Traffic Circulation Study

Greenwich Central School District

Village of Greenwich, NY

CME Project #02-080d
Project #2

Submitted to:

Adirondack/Glens Falls Transportation Council (A/GFTC)
Washington County Municipal Center
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CHAPTER I
INTRODUCTION

This report summarizes the results of a Traffic Circulation Study of the Greenwich Central Schools, located on Woodlawn Avenue, Gray Avenue, and Fisher Street in the Village of Greenwich, Washington County, as shown on Figure 1.1. The purpose of this study is to identify existing deficiencies associated with traffic and pedestrian flows on campus and in the immediate area, and to provide potential solutions which would result in reducing existing conflicts and congestion in the study area.

A. Existing Circulation Issues

Representatives from Creighton Manning Engineering, LLP (CME) conducted field observations of the school circulation patterns during the morning peak hour (7:30 AM to 8:30 AM) on Wednesday, November 19, 2003 and during the afternoon dismissal peak hour (2:00 PM to 3:00 PM) on Friday, November 21, 2003. Based on these field observations, the following circulation issues are discussed below and noted on Figure 1.2:

1. Pedestrian Crossing and Congestion – Main Street/Church Street: The intersection of Main Street (Route 29) and Church Street operates under Stop-control on the eastbound-westbound approaches of Church Street. Although striped crosswalks exist across each of the roadway approaches, the crossing guard stops all traffic to cross students diagonally from the southwest corner to the northeast corner. The diagonal crossing does not have a striped crosswalk, but is the shortest route through the intersection. Major back-ups were not observed at this intersection as a result of the diagonal crossing or traffic volumes during the morning peak hour. Additionally, there are no sidewalk accommodations along the north side of Academy Street.

   The westbound approach of Church Street did back-up to approximately half way between Main Street and Gray Avenue (approximately 10 to 15 vehicles) during the afternoon peak hour. This back-up ended within 5 to 10 minutes. Many of these vehicles were turning right onto Main Street. The crossing of students was not a major contributor to the delay of vehicles on the westbound approach.

2. Congestion – Church Street/Washington Square and Gray Avenue: The intersection of Church Street and Washington Square experienced minor queuing issues (5-6 vehicles each) during the morning peak hour as drivers are arriving to the school campus. This issue may be more prevalent during bad weather, as fewer students walk to school and are dropped off by parents. During the afternoon peak hour, the intersection had very few vehicles on each approach with the exception of the westbound approach on Church Street which would back-up from the crosswalk at Washington Square to Gray Avenue, and then up Gray Avenue to the campus. The crossing guard at the Church Street/Washington Square intersection generally holds students until there is a group before stopping traffic to cross students. The crossing of students was not a major contributor to the delay of vehicles on the westbound approach. The delays were a result of the very high flow rate of vehicles attempting to exit the campus in a short time and arriving at the stop-controlled intersection of Gray Avenue and Church Street.

3. Pedestrian Crossing and Congestion – Woodlawn Avenue/Gray Avenue: The intersection of Woodlawn Avenue and Gray Avenue is relatively congested during both the morning and afternoon peak hours. During the morning arrival time the northbound approach of Gray Avenue backs-up and onto Church Street to, and, at times, through the Washington Square intersection. Gray Avenue is considered the major street with yield-sign control on Woodlawn Avenue.

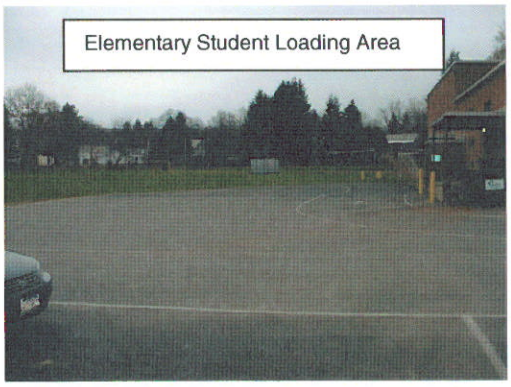
   During the morning, the heavy turn movement from Gray Avenue to Woodlawn Avenue is the northbound left turn movement. The through movements on Gray Avenue have the right-of-way. Therefore the heavy northbound left turn movement from Gray Avenue to Woodlawn Avenue must yield to oncoming traffic. This results in vehicles backing up onto Church Street. At times, there will be a gap in oncoming traffic and the northbound left turn movement will begin to flow onto Woodlawn Avenue. This occurrence will sometimes lead to the westbound vehicles on Gray Avenue to yield to the left turn movement even though the Gray Avenue approach has the right-of-way. This also occurs when buses leaving from Merritt Street would stop just before the Woodlawn Avenue intersection to let vehicles turn left.

