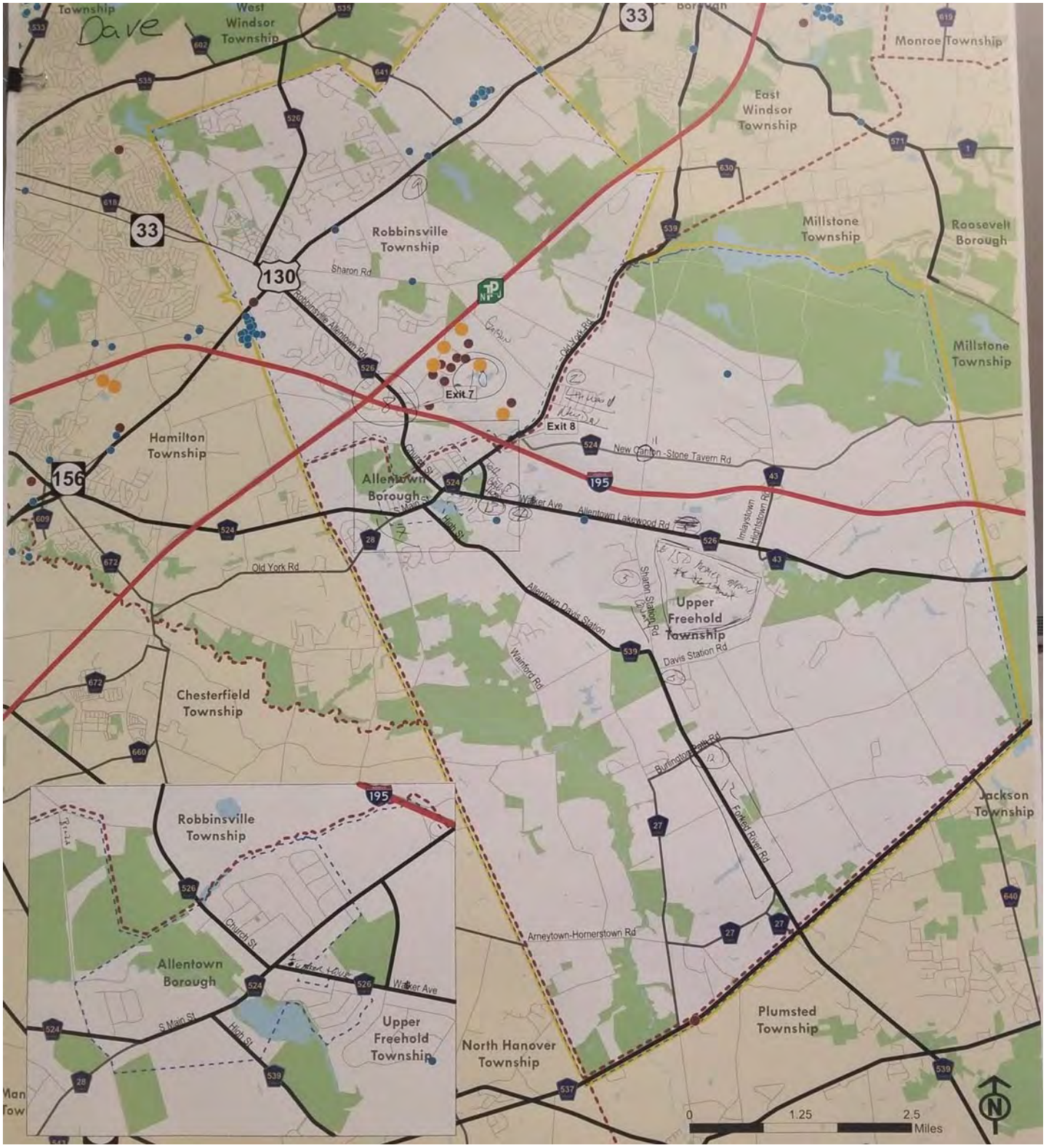


Figure 2: Input Map #2

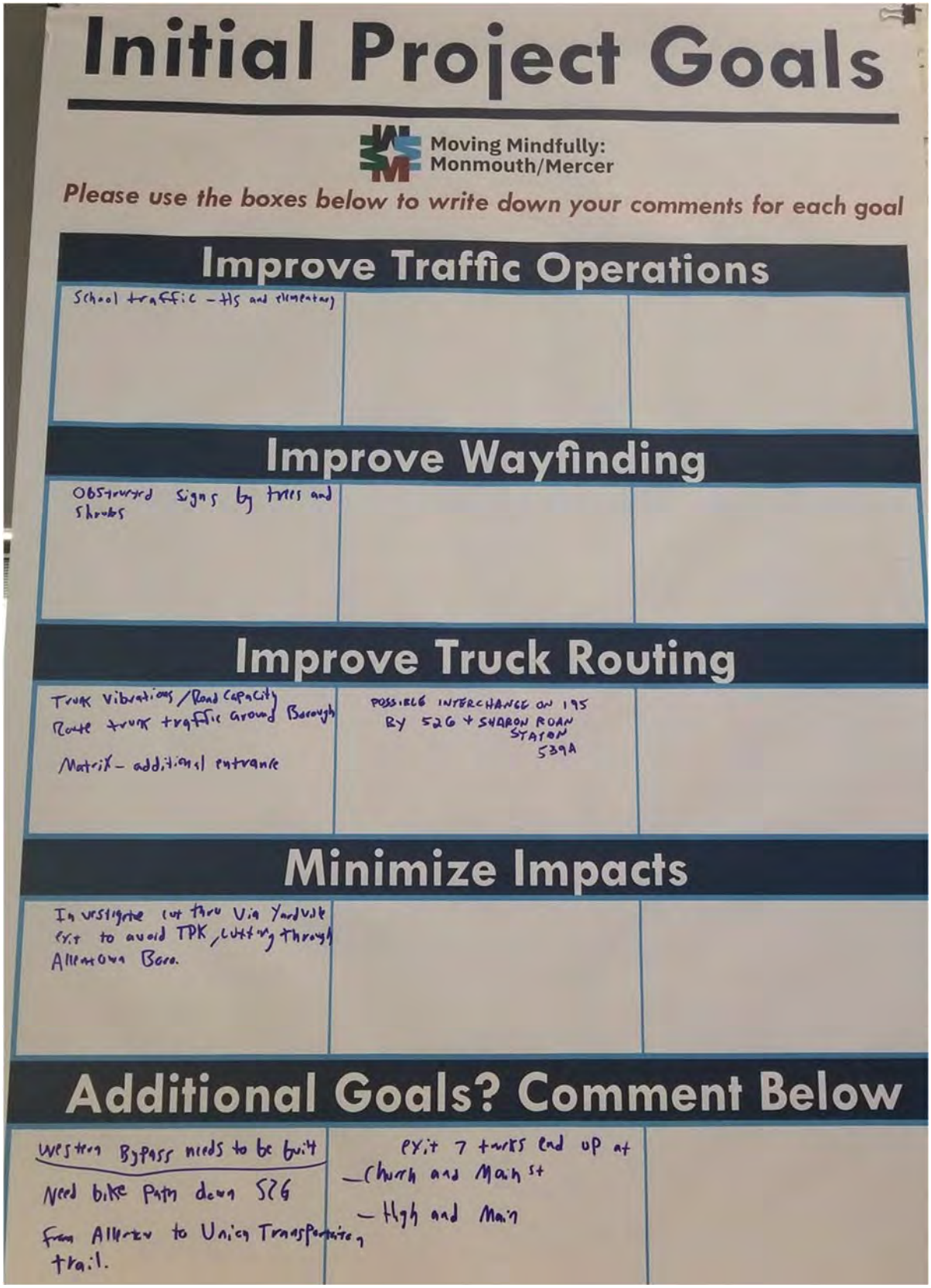
Location Type	Type of Concern	Comment
Intersection	Livability, traffic	1. Diesel smell/soot! Summer traffic sets off smoke alarm (Waker Ave at S Main St)
Intersection	Safety	2. Left turns from Clifford Drive developments
Corridor	Traffic	3. Bypass traffic heavy
Intersection	Safety	4. Speeding on Waker Ave at Galloping Brook Dr
Corridor	Safety	5. Turns onto Sharon Station Road are dangerous
Intersection	Safety	6. Difficult Convergence (at Davis Station Rd at Forked River Rd CR 539)
Corridor	Other	7. The westerly bypass has land use issues as it is currently proposed
Corridor	Safety, Traffic	8. Truck moves to Turnpike result in one lane of auto traffic on I-195
Corridor	Traffic	9 & 10. Increased trucks from US 130 via Gordon Rd, need connectivity on Gordon to Matrix
Intersection	Safety	11. Fatal crashes recorded at CR 524 & Sharon Station Rd
Intersection	Safety	12. Dangerous speeding on Forked River Rd (CR 539) at Burlington Path Rd.
Corridor	Traffic	13. The eastern bypass sees 800 trucks a day, especially dump trucks
Corridor	Property	14. Some houses have been hit by cars on Main St
Corridor	Traffic	15. Trucks moving slowly up the hill from I-195 to CR 539 can impede traffic
Intersection	Traffic	16. Lots of trucks seen at Waker and Lakeview
Corridor	Traffic	17. High traffic at Sharon Station and Forked River Roads

Input Station #3

Figure 3: Input Map #3

Location Type	Type of Concern	Comment
Intersection	Traffic	1. Exit 7 is missing the eastbound I-195 movement from northbound Robbinsville-Allentown Rd (CR 526)
Intersection	Wayfinding	2. Better Warehouse identification is needed at exit 7 and 8.
Corridor	Traffic	3. Robbinsville and Allentown should investigate banning trucks on CR 526 between exit 7 and downtown Allentown
Intersection	Traffic	4. W Manor Way becomes quite congested from 6 PM- 7 PM
Corridor	Safety	5. Pedestrians and kids are frequently walking along CR 524 eastbound from 7:30 AM to 2:30 PM. Road diet with bike lanes may help accommodate and slow vehicular traffic
Intersection	Safety	6. Car lanes not aligned correctly at S Main St & Ellisdale Rd
Corridor	Traffic, Safety	7. Trucks on CR 526 north of downtown Allentown
Corridor	Traffic	8. Westerly bypass routing at High Street (This is just part of the existing proposed route)
Intersection	Safety	9. The intersection of Main St, Church St, and Waker Ave should be a Three-way Stop
Intersection	Safety	10. Need speed feedback device installed on Main St approaching Allentown just before the easterly bypass. Investigate speed bumps entering town
Intersection	Safety	11. Speed bump needed on Church St approaching Main St.
Intersection	Safety	12. Traffic Island should be installed at Cliffwood Drive
Corridor	Traffic	13. Breza Road is part of the proposed westerly bypass
Corridor	Safety & Traffic	14. Speeding High Street to Main St, plus high westbound volumes in the PM
Interchange	Traffic	15. Get rid of traffic signals and ramps at the interchange (I think they want a cloverleaf style interchange here)

Input Station #4



Improve Traffic Operations
School traffic needs to be addressed at the Elementary school and High school

Improve Wayfinding
Many signs in the area are obstructed by trees and shrubs

Improve Truck Routing
Trucks cause vibrations
Trucks use up valuable roadway capacity
Matrix needs an additional entrance
Explore a new interchange on I-195 (Exit 9?) at Sharon Station Rd

Minimize Impacts
Investigate the existing cut-through route via the Yardville exit from I-195 to exit 8 via Yardville-Allentown Rd

Additional Goals
Need to build western bypass
Need a bike path down CR 526 from Allentown to Union Transportation Trail
Trucks exit at exit 7 and re-route to the warehousing via downtown Allentown. Better signage is needed to prevent this

APPENDIX

A.7 PUBLIC MEETING 2

Moving Mindfully Monmouth/Mercer

Public Involvement Meeting #2

Location: Newell Elementary School, 27 High Street (CR 539), Allentown, NJ 08501

Date: 1/30/2019

Time: 7:30 PM

Attendees: See attached

Meeting Notes

The project team conducted the second of three interactive public meetings slated for the Moving Mindfully Monmouth/Mercer Study. This meeting sought to share with the public the initial data collection effort by the project team. Over 35 participants attended the meeting. The sign-in sheet is attached below.

The meeting began with a presentation conducted by WSP. The presentation, which is currently available on the Movingmindfully.net website, discussed the following topics:

- Summarized all public and focus group input collected up to January 30th
- Land uses in the study area and future growth areas
- Environmental Justice evaluation
- An inventory of infrastructure in the study area, including weight limits and clearances, bicycle and pedestrian facilities, a signage condition and location inventory, and an evaluation of truck turning radii at study area intersections
- Traffic volumes and level of service data
- Crash data
- Truck origin and destination data

The presentation was followed by a 15-minute Q&A session during which the project team addressed general questions and concerns from the public. During the Q&A, the following questions and concerns were raised:

- Directional and truck signage along I-195 should be re-evaluated and improved to mitigate confusion and missed exits by trucks, resulting in unplanned trips through the heart of Allentown.
- School traffic was cited as a major concern, particularly the bottleneck at High Street and Main Street.

- It was suggested that an additional exit at Sharon Station Road onto I-195 should be a consideration to alleviate regional traffic flows from the south/east to the west through Allentown.
- A few questions were raised about the initial origin-destination percentages presented by the project team. The project team clarified the findings. Specifically, left turn percentages from Church Street were questioned, in addition to the truck percentages along CR 526. Questions were also raised related to the year of this data. The project team noted that all of 2017 was evaluated. When asked why 2018 data was not used, the project team clarified that the 2018 data is not yet available.
- Increased weight restriction enforcement is necessary along Sharon Station Road, particularly due to the high number of gravel trucks.
- A review of destination signage should be conducted at exits 7 and 8 along I-195. Reevaluate the need for Allentown designation at exit 7.
- NJTP/I-195/I-95 directional signs were recommended along the eastern bypass to mitigate confusion.
- Signs at Exit 11, Exit 8 and 7 on I-195 should be evaluated. Those along I-195 are too small, especially for truck drivers, who are positioned much higher than regular drivers. The eastbound sign directing truck drivers to exit 8 is located on the acceleration lane from the NJ Turnpike, a location where many drivers may miss the sign altogether.
- Many county highway shields are obscured by parked vehicles in Allentown, particularly along Main St.
- Several attendees voiced support for the construction of a driveway to Ellisdale Road to establish a second entrance/exit to the high school. This improved circulation may help mitigate congestion, particularly left turns, at High Street and Main Street.
- Some attendees requested no traffic light be installed at Church Street & Main Street as they felt it would contribute to more delays at the intersection.
- Trucks speeds on Sharon Station Road are perceived to be excessive.
- There are numerous concerns regarding historical building structural impacts from truck traffic. In tandem, a comment was made about truck weight restrictions in designated historic districts around the country, and the feasibility of this being implemented in Allentown to not only preserve the physical structures, but to maintain the character of the Borough. The project team indicated that this would be investigated as we move into the concept phase of work.

The Q&A session was followed by an interactive session comprised of several stations headed by the project team. Maps depicting the initial data collection effort described above were displayed on easels for the public to comment on. Participants were encouraged to cycle through all the boards and provide

input for each one. In addition to the input received during the Q&A session, the following input was received during this exercise:

- New developments are slated near Six Flags Great Adventure.
- Engine braking sign is faded and not visible on Allentown Lakewood Road (CR 526) WB approaching the Easterly bypass. Trucks frequently engine break slowing down for the bypass.
- An additional crosswalk is needed on Main St, north of Broad Street and at Ellisdale Road
- An attendee asked if truck and car speeds were reviewed in the study area. This was followed up with a comment to investigate implementing traffic calming measures to reduce speeds.
- Left turns are difficult to make from Main Street to High St. The crossing guard parks on Main Street and through cars cannot bypass vehicles making a left-turn.
- It was noted that the calculated Level of Service at CR 524 @ High Street does not reflect delays experienced by residents during peak hours. Vehicles sit in queues along CR 524 waiting to make left or right turns for more than 10 minutes due to school drop off.
- Level of Service should be conducted for other roadways outside the Allentown Downtown periphery.
- The design of the intersection of CR 539 and Sharon Station Road is difficult to maneuver. There are safety concerns of geometrics and traffic patterns at this intersection.
- An additional exit at Sharon Station Road onto I-195 should be a consideration to alleviate regional traffic flows from the south/east to the west through Allentown.
- All left turns to CR 539 between Allentown Davis Station Road and CR 537 are difficult to make due to speeds and volumes.
- Some attendees expressed serious concern about building the westerly bypass in its originally proposed alignment because the bypass would run directly past the high school. Residents mentioned the safety issues this would create being so close to the schools and fields. It was noted that the fields in which the township students utilize are immediately adjacent to the proposed roadway. In addition, much development has taken place since the original plans for the westerly bypass, and these developments are along or adjacent to the would-be bypass.
- Bruno's Bike shop in Allentown is a great place to get input from the local bike/ped community.
- A bike lane should be considered between Allentown and the Union Transportation Trail.
- Many cyclists ride along Main St, often 2-3 abreast, particularly in the summer months
- Kids cycle on the sidewalk in the vicinity of the high school.
- Pedestrian paths were recently completed from Ellisdale Road to the High School.

- A question was asked regarding whether the origin-destination data collected for the study includes the general area of the FedEx facility recently built in Robbinsville near Route 130 at Crosswicks-Hamilton Square Road. The response of the project team is that data was not collected at the FedEx facility due to its location outside the study area.
- Consider NJ Turnpike ramps as additional Origins/Destinations (zones) in the Origin and Destination analysis.

Additional comments provided from attendees in writing are attached.

Moving Mindfully: Monmouth/Mercer

January 30, 2019

(1)

SIGN-IN SHEET

PLEASE PRINT CLEARLY

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Mike	Drennan	Allentown	MCJD1219@AOL.COM
Laura	Hughes	UFT	ldhughes85@gmail.com
Blythe	Eaman	NJTPA	beaman@~~[illegible]~~njtpa.org

NJTPA

wsp

Moving Mindfully:
Monmouth/Mercer

January 30, 2019

SIGN-IN SHEET

(2)

PLEASE PRINT CLEARLY

FIRST NAME	LAST NAME	AFFILIATION	E-MAIL
Thmas	Frith	Allentown Council	tfrith@allentownboroughnj.com

NJTPA

WSP

Moving Mindfully:
Monmouth/Mercer

January 30, 2019

(3)

SIGN-IN SHEET

PLEASE PRINT CLEARLY

FIRST NAME	LAST NAME	AFFILIATION	E-MAIL
Greg	Westfall	Allentown Boro	gwestfall@allentownboro.nj.com
DARIA	JAKIMOWSKA	MC ENG.	daria.jakimowska@co.monmouth.nj.us
JOSEPH	ETTORE	Mon Cty ENGR'G	joseph.ettore@co.Monmouth.nj.us.
Patricia	BROWN	Allentown Resident	morningstar10@optonline.net
TERRY	BROWN	" "	TERRY BROWN@ OPTONLINE.NET
LOU	Mount	UFT Committee	lmount@allentowninc.com
~~BUBA~~ JAMES	~~BUBA~~	Upper Freehold Resident	JAMES.W.BUBA@GMAIL.COM
JIM	BOWERS	UFT Resident	jt52403@verizon.net
MARK	ENGLER	UFT	TTAXMAN247@AOL.COM
BILL	Thompson	UFT Resident	Bill.thompson@heart.org
Salvatore	Dienna	UFT Resident	Saldicci due@gmail.com
Peter Carper		Allentown	PCARPER@PDG.COM
Robert	Mayer	Allentown	myro41979@aol.com
ANTHONY	GARAGUSO	MCTC	ANTHONYGARAGUSO@OUTLOOK.COM
ROBERT	STROVINSKY	Allentown Boro	RSTROVINSKY@allentownboro.nj.com
Elaine	Stella	Atown, NJ	
Suzanne	Smith	Atown.	crgbx@optonline.net

Moving Mindfully:
Monmouth/Mercer

Your feedback is important to this study.
Let us know of any comments, concerns, or questions you may have regarding freight related transportation within the study area.

It is important to Not Build A Westerly Bypass. IT is A decision Position in A place where All kids in the District Gather.

You can mail your comments to:

David Schmetterer
C/O: Moving Mindfully
Monmouth County Division of Planning
One East Main Street 2nd Floor
Freehold, NJ 07728

http://MovingMindfully.net

Talking points Allentown traffic Meeting 1-30-19

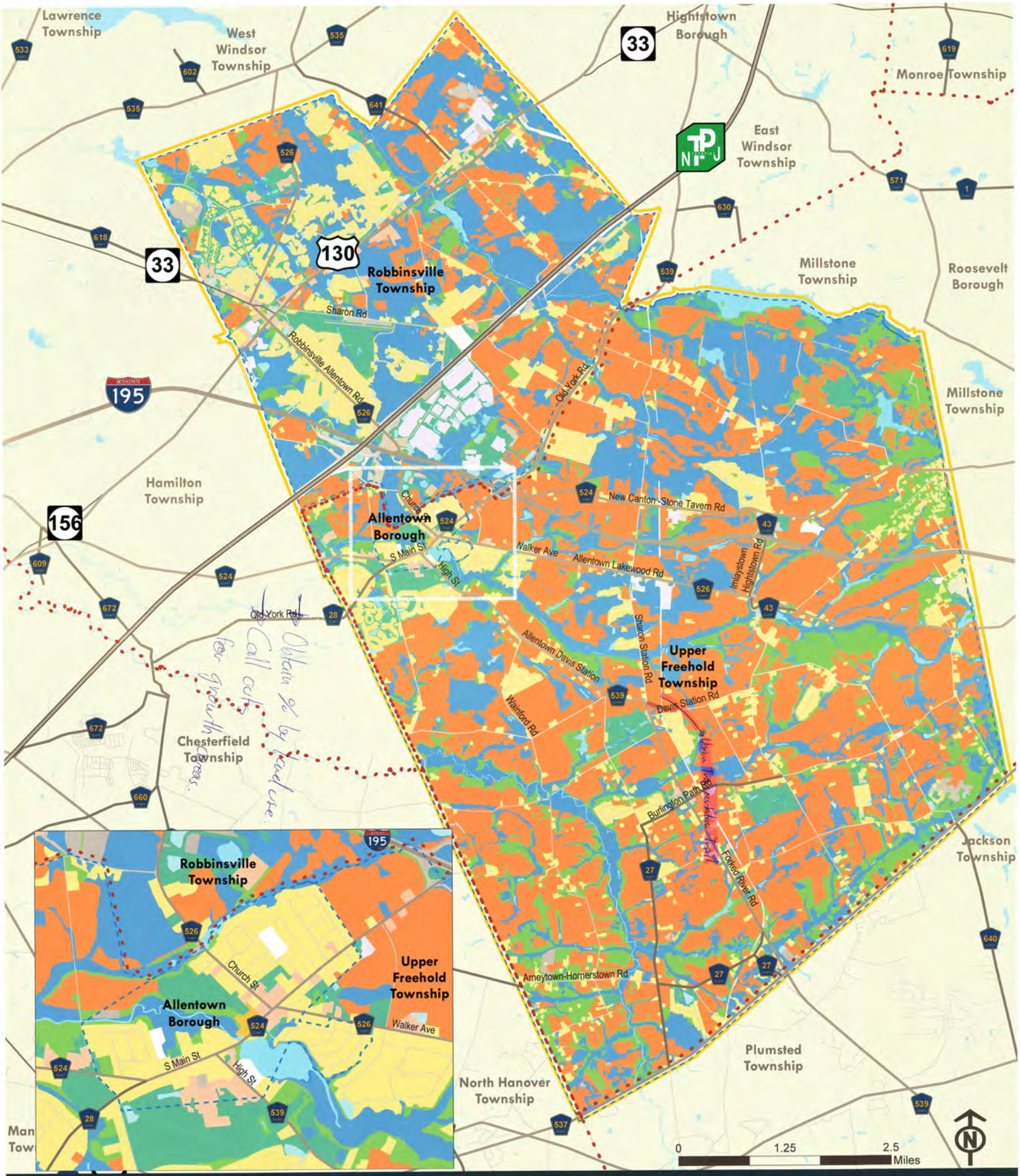
1. Rt 539 Daily traffic and especially in the summer months. Traveling north just past the Cream Ridge Golf Coursein Upper Freehold, there's a sign – 539 ALT that was placed there last year or so by the County. That was a good start but if you go that way there are no more signs anywhere that say 539 ALT North and not a sign for NJTP or I-195 until the next traffic light. When, and if, you make a left the very first sign says you are on 526 West. Going back,traffic that ignores that 539ALT sign, and makes a left at that intersection, has to eventually pass the schools and then winds up at stop sign and in a backup on the busy corner of Main Street. I would suggest to put a sign along with that 539 ALT sign showing the way to NJTP & I-195 then the traffic would not go through Allentown. That's where the pass-through traffic wants to go, anyway, and we should help them.

2. I-195 Traveling East- At end of the acceleration ramp from NJTP onto I-195E, a sign says "All trucks and buses use Exit 8". That sign does not get read by drivers of cars, trucks, or buses that are merging into 195 traffic. That is a busy and heavy merge. No one reads that sign. Move it further east and right before exit 7. If not done, traffic will exit at the first Allentown sign (exit 7) which goes right to the stop sign on Main St. That traffic cannot use the expensive by-pass that is only accessible at Exit 8. Those drivers probably don't even know that the Easterly By-Pass exists. At exit 7 the interstate sign should just say - Exit 7, Robbinsville (and not Allentown). Then, traveling WEST on I-195, there are 3 signs saying RT 539 Exit 8. However, upon exiting, the signs say RT 524 East and West. No 539 sign to be found. Put some signs for 539 at the end of that exit ramp. And then, if you keep going west on I-195 you see another sign for Allentown ?? which you already have passed.

B James Bowers
178 Ellisdale Rd.
Allentown, NJ 08501-1847

609-709-0701


NORTH
NORTH
ALT
539
539


Lawrence Township
West Windsor Township
Hightstown Borough
Monroe Township
East Windsor Township
Millstone Township
Roosevelt Borough
Robbinsville Township
Hamilton Township
Allentown Borough
Upper Freehold Township
Chesterfield Township
Jackson Township
Plumsted Township
North Hanover Township
Sharon Rd
Robbinsville Allentown Rd
Old York Rd
New Canton -Stone Tavern Rd
Church St
S Main St
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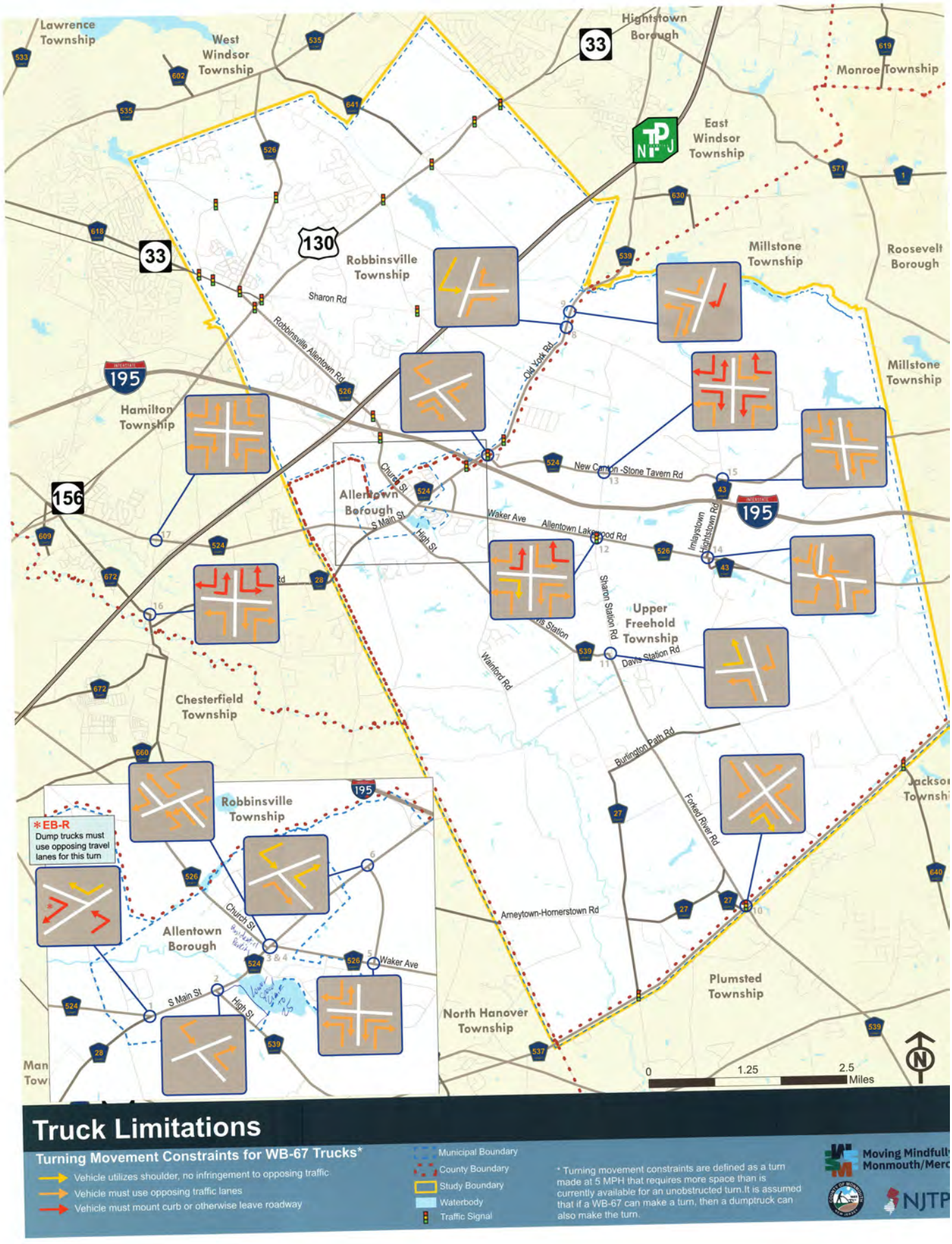
Walker Ave
Allentown Lakewood Rd
Imlaystown Hightstown Rd
Sharon Station Rd
Allentown Davis Station
Davis Station Rd
Wainford Rd
Burlington Path Rd
Foxted River Rd
Arneytown-Homerstown Rd
0
1.25
2.5
Miles
Land Use Data (2015)
Wetlands
Transportation
Altered Lands
Waterbody
Recreation Land
Cemetary
Commercial
Forest
Cropland
Industrial
Mixed Use
Residential
Right of way
Municipal Boundary
County Boundary
Study Boundary
Waterbody
Open Space
Moving Mindfully: Monmouth/Mercer
NJTPA


Lawrence Township
West Windsor Township
Hightstown Borough
Monroe Township
East Windsor Township
Millstone Township
Roosevelt Borough
Robbinsville Township
Hamilton Township
Chesterfield Township
Upper Freehold Township
Jackson Township
Plumsted Township
North Hanover Township
Allentown Borough
Sharon Rd
Robbinsville Allentown Rd
New Canton -Stone Tavern Rd
Waker Ave
Allentown Lakewood Rd
Imlaystown Hightstown Rd
Old York Rd
Church St
S Main St
High St
Sharon Station Rd
Davis Station Rd
Wainford Rd
Burlington Path Rd
Forked River Rd
Arneytown-Hornerstown Rd
0.25
0.42
0.21
0.30
0.12
0.19
0.45
0
1.25
2.5
Miles
PM Level of Service (LOS)
LOS*
A (Good)
B
C (Acceptable)
D (Poor)
E
F (Failing)
Approach
XX Delay (Seconds)
Segment
XX Volume/Capacity Ratio
Municipal Boundary
County Boundary
Study Boundary
Waterbody
**LOS calculated using Highway Capacity Manual (HCM), 2010
Moving Mindfully: Monmouth/Mercer
NJTPA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New Canton -Stone Tavern Rd
Church St
S Main St
High St
Waker Ave
Allentown Lakewood Rd
Imlaystown Hightstown Rd
Sharon Station Rd
Davis Station Rd
Wainford Rd
Burlington Path Rd
Forked River Rd
Ameytown-Hornerstown Rd
33
130
195
156
*EB-R
Dump trucks must use opposing travel lanes for this turn
0
1.25
2.5
Miles
Truck Limitations
Turning Movement Constraints for WB-67 Trucks*
Vehicle utilizes shoulder, no infringement to opposing traffic
Vehicle must use opposing traffic lanes
Vehicle must mount curb or otherwise leave roadway
Municipal Boundary
County Boundary
Study Boundary
Waterbody
Traffic Signal
* Turning movement constraints are defined as a turn made at 5 MPH that requires more space than is currently available for an unobstructed turn.It is assumed that if a WB-67 can make a turn, then a dumptruck can also make the turn.
Moving Mindfully Monmouth/Merc
NJTP


Lawrence Township
West Windsor Township
Hightstown Borough
Monroe Township
East Windsor Township
Millstone Township
Roosevelt Borough
Robbinsville Township
Hamilton Township
Chesterfield Township
Allentown Borough
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Waker Ave
Allentown Lakewood Rd
S Main St
High St
Church St
Imlaystown Highstown Rd
Allentown Davis Station
Sharon Station Rd
Davis Station Rd
Wainford Rd
Burlington Path Rd
Forked River Rd
Ameytown-Hornerstown Rd
0.36
0.30
0.20
0.31
0.12
0.27
0.49
A
B
C
D
E
F
0
1.25
2.5
Miles
AM Level of Service (LOS)
LOS*
A (Good)
B
C (Acceptable)
D (Poor)
E
F (Failing)
Approach
XX Delay (Seconds)
Segment
XX Volume/Capacity Ratio
Municipal Boundary
County Boundary
Study Boundary
Waterbody
**LOS calculated using Highway Capacity Manual (HCM), 2010
Moving Mindfully: Monmouth/Mercer
NJTPA

APPENDIX

A.8 PUBLIC MEETING 3

Moving Mindfully: Monmouth/Mercer

Public Involvement Meeting #3

Location: Stone Bridge Middle School, 1252 Yardville-Allentown Rd, Allentown, NJ 08501

Date: 4/29/2019

Time: 7:00 PM

Attendees: See attached

Meeting Notes

The project team conducted the third of three interactive public meetings slated for the Moving Mindfully: Monmouth/Mercer Study. This meeting sought to share with the public recommendations developed based upon the study findings. Over 40 participants attended the meeting. The sign-in sheet is attached below.

The meeting began with Project Manager Dave Schmetterer thanking the public for their input throughout the study. He then explained that each of study recommendations would need further work and analysis, but inclusion in this report provides the County and all the stakeholders a starting point for advancement. Dave then turned the meeting over to Jenn Grenier to provide the presentation of study recommendations. The presentation, which is currently available on the Movingmindfully.net website, discussed the following topics:

- Summarized study area issues identified at previous meetings
- Findings from the freight interviews
- Future No Build Level of Service
- Study area recommendations
- Level of Service related to recommendations

The presentation was followed by an interactive session where the project team took comments from the public and discussed the project and presentation in front of large format prints of the presentation material. Members of the public also submitted, or dictated written comments, including below.

Common themes in the feedback received include:

- Positive comments were received on signing, connections to the Union Transportation Trail, additional sidewalks, and new or improved pedestrian crossings.
- Many attendees supported the addition of a traffic signal at High Street and at Church Street at Main Street. Many attendees were also opposed to signalization of these intersections.
- There was a balance amount of attendee opposed to and in support of the Westerly Bypass.

- Many attendees supported slowing traffic down in the Allentown area.
- Improved signing was supported by the attendees.
- Some attendees believed the westerly bypass had been previously approved.
- Some attendees noted that traffic avoids congestion on Interstate 195 by going through Allentown.
- Several attendees requested Breza Road to be paved.

Moving Mindfully: Monmouth/Mercer

April 29th, 2019

Sign-In Sheet

Full Name	Affiliation	E-Mail
BARRY / LINDA JESSE	ALLENTOWN	LAB JESSE @ GMAIL . COM
AL MOTTOLA	UFT	alfredmottola@yahoo.com
JIM BOWERS	CITIZEN UFT	jt52403@verizon.net
Diva & Jim Conti	Upper Freehold	jconti@optonline.net
NANCY TINDALL	ALLENTOWN	ntindall@navardmanagement.com
BRIAN McGARRY	UFT	BRIAN.F.McGARRY@GMAIL.COM
LINDA Pontell	Allentown Upper Freehold	linda.pontell@gmail.com
Jeffrey Ploshay	Allentown NJ	ploshay@juno.com
Sandy Emley	Allentown	emleysj@gmail.com
STEVE MURPHY	UF	UFMURPH@YAHOO.COM
[illegible]	UF	[illegible]
Blythe Eaman	NJTPA	beaman@njtpa.org
[illegible]		
[illegible]	Mayor Upper Freehold	
Martha Johnson	Allentown	
[illegible]		
[illegible]		
DARIA JAKIMOWSKA	MC ENGINEERING	daria.jakimowska@co.monmouth.nj.us
E. SAULLO	Atown	

NJTPA wsp

Moving Mindfully:
Monmouth/Mercer

April 29th, 2019

Sign-In Sheet

Full Name	Affiliation	E-Mail
Joseph BARRIS	Mon Co. Planning	JoeBARRIS@co.monmouth.nj.us
Greg Westfal	Allentown Boro	gwestfal@allentownboro.com
Sue Jones	Allentown Boro.	
John Grabelle	Upper Freehold	
Clive DUTTON	ALLENTOWN	cdutton@outlook.com
Kyle Hughes	TSM Associates	
Doreen Rogers	UFT	DJ52403@verizon.net
ANTHONY GARAGUSO	UFT MCTC	
Matthew Carter	Allentown Traffic Committee	RCARTER@PDGUILD
Jerry Exley	Allentown	
Beverly F. DiBernardotto	Allentown	Beverly.fdi@gmail.com
Martha Playboy	Allentown	playboy@juno.com
BILL ALBAGH	Upper Freehold	
Joan Floyd	Allentown	unillo47863@aol.com
Bobb Kulpa	UFT	rmkulpa@uptonline.net
Brian McDonough	UFT	brianjmcdonough@yahoo.com
Jeremy D Postlusny	UFT	jeremypostlusny@me.com

Moving Mindfully: Monmouth/Mercer

Moving Mindfully: Monmouth/Mercer

April 29th, 2019

Sign-In Sheet

Full Name	Affiliation	E-Mail
Larron Stewart	MC Off Econ Dev	larronstewart@mercercounty[illegible]
JOHN ELDER	BORO COUNCIL -	JELDER@ALLENTOWNBORONJ.COM
Mike Zuppa	Resident (upper Freehold)	
[illegible]	Resident Allentown	[illegible]@yahoo.com
Tim Brill	NJ Conservation Foundation	tim.brill@njconservation.org
Bob Mayer	Resident	myr841979@aol.com
Jay Sudhakaran	Resident	JBS224@GMAIL.com

NJTPA wsp

Moving Mindfully:
Monmouth/Mercer

Your feedback is important to this study.
Please let us know of any comments, concerns, or questions you may have regarding freight related transportation within the study area.

Bike Path
VTT → Clayton Park along Johnson-Holmes

Great Idea! Al Mottola

You can mail your comments to:

David Schmetterer
C/O: Moving Mindfully
Monmouth County Division of Planning
One East Main Street 2nd Floor
Freehold, NJ 07728

http://MovingMindfully.net

Moving Mindfully:
Monmouth/Mercer

Your feedback is important to this study.
Please let us know of any comments, concerns, or questions you may have regarding freight related transportation within the study area.

- What happen to the Westerly Bypass?
- 30 Years ago was proposed/approved?
- Traffic from High St to S Main st destined West travel at high speeds.

You can mail your comments to:

David Schmetterer
- C/O: Moving Mindfully
Monmouth County Division of Planning
One East Main Street 2nd Floor
Freehold, NJ 07728

http://MovingMindfully.net

Moving Mindfully:
Monmouth/Mercer

Your feedback is important to this study.
Please let us know of any comments, concerns, or questions you may have regarding freight related transportation within the study area.

MANY TRUCKS ARE NOT OBEYING THE 35 MPH SPEED LIMIT ON WALKER AVE (ROUTE 526).
LACK OF SIDEWALKS MAKE THIS EXTREMELY DANGEROUS FOR PEDESTRIANS.
NOT ENOUGH LARGE COMMERCIAL VEHICLES ARE USING THE BYPASS.

You can mail your comments to:

David Schmetterer
C/O: Moving Mindfully
Monmouth County Division of Planning
One East Main Street 2nd Floor
Freehold, NJ 07728

http://MovingMindfully.net

Moving Mindfully:
Monmouth/Mercer

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Sees left turning lanes on Sharon Station road as not the best use of funds - only small amount of residents on this road

New Canton - Stone Tavern Rd & Sharon Station Rd ~~has~~ had incidents due to hill & sun glare & speeding on New Canton Stone Tavern Rd

You can mail your comments to:

David Schmetterer
C/O: Moving Mindfully
Monmouth County Division of Planning
One East Main Street 2nd Floor
Freehold, NJ 07728

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Moving Mindfully:
Monmouth/Mercer

Your feedback is important to this study.
Please let us know of any comments, concerns, or questions you may have regarding freight related transportation within the study area.

~~CTC~~ install crosswalk @ intersection of S Main & Rt 524

portion of S Main from Rt 524 to Ellisdale is lacking sidewalk

~~they~~ students don't like to cross at the intersection of S Main Street & 539. they cross over high street from the school to the church

* sees pedestrian safety signs being taken down
↳ not effective

intersection of Church & main - bump out crosswalk not feasible for trucks trying to make ~~the~~ turns and hop the curb - puts pedestrians in harms way

* likes the Westerly Bypass project

* trucks avoid traffic on 195 and use mainstreet

* bad intersection @ 524 & S main *

* limited street parking for funerals on S main (near 539)

likes
* weight limits on roads

You can mail your comments to:

David Schmetterer
C/O: Moving Mindfully
Monmouth County Division of Planning
One East Main Street 2nd Floor
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Moving Mindfully:
Monmouth/Mercer

Your feedback is important to this study.
Please let us know of any comments, concerns, or questions you may have regarding freight related transportation within the study area.

County Rd 524 off of
install sidewalk on road Stone Bridge Middle
been talked about for years, but no one ever
took initiative to pay for it the town and
the County - things put on hold due to church
problem is west bound - shoulder is extremely wide
students walk on the shoulder & people think its
a lane
incidents driving into the bridge
reconfigure the road and install sidewalk
-wouldn't want to move lane completely over because
soils aren't equip for heavy vehicles
-if anything - increased signage to show its
don't ~~give~~ just give frontage

Kurt & Terri Bolz residents on County Rd 524
Kurt.Bolz@verizon.net

You can mail your comments to:

David Schmetterer
C/O: Moving Mindfully
Monmouth County Division of Planning
One East Main Street 2nd Floor
Freehold, NJ 07728

http://MovingMindfully.net

Moving Mindfully:
Monmouth/Mercer

Your feedback is important to this study.
Please let us know of any comments, concerns, or questions you may have regarding freight related transportation within the study area.

* allentown is used as a Bypass -25 mph sign installed didn't help -concerned w/ ~~people~~ pedistrian incidents
↳ once a stronger presence from police
↳ resident on Church street
concerns that signs won't make them go slow

~~Supt~~ didn't recomend paving Breza from Church Street to 52nd
↳ has 4 county bridges Big $
Breza is graded occasionally do not expect it to ever get paved

Sidewalk project - unsure of its CDBG funding
something already completed corner of S Main St & Ellisdale Rd

You can mail your comments to:

David Schmetterer
C/O: Moving Mindfully
Monmouth County Division of Planning
One East Main Street 2nd Floor
Freehold, NJ 07728

http://MovingMindfully.net

Moving Mindfully:
Monmouth/Mercer

Your feedback is important to this study.
Please let us know of any comments, concerns, or questions you may have regarding freight related transportation within the study area.

Dump trucks are a nuisance.

Double parked on 195 sleeping 2x Parked by Valero too.

Bypass next to Reed Park - trucks all day.

Bad Driver behavior outside of trucks. Drivers yringing!

Extremely dangerous when people want to pass dump trucks - sometimes 6 in a row

Need another I-195 interchange.
Amazon is here post 195 int. decision.

Why route traffic past playgrounds?!

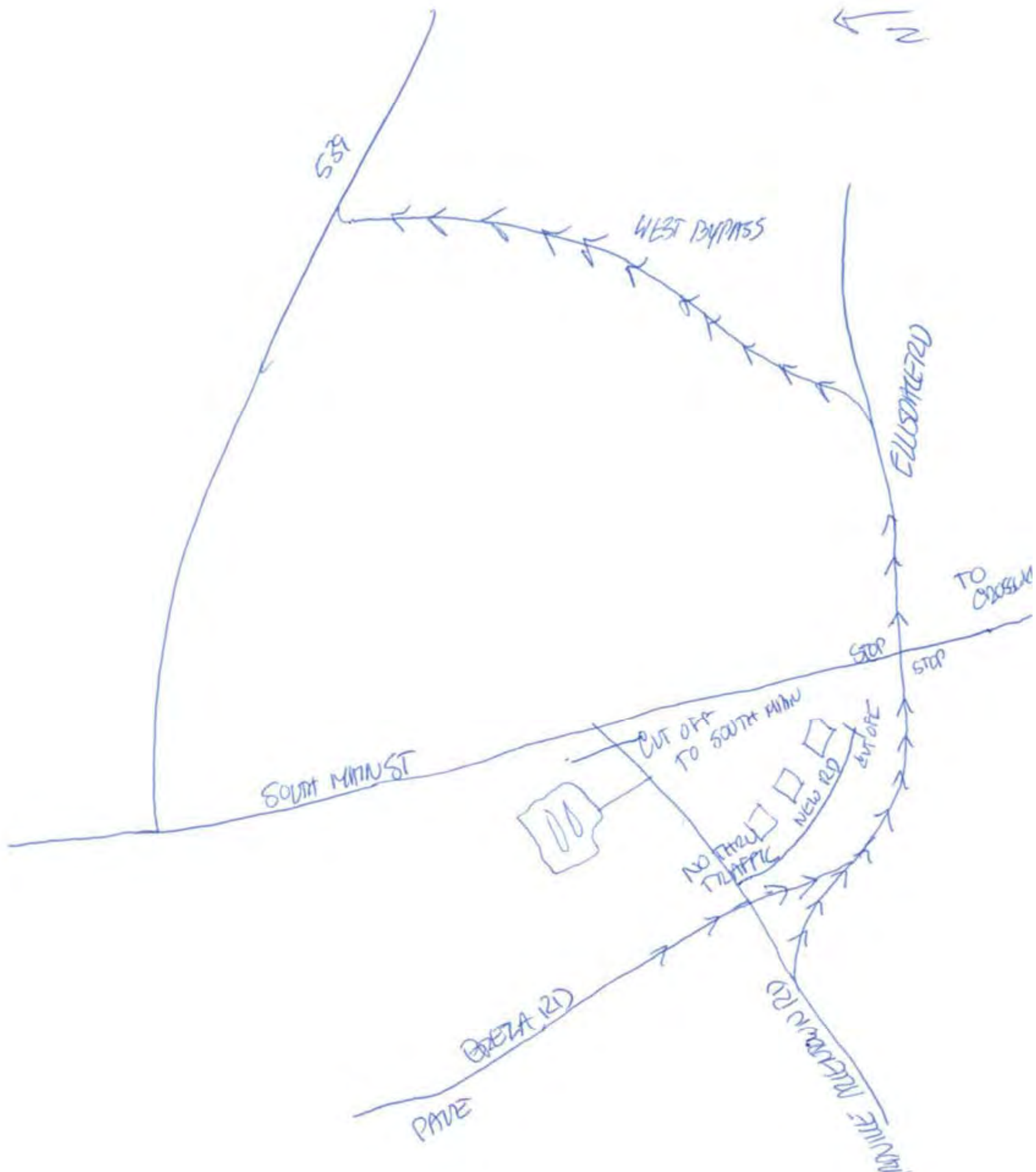
Safety!
Unbelievable Noise!

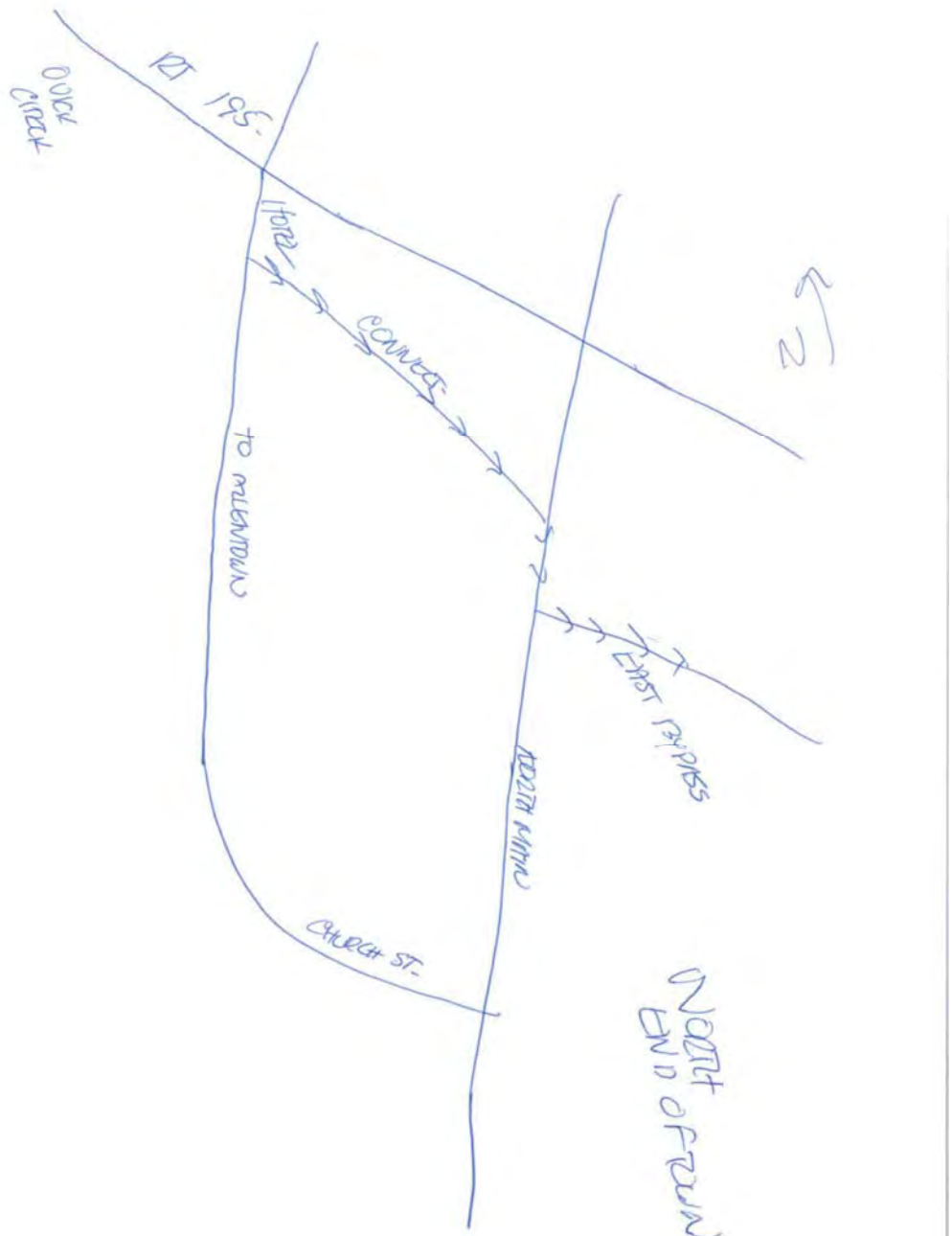
Holiday Rush
539 + 195 signal is packed.
6 - 7:30 AM
Traffic on Shoulder backed up on 195 East @ exit 8.

You can mail your comments to:

David Schmetterer
C/O: Moving Mindfully
Monmouth County Division of Planning
One East Main Street 2nd Floor
Freehold, NJ 07728

http://MovingMindfully.net


539
WEST BYPASS
SOUTH MAIN ST
STOP
STOP
CUT OFF TO SOUTH MAIN
NEW RD
NO THRU TRAFFIC
PAVE


RT 195 E.
DOVE CHURCH
HOPE
CONNECT
TO ALLENTOWN
EAST BYPASS
SOUTH MAIN
CHURCH ST.
NORTH END OF TOWN

April 29, 2019

The Allentown Traffic Problem

The undersigned has been writing letters to Allentown, Upper Freehold, Monmouth County, the Examiner, The NJTPA and others since the Easterly By-Pass was opened almost 15 years ago. I have attached photos and commentary which I have suggested since that time. Sorry to say none of these common sense suggestions have been seriously considered or put in place. Instead of a "truck ban" on church street, or modifications to curbing, roads, etc., why not tell the traffic where you want it to go. ie: let's fix the signs that should have been done when the By-Pass was opened. I would almost guarantee that many summer drivers headed down 539 to the shore points for years, do not even know that this By-Pass even exists. I think that replacing outdated signs might be a little costly but would be far, far less expensive than some of the suggestions others may have put forward. For 15 years all that's been done is a lot of talk and a lot of complaining, but as our beautiful and historic Allentown gets trampled on by pass-through traffic, we sit and do nothing.

