DRAFT
ENVIRONMENTAL IMPACT STATEMENT

FIVE TOWNS COLLEGE LIVING/LEARNING CENTER

Special Use Permit Application #17318

305 North Service Road
Dix Hills, Town of Huntington
Suffolk County, New York

Volume 2 of 2
Traffic Impact Study
(see Volume 1 of 2 for Main Text, Appendices & Plans)

RMS Engineering
355 New York Avenue
Huntington, New York 11743

NP&V Project No. 91170

January 2003

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Draft
Environmental Impact Statement

FIVE TOWNS COLLEGE
LIVING/LEARNING CENTER
Special Use Permit Application #17318

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Town of Huntington, New York

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FIVE TOWNS COLLEGE

TOWN OF HUNTINGTON
SUFFOLK COUNTY, NEW YORK

TRAFFIC IMPACT STUDY

RMS JOB NO. 2002-056

JANUARY 2003

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INTRODUCTION

The proposed project is for a conditionally permitted use, pursuant to §198-68A (12), of the Huntington Town Code for two (2) completed 52-bed dormitories and the completion of two (2) additional 52-bed dormitories that are currently under construction (for a total of 208 beds) on the campus of the Five Towns College. Five Towns College is located on the east side of Burr's Lane, between Half Hollow Road and the Long Island Expressway (I-495) North Service Road (LIENSR), in Dix Hills, Town of Huntington, Suffolk County. The site is currently zoned R-40 (One Acre Residential). The project is visually depicted on the site plan, dated 6/25/01, prepared by Nelson & Pope, LLP. There is also an alternate site plan, prepared by Nelson & Pope, LLP, dated 6/11/02, that depicts an alternate LIENSR access driveway to Five Towns College. Refer to Figure 1, Location Map, located in Appendix A for a visual depiction of the site in the study area.

RMS conducted a detailed investigation of the potential traffic impacts of the existing/proposed dormitories on the surrounding street system. This report reviews existing roadway and traffic conditions in the area and estimated the volume and pattern of traffic generated by the proposed project. The potential effect of additional traffic on the surrounding roadway network is also analyzed and evaluated.

There are three conditions analyzed, existing, "No Build" and "Build". The existing condition analyzes the existing conditions of the roadways and intersections. The "No Build" condition analyzes the future condition of the roadways and intersections assuming that the proposed project is not constructed. The "Build" condition analyses considered the potential impact of the traffic generated by the construction of the residential halls.

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PROJECT DESCRIPTION

Existing Land Use

1. The proposed project is for a conditionally permitted use, pursuant to §198-68A (12), of the Huntington Town Code two (2) completed 52-bed dormitories and the completion of two (2) additional 52-bed dormitories that are currently under construction (for a total of 208 beds) on the campus of the Five Towns College. Five Towns College is located on the east side of Burr's Lane, between Half Hollow Road and the Long Island Expressway (I-495) North Service Road (LIENSR), in Dix Hills, Town of Huntington, Suffolk County.

2. Land uses in the vicinity of the site are primarily residential to the north and east of the site. A school bus depot is located to the west of the site on Burr's Lane and the Long Island Expressway (I-495) borders the property to the south.

Zoning

1. As previously mentioned, the site is currently zoned R-40 (Residence).

Access

1. Currently, there are two access driveways serving Five Towns College. Both existing driveways are located on the east side of Burr's Lane, between the Long Island Expressway North Service Road (LIENSR) and Half Hollow Road. There are no movement restrictions at either existing intersection.

2. There is an additional gated service driveway to the property on Burr's Lane, north of the parking lot driveways, that is used for deliveries. When the residential halls are completed, the gate to this driveway will be kept in the closed position. When a service vehicle arrives, College personnel will open the gate, permitting the vehicle to enter the property. In addition, this driveway served as a temporary construction entrance while the first two residence halls were being constructed. It will serve as a secondary construction entrance until completion of construction.

3. Although it has been slightly redesigned, the original service road to the facility on Half Hollow Road, east of Burr's Lane, was constructed prior to 1960 as per representatives of Five Towns College. It was originally proposed to eliminate this driveway in response to requests from the surrounding property owners. However, Dix Hills Fire Department officials requested the entrance remain for emergency access. Upon completion of the project, the entrance will remain, but it will be narrowed, gated and landscaped. In addition, the existing asphalt roadway will be removed and replaced with geopavers covered with grass. The emergency access will remain, but its existence will not be as obvious.

4. As part of the proposed project, potential changes to the location of the access driveways to Five Towns College have been explored. As seen on the alternate site plans, the southern driveway curb cut on Burr's Lane would be closed. The northern driveway will only access a traffic loop in front of the college for quick drop-offs/pick-ups from the front of the college. The main driveway for the college will be relocated to the LIENSR, east of Burr's Lane. Under this alternative, this access driveway will be the only access driveway to and from Five Towns College, allowing right turns in and out of the driveway due to its location on the LIENSR (one way westbound). This alternate access scenario is discussed in detail later in the report.

Parking

1. As indicated on the overall site plan prepared by Nelson & Pope, LLP, revision dated 6/25/01, there are 330 parking stalls required for the entire project as per the Off-Street Parking Requirements contained in the Zoning Ordinance of the Town of Huntington. As depicted on the plan, 537 parking stalls have been provided on the site. As per the aforementioned plans, there are 179 paved parking stalls and 358 stalls on unpaved ground/gravel. The quantity of parking stalls provided substantially exceeds the Town's requirements. Currently existing at Five Towns College, 374 parking spaces are paved while 163 spaces are within the gravel overflow area.

2. As noted in other portions of the DEIS, Five Towns College intends to pave all existing gravel parking spaces. Documents prepared by Nelson & Pope indicate that the final

number of parking spaces will remain at 537 spaces. Of these 537 total parking spaces, 374 are currently paved.

3. Five Towns College recently noted that some commuter students have begun legally parking their vehicles along the east shoulder of Burr's Lane. During a two-week period during November 2002, Five Towns College Public Safety Officers manually counted the number of vehicles parked along Burr's Lane. The number of vehicles parked along Burr's Lane ranged from 8 to 28 vehicles, with an average of 18 vehicles parked. At the same time, counts were performed at the gravel parking areas of Five Towns College and it was determined that an average of 131 vehicles were parked on the gravel per day, ranging from 101 to 161 vehicles. The total of the two averages on Burr's Lane and the unpaved parking area is 149 spaces. When surveyed, students indicated they preferred the paved spaces on Burr's Lane to the gravel spaces within the parking lot. In response, Five Towns College is planning to pave the gravel lot, providing 163 more paved parking spaces. The additional parking spaces will be adequate to provide parking for the average of 149 vehicles per day that park on the gravel spaces and on Burr's Lane.

<u>Public Transportation</u>

1. Suffolk County Transit Bus Line S-23 stops at the campus of Five Towns College. The S-23 line travels between Walt Whitman Mall and Babylon Railroad Station. Between the two ending points of the bus line, there are transfers available to 10 other bus lines. According to InterCounty Coach Lines, the operator of the S-23 line, the bus line averages 274 riders per day. The operator was unable to determine the number of daily riders that begin or end their trip at Five Towns College. However, there are 25 stops per day at Five Towns College along with 25 stops at 8 other locations. Five Towns College representatives estimate that approximately 30 to 75 students and faculty utilize mass transit to access the campus during each weekday.

2. The New York State Department of Transportation (NYSDOT) and the New York Metropolitan Transportation Council have been undergoing a study on Long Island known as LITP2000. The purpose of LITP2000 is to manage congestion and form a transportation plan for the next 20 years on Long Island. According to information presented on the LITP2000 website, there are no current plans for any specific roadway

improvements in the vicinity of Five Towns College. However, according to the website, there are proposed Rapid Commute Vehicle stops and Passenger Transfer Stations on the Long Island Expressway at Exits 49 (New York State Route 110) and Exit 51 (New York State Route 231), both stops within a few miles of the campus. Those stops may afford patrons of the college an alternative means of transportation in the future.

STUDY METHODOLOGY

RMS' approach to conducting this investigation involved the following:

1. A detailed review of existing land use, roadway characteristics and traffic conditions in the vicinity of the project site.

2. Traffic volumes were determined from field counts collected by this firm in May 2002, while Five Towns College was in the Spring 2002 session. The specific locations studied are as follows:
   - Bagatelle Road at Long Island Expressway (I-495) South Service Road
   - Bagatelle Road at Long Island Expressway (I-495) North Service Road
   - Bagatelle Road at Half Hollow Road
   - Half Hollow Road at Burr's Lane
   - Half Hollow Road at Vanderbilt Parkway (CR 67)
   - Burr's Lane and North Site Access Driveway
   - Burr's Lane and South Site Access Driveway
   - Long Island Expressway (I-495) North Service Road at the Alternate Five Towns College Entrance
   - Long Island Expressway (I-495) North Service Road at Burr's Lane

3. The traffic volumes were analyzed to determine the intersections' Levels of Service (LOS) at the study locations. Capacity analyses to compute the intersection LOS were performed for both existing and future conditions.

4. In preparation of the analysis for this project, it was determined that there are distinct peak traffic hours in the vicinity of the site, those belonging to the traditional commuter travel times and those associated with the college. Since the commuter peak hours do not necessarily coincide with the peak hours of the college, we analyzed the commuter and college peak hours separately for the purpose of this report. In this report, we have called the commuter peak hour, "Commuter" peak and the peak hour associated with the college the "College" peak. On Saturday, we analyzed the afternoon peak hour.

5. The future conditions for each set of peak hours studied consists of two scenarios, "No Build", and "Build". Therefore, there will be four future scenarios studied, "Commuter No Build", "Commuter Build", "College No Build" and "College Build". These four conditions will be analyzed during the weekday AM and PM peak hours, while there will only be an afternoon peak hour analyzed on Saturday.

6. The future "Build" condition was also analyzed for the alternate site access driveway on the Long Island Expressway North Service Road (LIENSR). The analysis was performed during the same scenarios and time periods as noted above. The future condition analyzed with the alternate access on the LIENSR is referred to as the "NSR Access" scenario and the scenario without relocating the access driveways is referred to as the "Burr's Lane Access" Scenario.

7. An ambient traffic growth rate factor of 1.00% per year, supplied by the NYSDOT, was applied to the existing (2002) intersection volumes during each peak hour for projection to year 2004 background levels, depicting the "No Build" condition. In addition, the traffic generated by other planned/proposed projects in the vicinity of the site was included in this condition. The 2004 "No Build" conditions analyses determined the future Level of Service (LOS) at the study intersections and site driveways assuming the proposed project is not constructed.

8. The future "Build" condition analyses considered the potential impact of the traffic generated by the construction of the residential halls.

EXISTING TRAFFIC CONDITIONS

Roadway Network

Current roadway conditions in the study area are summarized below:

1. Long Island Expressway (I-495) North and South Service Roads: These are east-west service roads to a principal artery under the jurisdiction of the New York State Department of Transportation (NYSDOT). It consists of two through lanes in each direction. All of the turning lanes are shared. The posted speed limit is 40 mph. Along the site frontage on the North Service Road, there is currently no entrance to the subject property.

2. Bagatelle Road: This is a north-south major collector under the jurisdiction of the Town of Huntington. The roadway contains one wide through lane in each direction, with turning lanes provided at the intersections studied. The posted speed limit is 30 mph.

3. Half Hollow Road: This is an east-west major collector under the jurisdiction of the Town of Huntington. It consists of one travel lane in each direction. There are turning lanes provided at the intersections of Bagatelle Road and Vanderbilt Parkway (CR 67). The posted speed limit is 30 mph.

4. Vanderbilt Parkway (County Road 67): This is a north-south (in the vicinity of the site) minor arterial under the jurisdiction of the Suffolk County Department of Public Works (SCDPW). Half Hollow Road is the western terminus for Suffolk County Road 67. In the vicinity of the site, it contains one lane for northbound traffic and two lanes for southbound traffic. The posted speed limit is 30 mph.

5. Burr's Lane: This is a north-south roadway under the jurisdiction of the Town of Huntington. It contains one wide lane in the vicinity of the site. The posted speed limit in the vicinity of the site is 30 mph.

Study Intersections

The following are the current traffic control conditions for the study intersections:

- Bagatelle Road at Long Island Expressway (I-495) North and South Service Roads: These are signalized intersections controlled by a three-phase controller.
- Bagatelle Road at Half Hollow Road: This is a signalized intersection controlled by a two-phase controller.
- Half Hollow Road at Burr's Lane: This is an unsignalized intersection with stop control on Burr's Lane
- Half Hollow Road at Vanderbilt Parkway (CR 67): This is a signalized intersection controlled by a two-phase controller.
- Burr's Lane at North Site Access Driveway: This is an unsignalized intersection with a stop control located at the site access driveway.
- Burr's Lane at South Site Access Driveway: This is an unsignalized intersection with a stop control located at the site access driveway.
- Long Island Expressway (I-495) North Service Road at the Alternate College Driveway: This is an alternate unsignalized intersection with a stop control within the alternate college driveway.
- Long Island Expressway (I-495) North Service Road at Burr's Lane: This is an unsignalized intersection with a stop control at Burr's Lane.

Traffic Volume Data

1. As previously mentioned, traffic volume turning movement counts at the study intersections were collected for this location. The data was collected on Wednesday, May 1, 2002, and on Saturday, May 4, 2002, by this firm during the weekday AM commuter (7:00-9:00am) peak period, midday (11:00am-3:00pm) peak period, the PM commuter (4:00-6:00pm) peak period and the Saturday peak periods (11:00am-3:00pm and 4:00pm-8:00pm). In addition, Automatic Traffic Counters were installed in the vicinity of the site between April 30th, 2002, and May 13th, 2002.

2. The peak hour during each of these periods, for each scenario studied, at each intersection was computed to represent the most conservative depiction of the traffic volumes experienced at each location. The peak hour traffic volumes at the study intersections are tabulated in Appendix C. Figures 2 and 3, located in Appendix A, contain a visual depiction of the traffic volume data for the AM peak hour for the "Commuter Peak" and "College Peak" respectively. Figures 4 and 5, located in Appendix A, contain a visual depiction of the traffic volume data for the PM peak hour for the "Commuter Peak" and "College Peak" respectively. Figure 6, located in Appendix A, contains a visual depiction of the traffic volume data for the Saturday afternoon peak hour.

Weekend Volume Data

1. Appendix A contains two graphics that visually depict the weekend traffic volumes entering and exiting Five Towns College. The charts span from Friday, May 3, 2002 beginning at 5:00pm and end on Monday, May 6, 2002 at 7:30am. As can be seen on the graphics, Five Towns College Entering Volumes, there are three (3) periods in which the entering volumes increase dramatically. These peaks correspond with entering traffic for performances at the college, in which attendance was approximately 300 persons, as reported by the Applicant.

2. It can be seen in the Five Towns College Entering Volumes graphics that at no other time during the weekend does the number of cars entering the college exceed 10 vehicles per 15 minutes. In addition, between the hours of 12:00am and 7:00am on any of the days during the weekend, at no time does the number of vehicles entering the college exceed 5 vehicles per fifteen minutes. The exiting volumes follow the same trend. There are four major peaks of vehicles exiting the college. One peak is the Friday afternoon traffic leaving the college at the end of the week (students, faculty and staff). The exiting traffic for the other three peaks are the exiting volumes from various performances at the college during the weekend. At no other time during the weekend does the number of vehicles exiting the college exceed 20 vehicles for any 15-minute period. In addition, between the hours of 12:00am and 7:00am on any day during the weekend, at no time does the number of vehicles exiting the college exceed 5 vehicles per fifteen minutes. During these overnight hours, the adjacent roadways experience a similar decrease in use.

3. For example, on the LIENSR, between the hours of 12:00am to 7:00am, the maximum number of vehicles traveled on the service road per hour is 46 vph. During the same time period, the maximum number of vehicles traveling north on Burr's Lane toward the college does not exceeds 9 vph. The number of vehicles traveling south away from college along Burr's Lane never exceeds 5 vph. Also, on Half Hollow Road, the maximum number of vehicles traveled is 56 vph. During the overnight hours, there is minimal traffic in the vicinity of the college.

4. During the weekends, except for artistic performances at the college, there is minimal activity at the Five Towns College driveways. It was also determined that the weekend activity also corresponds to the decrease in vehicular activity on the adjacent roadway system. Therefore, the traffic generated by the college, except for performances, is indicative of the ambient traffic surrounding the college.

5. Traffic generated by the artistic performances is solely an outgrowth of Five Towns College's mission as an educational institution, and is not affected by the proposed application. Representatives of Five Towns indicate that there are an average of ten performances per academic year that attract an audience between 100 and 300 persons. The representatives also stated that these events are on Friday and Saturday evenings. These evening events will not have a significant impact upon traffic during the commuter or college peak hours studied within this report.

Capacity Analysis

1. The traffic volumes, in conjunction with the intersection geometry, and signal timings/phasing, where applicable, were used to determine the existing capacity and Level of Service (LOS) of the study intersections. The capacity analyses performed by this firm were in accordance with guidelines set forth in the **2000 Highway Capacity Manual (Special Report 209)** published by the **Transportation Research Board**.

2. The capacity of a signalized intersection is evaluated in terms of the ratio of demand flow rate to capacity (V/C ratio). The capacity is defined for each approach and measures the maximum rate of flow (for the subject approach), which may pass through the

intersection under prevailing traffic, roadway and signalization conditions. The LOS of a signalized intersection is evaluated on the basis of average stopped delay measured in seconds per vehicle (sec/veh). A more detailed definition of LOS is provided in Appendix B.

3. The capacity of an unsignalized intersection is based on two factors. The first factor is the distribution of gaps in the major street traffic. The second factor is driver judgment in selecting gaps through which to execute their desired maneuver. Refer to Appendix B for further definition of LOS for an unsignalized intersection.

4. The capacity analyses for the signalized and unsignalized study intersections were performed using the latest version of the Highway Capacity Software or "HCS", which was prepared by the Federal Highway Administration. "HCS" is a series of computer programs strictly adhering to the guidelines set forth in the **2000 Highway Capacity Manual**. The capacity analysis/LOS worksheets for the study intersections are contained in Appendix D.

5. The results of the analysis for the signalized intersections are contained in Table 1, located in Appendix A. The analyses indicate that many of the signalized intersections are currently operating at an overall acceptable LOS during the peak hours surveyed. However, at the intersection of Bagatelle Road at LIENSR, the intersection is operating at capacity during the AM "Commuter" peak hour. This time period corresponds with the morning westbound commute. In addition, at the intersection of Bagatelle Road at Long Island Expressway (I-495) South Service Road, the intersection is operating above capacity during the PM "Commuter" peak hour. This time period corresponds with the afternoon eastbound commute.