   At dismissal, a back-up would begin to develop from the southbound approach of Woodlawn Avenue. As the traffic flow increases, the back-up eventually extends from the Church Street intersection, up Gray Avenue and Woodlawn Avenue, and past Fisher Street. To avoid delays, queued vehicles on Woodlawn Avenue and Fisher Street were observed making u-turns and using Merritt Street to exit the campus. This occurred after the buses had departed the Middle Grade Building. Merritt Street is closed after the morning drop off (approximately 8:30 AM) until after the afternoon pickup of Middle Grade Building students (approximately 2:30 PM).

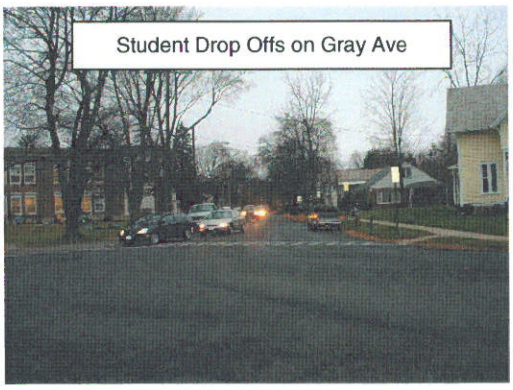
The crossing guard at the Woodlawn Avenue/Gray Avenue intersection stood on the Middle Grade Building side of the crosswalk and crossed students, individually or in groups, from the west side of Woodlawn Avenue to the east side during the morning arrival peak. This crossing contributes to the adjacent vehicle congestion more so than the other crosswalks, primarily due to its immediate location adjacent to the Middle Grade Building, as traffic needs to be stopped to cross the students. The impact of crossing students was not such an issue during the afternoon peak hour because traffic would already be stopped from Church Street through the Woodlawn Avenue intersection.

4. Discontinuous Sidewalks – Woodlawn Avenue, Fisher Street: The sidewalk system on Woodlawn Avenue terminates at the parking lot behind the Middle Grade Building on the east side of the street and at the High School underclassmen parking lot on the west side of the street. From there, students walk in the street the remainder of the way to the High School. Additionally, the sidewalk on the north side of Fisher Street extends most of the length of Fisher Street but does not connect to the sidewalk adjacent to the faculty parking area between the Primary Grade Building and the High School.

5. Student Drop Off/Pick Up Area – Primary Grade Building: The student loading area for the Primary Grade Building is located on the east side of the school. Parents drive past the main entrance and circle around a blind corner of the building before dropping students off at a side entrance to enter the school. In the afternoon, parents circle the loading zone and back into a parking formation with vehicles facing the building. Students are then released at approximately 10 minutes before the buses arrive, and parents depart. Some parents become delayed in the loading area if buses arrive to pick up students at the main entrance.