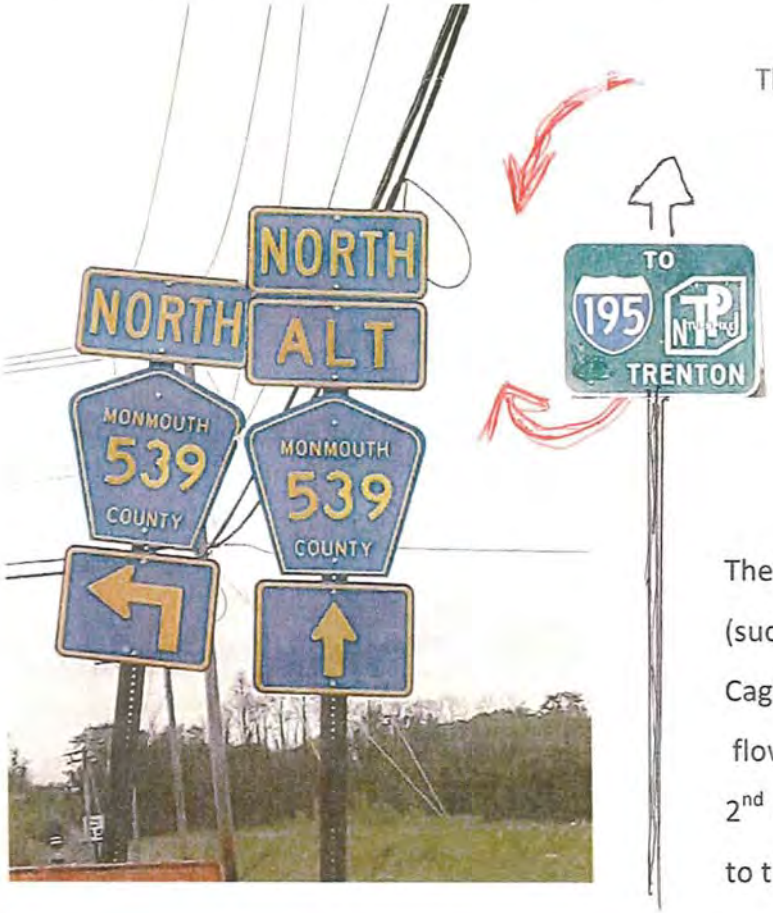
Jim Bowers

178 Ellisdale Rd, Allentown

609-709-0701

Attachments

Existing signs at Cream Ridge Golf Course (RT 539 Northbound)



This is the sign that is needed here

There needs to be signs for I-195 & NJ Turnpike (such as the ones at the corner by the Allentown Caging building on Rt 526) if you don't want traffic flowing through Allentown. And to this point, a 2nd or even 3rd Rt 539 Alt sign to guide motorists to the By-Pass does not exist.

Sign at Allentown Caging directing traffic to the By-Pass.

This sign should read "ROBINSVILLE" and Allentown should be eliminated. This sign should also have been changed upon the opening of the Easterly By-Pass.

I-195 Eastbound at Exit 7

These signs should read "EXIT 7- ROBBINSVILLE"

" EXIT 8 ALLENTOWN HIGHTSTOWN"

and should have been changed upon

the opening of Easterly By-Pass

Traveling westbound on I-195 the sign at Exit 7 says "Robbinsville / Allentown ". Allentown should also be taken off since you already passed Exit 8, why would you want any Allentown traffic to get off there?

This sign should be eliminated.

There are three of these signs on I-195 West before Exit 8.

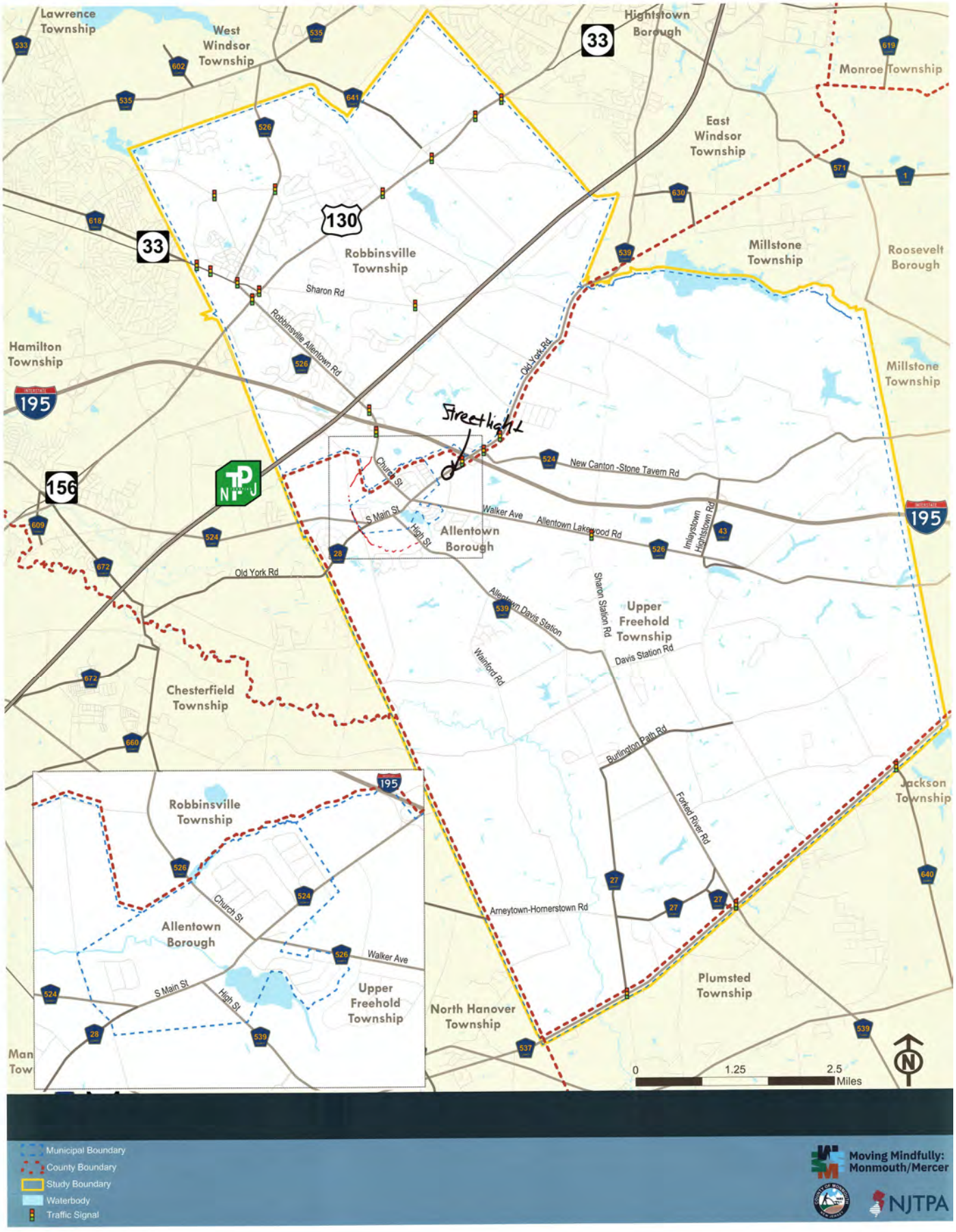
This is the sign you see when you get off at Exit 8.

Not a 539 sign to be found !

Allentown at entrance to Easterly By-Pass

"To 539 south" sign on 526 W By-Pass

These signs are not helpful to motorists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Streetlight
0
1.25
2.5
Miles
Municipal Boundary
County Boundary
Study Boundary
Waterbody
Traffic Signal
Moving Mindfully: Monmouth/Mercer
NJTPA

APPENDIX

A.9 FIRST RESPONDERS FOCUS GROUP

MEETING NOTES

PROJECT NAME	Moving Mindfully: Monmouth/Mercer
PROJECT NUMBER	52301
DATE	17 December 2018
TIME	10:00–11:30 am
VENUE	Allentown First Aid Station
SUBJECT	First Responder and Law Enforcement Focus Group
CLIENT	Monmouth County
PRESENT	See Attached Sign in Sheet

The project team is holding focus groups with residents and business people, freight professionals, and first responders and law enforcement in order to better understand travel conditions related to goods movement in Allentown, Robbinsville, and Upper Freehold (the study area). The goal of the focus groups is to gain input from these groups on their experience working in the study area **with regards to freight related activity**. For first responders and law enforcement, this may include responding to crashes or disabled commercial vehicles, responding to citizen complaints, enforcing traffic laws, observing traffic conditions in the study area, or other issues related to large vehicles moving through the area. For our project, we refer to this as "freight related activity".

The following is a summary of the discussion items in this focus group meeting.

- The time to a call can be an issue when truck has a crash or incident. For example, during one incident there was no way up Church Street due to truck with bales of hay (18 wheeler) that couldn't make the turn due to traffic. The truck needed to cross to other lane to turn at Church and Main and traffic in the opposing direction was not clear to do so. If there was a call in that area the First responders would not have been able to get up Church Street.
- The Bypass is only on one side of town. If the other side were put in place no one would go through town unless they were destined there.
- Breza road is too narrow for trucks and is a dirt road for some portions.
- Robbinsville leaving on 526 – the overpass for I 195 needs better signage. Many trucks miss the entrance to I 195 East Bound and West Bound then wind up downtown or in neighborhoods trying to turn around.
- The exit at interchange 7 on I-195 needs better signage
    - Trucks that should be on Applegate Drive are ending up in Allentown
    - Vehicles are not getting off onto Manor Way due to missing signs.

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wsp.com

MEETING NOTES

- In Upper Freehold there are many tractor trailer deliveries to houses. This seems to be common in the rural areas. Police noted that when they stop them to check on credentials or why they are there, most often they are for local deliveries
- Many trucks miss the Amazon entrance. Many of them must turn around and continue to 539. Trucks missing the Amazon entrance continue north onto 539, Police don't know how they get back to Amazon, but they must be entering a residential area to turn around
- Local police control the lights in the vicinity of the Matrix complex. The peak demand for this is less than 30 minutes for Amazon. They estimate that 90% of the traffic leaving gets on I-195. They also noted that the Matrix site has less employees now due to higher efficiencies in the warehouses.
- Comments on Allentown
    - Trucks utilize CR 539 to Allentown then head north on CR 524 instead of utilizing Sharon Station Road to CR 526 to the easterly bypass.
    - Many sand and gravel trucks come up from Southern Ocean County
    - Sharon Station is too congested therefore vehicles from Southern Ocean County take 539 to Allentown, as this is a faster route.
    - The demand seems to change with projects going on over the past 20 years. Demand is up when the economy is up. The travel pattern has not changed in the past 20 years.
    - There are at least five sand and gravel facilities on Lacey Road in Ocean County
    - There is one facility that has large Pre-Cast materials in Upper Freehold (Clayton). They use I-195
- Engine braking is biggest enforcement issue and complaint issue
- There are a lot of rumbling complaints
- Trucks use the bypass a lot
- Aggressive driving is sometimes an issue along with tailgating and speeding, however it is mostly Jake braking
- This is a farming community and as such our system needs to continue to accommodate them. The farmers tend to avoid peak times for travel. The only concern with them is they often mow down the pedestrian crossing signs.
- The light at Sharon Station Road and CR 526 backs up. The installation of left turn lanes would help this intersection a lot.
- Trucks are paid by the load, so they will go the most efficient route.
- Speeding
    - Officers noted that speeding is not really an issue in this study area.
    - The Officers noted that more often it is passenger/resident cars that are speeding than anyone else
    - Trucks are not primary offenders, it's the cars
    - They noted because trucks are large, they are perceived to be going faster.
- The left turn issues got better once the Matrix site started running split work shifts
  Accidents at Ellisdale and S. Main Street are an issue. They noted that no one stops while crossing Ellisdale. There was an improvement there, but as far as traffic issues go it only provided a slight improvement but it is still bad.
- At Main and Church Street, four (4) girls were hit in the crosswalk with no major injuries. The girls assumed the people would stop. The person making the left bumped them.
    - It is hard to see due to parking at Church and Main Streets. It is very hard to get across street, and very hard to see as a pedestrian
- There is lots of biking in area; teams of bikes is an issue in the summer.
    - They travel in packs of 10-20 people
    - Some others are single stream riders
    - Some ride 4-5 wide
    - Cyclist take 641 then cross down to Windsor Road (crossing 130)
    - They hang out at the bike shop Woody's
- There is a detour around town to hold all pedestrian events in fall and summer. They shutdown from Church and Main to High Street
- Parking discussion focused on Church St parking, the road is very narrow and most parkers have to push in their mirrors.
- Overall it was noted that the problem with trucks and speeding is perceived not real, inconvenience is the issue
- Robbinsville Police run the lights for the Matrix site shift changes
    - AM 4-8 6 – 6AM shift change – 6:10 AM is the only back up
    - PM 3-7
- In Allentown parking is an issue – Hard to get trucks down the roads and cars with on street parking.
- Issues that should be addressed are the Lefts from Church to Main and from High to S. Main.
    - Can we eliminate them? Restrict them at peak times? Provide a light?

  - Back-ups in the Summer and Friday nights - Volume is the issue
  - Due to it being an historic town many are against traffic lights
- There is a lot of growth coming up from the Shore along CR 539 - that area is growing
- Build the westerly bypass - High School near Breza Road – would help downtown Allentown
- The team asked about installing flashing crosswalks.
  - The first responders are for it, but noted that people are against it due to historic nature of downtown.
- The team asked about installing bump outs at intersections.
  - The first responders noted that this would be find as long as Fire trucks could make the turns
- The team asked about installing speed tables at intersections.
  - The first responders noted that this would not work downtown
- It was suggested that we add an additional pedestrian crossing on North Main Street – Anywhere in town in the 25-30 mph zone
- The two primary suggestions for improvements from the First Responders were:
  - Better signage from Allentown to I 95
  - No Left on Church and Main
- Other notes:
  - It was noted at the public meeting that there is an issue when leaving the school crossing the bridge. The bridge suddenly has two lanes and drops to one, which confuses motorists.
  - Pave Breza Road in Hamilton - Would need to widen road and remove ditches if were to pave

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Project: MONMOUTH COUNTY

Project#: Sheet#: of Scale:

Calculated By: Date: Checked By: Date:

Office Submitted By: Date:

Engineers | Planners | Surveyors | Landscape Architects | Environmental Scientists

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APPENDIX

A.10 RESIDENTS AND BUSINESS OWNERS FOCUS GROUP

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MEMORANDUM

Moving Mindfully Monmouth / Mercer
Comprehensive Freight Related Traffic Study

Public Representatives Focus Group

April 24, 2019
MC Project No. 18000226A

A meeting was held with area residents of the three (3) municipalities in the study area, Allentown Borough, Upper Freehold Township and Robbinsville Township, in all there were 6 attendees.

A presentation was made by Jenn Grenier, from WSP and a discussion ensued as to various options to address traffic. The following is a brief overview of the discussion highlights:

Traffic Calming:

Slides presented a variety of Traffic Calming techniques, and particular interest was shown in:

1. Gateway treatments possibly within a median area. Ideas such as pillars or a clock were discussed
2. Raised pedestrian crossings
3. Curb Extensions for more visibility and shorter crossing distances
4. Speed Limit signage

The attendees spoke about excessive truck speeds through the area, that there are not good pedestrian crossings in many locations, and that the addition of visual Q's (signage) should help to slow traffic down.

Alignment

Slides showed how a cartway can be striped in a way that would slow traffic by narrowing the drive lanes, and possibly providing a shoulder area of 3". There was discussion of providing middle turn lanes and or possibly just middle lane striping as methods.

There was much discussion about the fears of vehicles attempting to pass when there is traffic and the possibility of collisions. Also discussed was the ability of residents to get out of their driveways on a left turn.

At some areas outside of the downtown, the use of a center island might be effective. Examples are Route 524 west of Breza Road, where it was noted that there was an exceptionally large paved cartway, and on Allentown Lakewood Road (Route 526) west of Sharon Station Road. While there may be other locations these two were discussed.

Intersections:

With regard to intersections, 3 main topics were reviewed:

1. ADA ramps and crossings at intersections as a means of traffic calming, pedestrian visibility and ADA accessibility. Various methods were reviewed, including raised walkways, raised table intersections with flush walkways, etc.
2. The second idea has to do with alignment and the creation of designated left turn lanes. This was discussed regarding the future improvements to the intersection of Sharon Station Road heading north with a designated turn lane at Allentown Lakewood Road (Route 526) heading west. There was also reference made to correcting alignments at locations on Old York Road.
3. A third intersection idea was reviewed, the creation of roundabout's with mountable curbs for larger vehicles. This design is being increasing used as a means of traffic calming at intersections and has the ability to be adapted to a number of differing applicable areas.

Bike / Pedestrian Improvements

The residents expressed concern about the ability of bicyclist to safely navigate portions of the study area and make connections to regional off-road trail networks such as, The Union Transportation Trail located on Allentown Lakewood Road (Route 526) just east of Sharon Station Road.

The pedestrian portion spoke about the need for Safe Routes to Schools, in particular the area of South Main Street from Bridge to Alexander (?) Road, as the most pressing issue.

Signage

Signage ideas were presented to improve identification for potential destination, intersections and roadways, making the entire area more accessible to drivers and truckers not familiar with this particular region of central New Jersey.

Larger signs possibly high in elevation were shown to be proposed along major routes.

Discussion of providing a more organized sign system that would alert drivers of up coming entrances and exit ramps, while also looking at ways to help those lost with alternative routing.

This idea could be provided in conjunction with Roundabouts as a means of redirecting traffic to appropriate routes.

The idea of painting directional lanes with wording on the actual roadways approaching 195 and 95 was proposed as a means of helping trucks get into the correct lanes.

Other items discussed were

1. Better communication between the local residents, municipalities and those entities related to freight in the immediate area.
2. The revisiting of the desire for a western Bypass in the area of the high school.
3. The desire to look at past ideas related to exits, including the previous proposed Exit 9 on 195.

Moving Mindfully: Monmouth/Mercer

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APPENDIX

A.11 FREIGHT INTERVIEWS

MEETING NOTES

PROJECT NAME	Moving Mindfully: Monmouth/Mercer
PROJECT NUMBER	52301
DATE	06 December 2018
VENUE	Phone Call
SUBJECT	Call with NJ Motor Truck Association(NJMTA)
CLIENT	Monmouth County
PRESENT	Jenn Grenier (WSP), Gail Toth (NJMTA)

The project team plans to hold interviews with freight professionals in order to better understand travel conditions related to goods movement in Allentown, Robbinsville, and Upper Freehold (the study area). The goal of the interview is to gain input on freight related activity in the study area. In order to determine the most effective method of reaching the freight community and to ensure we are reaching the appropriate persons within the community, Jenn Grenier contacted Gail Toth of the NJ Motor Truck Association (NJMTA).

Jenn explained to Gail the concerns raised by the public related to truck travel through and around the study area and our interest in reaching out to the appropriate people in the trucking community to better understand the travel patterns and choices. Gail noted the following:

- Dump trucks
  - tend to be independent operators who are hired by landscapers, private companies or construction projects. They many times pick up from quarries to deliver to the customers. As such to determine their traffic patterns the team would need to contact the quarries in the area to find out who the customers are than contact them to get information on who they hire.
  - One option to get travel information on truck patterns is to complete a stop and O&D survey. This is not preferred by Gail as it is inefficient for the trucking community and it is often difficult to locate a safe space to do the survey.
  - Those customers who hire independent contractors can require the driver to take a specific route. It is unlikely companies would enforce this.
- Warehouse Trucks
  - Best person to contact is the person "routing the freight". This can be dispatch, traffic or logistics department depending on the warehouse.
  - Not all truck drivers use Freight GPS as it has an extra cost.
  - If trucks are on downtown roads it is for local delivery or because they are lost. Many drivers are members of national fleets so they may not know the area. None of them want to be on downtown roads.
  - One solution is to educate the drivers on the routes to take. She believes that if we provide materials (like a map) the warehouses would get them out to drivers. They would even print them themselves, in her opinion, because they want to be good neighbors and they want to be efficient.
  - They may even put up internal site signing to clarify routes.

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  - If we and identify the name on the truck, NJMTA will see if they are members. If they are they will give us contact information so that we can speak with them on the study area.
- Parking
  - Gail noted that even if not part of our study, parking is an issue for all trucks.
  - Some drivers get stuck for days waiting to pick up freight and need to find a place to park. Many times they are on non-interstates is when they are looking for parking.
  - If warehouse sites provide parking that would help.
- Perception of Trucks
  - Trucks now put out cleaner air than they take in
  - Since 1994 they have had to have no negative emissions.
  - All 2010 trucks have .001 NOx and .001 PM. Many have APU's (auxiliary power engines) so that often the engine is not even on.
  - Most companies are switching or upgrading to cleaner and quieter fleets because they are also more efficient.

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MEMORANDUM

Moving Mindfully Monmouth / Mercer
Comprehensive Freight Related Traffic Study

Industrial Haulers and Businesses in the area

March 19, 2019 (Rev. 3-27-19)
MC Project No. 18000226A

Maser contacted the Industrial Suppliers in the area and received the following input so far:

Clayton Concrete, Cookstown:

Spoke with the office manager, they are part of a larger corporate entity under Ralph Clayton and Sons, 1215 E. Veterans Highway, Lakewood, NJ, and he suggested that we contact them directly.

He was willing to discuss and provide the following:

1. They are a regional concrete supplier that depending on area building trends delivers to many job sites, no area being more concentrated than any other.
2. They are aware of the situation through Allentown and discourage their drivers from going through the downtown area.
3. They have met with local officials over the years to both hear concerns and discuss ways to mitigate them
4. They can track their trucks with GPS.
5. They have noticed an increase in trucks heading toward this direction with the building projects, both housing and industrial.

The Clayton facilities in the area are all part of:

Clayton Ralph & Sons, 1215 E Veterans Hwy, Lakewood Township, NJ 08701 (732) 370-2222
President: Doug Clayton (732) 905 – 3170
Company Engineer: Gordon Milnes (732) 751 – 7605 gmilnes@claytononline.com

I spoke with Gordon directly and he stated the same, that drivers were strongly discouraged to enter Allentown, and he was going to see if there was something in the company manual to this effect that he could provide. I email the questionnaire to him and am waiting to hear back.

Excavating Materials and Equipment (EME)
EME, Inc.
849 Route 539
New Egypt, NJ 08533
P: 609-758-3400
F: 609-758-5545

EME is a bulk supplier of stone, topsoil and other materials mostly suppling to the Commercial Contractors in the area, he referenced deliveries for larger projects like the Turnpike.

Spoke with Keith the owner of the company and he stated emphatically that they do not allow their trucks to enter Allentown. The alternate route of 534 to Sharon Station Road to 539 is used to avoid the town.

He did state that he has noticed that the are larger semi-trucks in the downtown area and that he has seen them using Gordon Road trying to get to Route 130.

Mershon Concrete:
5251 US Rte. 130
Bordentown, NJ

Spoke with Pat Gruber, a Principal at Mershon Concrete who explained that they were aware of the situation with Allentown and that:

1. Mixed concrete being a time sensitive material is allowed by law to take the quickest route to job locations while being mindful of weight restrictions on bridges and certain roadways
2. They have their own drivers and trucks
3. They need to be able to access any delivery location.
4. The busiest times are between 8 AM -12 during the summer months

Having been a former planning board member he was knowledgeable about the regulations and discussed that often the local police are not aware of some of the rules. He also stated that they knew that the freight haulers using the Robbinsville facilities are often out of state and not aware of the local road systems, and that improved signage along the Route 195 corridor would be helpful.

Pre-Cast Systems:

Sharon Station Road, Allentown

1. Spoke with Rob DeMaio, the Plant Engineer, He stated that due to the length of their delivery trucks, any where from 48' to a max. 150' beam, they do not ever go through Allentown.
2. Their trucks are on the road by 6:30 AM so they do not cause extra traffic.
3. The trucks a routed to take 526 East to Exit 8 of 195, always.
4. He noted that there are a lot of trucks hauling materials that come by their site on Sharon Station Road, which would seem to corroborate what the Clayton Dispatchers had said.
5. Other comments were that he noted if you are traveling from the west on 195 and you put their location on Sharon Station Road into the GPS, it will direct you to get off at Exit 7 and go through Allentown to get to Sharon Station Road, instead of the easier route of getting off at Exit 8 and slightly backtracking.
6. They get many deliveries from UPS, which he thinks is in Hamilton / Trenton area and Fed Ex, which is in Lawrence Township, and he suggested that it may make sense to reach out to them. More box truck type of vehicles so I am not sure how impactful they are.
7. He also stated that over time (they have been at this location 25 years, and he has been with them 16 years) that there has been a noticeable increase in vehicular traffic.

Capital Forest Products
177 County route 526
Allentown, NJ

Spoke with George the Warehouse Manager, they are a lumber wholesaler.

His comments were:

1. Their deliveries are done by 3rd party haulers and they are a regional shipper of lumber. They do not make local deliveries at all and only have an average of 3-4 trucks a day accessing or leaving their property.
2. They are located past downtown Allentown between Exits 8 and 11 of 195 east, and therefore direct their suppliers and deliveries to use either Exit 8 or an easier route by using Exit 11. They do not refer anyone to Exit 7 or through Allentown.
3. He did state that every now and again a truck may get off of 195 too early (Exit 7), being fooled by the sign for Allentown.

Kube-Pak
194 County Road 526
Allentown, NJ

I left a message for the owner: John Swankamp asking him to call.

I understand from the woman who I spoke to in the office that as a commercial grower this is their busiest time of the year, and that they a shipping and loading many trucks every day, but that most if not all of their deliveries were heading out of state and south through use of 195 to the Turnpike.

Trap Rock Industries

Spoke with a woman who oversees operations:

1. They are a hot mix asphalt plant.
2. They do not have trucks or drivers, and it is a pick-up operation for General Contractors, Paving Contractors, Municipalities, Counties and Public Works Departments.
3. If they deliver it is through private haulers.
4. They do not know where the materials go
5. They have local plants in Bordentown, Mount Holly and Kingston that supply the area.
6. Their business hours are 7-3 M-F from early May to October.

Also spoke with a Joe Crowbeck who provided the following information:

1. As noted, Trap Rock does not own any delivery trucks but supplies materials to haulers throughout the area. He stated as other have that where development is taking place, in particular the warehouses, like in Robbinsville, these large footprints require an enormous amount of stone and other base materials.
2. With regards to routing, most of the haulers are paid by the tonnage, therefore the more loads that they can pick up and deliver the more money they can make, which may determine the most direct or quickest route between the supplier and the job.
3. The supply of materials like asphalt is seasonal.
4. Jake Braking, while annoying, is interpreted as a safety feature on trucks by the NJDOT, therefore can not be regulated by local ordinance.

MMMM Freight Study Information

Based upon the information provided by Patricia Brown, a local resident and Co-Chair of the Allentown Traffic Committee in an email dated March 22, 2019 to David Schmetter, of the Monmouth County Planning Department, additional research was conducted.

Of the list of haulers provided below:

1) AD Transportation, 2) MARCO Trucking, 3) Mercury Trucking, 4) HAS Trucking, 5) BABA Logistics, 6) MK Century Transport (Levittown, PA), 7)Typhoon Trucking, 8) YKO Trucking, 9) Gino TKR Co., 10) KAYA Trucking, 10)Mazza Trucking, 11) RL Transportation, 12) P & T Trucking, 13) GMP Trucking (Levittown, PA!), 14) M & M Trucking, 15) Pichy Transport, 16) A. C. Hesse, 17) R J Hicks Inc., 18) Ellis Trucking, 19) W O Petit-Clair, 20) L B Trucking, 21) Willy Trucking.

We were able to locate information on some but not all*:

A.	A. C. Hesse, Toms River along Route 9 (Ocean County)	5 Trucks and Drivers
B.	Marco Trucking, Palmyra, NJ (Burlington County)	2 Trucks and Drivers
C.	MK Century Transportation, Levittown, PA	7 Trucks and Drivers
D.	A M Petit Claire Services, Allentown, NJ on Route 539 (Monmouth County)	1 Truck and Driver
E.	Kaya Trucking, Bordentown, NJ (Burlington County)	2 Trucks and Drivers
F.	R J Hicks, Inc., Hightstown, NJ (Mercer County)	2 Trucks and Drivers
G.	L B Trucking, Sayreville, NJ (Middlesex County)	1 Truck and Driver
H.	BABA Logistics, Edgewater Park, NJ (Burlington County)	1 Truck and Driver
I.	T & P Trucking, Blackwood, NJ (Camden County)	17 Trucks and Drivers

I was able to speak to a few of the companies, MK Century and T & P Trucking, and both operators stated that they do drive through this area maybe 2 times a week depending on their jobs. They are either coming from the suppliers south of Allentown and heading toward the Trenton region, or as was stated by MK, they have in the last years been hauling rock north on 130 to the expanded Amazon distribution center in Robbinsville, through a contract with the paving supplier, Broadway Paving.

MK Century spokesperson, Mustafa stated that they are aware of the situation in the area around Allentown and do not go that way more than is necessary. He also stated that they see the semi trucks getting lost in this area and recommended that there be better signage and that the truck drivers be supplied with maps by the warehouses.

Another observation is that many of the haulers listed above are smaller operations, 1 or 2 trucks and drivers, that when needed get mobilized by a larger hauler like MK or Broadway Paving, and this may be why there seems to be a plethora of trucks during particular times of differing companies, many headed to the same destination.

Also, as can be seen from the list, the haulers are coming from and going to all differing destinations which at times just happen to go through Allentown / Robbinsville.

- Information of Trucking Companies from the site listed below
  https://www.quicktransportsolutions.com/carrier/newjersey/

APPENDIX

A.12 TRAFFIC MEMORANDUM

Moving Mindfully: Monmouth/Mercer

COMPREHENSIVE FREIGHT RELATED TRANSPORTATION STUDY

TRAFFIC COUNTS MEMORANDUM

MARCH 26, 2019

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TABLES

FIGURES

1 TRAFFIC DATA

1.1 TRAFFIC COUNTS

For this project traffic count data was collected from different sources including previous studies and reports, and the New Jersey Department of Transportation traffic count collection program. Traffic data dates back as early as 1992 and as recent as 2017. The project team gave priority to the most recent traffic data available with no adjustments for the time of year. As such, data was utilized primarily from 2016 and 2017 with a few locations utilizing data from 2014 or 2015.

Data sources include Automatic Traffic Recorder (ATR) counts, ATR counts with classification, and manual Turning Movement Counts (TMC). ATR counts are conducted using tubes, attached to counting machines, that capture volume along a roadway for as long as the machines are in place which is usually one week. Volume is generally grouped in 15 minute intervals to allow for the evaluation of a variety of travel patterns through the day or week. The ATR Class counts include the classification of vehicles as defined by the guidelines created by the Federal Highway Administration (FHWA). These classifications include passenger cars, small trucks, large trucks, motorcycles, and buses. Manual turning movement counts are typically completed at intersections to capture turning movements. They are generally completed for 8 hours to capture the morning, midday and evening peak periods, and might include passenger cars, small trucks, large trucks, motorcycles, buses, bicycles and pedestrians.

Data utilized in this study was obtained from Monmouth County Traffic Engineering and included ATR classification counts and Manual Counts. Other traffic counts were collected from the New Jersey Department of Transportation (NJDOT) Traffic Monitoring Program, and Maser Consulting. Some of these counts included ATR with no classifications. For a few locations, where ATR counts were not available, turning movement counts were used.

Error! Reference source not found. below depicts the traffic counts utilized and their corresponding location ID while Table 1 highlights the count location, month, and year of the count dataset.

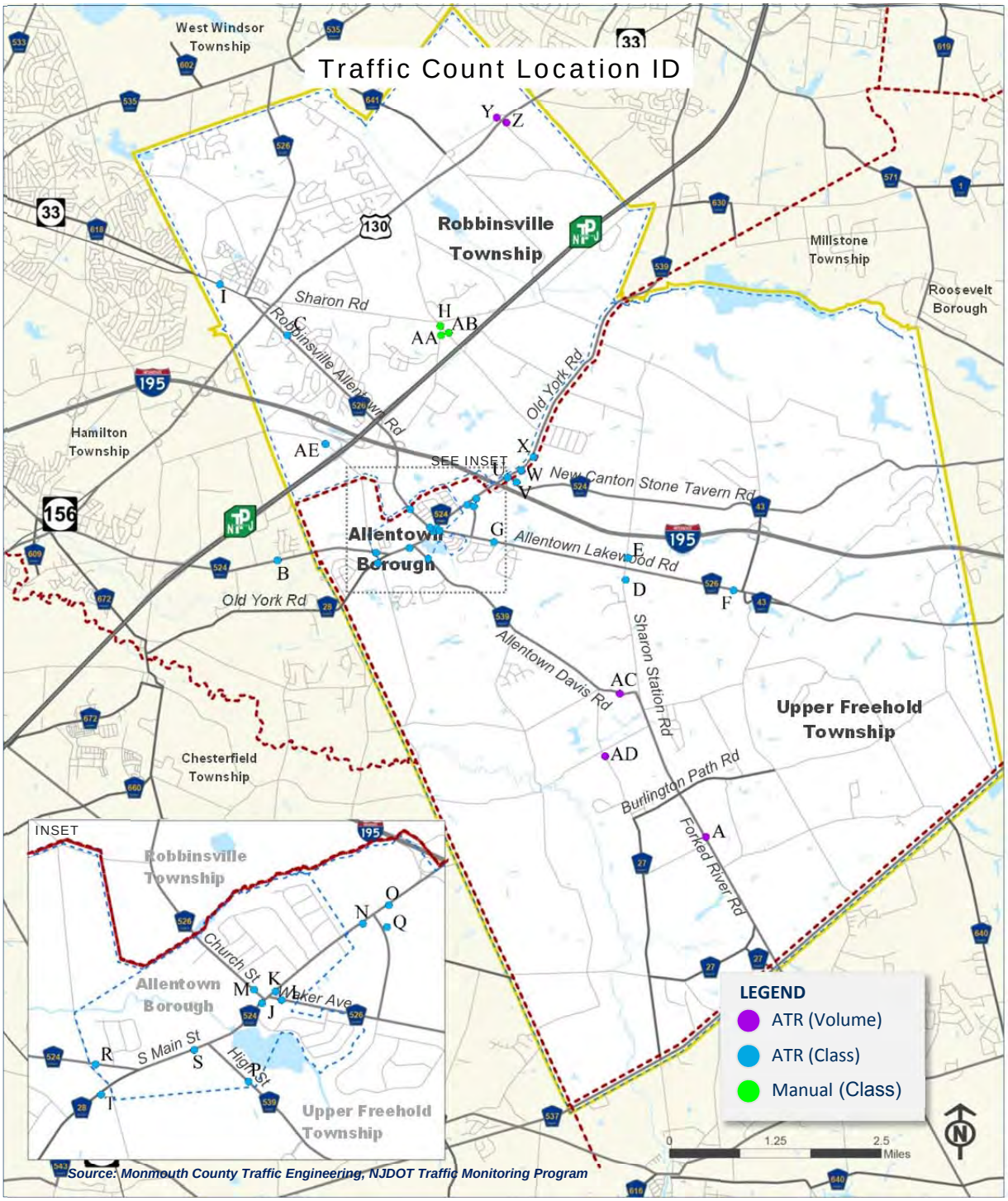


Figure 1 Traffic Count Location ID

Table 1 Traffic Count Locations

Traffic Count Locations			
Location ID	**Roadway**	**Month**	**Year**
A	Forked River Rd (CR 539) between Burlington Path Rd and Schoolhouse Rd	Apr	2016
B	Yardville-Allentown Road (CR 524) between Merrick Rd and Drialo Dr	Aug	2017
C	Robbinsville Allentown Rd between US 130 and Vahlsing Way	Jun	2017
D	Sharon Station Road south of CR 526	Nov	2014
E	Sharon Station Road north of CR 526	Nov	2014
F	Allentown-Lakewood Rd (CR 526) east of Sharon Station Rd	May	2016
G	Allentown-Lakewood Rd (CR 526) between CR 526 Spur and Galloping Brook Dr	May	2016
H	Gordon Rd north of W Manor Way	Dec	2015
I	NJ 33 / CR 618 west of CR 526	Sep	2017
J	N Main St (CR 524) west of CR 526 (Church St)	Apr	2017
K	N Main St (CR 524) east of CR 526 (Waker Dr)	Apr	2017
L	Waker Dr (CR 526) south of CR 524 (N Main St)	Apr	2017
M	Church St (CR 526) north of CR 524 (N Main St)	Apr	2017
N	Old York Rd (CR 524) east of Probasco Dr	May	2017
O	Old York Rd (CR 524) east of CR 526 (Easterly Bypass)	May	2017
P	High Street (CR 539) south of CR 524 (S Main St)	May	2017
Q	Easterly Bypass (CR 526 Spur) south of CR 524 (Old York Rd)	May	2017
R	Yardville-Allentown Rd (CR 524) east of Breza Rd	May	2017
S	S Main St (CR 524) west of CR 539 (High St)	May	2017
T	Old York Rd (CR 28) west of CR 524 (Yardville-Allentown Rd)	May	2017
U	Old York Rd (CR 539) south of CR 524 (New Canton Stone Tavern Rd)	Nov	2017
V	New Canton Stone Tavern Rd (CR 524) east of CR 539 (Old York Rd)	Nov	2017
W	Old York Rd (CR 539) north of CR 524 (New Canton Stone Tavern Rd)	Nov	2017
X	Old York Rd (CR 539) north of Montgomery Dr	Nov	2017
Y	N Main St south of Voelbel Rd	Aug	2016
Z	US 130 north of Voelbel Rd	Aug	2016
AA	W Manor Way	Dec	2015
AB	Gordon Rd south of W Manor Way	Dec	2015
AC	Allentown Davis Station Rd (CR 539) between Sharon Station Rd and Holmes Mill Rd	Nov	2016
AD	Holmes Mill Rd between Walnford and Burlington Path Rd	Mar	2017
AE	Edgebrook Rd between NJ Turnpike (I-95) Overpass and Richardson Rd	Oct	2017

Source: Monmouth County Traffic Engineering, NJDOT Traffic Monitoring Program

1.1.1 TRAFFIC COUNTS BY TIME PERIOD

Table 2 Morning Peak Hour Volumes

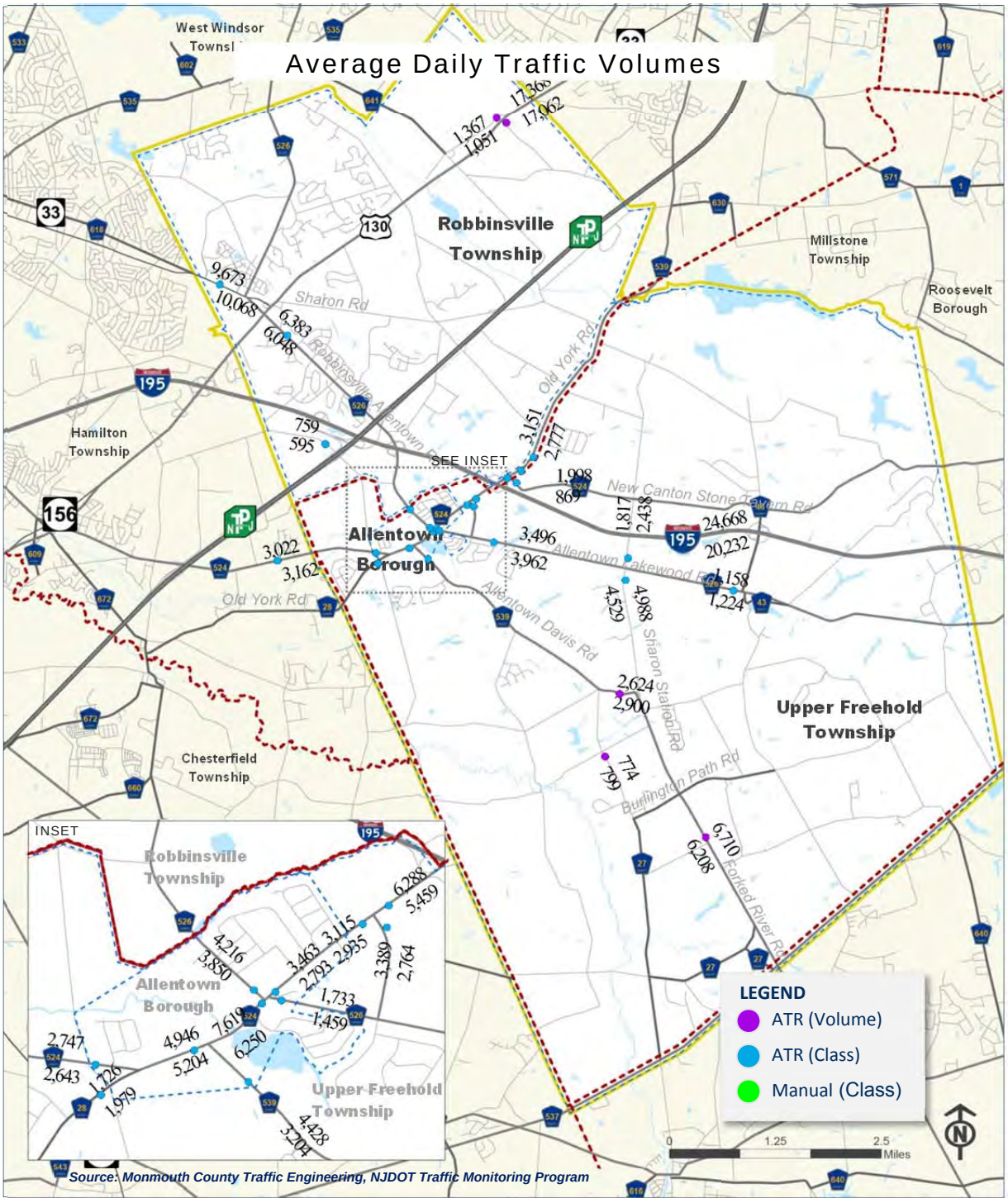
Average Morning Peak Hour Traffic Volumes										
Location ID	All vehicles (Cars, Motorcycles, Buses, and Trucks)		Trucks				% Trucks			
			2 Axle		3+ Axle		2 Axle		3+ Axle	
	N/E	S/W	N/E	S/W	N/E	S/W	N/E	S/W	N/E	S/W
A	928	230	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B	148	319	5	8	1	1	3.4%	2.5%	0.7%	0.3%
C	243	723	11	16	5	5	4.5%	2.2%	2.1%	0.7%
D	688	170	26	18	26	16	3.8%	10.6%	3.8%	9.4%
E	388	83	26	3	1	1	6.7%	3.6%	0.3%	1.2%
F	57	117	6	5	5	4	10.5%	4.3%	8.8%	3.4%
G	181	405	18	16	14	32	9.9%	4.0%	7.7%	7.9%
H	43	274	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
I	651	812	27	17	8	7	4.1%	2.1%	1.2%	0.9%
J	534	367	11	5	12	3	2.1%	1.4%	2.2%	0.8%
K	207	258	5	4	1	3	2.4%	1.6%	0.5%	1.2%
L	202	77	3	3	0	1	1.5%	3.9%	0.0%	1.3%
M	449	121	7	3	1	2	1.6%	2.5%	0.2%	1.7%
N	220	223	5	7	2	5	2.3%	3.1%	0.9%	2.2%
O	481	416	12	16	18	26	2.5%	3.8%	3.7%	6.3%
P	543	99	9	6	2	5	1.7%	6.1%	0.4%	5.1%
Q	269	202	6	9	18	24	2.2%	4.5%	6.7%	11.9%
R	196	332	8	5	4	2	4.1%	1.5%	2.0%	0.6%
S	465	393	12	9	8	4	2.6%	2.3%	1.7%	1.0%
T	190	77	3	3	2	1	1.6%	3.9%	1.1%	1.3%
U	714	512	14	23	25	20	2.0%	4.5%	3.5%	3.9%
V	36	302	2	13	2	3	5.6%	4.3%	5.6%	1.0%
W	829	335	19	15	30	25	2.3%	4.5%	3.6%	7.5%
X	286	235	9	9	11	5	3.1%	3.8%	3.8%	2.1%
Y	75	140	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Z	1,273	1,129	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AA	162	40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AB	34	387	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AC	197	185	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AD	89	30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AE	24	80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Source: Monmouth County Traffic Engineering, NJDOT Traffic Monitoring Program

Table 3 Evening Peak Hour Volumes

Average Evening Peak Hour Traffic Volumes										
Location ID	All vehicles (Cars, Motorcycles, Buses, and Trucks)		Trucks				% Trucks			
			2 Axle		3+ Axle		2 Axle		3+ Axle	
	N/E	S/W	N/E	S/W	N/E	S/W	N/E	S/W	N/E	S/W
A	380	816	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B	451	197	6	3	2	0	1.3%	1.5%	0.4%	0.0%
C	705	490	10	10	3	5	1.4%	2.0%	0.4%	1.0%
D	285	565	22	53	18	13	7.7%	9.4%	6.3%	2.3%
E	139	270	9	11	2	1	6.5%	4.1%	1.4%	0.4%
F	149	84	3	3	0	1	2.0%	3.6%	0.0%	1.2%
G	446	239	11	7	4	16	2.5%	2.9%	0.9%	6.7%
H	154	319	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
I	996	799	15	7	2	5	1.5%	0.9%	0.2%	0.6%
J	504	694	11	8	4	2	2.2%	1.2%	0.8%	0.3%
K	268	362	7	8	2	6	2.6%	2.2%	0.7%	1.7%
L	160	148	3	2	1	1	1.9%	1.4%	0.6%	0.7%
M	281	349	10	6	1	2	3.6%	1.7%	0.4%	0.6%
N	262	312	8	5	2	2	3.1%	1.6%	0.8%	0.6%
O	405	589	14	13	20	7	3.5%	2.2%	4.9%	1.2%
P	346	315	8	18	4	2	2.3%	5.7%	1.2%	0.6%
Q	184	354	8	13	20	8	4.3%	3.7%	10.9%	2.3%
R	340	204	10	5	3	1	2.9%	2.5%	0.9%	0.5%
S	536	470	12	9	8	4	2.2%	1.9%	1.5%	0.9%
T	173	200	5	3	2	1	2.9%	1.5%	1.2%	0.5%
U	546	730	9	26	20	22	1.6%	3.6%	3.7%	3.0%
V	100	151	6	10	0	0	6.0%	6.6%	0.0%	0.0%
W	548	707	14	20	19	25	2.6%	2.8%	3.5%	3.5%
X	214	311	6	21	1	3	2.8%	6.8%	0.5%	1.0%
Y	109	97	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Z	1,306	1,543	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AA	179	48	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AB	73	369	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AC	219	272	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AD	60	91	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AE	72	55	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Source: Monmouth County Traffic Engineering, NJDOT Traffic Monitoring Program



Source: Monmouth County Traffic Engineering, NJDOT Traffic Monitoring Program

Figure 2 Average Daily Traffic Volumes (All Vehicle Types)

Table 4 Average Daily Traffic Volumes

Average Daily Traffic Volumes										
Location ID	All vehicles (Cars, Motorcycles, Buses, and Trucks)		Trucks				% Trucks			
			2 Axle		3+ Axle		2 Axle		3+ Axle	
	N/E	S/W	N/E	S/W	N/E	S/W	N/E	S/W	N/E	S/W
A	6,710	6,208	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B	3,162	3,022	55	50	20	13	1.7%	1.7%	0.6%	0.4%
C	6,048	6,383	118	146	63	73	2.0%	2.3%	1.0%	1.1%
D	4,988	4,529	285	478	372	213	5.7%	10.6%	7.5%	4.7%
E	2,438	1,817	217	85	21	15	8.9%	4.7%	0.9%	0.8%
F	1,224	1,158	80	73	40	37	6.5%	6.3%	3.3%	3.2%
G	3,962	3,496	190	179	211	333	4.8%	5.1%	5.3%	9.5%
H	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
I	10,068	9,673	230	180	73	96	2.3%	1.9%	0.7%	1.0%
J	6,250	7,619	167	106	153	42	2.7%	1.4%	2.4%	0.6%
K	2,793	3,463	79	110	29	61	2.8%	3.2%	1.0%	1.8%
L	1,733	1,459	47	45	11	19	2.7%	3.1%	0.6%	1.3%
M	4,216	3,850	144	98	42	46	3.4%	2.5%	1.0%	1.2%
N	2,935	3,115	103	106	30	39	3.5%	3.4%	1.0%	1.3%
O	5,459	6,288	214	244	388	272	3.9%	3.9%	7.1%	4.3%
P	4,428	3,204	129	149	52	43	2.9%	4.7%	1.2%	1.3%
Q	2,764	3,389	114	140	405	241	4.1%	4.1%	14.7%	7.1%
R	2,643	2,747	95	90	24	28	3.6%	3.3%	0.9%	1.0%
S	5,204	4,946	158	182	69	64	3.0%	3.7%	1.3%	1.3%
T	1,979	1,726	77	61	32	27	3.9%	3.5%	1.6%	1.6%
U	6,300	7,770	211	369	460	524	3.3%	4.7%	7.3%	6.7%
V	869	1,998	57	104	19	22	6.6%	5.2%	2.2%	1.1%
W	6,183	6,732	239	253	519	552	3.9%	3.8%	8.4%	8.2%
X	2,777	3,151	138	227	124	131	5.0%	7.2%	4.5%	4.2%
Y	1,051	1,367	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Z	17,062	17,368	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AB	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AC	2,624	2,900	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AD	774	799	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AE	595	759	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Source: Monmouth County Traffic Engineering, NJDOT Traffic Monitoring Program

APPENDIX

B. EXISTING CONDITIONS TECHNICAL MEMORANDUM

Moving Mindfully: Monmouth/Mercer

COMPREHENSIVE FREIGHT RELATED TRANSPORTATION STUDY

JUNE 24, 2019

Moving Mindfully: Monmouth/Mercer

EXISTING CONDITIONS TECHNICAL MEMORANDUM

COMPREHENSIVE FREIGHT RELATED TRANSPORTATION STUDY

MONMOUTH COUNTY AND SOUTHERN MERCER COUNTY

EXISTING CONDITIONS TECHNICAL MEMORANDUM

JUNE 2019

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1 COMPREHENSIVE FREIGHT RELATED TRANSPORTATION STUDY

1.1 INTRODUCTION

Monmouth County, with support from the North Jersey Transportation Planning Authority (NJTPA) completed the Comprehensive Freight Related Transportation Study in June of 2019. This study evaluated the freight related transportation issues within Robbinsville in Mercer County and Allentown and Upper Freehold in Monmouth County. This study makes recommendations to minimize conflicts between freight and other modes and improve travel conditions for the study area users while maintaining the community character of each of the municipalities.

The study included data collection, an assessment of existing and future conditions, public outreach, and the development of recommendations including an implementation matrix. This technical memorandum details the data collection and existing conditions in support of the overall study.

To understand the overall freight transportation context, a variety of different data sources and documents were studied, including crash history, traffic counts with vehicle classifications, origin/destination information, master plans and other transportation related documents, subdivision and site plans, ongoing planning initiatives, and Complete Streets policies. These resources were used to establish the existing conditions with a specific emphasis on freight related travel and a shared understanding of the issues that the study area faces.

Additionally, input was gathered on existing conditions through a comprehensive outreach program that included a Study Advisory Committee, focus groups and interviews, a project website with an interactive online mapping tool, and public meetings. The outreach efforts and results are summarized in the Public Outreach Technical Memorandum.

1.2 STUDY AREA

The study area is comprised by the municipalities of Robbinsville Township in Mercer County, Allentown Borough, and Upper Freehold Township, in Monmouth County (Figure 1).

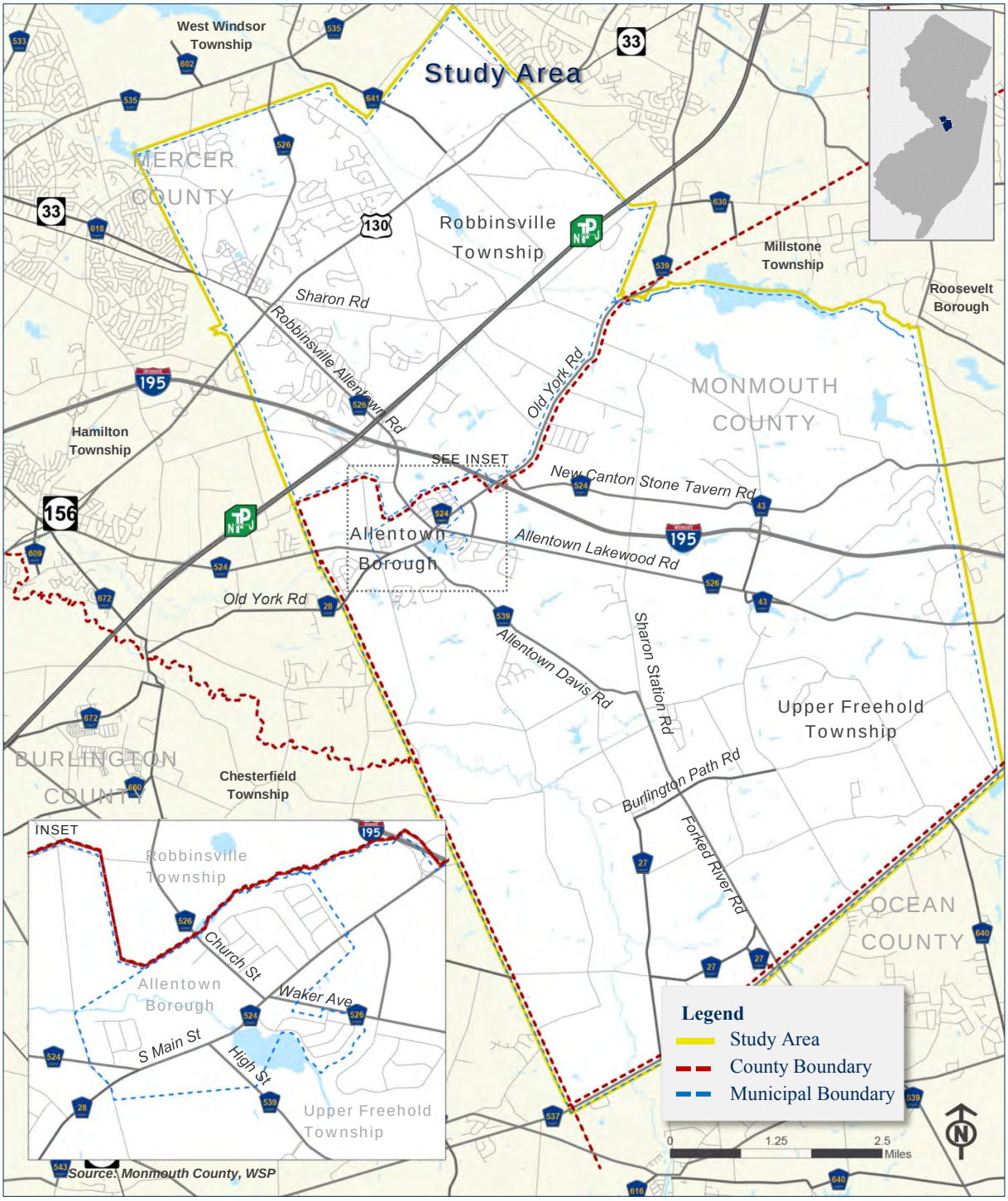


Figure 1 - Study Area

There is a diverse mix of land uses within the study area, including small-scale commercial activity in a historically significant village (Allentown Borough), expansive rural farmland in Upper Freehold Township, and large industrial complexes in Robbinsville Township. For all three municipalities, preserving their scenic beauty is a significant concern, including a particular focus on preserving farmland in Upper Freehold and Robbinsville.