6. Upon a review of the values contained in Table 2, it can be seen that during the peak hours surveyed, the unsignalized intersections and site access driveways are operating at an acceptable LOS.

FUTURE TRAFFIC CONDITIONS

Background Traffic Conditions

1. As previously indicated, future traffic conditions were determined by applying a 1.00% annual growth rate, obtained from the NYSDOT, to the existing traffic volumes to obtain 2004 design conditions.

2. Based upon discussions with representatives of the Town of Huntington Planning Department, it was revealed that there are three significant planned/proposed projects in the vicinity of the site. The traffic generated by these projects is contained in the spreadsheets in Appendix C. A brief description is as follows:

   b. The Greens at Half Hollow Hills, a multiuse development consisting of 73 Single Family Homes, 100 Low Income Senior Housing Units, 1150 Senior Housing Units and an 18 Hole Golf Course with a clubhouse, located to the west of the site, north of Half Hollow Road and Old South Path and to the west of Carman Road. The property is also known as the Long Island Developmental Center.

   c. 47 Single Family Homes, located on Old East Neck Road, south of the Long Island Expressway, west and south of the proposed site.

   d. 10 Single Family Homes, located on Half Hollow Road, south of the Long Island Expressway, west and south of the proposed site.

3. In order to estimate the quantity of traffic generated by the planned/proposed developments during the peak hours surveyed, the information contained in the **Institute of Transportation Engineers (ITE), Trip Generation Manual, 6th Edition** and traffic impact studies generated by other consultants were utilized. Specifically, Land Use Codes 210, 253 and 430 were used for Multiuse Development (Single Family Homes, Senior Citizen Housing Attached and Golf Course, respectively). In addition, Land Use Code 210 was used for the two Single Family Homes developments. The existing roadway network in the vicinity of the site was examined. The distribution of the planned/proposed project's site-generated traffic, at the study intersections and site access

points were estimated. The traffic generation estimates for these planned/proposed projects are contained in the spreadsheets contained in Appendix C.

Dix Hills Soccer Club

1. Five Towns College and the Dix Hills Soccer Club have entered into an agreement allowing the Dix Hills Soccer Club to use the Five Towns College athletic fields, without charge, located on the campus of Five Towns College. The fields are located on the southern portion of the college's property, adjacent to the LIENSR, and are used by neighborhood children within the soccer program.

2. The soccer club will utilize two soccer fields at a time, from Monday through Friday, 4:00pm to 6:00pm, and on Saturday and Sunday between the hours of 10:00am and 4:00pm.

3. During the weekdays, the soccer fields will be occupied by practices between the hours of 4:00pm and 6:00pm. There will be only two teams practicing per day, as per Ted Freedman, President of the of the Dix Hills Soccer Club. Mr. Ted Freedman indicated that there will be approximately 12 players on each team, and approximately 10 vehicles arriving at the field for the 12 players. Therefore, there will be 20 vehicles entering and exiting the college for each practice. In order to be conservative, it is assumed that 20 vehicles enter and 20 vehicles exit during the peak hour in both the PM "Commuter" and "College" peak hours.

4. On Saturday and Sunday, there will be games played on the Five Towns College soccer fields. As per Ted Freedman, the games will be scheduled hourly, beginning hourly at 10:00am and lasting until 4:00pm on some days. Using the number of vehicles per team listed above, there will be 40 vehicles entering and exiting the college each hour, for the soccer fields only. Again, in order to be conservative, all 80 vehicles are assumed to enter and exit during the Saturday afternoon peak hour.

Roadway Improvements

1. Based upon discussions with representatives of NYSDOT and the Town of Huntington, it was determined that there are no roadway improvement projects planned for the vicinity of the site.

No Build Traffic Volumes

1. As previously mentioned, the 2004 "No Build" traffic volumes for the two time periods studied include the effects of future traffic growth in the immediate vicinity of the site and the traffic generated by the planned/proposed projects as described above.

2. Appendix C contains a tabular summary of the "Commuter No Build" and "College No Build" traffic volumes at the study intersections. Figures 7 and 8, located in Appendix A, contain a visual depiction of the traffic volume data for the AM peak hour for the "Commuter Peak No Build" and "College Peak No Build" respectively. Figures 9 and 10, located in Appendix A, contain a visual depiction of the traffic volume data for the PM peak hour for the "Commuter Peak No Build" and "College Peak No Build" respectively. Figure 11, located in Appendix A, contains a visual depiction of the traffic volume data for the Saturday peak hour for the afternoon "No Build" peak hour.

Site Trip Generation

1. As previously mentioned, the proposed project is for a conditionally permitted use as per Town of Huntington Town Code §198-68A (12) of two (2) completed 52 bed dormitories and the completion of two (2) additional 52 bed dormitories that are currently under construction (for a total of 208 beds) on the campus of the Five Towns College. Five Towns College is located on the southeast corner of Half Hollow Road and Burr's Lane, and the northeast corner of Burr's Lane and the Long Island Expressway (I-495) North Service Road (LIENSR), in Dix Hills, Town of Huntington, Suffolk County.

2. As part of this investigation, an estimate of the quantity of traffic generated by the development of the subject property was prepared. There are no corresponding Land Use

Codes contained within the **Institute of Transportation Engineers (ITE) Trip Generation Manual, 6th Edition, 1997** and the **ITE Trip Generation Handbook, October 1998** that would properly estimate the trips generated by the four (4) residential halls, or 208 beds. In EAF Parts II and III, prepared by Nelson & Pope, LLP, it was assumed that 52 trips would be generated by the proposed facility at full capacity. The Director of Engineering Services for the Town of Huntington deemed this assumption reasonable.

3. At the time of this report, there were two residence halls occupied. As per discussions with representatives of Five Towns College, it was discovered that 40 students out of 104 currently living on the campus have vehicles parked on campus. These vehicles are already included in the traffic generated by the college. Therefore, it is assumed that the total number of students to have vehicles parked on campus at full occupancy is 80, an increase of 40 from the current number.

4. In order to be conservative, for the purposes of this report, we assumed that 26 vehicles of the possible 40 vehicles (65%) would enter and exit the college during each peak hour. However, it is known and understood that this estimate is conservative because students will be walking to and from their classes, not driving. In fact, the vehicles from the student living in the dormitories will already be parked in the parking lot for Five Towns College.

5. The anticipated traffic generation for the proposed project is summarized in Table 3, located in Appendix A.

6. In addition, representatives of Five Towns College indicate that the student enrollment of Five Towns College is not expected to increase as a consequence of the completion of the third residence hall, and only nominally as a consequence of the completion of the fourth residence hall. Enrollment will stabilize with an additional 104 people living on campus. Therefore, there will be 104 fewer students traveling to and from Five Towns College during the week for classes and during nights and weekends for social and educational activities. Therefore, the trips generated by the college will decrease upon completion of

the project. In order to be conservative, the decrease in trips generated was not credited to the existing volumes.

7. It must be noted that the expected traffic generation increases from the proposed project will be significantly less than those generations that could be expected if the proposal was denied and Five Towns College expanded its commuter population, as discussed elsewhere in the DEIS.

8. Currently, Five Towns College generates 145 vehicles (131 entering, 14 exiting) during the AM "Commuter" Peak Hour and 216 vehicles (160 entering, 56 exiting) during the "College" Peak Hour. During the PM "Commuter" Peak Hour, 102 vehicles (30 entering, 72 exiting) are generated, while 206 vehicles (58 entering, 148 exiting) are generated during the PM "College" Peak Hour. During the Saturday Peak Hour, there are 39 vehicles (21 entering, 18 exiting) generated by Five Towns College. These generated vehicles include the existing 104 beds in the existing dormitory. The existing generated volumes are summarized in Table 4, located in Appendix A.

Traffic Distribution and Assignment

1. The next component of this investigation consisted of an analysis of the geographical distribution of the traffic to and from the site. In order to determine the distribution of the traffic generated by the site, a careful review of the existing travel patterns and the trip generators/receptors in the vicinity of the site was performed.

2. In order to properly assess the traffic impact of the proposal, it is necessary to know which roadway(s) will most probably receive the newly generated traffic, in vehicular volume and direction, during the peak hours studied. The information was reviewed to determine which roads would receive the proposed project's generated traffic.

3. In a discussion with representatives of Five Towns College, it was determined that approximately 50% of the students at Five Towns College are Suffolk County residents, approximately 30% are Nassau County residents, approximately 10% are from New York City and approximately 10% are from outside of the Long Island/NY Metropolitan

region. These percentages were instrumental in determining which roads would receive the proposed project's generated traffic.

4. The existing roadway network in the vicinity of the site was examined and the distribution of the site-generated traffic, at the study intersections and site access points were determined. (Refer to Appendix C for a tabular summary of the trip distribution and assignment). Because each of the time periods studied ("Commuter" and "College") had different arrival and departure patterns, there are different percent distributions for each of the time periods, based upon existing travel patterns. The percent distribution of the site-generated traffic associated with the existing driveway configuration ("Burr's Lane Access") are visually depicted in Figures 12 through 16, located in Appendix A. The site-generated volumes generated by these distribution patterns were superimposed onto the respective background ("No Build") traffic volumes to obtain the "Build" volumes. The site-generated volumes associated with the existing driveway configuration ("Burr's Lane Access") are visually depicted in Figures 17 through 21, located in Appendix A.

5. The "Build" volumes associated with the existing driveway configuration ("Burr's Lane Access") are visually depicted in Figures 22 through 26, located in Appendix A.

6. If the driveways of Five Towns College were relocated, distribution patterns for the vehicles arriving to and departing from the college would be different from the existing patterns. Therefore, new distributions were developed for the alternate location of the LIENSR driveway to Five Towns College. The percent distribution of the site-generated traffic associated with the LIENSR driveway configuration are visually depicted in Figures 27 through 31, located in Appendix A. The site-generated volumes generated by these distribution patterns were superimposed onto the respective background ("No Build") traffic volumes to obtain the "Build" volumes. The site-generated volumes associated with the LIENSR driveway configuration are visually depicted in Figures 32 through 36, located in Appendix A.

7. If the driveways to Five Towns College were relocated to LIENSR, the travel patterns of those driving to and from Five Towns College would change. Figures 37 through 41,

located in Appendix A, visually depict the redistribution of traffic that will occur due to the relocated access to the college.

8. The "Build" volumes associated with the LIENSR driveway configuration are visually depicted in Figures 42 through 46, located in Appendix A.

CAPACITY ANALYSIS CONCLUSIONS

1. As previously mentioned, future traffic volumes were prepared for the study locations, and used to perform the capacity analyses for the various "No Build" and "Build" conditions.

2. These analyses were performed using the previously mentioned procedures outlined in the **2000 Highway Capacity Manual (Special Report 209)** published by the **Transportation Research Board**. The procedures listed in the **Highway Capacity Manual** permit the computation of intersection capacity and Level of Service (LOS). The capacity and LOS of an intersection has previously been defined in the existing conditions segment of this report. The capacity analysis/LOS worksheets are contained in Appendices E and F, while the results are summarized in Tables 5 through 8, located in Appendix A.

3. A review of the results contained in Table 5 indicates that traffic generated by the proposal will have an imperceptible impact upon the signalized study intersections contained within the study area during the "Burr's Lane Access" scenario. Upon the introduction of site-generated traffic, there is little or no impact upon the signalized intersections.

4. A review of the results contained in Table 6 indicates that traffic generated by the proposal will have an imperceptible impact upon the signalized study intersections contained within the study area during the "NSR Access" scenario. Upon the introduction of site-generated traffic, there is little or no impact upon the signalized intersections.

5. A review of the results contained in Table 7 indicates that traffic generated by the proposal will have a imperceptible impact upon the unsignalized study intersection and site driveways during the "Burr's Lane Access" scenario. Similar to the signalized intersection, the site generated traffic has practically no effect upon the operation of the study intersections or site driveways.

6. A review of the results contained in Table 8 indicates that traffic generated by the proposal will have an imperceptible impact upon the unsignalized study intersection and site driveways during the "NSR Access" scenario. Similar to the signalized intersection, the site generated traffic has practically no effect upon the operation of the study intersections or site driveways.

7. Therefore, by the granting of the approval to construct the proposed residential halls and the legalization of the current residential halls, as required from the Town of Huntington, will not create any severe adverse traffic conditions or hazard in the vicinity of the site.

FIVE TOWNS COLLEGE ENROLLMENT

Traffic counts were performed during the Spring Semester 2002 for this project. During the Spring Semester, there were 892 students enrolled at Five Towns College. During the Fall 2002 semester, there are 963 students enrolled at Five Towns College, an increase in the student population of approximately 8%. This increase is in commuter students only, as the residential population has remained stable, as expected. Representatives of Five Towns College indicate that there was an increase in commuter students to offset the loss of residential students as a result of the legal circumstances surrounding this application. The representatives indicated that the distribution of commuter/residential students will be adjusted to conform to the projections contained elsewhere within the DEIS upon completion of the remaining two residential halls.

Based upon our review of the activity at the school, the increase in student population would translate to 12 trips to/from the college during the AM "Commuter" peak hour, 18 trips to/from the college during the AM "College" peak hour, 9 trips to/from the college during the PM "Commuter" peak hour, 17 trips to/from the college during the PM "College" peak hour and 4 trips to/from the college during the Saturday peak hour.

The New York State Department of Transportation Highway Data Services Bureau publishes seasonal adjustment factors for traffic count processing. This data provides factors to multiply traffic counts by to account for seasonal changes within traffic patterns. The ambient traffic factor during the month of May is greater that of any month during the Fall Semester of Five Towns College. Therefore the ambient traffic surrounding Five Towns College during the month of May is greater than at any time during the academic year, and therefore most conservative.

Based upon a review of this information, the traffic volumes experienced in May are higher than those typically experienced during the Fall Semester. Due to this fact, the increase in student traffic is more than offset by the overall decrease in traffic on the surrounding roadways.

In conclusion, it is our opinion that a separate traffic analysis for Fall Semester college activity would not be warranted.

PETTIT DRIVE ANALYSIS

This firm conducted a license plate origin/destination survey during the Fall 2002 semester, for the purposes of determining the number of vehicles that enter Five Towns College from Pettit Drive, thereby avoiding the signalized intersection of Bagatelle Road at Half Hollow Road. To avoid this intersection, vehicles perform a northbound right turn from Bagatelle Road onto Pettit Drive. The vehicles follow Pettit Drive and perform another northbound right turn onto Half Hollow Road and another right turn onto Burr's Lane. The results of our survey are depicted in Table 9 and displayed in Figures 47 through 52, located in Appendix A. located in Appendix A.

To perform the license plate origin/destination survey, the following turning movements were monitored:

a. Pettit Drive northbound right turn to Half Hollow Road
b. Half Hollow Road eastbound right turn to Burr's Lane
c. Burr's Lane southbound left turn to Five Towns College North Driveway
d. Burr's Lane southbound left turn to Five Towns College South Driveway
e. Burr's Lane southbound right turn to Bus Facility Automobile Parking Lot
f. Burr's Lane southbound right turn to Bus Facility Bus Parking Lot

The survey was performed between the hours of 7:00am to 12:00 noon, on Thursday, November 7th and Friday, November 8th, 2002. As previously mentioned, the purpose of the survey was to determine the number of vehicles entering Five Towns College that are avoiding the signalized intersection of Bagatelle Road at Half Hollow Road.

On Thursday, there were a total of 105 vehicles performing a northbound right turn from Pettit Drive to Half Hollow Road, between the hours of 7:00am and 12:00 noon (an average of 21 vehicles per hour). An analysis of the 105 vehicles performing the northbound right turn from Pettit Drive to Half Hollow Road indicated that there were a total of 24 buses/school buses and 81 automobiles hat performed the right turn. It was observed that 13 of the 24 buses turning from Pettit Drive also turned onto Burr's Lane. It was also observed that 9 of the 81 automobiles turning from Pettit Drive also turned onto Burr's Lane. Therefore, only 22 of the 105 vehicles (21%) turning onto Half Hollow Road from Pettit Drive turned onto Burr's Lane.

During the five hour time period, there were a total of 12 vehicles that avoided the traffic signal at Bagatelle Road and Half Hollow Road and continued to enter Five Towns College. The additional 10 vehicles entered the bus facility. Further analysis revealed that 3 of the 12 vehicles entering Five Towns College from Pettit Drive were buses. Therefore only 9 automobiles entered Five Towns College on Thursday to avoid the traffic signal at the intersection of Bagatelle Road at Half Hollow Road within the five-hour period.

During the AM Commuter Peak Hour (8:00am to 9:00am) on Thursday, there was only 1 automobile and 1 bus associated with the college that avoided the traffic signal at Bagatelle Road at Half Hollow Road. During the AM College Peak Hour (9:00am to 10:00am), there was also only 1 automobile and 1 bus associated with the college that avoided the traffic light at Bagatelle Road at Half Hollow Road.

Representatives of Five Towns College indicated that the school bus entering the campus from Pettit Drive is one school bus making three trips during the morning between Five Towns College and SUNY Farmingdale. Approximately 50 Five Towns College students reside within the residential halls at SUNY Farmingdale. Representatives of Five Towns College indicated that after the third residential hall is completed and open, the bus loop would be discontinued, since those students will move onto the Five Towns College campus. In response to this study, College officials have requested that the bus driver refrain from using Pettit Drive until completion of the residential hall.

On Friday, there were a total of 104 vehicles performing a northbound right turn from Pettit Drive to Half Hollow Road, between the hours of 7:00am and 12:00 noon. An analysis of the 104 vehicles performing the northbound right turn from Pettit Drive to Half Hollow Road indicated that there were a total of 29 buses/school buses and 75 automobiles that performed the right turn. It was observed that 15 of the 29 buses turning from Pettit Drive also turned onto Burr's Lane. It was also observed that 11 of the 75 automobiles turning from Pettit Drive also turned onto Burr's Lane. Therefore, only 26 of the 104 vehicles (25%) turning onto Half Hollow Road turned onto Burr's Lane.

During the five hour time period, there were a total of 13 vehicles that avoided the traffic signal at Bagatelle Road at Half Hollow Road and continued to enter Five Towns College. The additional 13 vehicles entered the bus facility. Further analysis revealed that 2 of the 13 vehicles entering Five Towns College from Pettit Drive were buses. Therefore only 11 automobiles entered Five Towns College on Thursday to avoid the traffic signal at the intersection of Bagatelle Road at Half Hollow Road within the five-hour period.

During the AM Commuter Peak Hour (8:00am to 9:00am) on Friday, there were only 4 automobiles associated with the college that avoided the traffic signal at Bagatelle Road at Half Hollow Road. During the AM College Peak Hour (9:00am to 10:00am), there were only 2 vehicles associated with the college that avoided the traffic light at Bagatelle Road at Half Hollow Road.