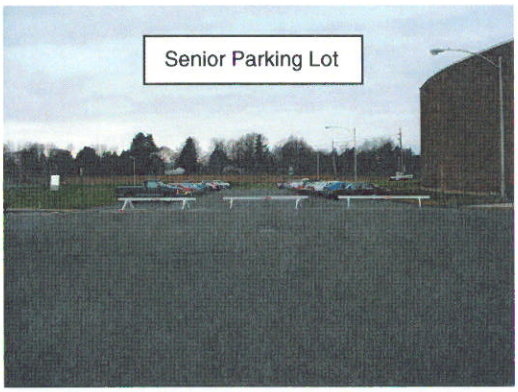

Elementary Student Loading Area

6. Student Drop Off/Pick Up Areas – Middle Grade Building: The east-side section of Woodlawn Avenue adjacent to the Middle Grade Building is designated with signs as a loading zone. There is a widened loading zone area providing a 5-foot wide by 60-foot long area for loading and unloading of passengers but it is too short

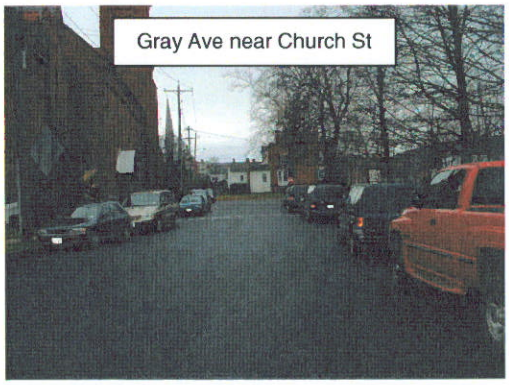

Student Drop Offs on Gray Ave

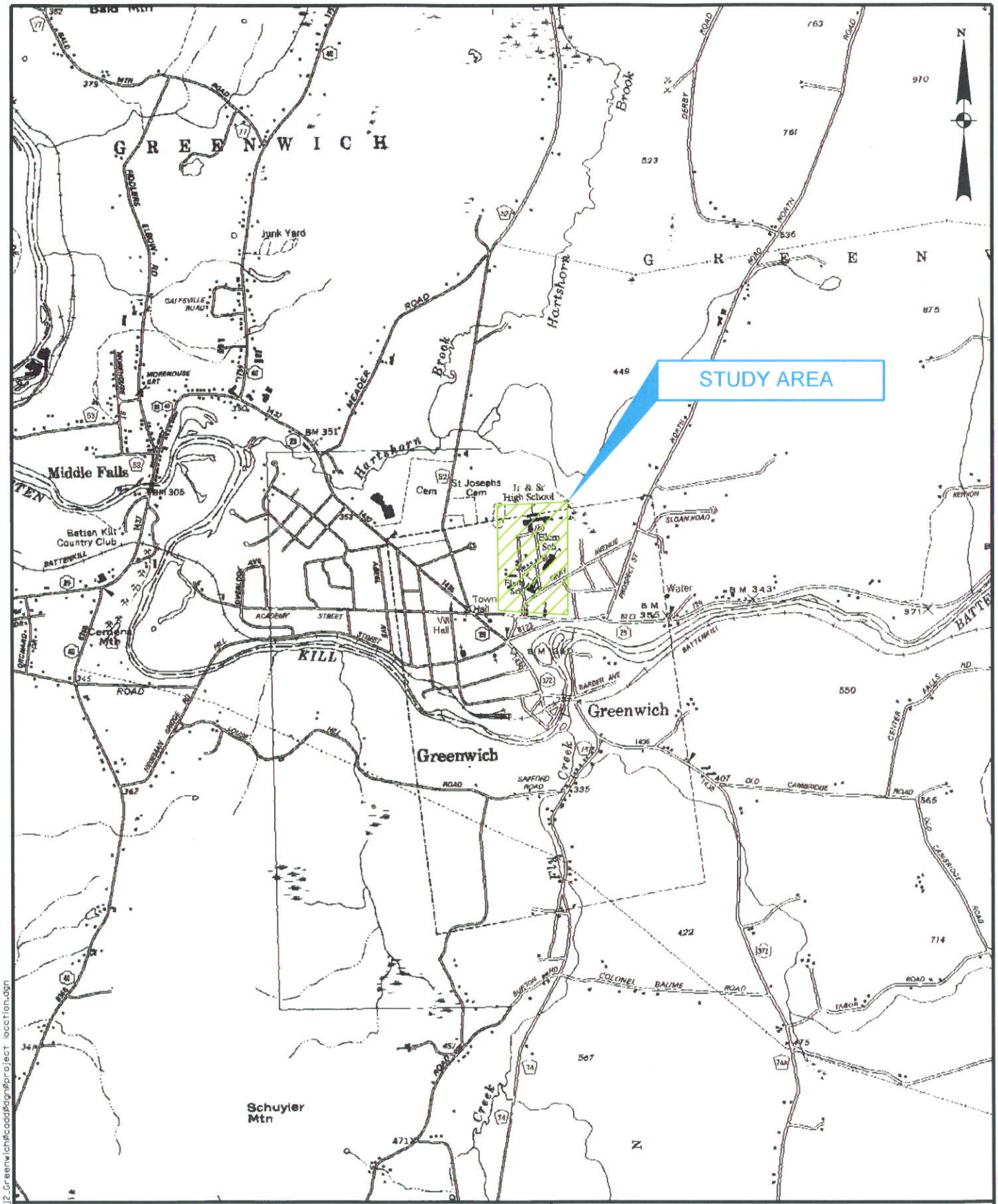
to meet the demand of the parents dropping off and picking up students. This results in parents dropping students off at the Middle Grade Building outside of this area and along Gray Avenue. Through the morning arrival period, the Woodlawn Avenue becomes a mix of vehicles parking and vehicles dropping students off. This adds to the congestion along this road. Parents dropping students off or picking up students on Woodlawn Avenue then make a u-turn to exit the campus or use Merritt Street when it is open.