Upper Freehold has committed to maintaining a rural character by adopting a Country Code Policy which in essence commits to limited growth and municipal services in favor of a rural and agricultural lifestyle. CR 539 functions as the municipal boundary between Upper Freehold and Robbinsville Townships, providing access to residential communities in Upper Freehold. The Horse Park of New Jersey located in Upper Freehold reflects the area's enthusiasm for equestrian sports. Interstate 195 bisects the study area, providing local road and county roads direct access to the interstate system.

Robbinsville is home to numerous industrial-commercial developments including Matrix Business Park 7A, within which many businesses are located, including KTR Urban Renewal II, LLC (Amazon), Project Liberty, Mercedes Benz, McMaster-Carr, and Ritchie & Page. Robbinsville is centered around its expanding Town Center located along State Route 33 and US. Route 130. This Town Center was approved for mixed use and compact development in 2001 and has revitalized the township with growth in population, commercial uses, and jobs. Robbinsville also provides immediate access to Interstate 95 via Interstate 195 Interchanges 6 and 7.

Allentown has one of the largest contiguous State and National Register Historical Districts in New Jersey. The historic district is comprised of 221 structures[1], many of which were built before 1860, and includes a mill, millpond, Doctor's Creek, and its tributaries. This compact municipality covers just over half a square mile and has a 2017 population of approximately 1,890 people.[2]

1.2.1 ROADWAY SYSTEM

The local roadway network primarily consists of four county roads (CR 28, CR 524, CR 526, and CR 539) that are remnants of the colonial era. These roads carry both regional and local traffic, including truck traffic, commuters, visitors, residents, emergency vehicles, school buses, and farm vehicles. The county road system provides access to major freeways including the New Jersey Turnpike (Interstate 95) via Exit 7A, and Interstate 195 via Interchanges 7, 8, and 11. It also provides access to other major arterials including US 130 and NJ 33. Below is the breakdown of the major roadways in each municipality:

ROBBINSVILLE

US 130 – Principal Arterial

NJ 33 – Principal Arterial

[1] *Allentown Borough Traffic Committee, 1/6/2018 Meeting Minutes*

[2] *2017 U.S. Census Bureau, 2013-2017 American Community Survey (ACS) 5-Year Demographic and Housing Unit Estimates*

CR 526 – Urban Minor Arterial

CR 539 – Rural Major Collector/Urban Major Collector

ALLENTOWN

CR 28 – Urban Major Collector

CR 524 – Urban Minor Arterial/Urban Major Collector

CR 526 – Urban Minor Arterial (North of Main), Urban Collector (South of Main)

CR 539 – Rural Major Collector

UPPER FREEHOLD

CR 27 – Rural-Local

CR 28 – Urban Major Collector

CR 43 – Urban Major Collector

CR 524 – Rural Major Collector

CR 526 – Urban-Rural Collector/Rural Major Collector

CR 526 Spur – Rural Major Collector

CR 537 – Rural-Urban Collector

CR 539 – Rural Major Collector

2 NEEDS ASSESSMENT

2.1 DATA COLLECTION AND REVIEW

During the data collection phase, various data sources were consulted to obtain information on the existing roadway network and current transportation needs with a focus on freight and heavy vehicles, and to establish a relevant set of existing and possible future conditions in the study area.

2.1.1 POLICY DOCUMENTS AND PREVIOUS STUDIES REVIEW

A brief description of previously completed studies and a list of relevant recommendations or policies from each that were reviewed for this study are described below.

***BOROUGH OF ALLENTOWN MASTER PLAN* (2018), ALLENTOWN BORO PLANNING BOARD[3]**

Allentown's 2018 Master Plan replaced the borough's 1978 Master Plan. The plan emphasized the Borough's concern about through traffic, increases in traffic volumes, crashes, noise and vibration, air pollution, and property damage to homes and infrastructure due to vehicles. Due to the community concerns with truck traffic, Allentown sought to restrict the weight of trucks allowed through the Borough by adopting a Truck Prohibition Ordinance in 2016 to restrict trucks over four tons from entering the borough except for local deliveries/pickups. While the borough can enforce this prohibition on local roadways, acceptance from any impacted neighboring towns/counties and NJDOT (as many routes are on the NJ Access Network) is required before this can be enforced on the Monmouth County roadways in town. Borough officials are still in discussions with Robbinsville and Upper Freehold to gain buy in on this restriction.

2018 Master Plan Recommendations:

- Furthering the 25-year Plan for the Westerly Bypass connecting CR 539 south of Allentown to the Ellisdale Road-New Road-Breza Road corridor to reduce through traffic
- Promote connections between places with walkways and bike paths to encourage active transportation
- Measure air quality to assess impact of heavy traffic on health and work to improve it

[3] *https://allentownboronj.com/vertical/sites/%7B7748EEEB-2391-4653-8B6A-4A64C85A6D79%7D/uploads/1Master_Plan_Adopted_Document_June_4_2018.pdf*

UPPER FREEHOLD TOWNSHIP MASTER PLAN AND DEVELOPMENT REGULATIONS REEXAMINATION REPORT (2017), JDM PLANNING ASSOCIATES, LLC[4]

This report is an update to the 2007 Upper Freehold Township Master Plan. Larger goals of the community include maintaining a rural atmosphere and preventing the spread of suburban development. Conversely, the Plan also suggests considering zoning changes that would increase the auto-oriented nature of the land along several county routes, with uses intended for regional destinations, which may also increase traffic.

Recommendations:

- Study the feasibility of rezoning some parcels from "Community Commercial" to "Highway Development". This change may increase the growth projected for the study area.
- Update the Plan's Circulation Element to address traffic growth and development in the area

ROBBINSVILLE TOWNSHIP MASTER PLAN (2000), BROWN & KEENER URBAN DESIGN[5]

The goals of this Master Plan include protecting the rural quality of the community, encouraging compact office and retail uses, improving connectivity of the township road network, and supporting a sustainable pattern of land uses. Overall, the plan seeks to shift from auto-dominated roadways to a more balanced multi-modal mix, while other recommended improvements could help create more efficient routes or operations for trucks.

Recommendations:

- Incorporation of a variety of Complete Streets techniques to calm traffic and realign intersections
- Extend Washington Boulevard (including a sidewalk and bicycle path) to the Township's boundary with Hamilton to intersect US 130 at the existing South Gold Drive traffic signal. This would enable a much more direct trip while avoiding congestion on Route 33, making it potentially attractive to truck drivers.
- Realignment of CR 526 (Robbinsville-Allentown Road) to pass through or around the Township's municipal complex, better connecting it to Robbinsville Town Center
- Realignment of Sharon Road to intersect with Robbinsville-Allentown Road within or east of the municipal complex, improving access to the complex and nearby school for nearby residents and removing some traffic on US 130.
- Make NJ 33 more inviting for shopping by adding parking, bike lanes, and a wide sidewalk
- Improve the US 130 corridor with streetscaping, lighting, median islands, and improved pedestrian crossings

PANHANDLE REGIONAL PLAN (2011), MASER CONSULTING[6]

[4] *https://uftnj.com/vertical/sites/%7B29A48B69-D399-4AEA-B5DB-D30B4D8313CB%7D/uploads/Reexamination_Report_Upper_Freehold_Township_10-25-17_(1).pdf*
[5] *http://www.robbinsville-twp.org/Planning-Zoning/2000%20Master%20Plan%20-%20Robbinsville.pdf*

This plan studied Monmouth County's Panhandle Region communities of Allentown Borough, Upper Freehold Township, Roosevelt Borough, and Millstone Township. It proposed the development of a vision for the future across numerous areas including agriculture and transportation. It explored strategies to expand agricultural preservation and tourism efforts, and an increase in the number of scenic byways. Region wide, it analyzed transportation issues related to congestion, excessive speeding on cut-through streets in residential neighborhoods, low speeds on roadways due to slow-moving farm vehicles, and the desire to promote bikeable roads.

Recommendations:

- Identify alternate truck and bus routes
- Allentown and Upper Freehold should work cooperatively with Monmouth County and the Allentown-Upper Freehold Joint Bypass Committee to resolve issues related to the implementation of the Westerly Bypass
- Implementation of pull-off areas for farm vehicles
- Inclusion of a new bus service along CR 537 between urbanized areas and Six Flags
- Installation of traffic calming improvements in downtown Allentown

UPPER FREEHOLD HISTORIC FARMLAND BYWAY-CORRIDOR MANAGEMENT PLAN (2010), PARSONS BRINCKERHOFF[7]

This plan inventoried the characteristics, policies, regulation, transportation planning, and management strategy along portions of eighteen byways and four spurs in Monmouth County's Panhandle Region, including: CR 539 (Main Street/Old York Road) in Allentown and CR 524, CR 539, CR 526, and CR 27 in Upper Freehold.

Recommendations:

- Installation of signage along byways to preserve the historic and rural look
- Reduction of sign clutter and billboards visible from byways
- Conduct a speed management campaign along the byway

ALLENTOWN REGIONAL TRANSPORTATION STUDY SUMMARY REPORT (1992), RBA GROUP

This report responded to growing concerns over traffic in Allentown and the surrounding area and presented two potential options to re-route traffic around Allentown which are the Westerly Bypass and the Easterly Bypass. The report presents three alternative conceptual roadway alignments to mitigate existing and future potential traffic impacts in western Monmouth County and eastern Mercer County. The study area was bordered by Bresnahan Road and the Assunpink Creek to the

[6] *https://co.monmouth.nj.us/documents/24/Panhandle%20Region%20Final%20Plan.pdf*
[7] *http://co.monmouth.nj.us/documents/24/UFHFB%20Corridor%20Management%20Plan.pdf*

north, Hightstown Road and Sharon Station Road to the east, Imlaystown Davis Road, Walnford Davis Station Road and Crosswicks Creek to the south, and US 130 to the west.

The first phase of improvements to create the Easterly Bypass (Alternative 4 in the report) was the construction of the CR 526 Spur off CR 524 in Upper Freehold. The second phase of improvements are due to begin construction in 2019, including replacing three bridges on Sharon Station Road and improvements on CR 526 which connects to I-195 Interchange 8. The purpose of the bypass was to divert heavy traffic away from Allentown in order to reduce traffic impacts on downtown Allentown and ensure the smooth, orderly flow of through traffic from/to the southeast. Once the full Easterly Bypass is constructed traffic will be assessed again to better understand the impact of the completed bypass on the network.

Recommendations:

- Easterly bypass from Sharon Station Road to CR 539
- Westerly bypass along CR 526 from I-195 Interchange 7 to Circle Drive

MONMOUTH COUNTY MASTER PLAN (2016), MONMOUTH COUNTY[8]

Monmouth County's Master Plan focused on redevelopment, revitalization, and rediscovery. The vast majority of freight traffic moving through Monmouth is transported by truck, concentrated on highways mostly outside of the study area, with the exception of Interstate 195 and CR 537. The Master Plan supports multi-modal operations within the County, including recommendations that encourage efficient freight movement while promoting safe interactions between pedestrians, bicyclists, and vehicles.

Recommendations:

- Reduce traffic congestion using smart technologies to improve the movement of goods and services
- Review existing rural roadway design compatibility with freight, trucks, and farm equipment
- Implement the County's Complete Streets Policy
- Develop and implement regional corridor studies.
- Support transit options and expansion, maps, and convenient information for users and the development of a bus-rapid transit corridor
- Expand the regional trail network and connections to other bicycle networks
- Encourage more eco-friendly modes to promote environmentally sustainable transportation
- Support town efforts to make areas more walkable and bikeable

[8] *http://co.monmouth.nj.us/documents/24/FINAL%20Master%20Plan%20Volume%20I.pdf*

MERCER COUNTY MASTER PLAN (2016), MERCER COUNTY[9]

The Mercer County Master Plan Mobility Element describes a vision for the future of mobility in Mercer County which advocates for facilities for pedestrians and cyclists and increasing density to support transit use, rather than building new roads or increasing vehicle capacity. The recommended highway projects foster mobility and denser development around existing infrastructure. The two highway projects relevant to the study area would ease concerns about truck traffic going directly through more densely populated areas where more people walk and bike and noise is a more immediate issue. These new bypasses would give trucks a more direct route that would potentially reduce conflicts with vulnerable users.

Recommendations:

- Complete the Town Center Bypass on NJ 33 in Robbinsville
- Further the concept for the Allentown Bypass over a portion of property owned by Robbinsville
- Develop standard truck routes that serve commercial, industrial, and distribution sites
- Implement the County's Complete Streets Policy
- Use paved shoulders on more rural roads to accommodate cyclists
- Encourage parallel connector roads and new roadway connections between residential developments
- Implement new transit services and promote transit options

PLAN 2045: CONNECTING NORTH JERSEY (2017), NJTPA[10]

Under federal law, each Metropolitan Planning Organization is federally mandated to prepare and maintain a long-range plan with a minimum 20-year planning horizon, and update it every four years as a condition for the receipt of federal transportation funding. The regional transportation plan is a continuing, comprehensive and cooperative process for transportation planning, programming and decision-making to ensure the need for transportation investments is based on a comprehensive assessment of long-term needs, rather than piecemeal responses to current problems.

Within the study area Monmouth County, Upper Freehold and Allentown fall within the NJTPA MPO. The NJTPA's Regional Transportation Plan (RTP) for Northern Jersey centers on seven goals for the region: protect the environment; provide transportation systems responsive to current and future travelers; increase economic activity; enhance safety, efficiency, and connectivity for people and goods; maintain a state of good repair; coordinate land use with transportation; and improve system safety. The plan describes several important regional trends such as population growth, job growth, increased vehicles miles traveled, decrease in young people driving, increased single-person households, and innovative technologies changing how transportation is accessed and used.

[9] *http://www.mercercounty.org/departments/planning/plans-and-reports/mercer-county-master-plan*
[10] *https://apps.njtpa.org/plan2045/docs/11699_plan2045_v5_Low%20Res.pdf*

The plan also describes the long term Regional Capital Investment Strategies (RCIS). The RCIS targets funding towards meeting NJTPA's seven plan goals. The investment principles of the RCIS that are most pertinent to this study are that road expansion and construction of new roads should be very limited, and instead investments should be focused on maximizing and making the existing roadway system work better; as well as a focus on improving freight efficiency, with investments primarily for enhancing intermodal connectivity to vital markets and making the overall system more efficient. The plan also includes extensive sections on freight needs and strategies.

The plan includes a listing of anticipated projects. Most of the transportation funding in the NJTPA region goes to preservation and maintenance, which benefits freight movement. Direct freight-related funding is primarily directed at the northern and eastern part of the state, where freight activity is more intensive, and for improving freight rail outside of the study area. There are however, a few specific projects that will benefit freight movement in the study area. I=95 (NJ Turnpike) will be part of the handful of critical truck corridors that will receive prioritized road maintenance. In addition funding for near-term road preservation for a portion of Interstate 195 in Monmouth County is included in the plan (Project #14377).

***CONNECTIONS 2045 - PLAN FOR GREATER PHILADELPHIA* (2017), DVRPC[11]**

Within the study area Mercer County and Robbinsville fall within the DVRPC MPO. The Delaware Valley Regional Planning Commission's Long Range Plan establishes a vision for the growth and development of the region and prioritizes future transportation investments. The Plan identifies three significant trends and forecasts that will significantly impact the region: moderate population and employment growth, growth of suburbanization, and the need for significant investment in the transportation system. Additionally, the Plan establishes "freight centers" in the region, including the Northeast and Matrix Business Parks at Interchange 7A in Robbinsville Township.

While Robbinsville is the only municipality in the Study Area in the DVRPC region, all three of the Study Area municipalities have established Master Plan guidelines which seek to limit the impact of some of the trends highlighted in the DVRPC Plan. Increased suburban growth and congestion has the potential to reduce freight network efficiency and increase consumer demand. The Plan specifies planned improvements and strategies that would address some of these concerns.

Recommendations:

- An Active Traffic Management project for I-195 scheduled for 2028-2035 for dynamic speed limits and lane assignments and a queue warning system fitted with ITS and Safety Service Patrol (SSP) infrastructure between the New Jersey Turnpike and I-295.
- Potential road pricing mechanisms including a carbon tax, peak hour congestion pricing on highways, mileage based user fee, and the installation of tolls on highways.
- Ensure maintenance of the National Highway Freight Network (includes I-95)

[11] *https://www.dvrpc.org/Reports/17039.pdf*

— Prioritize investment in identified freight centers (TIP project criteria)
— Monitor the availability and promote the supply of adequate overnight truck parking
— Incorporate good movement and delivery considerations into Complete Streets planning and design
— Promote freight vehicles that improve air quality

NEW JERSEY STATEWIDE FREIGHT PLAN (2017), WSP[12]

The New Jersey Statewide Freight Plan was completed by NJDOT to document existing needs for the state's transportation network to meet current demands as well as to plan for long-term growth. The plan documents the state's existing multi-modal freight infrastructure, identifies issues, concerns, bottlenecks, trends, and the incorporation of ITS technologies to the State's highway system to promote freight activity. The Freight Plan included the identification of 282 highway project areas that were categorized into three tiers, prioritizing the most impactful project areas specific to freight. Finally, the plan resulted in a fiscally constrained investment plan that identifies and prioritizes freight-related transportation projects. As part of the Freight Plan, Monmouth County provided input related to specific needs within Allentown, Upper Freehold, and Robbinsville, from which several problem areas were identified as 3rd Tier projects. A 3rd Tier project indicates that, while freight improvements are needed along these corridors, the need is less pressing from a statewide perspective, based on analysis of key factors, including truck travel speed, truck travel time, truck counts, and truck crash clusters. Designated 3rd Tier priority project locations in the study area include CR 524 between the Mercer-Monmouth County line and CR 539 Spur (Sharon Station Road), CR 526 between these same extents, and CR 539 between the Mercer County border and Allentown.

COMPLETE STREETS POLICIES

Complete Streets approaches seek to understand current roadway users and better balance the roadway to make it safer and more accessible for all users in that specific context. Many municipalities have adopted Complete Streets policies to further improve livability and enhance multi-modal access in their jurisdictions. Complete Streets approaches are often useful for roads with freight traffic. A Complete Streets approach explicitly takes into consideration the needs of all users when designing a roadway. Careful consideration of how trucks might interact with other users such as vehicles and pedestrians maximizes the safety of all modes. In the study area, both Mercer and Monmouth Counties have enacted Complete Streets policies.

NJDOT defines a Complete Street as a "means to provide safe access for all users by designing and operating a comprehensive, integrated, connected multi-modal network of transportation options." Particularly relevant goals or objectives for the study area in both Counties' policies include:

— In rural areas, paved shoulders or a multi-use path shall be included in all new construction and reconstruction projects on roadways used by more than 1,000 vehicles per day. Paved shoulders

[12] *https://www.state.nj.us/transportation/freight/plan/pdf/NewJerseyStatewideFreightPlan.pdf*

provide safety and operational advantages for all road users. Exemptions shall be considered for County and State designated routes such as Scenic Roads and Historic or Cultural Byways. If there is evidence of heavy pedestrian usage, then sidewalks shall be considered in the project.

— Designs shall address the need for bicyclists and pedestrians to cross corridors, as well as travel along them, in a safe, accessible, and convenient manner; therefore, the design of intersections, interchanges, and bridges shall anticipate use by cyclists and pedestrians.

Additionally, Robbinsville Township has its own Complete Streets policy, similarly "committed to creating a pedestrian and bikeway system that makes walking and cycling a viable alternative to driving, and which improves bicyclist and pedestrian safety, by creating street corridors that safely accommodate all road users of all abilities and disabilities."

NJ ACCESS NETWORK

The State of New Jersey has determined that it is in the public's best interest to direct the travel of large trucks within New Jersey. For this purpose, it has established the hierarchy of roadways, upon which double-trailer truck combinations and 102-inch wide standard trucks are required to travel along within the State of New Jersey. This hierarchy has been established based upon the function of the roadways and the character of the service they are intended to provide; balancing the need to protect the safety of the traveling public and the need to provide the trucking industry with an effective and economical system of roadways upon which to travel within New Jersey. The hierarchy of roadways, setting forth the priority of routes for travel by double-trailer truck combinations and 102-inch wide standard trucks in New Jersey, is as follows[13]:

— The National Network: provides the highest level of mobility facilitating interstate and interregional travel

— The New Jersey Access Network: provided connection to the National Network and facilitates access to terminals

— All other unrestricted roadways within New Jersey: to be used only to provide access to terminals

Within the study area, the following corridors are found in the New Jersey Access Network:

ROBBINSVILLE

— CR 526 (Robbinsville-Edinburg Road/Robbinsville-Allentown Road)

— US 130

— CR 539 (Old York Road)

ALLENTOWN

— CR 526 (Church Street/Waker Avenue)

— CR 524 (South Main Street)

— CR 539 (High Street)

[13] *Title 16. Transportation, Chapter 32. Truck Access. https://www.state.nj.us/transportation/about/rules/documents/16-32-Current.pdf*

UPPER FREEHOLD

- CR 526 (Allentown-Lakewood Road/Trenton-Lakewood Road)
- CR 524 (South Main Street)
- 537 (Monmouth Road)
- CR 526 Spur (Allentown Bypass)
- CR 539 (Allentown Davis Station/Forked River Road)

TRUCK PROHIBITIONS (102 INCH WIDE AND DOUBLE TRAILER)

- Trucks are prohibited on NJ 33 west of CR 526 (Robbinsville-Edinburg Road)
- Trucks are prohibited on CR 524 (New Canton-Stone Tavern Road) east of CR 539 (Old York Road)

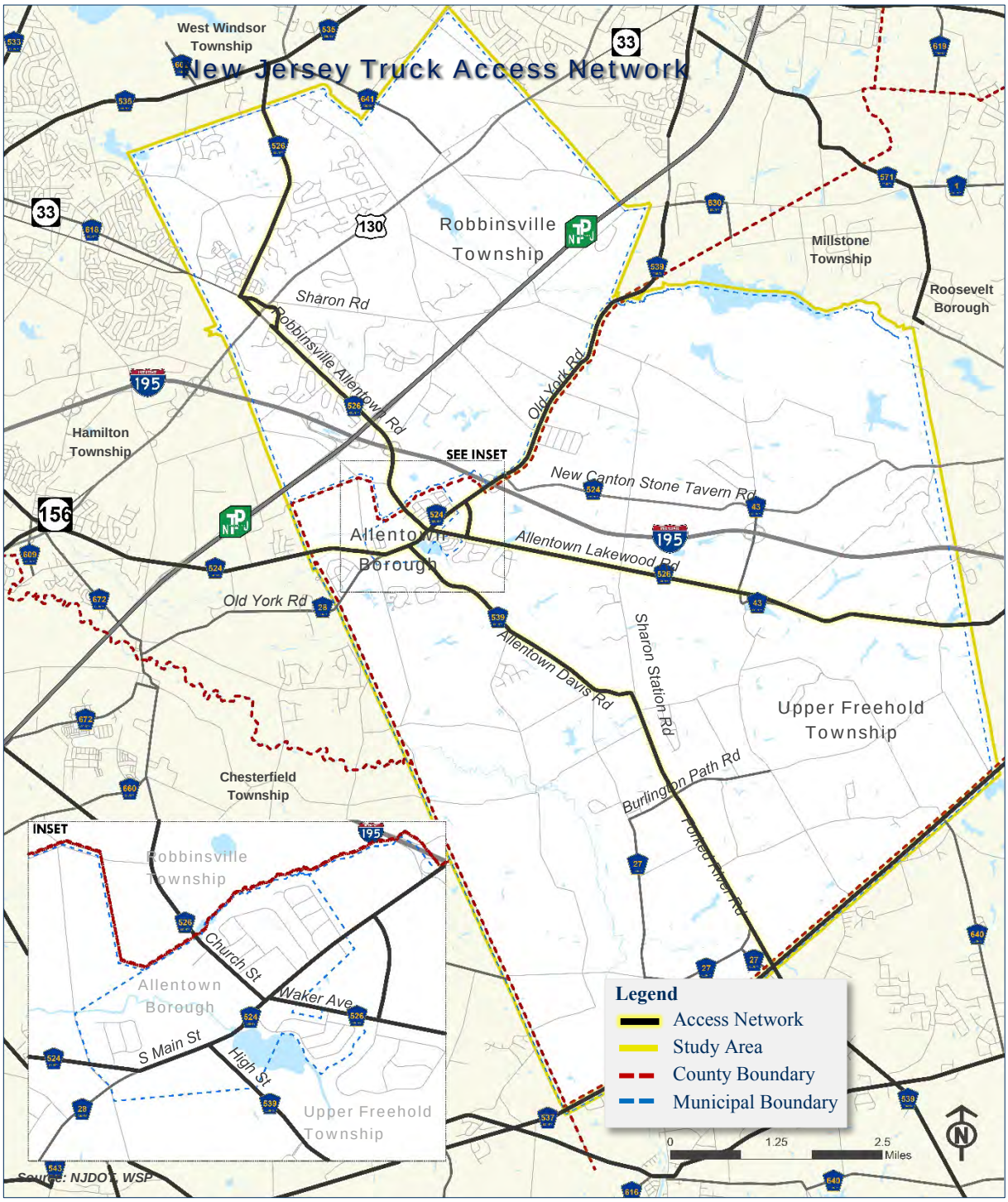


Figure 2 - New Jersey Access Network

PREVIOUSLY EXPLORED IMPROVEMENTS & PLANNED PROJECTS

The Easterly and Westerly bypasses, depicted in Figure 3, have been the subject of several studies since 1992. While each study shows some benefit from each bypass, there are also environmental and

right of way constraints as well as the high cost of building new roadways. The first portion of the Easterly Bypass, known as CR 526 Spur (Allentown Bypass), was completed by Monmouth County in 2004 and the remaining portion along CR 539A (Sharon Station Road) is set to begin construction in 2020.

The completion of the Easterly bypass includes:

- Construction of a roundabout at CR 539 (Allentown-Davis Station Road) and Sharon Station Road to improve circulation and safety;
- Widening of Sharon Station Road to provide dedicated left turn lanes to local roadways;
- Widening of the signalized intersection at CR 526 (Allentown-Lakewood Road) and Sharon Station Road to provide dedicated left turn lanes on all approaches and a dedicated right turn lane from CR 526 (Allentown-Lakewood Road) to Sharon Station Road as well as providing high-visibility continental-style crosswalks and pedestrian signals;
- Construction of jughandles at Dutchess Drive and Sleepy Hollow Court; and
- Replacement of three narrow bridges with wider bridges with higher vertical clearances on Sharon Station Road.

The completion of this bypass is expected to significantly improve travel from Southern Ocean County and Upper Freehold to and from Interstate 195, the New Jersey Turnpike and points northwest.

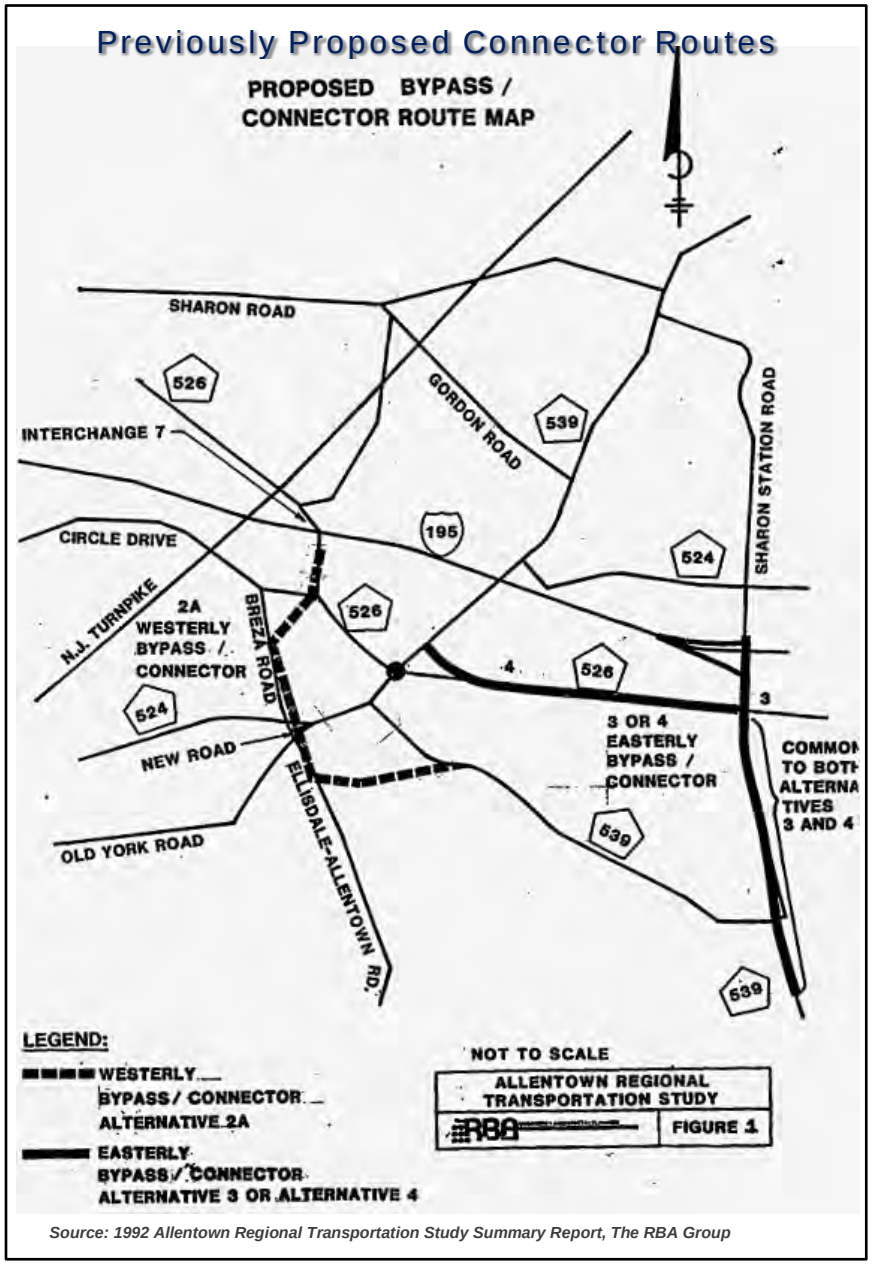
There have also been suggestions for an additional interchange at Milepost 9 along I-195 providing access from Sharon Station Road to the interstate. This interchange was one of the alternatives evaluated previously, but was not selected as the preferred alternative. The preferred alternative selected was the Easterly bypass discussed above which is currently slated for construction in 2020.

The previously proposed Westerly bypass is shown on Figure 3. At the time of its proposal this section of town was less developed. At this time, the proposed alignment would be adjacent to the recently constructed school fields and newer residential neighborhoods (post 2001). The 1992 Allentown Regional Transportation Study which reviewed a range of alternatives indicated environmental constraints to the construction of this bypass. While it remains under consideration, any decision regarding the construction of the Westerly Bypass will need to be made within the context of the performance of the completed Easterly Bypass.

Discussions between Allentown, Upper Freehold, Robbinsville, Mercer County, Monmouth County, NJDOT, Amazon, and Matrix regarding seasonal traffic congestion have yielded several potential options to further study, including widening CR 539, increasing shoulder and ramp widths on Interchange 195, increasing Amazon employee shuttle trips, and adjusting signal timing.

Lastly, signing and striping improvements are planned for CR 526 (Church Street) and CR 524 (Main Street). Two concepts are proposed for CR 524. Concept 1 provides a lane of travel and a lane of parking in either direction, where the parking lanes are striped 14 feet wide, far wider than what is typically recommended. Concept 2 provides a lane of travel and a lane of parking in either direction with a center two way left turn lane. The other improvements will generally replicate the current

signing and striping. The striping concepts on CR 524 both narrow the travel lane, which is a traffic calming technique to reduce speeding and crashes and make the street more livable.



Source: 1992 Allentown Regional Transportation Study Summary Report, The RBA Group

Figure 3 - Previously Proposed Westerly and Easterly Connector Routes

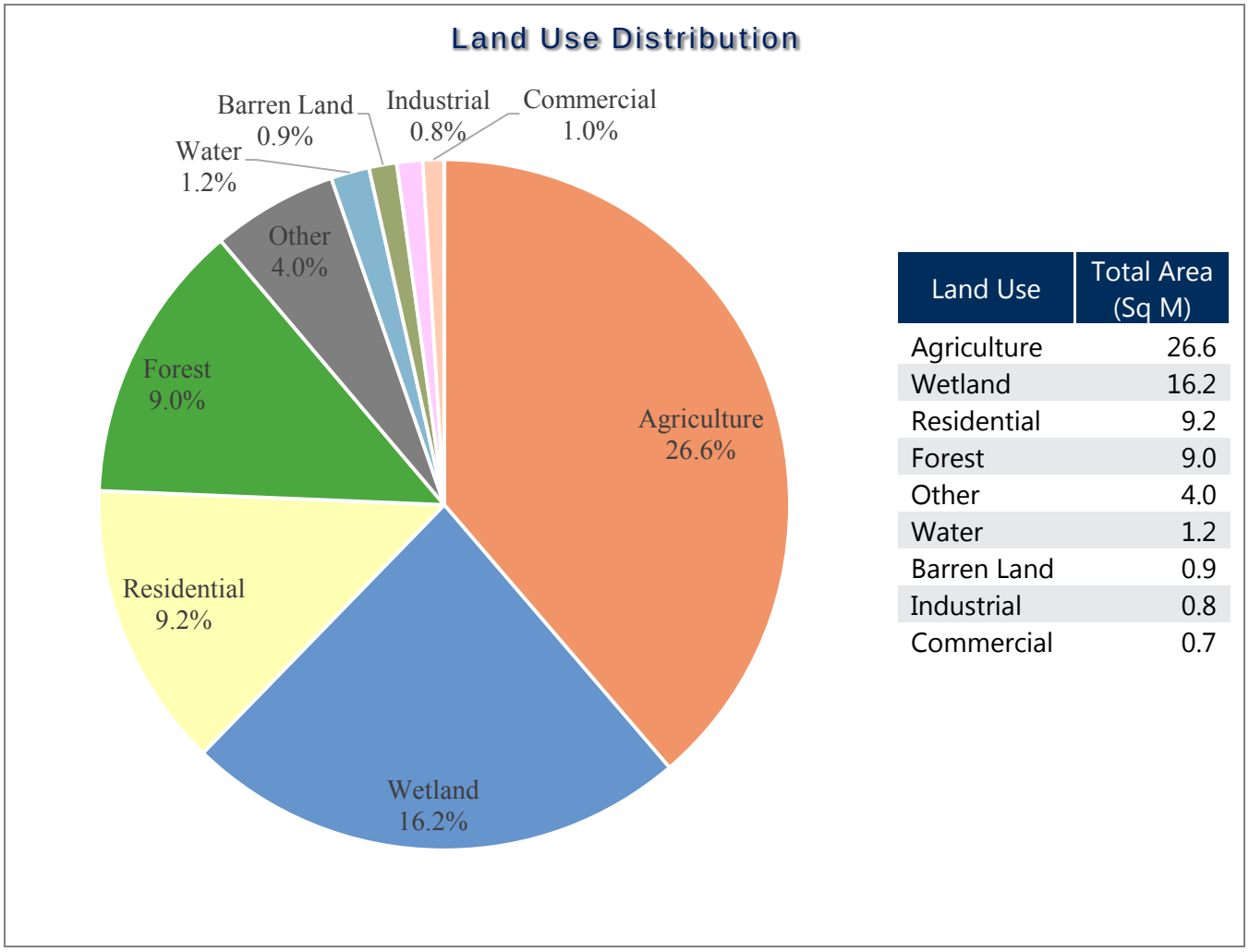
2.1.2 LAND USE AND TRANSPORTATION DATA

LAND USE

Land use data was collected from the New Jersey Department of Environmental Protection Bureau of Geographic Information Systems. Most land in the study area is minimally developed; 39 percent is agricultural; 24 percent is wetlands and 13 percent forest. Commercial and industrial uses each

comprise one percent of the total land, while residential development consumes 13 percent).

The distribution of land use categories varies between and within communities. Allentown is nearly fully developed, mostly residential with some forest. Upper Freehold is primarily comprised of agriculture with pockets of wetlands, forest and small residential developments spread throughout. The western portion of Robbinsville is mainly residential, particularly near the Town Center and along CR 526 (Robbinsville-Allentown Road) while other portions are devoted to agriculture or preserved forest (Figure 5).



Land Use	Total Area (Sq M)
Agriculture	26.6
Wetland	16.2
Residential	9.2
Forest	9.0
Other	4.0
Water	1.2
Barren Land	0.9
Industrial	0.8
Commercial	0.7

Figure 4 – Land Use Distribution

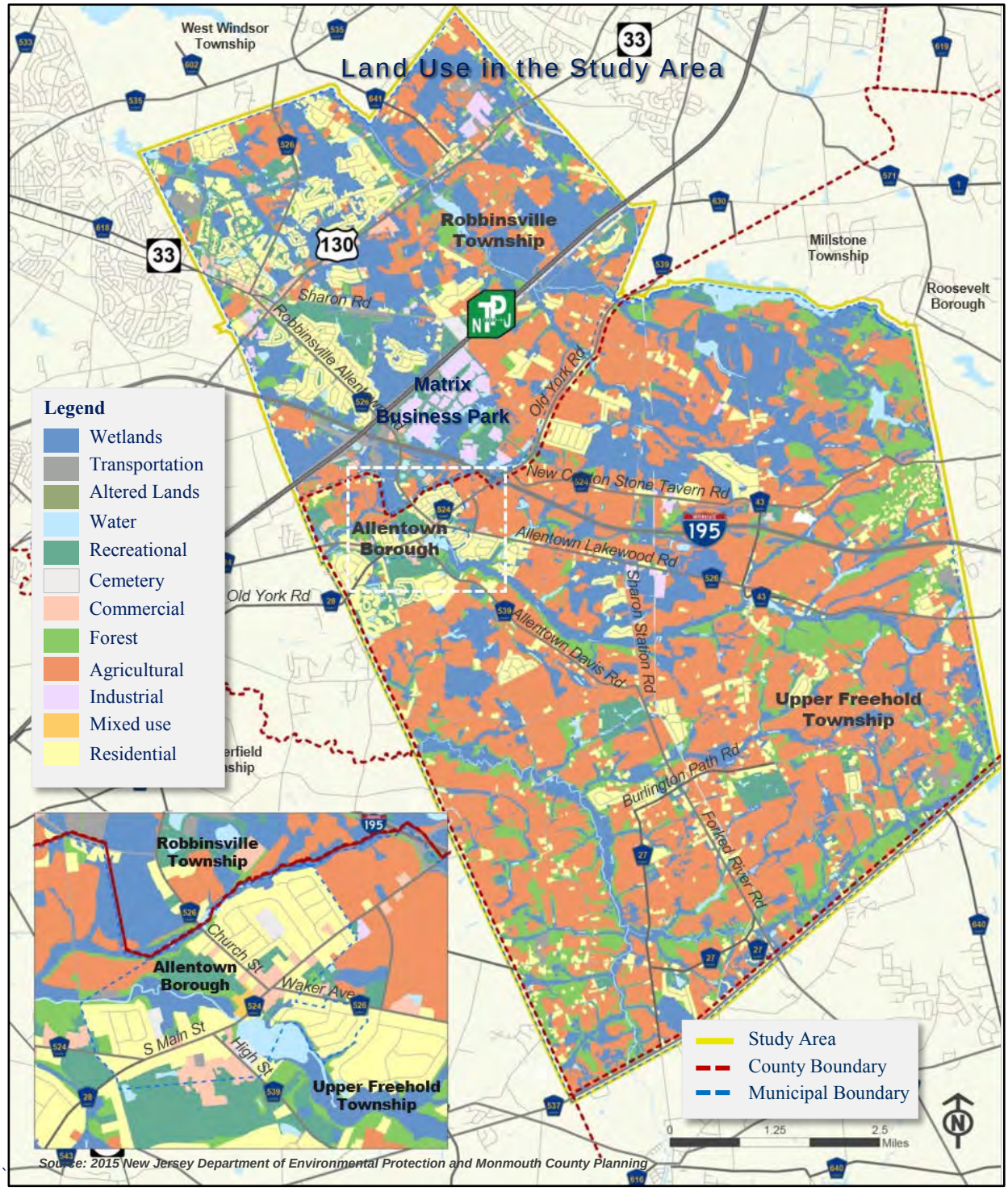


Figure 5 - Land Use in the Study Area

FREIGHT-CENTRIC LAND USES

Freight-centric land uses were mapped in Figure 6, based on currently zoned commercial and industrial parcels. This figure highlights commercial properties in peach, which are primarily retail, as they generate a moderate amount of freight traffic as well as industrial properties in purple, as they generate higher amounts of freight traffic. Several key sites are also referenced as they have impact on the study area or have potential for future growth.

The Matrix Northeast Business Park sits on 400 acres and comprises approximately five million square feet of light industrial use adjacent to the New Jersey Turnpike at Interchange 7A (Interstate 195). The business park accounts for almost all industrial land in the study area. This park has room for limited additional growth. Additional pockets of industrial land uses are located along US 130 and just south of Main Street in Robbinsville, Mercer County.

There are several independent industrial sites including but not limited to Clayton and Sons Concrete Block Sand, Kube-Pak, and Capital Forest. Many of these are located along or in the vicinity of Sharon Station Road and CR 526 (Allentown Lakewood Road) in Upper Freehold. There is no anticipated growth at these sites; however they do generate freight traffic that can fluctuate with the economy.

South of the study area, sites such as Excavating Materials & Equipment Inc. are located along CR 539 (Pinehurst Road) in New Egypt (Ocean County). In addition, sand and gravel mining sites are located both within the study area, particularly along Forked River Road in Upper Freehold, and south of the study area (in Ocean County). These sites also see increased freight traffic as the economy grows.

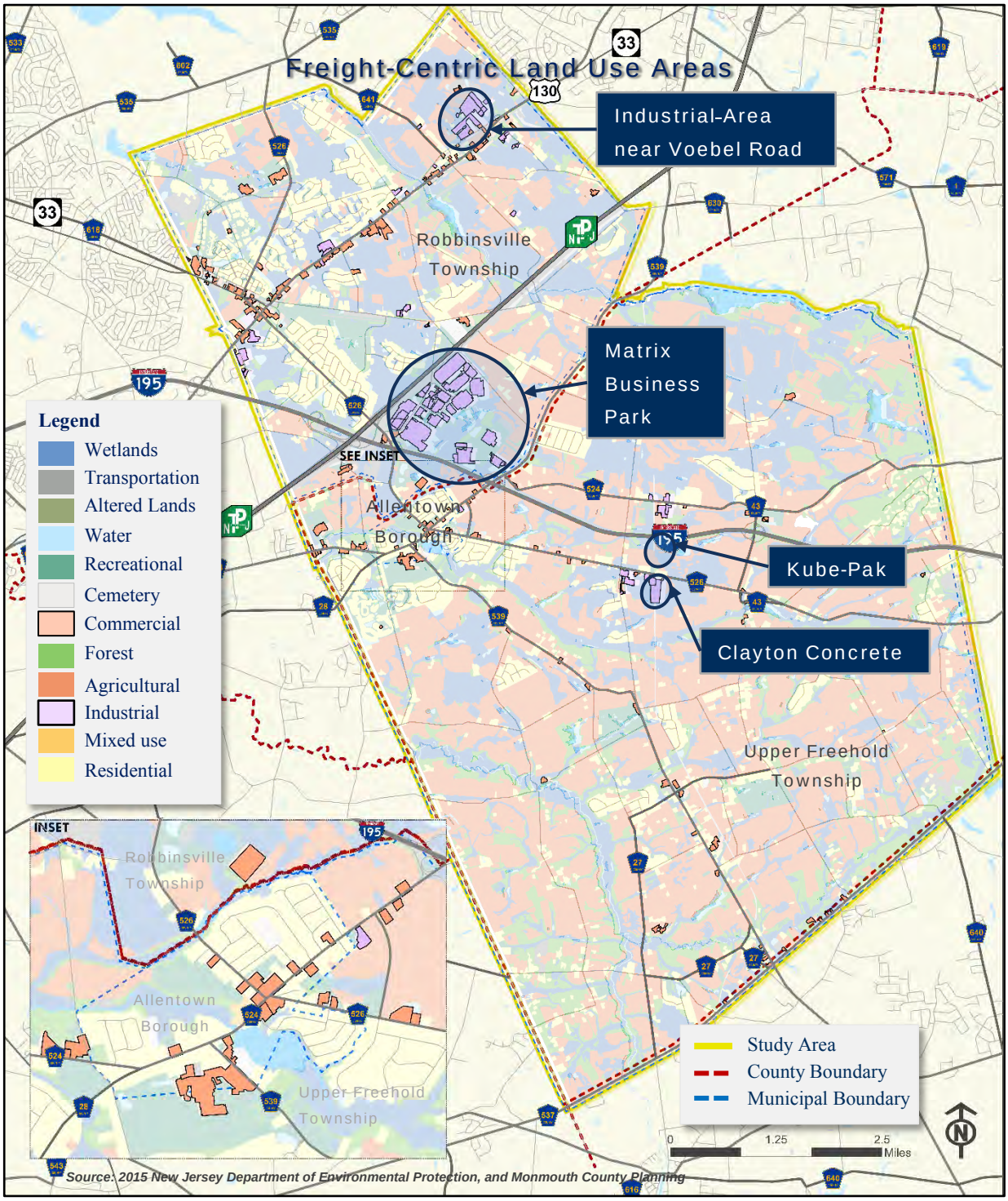


Figure 6 – Commercial and Industrial Land Use Areas

GROWTH AREAS

As detailed in each communities' Master Plan, residents, elected officials and stakeholders are concerned about future development and wish to maintain the existing rural, low-density atmosphere of their communities. Therefore, future development plans are intended to constrain growth to specific areas.

According to the Robbinsville Master Plan, commercial development should be concentrated in some areas to preserve farmland, views, and to encourage walkability, especially along US 130. Similarly, residential development is clustered into seven compact villages with some supportive commercial development, as appropriate. The seven village locations are in the western and central portions of Robbinsville, leaving much of the eastern portion of the township unchanged. There is additional room for limited growth within the industrially zoned Matrix Park in Robbinsville as well as along US. Route 130 near Voebel Road.

Allentown is almost fully built out and expects little to no development.

Upper Freehold's Master Plan, like Robbinsville, emphasizes the importance of preservation of farmland and country atmosphere to guide development. For residential growth, the plan recommends the avoidance of homogenous suburban sprawl types of development. The plan encourages commercial and industrial growth appropriate to the surrounding contexts, while discouraging strip-style commercial developments. Upper Freehold's population is projected to increase by 5.6 percent by 2040. (Figure 7). There were no additional industrial areas planned according to Upper Freeholds Master Plan.

Based on these findings, a slight increase in locally-generated traffic growth from residential and commercial uses is anticipated in the future. Additional traffic growth may also occur outside the study area and move through it, impacting the roadway network and residential quality of life.

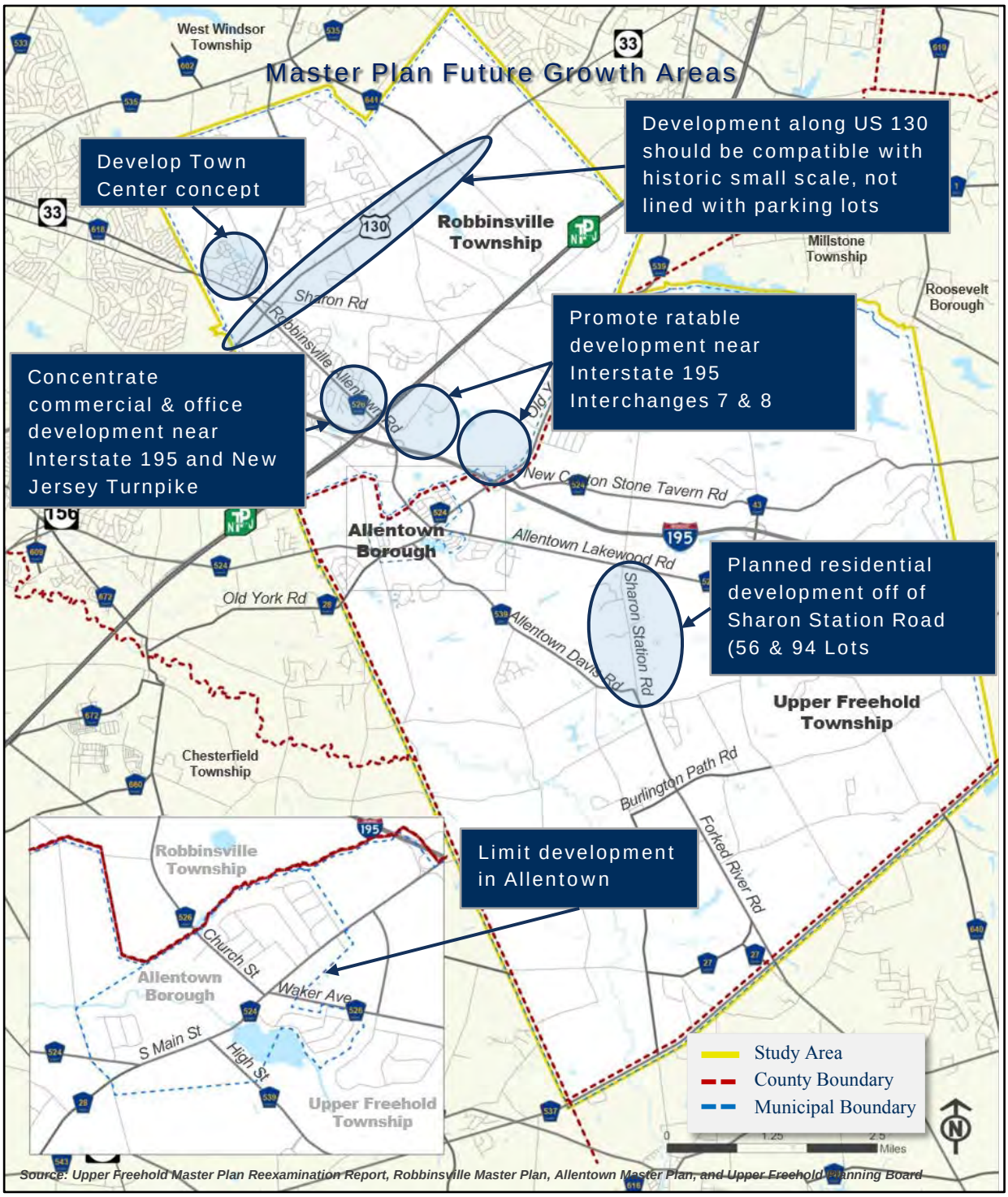


Figure 7 - Master Plan Future Growth Areas

2.1.3 DEMOGRAPHICS

SOCIO-ECONOMIC DEMOGRAPHICS

Census data was gathered from the United States Census Bureau's 2017 American Community Survey. Overall, the study area has a low population density, particularly in the eastern portion in Upper Freehold. A comparison of socio-economic data from the 2010 Census shows that Robbinsville's population is growing and that the town is becoming more densely populated. The majority of the population in the three municipalities in the study area is 18 years, in keeping with statewide demographics. With a lack of transit options and relatively high median incomes, most households have access to an automobile. This is especially pronounced in Robbinsville where virtually all residents have access to a car.

Table 1 - Socio-Economic and Housing Characteristics

Demographic Indicator	Allentown	Upper Freehold	Robbinsville	Mercer County	Monmouth County	Statewide
Total Population	1,890	6,899	14,252	373,362	627,551	8,960,161
Population Density (People/Sq. Miles)	3,124	148	701	1,631	943	1,027
Median Age	40.9	46.6	41.5	38.6	42.8	39.6
Population 18 Years and Over	79.9%	77.4%	74.6%	78.4%	78.0%	77.7%
Males per 100 Females	90.1	87.6	95.8	95.5	94.7	95.3
Median Household Income	$96,154	$133,920	$137,313	$77,027	$91,807	$76,475
Total Housing Units	734	2,585	5,179	144,385	260,524	3,595,055
Vacant Housing Units (%)	4.4%	5.7%	3.7%	10.3%	10.8%	11.0%
Zero Car Households (%)	2.99%	0.01%	6.95%	11.60%	6.80%	11.40%

Through the United States Environmental Protection Agency (EPA), 2018 Environmental Justice data was obtained using the EJSCREEN tool. Environmental justice is the "fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies." The EPA's online interactive EJSCREEN tool allows users to compare different geographic areas and identify areas with high concentrations of minority residents, low-income residents, and potential environmental quality issues. This type of high-level screening is frequently used in studies to

determine if there are underlying environmental justice issues or whether a proposed project or recommendation might have a disparate impact on a historically disadvantaged community. Environmental justice data was analyzed for the study area with the EJSCREEN tool to insure maximum inclusion of all populations and determine where at-risk or disadvantaged groups lived. The findings indicated that the study area has a significantly lower percentage of vulnerable populations than the two counties as a whole (Mercer and Monmouth) and the state at-large as shown in Table 2.

Racial minorities constitute 10 percent of the population in both Allentown and Upper Freehold and 23 percent in Robbinsville. Allentown presents the highest percentage of low-income residents (12 percent). The three communities also have very low populations of linguistically isolated individuals or adults with less than a high school education. Upper Freehold has a high percentage of seniors, constituting 17 percent of the community. Overall all environmental justice indicators within the study area are situated below or in-line with the averages for Mercer and Monmouth counties, and statewide The Study Advisory team was asked to inform the study team of any environmental justice populations that may need additional outreach or consideration within their jurisdictions. No environmental justice populations were identified.

Table 2 - Environmental Justice Indicators

Demographic Indicator	Allentown	Upper Freehold	Robbinsville	Mercer County	Monmouth County	Statewide
Minority Population	10%	10%	23%	48%	24%	43%
Low Income Population	12%	6%	8%	26%	18%	25%
Linguistically Isolated Population	1%	0%	2%	7%	4%	7%
Population with Less than High School Education	7%	3%	4%	12%	7%	11%
Population under 5	8%	6%	4%	6%	5%	6%
Population over 64	13%	17%	9%	14%	16%	15%

COMMUTING DATA

Commuting data was obtained through the United States Census Bureau's 2015 Longitudinal Employer-Household Dynamics Origin-Destination Employment Statistics (LODES) data. This dataset identifies where workers live and where residents work based on selected geographies. Most study area residents work either in the study area itself or in nearby municipalities. Of the top ten municipalities most commuted to by study area residents, only one (the Borough of Manhattan in New York City) is not local, and is the second largest employer of study area residents, with 602 jobs,

while Hamilton Township, in Mercer County, employs 862 study area residents. Other study area residents commute to the nearby Mercer County municipalities of Robbinsville, West Windsor, Ewing, Princeton, and Lawrence (Table 3). A sizable number of residents within the study area live and work in their respective municipality, although more residents commute out of their municipality than those that remain.