Based upon our observations, there were a minimal number of vehicles associated with Five Towns College that avoided the traffic signal at the intersection of Bagatelle Road and Half Hollow Road and traveled on Pettit Drive. On the two days surveyed, there were less than three vehicles per hour that arrived at Five Towns College from Pettit Drive. The traffic generated by Five Towns College that travels on Pettit Drive is relatively insignificant when compared to the overall volume of traffic that travels along Pettit Drive.

ACCESS TO THE PROPERTY

As part of the proposed project, a review of the potential site driveway relocation has been requested. An investigation was performed to determine if a relocation of the access to Five Towns College would have a negative impact upon the residential community surrounding the property. If relocation was to occur, it is proposed to close access from Burr's Lane to Five Towns College. The driveway that will provide access to the college would be relocated on the Long Island Expressway (I-495) North Service Road (LIENSR), east of Burr's Lane. Due to the configuration of the roadway, this driveway would have right in and right out access only. Therefore, all entering traffic must enter the college from the westbound LIENSR. All exiting traffic must exit onto the same roadway.

If the site access driveway to Five Towns College were relocated, to arrive at the college from the east via the LIE, all westbound traffic would exit the LIE at Exit 51, Deer Park Avenue, and travel west along the service road to the alternate entrance to the college.

To arrive at Five Towns College from the south, vehicles would travel via Bagatelle Road and Deer Park Road. If traveling from Bagatelle Road, a vehicle must travel east along the Long Island Expressway (I-495) South Service Road (LIESSR) to Half Hollow Road, make a left turn on Half Hollow Road, make another left turn onto the LIENSR and enter the college as noted above. Vehicles traveling north on Deer Park Road would turn left onto LIENSR and then enter the college as noted above.

Vehicles traveling to Five Towns College from the north, or the Northern State Parkway would arrive at Half Hollow Road via Old South Path, Carman Road or Vanderbilt Parkway (CR 67). If the entrance to the college were on Burr's Lane, these vehicles from the north would only make one turn from Half Hollow Road to Burr's Lane and enter the college. If the access to the college were located on the LIENSR, the vehicles from the north would have to travel through the residential community to the LIENSR to arrive at the alternate site access driveway.

Vehicles traveling from the west, via the eastbound LIE would exit the LIE at Exit 50 and travel east to Half Hollow Road would turn left twice and travel to the college entrance, if it were relocated.

All exiting vehicles would leave the college at the LIENSR and travel to the west to the traffic signal at Bagatelle Road, or turn right onto Burr's Lane to travel north, east and west. Every vehicle exiting the college must exit in either of these directions. There is an entrance to the westbound LIE at a point west of Bagatelle Road. Vehicles traveling to the south would also travel to the traffic signal at Bagatelle Road and turn left twice to head east towards Deer Park Road. Vehicles traveling to the north would make a right turn onto Burr's Lane upon exiting the college and travel along the same routes whether the exit was on Burr's Lane or on the LIENSR. Therefore, the location of the exiting driveway of the college does not significantly affect the travel routes of those exiting the college.

As noted above in the Capacity Analysis/Conclusion section, and in Tables 7 and 8, there will be no impact to the signalized or unsignalized driveways and site access driveway if the entrance to Five Towns College is located on the LIENSR. However, travel times to the college would be increased due to the relocation of the driveway, and southbound traffic to Five Towns College would be forced to travel along routes previously unaffected by college traffic.

Therefore, although the intersections studied would have not been impacted by the relocation of the driveway, travel times to the college will be increased due to the location of the proposed driveway on the LIENSR, with no other alternate entrance available.

Representatives of Five Towns College indicate that relocating the college entrance to the LIENSR would prevent the college from hosting community athletic programs, inasmuch as the new entrance would cut through existing athletic fields, reducing the amount of open space and creating traffic hazards in areas where young children currently play. This new entrance will also impact homes located on Broad Oak Court and Lone Hill Place, which are adjacent to Five Towns College in the vicinity of the proposed roadway. This situation is discussed elsewhere in the DEIS.

Considering the high cost of constructing a new roadway, the loss of open space, the dangerous conditions created by placing a roadway where neighborhood children play, the additional traffic that would be forced travel along routes previously not used, the increase in travel times to the college, the impact upon adjoining properties and the fact that intersections studied would not be impacted in a positive manner by the relocation of the driveway, we do not believe this alternative is viable and that it should not be adopted.

RECOMMENDATIONS/SUMMARY

The proposed project is for a conditionally permitted use as per Town of Huntington Town Code §198-68A (12) of 2 completed 52 bed dormitories and the construction of 2 additional 52 bed dormitories, for a total of 208 beds, on the campus of the Five Towns College. Five Towns College is located on the southeast corner of Half Hollow Road and Burr's Lane, and the northeast corner of Burr's Lane and the Long Island Expressway (I-495) North Service Road (LIENSR), in Dix Hills, Town of Huntington, Suffolk County. The following is a summary of this study that investigated the potential traffic impacts associated with the project and the findings thereof:

1. Traffic volume turning movement counts were collected during the AM, PM and Saturday peak hours at the intersections listed below. These volumes were utilized to determine their operating conditions during the existing and future traffic conditions.
   - Bagatelle Road at Long Island Expressway (I-495) South Service Road
   - Bagatelle Road at Long Island Expressway (I-495) North Service Road
   - Bagatelle Road at Half Hollow Road
   - Half Hollow Road at Burr's Lane
   - Half Hollow Road at Vanderbilt Parkway (CR 67)
   - Burr's Lane and North Site Access Driveway
   - Burr's Lane and South Site Access Driveway
   - Long Island Expressway (I-495) North Service Road at Alternate Five Towns College Entrance
   - Long Island Expressway (I-495) North Service Road at Burr's Lane

2. The future traffic volumes at the study intersections were projected by applying a 1.00% annual growth factor, supplied by the NYSDOT, to the existing traffic volumes. In addition, the traffic generated by other proposed projects was superimposed onto the expanded volumes. The traffic generated by the proposed and to be residential halls was superimposed onto the expanded volumes.

3. Currently, there are two access driveways serving the existing facility. Both existing driveways are located on Burr's Lane, between the Long Island Expressway and Half Hollow Road. There are no movement restrictions at either existing intersection. However, there are times during the night and weekend hours that the northern access driveway to the college is closed.

4. As part of the proposed project, potential changes to the location of the access driveway to Five Towns College is explored. As seen on the alternate site plans, the southern driveway curb cut on Burr's Lane would be closed. The northern driveway will access a traffic loop in front of the school for quick drop-offs/pick-ups from the front of the school. The main driveway for the college will be relocated to the LIENSR, east of Burr's Lane. This access driveway will be the only driveway to the college, allowing right turns in and out of the driveway due to its location on the LIENSR.

5. A review of the results contained in Table 5 indicates that traffic generated by the proposal will have an imperceptible impact upon the signalized study intersections contained within the study area during the "Burr's Lane Access" scenario. Upon the introduction of site-generated traffic, there is little or no impact upon the signalized intersections.

9. A review of the results contained in Table 6 indicates that traffic generated by the proposal will have an imperceptible impact upon the signalized study intersections contained within the study area during the "NSR Access" scenario. Upon the introduction of site-generated traffic, there is little or no impact upon the signalized intersections.

10. A review of the results contained in Table 7 indicates that traffic generated by the proposal will have a imperceptible impact upon the unsignalized study intersection and site driveways during the "Burr's Lane Access" scenario. Similar to the signalized intersection, the site generated traffic has practically no effect upon the operation of the study intersections or site driveways.

11. A review of the results contained in Table 7 indicates that traffic generated by the proposal will have an imperceptible impact upon the unsignalized study intersection and site driveways during the "NSR Access" scenario. Similar to the signalized intersection, the site generated traffic has practically no effect upon the operation of the study intersections or site driveways.

10. Therefore based on the analyses presented herein, the construction of the proposed dormitories will not create any undue traffic congestion or hazard in the vicinity of the site.

FIVE TOWNS COLLEGE

TOWN OF HUNTINGTON
SUFFOLK COUNTY, NEW YORK

TRAFFIC IMPACT STUDY

RMS JOB NO. 2002-056

JANUARY 2003

APPENDICES

RMS ENGINEERING
Robinson, Muller & Schiavone Engineers, P.C.

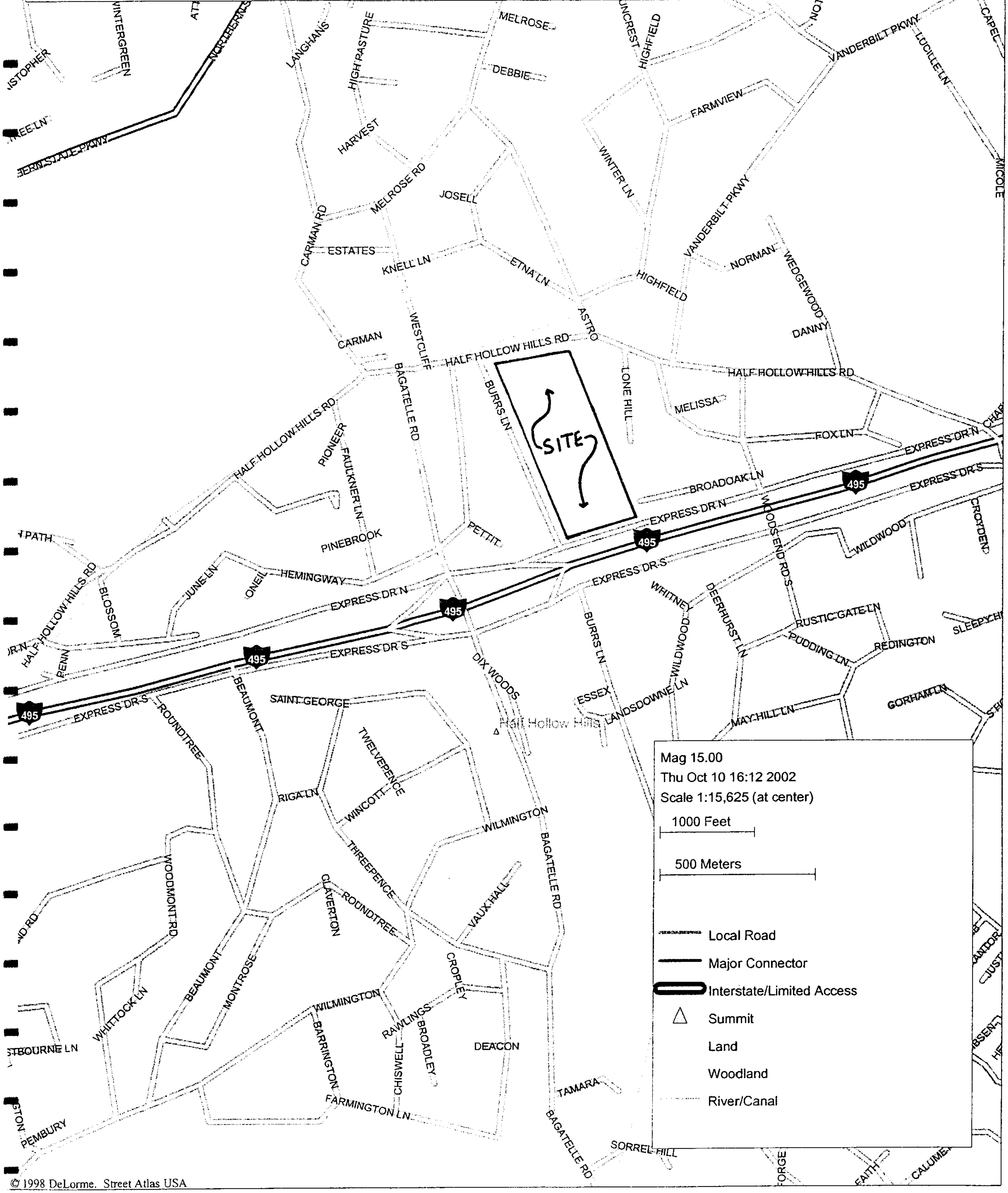
355 New York Avenue, Huntington, NY 11743 • 631-271-0576 • Fax 631-271-0592

APPENDIX A: FIGURES AND TABLES

I. Figures
II. Tables
III. Charts

I. Figures

Figure 1, Project Location RMS Engineering



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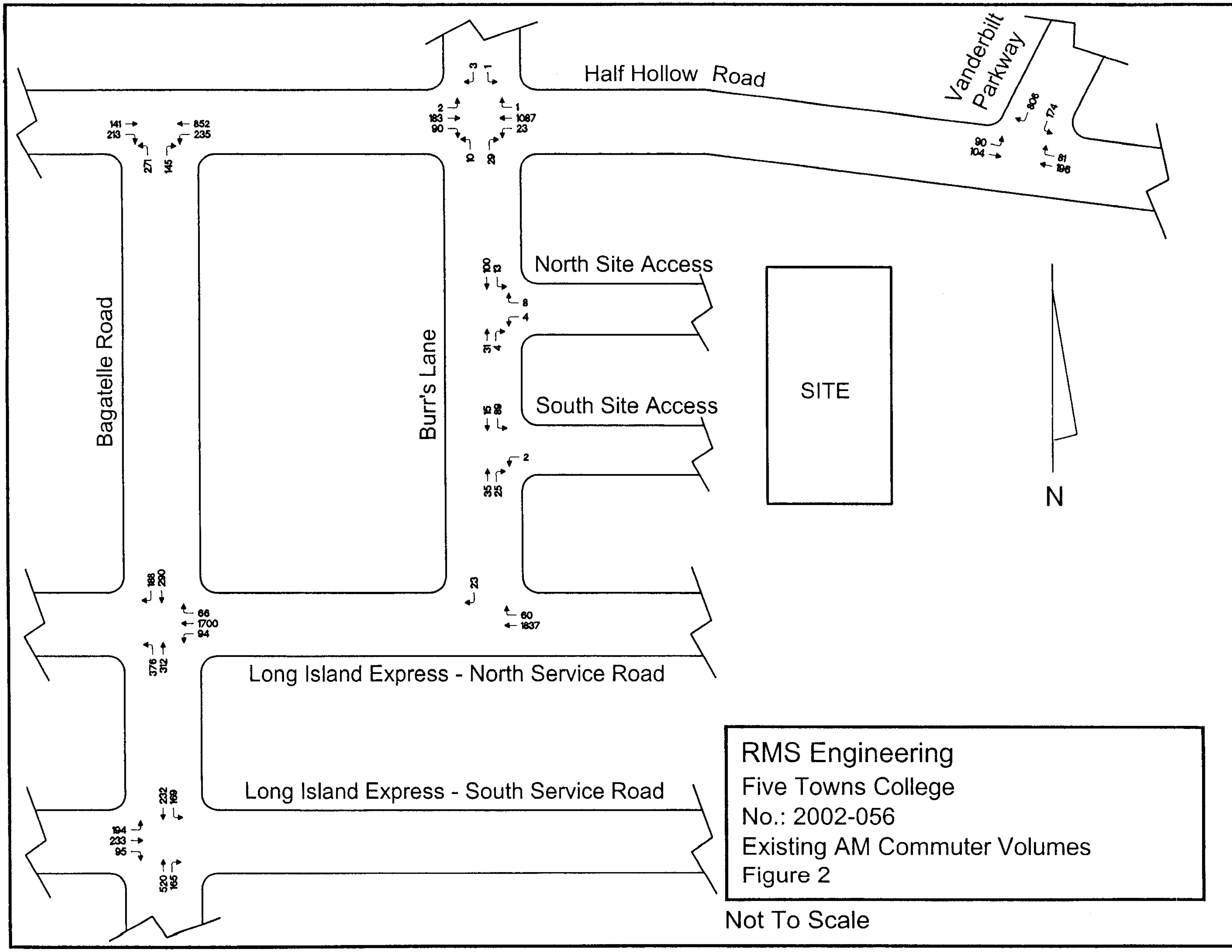
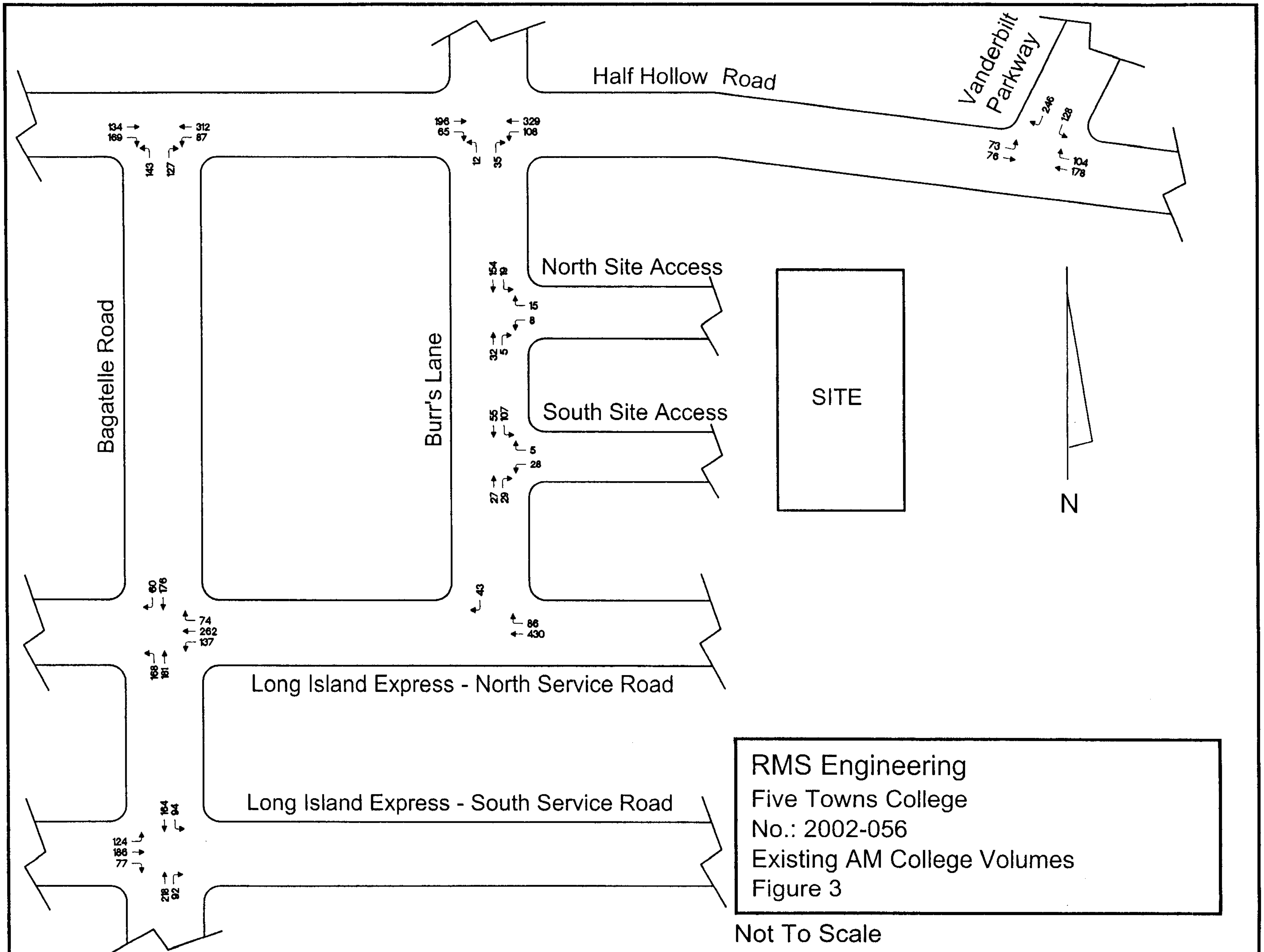