7. Student Drop Off/Pick Up Area – Junior/Senior High School: The parking area located immediately adjacent to the High School is designated for Senior parking. This parking area is separated from the circle in front of the high school by a series of saw-horse barriers. Parents were observed entering the senior parking area, dropping students off, and then completing three-point turns and circling the handicap spaces in an attempt to turn around to exit the area. Some parents were observed using the main entrance and dropping students off in the bus loop in front of the school. However, if buses were present in the circle, parents would drop students off in front of the bus loop, and then turn around.



8. Reduced Travel Lane Width – Gray Avenue: The section of Gray Avenue between Church Street and Woodlawn Avenue is approximately 32 feet wide (curb to curb); wide enough to accommodate two 12-foot travel lanes and an 8-foot parking lane. After the morning arrival peak period concludes, the Pooh's Corner Preschool opens. By approximately 9:00 AM, both sides of Gray Avenue have vehicles parked, reducing the travel lane width to approximately 16 feet (car to car), effectively making this section of Gray Avenue one lane wide. After the afternoon dismissal peak, vehicles were observed parked on the east side of Gray Avenue adjacent to the preschool, with no vehicles parked on the west side.





STUDY AREA LOCATION MAP

GREENWICH CENTRAL SCHOOLS
TRAFFIC CIRCULATION STUDY
VILLAGE OF GREENWICH

CME
CREIGHTON MANNING ENGINEERING, LLP
4 AUTOMATION LANE, ALBANY, NY 12205

PROJECT: 02-080d	DATE: 12/03	FIGURE: 1.1

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EXISTING CIRCULATION ISSUES

GREENWICH CENTRAL SCHOOLS
TRAFFIC CIRCULATION STUDY
VILLAGE OF GREENWICH

CME
CREIGHTON MANNING ENGINEERING, LLP
4 AUTOMATION LANE, ALBANY, NY 12205

PROJECT: 02-080D | DATE: 12/03 | FIGURE: 1.2

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CHAPTER II
IMPROVEMENT ALTERNATIVES

This chapter discusses potential improvements to address the existing congestion and circulation issues identified previously. These improvements should be prefaced with the understanding that not all congestion may be completely relieved based on the nature of a school. The operation of a school is such that students are generally required to arrive to school by a certain time in the morning and are released at a particular time in the afternoon. This results in a very concentrated pedestrian and traffic flow just before and just after the arrival and departure times. These peaks are generally limited to 10 to 20 minutes of each peak hour. These concentrated peaks will often result in traffic volumes that can be accommodated by most intersections over an hour, but can be overwhelmed with a concentrated demand in just 10 to 20 minutes. This is particularly true for the Greenwich Central Schools as the three schools arrive and dismiss within a very short time period of about 20 minutes. Providing an adequate transportation facility for such peak demands will often result in extensive roadway geometry and traffic control, which would otherwise be unused during the off-peak times of the day.