Employees that work within the study area come predominantly from nearby Hamilton Township in Mercer County, with smaller numbers travelling from Trenton, East Windsor, Lawrence and Ewing in Mercer County, Jackson, and Plumsted in Ocean County (Table 4).

Table 3 - Top 10 Destinations to Where Study Area Residents Commute

Employment Municipality	Study Area	Percentage	Residents from Robbinsville	Residents from Upper Freehold	Residents from Allentown
Hamilton Twp	862	8.2%	582	187	93
Manhattan Borough, NY	609	5.8%	352	211	46
Robbinsville Twp	559	5.3%	428	99	32
West Windsor Twp	526	5.0%	382	98	46
Ewing Twp	487	4.6%	414	52	21
Plainsboro Twp	367	3.5%	291	59	17
Princeton	345	3.3%	256	62	27
Lawrence Twp	283	2.7%	194	61	28
Trenton	273	2.6%	255	15	3
Upper Freehold Twp	256	2.4%	29	210	17

Table 4 - Top 10 Origins from Where Workers in the Study Area Commute

Municipality	Study Area	Percentage	Robbinsville	Upper Freehold	Allentown
Hamilton Twp	1173	12.1%	975	142	56
Trenton	506	5.2%	447	52	7
Robbinsville Twp	475	4.9%	428	29	18
Upper Freehold Twp	412	4.3%	99	210	103
East Windsor Twp	285	2.9%	255	26	4

Jackson Twp	279	2.9%	161	99	19
Plumsted Twp	170	1.8%	66	85	19
Lawrence Twp	165	1.7%	148	8	9
Ewing Twp	146	1.5%	129	11	6
Philadelphia, PA	140	1.4%	125	14	1

2.1.4 INFRASTRUCTURE INVENTORY

The following data was collected to assess the existing roadway and travel conditions within the study area. The project team completed a field inventory of local roadway conditions supported by collected data from available sources.

FIELD DATA COLLECTION

Project team members completed field observations and data collection in August 2018. Bicycle and pedestrian accommodations as well as general signage conditions were observed and noted. An inventory of truck wayfinding signage, truck regulation signage (i.e. weight and height restrictions), ITS-related infrastructure, and intersection configuration data was collected. Intersection configuration data included lane widths, speed limits, presence of traffic signals, and turning radii.

Figure 8 highlights the field data collection data locations and general information collected. Section 3 includes a summary and assessment of the data collected. Appendix B.1 includes the detailed field inventory maps and figures.

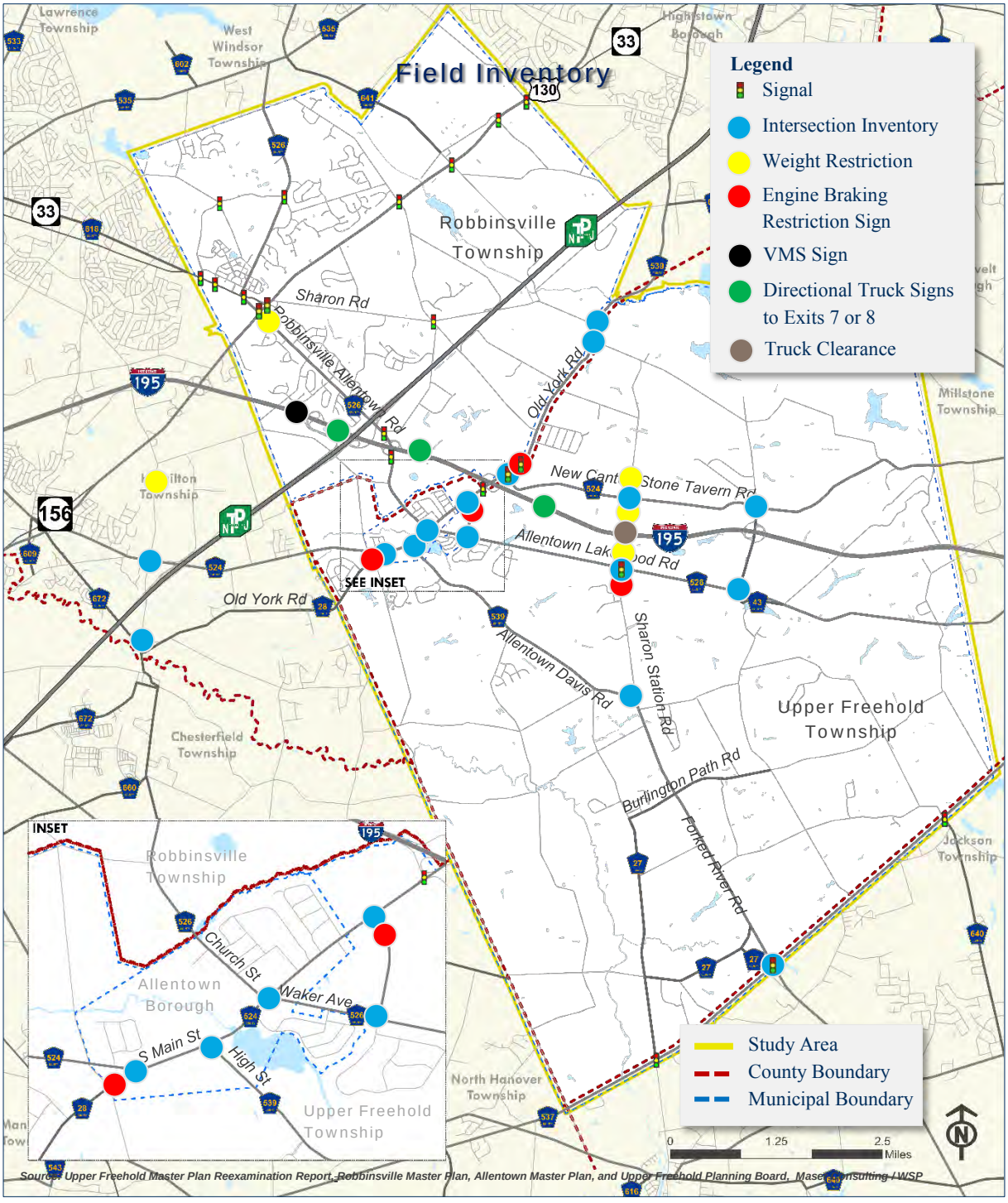


Figure 8 - Field Inventory

TRAFFIC COUNT DATA

Traffic count data was collected from different sources including previous studies and reports and from the Monmouth County Department of Engineering and the New Jersey Department of Transportation traffic count collection program. Traffic data dates back as early as 1992 and as recent as 2017. The project team gave priority to the most recent traffic data available. As such, data was utilized primarily from 2016 and 2017 with a few locations utilizing data from 2014 or 2015.

Data sources include Automatic Traffic Recorder (ATR) counts, and manual Turning Movement Counts (TMC). Some of the ATR counts include the classification of vehicles as defined by the guidelines created by the Federal Highway Administration (FHWA). These classifications include passenger cars, small trucks, large trucks, motorcycles, and buses. Manual turning movement counts are typically completed at intersections to capture turning movements. They are generally completed for eight hours to capture the morning, midday and evening peak periods, and will often include passenger cars, small trucks, large trucks, motorcycles, buses, bicycles and pedestrians. Analysis of the traffic data is included in Section 3.4.

ITS INVENTORY

Local municipalities and state entities can develop traffic management systems that attempt to alleviate congestion and mitigate traffic incidents. These can include incident management plans, intelligent transportation systems (ITS) devices/infrastructure, and other management/monitoring techniques. Freight operations can benefit from access to Intelligent Transportation Systems (ITS) devices that display real-time information on congestion, construction, or other roadway limitations in order to re-route trucks to more efficient road networks. Within the study area, NJDOT currently operates a traffic camera on US 130 at US 33 (Robbinsville Township) and two variable message signs and a weather station on Interstate 95 (Upper Freehold). Mercer County, Monmouth County, and Allentown Borough do not have any other ITS devices located within the study area.

CRASH DATA

Crash data within the study area was collected from the NJDOT Safety Voyager system. Data was downloaded and summarized throughout the study area for the most recent three years available (2015-2017). A total of 2,372 crash records were obtained for the study area. Table 5 below shows the breakdown of crash records by type. An assessment of the data is included in Section 3.5.

Table 5 - Total Crashes by Type, 2015-2017

Crash Type	Allentown	Upper Freehold	Robbinsville	Study Area Total	% of Total
Animal	4	169	151	324	14%
Backing	4	14	32	50	2%
Encroachment	0	0	3	3	0%
Fixed Object	5	223	257	485	20%
Left Turn/U Turn	2	7	4	13	1%
Non-fixed Object	0	18	26	44	2%
Opposite Direction (Head On	0	13	25	38	2%
Opposite Direction (Sideswipe)	2	11	7	20	1%
Other	0	29	39	68	3%
Overturned	1	27	17	45	2%
Pedalcyclist	3	0	3	6	0%
Pedestrian	0	1	1	2	0%
Right Angle	9	50	75	134	6%
Same Direction - Rear End	21	213	616	850	36%
Same Direction - Sideswipe	7	52	188	247	10%
Struck Parked Vehicle	9	7	27	43	2%
TOTAL	**67**	**834**	**1,471**	**2,372**	**100%**

ORIGIN AND DESTINATION DATA

Origin-Destination (O/D) data presents information as to where vehicle trips begin and end. The project team analyzed 2017 O/D data obtained from *StreetLight Data* (i.e. GPS, and location-based cellphone data) to determine areas where trucks travel to and from. For a more detailed description of the O/D data analysis and context see section 3.4.2. StreetLight Data is an online platform that supplies transportation data analytic services including Origin and Destination, and Select Link analyses.

3 EXISTING STUDY AREA CONDITIONS

3.1 BICYCLE AND PEDESTRIAN FACILITIES

The study area includes multi-modal facilities intended for bicyclists, pedestrians, and equestrians, located primarily in the denser portions of the study area. It may seem as if there's no interaction between these active transportation facilities and trucks, but with high truck volumes adequate and accessible bike and pedestrian facilities improve safety for all road users. There is high demand for pedestrian and bike access on South Main Street in Allentown, but only three intersections CR 526 (Church Street), Lakeview Drive, and CR 539 (High Street) have crosswalks. Each of these intersections are two-way stop intersections creating difficulty for crossing pedestrians. The intersection of CR 526 (Church Street) and CR 539 (Main Street) has poor visibility for pedestrians and vehicles, as shown in Figure 9 below. Additionally, there are roads throughout the study area with paved shoulders of varying widths. There are no sidewalks connecting Stone Bridge Middle School to the surrounding residential areas. The majority of roads in the more rural and suburban areas of the study area have neither sidewalks nor paved shoulders.

The Union Transportation Trail (UTT), is a significant multi-modal trail in Upper Freehold for walking, bicycling, jogging, and horseback riding. The off-road trail extends from Millstream Road near the Ocean County border to Old York Road, adjacent to Mercer County. Where the trail intersects with streets, high visibility continental crosswalks are provided. Currently there are no pedestrian connections between the UTT and Allentown Borough.

Additionally, the Monmouth County Scenic Roadway Plan designates certain roads as Scenic Roadways, which are intended to be used by all modes of transportation, including pedestrians, bicyclists, and equestrians. Currently designated Scenic Roadways in the study area include:

- CR524 (Allentown, Upper Freehold)
- CR 526 (Allentown)
- CR 539 (Allentown, Upper Freehold)
- CR 27 (Upper Freehold)
- CR43 (Upper Freehold)

Figure 9 - Pedestrian and Heavy Truck at the intersection of South Main Street & Church Street in Allentown

3.2 WAYFINDING & SIGNAGE SYSTEMS

FIELD INVENTORY

A field inventory of signage and wayfinding was conducted at 16 key intersections throughout the study area and then mapped onto aerials (Appendix B.1). Weight and height limit signs were observed in a few locations on Sharon Station Road and on Crosswicks Hamilton Square Road. Height limit signs are critical to avoiding property and infrastructure damage and must be very visible and placed so drivers of taller trucks have the appropriate time to take an alternate route if necessary. Some intersections did not have any wayfinding or restriction signs, presenting an opportunity to add signage to better guide and inform truck drivers.

Wayfinding signs in the study area help to direct vehicles, including heavy trucks, to their destinations via appropriate roadways and interchanges (see Figure 8 and Appendix B.1 for details). In relation to heavy truck traffic, the following signs are present in the study area:

- "Trucks-Buses Exit 8" on westbound Interstate 195 in Upper Freehold
- "Trucks-Buses Exit 8" on eastbound Interstate 195 in Robbinsville
- "Trucks-Buses to Allentown Next Right" on eastbound Interstate 195 in Robbinsville

During the field inventory, no "Share the Road" signs were noted in the study area. These signs are used along roads with bicyclists as a means of alerting drivers to their presence. These types of signs may be warranted along some key corridors in the study area where stakeholders have identified a need.

Within the study area, numerous signs are faded and/or located in areas may have an obstructed view. As seen in the pictures below (Figure 10), some signs are placed in a location where vehicles or tree foliage may block them. Some signs, such as the green sign under the Interstate 195 shield on the left-most picture, are completely illegible.

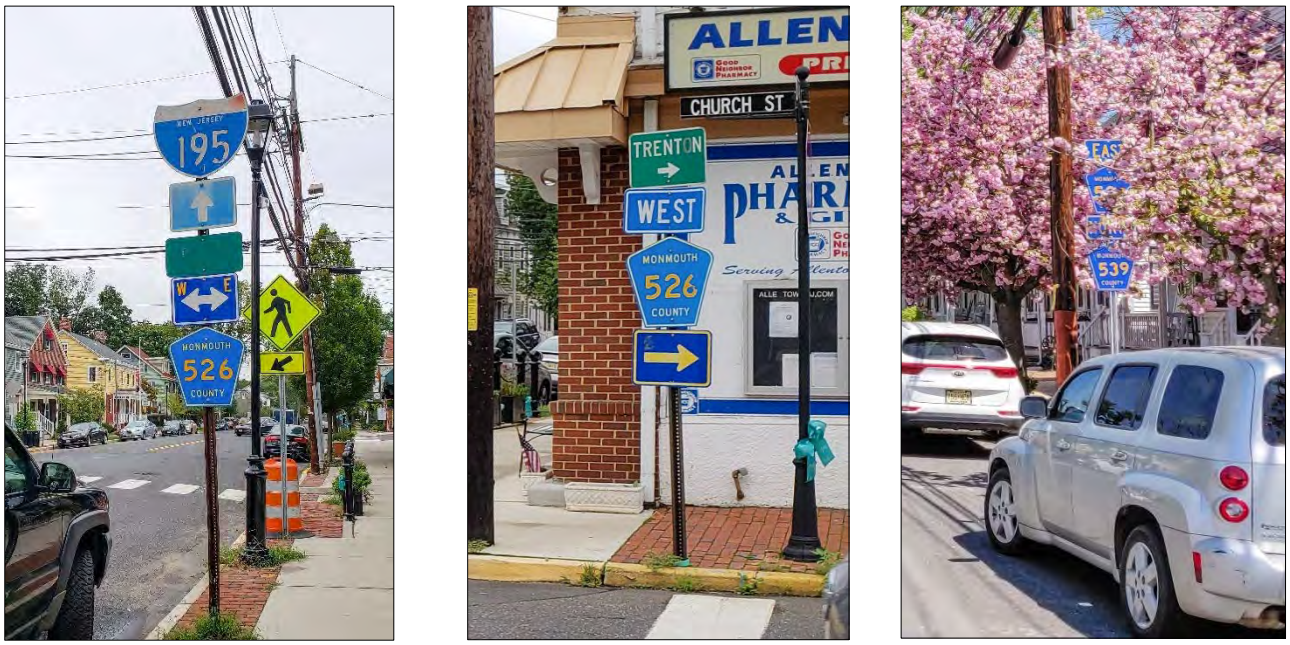


Figure 10 - Study Area Signage Examples

Additionally, there are wayfinding signs directing vehicles to Interstate 95 along Old York Road. During the public outreach process, participants noted that many drivers miss these ramps.

The field inventory also noted the presence of "No Engine Braking" signs on CR 526 Spur in Upper Freehold. It is signed in the southbound direction as shown in Figure 13. Engine braking, also known as J or Jake braking, is a method of braking for trucks with diesel engines. These systems are more effective at slowing heavy vehicles than traditional friction brakes, but they can be very loud. They avoid wear on brakes, and can help a driver maintain control of the vehicle however, due to the noise associated with them many communities ban them in residential areas. Warning signs for no engine braking need careful consideration of placement so that large vehicles have enough time to use traditional braking.

While wayfinding signage and truck-restriction signage can be very helpful for truck drivers, the signs must be placed in appropriate locations and be in good condition so that drivers can see them and have enough time to react. Further evaluation may be necessary to understand if additional

wayfinding or restriction signage is needed and the proper placement of such signage, or if the existing signs should be replaced with new, legible ones.

Figure 11 - Signage for Interstate 195 West and New Jersey Turnpike

Figure 12 - Signage for Interstate 195 East and West

Figure 13 - CR 526 Spur - No Engine Braking Sign

3.3 TRUCK PHYSICAL CONDITIONS/CONSTRAINTS

3.3.1 RESTRICTIONS

Truck restriction signage offers a broad set of tools that can limit and control truck traffic to appropriate facilities, thus reducing the wear and tear on roadways, and impacts on communities. Truck restrictions often include specific truck routes, weight, axle, or height restrictions, no engine braking areas, truck prohibitions, and truck parking restrictions. Currently, there are few truck restrictions in the study area. Sharon Station Road in Upper Freehold north of Interstate 195 currently has a 10-ton limit. One underpass was inventoried within the study area at Sharon Station Road under Interstate 195. The clearance at this location is 16'3'' which is greater than the required vertical clearance for a roadway of this type[14]. Additionally, Crosswicks Hamilton Square Road in Hamilton has a 12-ton weight limit. While outside the study area, this restriction could impact traffic flow and routing within the study area.

3.3.2 TURNING RADII

Many of the study area roadways are narrow and lack shoulders, therefore many intersections have insufficient space to allow for unobstructed heavy truck turns. It is often necessary for these vehicles to encroach into a shoulder or opposing lanes to make a right or left turn. These are legal maneuvers that truck drivers are trained to safely utilize in places with restricted rights-of-way. This necessity can impact traffic flow, require stop bars to be placed further back from the intersection, and/or require parking to be limited approaching an intersection. An analysis of the turning radii for heavy trucks (WB-67) was conducted at all major intersections in the study area. For this analysis, it was assumed that the truck would be turning at 5 MPH. A WB-67 truck has 64 feet between the front and rear axles. The resulting turning movements of this analysis were divided into three categories:

- Vehicle utilizes shoulder, no encroachment to opposing traffic
- Vehicle must use opposing traffic lanes
- Vehicle must mount curb or otherwise leave roadway

These categories are respectively colored yellow, orange, and red on Figure 14. Most intersection movements require trucks to infringe on an opposing lane or shoulder, but not mount the curb or otherwise leave the roadway. In these locations consideration of stop bar placement or parking should be reviewed to ensure adequate turning space is provided. Driver awareness and consideration of these constraints is important. During periods with heavy truck traffic these turns can cause increased delays.

[14] *https://safety.fhwa.dot.gov/geometric/pubs/mitigationstrategies/chapter3/3_verticalclearance.cfm*

The following movements require trucks to mount the curb or otherwise leave the roadway:

- Right turn from southbound Old York Road to Sharon Road
- Right turn westbound from New Canton-Stone Tavern Road to Sharon Station Road
- Left turn westbound from New Canton-Stone Tavern Road to Sharon Station Road
- Right turn eastbound from New Canton-Stone Tavern Road to Sharon Station Road
- Left turn eastbound from New Canton-Stone Tavern Road to Sharon Station Road
- Right turn southbound from Sharon Station Road to New Canton-Stone Tavern Road
- Right turn westbound from CR 526 (Allentown Lakewood Road) to Sharon Station Road
- Left turn eastbound from CR526 (Allentown Lakewood Road) to Sharon Station Road
- Right turn eastbound from CR 524 to CR 28
- Left turn eastbound from CR 28 to CR 524

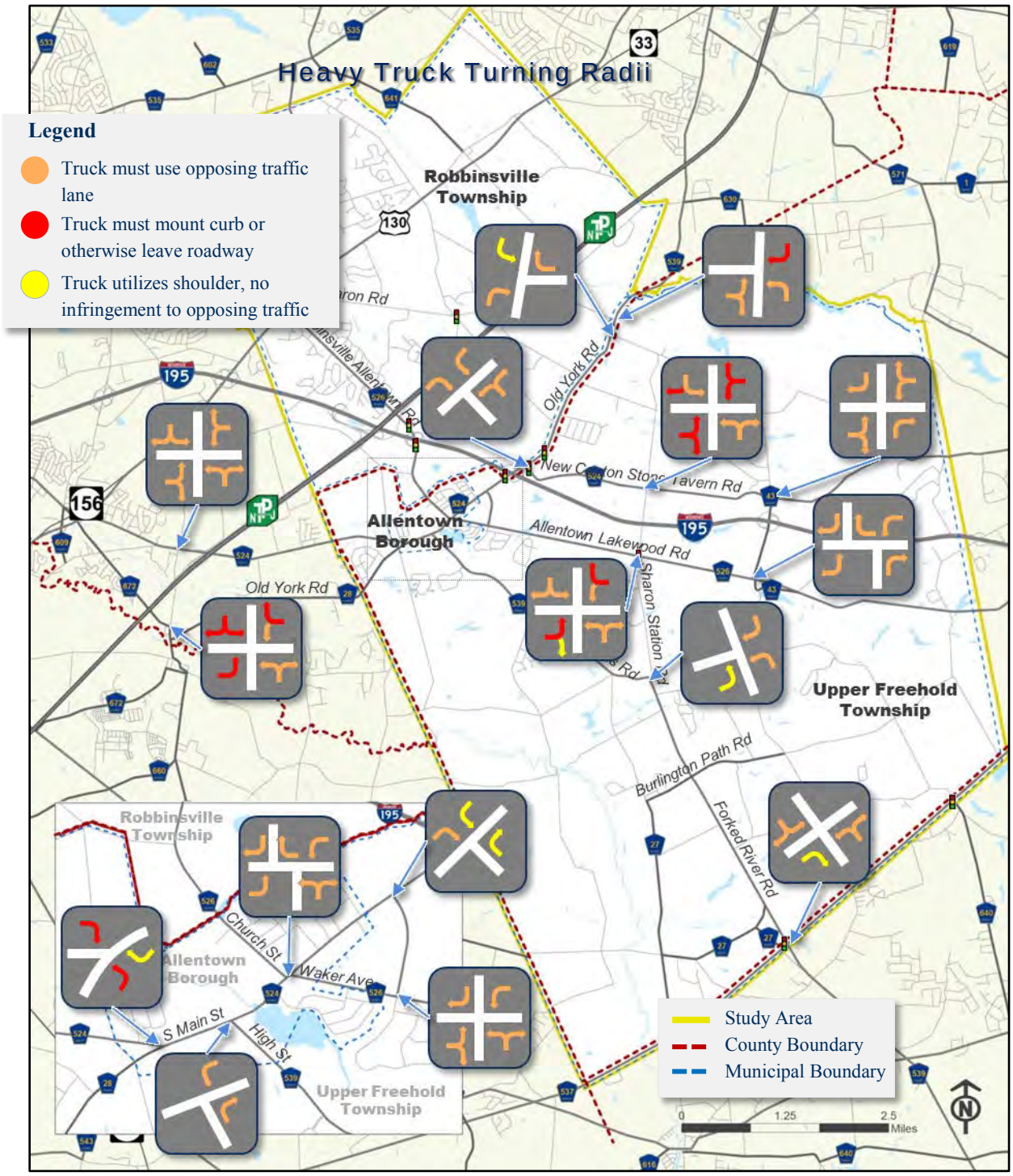


Figure 14 - Heavy Truck Turning Radii

3.4 TRAFFIC ANALYSIS

3.4.1 TRAFFIC VOLUMES

Figure 15 below depicts the traffic counts utilized and their corresponding location ID while Table 6 highlights the count location, month, and year of the count dataset.

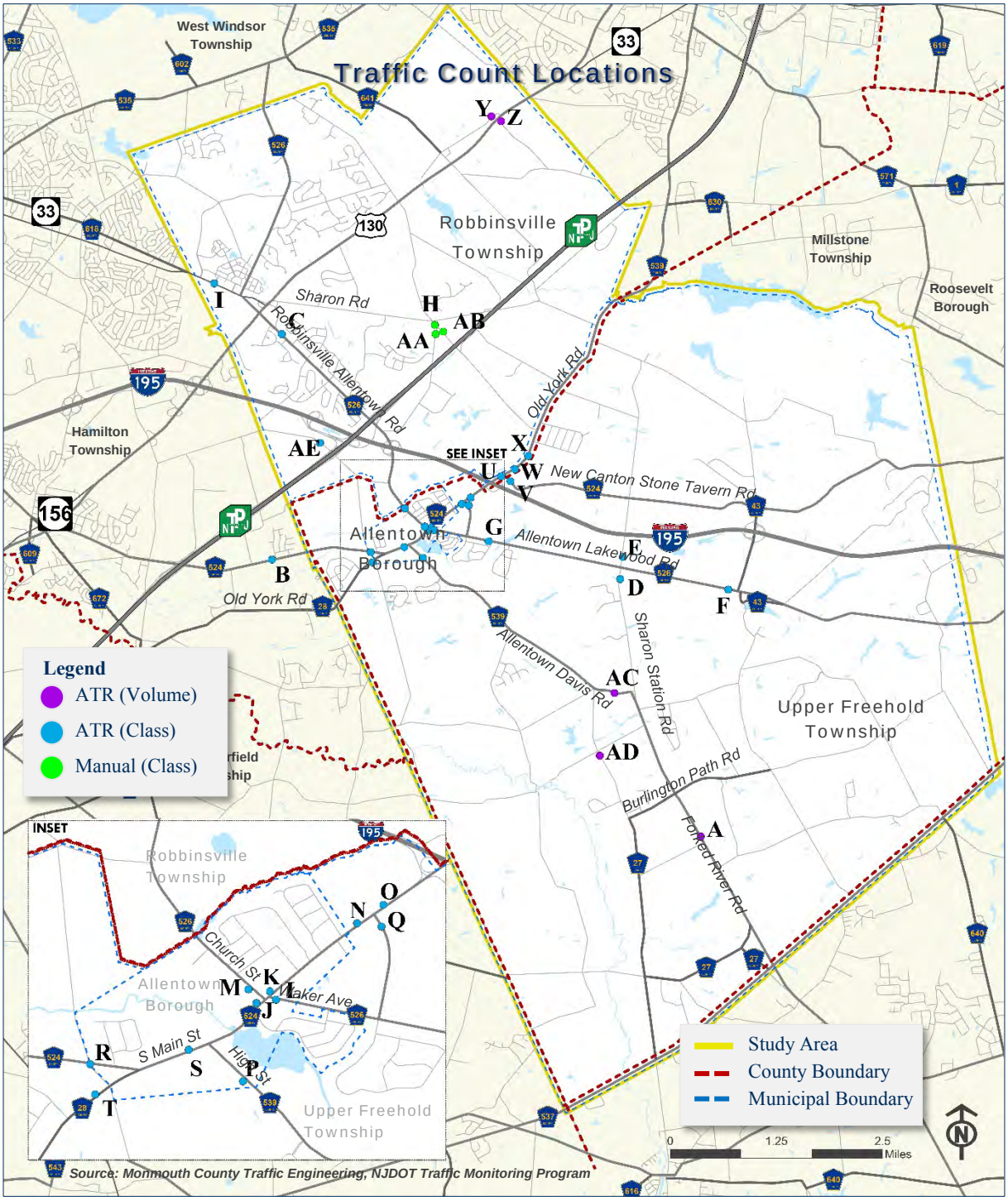


Figure 15 - Traffic Counts Locations

Table 6 - Traffic Count Locations

Location ID	Roadway	Month	Year
A	CR 539 (Forked River Road) between Burlington Path Road and Schoolhouse Road	Apr	2016
B	CR 524 (Yardville-Allentown Road) between Merrick Road and Drialo Drive	Aug	2017
C	Robbinsville Allentown Roadd between US 130 and Vahlsing Way	Jun	2017
D	Sharon Station Road south of CR 526	Nov	2014
E	Sharon Station Road north of CR 526	Nov	2014
F	CR 526 (Allentown-Lakewood Road) east of Sharon Station Road	May	2016
G	CR 526 (Allentown-Lakewood Road) between CR 526 Spur and Galloping Brook Drive	May	2016
H	Gordon Rd north of W Manor Way	Dec	2015
I	NJ 33 / CR 618 west of CR 526	Sep	2017
J	CR 524 (North Main Street) west of CR 526 (Church Street)	Apr	2017
K	Cr 524 (North Main Street) east of CR 526 (Waker Drive)	Apr	2017
L	CR 526 (Waker Drive) south of CR 524 (North Main Street)	Apr	2017
M	CR 526 (Church Street) north of CR 524 (North Main Street)	Apr	2017
N	CR 524 (Old York Road) east of Probasco Drive	May	2017
O	CR 524 (Old York Road) east of CR 526 (Easterly Bypass)	May	2017
P	CR 539 (High Street) south of CR 524 (South Main Street)	May	2017
Q	CR 526 Spur (Easterly Bypass) south of CR 524 (Old York Road)	May	2017
R	CR 524 (Yardville-Allentown Road) east of Breza Road	May	2017
S	CR 524 (South Main Street) west of CR 539 (High Street)	May	2017
T	CR 28 (Old York Road) west of CR 524 (Yardville-Allentown Road)	May	2017
U	CR 539 (Old York Road south of CR 524 (New Canton Stone Tavern Road)	Nov	2017
V	CR 524 (New Canton Stone Tavern Road) east of CR 539 (Old York Road)	Nov	2017
W	CR 539 (Old York Road) north of CR 524 (New Canton Stone Tavern Road)	Nov	2017
X	CR 539 (Old York Road) north of Montgomery Drive	Nov	2017
Y	North Main Street south of Voelbel Road	Aug	2016
Z	US 130 north of Voelbel Road	Aug	2016
AA	W Manor Way	Dec	2015
AB	Gordon Road south of W Manor Way	Dec	2015
AC	CR 539 (Allentown Davis Station Road) between Sharon Station Road and Holmes Mill Road	Nov	2016
AD	Holmes Mill Road between Walnford and Burlington Path Road	Mar	2017
AE	Edgebrook Road between NJ Turnpike (I-95) Overpass and Richardson Road	Oct	2017

Overall, the traffic volumes indicate minimal traffic congestion in the study area. Figure 16 illustrates the midblock morning peak hour volumes on roadways throughout the study area. Table 7 shows the breakdown by vehicle type, including trucks with 2 axles, and 3 axles or over. The general trend in the morning peak hour shows higher volumes in the northbound or westbound directions. This trend is reflected in virtually all the count locations displayed on the map.

This trend indicates that a large portion of the traffic flows during the morning peak hour come from areas south or east of the study area. A similar trend is also observed on the Origin/Destination (O/D) analysis discussed in the subsequent section.

Table 7 - Morning Peak Hour Volumes

Location ID	All vehicles (Cars, Motorcycles, Buses, and Trucks)		Trucks				% Trucks			
			2 Axle		3+ Axle		2 Axle		3+ Axle	
	N/E	S/W	N/E	S/W	N/E	S/W	N/E	S/W	N/E	S/W
A	928	230	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B	148	319	5	8	1	1	3.4%	2.5%	0.7%	0.3%
C	243	723	11	16	5	5	4.5%	2.2%	2.1%	0.7%
D	688	170	26	18	26	16	3.8%	10.6%	3.8%	9.4%
E	388	83	26	3	1	1	6.7%	3.6%	0.3%	1.2%
F	57	117	6	5	5	4	10.5%	4.3%	8.8%	3.4%
G	181	405	18	16	14	32	9.9%	4.0%	7.7%	7.9%
H	43	274	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
I	651	812	27	17	8	7	4.1%	2.1%	1.2%	0.9%
J	534	367	11	5	12	3	2.1%	1.4%	2.2%	0.8%
K	207	258	5	4	1	3	2.4%	1.6%	0.5%	1.2%
L	202	77	3	3	0	1	1.5%	3.9%	0.0%	1.3%
M	449	121	7	3	1	2	1.6%	2.5%	0.2%	1.7%
N	220	223	5	7	2	5	2.3%	3.1%	0.9%	2.2%
O	481	416	12	16	18	26	2.5%	3.8%	3.7%	6.3%
P	543	99	9	6	2	5	1.7%	6.1%	0.4%	5.1%
Q	269	202	6	9	18	24	2.2%	4.5%	6.7%	11.9%
R	196	332	8	5	4	2	4.1%	1.5%	2.0%	0.6%
S	465	393	12	9	8	4	2.6%	2.3%	1.7%	1.0%
T	190	77	3	3	2	1	1.6%	3.9%	1.1%	1.3%
U	714	512	14	23	25	20	2.0%	4.5%	3.5%	3.9%
V	36	302	2	13	2	3	5.6%	4.3%	5.6%	1.0%
W	829	335	19	15	30	25	2.3%	4.5%	3.6%	7.5%
X	286	235	9	9	11	5	3.1%	3.8%	3.8%	2.1%
Y	75	140	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Z	1,273	1,129	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AA	162	40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AB	34	387	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AC	197	185	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AD	89	30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AE	24	80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

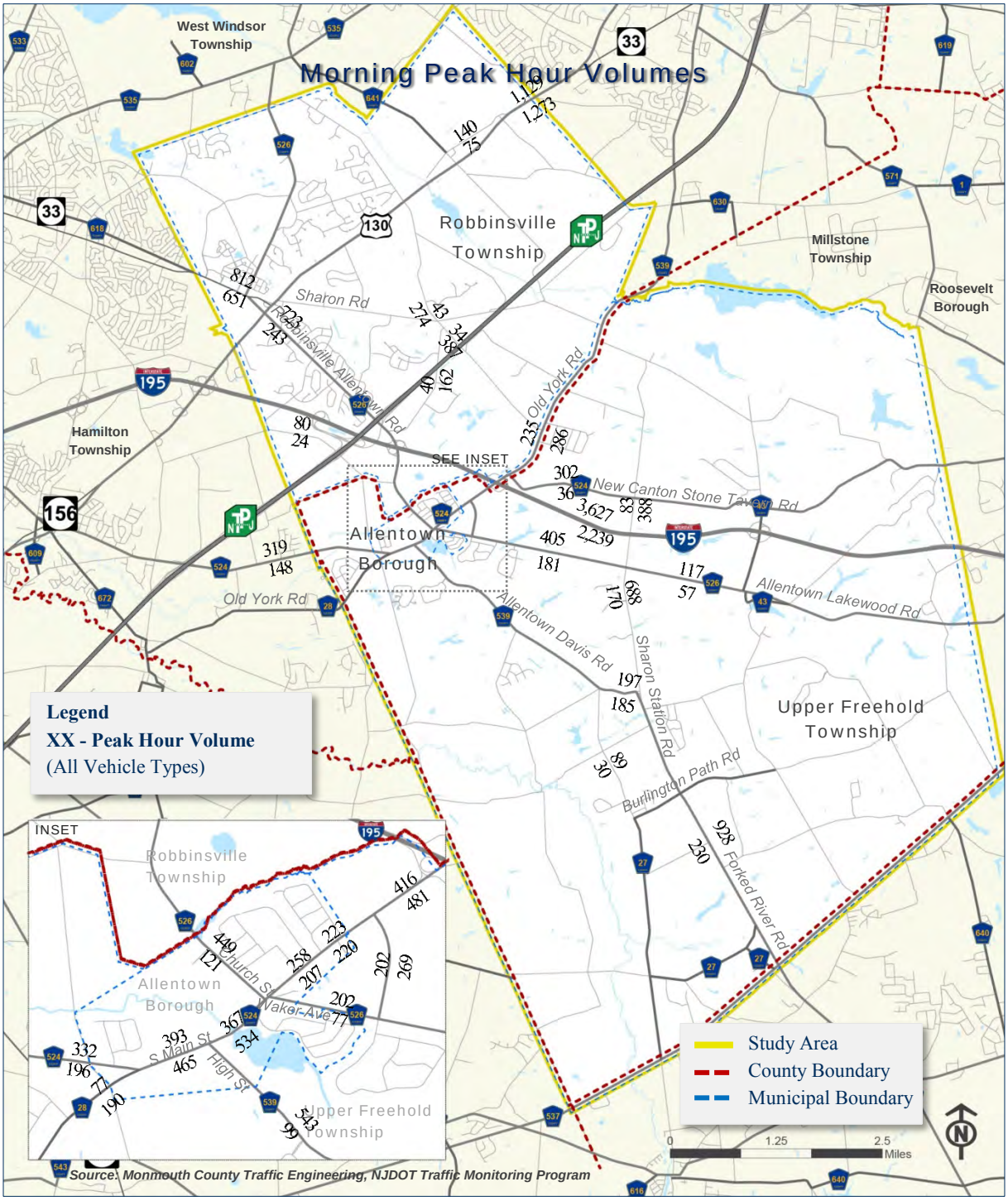


Figure 16 - Morning Peak Hour Volumes (All Vehicle Types)

The reverse is true in Figure 17, which illustrates the evening peak hour volumes. During this period, evening peak hour volumes are higher on the southbound or eastbound directions. Table 8 shows the breakdown by vehicle type, including trucks with 2 axles, and 3 axles or over.

Table 8 - Evening Peak Hour Volumes

Location ID	All vehicles (Cars, Motorcycles, Buses, and Trucks)		Trucks				% Trucks			
			2 Axle		3+ Axle		2 Axle		3+ Axle	
	N/E	S/W	N/E	S/W	N/E	S/W	N/E	S/W	N/E	S/W
A	380	816	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B	451	197	6	3	2	0	1.3%	1.5%	0.4%	0.0%
C	705	490	10	10	3	5	1.4%	2.0%	0.4%	1.0%
D	285	565	22	53	18	13	7.7%	9.4%	6.3%	2.3%
E	139	270	9	11	2	1	6.5%	4.1%	1.4%	0.4%
F	149	84	3	3	0	1	2.0%	3.6%	0.0%	1.2%
G	446	239	11	7	4	16	2.5%	2.9%	0.9%	6.7%
H	154	319	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
I	996	799	15	7	2	5	1.5%	0.9%	0.2%	0.6%
J	504	694	11	8	4	2	2.2%	1.2%	0.8%	0.3%
K	268	362	7	8	2	6	2.6%	2.2%	0.7%	1.7%
L	160	148	3	2	1	1	1.9%	1.4%	0.6%	0.7%
M	281	349	10	6	1	2	3.6%	1.7%	0.4%	0.6%
N	262	312	8	5	2	2	3.1%	1.6%	0.8%	0.6%
O	405	589	14	13	20	7	3.5%	2.2%	4.9%	1.2%
P	346	315	8	18	4	2	2.3%	5.7%	1.2%	0.6%
Q	184	354	8	13	20	8	4.3%	3.7%	10.9%	2.3%
R	340	204	10	5	3	1	2.9%	2.5%	0.9%	0.5%
S	536	470	12	9	8	4	2.2%	1.9%	1.5%	0.9%
T	173	200	5	3	2	1	2.9%	1.5%	1.2%	0.5%
U	546	730	9	26	20	22	1.6%	3.6%	3.7%	3.0%
V	100	151	6	10	0	0	6.0%	6.6%	0.0%	0.0%
W	548	707	14	20	19	25	2.6%	2.8%	3.5%	3.5%
X	214	311	6	21	1	3	2.8%	6.8%	0.5%	1.0%
Y	109	97	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Z	1,306	1,543	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AA	179	48	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AB	73	369	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AC	219	272	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AD	60	91	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AE	72	55	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

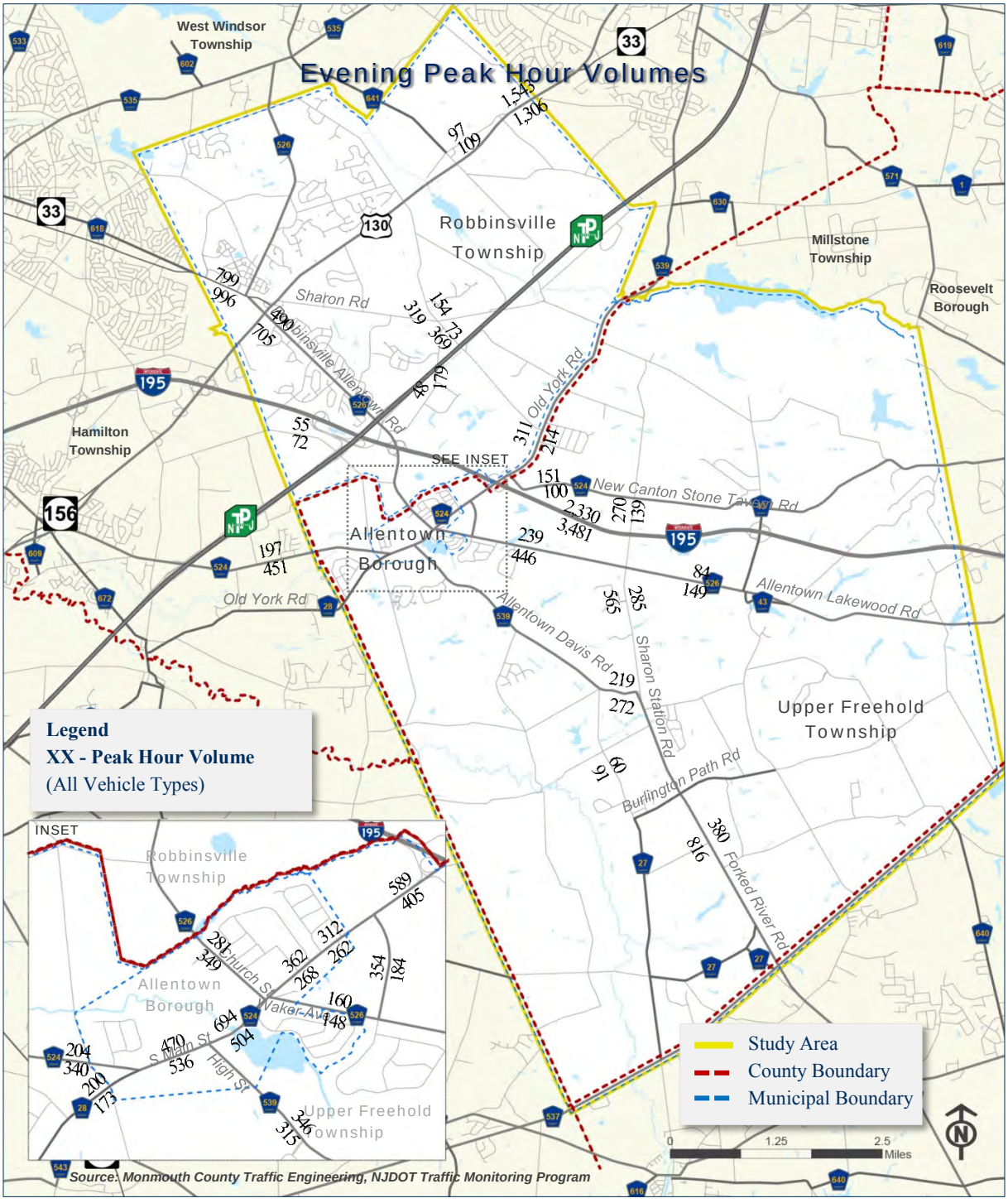


Figure 17 - Evening Peak Hour Volumes (All Vehicle Types)

Table 9 below indicates the average percentage of daily trucks traffic on major roadways in the study area. The truck volumes are subdivided into 2-Axle and 3-Axle or Over classes. 2-Axle, six tire trucks are typically smaller box trucks, while three or more axle trucks are considered heavy vehicles that include dump trucks and tractor trailers (WB-67).

Each row corresponds to a location displayed in Figure 15Figure 15 and Table 6Table 6 (by Location ID). There are relatively low levels of truck activity on the county and local roadways. Generally, truck traffic volumes under 10 percent of total traffic are considered low volumes of trucks. County roadways with the highest percentages of heavy truck (3+ Axle) traffic include:

- Location D: CR 539 (Sharon Station Road) near the intersection with CR 526 (Allentown Lakewood Road), 7.5 percent and 4.7 percent northbound and southbound respectively.
- Location G: CR 526 (Allentown-Lakewood Road) approaching the CR 526 Spur (Easterly Bypass), 5.3 percent and 9.5 percent eastbound and westbound respectively.
- Location Q: CR 526 Spur (Easterly Bypass) near the intersection with South Main Street, 14.7 percent and 7.1 percent northbound and southbound respectively.
- Location W: CR 539 (Old York Road) near the intersection with Montgomery Way, 8.4 percent and 8.2 percent eastbound and westbound respectively.

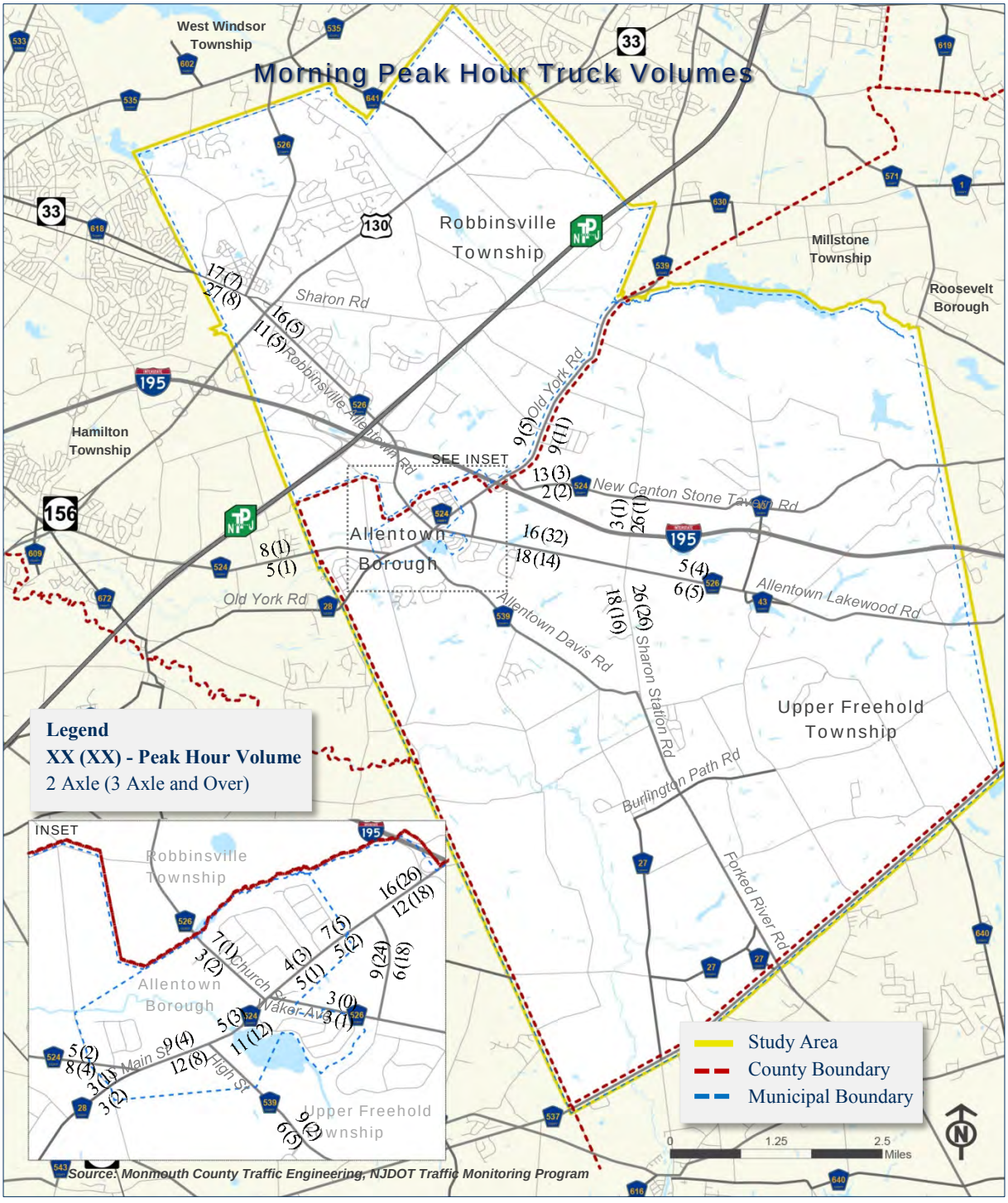
Table 9 - Average Daily Traffic Volumes

Location ID	All vehicles (Cars, Motorcycles, Buses, and Trucks)		Trucks				% Trucks			
			2 Axle		3+ Axle		2 Axle		3+ Axle	
	N/E	S/W	N/E	S/W	N/E	S/W	N/E	S/W	N/E	S/W
A	6,710	6,208	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B	3,162	3,022	55	50	20	13	1.7%	1.7%	0.6%	0.4%
C	6,048	6,383	118	146	63	73	2.0%	2.3%	1.0%	1.1%
D	4,988	4,529	285	478	372	213	5.7%	10.6%	**7.5%**	**4.7%**
E	2,438	1,817	217	85	21	15	8.9%	4.7%	0.9%	0.8%
F	1,224	1,158	80	73	40	37	6.5%	6.3%	3.3%	3.2%
G	3,962	3,496	190	179	211	333	4.8%	5.1%	**5.3%**	**9.5%**
H	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
I	10,068	9,673	230	180	73	96	2.3%	1.9%	0.7%	1.0%
J	6,250	7,619	167	106	153	42	2.7%	1.4%	2.4%	0.6%
K	2,793	3,463	79	110	29	61	2.8%	3.2%	1.0%	1.8%
L	1,733	1,459	47	45	11	19	2.7%	3.1%	0.6%	1.3%
M	4,216	3,850	144	98	42	46	3.4%	2.5%	1.0%	1.2%
N	2,935	3,115	103	106	30	39	3.5%	3.4%	1.0%	1.3%
O	5,459	6,288	214	244	388	272	3.9%	3.9%	**7.1%**	**4.3%**
P	4,428	3,204	129	149	52	43	2.9%	4.7%	1.2%	1.3%
Q	2,764	3,389	114	140	405	241	4.1%	4.1%	**14.7%**	**7.1%**
R	2,643	2,747	95	90	24	28	3.6%	3.3%	0.9%	1.0%
S	5,204	4,946	158	182	69	64	3.0%	3.7%	1.3%	1.3%
T	1,979	1,726	77	61	32	27	3.9%	3.5%	1.6%	1.6%
U	6,300	7,770	211	369	460	524	3.3%	4.7%	**7.3%**	**6.7%**
V	869	1,998	57	104	19	22	6.6%	5.2%	2.2%	1.1%
W	6,183	6,732	239	253	519	552	3.9%	3.8%	**8.4%**	**8.2%**
X	2,777	3,151	138	227	124	131	5.0%	7.2%	4.5%	4.2%
Y	1,051	1,367	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Z	17,062	17,368	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AB	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AC	2,624	2,900	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AD	774	799	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AE	595	759	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Figure 18 and Figure 19 below illustrate the morning and evening peak hour heavy truck volumes respectively. The term "peak hour" refers to the peak time for all vehicles during the morning or evening periods, which typically takes place between 7 am to 9 am, and 4 pm to 6 pm in the study area.

Most of the heavy trucks travel on Sharon Station Road, CR 526 (Allentown Lakewood Road), the CR 526 Spur (Easterly Bypass), and along CR 539 (Old York Road) north of the Easterly Bypass.

The data indicates that very few heavy trucks pass through downtown Allentown during both peaks, when the highest number of trucks would be passing through the area. The peak truck traffic should be taken into consideration in conjunction with the overall daily truck traffic to create a complete understanding of trucking activity. Figure 20 displays the total daily traffic volumes in the study area. Allentown has low levels of daily truck traffic as well as low levels of heavy truck traffic during peak periods. However, even low levels of truck traffic can be disruptive and affect quality of life, and observations by stakeholders reflect that the traffic counts do not account for periods of significantly higher than normal truck traffic. Interviews with freight business operators revealed that trucks carrying construction materials often operate in groups to serve large projects, and residents report that these coordinated movements are disruptive.