RMS Engineering
Five Towns College
No.: 2002-056
Existing AM Commuter Volumes
Figure 2

Not To Scale

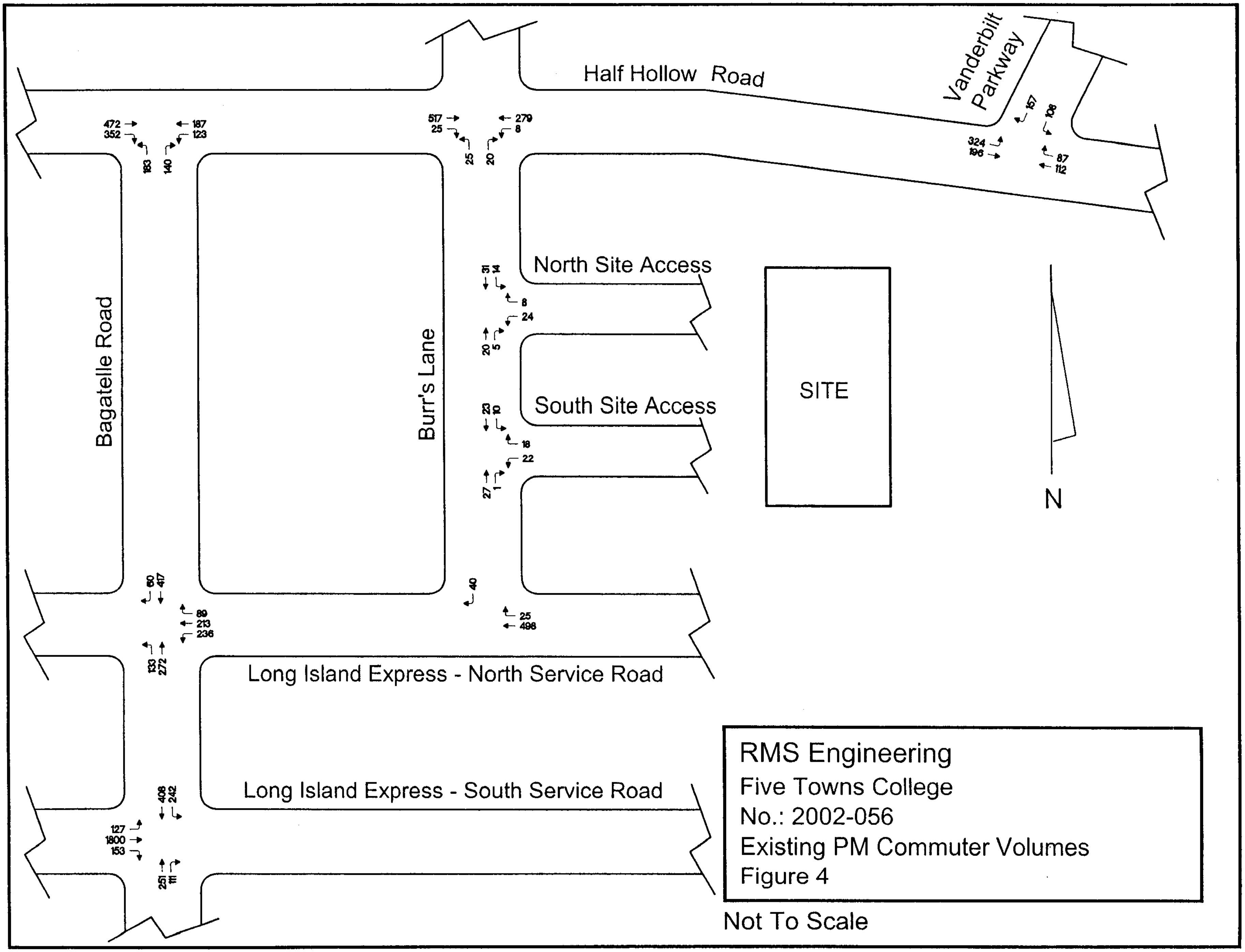
RMS ENGINEERING



RMS Engineering
Five Towns College
No.: 2002-056
Existing AM College Volumes
Figure 3

Not To Scale

RMS ENGINEERING



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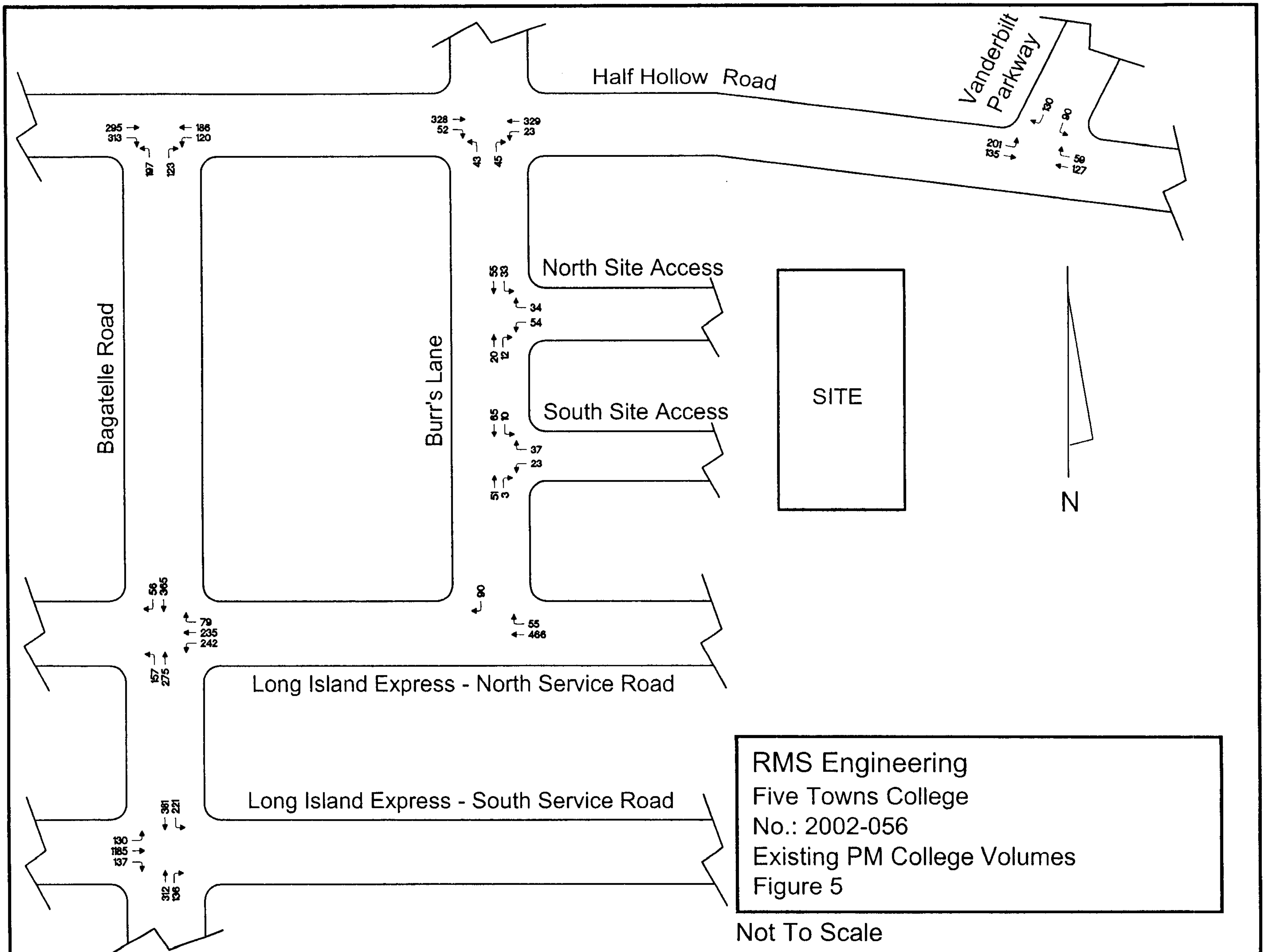

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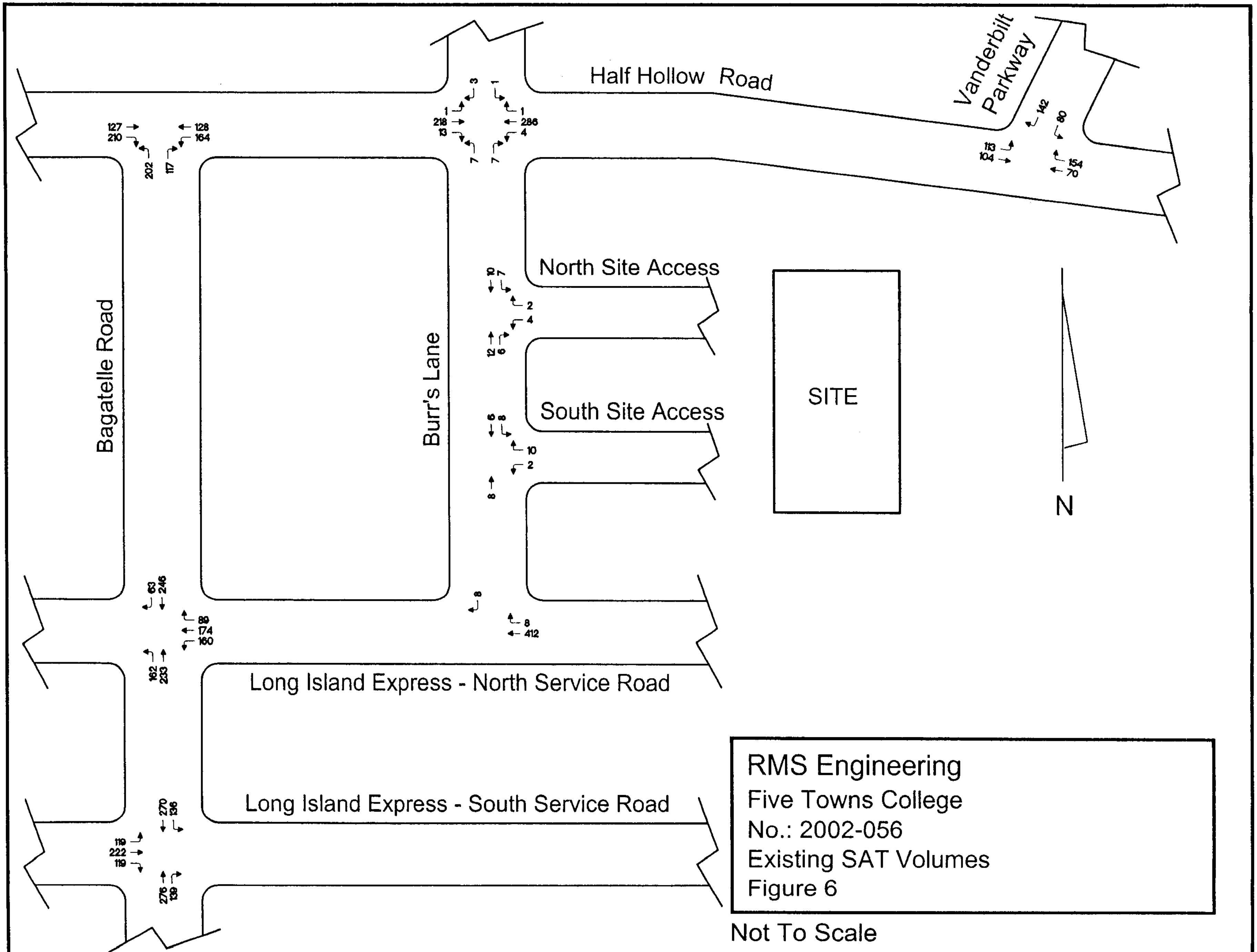

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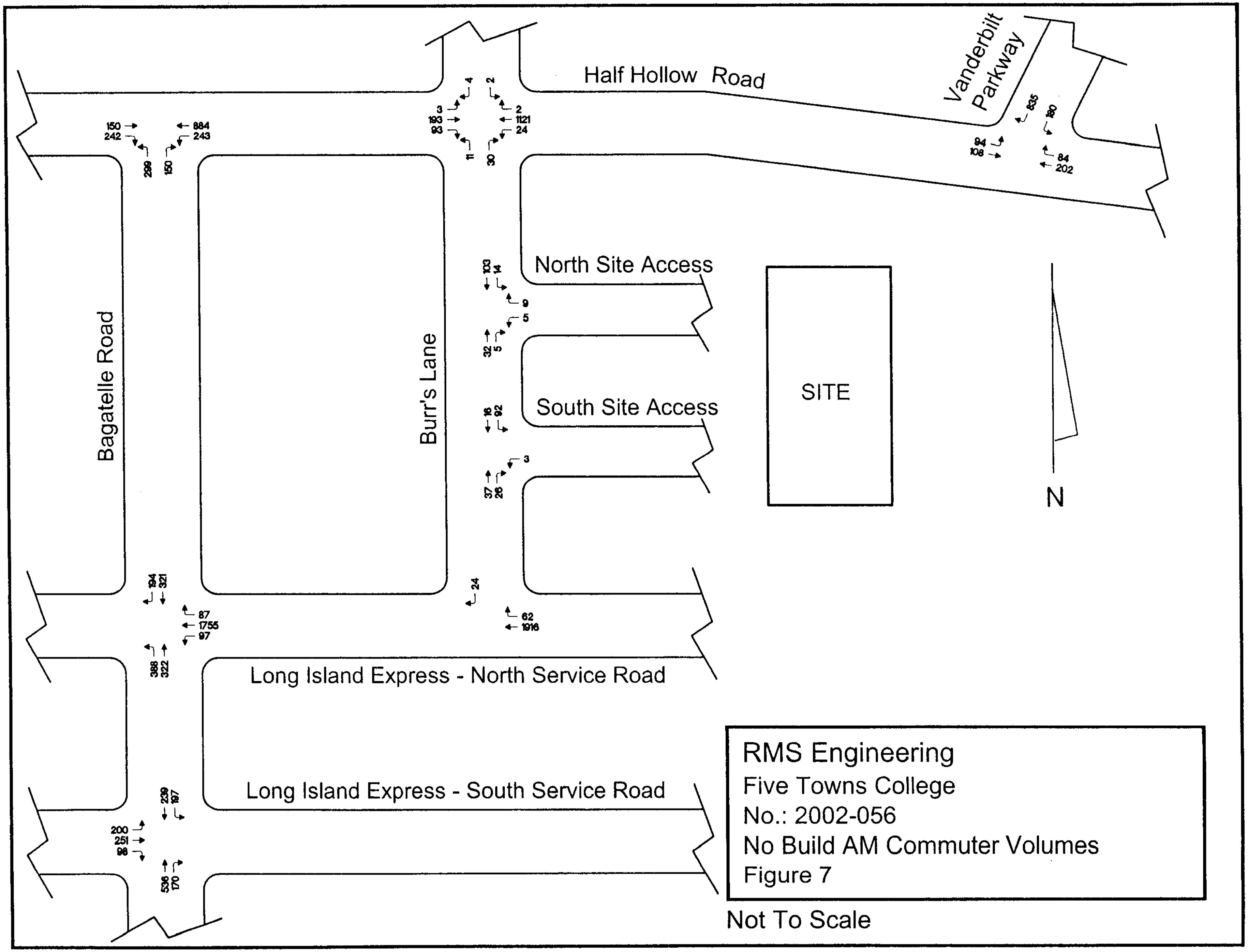

RMS Engineering
Five Towns College
No.: 2002-056
No Build AM Commuter Volumes
Figure 7