A. Potential Improvements

The following potential improvements have been identified to address the congestion and circulation issues. Improvements are referenced on Figure 2.1 and conceptual cost estimates are provided. The cost estimates for each improvement are planning level estimates to determine the cost magnitude of each improvement. Estimates for each improvement will require greater detail of an actual design to provide a more accurate cost estimate.

1. Pedestrian Crossing and Congestion – Main Street/Church Street: The traffic congestion at the intersection of Main Street/Church Street is primarily due to the high concentration of traffic on the westbound approach during the afternoon dismissal period. The crossing of students at this intersection currently takes place at a diagonal since this is the shortest distance to cross. A crosswalk should not be installed in this direction as it will require drivers on all approaches

to stop for a pedestrian when there is no crossing guard present. The following improvements are recommended to reduce congestion and increase safety:

a) Short-term improvements include:
   i) Cross students in groups when possible. This will minimize the impact of stopping traffic to allow students to cross.
   ii) Cross students in the northern Main Street crosswalk. This would allow students to cross a single approach (rather than through the center of four approaches) in a single movement and place students on the north side of Church Street. Students on the north side of Church Street need not make any further road crossings until they reach the main campus. If the majority of students arrive to the Main Street/Church Street intersection on the southwest corner, then this recommendation would result in two roadway crossings and should not be implemented. The crossing of students diagonally through the intersection operates relatively well with the added safety of a crossing guard but is not the ideal crossing.
   iii) Install sidewalks along the north side of Academy Street. This improvement will enhance the recommendation of crossing students through the north crosswalk. This improvement is estimated to cost approximately $15,000.
   iv) If sidewalks can not be installed along the north side of Academy Street to enhance the recommendation of crossing students through the north crosswalk, crossing students through the south crosswalk may be considered. This will require students to make additional road crossings at Church Street and Washington Square, which should be done under the supervision of a crossing guard.

b) Long-term improvements to reduce traffic congestion include providing an additional access point to the west side of campus. This is possible with a connection from the end of Woodlawn Avenue near the High School, west to Cottage Street. This connection would provide an alternative access point for vehicles traveling west on Main Street or north on Cottage Street into the Town of Greenwich. This connection has a disadvantage in that the possible connection point to Cottage Street has poor sight distance. Improvements may be required to increase sight distance along Cottage Street to allow full access to the school campus. Additionally, this connection will result in additional traffic through the adjacent neighborhood and the separation of the athletic fields adjacent to the track. The conceptual cost of this improvement is approximately $800,000.

   The improvement option to provide additional access points to the school campus is a significant one due to the anticipated cost of such improvements. If these improvements are to be considered, additional study will be needed to determine what the benefit of such a connection may be relative the cost of such improvements. For example, a connection to Simpson Street may be impractical if a majority of the school traffic travels to and from the west.

Additional study for further consideration of these improvements should include documenting the existing travel patterns of school traffic, an estimation of the number of vehicles that would use the new connection, and identification of the impacts to bus service if considering route alternatives.

2. Congestion – Church Street/Washington Square and Gray Avenue: The traffic congestion in this area is primarily due to the high concentration of traffic during the morning arrival and afternoon dismissal periods.

   a) Short-term improvements include crossing students in groups when possible to limit the delays to vehicles.

   b) Long-term improvements include providing additional access points to campus.