Source: Monmouth County Traffic Engineering, NJDOT Traffic Monitoring Program

Figure 18 - Morning Peak Hour Truck Volumes

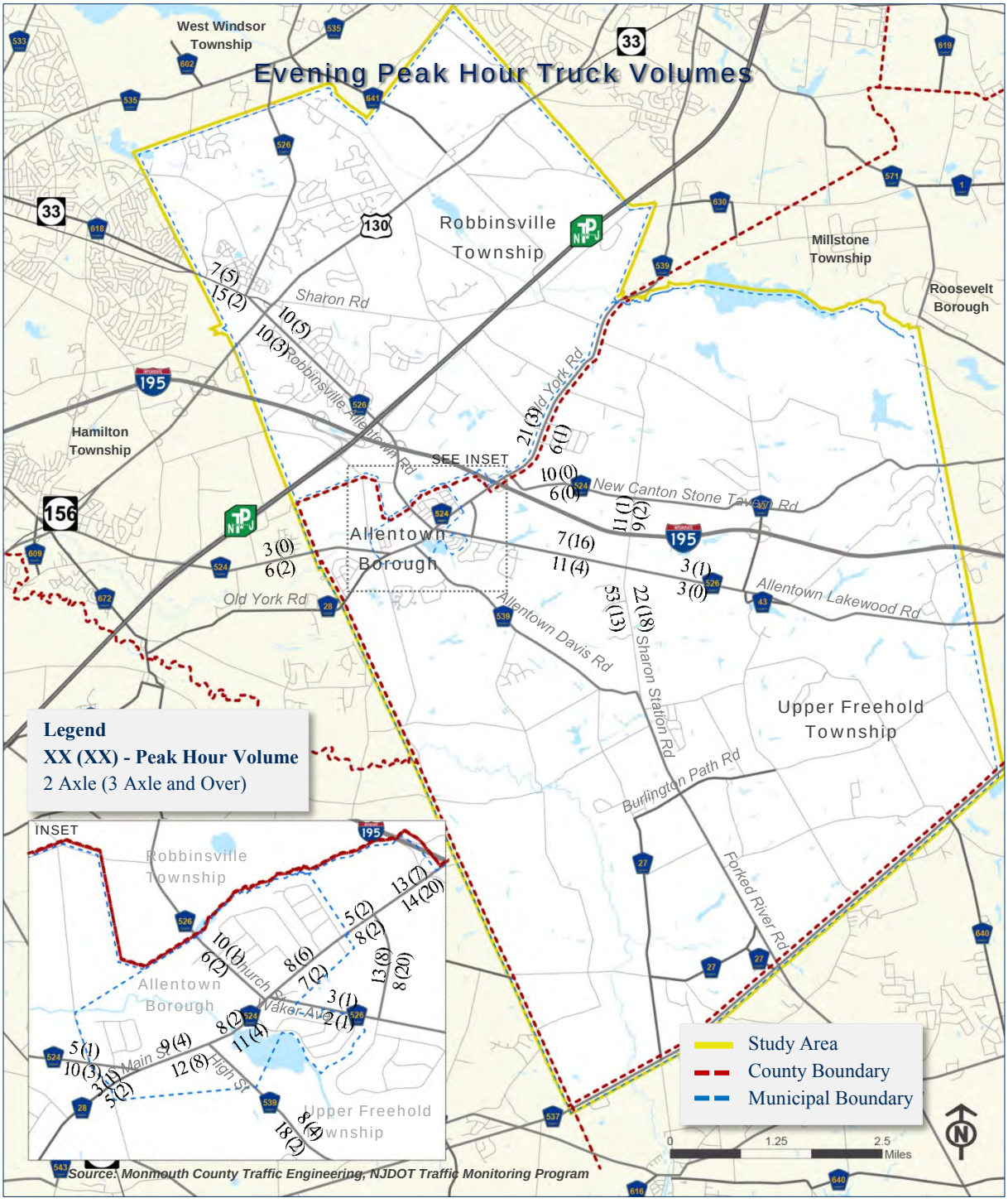


Figure 19 - Evening Peak Hour Truck Volumes

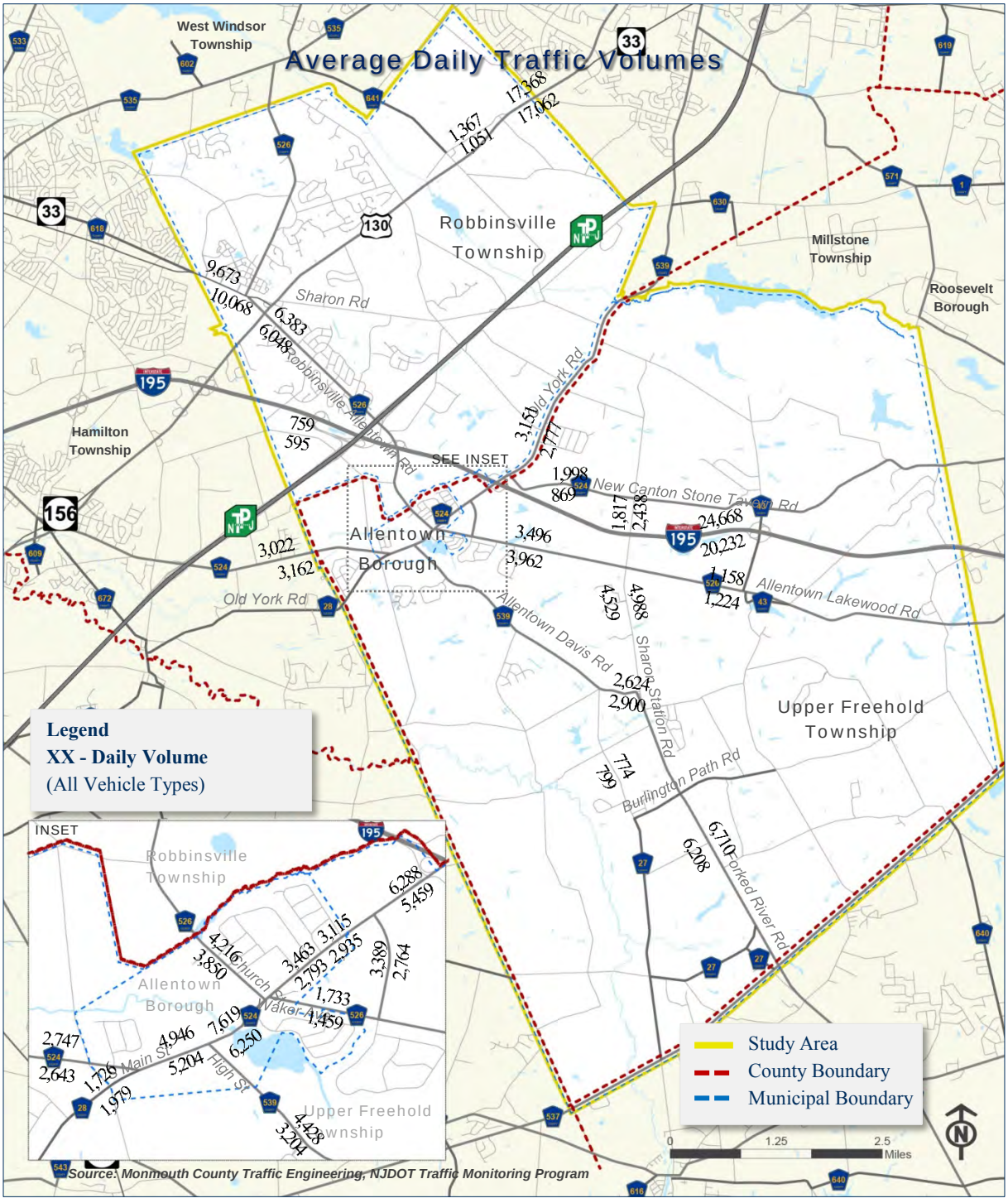


Figure 20 - Average Daily Traffic Volumes

3.4.3 ORIGIN AND DESTINATION OF FREIGHT TRAFFIC

Another important component of an existing conditions analysis is the understanding of traffic flows coming into, out of, and through the study area. For this purpose, an Origin and Destination (OD) analysis was conducted using location-based cellphone and GPS data. This kind of analysis provides information regarding the origin and destination of traffic flows; and is helpful to determine where traffic is along any particular roadway segment. For this study, special attention was given to truck movements. Therefore, the OD analysis was conducted for two groups of vehicle classes: passenger vehicles (cars, motorcycles, buses, and small size non-commercial trucks) and commercial vehicles (medium and large size trucks). The analysis was conducted for multiple time periods: yearly (January through December 2017), seasonally (spring, summer, fall, and winter of 2017), as well as for different times of the day as noted below:

- Early Morning (12:00 am to 6:00 am)
- Morning Peak Period (6:00 am to 10:00 am)
- Midday (10:00 am to 3:00 pm)
- Evening Peak Period (3:00 pm to 7:00 pm)
- Night (7:00 pm to 12:00 am)

A regional zone system, shown in Figure 21 below, was used to differentiate regional and local traffic patterns. The zone system uses smaller zones within the study area to show a finer grain of detail for local movements. Each colored polygon can represent an origin or a destination for a trip. .

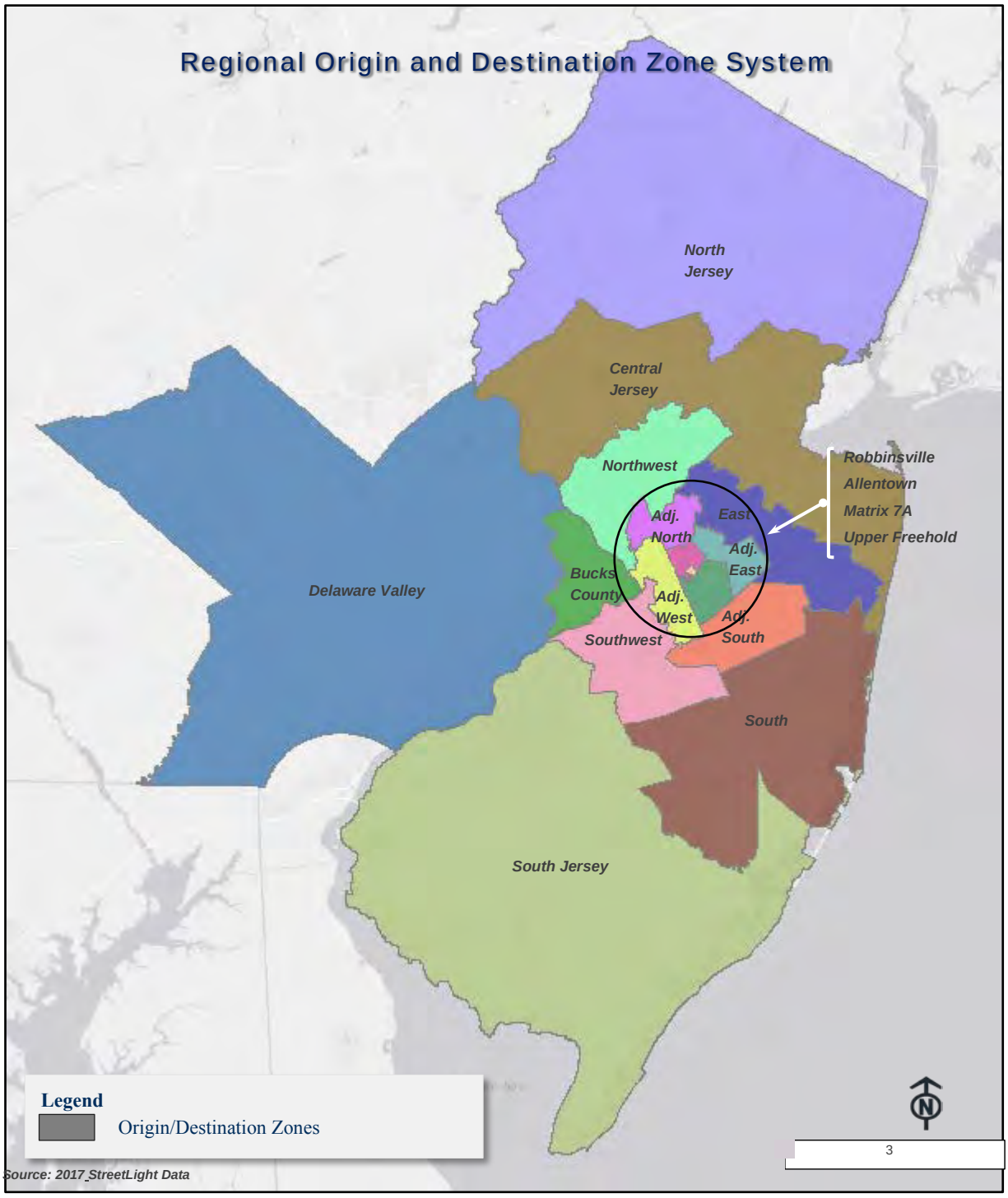


Figure 21 - Regional Origin and Destination Zone System

The resulting data analysis determined 70 percent of daily commercial vehicle movements originate and terminate within a six-mile radius of the study area. Areas with more economic activity capture a larger percentage of daily truck trips. Similar traffic patterns were observed in the morning and evening peak periods as well as daily. This analysis was conducted during different seasons of the year including spring, summer, fall and winter. Little variation was found between the seasons.

At the regional level the results indicate that approximately 21 percent of commercial truck trips that travel through the study area originate and/or end in either Upper Freehold or areas to the southwest (Hamilton, northern Burlington County) and approximately 21 percent originate/or end in the adjacent western areas.

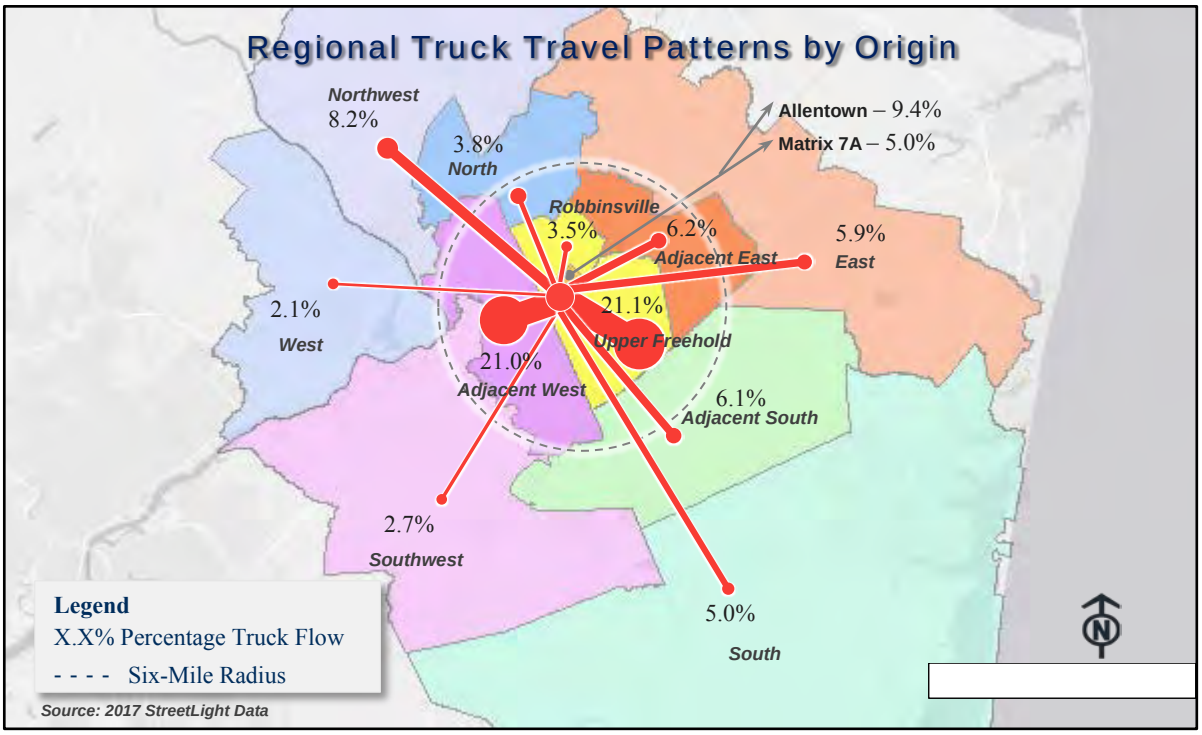


Figure 22 - Truck Travel Patterns (Origins)

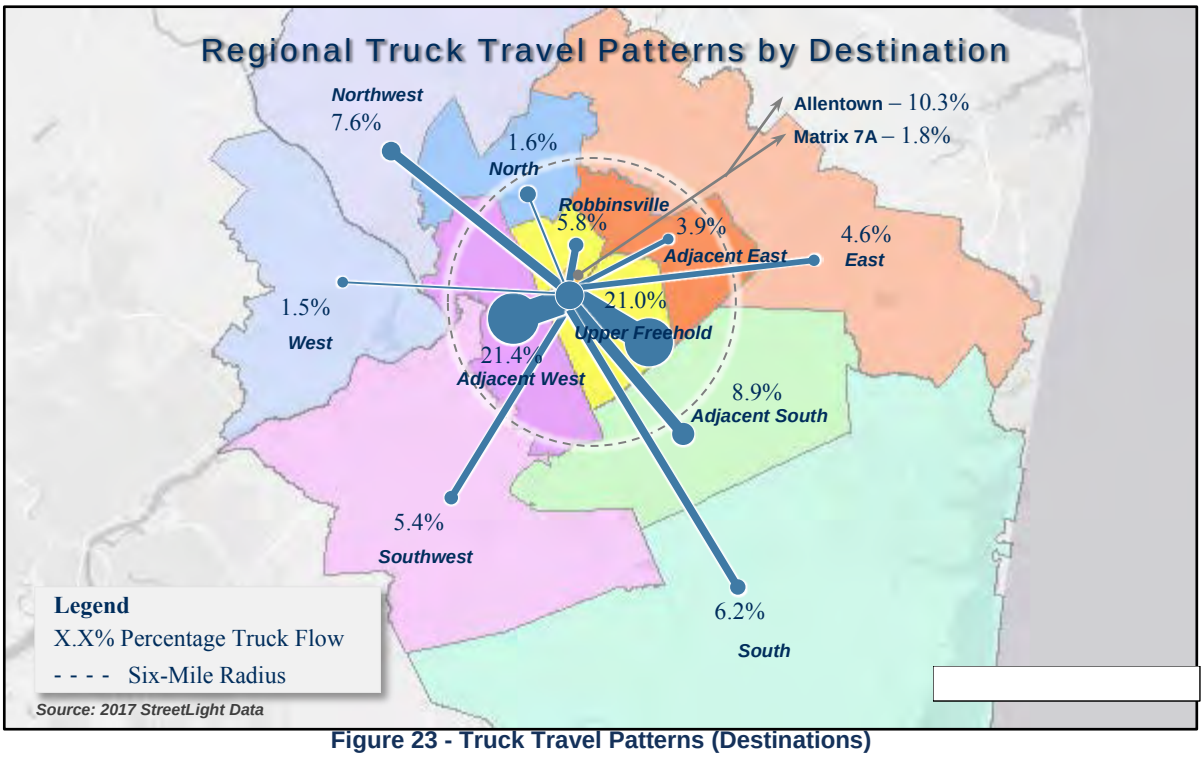


Figure 23 - Truck Travel Patterns (Destinations)

At the local level, within the boundaries of the study area, the results show that the highest truck entry point begins in Allentown at the Interstate 195 off-ramp from Interchange 7 to CR 526 (Robbinsville-Allentown Road) which carries about 25 percent of overall daily trips, as denoted on Table 10. On the opposite end, 27 percent of the overall daily trips exit the study area via CR 539 (Pinehurst Road south), as shown on Table 11.

Table 10 - Top Origin/Entry Roadways in the Study Area

Origin/Entry Roadway	AM	PM	Daily
Interstate 195 EB Off Ramp Exit 7 to CR 526 Robbinsville Allentown Road	26%	21%	25%
CR 526 Robbinsville Allentown Road (North of New Jersey Turnpike)	11%	3%	7%
CR 539 Pinehurst Road (South)	5%	18%	11%
Interstate 195 WB Exit 8 Off Ramp to CR 524 Old York	11%	9%	9%
CR 539 Old York Road (East of Montgomery Way)	2%	17%	7%
Interstate 195 EB Off Ramp Exit 8 to CR 524 Old York Road	15%	5%	12%
Others	30%	27%	29%

Table 11 - Top Destination/Exit Roadways in the Study Area

Destination/Exit Roadway	AM	PM	Daily
CR 539 Pinehurst Road (South)	28%	22%	27%
Old York Road (West of New Jersey Turnpike)	17%	28%	16%
CR 524 (West of New Jersey Turnpike)	21%	7%	15%
CR 526 Robbinsville Allentown Road (North of New Jersey Turnpike)	5%	21%	11%
Interstate 95 WB On Ramp Exit 7 from CR 526 Robbinsville Allentown Road	9%	7%	9%
CR 539 Old York Road (East of Montgomery Way)	12%	2%	7%
Others	8%	13%	15%

3.4.5 LEVEL OF SERVICE

A capacity analysis was conducted for several intersections and roadway segments in the study area. This analysis provides a Level of Service (LOS) measure, which provides an indication of the amount of delay (in seconds) experienced by motorist to proceed through an intersection during peak hours. LOS results for intersections are provided using an alphabetical scale varying from A to F, with A indicating no delay and F denoting highly congested conditions. Generally, LOS A through C are considered acceptable. Similarly, for roadway segments LOS is based on the Volume/Capacity (V/C) ratio which is the number of vehicles recorded along the road compared to the roadways designed maximum capacity.

Figure 24 - Level of Service (LOS)

In the study area, the LOS was calculated for both the morning and evening peak hours to factor in differences in traffic patterns and to better quantify the delay along the most congested roadway segments in the study area.

CR 524 AND CR 526 SPUR (UPPER FREEHOLD)

At this intersection CR 526 Spur has stop signs with a slip lane for right turns separated from the left turn lane by a concrete island. Vehicles turning left from CR 524 (Old York Road) have a dedicated left turn lane. Turns from CR 524 (Old York Road) onto the CR 526 Spur are free movements (i.e. lack any traffic control). The intersection has no pedestrian facilities. Backups can occur for vehicles turning onto the uncontrolled CR 524 (Old York Road) or turning left from CR 524 due to high volumes of unimpeded through movement vehicles. These movements operate at a LOS F for the PM peak hour.

ALLENTOWN LAKEWOOD ROAD AND SHARON STATION ROAD (UPPER FREEHOLD)

This intersection in Upper Freehold Township is controlled by a traffic signal, and has no pedestrian crossings. This intersection operates at an overall LOS D and LOS C during the morning and evening peak hours respectively. The approach of Sharon Station Road, northbound direction, operates at LOS E during the morning peak and LOS D during the evening peak. All other approaches operate at LOS C or better.

SOUTH MAIN STREET AND HIGH STREET (ALLENTOWN)

Vehicles traveling from CR 539 (High Street) northbound have a stop sign. Traffic on South Main Street has no traffic controls. Each leg of the intersection has crosswalks. CR 539 (High Street)

becomes CR 539 (Allentown-Davis Station) and is a major connector in the area. CR 539 (High Street) operates at LOS F during both peak hours.

SOUTH MAIN STREET AND CHURCH STREET (ALLENTOWN)

This intersection lies at the heart of Allentown's downtown. Traffic on CR 526 (Church Street) has a stop sign. Traffic on CR 539 (South Main Street) has no traffic controls. Crosswalks exist on the west and south legs of the intersection with pedestrian crossing signs on CR 539 (South Main Street). CR 526 (Church Street) provides a direct connection with Robbinsville and points west, necessitating high volumes. High traffic volumes along CR 539 (South Main Street) and high pedestrian volumes crossing CR 539 (South Main Street) can lead to delays for vehicles traveling from CR 539 (South Main Street). High left turn volumes onto CR 536 (Church Street) can lead to delays along CR 539 (South Main Street) as well. The existing LOS for the morning and evening peaks is displayed in Figure 25 and Figure 26.

ROADWAY SEGMENTS

The capacity analysis for roadway segments indicates that Sharon Station Road between CR 526 (Allentown-Lakewood Road) and Davis Station Road has LOS E, indicating that the intersection has issues clearing vehicles. Other roadway segments in the center of the study area operate at acceptable levels of service as shown in Figure 25 and Figure 26.

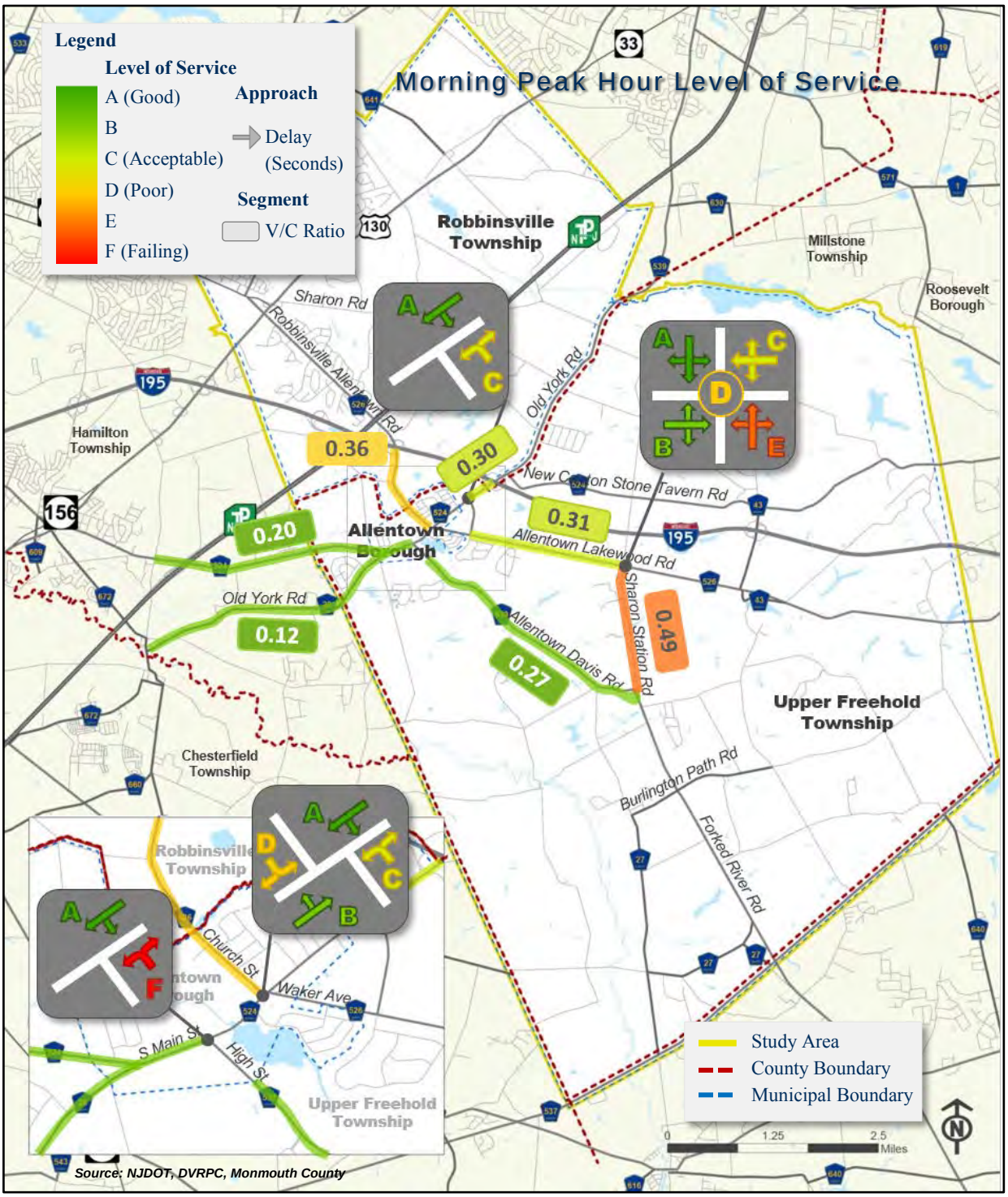


Figure 25 - Morning Peak Hour Level of Servic

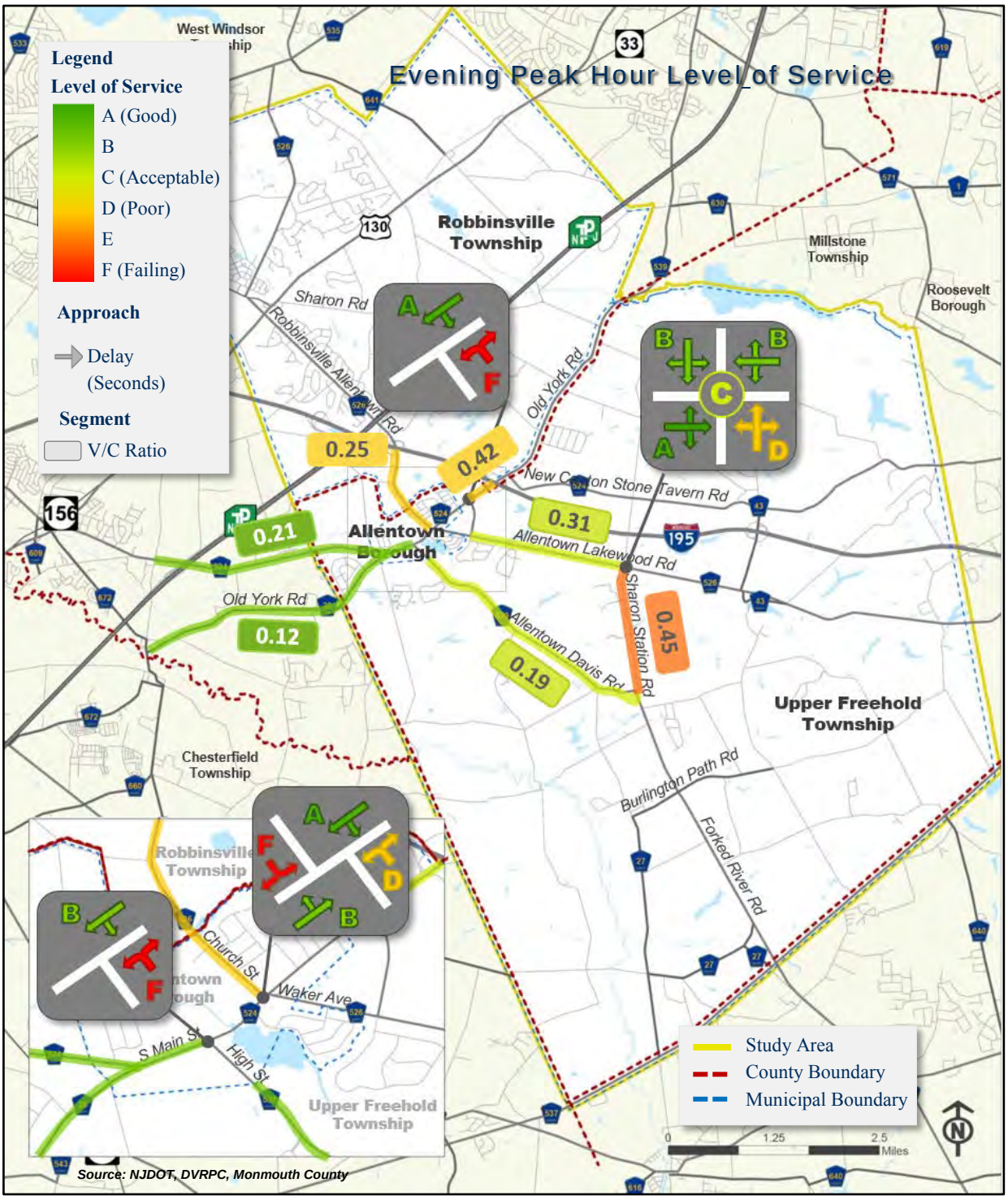


Figure 26 - Evening Peak Hour Level of Service

3.5 CRASH STATISTICS

More crashes occurred in the western, more highly populated portion of the study area and on major highways where there are higher volumes of cars traveling at higher speeds. High crash locations include:

- US 130 at NJ 33 (211 crashes)
- New Jersey Turnpike south of the Interstate 195 interchange (113 crashes)
- Interstate 195 west of the New Jersey Turnpike (152 crashes)
- Old York Road north of the interchange with Interstate 195 near the Matrix Business Park complex particularly near the complex's entrance (57 crashes)

Additionally, although only 21 crashes (none involving a truck) occurred at the intersection of CR 524 (New Canton-Stone Tavern Road) and Sharon Station Road during the analysis period, three resulted in fatalities; more than any other study area intersection. At this intersection, Sharon Station Road has stop controls while CR 524 is uncontrolled. This route has been observed to be utilized to avoid heavy congestion along Interstate 195. This increased peaking volumes on New Canton-Stone Tavern Road is a contributing factor to the high crashes at this location.

Throughout the study area, most of the crashes were rear-end crashes, particularly on higher speed roads and highways where motorists must slow down due to congestion or entering/exiting vehicles, as shown on Table 12. Detailed crash cluster data is shown in Figure 27.

Table 12 - Crash Clusters in the Study Area

Location	# Crashes	Fatalities	Serious Injuries	Most Common Crash Type	% Crash in Dark Lighting	Involved Heavy Truck	Involved Truck 3+ Axle
US 130 at NJ 33/Sharon Road/ CR 526	211	0	0	Rear End (55%)	31%	9%	3%
Interstate 195 near New Jersey Turnpike Interchange 7A	152	0	0	Rear End (58%)	21%	12%	5%
Interstate 195 near Exit 7	120	0	1	Rear End (50%)	40%	4%	2%
New Jersey Turnpike South of Interchange 7A	113	0	0	Side-Swipe (41%)	25%	27%	16%
Old York Road near Matrix Site	57	0	0	Rear End (58%)	40%	4%	2%
CR 539 (Allentown Davis Road) at Sharon Station Road	42	0	0	Rear End (52%)	17%	5%	0%
Old York Road, Walters Road to Sharon Road	41	1	1	Fixed Object (34%)	44%	5%	3%
New Canton-Stone Tavern Road at Sharon Station Road	21	3	0	Right Angle (38%)	19%	0%	0%
CR 526 (Allentown Lakewood Road) at Sharon Station Road	21	0	0	Fixed Object (43%)	17%	5%	5%

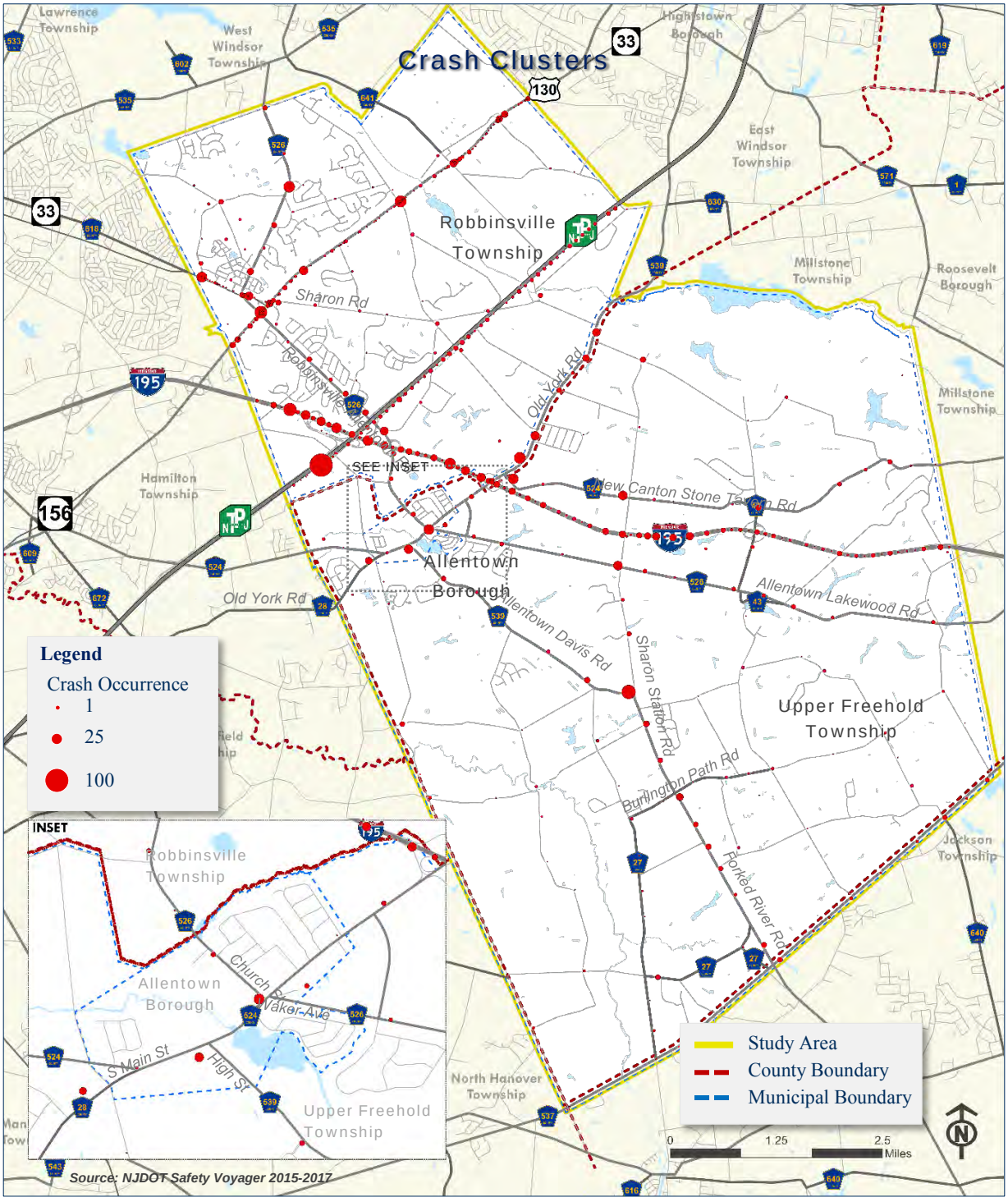


Figure 27 - Crash Clusters

Heavy truck crashes occurred primarily along Interstate 195 (11 percent of total crashes), and on the New Jersey Turnpike south of Interstate 195 (27 percent of total crashes). Two crashes involving heavy vehicles occurred at the intersection of CR 524 (Main Street) and CR 526 (Church Street) in Allentown. This accounts for 8 percent of the 25 crashes reported at the intersection between 2015 and 2017. Thirty-three crashes were documented near the Matrix entrance along Old York Road, one of which involved a heavy truck. Several heavy truck crashes occurred along Forked River Road between Monmouth Road and CR 539 (Allentown-Davis Station Road). Of the 71 crashes recorded along this route, six involved heavy trucks. Truck crash concentrations are displayed in Figure 28.

Overall, truck crashes are mainly occurring on major highways, not local roads in the study area, with a few key exceptions on Main Street in Allentown and Forked River Road in Upper Freehold.

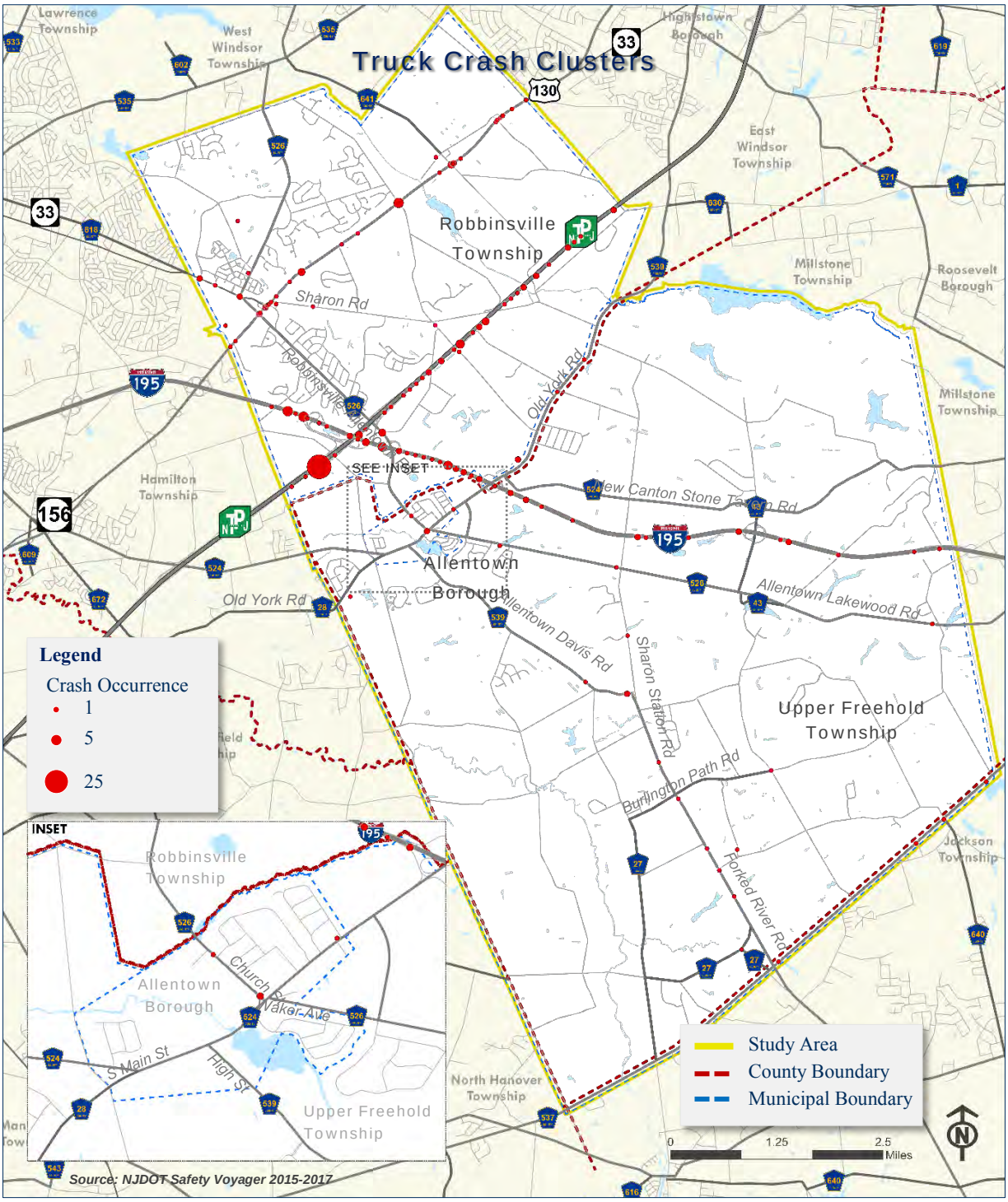


Figure 28 - Truck Crash Clusters

APPENDIX

B.1 FIELD INVENTORY

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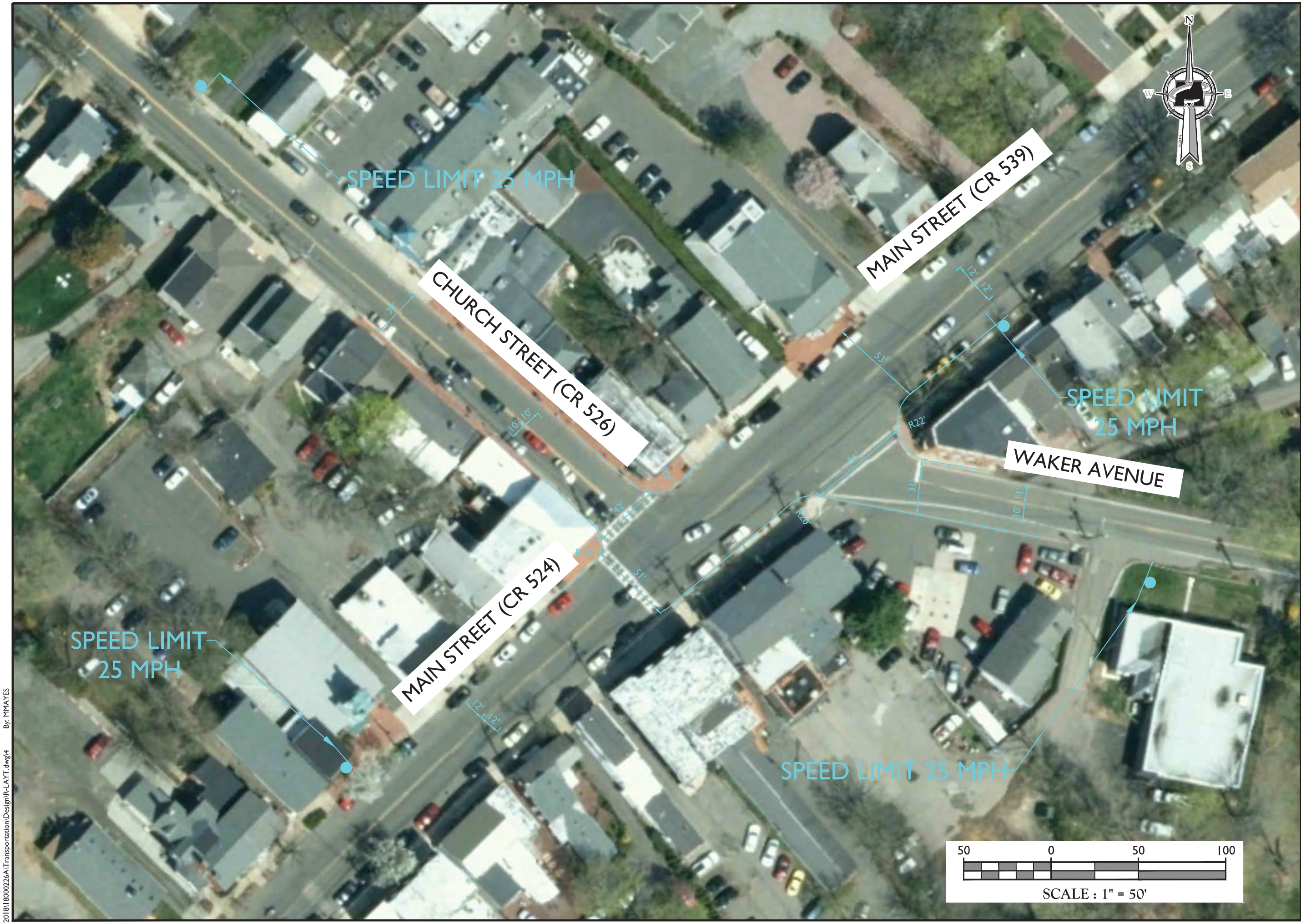

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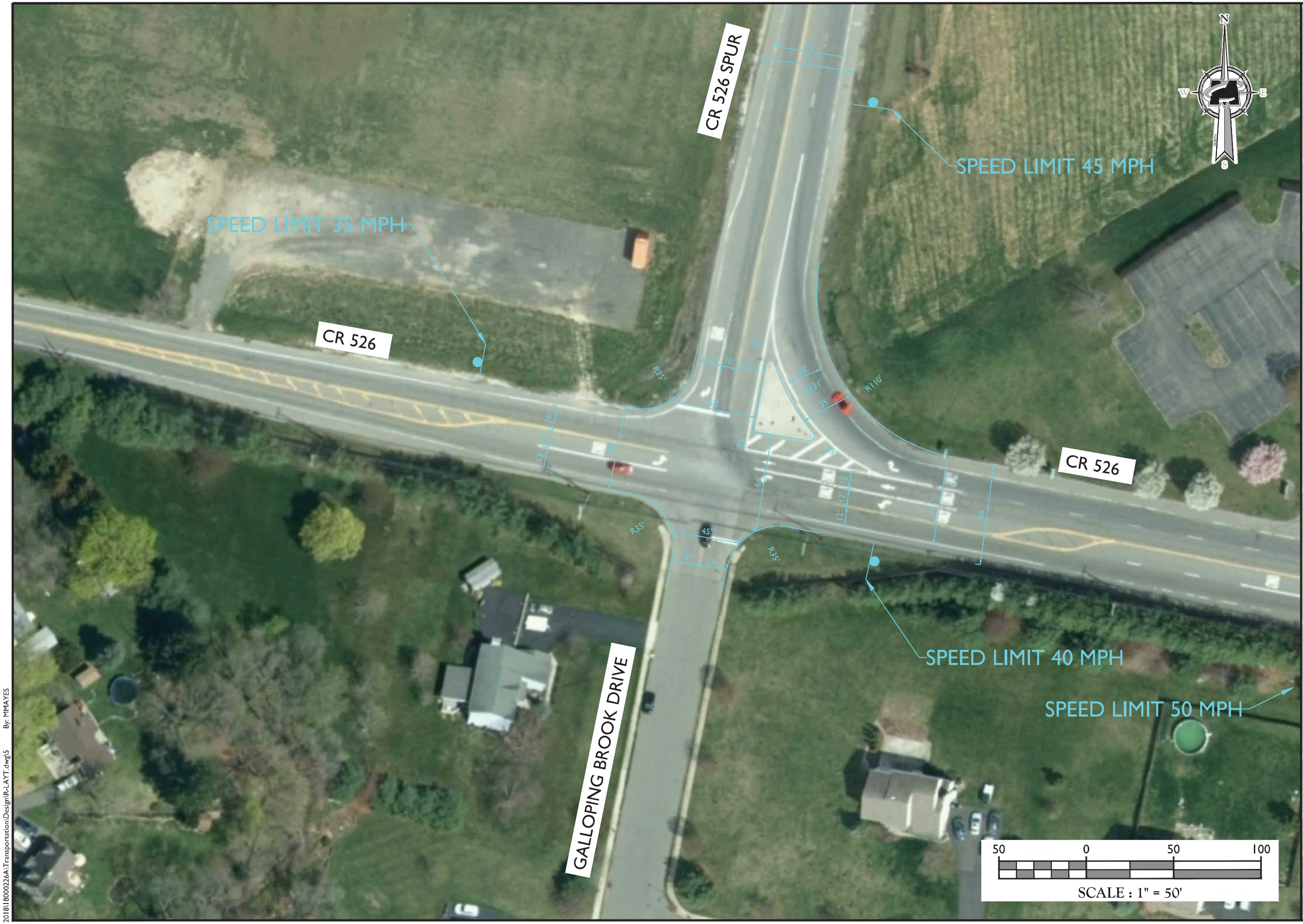

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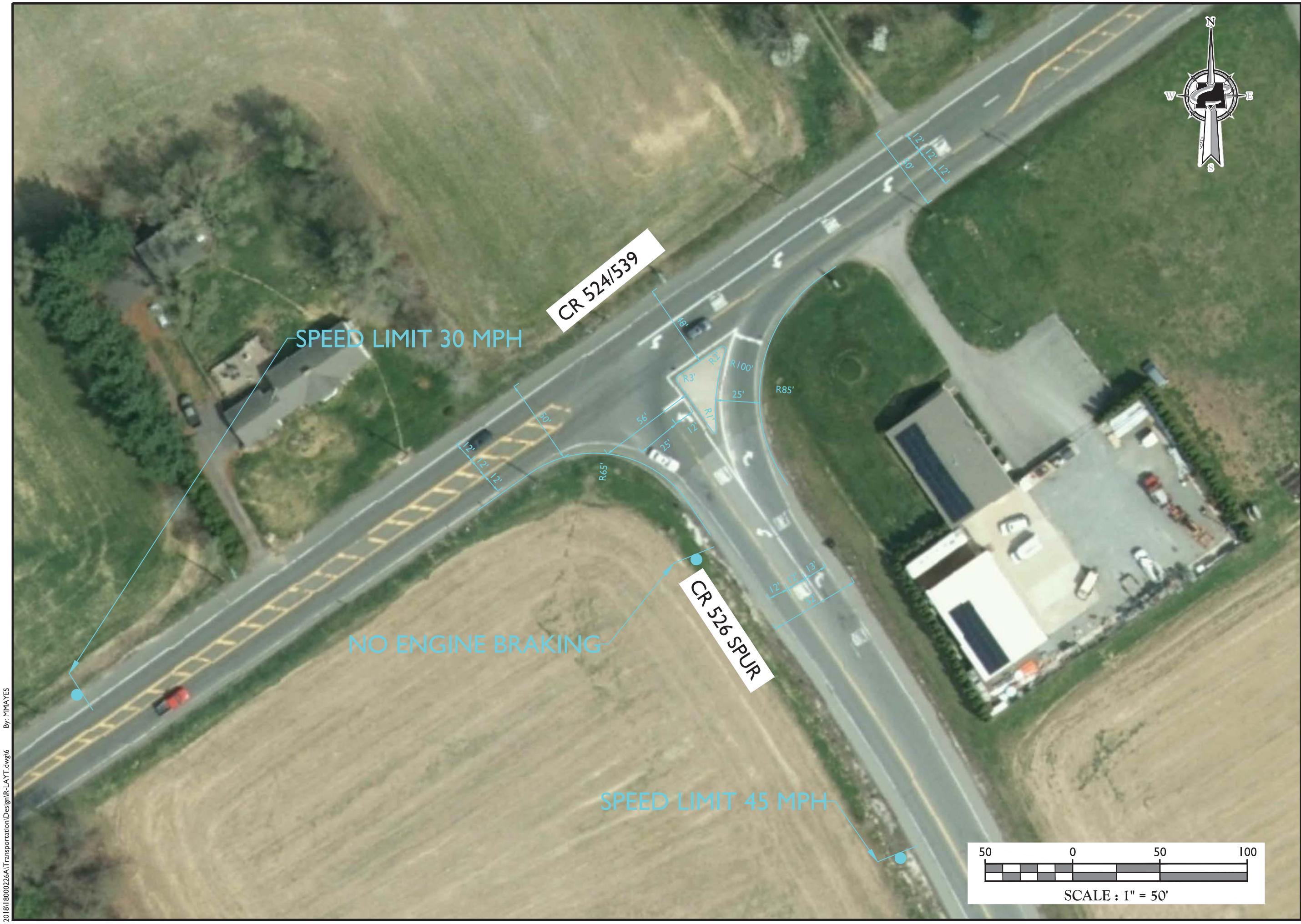

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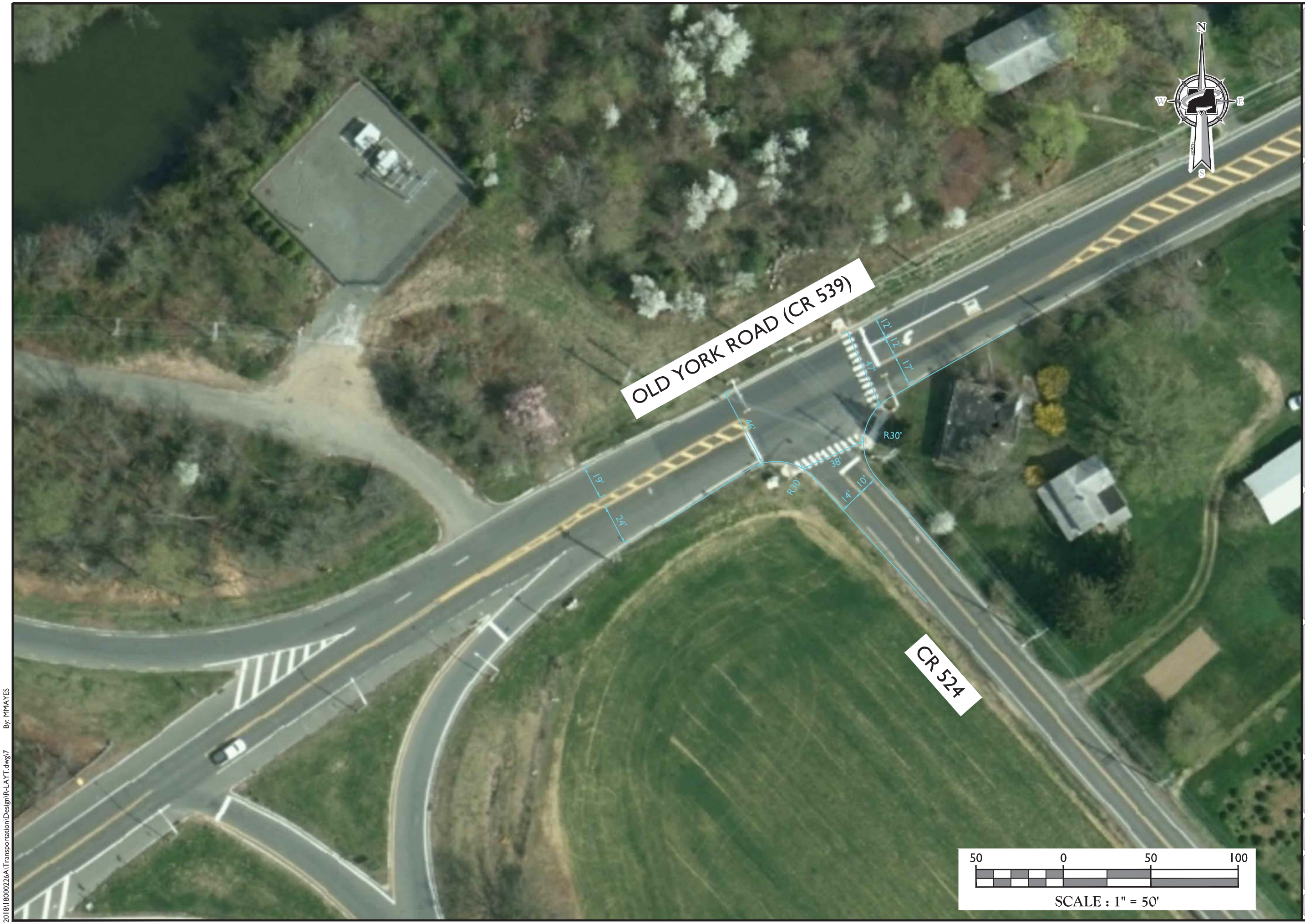