Not To Scale

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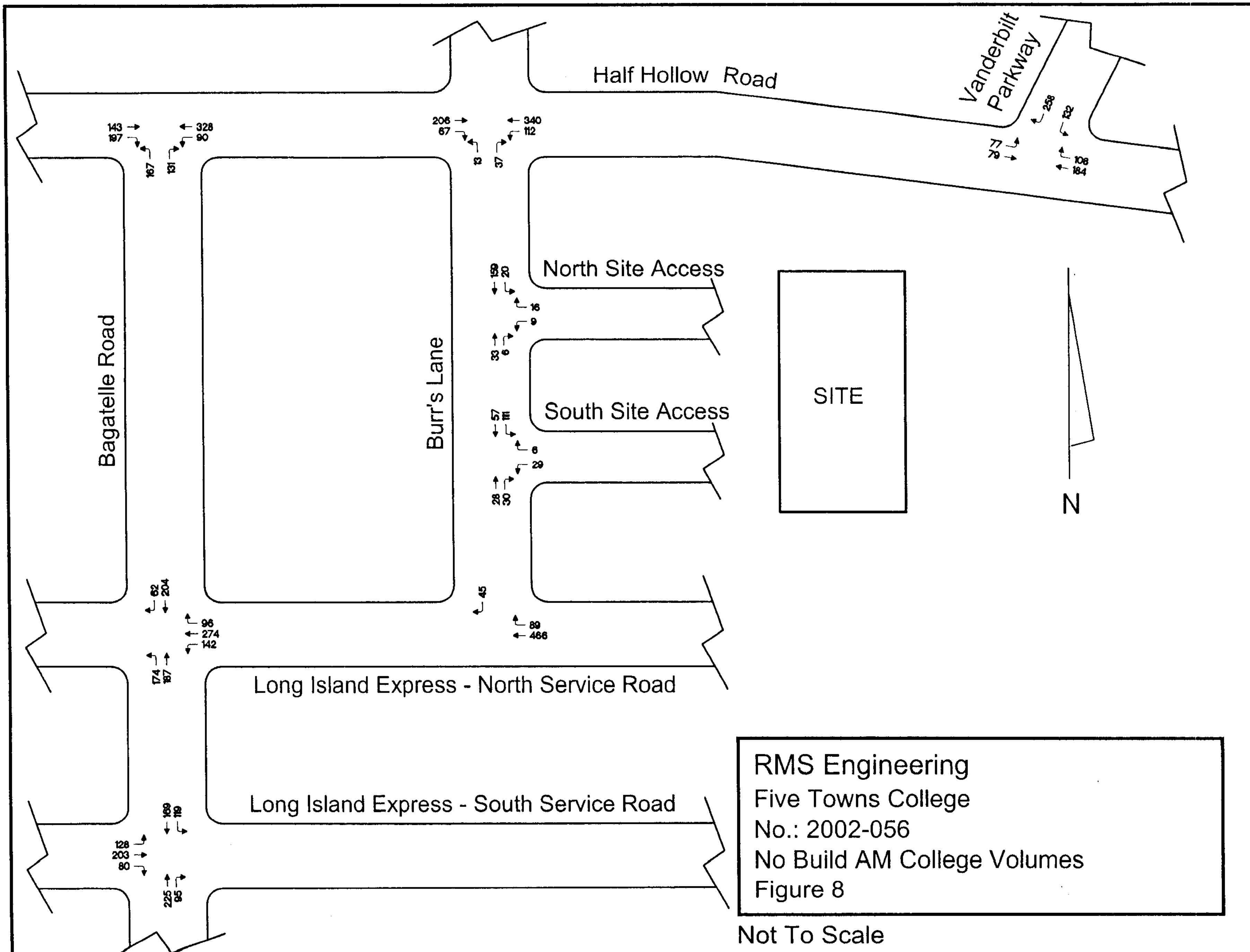
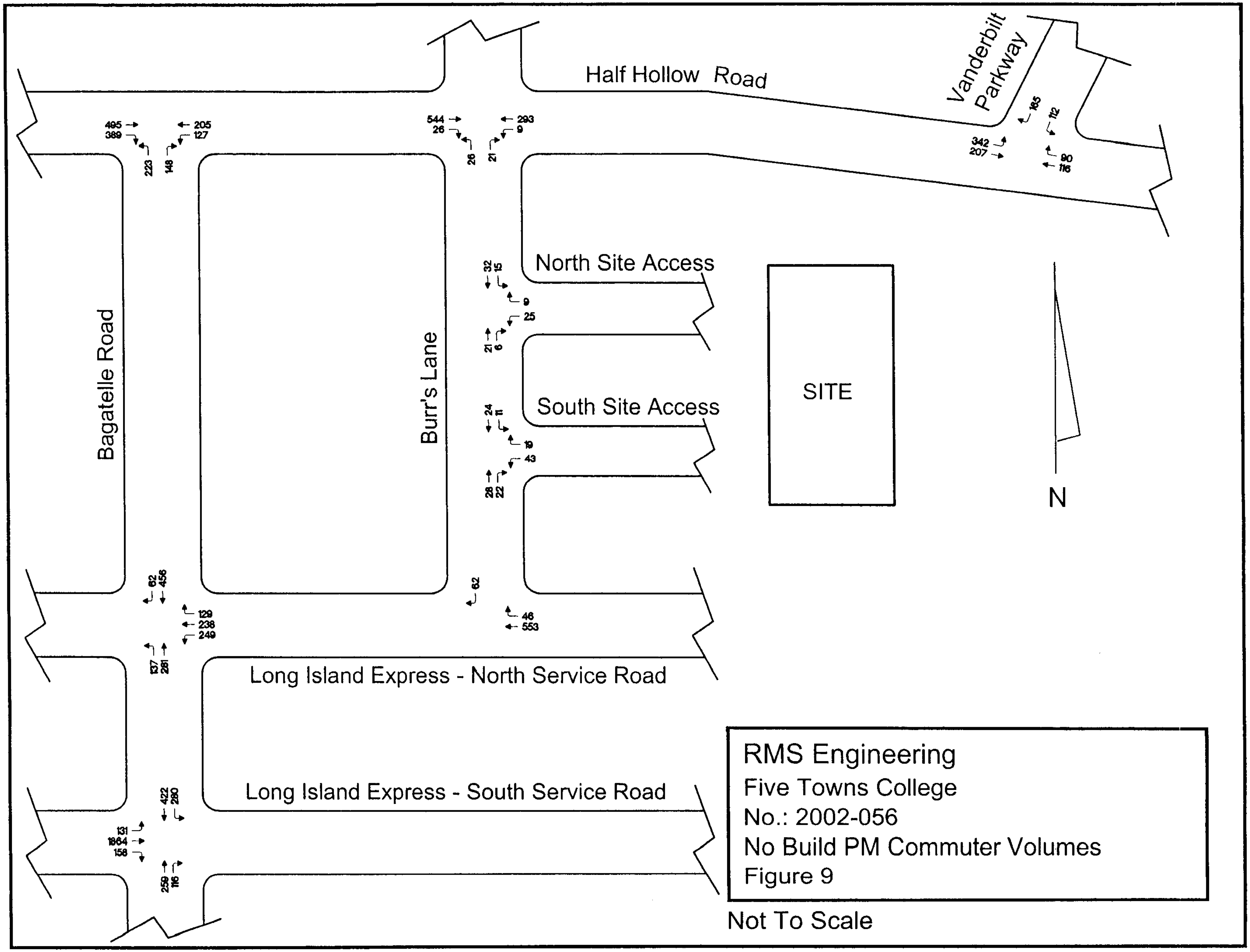


RMS Engineering
Five Towns College
No.: 2002-056
No Build AM College Volumes
Figure 8

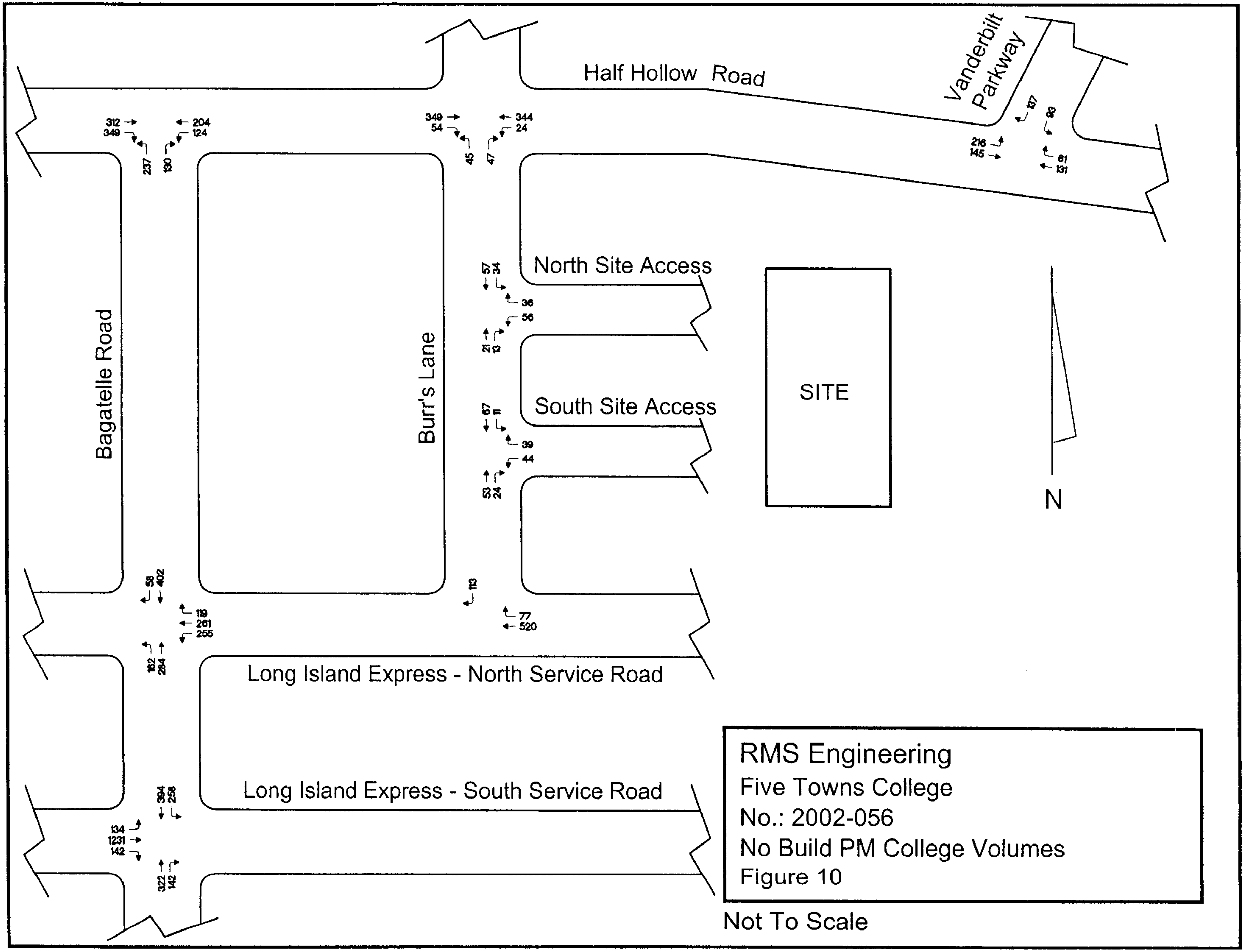
Not To Scale

RMS ENGINEERING

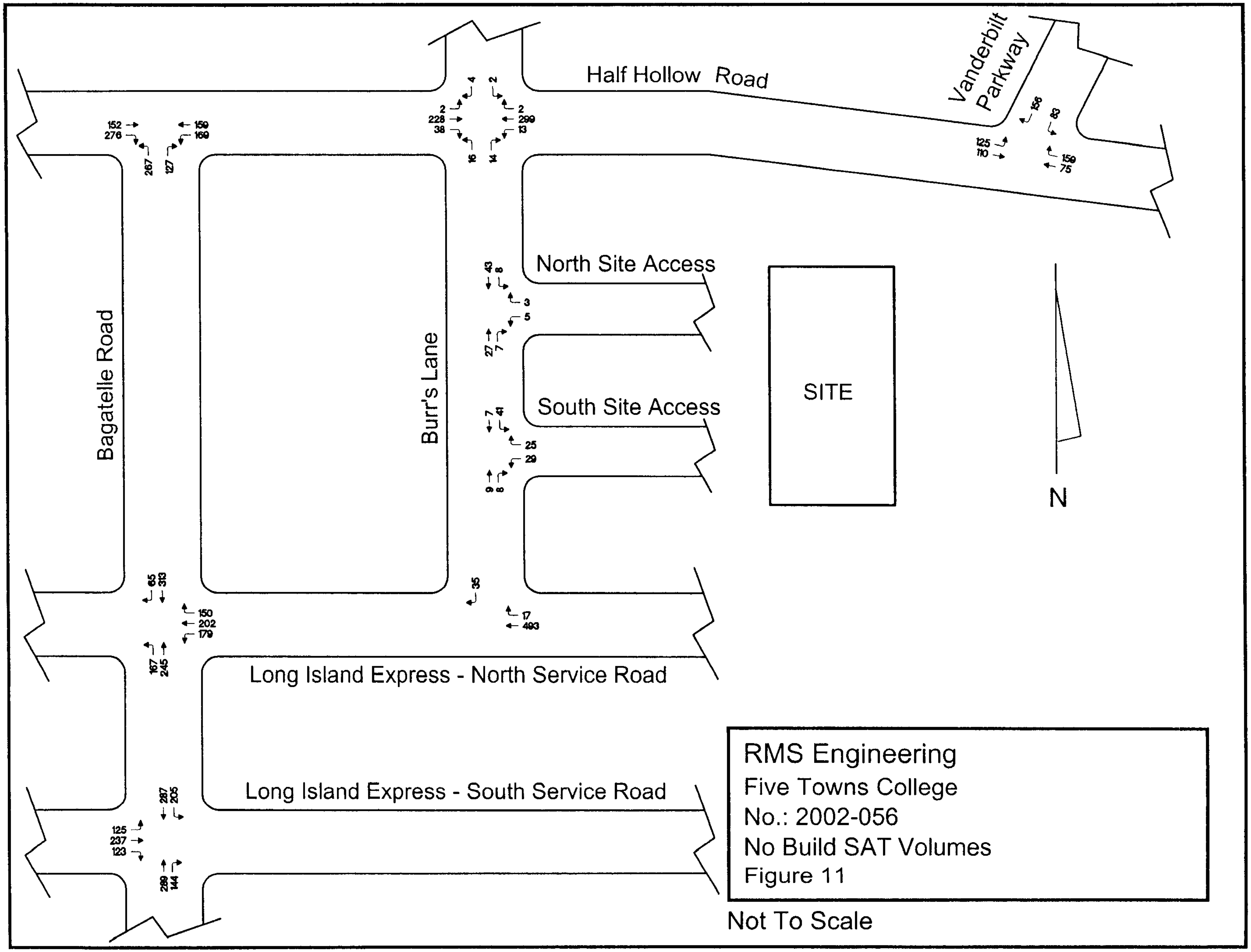


RMS Engineering
Five Towns College
No.: 2002-056
No Build PM Commuter Volumes
Figure 9

Not To Scale


Half Hollow Road
Vanderbilt Parkway
Bagatelle Road
Burr's Lane
North Site Access
South Site Access
SITE
N
Long Island Express - North Service Road
Long Island Express - South Service Road
312
349
237
130
204
124
349
54
45
47
344
24
137
93
216
145
61
131
57
34
36
56
21
13
67
11
39
44
53
24
58
402
119
261
255
162
284
113
77
520
394
258
134
1231
142
322
142
RMS Engineering
Five Towns College
No.: 2002-056
No Build PM College Volumes
Figure 10
Not To Scale

RMS ENGINEERING



RMS Engineering
Five Towns College
No.: 2002-056
No Build SAT Volumes
Figure 11

Not To Scale

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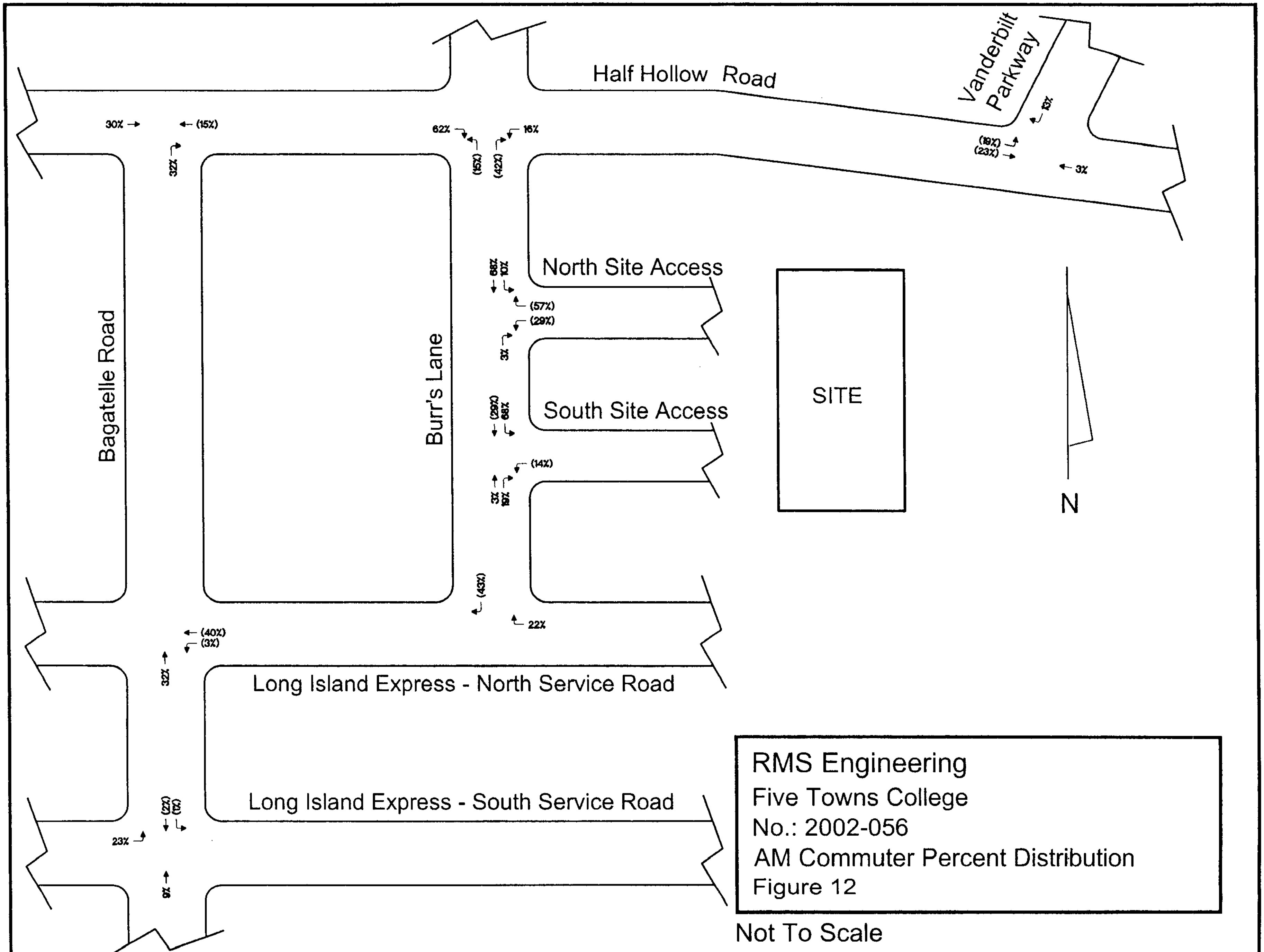

RMS Engineering
Five Towns College
No.: 2002-056
AM Commuter Percent Distribution
Figure 12