3. Pedestrian Crossing and Congestion – Woodlawn Avenue/Gray Avenue: Congestion at the intersection of Gray Avenue and Woodlawn Avenue is primarily due to the high concentration of traffic during the morning arrival and afternoon dismissal periods. Congestion also occurs during the morning peak hour due to the traffic control arrangement, and during the afternoon peak hour due to traffic backing up from the Gray Avenue/Church Street intersection.

   a) Short-term improvements include:
      i) Cross students in groups when possible.
      ii) Install stop sign control on the westbound Gray Avenue approach and remove the yield control on the southbound Woodlawn Avenue approach. This would make the northbound and southbound flow of vehicle to and from campus the main movements and relieve congestion in the morning. This improvement will allow traffic to flow into campus, thereby reducing the amount of back up on Church Street and Washington Square. However, this will have a negative effect during the afternoon peak hour in that buses leaving campus from Merritt Street will incur a stop sign on the westbound approach of Gray Avenue. If buses can be rerouted east on Gray Avenue, they may be able to circumvent the Gray Avenue/ Woodlawn Avenue intersection. Additionally, traffic is expected to back up from Church Street during the afternoon peak period thereby blocking the intersection regardless of the location of the traffic control. The cost of changing the traffic control signs is approximately $1,000.

   b) Long-term improvements include:
      i) Consider providing a compact urban roundabout at the intersection. There is a significant amount of pavement at the intersection of Gray Avenue and Woodlawn Avenue. This condition could provide an opportunity to convert the intersection to a roundabout allowing each approach an equal level of right-of-way. A roundabout could be considered a compromise between the existing intersection control on the

southbound approach of Woodlawn Avenue and the alternative of providing traffic control on the westbound Gray Avenue approach. Roundabouts have numerous operational and safety benefits for both motorists and pedestrians. This improvement would reduce the delay on heavy volume approaches. However, during the afternoon peak hour, the roundabout's operational benefits will be minimal when the southbound approach to Church Street backs up to the Woodlawn Avenue/Gray Avenue intersection. Further study of this alternative would be required. The cost of this improvement is approximately $250,000.

ii) Provide additional access points to campus. This may include an access point to Simpson Street from the High School. This connection will provide an additional access point to Gray Avenue allowing a secondary means of access the campus. However, this access point will increase the amount of traffic on this residential street, may disrupt the layout of the athletic fields, require a stream crossing, and will not provide as much benefit at reducing congestion as the connection to Cottage Street. The cost of this improvement is approximately $450,000.

4. Discontinuous Sidewalks – Woodlawn Avenue, Fisher Street: Students walking to the High School have access to a sidewalk until they reach the underclassmen parking lot on Woodlawn Avenue and up to Merritt Street along Fisher Street. In the vicinity of the bus garage, students walk through a large open pavement area, which is sometimes used by drivers to make u-turns.

   a) Short-term improvements include providing continuous sidewalk connections to the High School and reducing the open pavement area adjacent to the bus garage by providing curbing and sidewalk. This will have a minimal effect at reducing congestion and may displace a minor amount of parking adjacent to the bus garage, but will provide students safer access to the school. These sidewalks will require winter snow removal to maintain their functionality throughout the school year. The cost of this improvement is approximately $30,000.

5. Student Drop Off/Pick Up Area – Primary Grade Building: The current student loading area is adjacent to the east side of the school with students using the side entrance to access the school. The district has expressed an interest in reclaiming this area for faculty parking and having students use the main entrance.

   a) A long-term improvement includes providing a student loading area adjacent but separate to the bus loop. The entrance to the new lot would be moved and a continuous sidewalk provided, allowing students to use the main entrance of the school to access the bus loop and student loading areas without crossing a driveway or road. This improvement may disturb the adjacent athletic fields. The cost of this improvement is approximately $100,000.

6. Student Drop Off/Pick Up Areas – Middle Grade Building: Improving the loading area on Woodlawn Avenue adjacent to the Middle Grade Building will help reduce the congestion in this area.

   a) A short-term improvement could include restricted parking on the east side of Woodlawn Avenue adjacent to the Middle Grade Building during the peak arrival and dismissal hours. This would help reduce the conflict of vehicles parking and vehicles dropping or picking students up. The cost for providing these signs is approximately $1,500.

   b) A long-term improvement would include the provision of a second access point. This would provide circular access so that parents dropping students off at the Middle Grade Building could then exit the campus via Cottage Street or Simpson Street without making a u-turn in the bus garage driveway or at Fisher Street.