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PROJECT NUMBER:	DRAWING NAME:
20181800	R-LAYT

SHEET TITLE:

CR 524 & OLD YORK ROAD (CR 539)

SHEET NUMBER:

7 of 17

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SHEET TITLE: HERBERT ROAD & OLD YORK ROAD (CR 539)

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PROJECT NUMBER: 20181800

DRAWING NAME: R-LAYT

SHEET TITLE: SHARON ROAD & OLD YORK ROAD (CR 539)

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PROJECT NUMBER:	DRAWING NAME:
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SHEET TITLE: MONMOUTH ROAD (CR 537) & FORKED RIVER ROAD (CR 539)

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PROJECT NUMBER: 2018\1800
DRAWING NAME: R-LAYT

SHEET TITLE: CR 539 & SHARON STATION ROAD

SHEET NUMBER: 11 of 17

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SHEET TITLE: ALLENTOWN LAKEWOOD (CR 526) & SHARON STATION ROAD

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SHEET TITLE: CR 526 & IMLAYSTOWN ROAD

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DRAWING NAME: R-LAYT

SHEET TITLE: CR 524 & IMLAYSTOWN ROAD

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PROJECT NUMBER:	DRAWING NAME:
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SHEET TITLE:
BROAD STREET & CHURCH STREET

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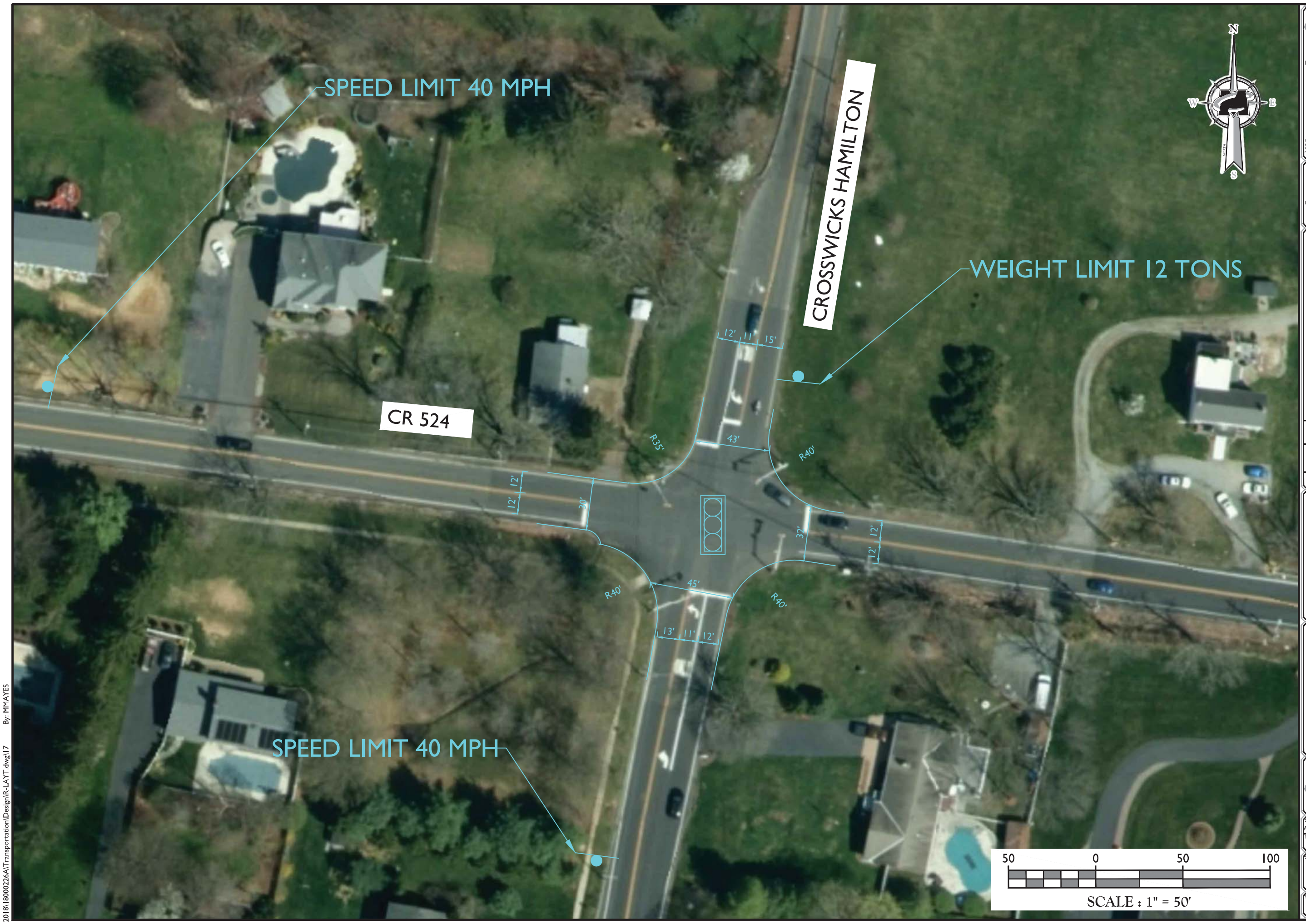

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SHEET TITLE: CR 524 & CROSSWICKS HAMILTON

SHEET NUMBER: 17 of 17

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APPENDIX

B.2 PREVIOUS STUDIES

Title	Year	Responsible Jurisdiction
Borough of Allentown Master Plan	2018	Allentown Borough
Upper Freehold Township Master Plan and Development Regulations Reexamination Report	2017	Upper Freehold Township
NJDOT Statewide Freight Plan	2017	New Jersey Department of Transportation
NJTPA Regional Transportation Plan 2045	2017	North Jersey Transportation Planning Authority
Connections 2045 - Plan for Greater Philadelphia	2017	Delaware Valley Regional Planning Commission
Monmouth County Master Plan	2016	Monmouth County
Mercer County Master Plan	2016	Mercer County
Panhandle Regional Plan	2011	Monmouth County
Upper Freehold Historic Farmland Byway-Corridor Management Plan	2010	New Jersey Department of Transportation
Robbinsville Township Master Plan	2000	Robbinsville Township
Allentown Regional Transportation Study Summary Report	1992	Mercer and Monmouth Counties
Mercer County Complete Streets Policy	2012	Mercer County
Monmouth County Complete Streets Policy	2010	Monmouth County
Robbinsville Complete Streets Policy	2014	Robbinsville Township

APPENDIX

B.3 MONMOUTH COUNTY COMPETE STREETS POLICY

Engineering
Resolution No. 10-592

RESOLUTION ESTABLISHING AND ADOPTING A MONMOUTH COUNTY COMPLETE STREETS POLICY

WHEREAS, a Complete Street is defined as a means to provide safe access for all users by designing and operating a comprehensive, integrated, connected multi-modal network of transportation options; and

WHEREAS, the benefits of Complete Streets include improving safety for pedestrians, bicyclists, children, older citizens, non-drivers and the mobility challenged as well as those that cannot afford a car or choose to live car free; providing connections to bicycling and walking trip generators such as employment, education, residential, recreation, retail centers and public facilities; promoting healthy lifestyles; creating more livable communities; reducing traffic congestion and reliance on carbon fuels thereby reducing greenhouse gas emissions; and saving money by incorporating sidewalks, bike lanes, safe crossings and transit amenities into the initial design of a project, thus sparing the expense of retrofits later; and

WHEREAS, the Monmouth County Board of Chosen Freeholders wishes to implement a Complete Streets policy though the planning, design, construction, maintenance and operation of new and retrofit transportation facilities, enabling safe access and mobility of pedestrians, bicyclists, transit users of all ages and abilities; and

WHEREAS, it is the intent of the Board of Chosen Freeholders that to the extent practicable, the Monmouth County Complete Streets policy shall include all road, bridge, and building projects funded through Monmouth County's Capital Program.

NOW, THEREFORE, be it resolved that the Monmouth County Board of Chosen Freeholders adopts the following Complete Streets Policy with the following goals and objectives:

1. Create a comprehensive, integrated, connected multi-modal network by facilitating connections to bicycling and walking trip generators such as employment, education, residential, recreational and public facilities, as well as retail and transit centers

2. Provide safe and accessible accommodations for existing and future pedestrian, bicycle and transit facilities.

3. Establish a checklist of pedestrian, bicycle and transit accommodations such as accessible sidewalks curb ramps, crosswalks, countdown pedestrian signals, signs, curb extensions, pedestrian scale lighting, bike lanes, and shoulders for consideration in each project where county jurisdiction applies.

4. Additionally, in rural areas, paved shoulders or a multi-use path shall be included in all new construction and reconstruction projects on roadways used by more than 1,000 vehicles per day. Paved shoulders provide safety and operational advantages for all road users. Exemptions shall be considered for County and State designated routes such as Scenic Roads, and Historic or Cultural Byways. If there is evidence of heavy pedestrian usage then sidewalks shall be considered in the project.

5. Establishment of a procedure to evaluate resurfacing projects for Complete Streets inclusion according to length of project, local support, environmental constraints, right-of-way limitations, funding resources, and bicycle and/or pedestrian compatibility.

6. Transportation facilities constructed for long-term use shall anticipate likely future demand for bicycling and walking facilities and not preclude the provision of future improvements.

7. Designs shall address the need for bicyclists and pedestrians to cross corridors, as well as travel along them, in a safe, accessible and convenient manner; therefore, the design of intersections, interchanges and bridges shall anticipate use by bicyclists and pedestrians.

8. Bicycle and pedestrian facilities shall be designed and constructed to the best currently available standards and practices including the New Jersey Roadway Design Manual, the AASHTO Guide for the Development of Bicycle Facilities, AASHTO's Guide for the

Planning, Design and Operation of Pedestrian Facilities, the Manual of Uniform Traffic Control Devices and others as related.

9. Provisions shall be made for pedestrians and bicyclists when closing roads, bridges or sidewalks for construction projects as outlined in NJDOT Policy #705 -Accommodating Pedestrian and Bicycle Traffic During Construction.

10. Improvements shall also consider connections for Safe Routes to Schools, Safe Routes to Transit, Transit Villages, trail crossings and areas or population groups with limited transportation options.

11. Improvements shall comply with Title VII Environmental Justice, Americans with Disabilities Act (ADA) and complement the context of the surrounding community.

12. Exemptions to the Complete Streets policy shall be presented for final decision to the County Engineer in writing and documented with supporting data that indicates the reason for the decision and are limited to the following:

a) Non-motorized users are prohibited on the roadway.

b) Scarcity of population, travel and attractors, both existing and future, indicate an absence of need for such accommodations.

c) Detrimental environmental or social impacts outweigh the need for these accommodations.

d) Cost of accommodations is excessively disproportionate to cost of project.

e) The safety or timing of a project is compromised by the inclusion of Complete Streets.

f) An exemption other than those listed above must be documented with supporting data and must be approved by the County Engineer.

BE IT FURTHER RESOLVED, that a certified copy of this Resolution shall be sent to all Departments and Agencies having a responsibility for or connection with projects covered by the Monmouth County Complete Streets Policy.

RECORD OF VOTE						
FREEHOLDERS	YES	NO	ABSTAIN	ABSENT	MOVED	SECOND
Mr. Curley	✓				✓	
Mrs. Mallet	✓					
Mr. D'Amico	✓					✓
Mr. Clifton	✓					
Mrs. Burry	✓					

CERTIFICATION

I HEREBY CERTIFY THE ABOVE TO BE A TRUE COPY OF A RESOLUTION ADOPTED BY THE BOARD OF CHOSEN FREEHOLDERS OF THE COUNTY OF MONMOUTH AT A MEETING HELD July 22 20 10

CLERK

APPENDIX

B.4 MERCER COUNTY COMPLETE STREETS POLICY

Approved as to Form and Legality

Board Counsel

Date

April 26, 2012

MERCER COUNTY BOARD OF CHOSEN FREEHOLDERS SUPPORTS A MERCER COUNTY "COMPLETE STREETS" POLICY

WHEREAS, the Mercer County Board of Chosen Freeholders is committed to creating street corridors that accommodate all road users of all ages and abilities for all trips; and,

WHEREAS, a "Complete Street" is defined by the New Jersey Department of Transportation under Policy No. 703, as a "means to provide safe access for all users by designing and operating a comprehensive, integrated, connected multi-modal network of transportation options"; and,

WHEREAS, as part of the aforementioned policy, the New Jersey Department of Transportation strongly encourages the adoption of similar policies by regional and local jurisdictions who apply for funding through Local Aid programs; and,

Clerk to the Board

RECORD OF VOTE

FREEHOLDER	Aye	Nay	N.V.	Abs.	Res.	Sec.	FREEHOLDER	Aye	Nay	N.V.	Abs.	Res.	Sec.
Cannon	X						Frisby	X					
Carabelli	X				✓		Koontz	X					
Cimino	X						Walter	X					
Colavita	X					✓							

X—Indicates Vote Abs.—Absent N.V.—Not Voting
Res.—Resolution Moved Sec.—Resolution Seconded

WHEREAS, the benefits of complete streets include improving safety for pedestrians, bicyclists, children, older citizens, non-drivers and the mobility challenged as well as those that cannot afford a car or choose to live car free; providing connections to bicycling and walking trip generators such as employment, education, residential, recreation, retail centers and public facilities; promoting healthy lifestyles; creating more livable communities; reducing traffic congestion and reliance on carbon fuels thereby reducing greenhouse gas emissions; and saving money by incorporating sidewalks, bike lanes, safe crossings and transit amenities into the initial design of a project, thus sparing the expense of retrofits later; and,

WHEREAS, the Mercer County Board of Chosen Freeholders wishes to support a "Complete Streets" policy through the planning, design, construction, maintenance and operation of new and retrofit transportation facilities, enabling safe access and mobility of pedestrians, bicyclists, and transit users of all ages and abilities; and,

WHEREAS, the Mercer County Board of Chosen Freeholders supports to the extent practicable, the application of a Mercer County "Complete Streets" policy that shall apply to all road, bridge, and building projects undertaken by Mercer County; now, therefore,

BE IT RESOLVED, that the Mercer County Board of Chosen Freeholders supports a "Complete Streets" policy with the following goals and objectives as stated in New Jersey Department of Transportation Policy 703, adopted December 3, 2009:

1. Create a comprehensive, integrated, connected multi-modal network by facilitating connections to bicycling and walking trip generators such as employment, education, residential, recreational and public facilities, as well as retail and transit centers.

2. Provide safe and accessible accommodations for existing and future pedestrian, bicycling and transit facilities.

3. Establish a checklist of pedestrian, bicycle and transit accommodations such as accessible sidewalks curb ramps, crosswalks, countdown pedestrian signals, signs, curb extensions, pedestrian scale lighting, bike lanes, and shoulders for consideration in each project where county jurisdiction applies.

.....

Clerk to the Board

4. Additionally, in rural areas, paved shoulders or a multi-use path shall be included in all new construction and reconstruction projects on roadways used by more than 1,000 vehicles per day. Paved shoulders provide safety and operation advantages for all road users. Exemptions shall be considered for County and State designated routes such as Scenic Roads, and Historic or Cultural Byways. If there is evidence of heavy pedestrian usage then sidewalks shall be considered in the project.

5. Establishment of a procedure to evaluate resurfacing projects for Compete Streets inclusion according to length of project, local support, environmental constraints, right-of-way limitations, funding resources, and bicycle and/or pedestrian compatibility.

6. Transportation facilities constructed for long-term use shall anticipate likely future demand for bicycling and walking facilities and not preclude the provision of future improvements.

7. Designs shall address the need for bicyclists and pedestrians to cross corridors, as well as travel along them, in a safe, accessible and convenient manner; therefore, the design of intersections, interchanges and bridges shall anticipate use by bicyclists and pedestrians.

8. Bicycle and pedestrian facilities shall be designed and constructed to the best currently available standards and practices including the New Jersey Roadway Design Manual, New Jersey Department of Transportation's Smart Transportation Guidebook, the AASHTO Guide for the Development of Bicycle Facilities, AASHTO's Guide for the Planning, Design and Operation of Pedestrian Facilities, the Manual of Uniform Traffic Control Devices and others as related.

9. Provisions shall be made for pedestrians and bicyclists when closing roads, bridges or sidewalks for construction projects as outlined in NJDOT Policy No. 705 – Accommodating Pedestrian and Bicycle Traffic During Construction.

10. Improvements shall also consider connections for Safe Routes to School, Safe Routes to Transit, Transit Villages, trail crossings and areas or population groups with limited transportation options.

.....

Clerk to the Board

11. Improvements shall comply with Title VII Environmental Justice, Americans with Disabilities Act (ADA) and complement the context of the surrounding community.

12. Exemptions to the Complete Streets policy shall be presented for final decision to the County Engineer in writing and documented with supporting data that indicates the reason for the decision and shall be limited to the following:

    a. Non-motorized users are prohibited on the roadway.

    b. Scarcity of population, travel and attractors, both existing and future, indicated an absence of need for such accommodations.

    c. Detrimental environmental or social impacts outweigh the need for these accommodations.

    d. Cost of accommodations is disproportionate to cost of project.

    e. The safety or timing of a project is compromised by the inclusion of Complete Streets.

    f. An exemption other than those listed above must be documented with supporting data and must be approved by the County Engineer.

and,

BE IT FURTHER RESOLVED, that the Clerk to the Board shall forward a certified copy of this Resolution to the County Administration and all thirteen (13) municipalities of Mercer County.

[signature]

Clerk to the Board

APPENDIX

B.5 ROBBINSVILLE TOWNSHIP COMPLETE STREETS POLICY

Township of Robbinsville
County of Mercer

Resolution 2014-145

SUPPORTING THE MERCER COUNTY COMPLETE STREETS POLICY

WHEREAS, the Township of Robbinsville is committed to creating a pedestrian and bikeway system that makes walking and cycling a viable alternative to driving, and which improves bicyclist and pedestrian
safety, by creating street corridors that safely accommodate all road users of all abilities and disabilities: and

WHEREAS, the New Jersey Department of Transportation's Complete Streets policy states "A Complete Street is defined as a means to provide safe access for all users by designing and operating a comprehensive, integrated, connected multi-modal network of transportation options"; and

WHEREAS, significant accomplishments have already been achieved by incorporating pedestrian safety and traffic calming measures when public streets are improved throughout Mercer County; and

WHEREAS, the Township Council supports this "Complete Streets" initiative and urges its continuation throughout Mercer County in an attempt to create a comprehensive, integrated, connected street network that safely accommodates all road users of all abilities and disabilities and for all trips;

NOW, THEREFORE, BE IT RESOLVED by the Township Council of the Township of Robbinsville that it here by supports a Complete Streets policy for all public street projects, wherever possible and practicable, that are undertaken by the Township of Robbinsville, the County of Mercer and the municipalities within the County of Mercer in order to ultimately achieve a network of roadways that may safely accommodate travel by pedestrians, bicyclists, public transit, and motorized vehicles and their passengers, with special priority given to bicyclist and pedestrian safety.

BE IT FURTHER RESOLVED that a copy of this Resolution be forwarded to the County of Mercer, the municipalities within Mercer County and the NJ Department of Transportation.

I certify this to be a true copy of a resolution adopted by the Township Council of the Township of Robbinsville at a meeting held on June 26, 2014.

_____
Michele Seigfried, Municipal Clerk

APPENDIX

C. FUTURE CONDITIONS RECOMMENDATIONS TECHNICAL MEMORANDUM

Moving Mindfully: Monmouth/Mercer

COMPREHENSIVE FREIGHT RELATED TRANSPORTATION STUDY

JUNE 28, 2019

Moving Mindfully: Monmouth/Mercer

FUTURE CONDITIONS AND RECOMMENDATIONS TECHNICAL MEMORANDUM

COMPREHENSIVE FREIGHT RELATED TRANSPORTATION STUDY

MONMOUTH COUNTY AND SOUTHERN MERCER COUNTY

FUTURE CONDITIONS AND RECOMMENDATIONS TECHNICAL MEMORANDUM

JUNE 2019

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1 FUTURE TRAFFIC CONDITIONS

1.1 INTRODUCTION

Monmouth County, with support from the North Jersey Transportation Planning Authority (NJTPA) completed the Comprehensive Freight Related Transportation Study in June of 2019. This study evaluated the freight related transportation issues within Robbinsville in Mercer County and Allentown and Upper Freehold in Monmouth County. This study makes recommendations to minimize conflicts between freight and other modes and improve travel conditions for the study area users while maintaining the community character of each of the municipalities.

The study included data collection, an assessment of existing and future conditions, public outreach, and the development of recommendations including an implementation matrix.

A variety of different data sources and documents were studied to establish the existing conditions with a specific emphasis on freight related travel and a shared understanding of the issues that the study area faces. From a traffic perspective, the Level of Service (LOS) for key locations was evaluated based on existing traffic volumes and roadway characteristics. This analysis is detailed in the Existing Conditions Technical Memorandum.

To assess future conditions within the study area, traffic volumes were projected for the year 2040, and the level of service for each location was evaluated. Planned roadway projects were taken into consideration for a No Build scenario, which evaluated future roadway conditions if no improvements other than those already planned are completed. Recommendations were then developed to address the freight related deficiencies identified through the study process within the study area and a second scenario, known as the Build scenario, was evaluated. This technical memorandum describes the No Build evaluation, summarizes overall study area deficiencies and recommended improvements, and includes the Build scenario evaluation as Appendix C.1 to this document.

Throughout the process input was gathered on future conditions and recommendations through a comprehensive outreach program that included a Study Advisory Committee, focus groups and interviews, a project website with an interactive online mapping tool, and public meetings. The outreach efforts and results are summarized in the Public Outreach Technical Memorandum.

1.2 FUTURE TRAFFIC CONDITIONS (NO BUILD)

Future traffic conditions are evaluated by forecasting future traffic volumes, updating roadway characteristics based on planned projects, and calculating the resultant level of service.

In order to assess future conditions within the study area, traffic volumes were projected for the year 2040 based on regional growth forecasts. An annual growth rate was developed for the study area using the Monmouth County Travel Demand Model (MCTDM), and then applied to existing traffic volumes. This model has been designed to forecast future travel demand using population, employment, and household data using growth forecasts developed by the metropolitan planning organization, the North Jersey Transportation Planning Authority (NJTPA). The NJTPA growth forecasts are arrived at through an analysis and consultation

process with the NJTPA's member subregions to determine the projected growth for each municipality.

The average annual growth rate (0.71%) was derived by comparing traffic volumes between the 2015, 2025 and 2040 model runs. Since roadways and traffic analysis zones might show different growth patterns, an average growth rate was estimated. Study area roadways used for this analysis included Interstate 195, NJ Turnpike, US 130, NJ 33, CR 524 (Main Street), CR 526 (Allentown Lakewood Road, Church Street, Waker Avenue), and CR 539 (Allentown Davis Station Road, Forked River Road, and Old York Road). A similar comparison between population, employment, and household projections for zones inside and outside the study area was performed.

Also included in the No Build conditions are any planned study area improvements. Currently Monmouth County is advancing a project to complete the Easterly Bypass, and to accommodate future residential and commercial development along the Sharon Station Road corridor between CR 526 (Allentown Lakewood Road) and CR 539 (Allentown Davis Station Road). The Easterly Bypass is comprised of Sharon Station Road from CR 539 (Allentown Davis Station Road) to CR 526 (Allentown Lakewood Road) to CR 526 (Spur) to CR 524 (North Main Street).

These improvements support the stakeholder and public concerns about through traffic in Allentown, growth along Sharon Station Road in Upper Freehold, and delays at Sharon Station Road in Upper Freehold which were raised throughout the course of this study. Upon completion of these improvements this segment of roadway will be added to the NJ Access Network as it will be the preferred truck route in the area.

The County plans to widen Sharon Station Road to accommodate new dedicated left turn lanes to provide better access to adjacent local roadways, such as Sleepy Hollow Court and future driveways. These dedicated turn lanes will reduce stopping along the corridor, which will improve the overall LOS while reducing rear-end crashes. At intersections that experience heavier volumes the county plans to construct jug handles. An example of a planned jug handle is the intersection of Sharon Station Road with Dutchess Drive, where side-street volumes meet the threshold for a jug handle rather than a dedicated turn lane. At least two additional jug handles are proposed for future intersections that will serve new developments. The jug handles will be near-side in nature, funneling all traffic to the right. Finally, the county will reconstruct three narrow, low clearance bridges that are at the end of their useful life. The combination of jug handles, dedicated left turn lanes, and replacement bridges will allow Sharon Station Road to efficiently support local and regional traffic flows.

At the intersection of Sharon Station Road and CR 539 (Allentown Davis Station Road), the county plans to construct a single-lane roundabout. The roundabout will help reduce vehicular speeds approaching the intersection, thereby reducing severe crashes. The roundabout will serve as a metering device for vehicles traveling northbound towards the future developments by reducing travel speeds and smoothing out traffic flows. The roundabout will have a mountable center island to provide adequate space for over-sized trucks and emergency vehicles along the Easterly bypass.

The project will upgrade the intersection of Sharon Station Road and CR 526 (Allentown Lakewood Road). Dedicated left turn lanes are planned for the northbound and southbound approaches along Sharon Station Road. Along eastbound CR 526 (Allentown Lakewood Road), a dedicated right turn lane will allow drivers to seamlessly turn onto southbound Sharon Station Road. The combination of these dedicated turn lanes will emphasize movements along the Easterly bypass. Crosswalks with ADA accommodations will be installed at the intersection to provide access to the future developments along Sharon Station Road. Utility poles should be

relocated away from the intersection to reduce the high number of fixed object crashes observed in recent years.

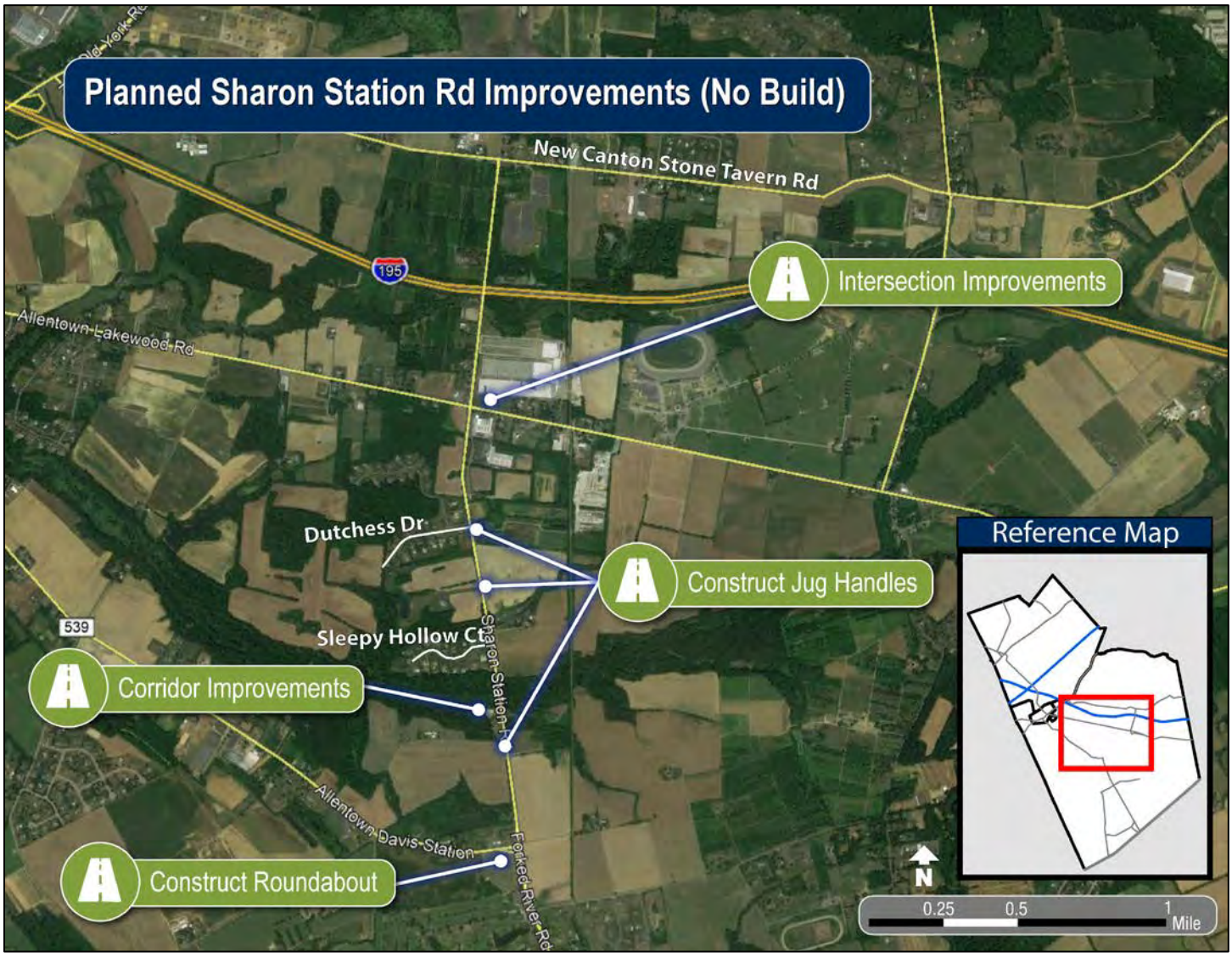


Figure 1: Sharon Station Rd Improvements

A ***Corridor Improvements*** Widen Sharon Station Rd and stripe dedicated left turn lanes to provide better access to adjacent local road roadways, such as Sleepy Hollow Ct, and to support increased volumes to future developments along the corridor. Add this segment to the NJ Access Network and remove Church Street from the NJ Access Network.

A ***Construct Jug Handles*** to adjacent streets that attract higher volumes, such as Dutchess Drive.

A ***Intersection Improvements*** Add dedicated left turn lanes to the northbound and southbound approaches and a dedicated right turn lane on the eastbound approach. Stripe crosswalks to improve pedestrian accommodation.

A **Construct Roundabout** with mountable center island to improve circulation and safety.

1.3 NO BUILD LEVEL OF SERVICE

The results of the No Build scenario indicate that the LOS of several turning movements will worsen by the year 2040 if no improvements are implemented.

CR 524 AND CR 526 SPUR (UPPER FREEHOLD)

Backups can occur for vehicles turning onto the uncontrolled CR 524 (Old York Road) or turning left from CR 524 due to high volumes of unimpeded through movement vehicles. These movements operate at a LOS F for the PM peak hour in the existing condition. For the No Build scenario, the overall LOS for both approaches to this intersection will remain at LOS F in the AM and PM peak hours. The delays associated with the volume growths will increase slightly.

ALLENTOWN LAKEWOOD ROAD AND SHARON STATION ROAD (UPPER FREEHOLD)

With the construction of the planned improvements, the signalized intersection of CR 526 (Allentown Lakewood Road) and Sharon Station Road will improve from a LOS D to a B during the AM peak period and from a LOS C to a B during the PM peak period. The approach of Sharon Station Road, northbound direction, improves from an LOS E to LOS A during the morning peak and from and LOS D to LOS A during the evening peak.

SOUTH MAIN STREET AND HIGH STREET (ALLENTOWN)

High street currently operations at LOS F during both peak hours. With no improvement, the delay at this location will increase from 106 seconds per vehicle to 212 seconds per vehicle, a 200 % increase. The primary culprit for this increase is the left turn from CR 526 (High Street) to CR 524 (Main Street). Additionally, the LOS for the left turn from CR 524 (Main Street) to CR 539 (High Street) will drop from an A to a B during the AM peak only.

SOUTH MAIN STREET AND CHURCH STREET (ALLENTOWN)

The northbound approach at the intersection of CR 524 (South Main Street) and CR 526 (Church Road/Waker Avenue) will experience a LOS decrease from the existing C to a D during the AM peak period and from a D to an E during the PM peak period.

ROADWAY SEGMENTS

In addition to the intersection LOS, all roadway segments in the analysis will experience a slight uptick in the Volume-to-Capacity (V/C) ratios due to the growth in volumes. The largest increase during the AM peak period will take place along Sharon Station Road between CR 526 (Allentown Lakewood Road) and CR 539 (Allentown Davis Station Road), where the V/C ratio will rise from 0.49 to 0.56 during the AM peak period and from 0.45 to 0.52 during the PM peak period. Detailed information of the LOS analysis can be found below.

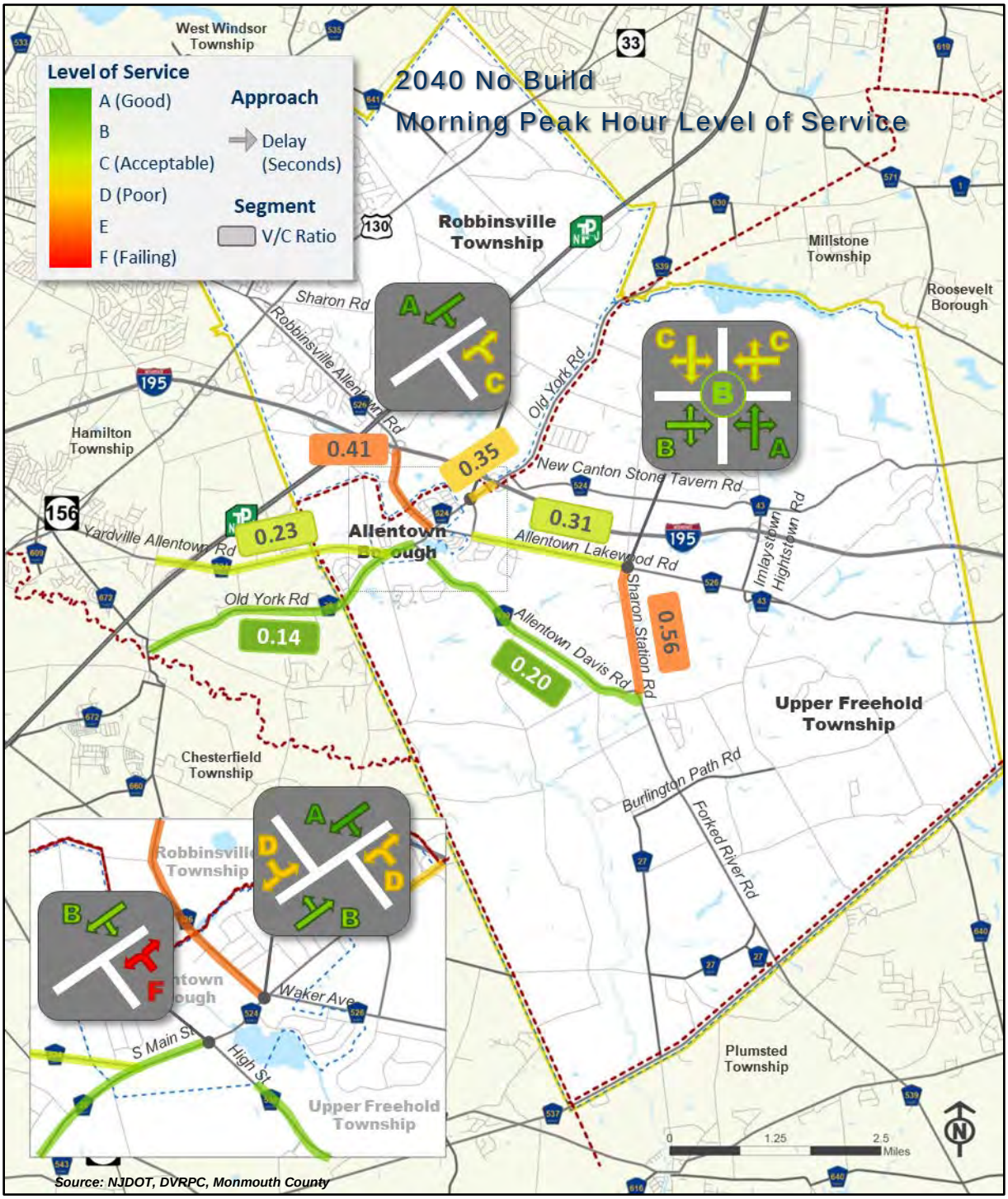


Figure 2: 2040 No Build Morning Peak Hour Level of Service

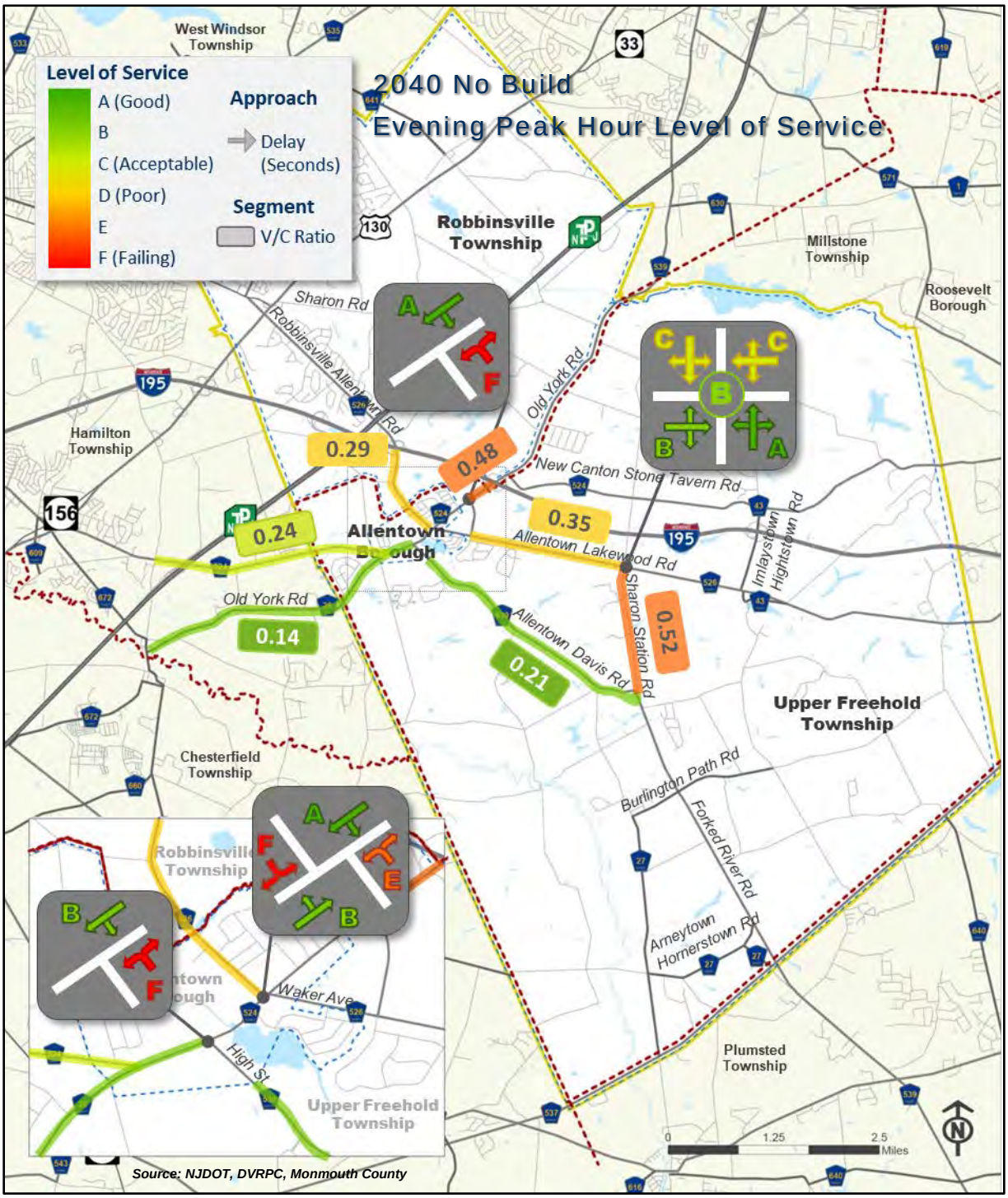


Figure 3: 2040 No Build Evening Peak Hour Level of Service

2 RECOMMENDATIONS

The following recommendations are intended to mitigate the effects of freight related travel and improve conditions for all users. However, a recommendation from this study is not a mandate for action or an implementation plan. All recommendations in this study, from the simplest to the most complex and expensive, will have a multi-step and layered process to go through before implementation. This will include further analysis, design, coordination and stakeholder input. Each improvement will need to be evaluated and designed to fit within the character of the community (historic, country code, rural, downtown, etc.). For improvements within the historic district this will also include coordination with the State Historic Preservation Office (SHPO).

In the Implementation Section is a chart that details the responsible parties and the next steps for each of the recommendations in this study. Most of the recommendations, regardless of the agency in charge, will require endorsement from local elected officials as well as funding from a government source or public-private partnership.

2.1 FORMATION OF A WORKING GROUP

The recommendations in the next sections will require interagency coordination to become a reality. Many improvements require resolutions of support from the local communities as well as buy in and consensus from a variety of agencies such as Monmouth County, Mercer County, NJDOT, and individual towns (Robbinsville Township, Upper Freehold Township, and Allentown Borough). For this reason, an interagency working group should be formed, containing representatives from all three municipalities, Monmouth and Mercer Counties, the NJTPA, DVRPC, and NJDOT to discuss future projects and to work together to advance the study recommendations. This group can also advocate and apply for funding to advance these projects.

A similar group called the Central Jersey Forum[1] was formed in 1999 to coordinate and discuss transportation and land use issues across multiple municipalities and agencies in Mercer, Middlesex and Somerset counties.

2.2 COUNTY ROUTE SIGNAGE AND ENGINE BRAKING ORDINACES

2.2.1 *IDENTIFIED DEFICIENCIES*

One of the primary issues heard throughout the study from all stakeholders was the lack of signage or inadequate signage causing driver confusion, lost trucks, and delays. Several major county roadways help connect the study area with Interstate 195, the New Jersey Turnpike, US 130, and other regional roadways. Directional signage along the county roadways does not always make clear the most direct route to these major roadways. Destination signage is also lacking along county roadways. For example, CR 539 (Forked River Road) does not have Allentown destination signage at the junction with CR 539 (Allentown Davis Station Road). As Monmouth County begins work on Sharon Station Road between CR 526 (Allentown Lakewood Road) and CR 539 (Allentown Davis Station Road), additional signage will be required to guide drivers through the

[1] www.dvrpc.org/Committees/CJTF/https://www.dvrpc.org/Committees/CJTF/

completed Easterly Bypass. Trucks drivers are especially affected by this lack of directional signage because many truck drivers visit from out-of-state and have limited knowledge of the local roadway network.

In addition to the directional signage, municipalities may want to reduce noise from trucks near residential neighborhoods. Upper Freehold currently has an engine braking ordinance and signs posted in a few locations. Allentown and Robbinsville do not have engine braking ordinances.

Figure 4: County Route Signage

Signage Improvements Review and adjust directional signage for Interstate 195, Interstate 95 and the NJ Turnpike from study area county roadways. Sign Sharon Station Road and CR 526 (Allentown Lakewood Road) for Interstate access. Investigate engine braking ordinances in the vicinity of residential neighborhoods.

2.2.2 *IMPROVING CIRCULATION WITH BETTER SIGNAGE*

Installing clear directional and destination signage along county roadways in the study area can have one of the highest rates of return for improving circulation and routing drivers to the optimal roadways to suit their trip purpose. At each junction with a county roadway, directional signage should be installed to guide drivers to Interstate 195, the New Jersey Turnpike, US 130, and other major roadways. When directing drivers to the NJ Turnpike, consideration should be given to including the Interstate 95 shield as well, as this is better known to out-of-state truck drivers than the NJ Turnpike symbol and sign. The signage should be comprised of route number shields and arrows. The signs should be carefully placed to avoid obstructions and prior to the intersections so that drivers have adequate time to navigate accordingly.

One primary location where these signs will be vital is along the Easterly Bypass, which runs along Sharon Station Road to CR 526 (Allentown Lakewood Road) to CR 526 Spur and finally to CR 524 (Old York Road). As Monmouth County works to complete the bypass, Interstate 195 and New Jersey Turnpike directional signage should be installed at all major intersections along this route. At Sharon Station Road and CR 539 (Allentown Davis Station Road), drivers should be guided to Interstate 195 and the New Jersey Turnpike via Sharon Station Road and to Allentown via CR 539 (Allentown Davis Station Road). This will result in fewer unwanted through-trips via downtown Allentown, reducing local congestion. Improved wayfinding will benefit truck drivers as well who frequently get lost in the study area.

Figure 5: Existing CR 539 Signage at Allentown Davis Station Road

2.3 INTERSTATE 195 SIGNAGE AND CONFLICT REDUCTION

2.3.1 *IDENTIFIED DEFICIENCIES*

Interstate 195 provides direct access to Allentown via Interchanges 7 and 8. The same interchanges serve major industrial and warehousing operations to the north, including the Matrix site. Stakeholders and local law enforcement indicated that truck drivers often navigate into residential areas because they miss the directional signage onto the Interstate.

The on-ramp from CR 526 (Robbinsville Allentown Road) to Interstate 195 lacks sufficient directional signage. There is a single Interstate 195 shield placed after the on-ramp splits from the primary roadway. A similar configuration is observed at the on-ramp to westbound Interstate 195 from southbound CR 526 (Robbinsville Allentown Road) (Figure 6). At this location, the Interstate 195 sign is placed approximately 100 feet before the on-ramp while an independent New Jersey Turnpike shield is placed on the right side of the on-ramp. If a truck driver misses these signs, their GPS navigation often redirects them through Allentown to return to the westbound Interstate 195 movement at Interchange 8.

Figure 6 Directional Signage along CR 526 (Robbinsville Allentown Road) to Interstate 195

Stakeholders and local law enforcement noted that truck drivers mistakenly enter the Borough via CR 526 (Church Street) after missing their turn onto Interstate 195, or because they make a wrong turn when exiting I-195 at Interchange 7. If destined to the eastern portion of the Matrix site on CR 539 (Old York Road), the preferred route would be via Interchange 8. Additionally, trucks destined to points south could utilize Interchange 8 to access the Easterly Bypass however; they sometimes exit at Interchange 7 and route through Allentown to points south. Because of this, stakeholders expressed strong interest in guiding trucks destined to the Matrix site along CR 539 (Old York Road) or points south to Interchange 8, where they can more directly access their destination.

The signage at Interchange 8 (Figure 7) has similar deficiencies to those found at Interchange 7. The on-ramp from southbound CR 539 (Old York Road) to westbound Interstate 195 is separated from the New Jersey Turnpike directional sign and is placed a significant distance to the right of the roadway. The directional sign is located over 50 feet south of the on-ramp split, making it difficult to read while both lanes are still an option.

Figure 7: Directional Signage for I-195 at Exit 8

In addition to signage deficiencies, there are also missing movements , at Interchange 7 and missing direct connections at Interchange 8 that restrict mobility in the immediate area. Interchange 7 lacks a ramp between northbound CR 526 (Robbinsville Allentown Road) and eastbound Interstate 195. Interchange 8 currently supports all possible moves between CR 539 (Old York Road) and Interstate 195, but the exits from both eastbound and westbound Interstate 195 do not provide dedicated access to each northbound and southbound movement on CR 539 (Old York Road)Instead, the eastbound ramps terminate at a traffic signal while the westbound ramps terminate at a stop sign. Significant queuing takes place on the eastbound ramp due to the sharp peaks generated by shift changes at the nearby Amazon Fulfillment Center and by the large number of trucks destined to the Matrix facilities. This has been observed by local law enforcement officers who operate the Matrix Site traffic signal during shift changes.

Both peak travel times also have a negative effect in the reverse direction as workers leave the Matrix facilities.

CR 539 (Old York Road) has insufficient capacity to accommodate the spike in volumes during shift change, particularly when it coincides with traditional peak hour traffic. At its worst it has been noted by stakeholders that queuing extends onto Montgomery Way, an internal roadway within the Matrix facility.

Figure 8: Existing Interchange 7 Directional Signage

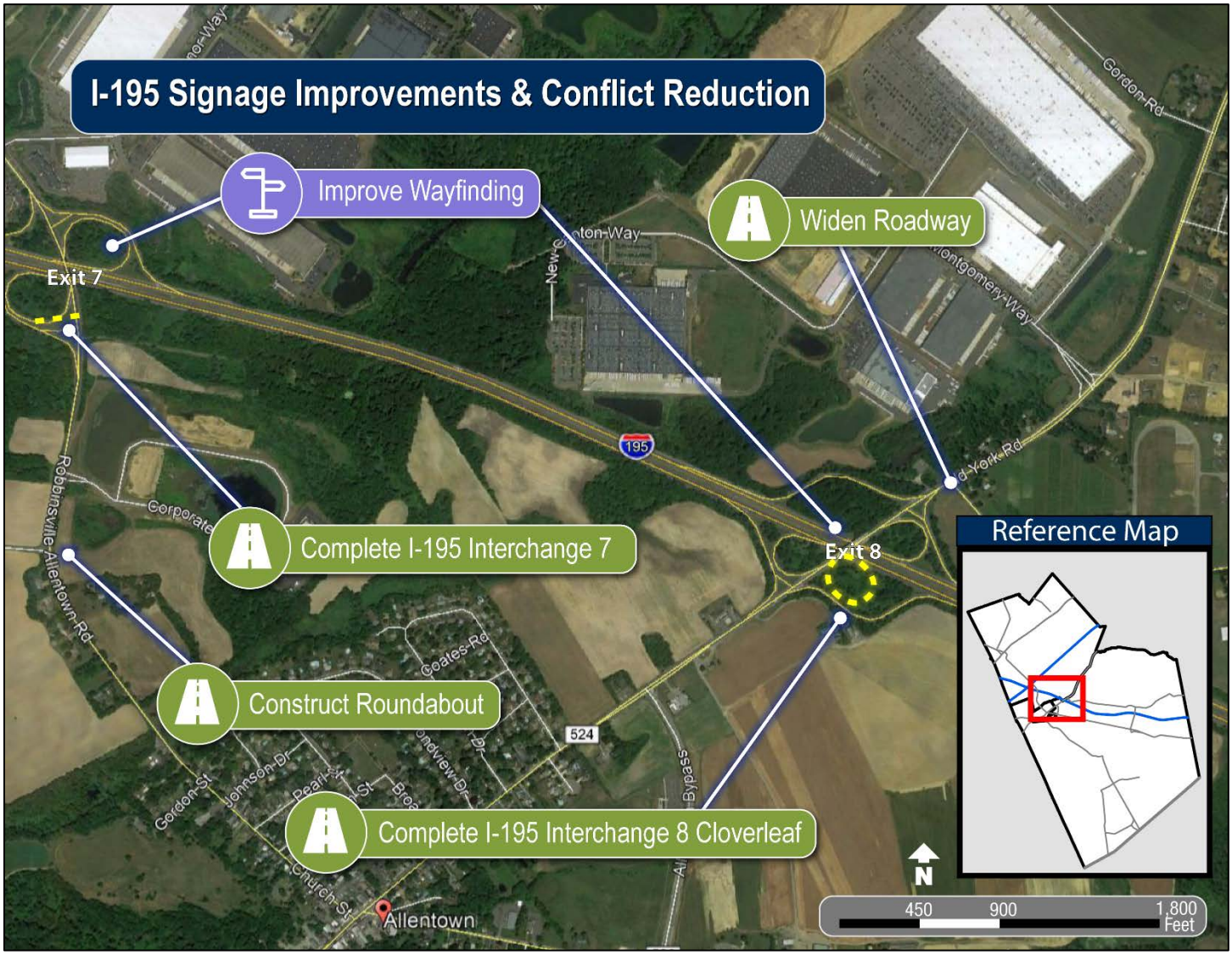


Figure 9: Signage Improvements & Conflict Reduction

Complete I-195 Interchange 7 Construct the missing ramp from northbound Robbinsville Allentown Rd to eastbound Interstate 195

Complete I-195 Interchange 8 Cloverleaf Replace the eastbound Interstate 195 to northbound CR 539 (Old York Road) ramp and the westbound Interstate 195 to southbound CR 539 (Old York Road) ramp with clover ramps to complete the cloverleaf interchange.

Construct Roundabout with mountable center island to redirect trucks towards Interstate 195 and to improve general circulation.

Widen Roadway Widen CR 539 (Old York Road) by adding an additional travel lane southbound between Montgomery Way and the Interchange 195 ramps

Improve Wayfinding Install larger directional signage for Interstate 195 and the NJ Turnpike at Interchanges 7 and 8. Consider pavement markings where feasible. Discourage trucks from using Interchange 7 to Allentown by omitting the Allentown designation signage at the interchange. Retain Robbinsville designation.

2.3.2 *SIGNAGE IMPROVEMENTS*

At Interchange 7, the Allentown directional signage and arrow should be removed. The Robbinsville designation should remain in order to encourage eastbound drivers to use Interchange 8 for Allentown access.

Larger directional signage should be installed for Interstate 195 and the New Jersey Turnpike approaching Interstate 195 at Interchanges 7 and 8. The signs should be placed in highly visible locations and be an appropriate height for truck drivers to see. The addition of an Interstate 95 shield should be considered along with the Turnpike signage as many out of state truck drivers recognize the designation I-95 over the NJ Turnpike. Supplemental pavement markings could be considered for additional wayfinding, particularly along southbound CR 526 (Robbinsville Allentown Road) approaching westbound Interstate 195.

Figure 10: Example of Directional Pavement Markings

Additional signs denoting the location of the Matrix facilities via Interchanges 7 and 8 should be considered to help mitigate truck driver confusion.