Not To Scale

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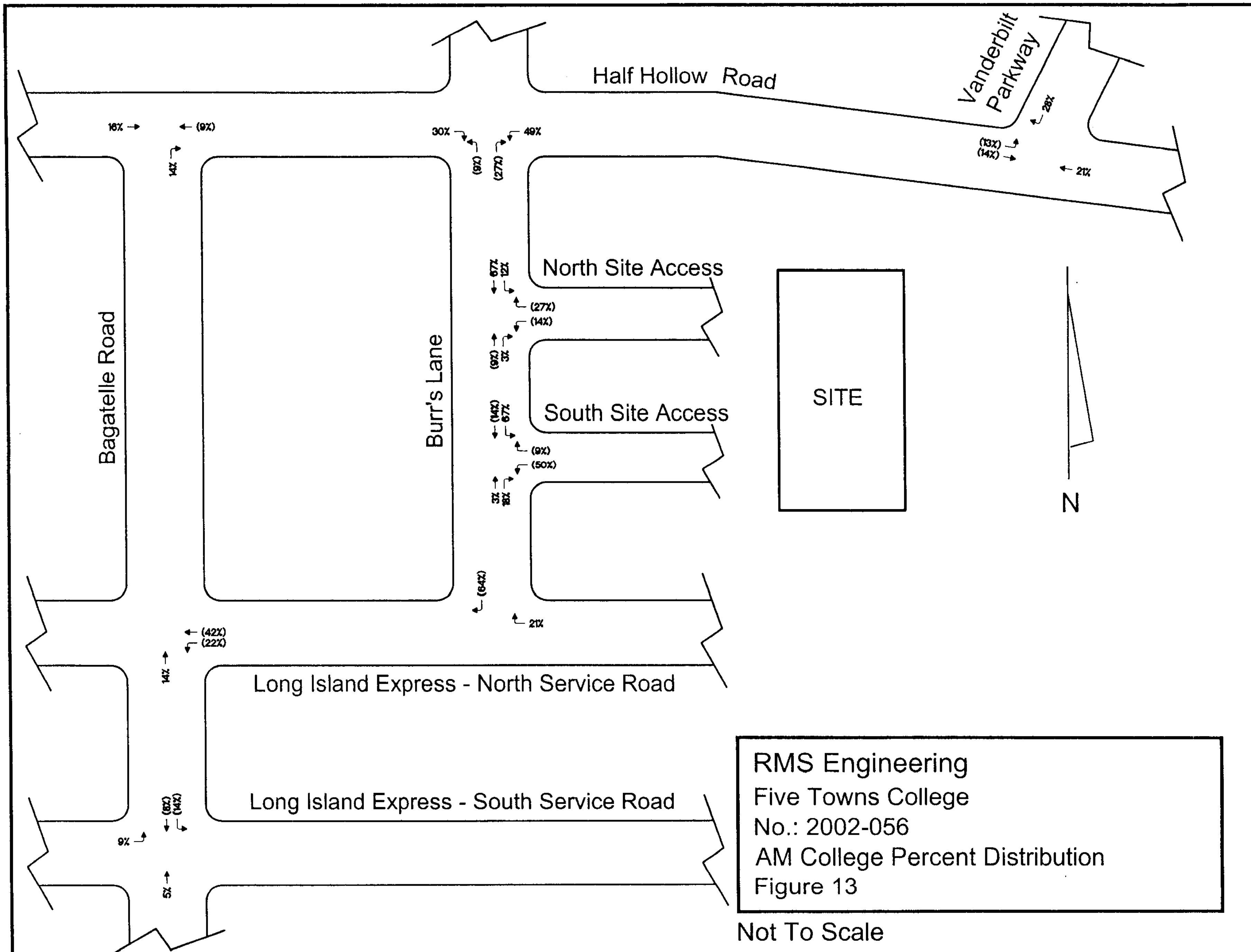
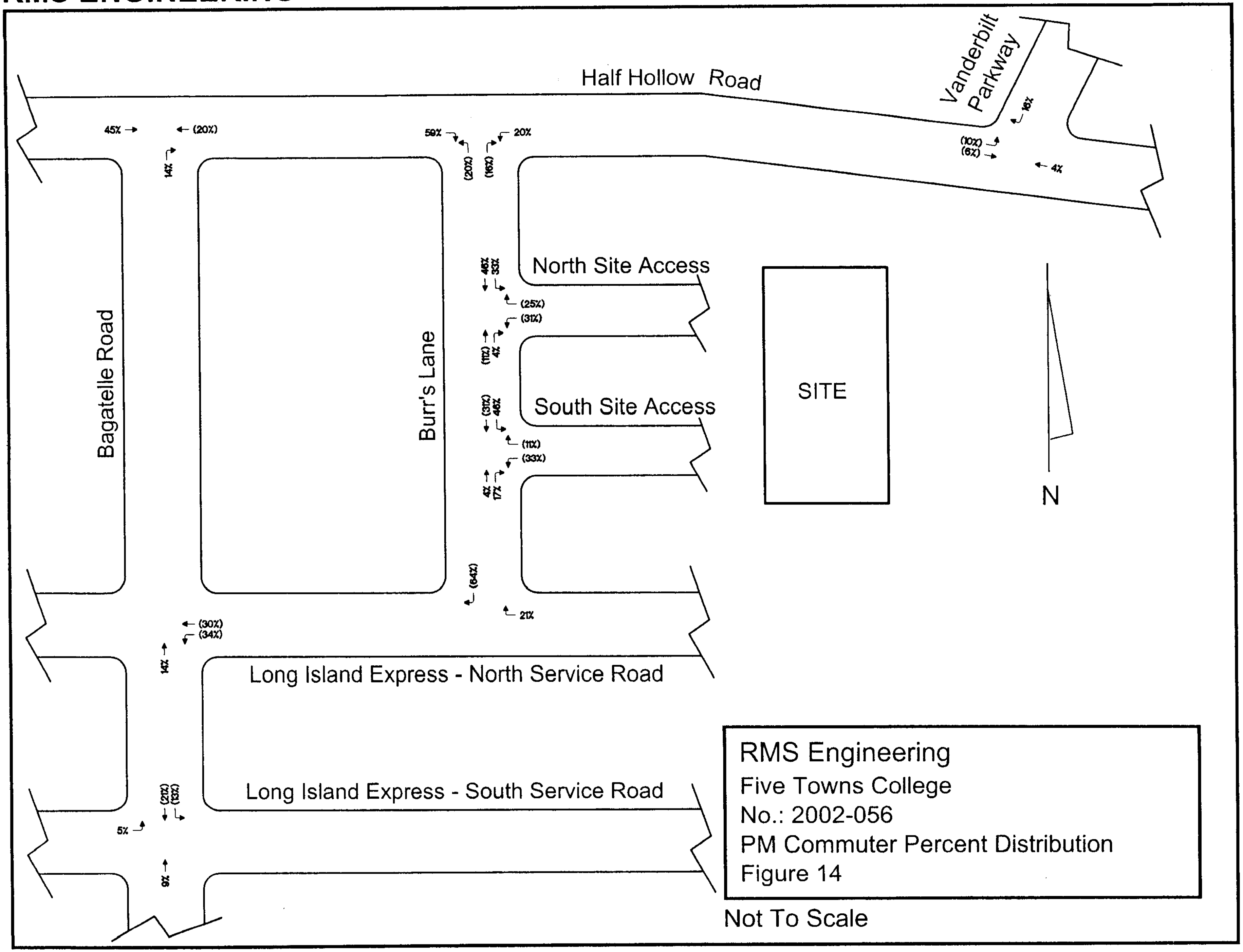


RMS Engineering
Five Towns College
No.: 2002-056
AM College Percent Distribution
Figure 13

Not To Scale

RMS ENGINEERING



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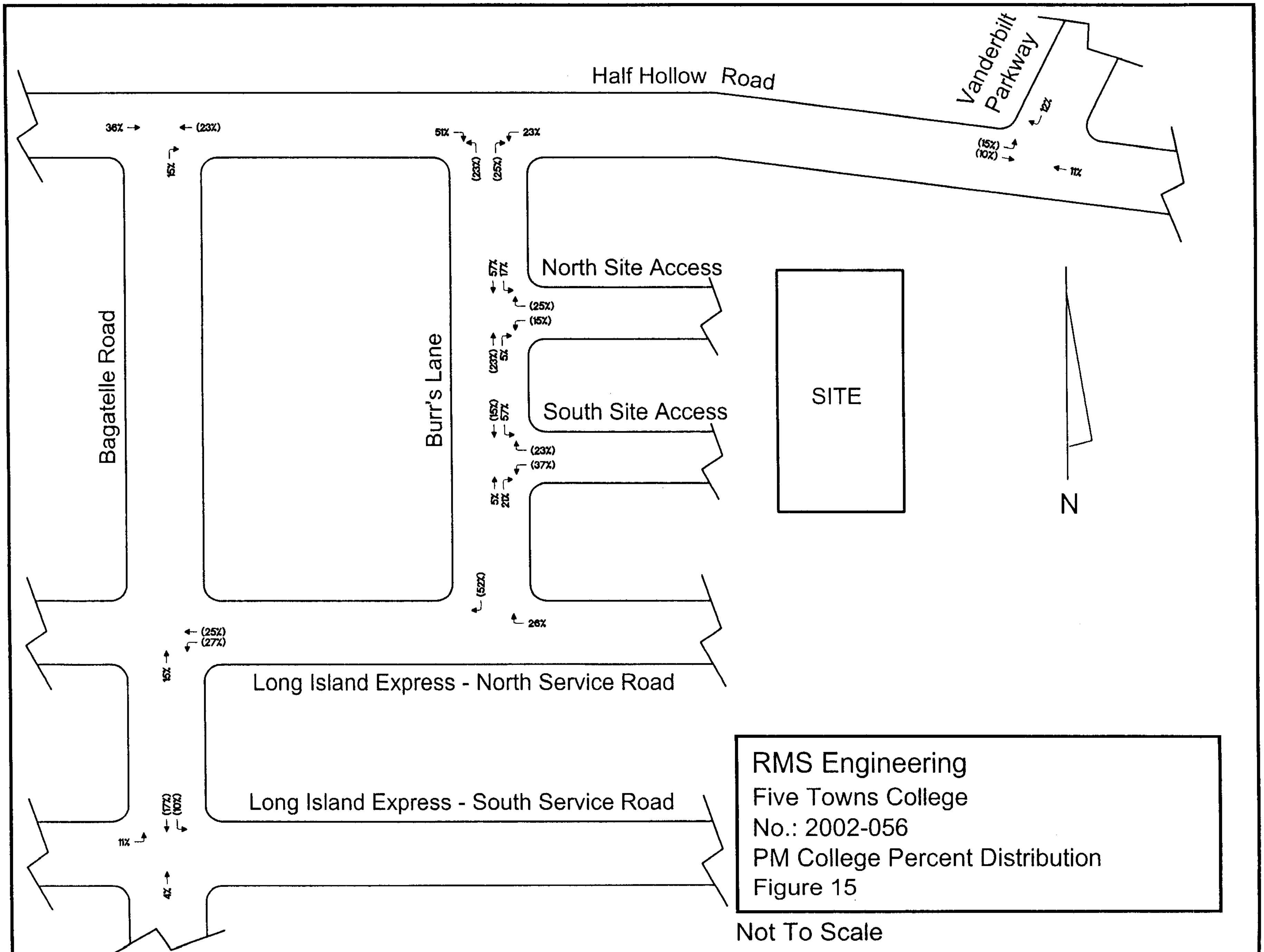

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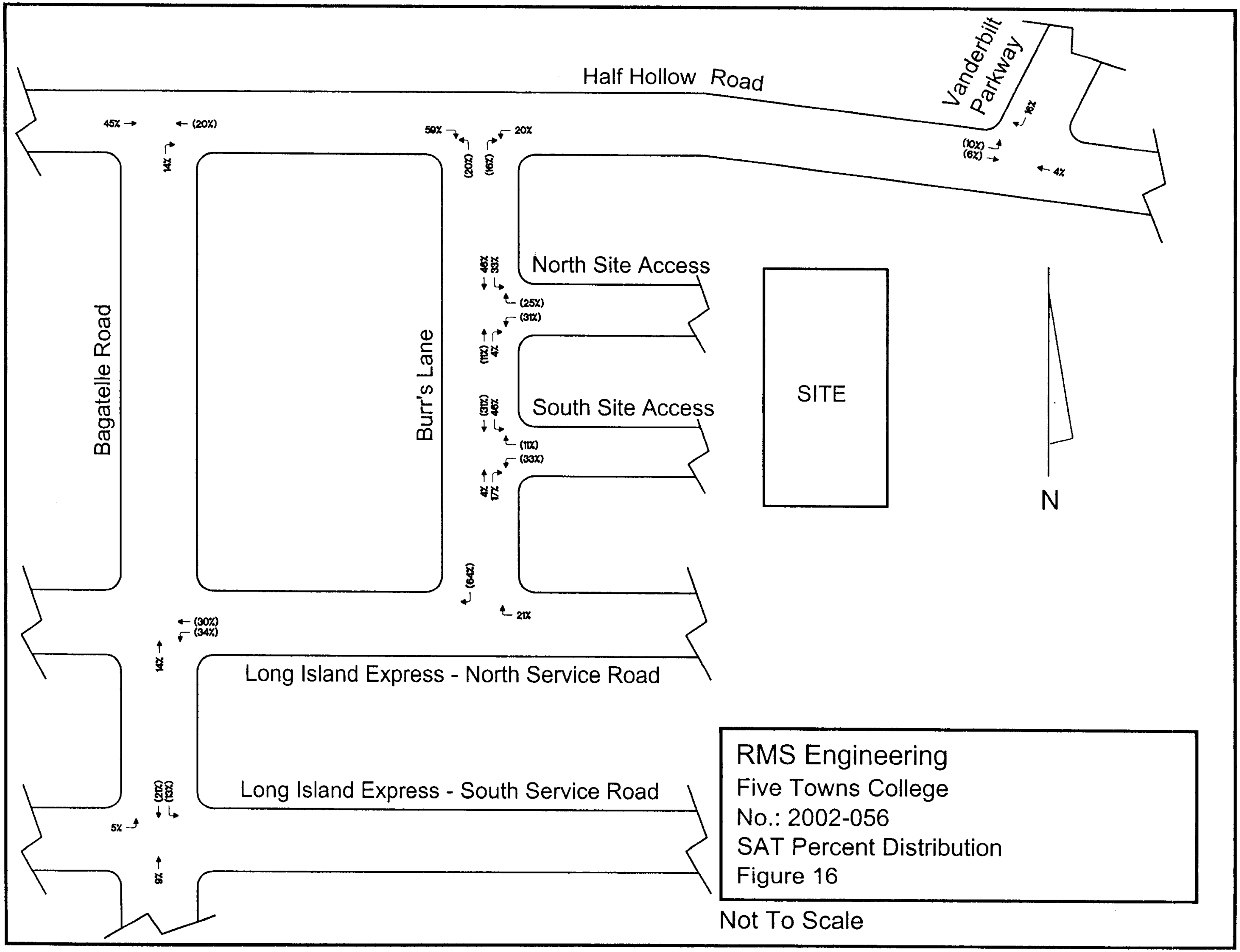

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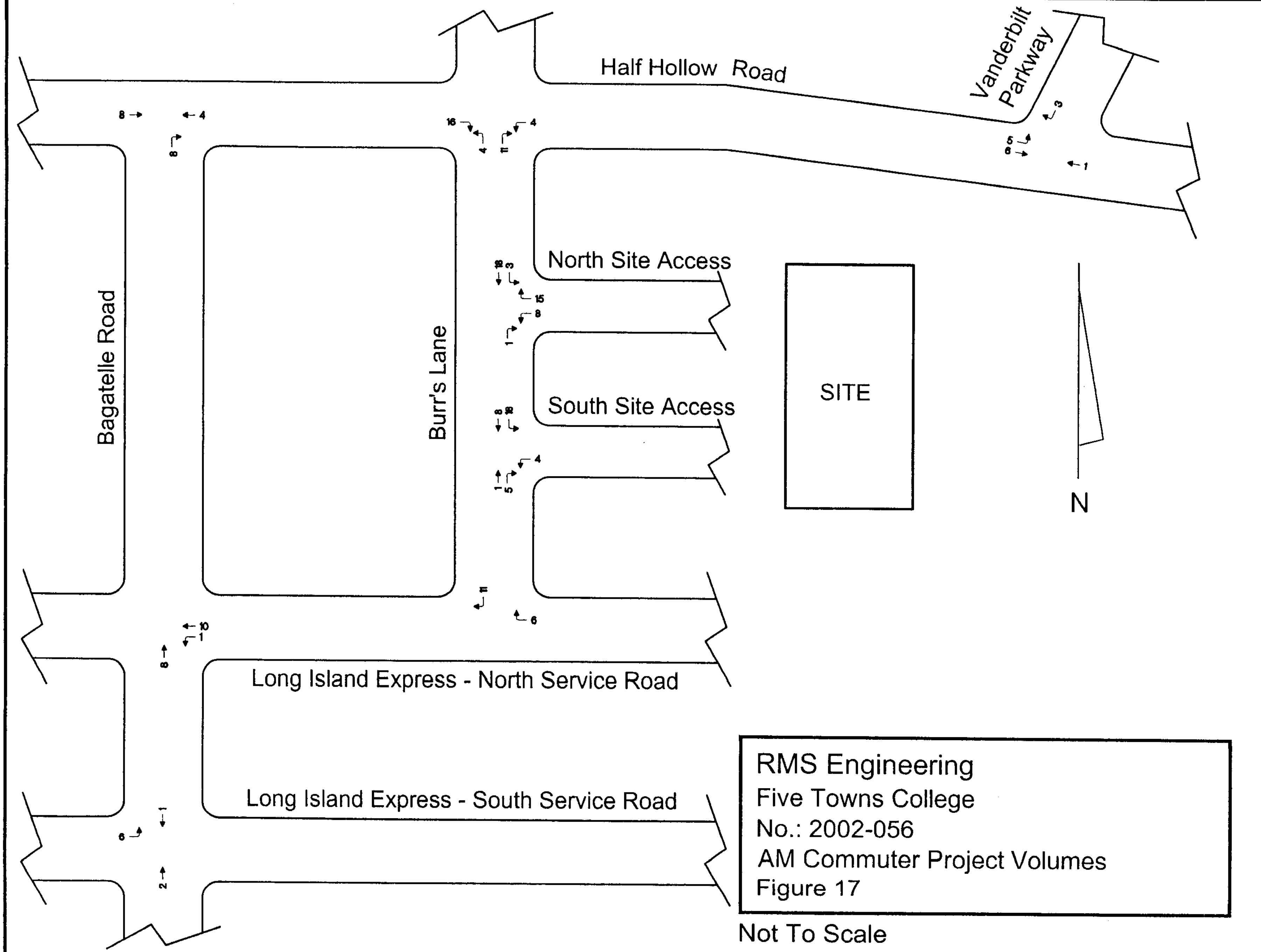

RMS Engineering
Five Towns College
No.: 2002-056
AM Commuter Project Volumes
Figure 17