7. Student Drop Off/Pick Up Area – Junior/Senior High School: There is congestion at the High School resulting from parents, students, and buses all arriving to the school with limited choices for turning around. Dropping students off near the bus loop and in the Senior parking lot results in pedestrian and vehicle conflicts.

   a) A short-term improvement includes modifying the saw-horse barrier to allow westbound traffic through the senior parking lot. This traffic flow will require supplemental one-way signs and will allow parents dropping students off in front of the bus loop access through the parking lot, rather than making u-turns and using the entrance/exit of the bus loop. The cost of this improvement is approximately $1,000.

   b) A long-term improvement includes modifying the loop on the west side of the school to allow for a student loading area. Parents would travel up Woodlawn Avenue past the senior parking area to drop students off before traveling back south on Woodlawn Avenue. This would reduce the number of conflicts between pedestrians and drivers in the senior parking lot. This will result in some students using a side entrance to access the school rather than then main entrance. The cost of this improvement is approximately $50,000.

8. Reduced Travel Lane Width – Gray Avenue: The section of Gray Avenue between Church Street and Woodlawn Avenue becomes very narrow with vehicles parked on both sides of the street.

   a) A short-term improvement includes limiting the parking available on Gray Avenue adjacent to the preschool to the east side, allowing parents and children to access the center without crossing the street. This will also maintain approximately 24 feet of available pavement width for two-way travel

on Gray Avenue. Observations indicated that the reduced travel lane width on Gray Avenue does not occur during the morning and afternoon peak hours of the Greenwich schools. This improvement could impact the operations of the preschool by reducing the amount of available parking. In addition, parking may be impacted during Sunday religious services at the church. In this instance, parking may be restricted only during weekdays. A less restrictive alternative would be to install parking signs, restricting parking only during the peak arrival and dismissal times of the Greenwich schools. The cost of providing signs for this improvement is approximately $1,500.

B. Improvement Priority

Some of the preceding potential improvements can be implemented more quickly than others due to the magnitude of the improvement from a construction perspective as well as an order-of-magnitude cost of each improvement. Some of the improvements will offer greater effect on the reduction of congestion on campus while others may be undesirable due to negative impacts. A high priority improvement can be an action that results in significant improvements, is easily implemented, or is implemented for a relatively low cost. A low priority improvement may be an action that results in minimal improvement, is difficult to implement, or is expensive to implement. The priority for each alternative is discussed below:

1. Main Street/Church Street -
   a) Short-term improvements include:
      i) Cross students in groups when possible. – This improvement is considered a **high** priority because it is easily implemented at a minimal cost.
      ii) Cross students in the northern Main Street crosswalk. - This improvement is considered a **high** priority because it is easily implemented at a minimal cost.
      iii) Install sidewalks on the north side of Academy Street. - This improvement is considered a **high** priority because it will enhance the recommendation to cross students on the north side of the Main Street intersection.
      iv) Cross students in the southern Main Street crosswalk. - This improvement is considered a **low** priority because it entails additional road crossings for students near Washington Square. However, it may be considered as an alternative until a sidewalk is installed on the north side of Academy Street, or if that sidewalk can not be constructed.

b) Long-term improvements include providing an additional access point to the west side of campus. – This improvement is considered a **low** priority because it will require additional research into the feasibility of gaining access to Cottage Street and impacts to residential areas, and is more expensive than other alternatives. However, this improvement may provide the greatest benefit to reducing congestion.

2. Church Street, Washington Square, and Gray Avenue -
   a) Short-term improvements include crossing students in groups when possible. - This improvement is considered a **high** priority.
   b) Long-term improvements include providing additional access points to campus at Cottage Street. - This improvement is considered a **low** priority.