Signage improvements present a low-cost solution to significant issues observed in the study area. While signage improvements alone cannot mitigate all navigational errors performed by out-of-state truck drivers, they can significantly reduce confusion and improve circulation.

2.3.3 *ROADWAY AND INTERCHANGE RECONFIGURATION*

A roundabout should be constructed at the current intersection of CR 526 (Robbinsville Allentown Road) and Circle Drive. This roundabout will improve circulation primarily by allowing truck drivers to turn around if they mistakenly travel south from Exit 7. The roundabout will also serve as a traffic calming and gateway treatment into Allentown. The design should have a mountable center island to allow large trucks to make U-turns to return to Interstate 195. The roundabout should have clear directional signage towards Interstate 195 and the New Jersey Turnpike.

To address the increasing volumes near Interchanges 7 and 8, major interchange improvements should be considered. The missing ramp at Interchange 7 from northbound CR 526 (Robbinsville Allentown Road) to eastbound Interstate 195 should be completed. This will allow residents to reduce their trips through the downtown area. At Interchange 8, the cloverleaf should be completed by building a dedicated clover ramp for the eastbound Interstate 195 to northbound CR 539 (Old York Road) movement and a second clover ramp for the westbound Interstate 195 to southbound CR 539 (Old York Road) movement. This will reduce delays by removing the left turn signal that often backs up to the Interstate 195 main line during shift changes.

CR 539 (Old York Road) should be widened by one travel lane between Montgomery Way and the Interstate 195 westbound ramp. The right-most lane should take drivers directly to the interstate from Montgomery Way, leaving the remaining lane available for through traffic. This will significantly reduce delays for motorists leaving the Matrix facilities and improve the commutes of all who use the interchange during traditional peak periods.

2.4 NEW CANTON STONE TAVERN ROAD AT SHARON STATION ROAD INTERSECTION IMPROVEMENTS

2.4.1 *IDENTIFIED DEFICIENCIES*

Located just north of the future Easterly Bypass alignment, the intersection of Sharon Station Road and CR 524 (New Canton Stone Tavern Road) in Upper Freehold Township had the most fatal crashes and fatalities in the study area in recent history. Three crashes between 2015 and 2017 are responsible for four fatalities, while an additional 18 injuries were recorded at this intersection in the same time period. Right angle crashes accounted for 38% of all crashes at the intersection. The segment of Sharon Station Road leading to this intersection experiences much lower vehicular volumes than it does south of the intersection with CR 526 (Allentown Lakewood Road) and has a ten-ton weight restriction. Because large trucks are prohibited from using this roadway in addition to CR 524 (New Canton-Stone Tavern Road), improvements along this corridor will focus on intersection operations and visibility concerns.

Figure 11: New Canton-Stone Tavern Rd at Sharon Station Rd

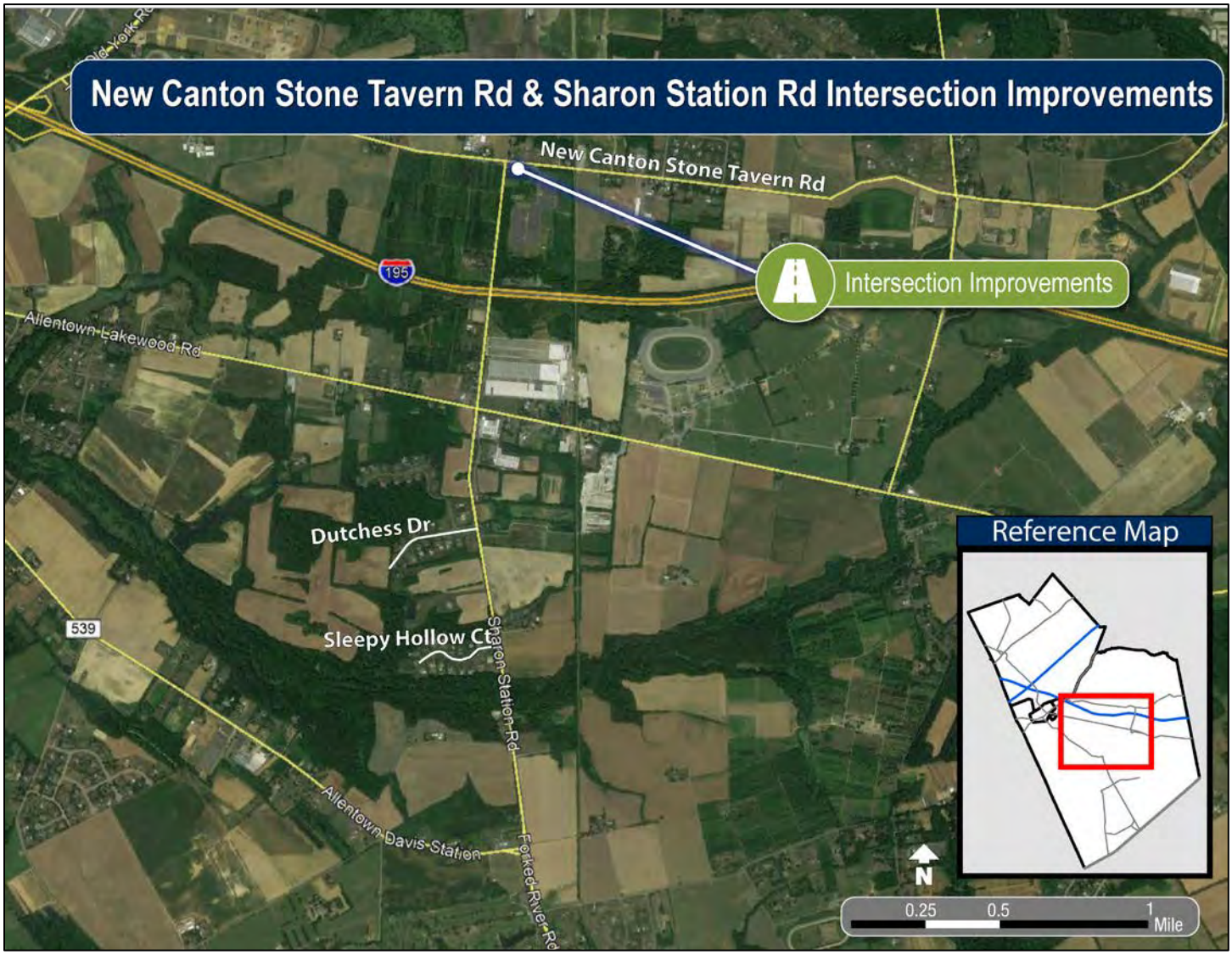


Figure 12: Sharon Station Road Improvements

A ***Intersection Improvements*** Due to prevalence of crashes, investigate signalizing the intersection of CR 524 (New Canton Stone Tavern Road) and Sharon Station Road.

2.4.2 *CORRIDOR IMPROVEMENTS*

While the intersection of Sharon Station Road and CR 524 (New Canton-Stone Tavern Road) is not along the Easterly Bypass, the prevalence of severe crashes requires a re-examination of its configuration. The county should investigate signalizing the intersection to make turning movements safer. Priority should be given to CR 524 (New Canton-Stone Tavern Road) and a traffic analysis should be conducted to investigate whether dedicated left turn lanes can be of benefit at the intersection in the future. Even though both roadways currently lack sidewalks, pedestrian facilities such as crosswalks and ADA curb ramps should be constructed at the intersection to connect any future sidewalks that that may be necessary as nearby development takes place.

2.5 FORKED RIVER ROAD CORRIDOR

2.5.1 *IDENTIFIED DEFICIENCIES*

CR 539 (Forked River Road) in Upper Freehold plays a vital role connecting the study area and points northwest with Ocean County to the south. Due to its regional role, the roadway experiences significant truck movements, primarily dump trucks and other 3-axle trucks. The crash statistics (2015-2017) indicate that six crashes have taken place between CR 539 (Allentown Davis Station Road) and the Ocean County border at CR 537 (Monmouth Road). The bulk of these crashes took place south of CR 27 (Burlington Path Road). A high number of crashes, particularly south of CR 27 (Burlington Path Road) and north of CR 537 (Monmouth Road), involved wildlife. A substantial number of crashes also took place in the dark, with no street lights present.

During the input phase, stakeholders who reside in subdivisions off CR 539 (Forked River Road) expressed having difficulty executing left turns onto CR 539 (Forked River Road). This is primarily due to the travel speeds along the corridor and the lack of vehicular gaps that result in long waits that turn into dangerous turns in addition, left turns can be difficult due to the poor visibility between side streets and CR 539 (Forked River Road).

Figure 13: Forked River Road, South of Allentown Davis Station Road

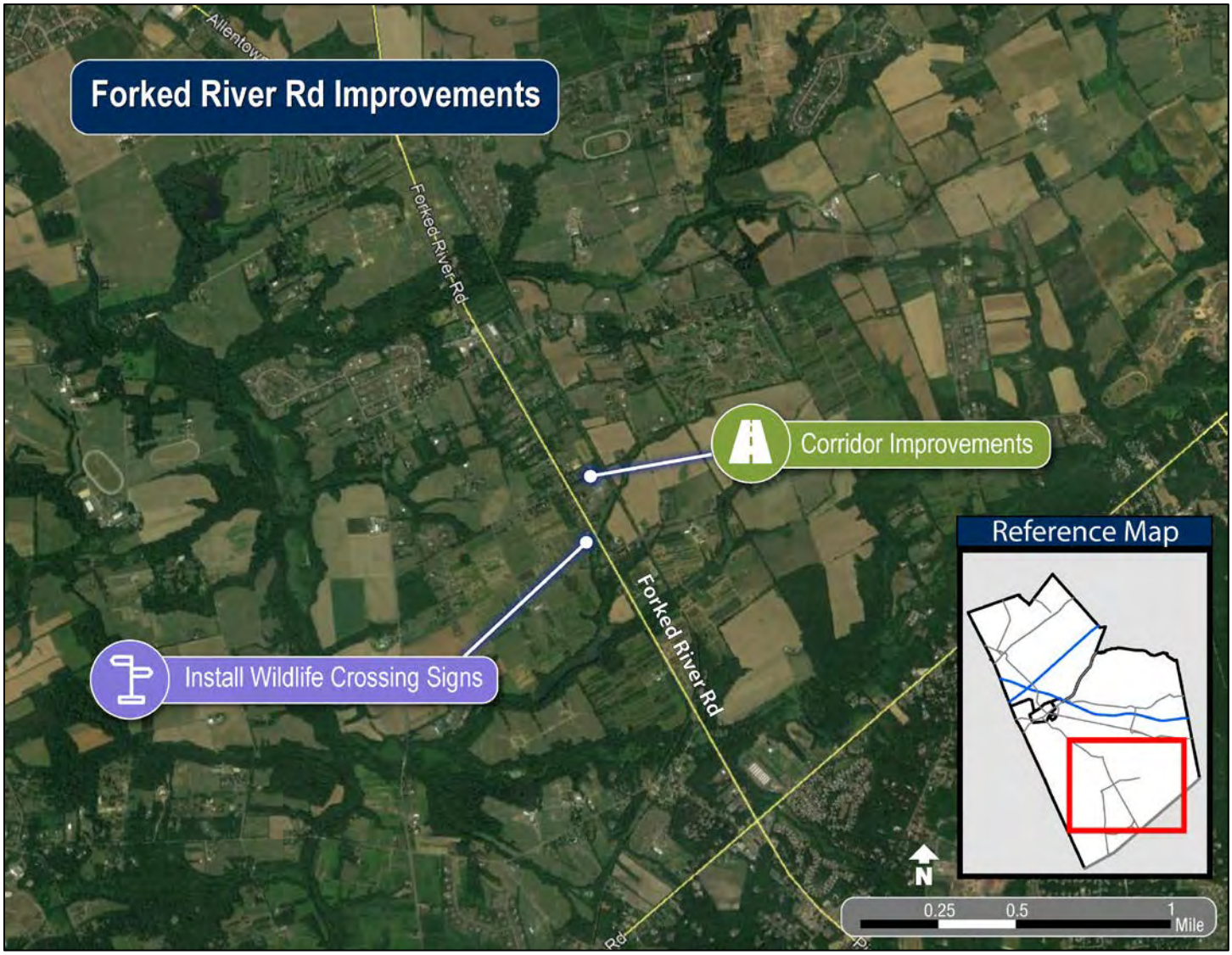


Figure 14: Forked River Road Improvements

Corridor Improvements Provide for dedicated left turns along Forked River Road to improve safety for turning vehicles to and from adjacent roadways and to improve circulation for thru movements. Improve side street intersections and install additional street lights to improve visibility.

Install Wildlife Crossing Signs along the corridor to help reduce animal related crashes.

2.5.2 *CORRIDOR IMPROVEMENTS*

CR 539 (Forked River Road) should be widened in certain sections so that dedicated left turn lanes can be striped at cross streets that experience elevated volumes or a continuous center turning lane can be added. Examples of side streets where dedicated left turn lanes should be considered include CR 27 (Burlington Path Road), Schoolhouse Road and Jonathan Holmes Road. This will improve turning movements onto the side streets and improve traffic flow along CR 539 (Forked River Road). Alternately a continuous two-way center left turn lane could be considered along CR 539 (Forked River Road). This option would increase the turning mobility for all drivers along the corridor. Should future development result in substantial volume increases, the County should investigate signalizing certain cross-streets.

Additional street lighting should be installed along the corridor to help address the high number of crashes occurring in the dark. Warning signage should also be installed along the corridor indicating the presence of wildlife. These improvements should increase driver visibility and awareness of wildlife, potentially leading to a reduction in crashes.

2.6 MATRIX INTERNAL CONNECTIVITY

2.6.1 *IDENTIFIED DEFICIENCIES*

The Matrix Business Parks located in Robbinsville Township are home to a multitude of distribution centers and an Amazon Fulfillment Center. There is one park to the east at Interstate 195 Interchange 8 which has access along CR 539 (Old York Road) at Montgomery Way. The second park to the west is located at Interstate 195 Interchange 7 and can be accessed along CR 526 (Robbinsville Allentown Road) for workers and trucks. Each site has additional access points to each along Gordon Road that are for workers only, trucks are not permitted. Internally the two parks are not connected to one another, and the portion of Gordon Road between West Manor Way and the Amazon entrance is too narrow for truck movements and contains residential development. Additionally trucks are prohibited from utilizing West Manor Way north of Applegate Drive.

The resulting network makes it difficult for drivers to navigate from one portion of the business park to another. The gap is much worse for trucks, who must return to Interstate 195 to continue to either Interchange 7 or 8 to arrive at the correct side of the park. The ZLine shuttle service run by the Greater Mercer Transportation Management Association (GMTMA) currently shuttles Amazon workers between the Hamilton Marketplace on US 130 and the Amazon facility. The GMTMA noted that shuttle route is lengthy as the two parks do not connect and they would be able to attract more transit users if they could shorten the trip by connecting the two sites. Due to these issues, the following improvements are recommended.

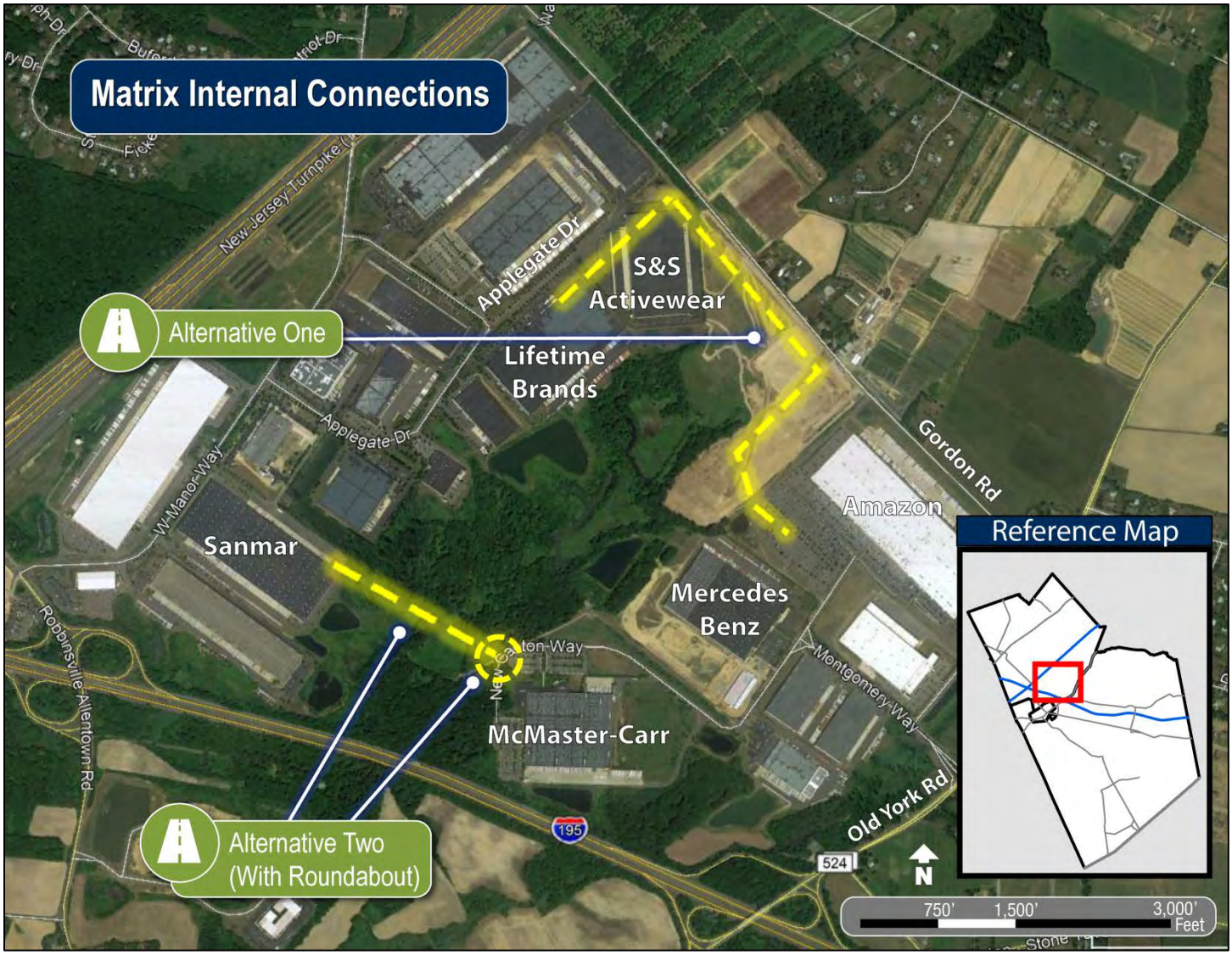


Figure 15: Matrix Internal Connections

Alternative One Extend Applegate Drive around the warehouse building (currently S&S Activewear). Continue Applegate Drive within the Matrix property parallel to Gordon Road to a new driveway adjacent to the Amazon employee entrance.

Alternative Two Construct a roadway between New Canton Way and the warehouse building driveway (currently Sanmar).

2.6.2 *CORRIDOR IMPROVEMENTS*

An internal connection should be built between the two portions of the Matrix Business Park. The first of two alternatives involve extending Applegate Drive around the S&S Activewear warehouse and continuing the roadway parallel to Gordon Road to a new driveway adjacent to the Amazon employee entrance. The existing Gordon Road employee entrance will need to be upgraded to support the additional move, and trucks should still be prohibited from using the driveway to turn on Gordon Road. Trucks should then be routed through to the existing truck entrance on the eastern side of the warehouse. The second alternative involves extending the Sanmar Warehouse driveway to a new intersection with New Canton Way. The intersection may be in the form of a roundabout to keep speeds down and provide additional circulation within the business park. This alternative involves less distance to make the connection but involves a topographical challenge due to the presence of Indian Run and the elevation changes associated with it. This alternative will likely require environmental impact analysis in addition to new grade separated structures.

These connections will likely result in relatively few truck movements, as most trucks will use Interchanges 7 and 8 as they do today, to directly access the warehouse they need. But the internal connector roadway will give truck drivers the flexibility to choose between Interchange 7 and 8 to easily access any warehouse in the business park based on outside factors such as congestion on Interstate 195 or correcting for a wrong turn. This will ultimately result in less unwanted truck movements through downtown Allentown and along Interstate 195 between Exits 7 and 8.

This will also significantly improve transit travel times and as such could attract more transit riders to the ZLine.

2.7 CR 524 (MAIN STREET) RECOMMENDATIONS

2.7.1 *IDENTIFIED DEFICIENCIES*

As the primary roadway through Allentown, CR 524 (Main Street) serves numerous important functions. The roadway connects the Borough with Interstate 195 at Interchange 8, is Allentown's historic Main Street, and facilitates through-movements for regional travel. The character of the roadway transforms as it approaches the Borough from east and west, from a high-speed rural arterial to a storefront-lined, pedestrian friendly Main Street. While the introduction of existing on-street parking, in-road pedestrian crossing signs, and more frequent intersections help transition drivers to a safer, more appropriate travel speed, speeding remains a noted issue along CR 524 (Main Street). The speeding could be attributable to several factors, including the lack of a gateway treatment into the Borough signaling drivers to a change in context; wide travel lanes along most of CR 524 (Main Street); a lack of stop signs and traffic signals, and a lack of pedestrian crossings at key locations. Combined, these deficiencies do not encourage drivers to slow down through the Borough. Instead it makes CR 524 (Main Street) an attractive through-route.

In addition to speeding, the level of service (LOS) analysis of existing conditions revealed that the left turns from CR 526 (Church Street) to CR 524 (North Main Street) and from High Street to CR 524 (South Main Street) operate at LOS D and F respectively during the morning peak hour and at LOS F during the evening peak hour. Additionally, the left turn from the CR 526 Spur (Easterly Bypass) to CR 524 (North Main Street) operates at LOS C during the AM peak hour and at LOS F during the PM peak hour. Input from stakeholders and the public

echoed these findings, particularly the left turn from CR 539 (High Street) to CR 524 (South Main Street) during school pick-up and drop-off hours. Due to a constant flow of vehicles along CR 524 (Main Street) without stop controls, drivers on side streets have difficulty finding gaps to make their turns. Compounding this issue is a lack of dedicated turning lanes, resulting in exacerbated delays for motorists behind left turning vehicles.

An examination of crash records reveals that between 2015 and 2017, a total of 25 crashes were documented at the intersection of CR 524 (North Main Street) and CR 526 (Church Street/Waker Avenue) as shown on Figure 16. 40% of the crashes were rear-end collisions, followed by side-swipes and striking a parked vehicle at 20%and 16%respectively. One crash involved a cyclist while two crashes involved a 2-axle truck. During the same period, 20 crashes were reported at the intersection of CR 524 (Main Street) and CR 539 (High Street). Rear-end collisions accounted for 55% of all crashes, followed by animal and right-angle crashes, each comprising 10%.

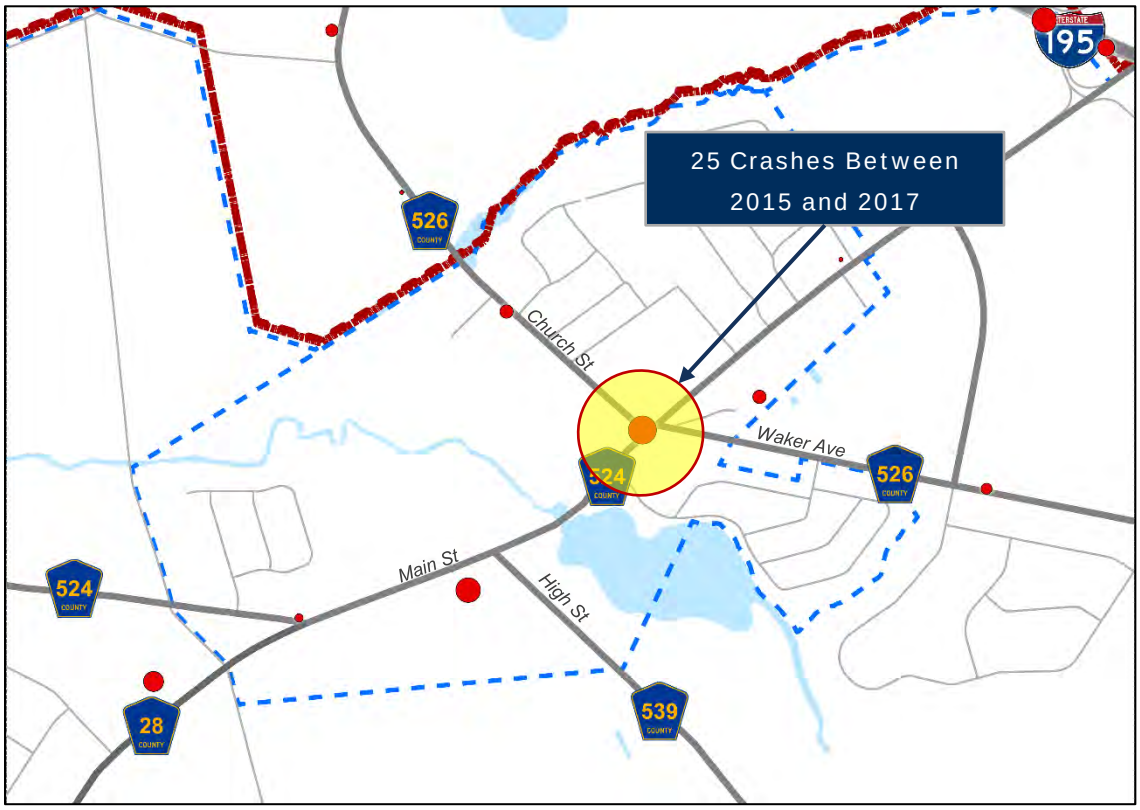


Figure 16: Crashes at Main Street and Church Street/Waker Avenue

Directional signage along CR 524 (Main Street) is often placed in locations where vehicles and/or trees and plants obscure their visibility to drivers. Several of the signs appeared worn beyond legibility. An example of such signing is shown in Figure 17.

Figure 17: Worn Directional Signage Along Main Street

As noted above, Allentown's downtown and nearby schools attract pedestrian activity. The bulk of this activity takes place on CR 524 (Main Street) between Ellisdale Road and Probasco Drive. The Borough made efforts in 2015 to improve the pedestrian experience by rebuilding many sidewalks, installing decorative streetlights, and placing street furniture along CR 524 (Main Street). In addition to these improvements, recent input from residents and stakeholders reflected strong interest in further improving pedestrian connections along CR 524 (Main Street).

To address the above deficiencies along CR 524 (Main Street), several improvements are recommended for the corridor. Figure 18 and Figure 19 illustrate the recommended improvements.

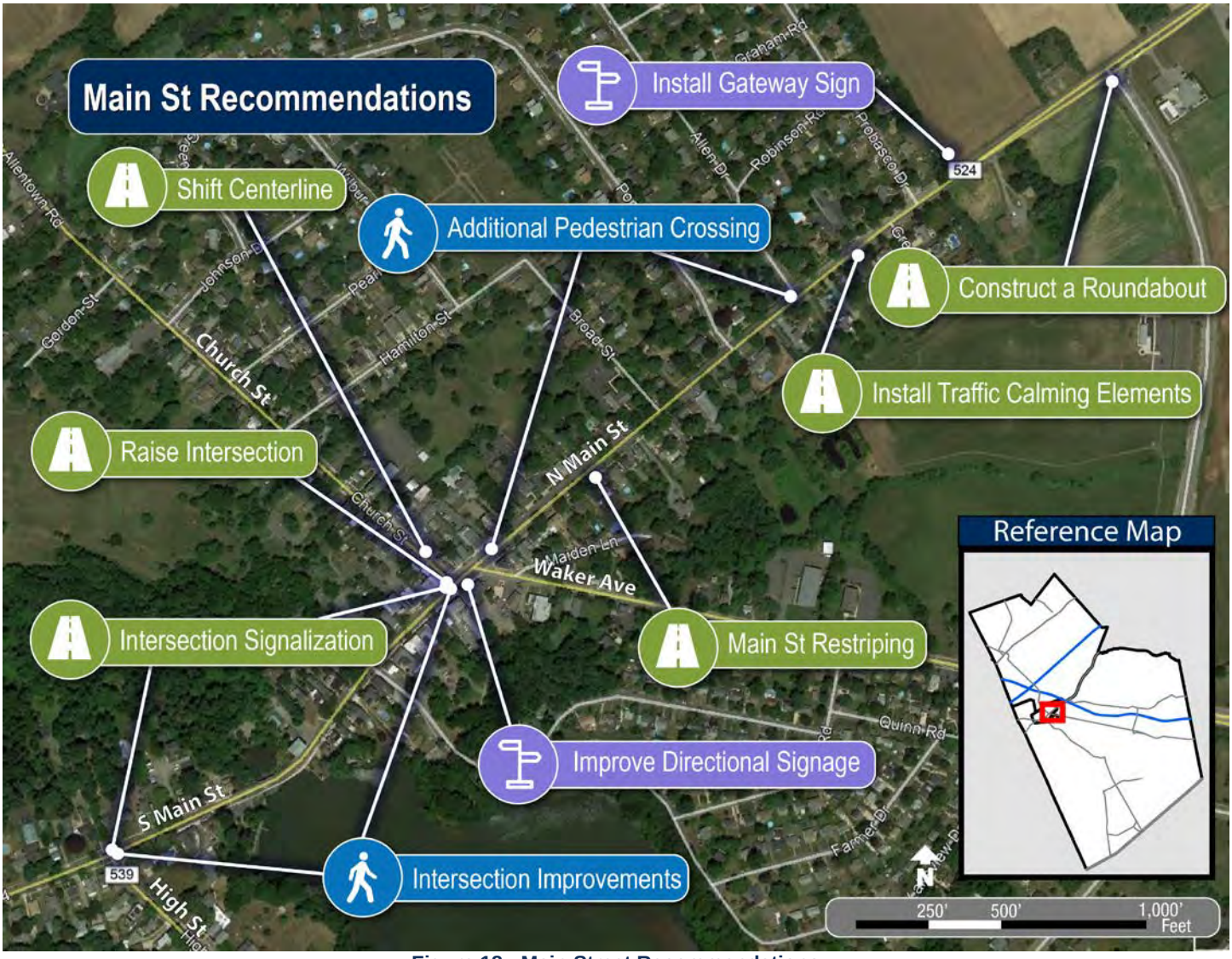


Figure 18 - Main Street Recommendations

Main Street Re-Striping should be used to delineate on-street parking, shoulder space, or median space to narrow the travel lanes to 12 feet.

Install Traffic Calming Elements to reduce southbound vehicular speeds. Potential treatments include advance signage, travel lane narrowing, curb extensions, and VMS speed signs.

Install Gateway Sign at the Allentown Borough line along CR 524 (North Main Street) to serve as a visual transition into the Borough.

Intersection Signalization Consider signalizing CR 524 (North Main Street) at CR 526 (Church Street and Waker Avenue) and CR 524 (North Main Street) at CR 539 (High Street).

Construct a Roundabout at the intersection of CR 524 (North Main Street) and the CR 526 Spur (Easterly Bypass) to improve LOS and calm traffic.

Improve Directional Signage Replace worn directional signage and place away from potential obstructions.

Raise Intersection Investigate raising the intersection to help calm traffic

Re-striping and Re-designation Shift the centerline by 2 feet to increase southbound lane width to better accommodate on-street parking. Remove CR 526 (Church Street) from the NJ Access Network.

Additional Pedestrian Crossings Construct an

additional pedestrian crossing at Pondview Drive, Allen Drive, or Probasco Drive and a second crosswalk just north of CR 526 (Church Street and Waker Avenue) to improve pedestrian circulation.

Intersection Improvements Construct missing curb ramps with detectable warning surface pads at CR 524 (South Main Street) and High Street. Install curb extensions at CR 524 (South Main Street) at CR 526 (Church Street and Waker Avenue) to daylight intersection. Install Rectangular Rapid Flashing Beacons (RRFB) for improved visibility of pedestrians. Remove obstructions to crosswalk. Install pedestrian crossing signs along 524 (Main Street) and CR 526 (Church Street and Waker Avenue) to reduce vehicular speeds and to help daylight crosswalks.

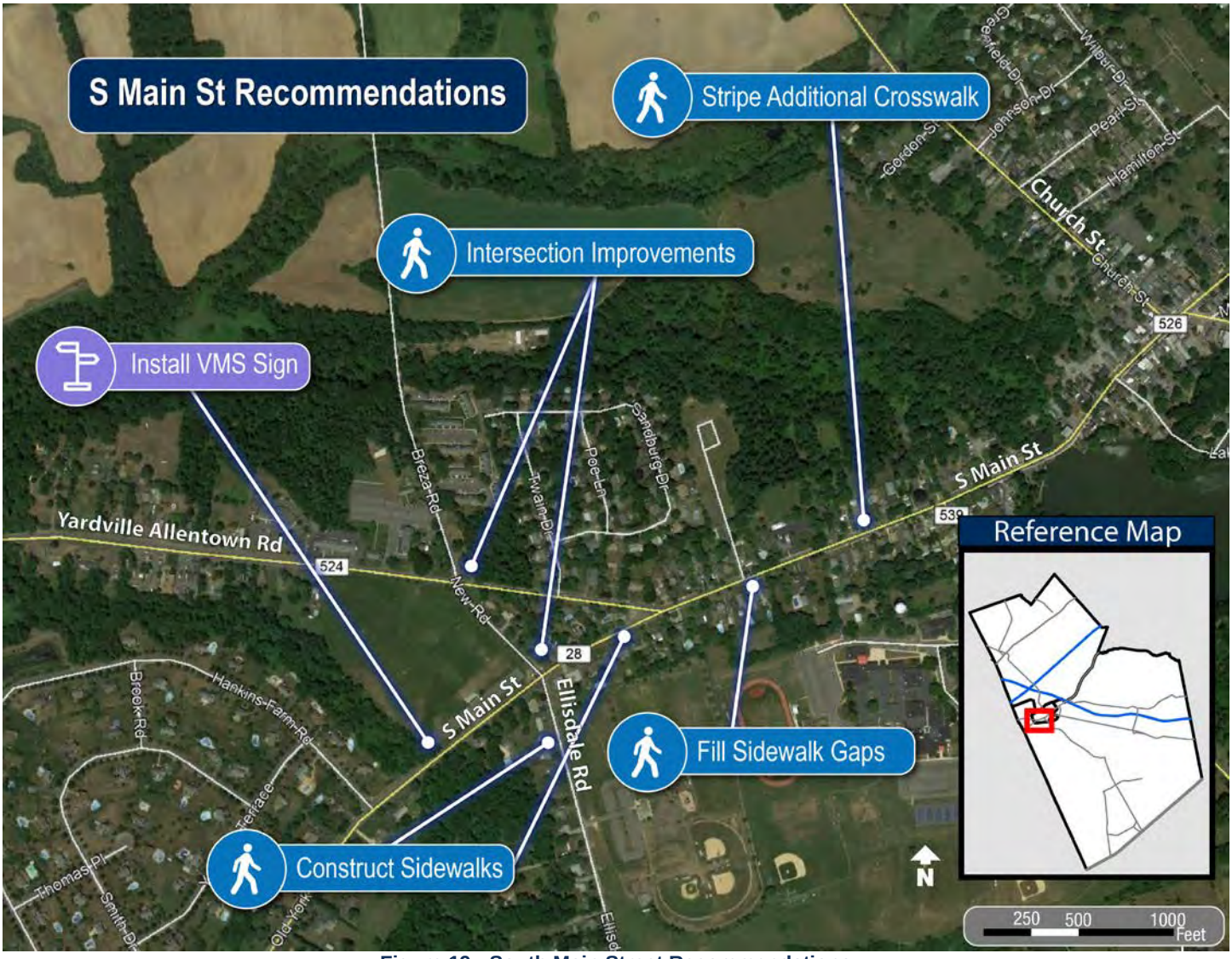


Figure 19 - South Main Street Recommendations

Install VMS Sign to slow drivers approaching Allentown.

Stripe Additional Crosswalk across CR 524 (South Main Street) to provide an additional mid-block crossing for pedestrians and to calm traffic.

Construct Sidewalks on CR 524 (South Main Street) between the soccer fields and CR 524 (Allentown-Yardville Road), on Ellisdale Road and New Road and along CR 524 (Yardville Allentown Road) between Breza Road and Stone Bridge Middle school to fill the sidewalk gap between the middle school, high school, and elementary school.

Fill Sidewalk Gaps along CR 524 (South Main Street) between CR 539 (High Street) and CR 524 (Allentown-Yardville Road).

Intersection Improvements Stripe crosswalks and install ADA compliant curb ramps to connect proposed sidewalks at the intersections of CR 524 (South Main Street) and Ellisdale Road and at CR 524 (Allentown-Yardville Road) and Breza Road.

2.7.2 *MAIN STREET TRAFFIC CALMING*

Travel Lane Narrowing

Throughout Allentown, CR 524 (Main Street) is comprised of various widths and configurations. Between the northern municipal line and Broad Street, CR 524 (Main Street) consists of two, approximately 20 foot wide travel lanes with on-street parallel parking on both sides with a speed limit of 30 mph. Between Broad Street and just south of Lakeview Drive, the roadway widens to more than 50 feet just north of CR 526 (Waker Avenue) and fluctuates to no narrower than 40 feet near Lakeview Drive while retaining two travel lanes and on-street parallel parking (unmarked) on both sides. The on-street parking is heavily used because it is close to the downtown commercial area. The speed limit along this stretch is 25 mph. Further south, between the bridge over Conines Millpond and the split between CR 28 (South Main Street) and CR 524 (Allentown-Yardville Rd), the roadway narrows to between 30 feet and 34 feet, retaining two travel lanes and no on-street parking. The speed limit increases back to 30 mph south of CR 539 (High Street).

Based on the approximate measurements described, a portion of speeding on CR 524 (Main Street) may be a enabled by its wide travel lanes. It is therefore recommended that an effort be made to visually delineate the travel lanes from parking lanes and shoulders. CR 524 (Main Street) mostly lacks this delineation, resulting in the perception of even wider lanes where on-street parking is not in use. By narrowing the lanes, the road is perceived as more of a walkable downtown area, as opposed to a rural arterial or highway. This, in turn, will calm traffic and discourage cut through traffic, which will reduce the number of through travel and trucks traveling through town.

Travel lanes should be between 10 and 12 feet wide with the excess width delineating parking, shoulders, or center lane treatment (painted median, turn lanes). With narrower travel lanes, drivers tend to drive slower and more attentively, improving safety for drivers and pedestrians alike. Eleven or twelve-foot travel lanes are sufficient to handle larger vehicles, including emergency vehicles, buses, and most trucks. On-street parking lanes should be between eight and nine feet in width.

The following cross-sections illustrate the proposed re-striping for the segments of CR 524 (Main Street) discussed above.

N Main Street between Municipal Line and Broad Street

The segment between the northern municipal line and Broad Street should be re-striped with two 12 foot travel lanes and two 8 foot parking lanes. The individual parking spaces can optionally be delineated.

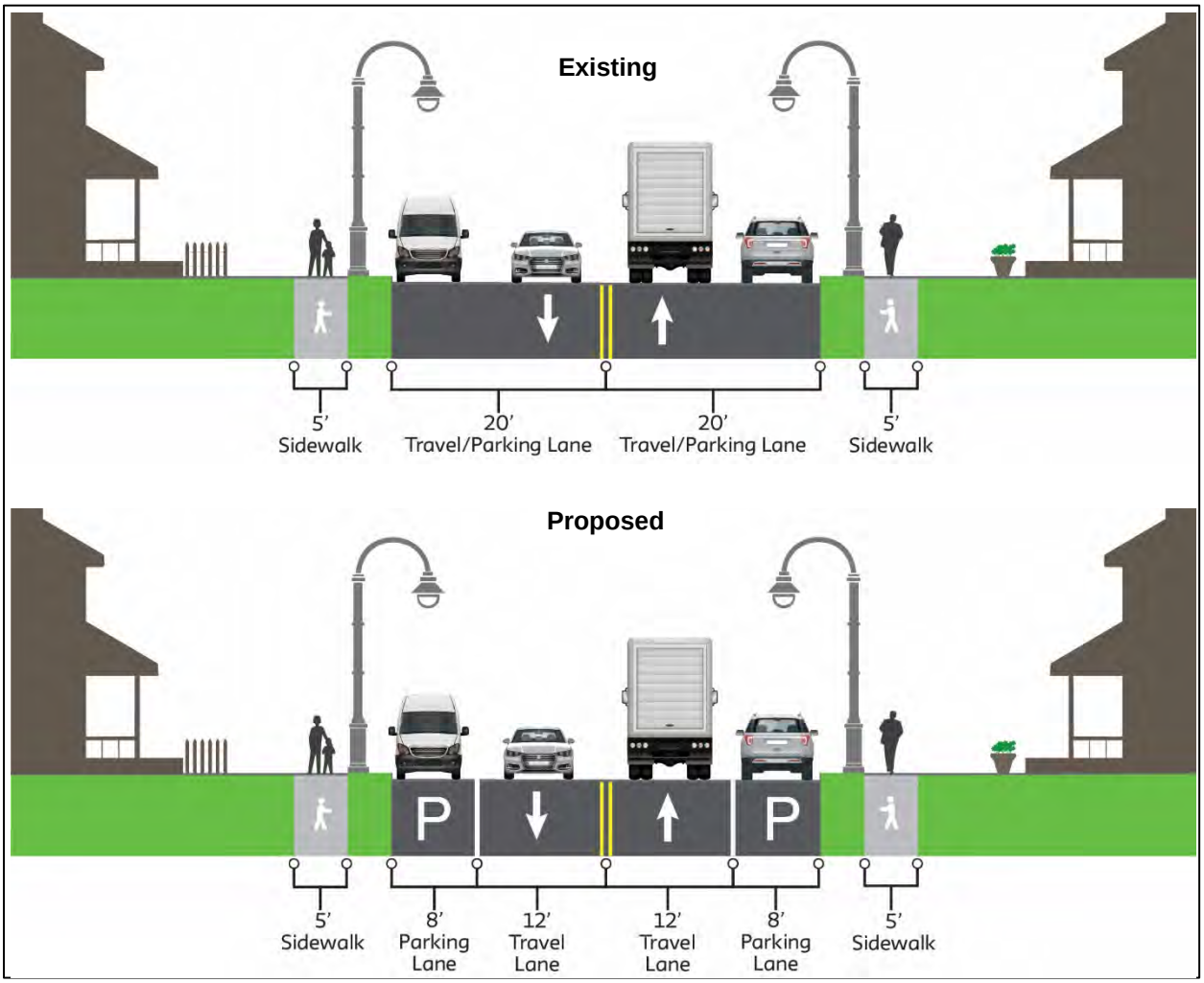


Figure 20 - N Main St at Probasco Drive Cross-Section

Main Street between Broad Street and South of Lakeview Drive

The widest point along the segment, between Broad Street and just south of Lakeview Drive near CR 526 (Waker Avenue), should be re-striped with two 12 foot travel lanes, two 8 foot parking lanes, and either a 12 foot painted median or center turn lanes. Where the roadway narrows as it approaches Lakeview Drive, the painted median should be narrowed accordingly to maintain the 12 foot travel lanes and the 8 foot parking lanes. The center turn lane should be replaced with a painted median where the roadway becomes too narrow to sustain it.

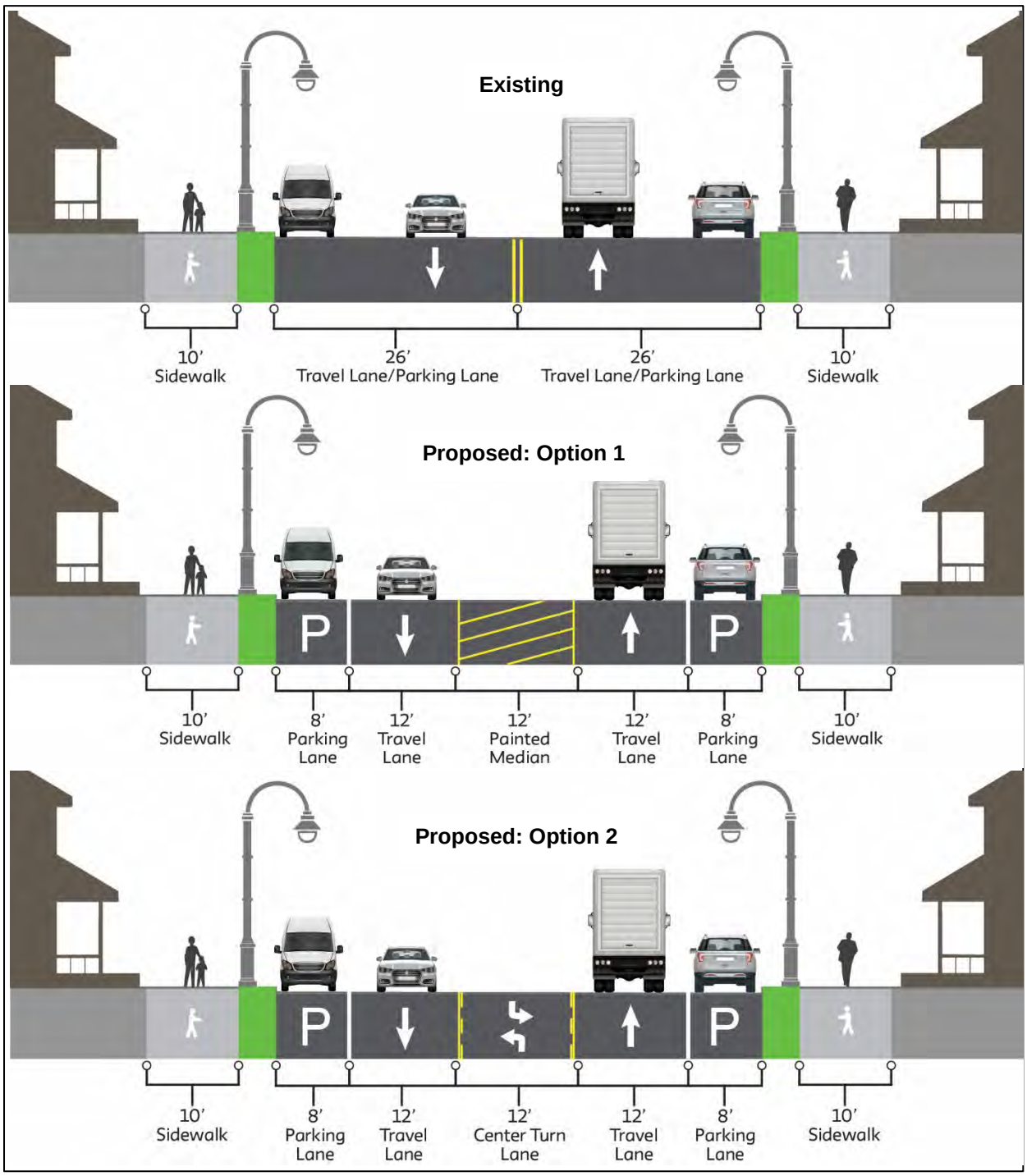


Figure 21 - N Main Street at Waker Avenue Cross-Section

In the long term, the Borough may consider working with Monmouth County to narrow this segment's cartway width in favor of widening the sidewalks. Larger sidewalks would be of great benefit for all those patronizing Allentown businesses, as well as students walking to school. The wider sidewalks would also allow for restaurants and retail stores to move merchandise and dining tables outside to a partitioned area of the sidewalk without compromising the right-of way for pedestrians. This would improve the visual appeal of downtown.

S Main Street between Bridge over Conines Millpond and the CR 524 (Allentown-Yardville Rd) Split

The segment between the bridge over Conines Millpond and the CR 524 (Allentown-Yardville Road) split should be re-striped with two 12 foot travel lanes and two 3 foot shoulders. Where the roadway width varies, the shoulder width can be adjusted a few feet to compensate, keeping the travel lanes a constant 12 feet wide.

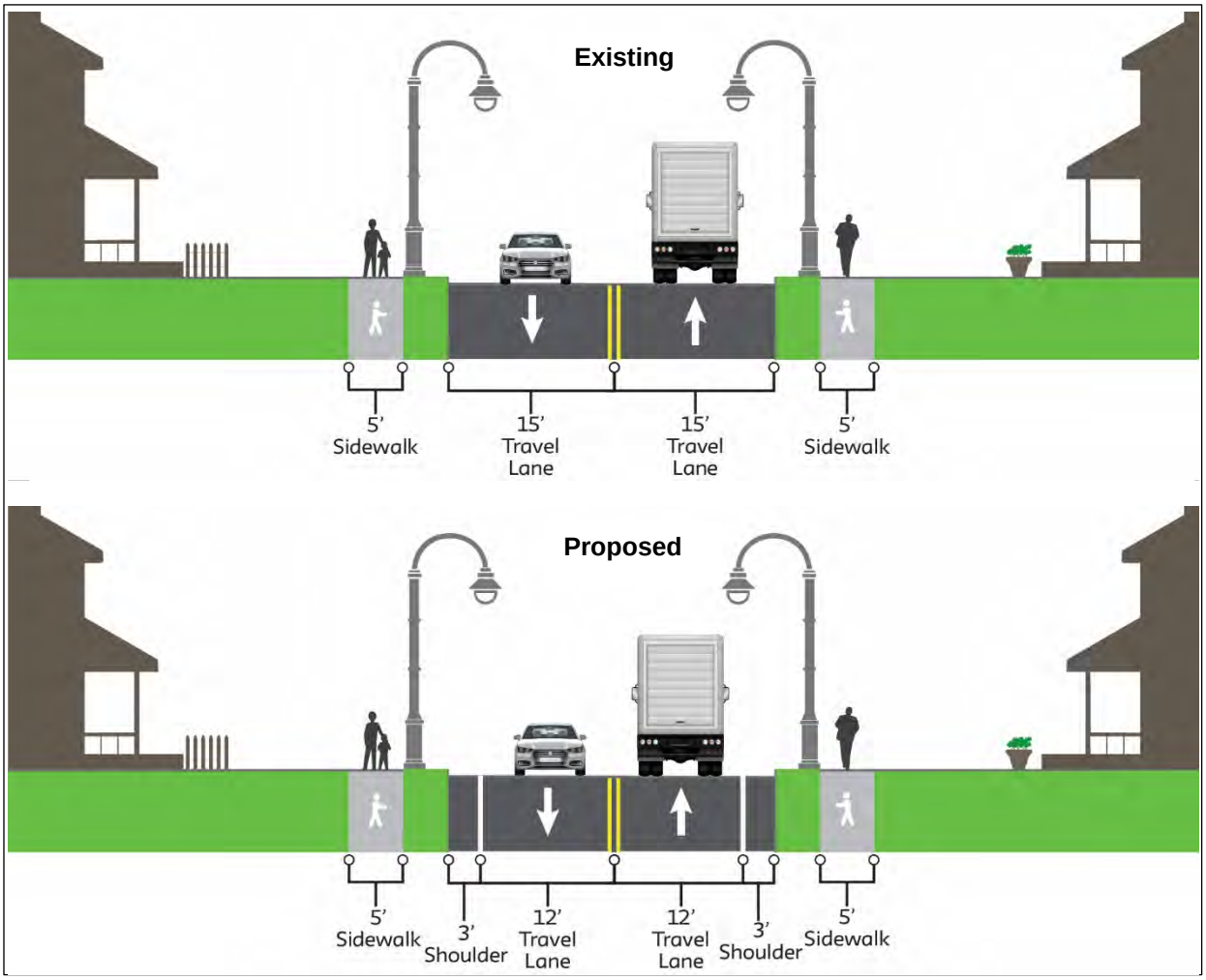


Figure 22 - S Main Street South of High Street Cross-Section

Traffic Calming Devices

In addition to narrowing the travel lanes, several traffic calming elements (Figure 23) can be implemented to further encourage drivers to slow down upon entering the Borough and thereby reduce cut through traffic (commuters and trucks). In-road pedestrian crossing signs, such as those installed at the parking lot adjacent to the Conines Millpond, should be installed at all major pedestrian crossings. These signs can be particularly effective along CR 524 (Main Street), which has no stop controls through the downtown area. Additional pedestrian crossing signs should be installed on CR 526 (Church Street and Waker Avenue) near the intersection with CR 524 (North Main Street).

Highly visible yellow advance warning signs informing drivers of pedestrians ahead and of reduced speed limits should also be installed. These signs should be placed strategically on either side of Allentown to encourage changes in driving behavior. Variable Message Signs (VMS) should be placed near the municipal boundaries at both ends of the Borough, just west of Ellisdale Road and just south of Probasco Drive. These signs are particularly effective when they are placed at strategic locations randomly. When placed permanently in one location, drivers tend to experience lowered awareness after passing VMS signs on a regular basis. Permanent placement of VMS signage will still be effective at slowing down infrequent visitors to CR 524 (Main Street) but not frequent users. A mix of permanent and temporary VMS signage will yield the most effective results.

Another traffic calming strategy is to raise an entire intersection. This change in grade significantly slows down vehicles and increases visibility of pedestrians. Historic districts often develop raised intersections using decorative pavement treatments, improving the aesthetics of the roadway in the process. The raised intersection should be even with the sidewalk, eliminating the need for ADA ramps. Bollards can be installed to prevent motorists from crossing into the pedestrian space. The intersection of CR 524 (North Main Street) at CR 526 (Church Street and Waker Avenue) is a prime candidate for this treatment. As the most centrally located intersection in Allentown, the increased pedestrian visibility, aesthetic appeal, and additional traffic calming will significantly improve vehicular and pedestrian circulation. Another potential location to consider is CR 539 (High Street) at CR 524 (South Main Street) where there is significant pedestrian activity associated with the school.

Curb extensions are another effective strategy to slow drivers with the added benefit of helping pedestrians. Curb extensions visually and physically narrow the roadway at intersections and mid-block locations. They are generally used where there is on-street parking to shorten the pedestrian crossing distance. Along CR 524 (Main Street), curb extensions should be installed at the intersection of CR 524 (North Main Street) and CR 526 (Church Street and Waker Avenue). Due to a lack of stop controls and poor visibility, curb extensions will help facilitate pedestrian crossings and reduce vehicular conflicts at this complex intersection.