Not To Scale

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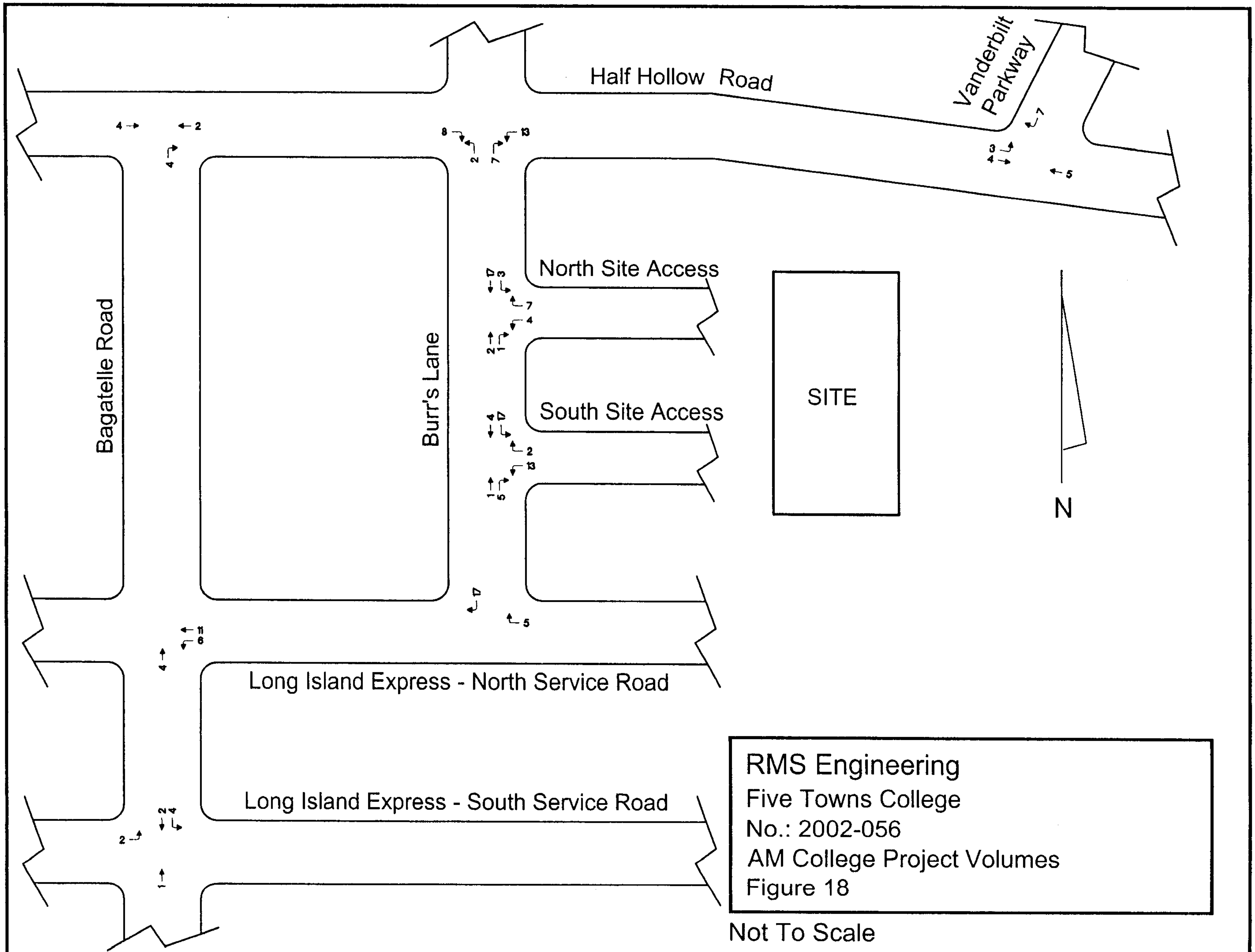

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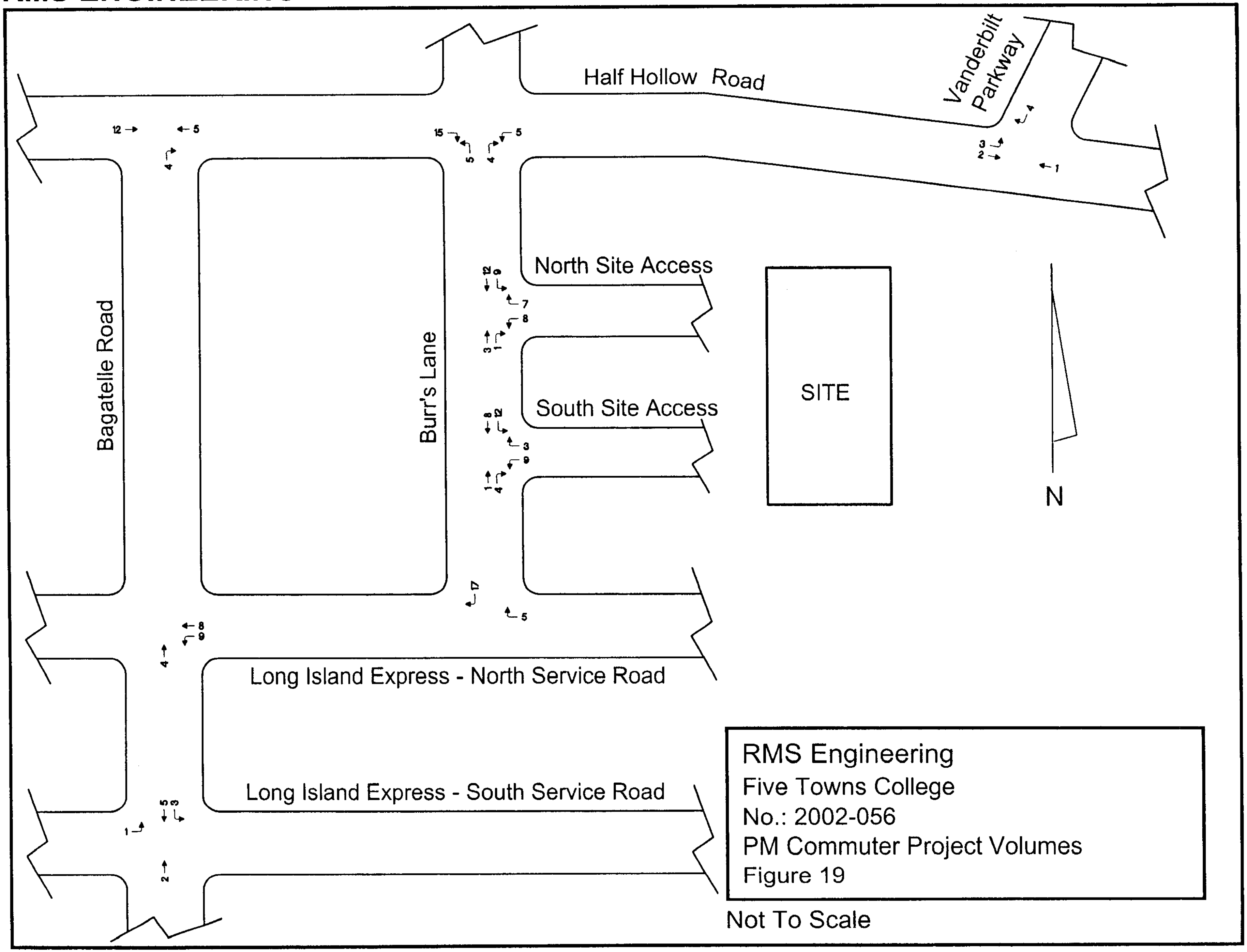
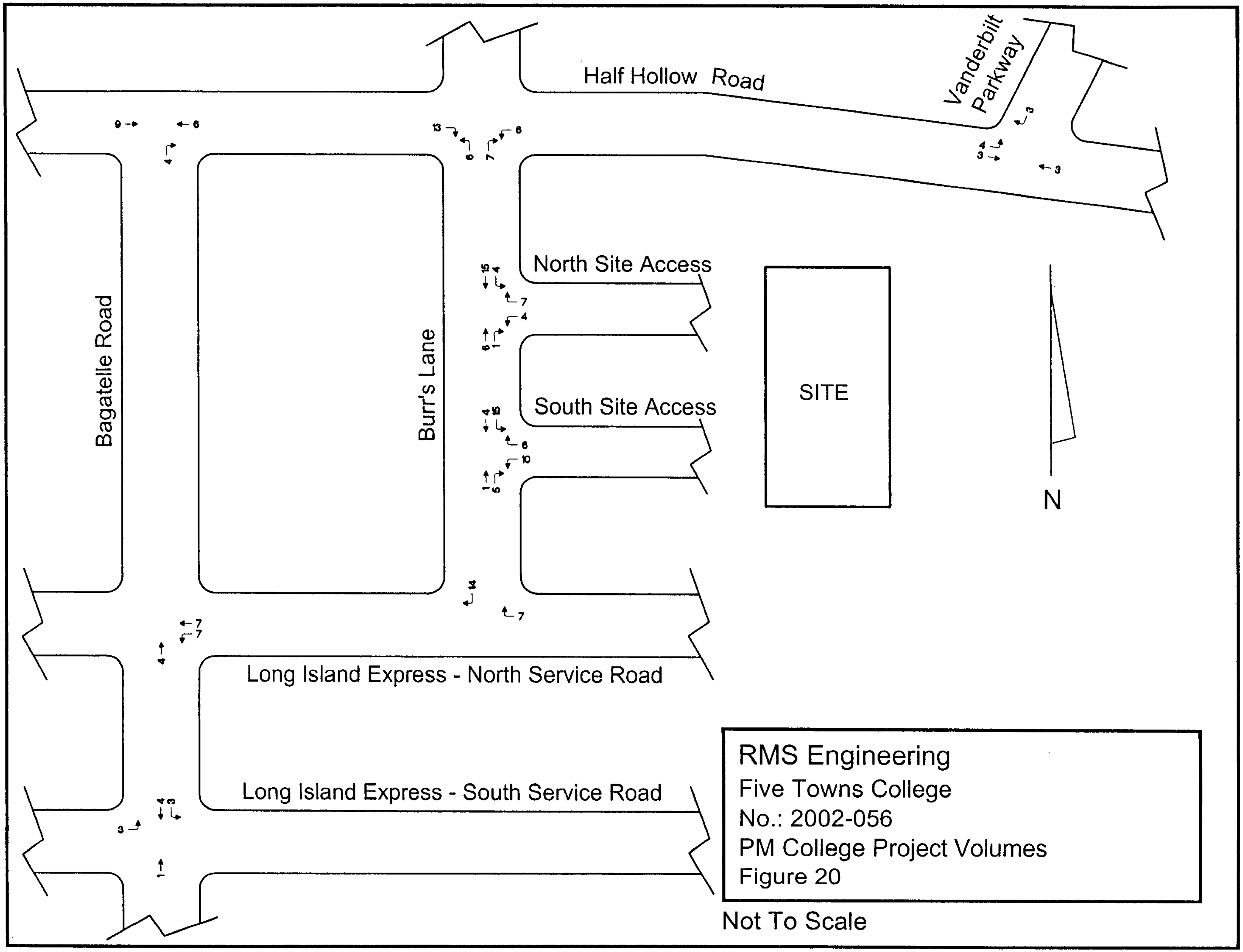


RMS Engineering
Five Towns College
No.: 2002-056
PM Commuter Project Volumes
Figure 19

Not To Scale

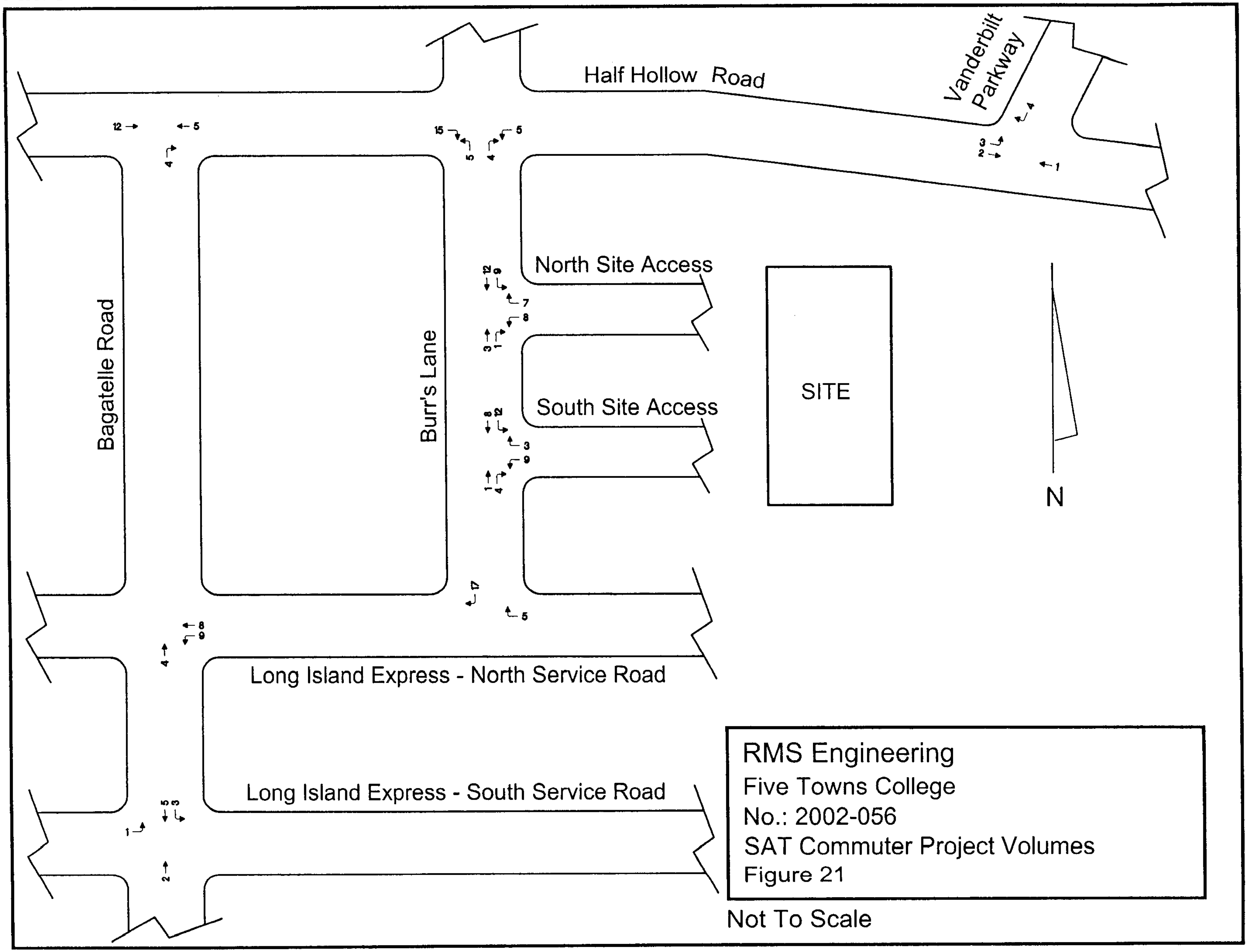
RMS ENGINEERING



RMS Engineering
Five Towns College
No.: 2002-056
PM College Project Volumes
Figure 20

Not To Scale

RMS ENGINEERING



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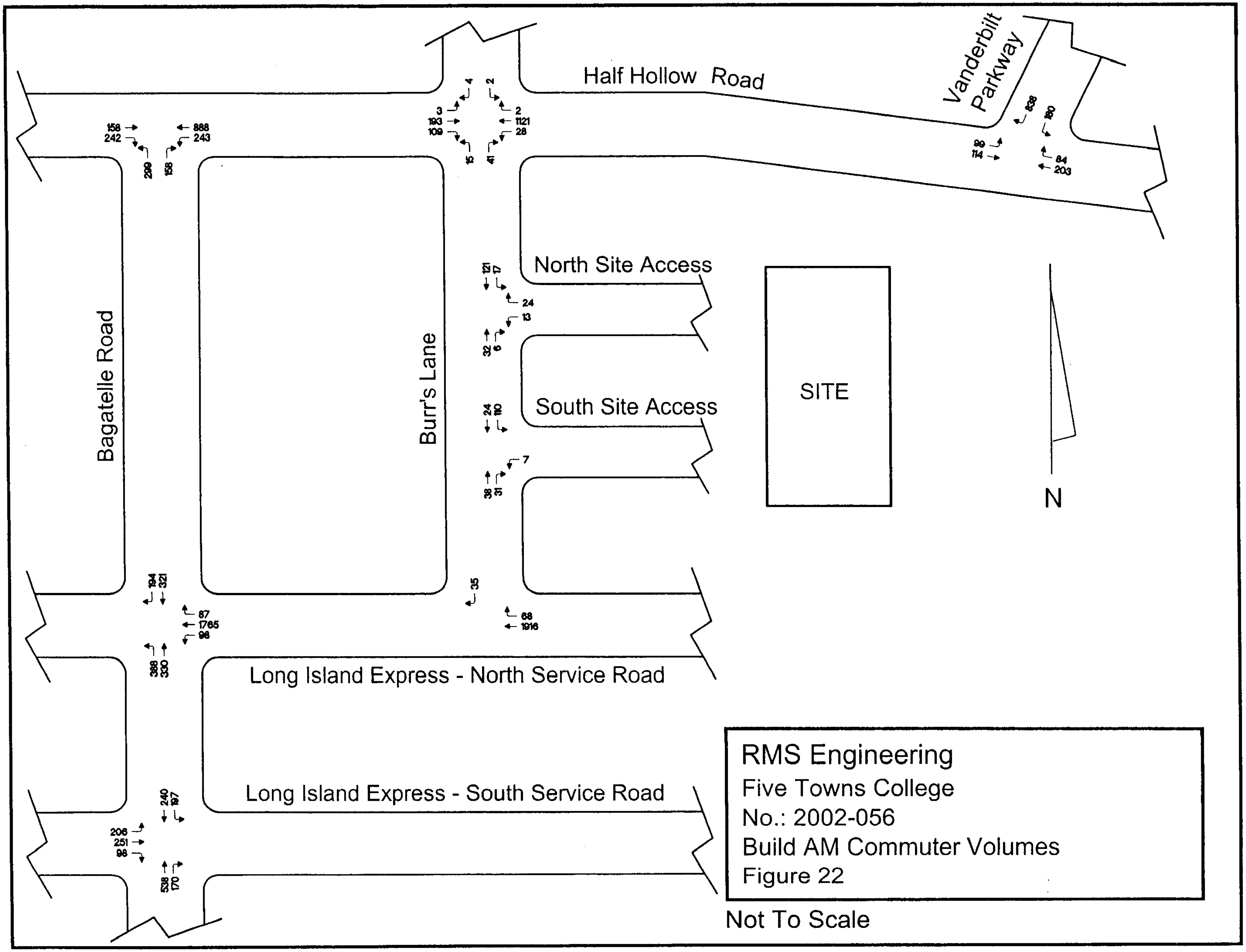
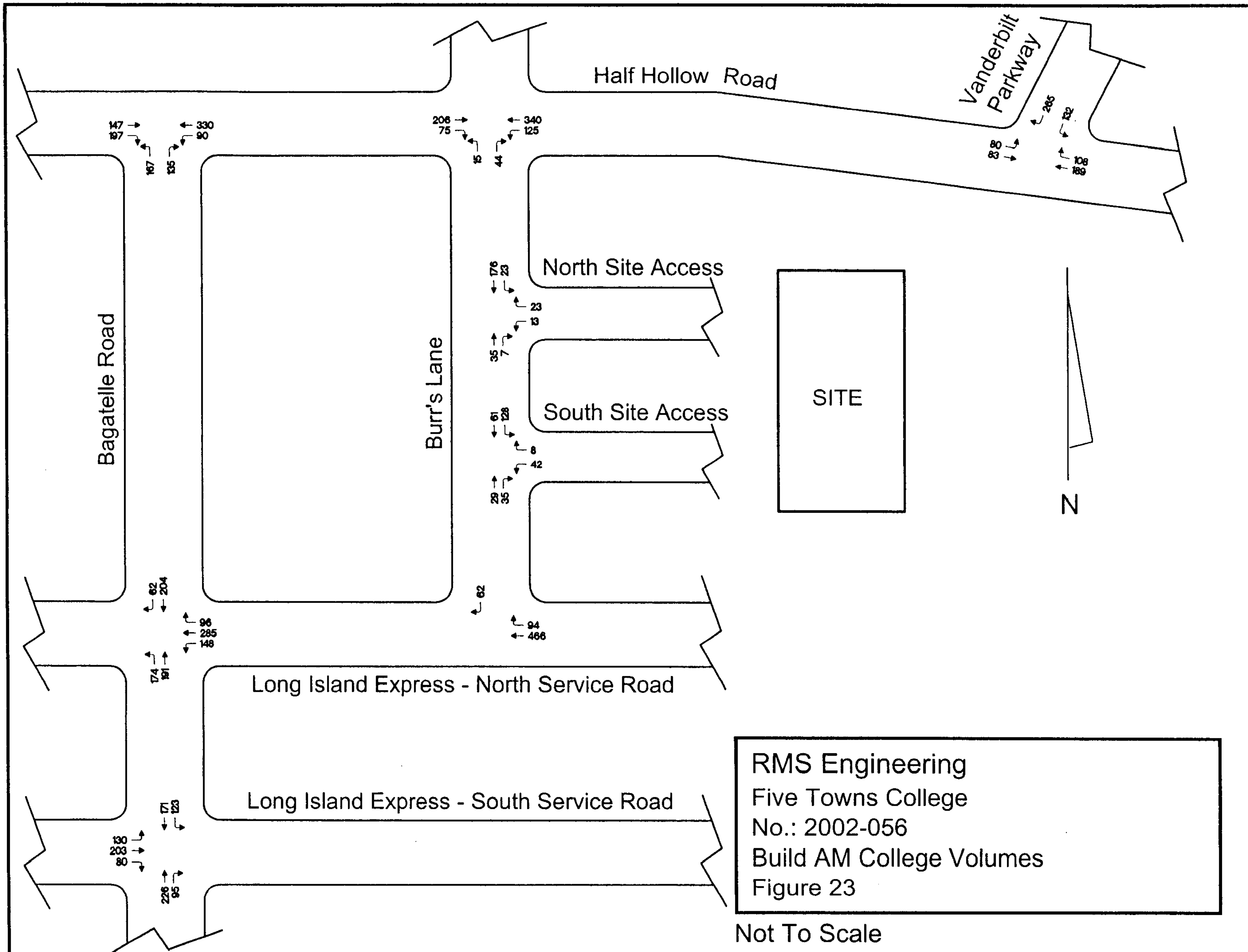