3. Gray Avenue/Woodlawn Avenue -
   a) Short-term improvements include:
      i) Cross students in groups when possible. - This improvement is considered a **high** priority because it is easily implemented at a minimal cost.
      ii) Install stop sign control on the westbound Gray Avenue approach and remove the yield control on the southbound Woodlawn Avenue approach. - This improvement is considered a **high** priority because it is easily implemented at a minimal cost.

   b) Long-term improvements include:
      i) Provide a compact urban roundabout. – Although this improvement will reduce congestion it is considered a **low** priority because it will be less effective when the southbound approach to Church Street backs up through the roundabout, which would prevent traffic from circulating.
      ii) Provide additional access points to campus at Cottage Street. - This improvement is considered a **low** priority.

4. Student access to the High School.
   a) Short-term improvements include providing continuous sidewalk connections to the High School. – This improvement is considered a **high** priority due to the safety benefits provided to students walking to school.

5. Student loading area at the Primary Grade Building. -
   a) Provide a student loading area adjacent but separate to the bus loop. – This improvement is considered a **low** priority because of the cost to implement and its potential impact to the athletic fields. Additionally, the school has modified its student release procedure thereby reducing the need for this improvement. If the district determines that there is a significant need to remove the student drop off area from the side of the building, gain additional parking, and allow students to use the main entrance, this improvement would be considered a **high** priority.

6. Student loading area on Woodlawn Avenue adjacent to the Middle Grade Building. -
   a) Restrict parking on the east side of Woodlawn Avenue adjacent to the Middle Grade Building during the peak arrival and dismissal hours. – This improvement is considered a **high** priority because of its minimal cost and its benefit of reducing congestion adjacent to the school.
   b) Long-term improvements include providing additional access points to campus to Cottage Street. - This improvement is considered a **low** priority.

7. Student loading area at the High School. -
   a) A short-term improvement includes modifying the saw-horse barrier to allow westbound traffic through the senior parking lot. – This improvement is considered a **high** priority as it is inexpensive to implement and has some benefit to reducing pedestrian and vehicle conflicts.
   b) A long-term improvement includes modifying the loop on the west side of the school to allow for a student loading area. - This improvement is considered a **low** priority because of its cost to implement and its moderate improvement.

8. Lane width reduction on Gray Avenue. -
   a) A short-term improvement includes restricting parking on the west side of Gray Avenue. – This improvement is considered a **high** priority because it is relatively easy to implement at a minimal cost.

POTENTIAL CIRCULATION IMPROVEMENTS

GREENWICH CENTRAL SCHOOLS
TRAFFIC CIRCULATION STUDY
VILLAGE OF GREENWICH

CME
CREIGHTON MANNING ENGINEERING, LLP
4 AUTOMATION LANE, ALBANY, NY 12205

PROJECT: 02-080D | DATE: 12/03 | FIGURE: 2.1

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CHAPTER III

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of this Traffic Circulation Study conducted of the Greenwich Central Schools, the following conclusions and recommendations are presented:

1. Several circulation issues have been identified on campus. Some of which can be minimized, others may not. There is an inherent amount of congestion associated with a school due to short but intense traffic and pedestrian flows, only some of which may be improved.

2. Several improvements can be implemented in the short-term. It is recommended that the following improvements be considered as they have been identified as a high priority:

   a) Optimize crossing guard operations.
   b) Provide continuous sidewalk connections.
   c) Provide stop sign control on the westbound Gray Avenue approach.
   d) Improve the student drop off/pick up area at the Middle Grade Building by restricting parking during arrival and dismissal periods.
   e) Improve the student drop off/pick up area at the High School by allowing westbound traffic to flow through the Senior parking lot.
   f) Restrict parking adjacent to Pooh's Corner preschool, via parking elimination or time restrictions.

   The total conceptual cost estimate for these improvements is approximately $50,000.

3. Several long-term improvements will reduce congestion in the area. It is recommended that the following long-term improvements be considered:

   a) Provide an additional campus access point to Cottage Street after further study of the potential benefits.
   b) Improve the student drop off/pick up area at the High School by constructing an improved loop on the west side of the building.

   The total conceptual cost estimate for these improvements is approximately $850,000.

The improvements noted above are expected to reduce the amount of congestion in the vicinity of the Greenwich School campus, improve the safety of students, and minimize the number of conflicts between vehicles and pedestrians.