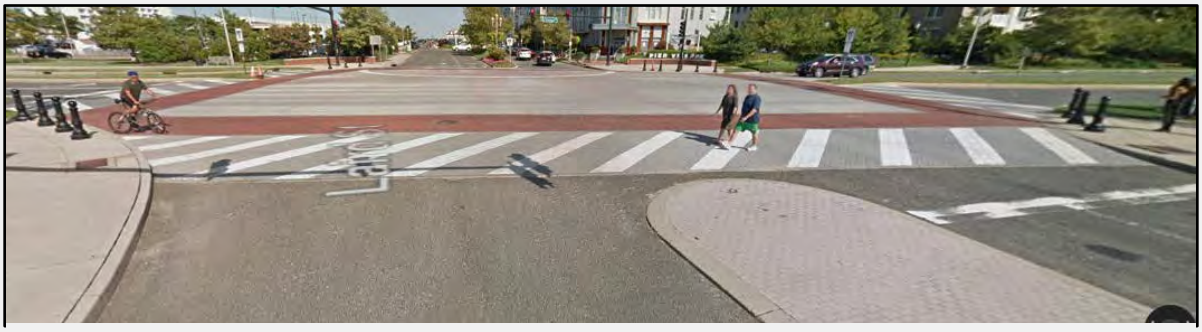
In-road pedestrian Crossing Sign

Curb Extensions

VMS Sign

Rectangular Rapid Flashing Beacon

Gateway Treatment



Raised Intersection

Figure 23 – Traffic Calming Devices

One of the most effective traffic calming strategies is known as a gateway treatment. Using one or more of the traffic calming strategies above, combined with a large welcome sign, and the introduction of narrower traffic lanes, can have a major impact on vehicular speeds. Gateway treatments are used to communicate to drivers that the character of the roadway is changing, resulting in the desired change in driving behavior. Along CR 524 (Main Street), a gateway sign should be installed at the municipal line just north of Probasco Drive. The sign may be historic in nature to reflect Allentown's historic status in New Jersey.

Each of these treatments will have the effect of slowing traffic, improving the pedestrian environment, and improving overall safety. By calming traffic there will be a reduction in speeding and cut through traffic from trucks and commuters.

2.7.3 *INTERSECTION RECONFIGURATION AND SIGNALIZATION*

CR 524 (Main Street) flows unopposed, meaning they have no stop signs or traffic signals, through Allentown. This reduces the level of service for nearly all approach roadways as they have stop signs and must await a break in traffic to turn onto or cross CR 524 (Main Street). The LOS analysis illustrated the difficulty of making left turns from CR 539 (High Street), CR 526 (Waker Avenue and Church Street), and the CR 526 Spur (Easterly Bypass) onto CR 524 (Main Street). To address these deficiencies, two types of intersection reconfigurations are recommended. The intersections of CR 524 (Main Street) at CR 539 (High Street) and CR 524 (Main Street) at CR 526 (Church Street and Waker Avenue) should be signalized. This will substantially improve the level of service and safety of both intersections.

The signalization of CR 524 (Main Street) at CR 539 (High Street) will result in an intersection LOS of D during both peak periods. This will result in slightly increased delays along Main Street but will dramatically reduce delays for the northbound approach along CR 539 (High Street). The currently failing turns from CR 539 (High Street) will improve from LOS F to LOS D during both peak hours.

The signalization of CR 524 (Main Street) at CR 526 (Church Street and Waker Avenue) will vastly reduce delays at the southbound CR 526 (Church Street) and northbound CR 526 (Waker Avenue) approaches, reducing the approach LOS from D to B and D to C respectively during the AM peak period and F to C and E to C during the PM peak period. Delays on CR 524 (Main Street) will rise slightly however, overall the intersection will improve to operate at a LOS B. Additional information regarding LOS can be found in Appendix C.1 of this memorandum.

Both intersections passed a preliminary warrant analysis (see Appendix C.2) based on volumes and proximity to schools. Pedestrian crossings will also be improved, particularly with the addition of pedestrian signal heads. The signals should be designed to fit the historic context of Downtown Allentown.

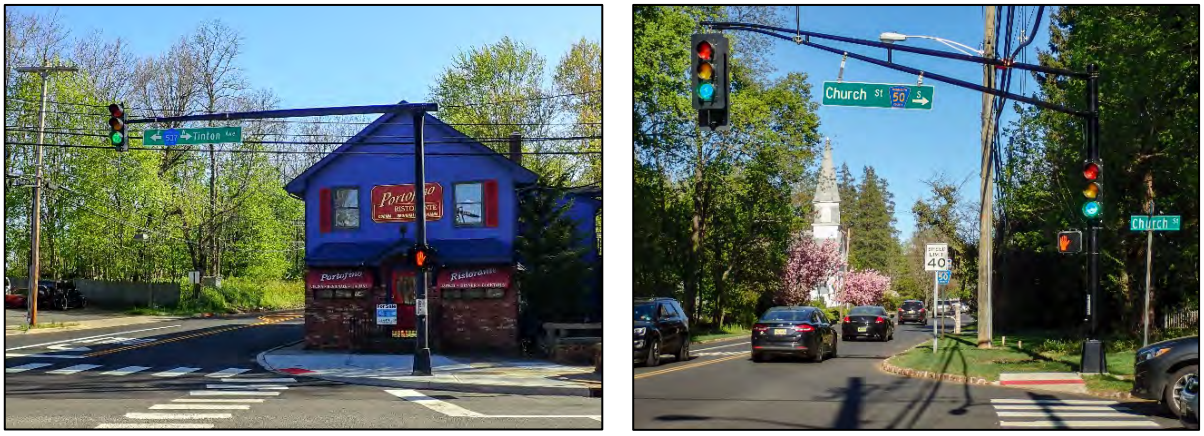


Figure 24 - Traffic Signals with Context Sensitive Designs in Tinton Falls (Left) and Freehold Borough (Right)

The intersection of CR 524 (North Main Street) and the CR 526 (Spur) is a prime candidate for a roundabout because of its location near the proposed gateway into Allentown. A roundabout will slow approaching traffic from the north, while vastly improving circulation for all turning movements. This will result in a significant LOS improvement (No Build LOS C in the AM and F in the PM peak hours to a Build LOS of A in the AM and C in the PM peak hour) at this location. This improvement will improve travel times and safety for trucks, which will encourage increased use of the bypass as opposed to traveling through Allentown. The roundabout should include a mountable center island so that larger trucks can perform wider turns without compromising their

vehicles or the roundabout. The roundabout's proposed location is the ideal setting for a historic artifact in the center. Allentown Borough and Upper Freehold Township should identify the most appropriate items to fit within the regional context to place inside the roundabout and work with the County on implementation.

2.7.4 *CHURCH STREET RE-STRIPING & REDESIGNATION*

As described above, CR 526 (Church Street) currently contains on-street parking in the southbound direction between Hamilton Street and CR 524 (Main Street). The utilization of this parking leaves just eight to nine feet of width for southbound traffic. The northbound direction does not have on-street parking. It is recommended that the centerline of CR 526 (Church Street) be shifted two feet to widen the southbound travel and parking lane while narrowing the northbound lane. This shift would result in two 11 foot travel lanes and one 8 foot southbound parking lane.

To keep vehicles from parking too close to the intersection, install a "No Parking Anytime" sign 50 feet north of the intersection. This would improve overall intersection visibility for vehicles and pedestrians.

When the Easterly Bypass is completed, it is recommended that this segment of CR 526 (Church Street) be removed from the New Jersey Access Network. Heavy trucks will no longer need to utilize CR 526 (Church Street) to complete regional trips.

2.7.5 *DIRECTIONAL SIGNAGE IMPROVEMENTS*

Worn directional signage should be replaced with new signs placed in locations where they cannot be obscured. Particular care should be taken to replace the Interstate 195 shields, most of which are worn out and use an obsolete font. Effective placement of these signs will help to alleviate wrong turns made in Allentown.

Figure 25 - Faded Signs (Left) and Standard Signs (Right)

2.7.6 *PEDESTRIAN IMPROVEMENTS*

Input from residents and stakeholders has identified several locations along and near CR 524 (Main Street) where pedestrian connections are currently lacking. The most frequently cited locations indicated a lack of mid-block crosswalks between CR 526 (Waker Avenue) and Probasco Drive and between CR 539 (High Street) and the CR 28 (South Main Street) and CR 524 (Allentown Yardville Rd) split. Mid-block crosswalks should be striped and installed in those locations. The crosswalks should be connected by ADA accessible curb ramps with detectable surface pads. The location of these crosswalks has the added benefit of traffic calming, particularly if in-road pedestrian crossing signs are installed near the crosswalks.

The intersection of CR 524 (Main Street) and CR 539 (High Street) is the primary crossing for pedestrians going to and from Allentown High School and Newell Elementary nearby. Currently, the intersection lacks ADA accommodation for pedestrians. ADA curb ramps with detectable warning surface pads should be installed at all four corners of the intersection. Worn crosswalks should be repainted and additional in-road pedestrian crossing signs should be installed to slow drivers.

Figure 26 - Existing Mid-block Crosswalk with ADA Accommodation in Allentown

Several sidewalk gaps exist within the study area as shown in Figure 27. Along CR 524 (Main Street), the roadway lacks continuous sidewalks in the northbound direction between the CR 28 (South Main Street) and CR 524 (Allentown-Yardville Road) split and CR 539 (High Street). Additionally, there are currently no sidewalks between the CR 28 (South Main Street) and CR 524 (Allentown-Yardville Road) split and the Mark Harbourt Soccer Complex or along Ellisdale Road and New Road between Byron Johnson Park and CR 524 (Allentown-Yardville Road). Finally, no sidewalks exist along CR 524 (Yardville Allentown Road) between Stone Bridge Middle School and Breza Road. These corridors need reliable pedestrian accommodations that create a safe pedestrian environment away from truck and vehicular traffic due to their connectivity between the schools, recreational facilities, and residential developments. Sidewalks should be constructed on both sides of each of these roadways. To connect the proposed sidewalks along CR 524 (S Main Street) and on New Road and Ellisdale Road, crosswalks need to be striped at the intersection of CR 28 (Old York Road) at Ellisdale Rd/New Road, and at New Road/Breza Road and CR 524 (Allentown-Yardville Road). Highly visible crosswalks with ADA accessible curb ramps and detectable warning surface pads should be installed.

The intersection of CR 524 (N Main Street) and CR 526 (Church Street and Waker Avenue) has significant visibility issues between drivers and pedestrians due to the abnormal geometry of the approach roadways, on street parking, and vegetation. As both a traffic calming strategy and a pedestrian crossing improvement, curb extensions should be installed at this intersection or raising the intersection should be considered, as described in the Traffic Calming section. An additional crosswalk should be striped across CR 524 (N Main Street) on the north side to provide improved pedestrian circulation at the intersection.

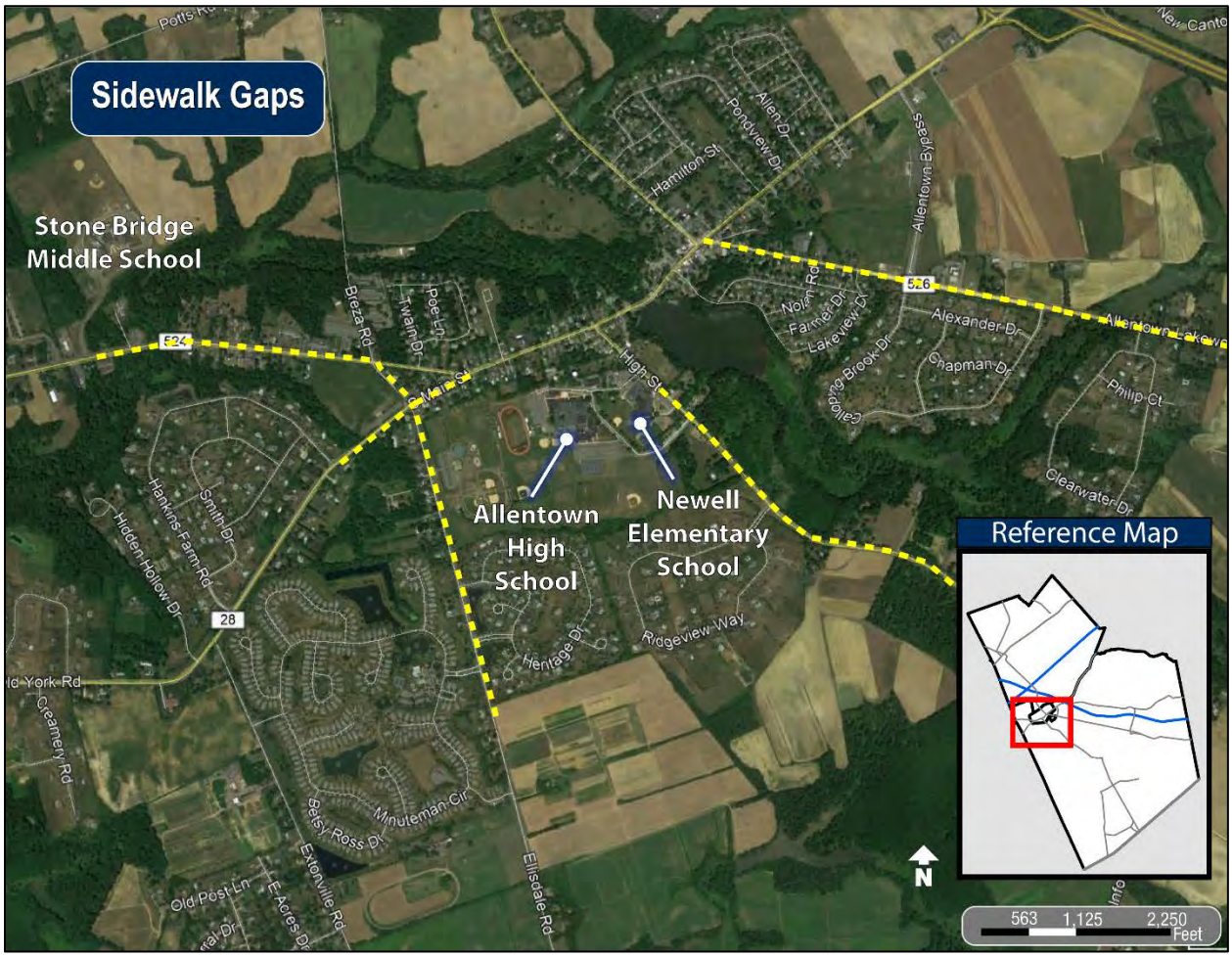


Figure 27: Sidewalk Gaps

Additionally, the installation of Rectangular Rapid Flashing Beacons (RRFB) (see Figure 23) would greatly increase driver awareness of pedestrians. These signs, which warn drivers of pedestrians in the crosswalk, can be actively or passively actuated and emit a strong pulsing beam of light when pedestrians are present. They are highly effective at slowing drivers, though they can be quite bright during the nighttime. These signs should be installed in pairs on either end of a crosswalk. At this intersection, RRFBs should be placed along the CR 524 (Main Street) crosswalks to mitigate for the roadway's lack of existing stop controls. Finally, ADA accommodation must be met at intersections by removing obstructions that currently exist including poles at the entry to the crosswalk.

2.8 CR 526 (ALLENTOWN LAKEWOOD ROAD) MULTIMODAL CONNECTIONS

2.8.1 *IDENTIFIED DEFICIENCIES*

Several subdivisions in both Allentown and Upper Freehold are situated along CR 526 (Waker Avenue / Allentown Lakewood Road) just to the east of downtown. Patchy sidewalks are found on the south side of the corridor, with significant gaps, between Nolan Road and Lakeview Drive. The lack of sidewalks effectively cuts off the Galloping Brook subdivision from Allentown. CR 526 (Waker Avenue) lacks sidewalks between CR 524 (N Main Street) and the Upper Freehold border, except for a small patch. At such close proximity to downtown, many local establishments, including the First Baptist Church of Allentown, the Allentown First Aid Squad and the Hope Fire Company all lack pedestrian connectivity to downtown Allentown. In addition, the nearby Union Transportation Trail is located approximately two miles to the east near the intersection with Sharon Station Road. Stakeholders expressed a desire to cycle to the trail from Allentown but but cite heavy vehicles and fast moving traffic as creating a high level of stress along CR524 (Waker Ave and Allentown Lakewood Road).

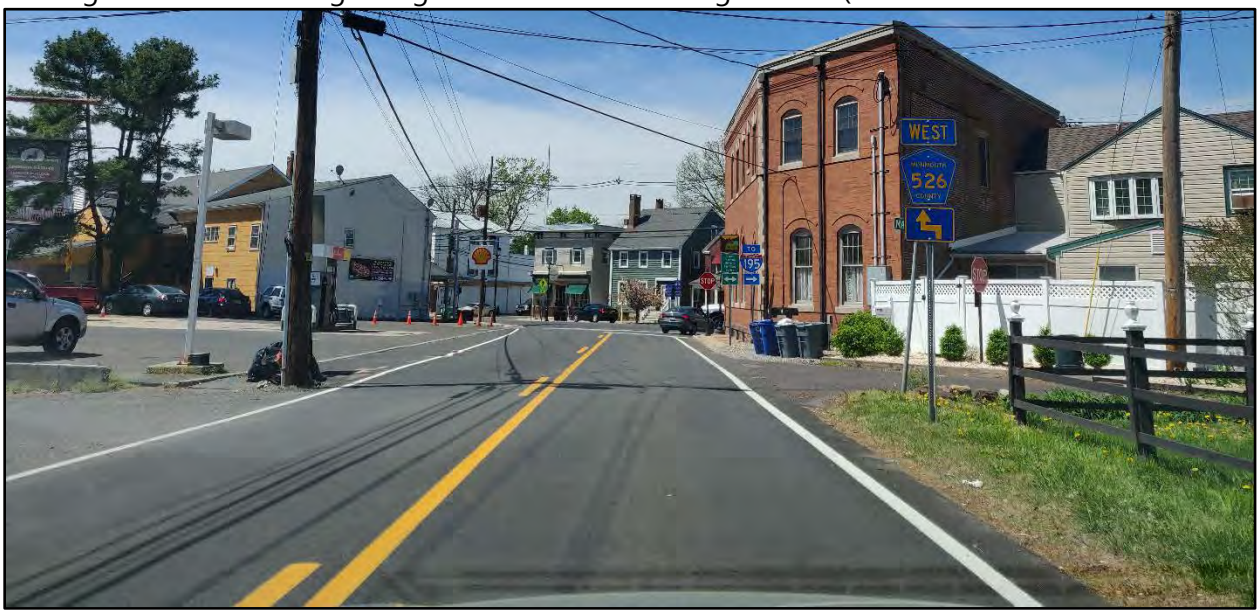


Figure 28: Missing Sidewalks on CR 526 Waker Avenue

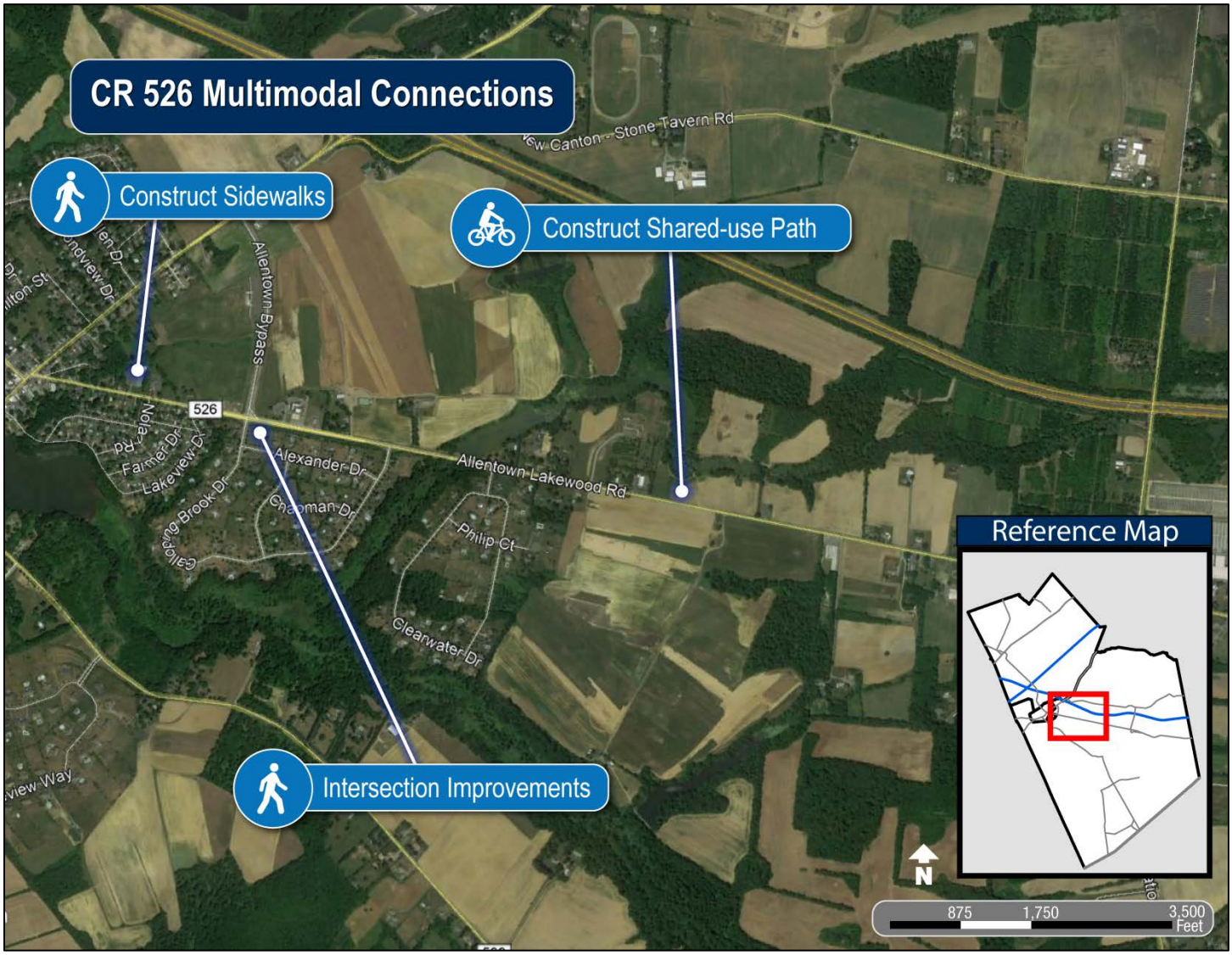


Figure 29: CR 526 Multimodal Connections

Construct Sidewalks on both sides of CR 526 (Waker Ave andAllentown Lakewood Road) between Main Street and Galloping Brook Drive to provide connections for residential developments, churches, and emergency services

Construct Shared-use Path parallel to CR 526 (Allentown Lakewood Road) to connect to the Union Transportation Trail

Intersection Improvements Stripe crosswalk and install ADA curb ramps across CR 526 (Allentown Lakewood Road) to provide pedestrian access to both sides of the roadway

2.8.2 *PEDESTRIAN NETWORK IMPROVEMENTS*

A continuous sidewalk should be constructed along both sides of CR 526 (Waker Avenue and Allentown Lakewood Road) between CR 524 (North Main Street) in Allentown and Galloping Brook Drive (east of the Easterly bypass) in Upper Freehold. Crosswalks should be striped along with ADA curb ramps at the intersection with CR 526 Spur (Easterly Bypass). These improvements will provide pedestrian access to Allentown from the Galloping Brook subdivision, the municipal services on the north side of the roadway, and to the athletic fields on the northwest corner of the intersection with CR 526 (Spur). This will provide improved pedestrian connectivity and separate pedestrian traffic from truck and vehicular traffic.

2.8.3 *MULTIMODAL NETWORK IMPROVEMENTS*

CR 526 (Allentown Lakewood Road) is the most direct connection between Allentown and the Union Transportation Trail. As a future segment of the Easterly Bypass, the roadway's high truck volumes and travel speeds are not conducive to on-road bicycle facilities as such shoulder striping is not recommended. To connect locals with the nearby Union Transportation Trail, a shared-use path should be constructed parallel to the roadway between Nolan Road and the Union Transportation Trail, located just east of Sharon Station Road. A right-of-way easement or acquisition will be required to accommodate the separated path. The path should be at least ten feet in width. The segment between Nolan Road and CR 524 (North Main Street) should have shared-lane marking painted on the roadway. This segment is not part of the Easterly Bypass and has a 25 mph speed limit. These parameters allow for bicycle travel with mixed traffic.

APPENDIX

C.1 LEVEL OF SERVICE ANALYSES: 2040 BUILD

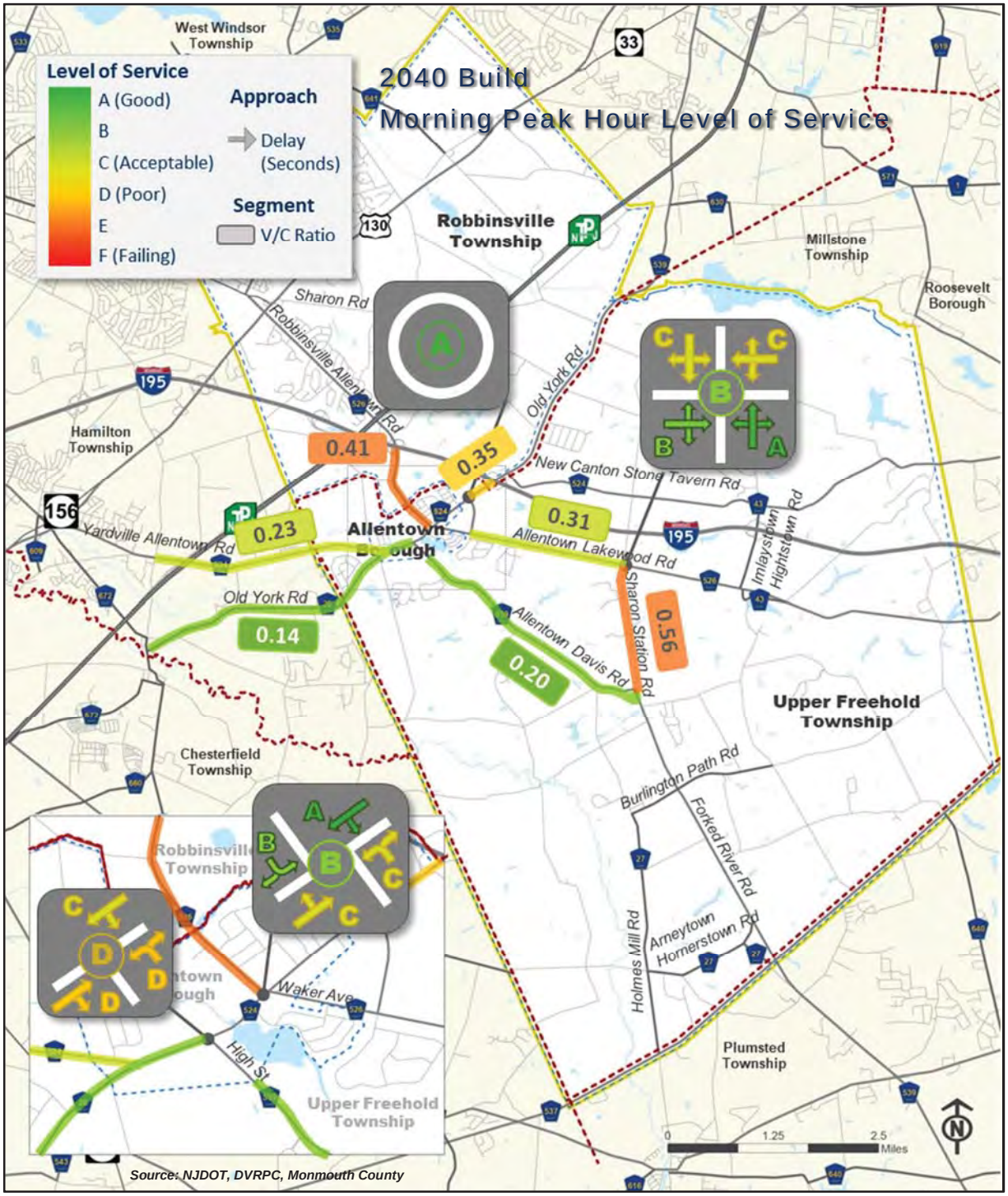


Figure 30: 2040 Build Morning Peak Hour Level of Service

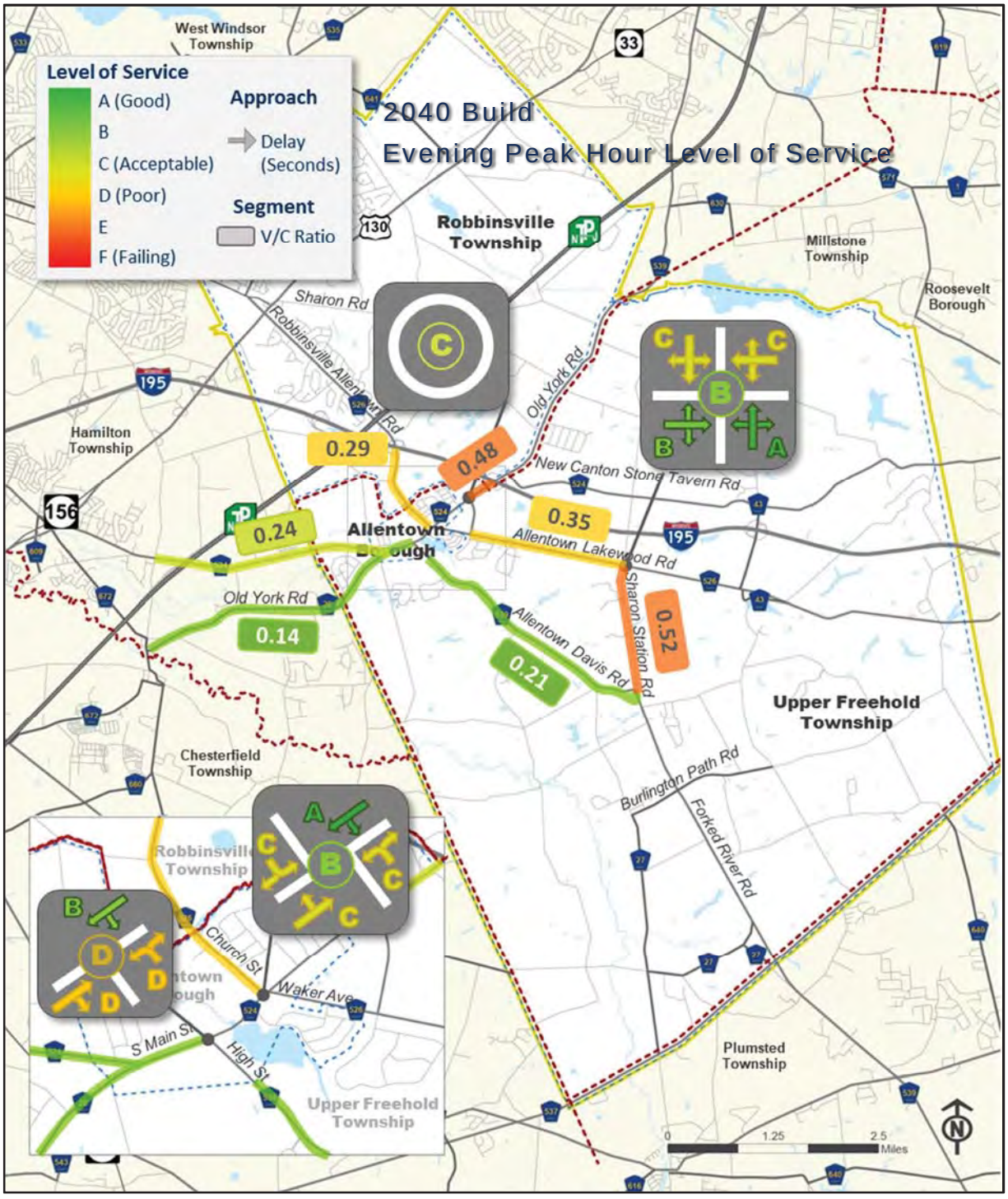


Figure 31: 2040 Build Evening Peak Hour Level of Service

APPENDIX

C.2 SIGNAL WARRANTS TECHNICAL MEMORANDUM

MEMO

TO: File 52301 – Monmouth Freight Study

FROM: Mike Kublanov

SUBJECT: **Preliminary Warrant Analysis**

DATE: **June 7, 2019**

MAIN ST (CR 524) AT CHURCH ST/WAKER AVE (CR 526) SIGNAL WARRANT ANALYSIS

A preliminary warrant analysis of the intersection of Main St (CR 524) at Church St/Waker Ave has been completed. The results indicate that the intersection meets the criteria for three of the nine signalization warrants, warrants 1, 2, and 3.

WSP USA
3rd Floor
2000 Lenox Drive
Lawrenceville, NJ 08648

Tel.: +1 609 512-3500
Fax: +1 609 512-3600
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WARRANT #1

Warrant number one requires that for at least 8 hours in a day, vehicular volumes on the major roadway exceed 350 vehicles per hour while volumes on the minor roadway exceed 105 vehicles per hour. Both Main St (major roadway) and Waker Ave/Church St (minor roadway) exceed this threshold, as illustrated in Figure 1 with a solid red line and a dotted green line delineating the volume thresholds, respectively.

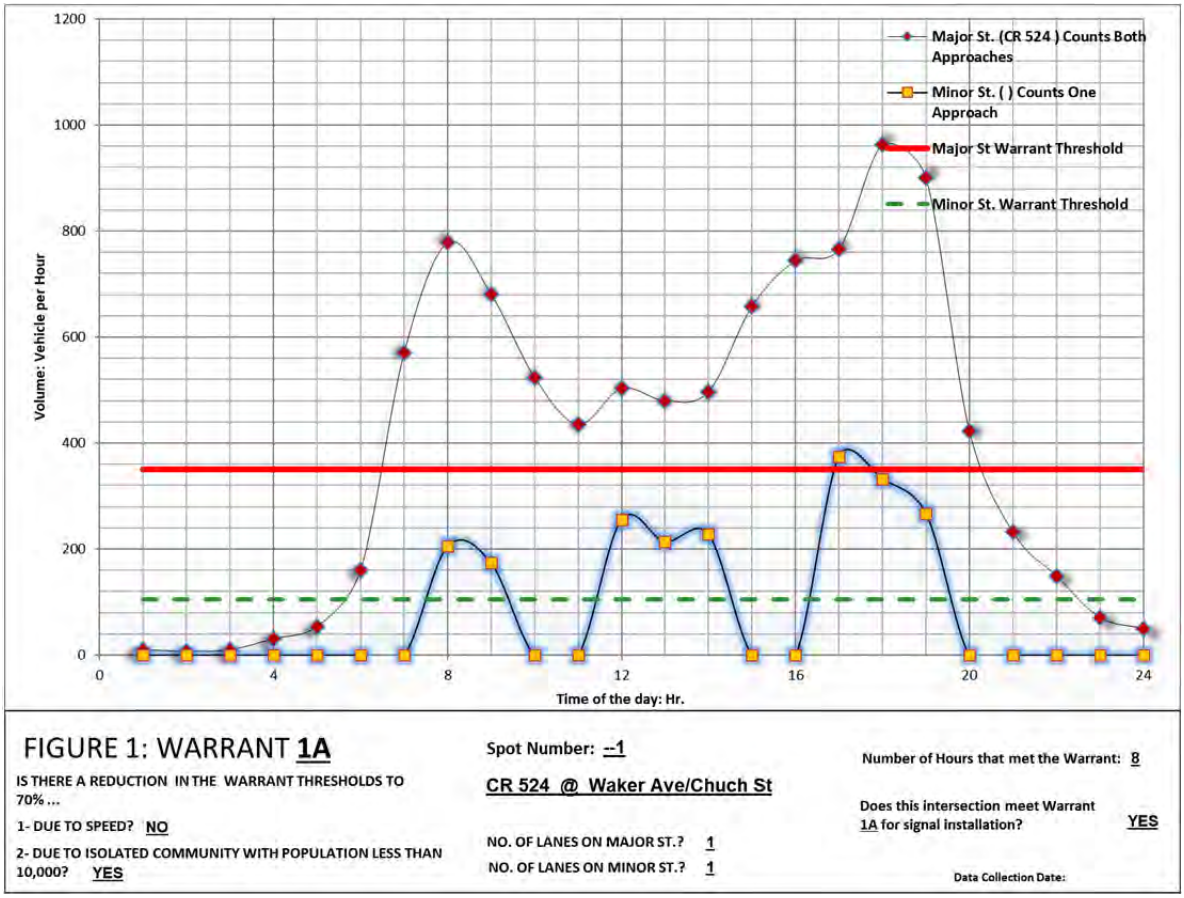

Figure 1: Warrant #1 Thresholds for Main St (CR 524) at Church St/Waker Ave (CR 526)

WARRANT #2

Warrant number 2 requires that for at least 4 hours in a day, the combined volumes from all approaches on both roadways meet a threshold expressed in the following graph. Because both roadways are comprised of a single lane of traffic in either direction, the combined volumes must be plotted above the red line. As illustrated in Figure 2, all eight recorded hours of volumes at the intersection exceed the threshold, satisfying warrant two.

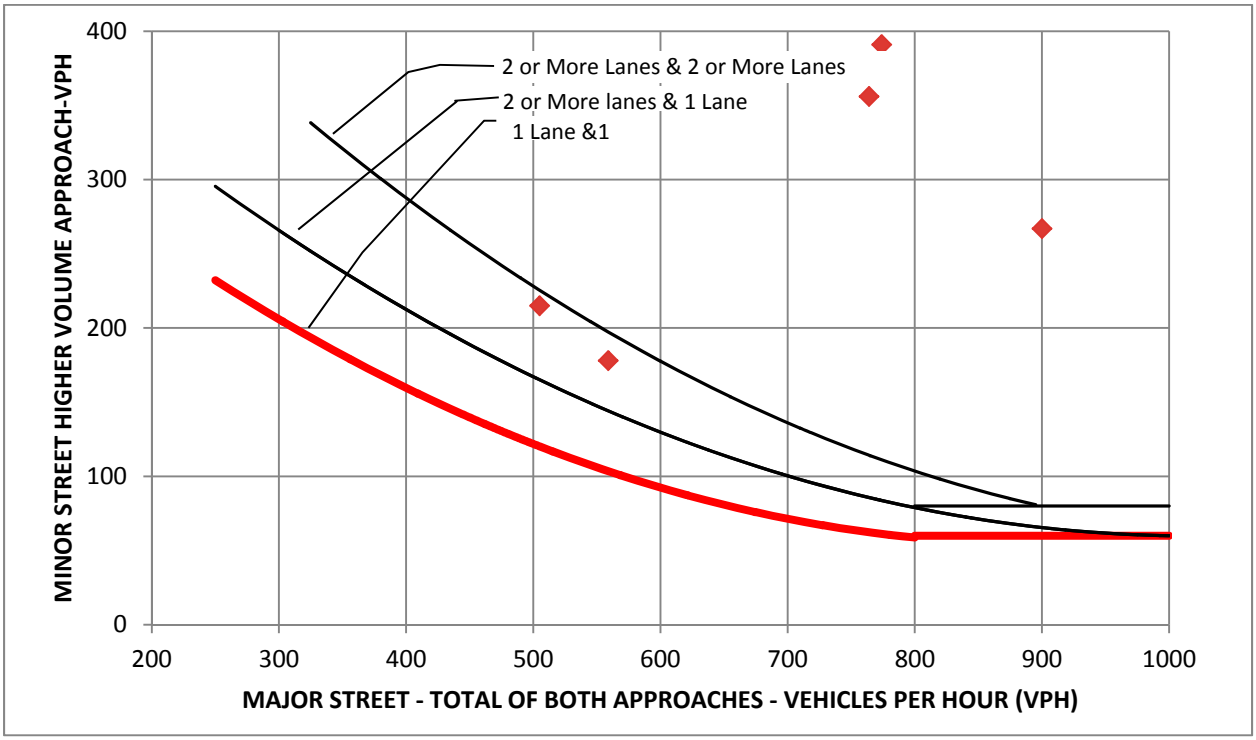

Figure 2: Warrant # 2 Thresholds for Main St (CR 524) at Church St/Waker Ave (CR 526)

WARRANT #3

Warrant number 3 requires that for at least 1 hour a day, the combined volumes from all approaches on both roadways meet a threshold expressed in the following graph. Because both roadways are comprised of a single lane of traffic in either direction, the combined volumes must be plotted above the red line. As illustrated in Figure 3, seven hours of volumes at the intersection exceed the threshold, satisfying warrant three.

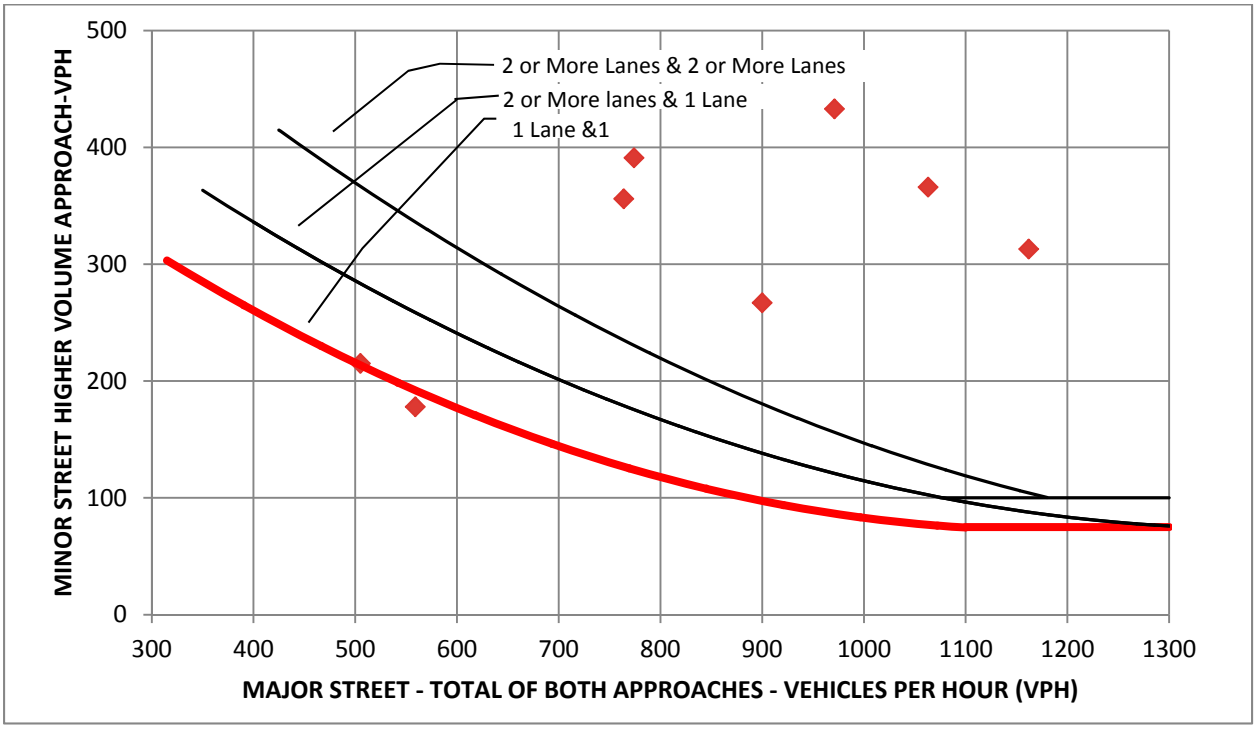

Figure 3: Warrant # 3 Thresholds for Main St (CR 524) at Church St/Waker Ave (CR 526)

MAIN ST (CR 524) AT HIGH ST (CR 539) SIGNAL WARRANT ANALYSIS

A preliminary warrant analysis of the intersection of Main St (CR 524) at High St (CR 539) has been completed. The results indicate that the intersection meets the criteria for three of the nine signalization warrants, warrants 1, 2, and 3.

Additional data collection is required to investigate whether the intersection also meets the criteria for warrant 5, pertaining to school crossings. Total school-children pedestrian volumes and gaps in vehicular traffic need to be documented to conduct this warrant analysis.

WARRANT #1

Warrant number 1 requires that for at least 8 hours in a day, vehicular volumes on the major roadway exceed 350 vehicles per hour while volumes on the minor roadway exceed 105 vehicles per hour. Both Main St (major roadway) and High St (minor roadway) exceed this threshold as illustrated in Figure 4 with a solid red line and a dotted green line delineating the volume thresholds, respectively.

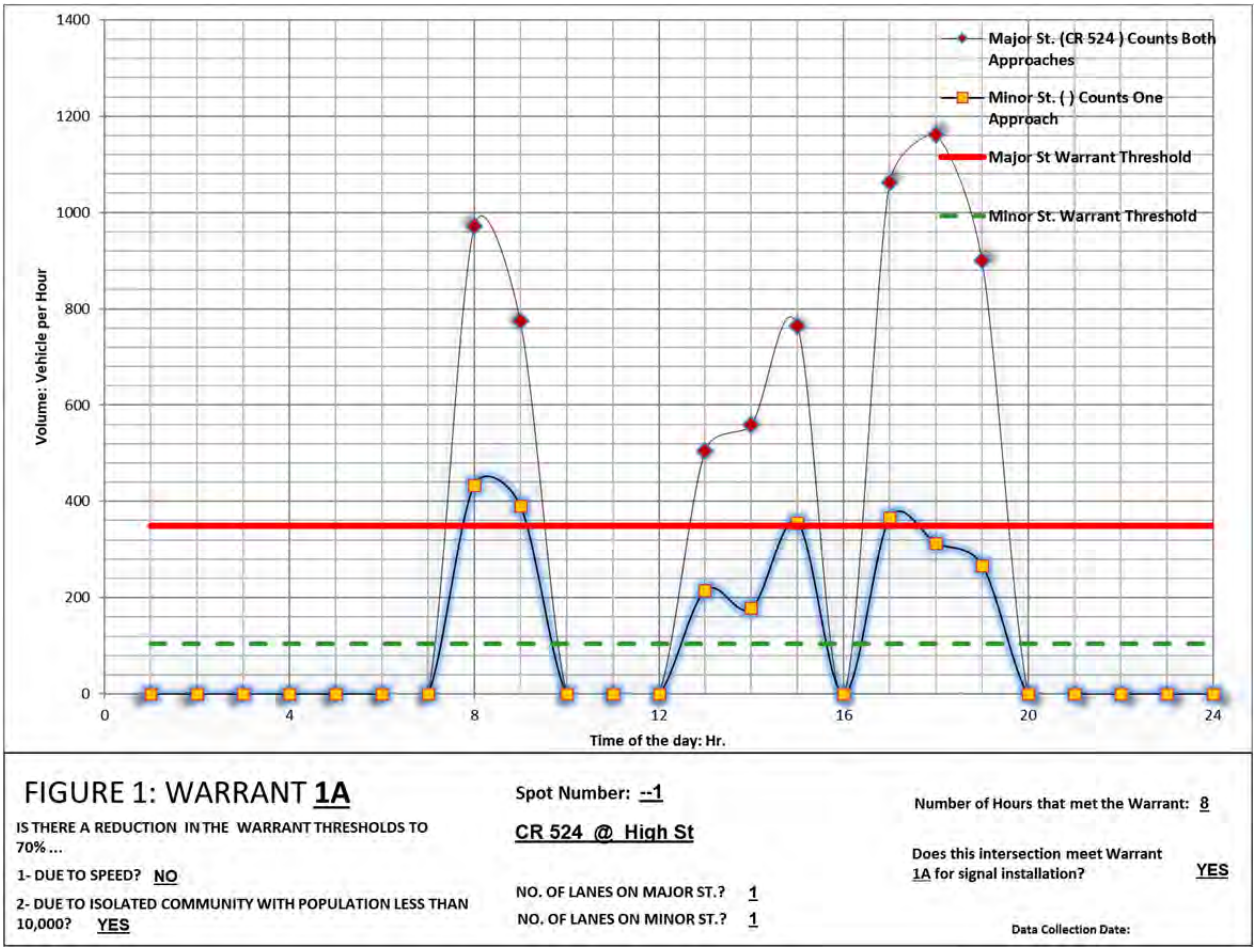

Figure 4: Warrant #1 Thresholds for Main St (CR 524) at High St (CR 539)

WARRANT #2

Warrant number 2 requires that for at least 4 hours in a day, the combined volumes from all approaches on both roadways meet a threshold expressed in the following graph. Because both roadways are comprised of a single lane of traffic in either direction, the combined volumes must be plotted above the red line. As illustrated in Figure 5, observed volumes at the intersection exceed the threshold, satisfying warrant two.

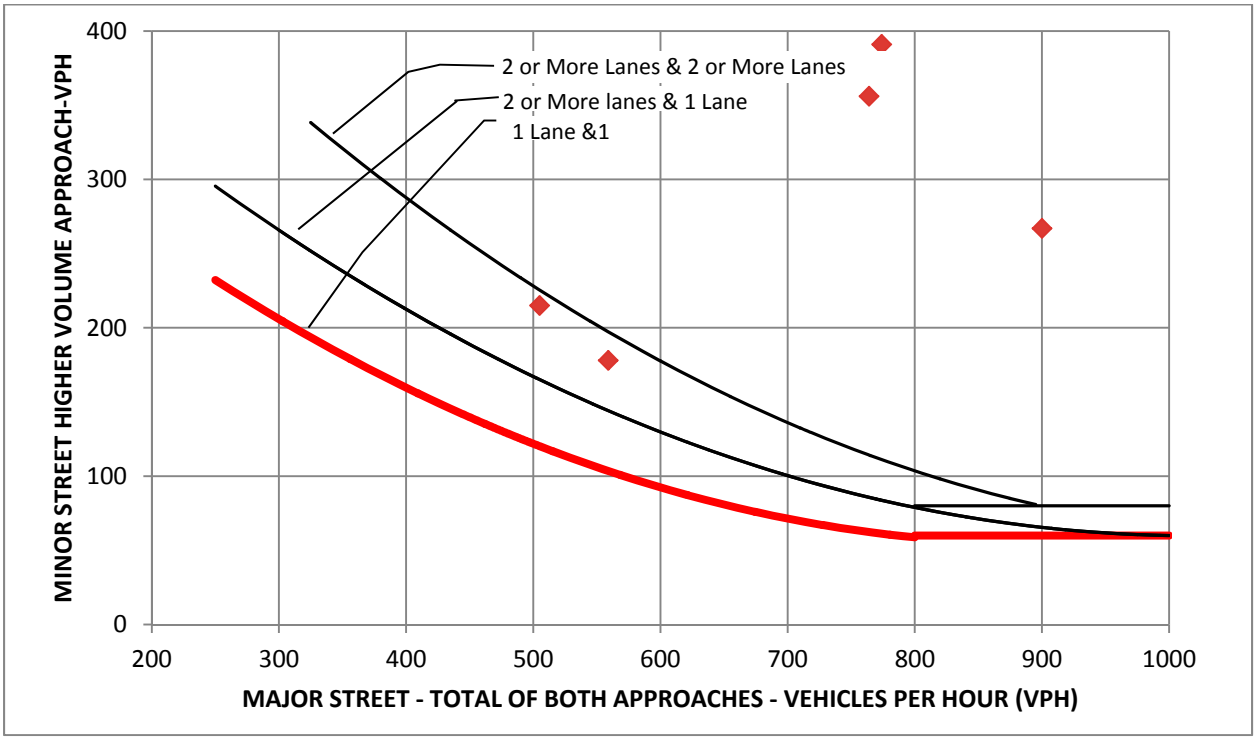

Figure 5: Warrant # 2 Thresholds for Main St (CR 524) at High St (CR 539)

WARRANT #3

Warrant number 3 requires that for at least 1 hour a day, the combined volumes from all approaches on both roadways meet a threshold expressed in the following graph. Because both roadways are comprised of a single lane of traffic in either direction, the combined volumes must be plotted above the red line. As illustrated in Figure 6, seven hours of volumes at the intersection exceed the threshold, satisfying warrant three.

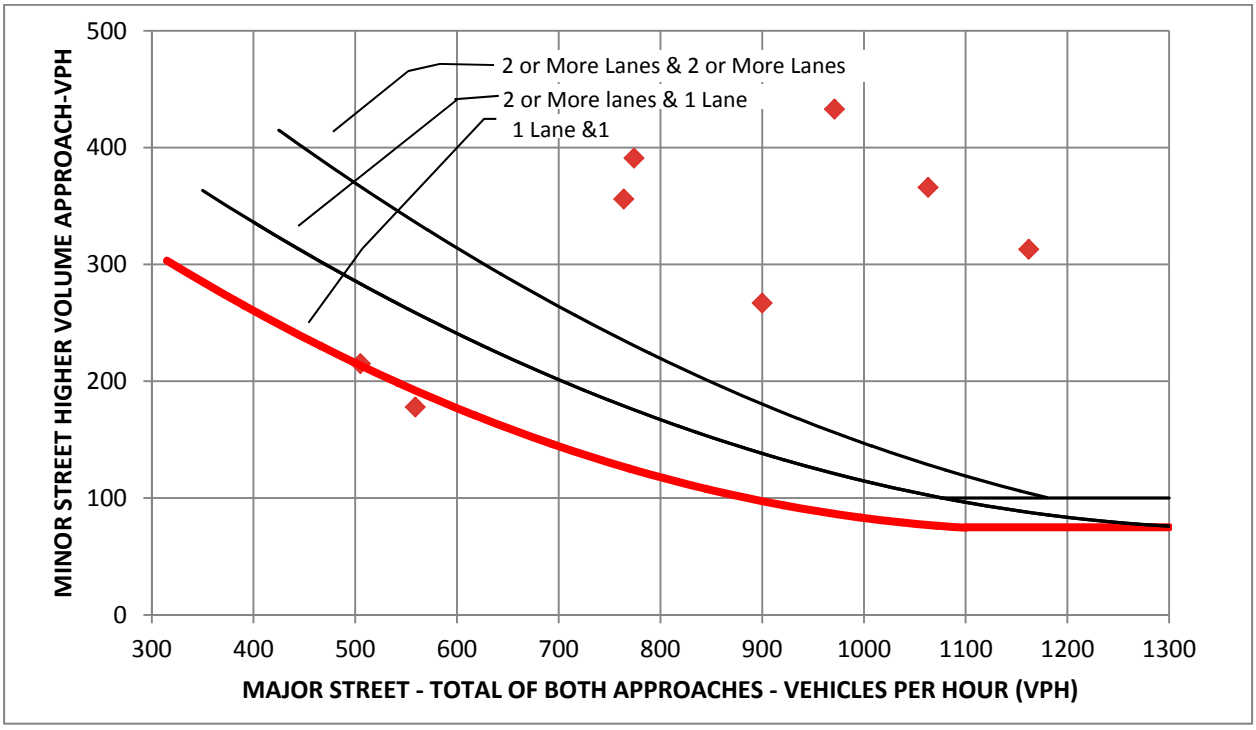

Figure 6: Thresholds for Main St (CR 524) at High St (CR 539)