RMS Engineering
Five Towns College
No.: 2002-056
Build AM Commuter Volumes
Figure 22

Not To Scale

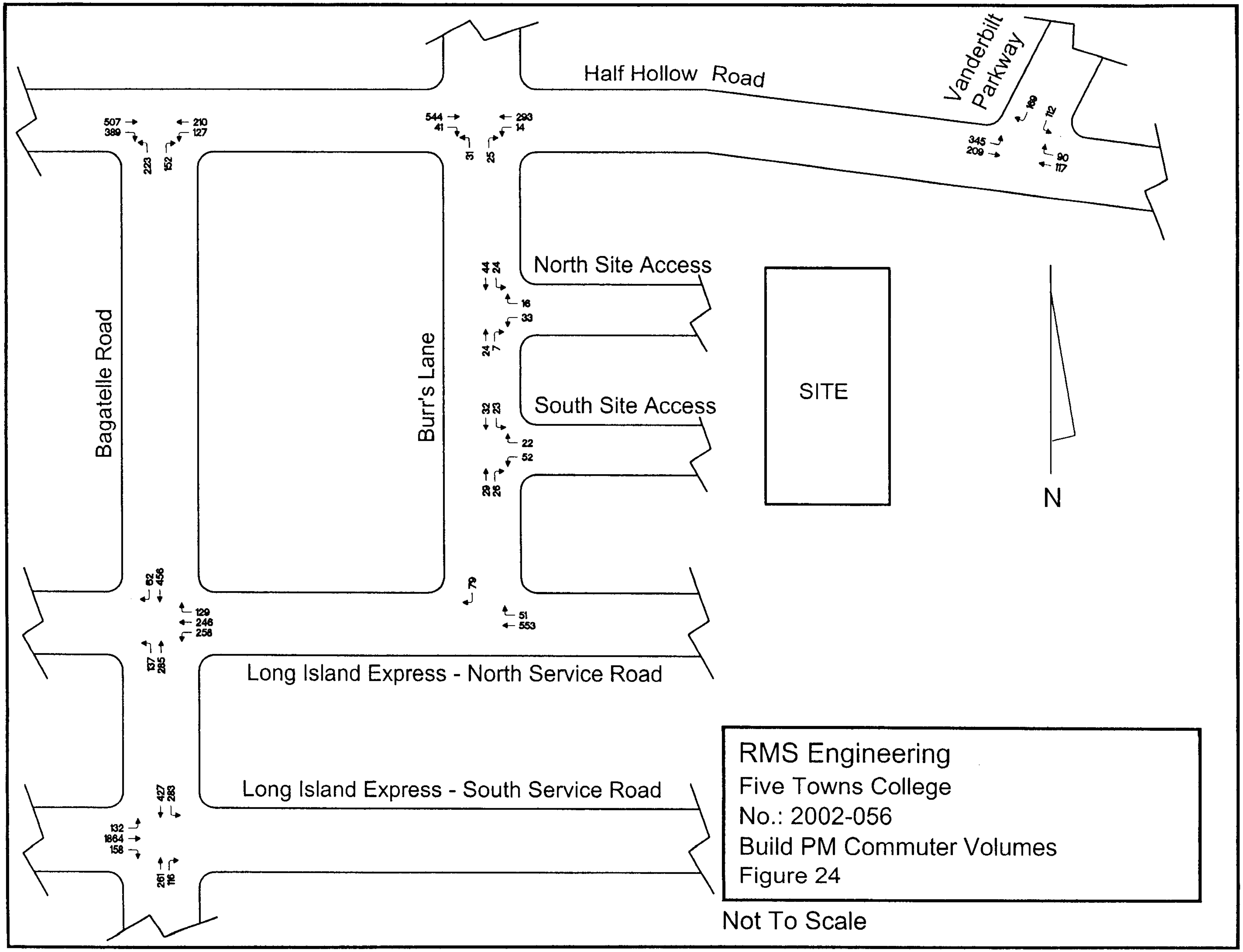
RMS ENGINEERING



RMS Engineering
Five Towns College
No.: 2002-056
Build AM College Volumes
Figure 23

Not To Scale

RMS ENGINEERING



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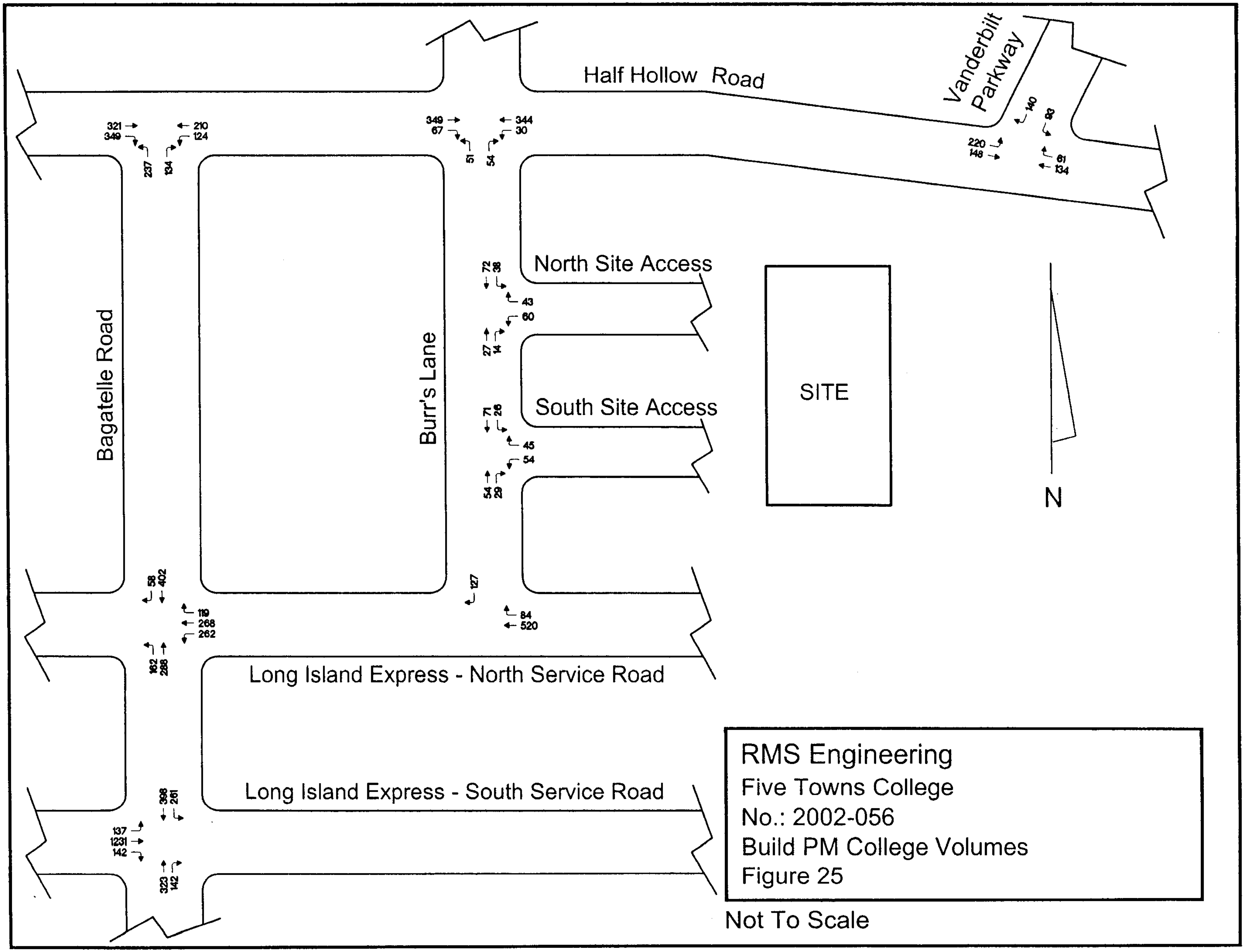
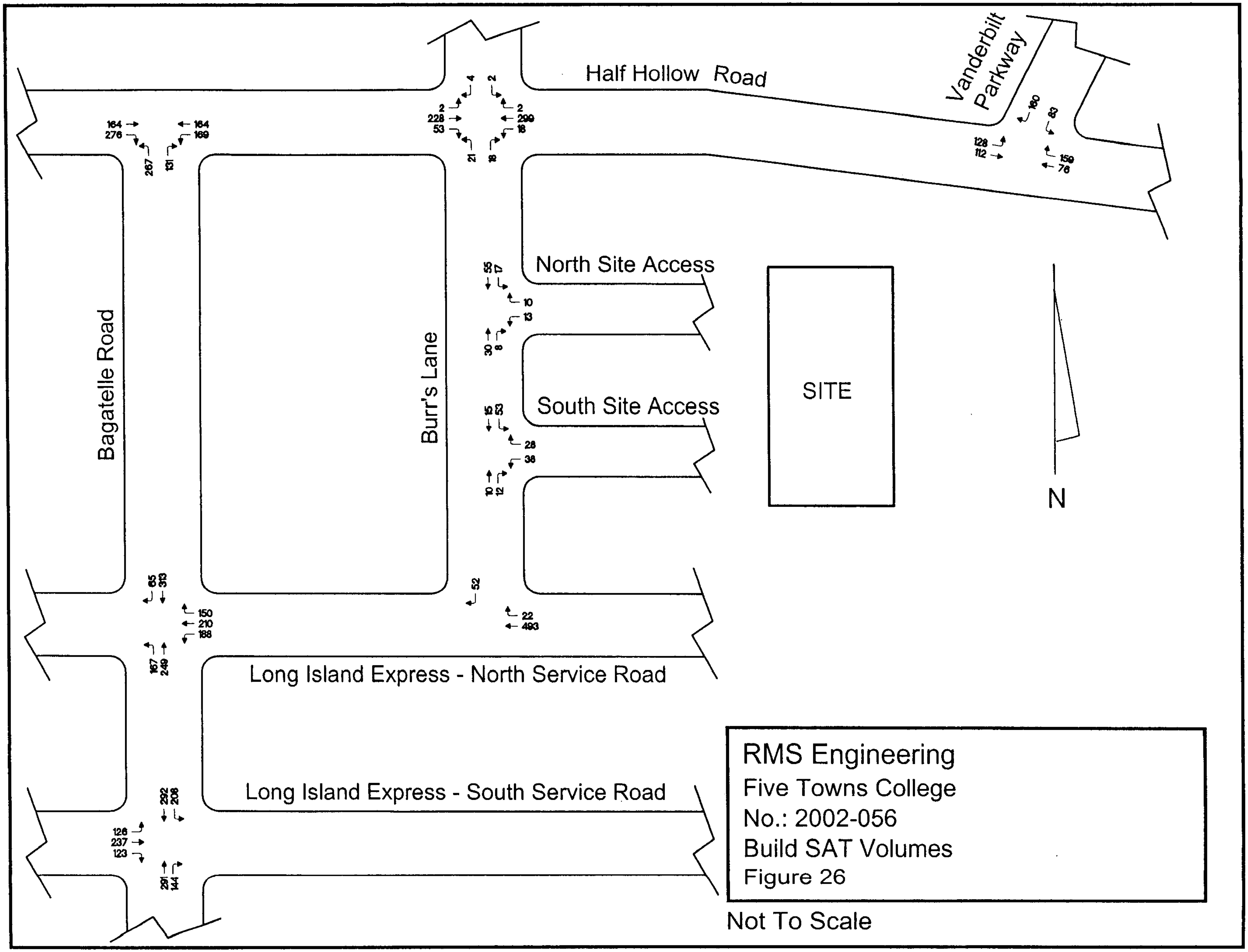


RMS Engineering
Five Towns College
No.: 2002-056
Build PM College Volumes
Figure 25

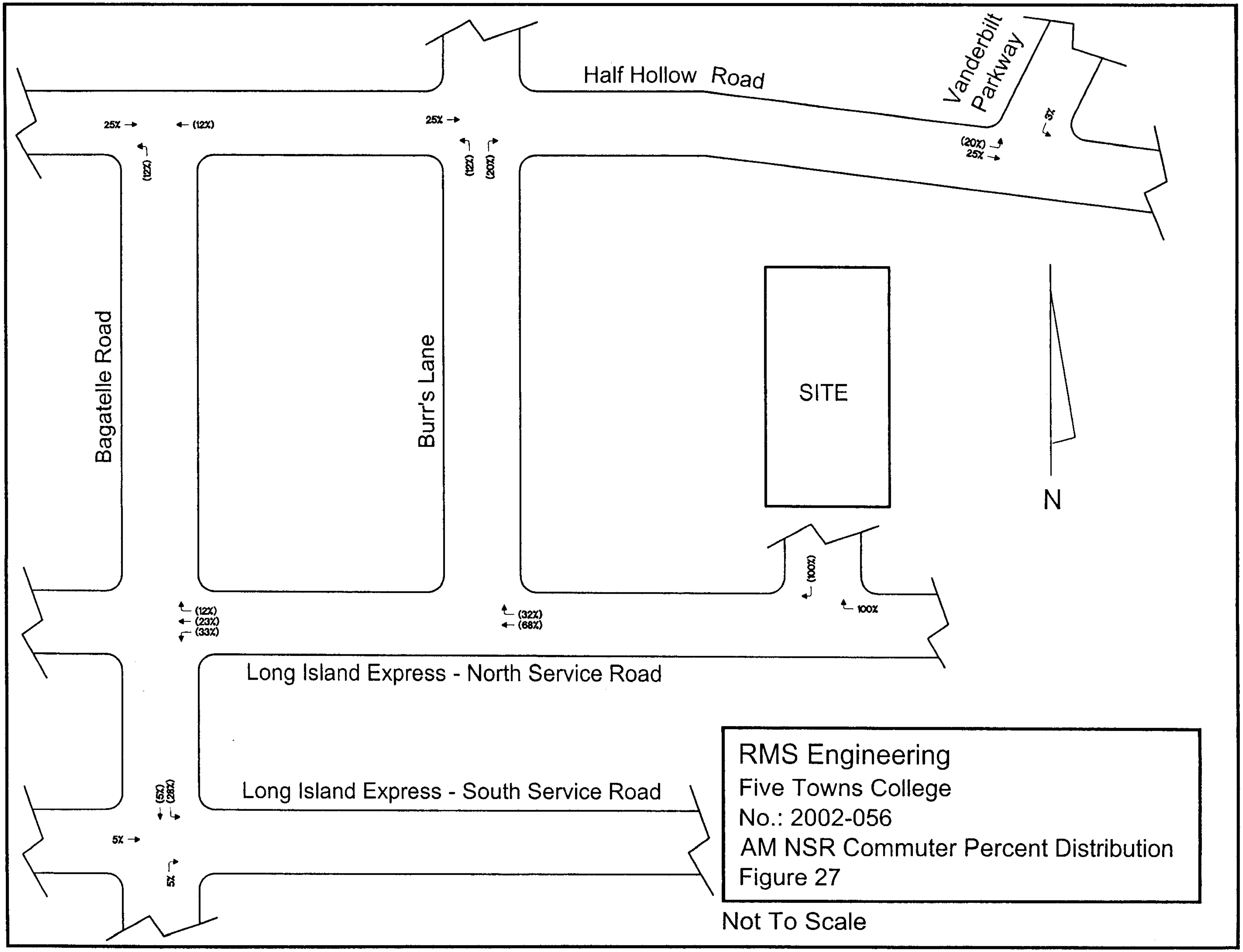
Not To Scale



RMS Engineering
Five Towns College
No.: 2002-056
Build SAT Volumes
Figure 26

Not To Scale

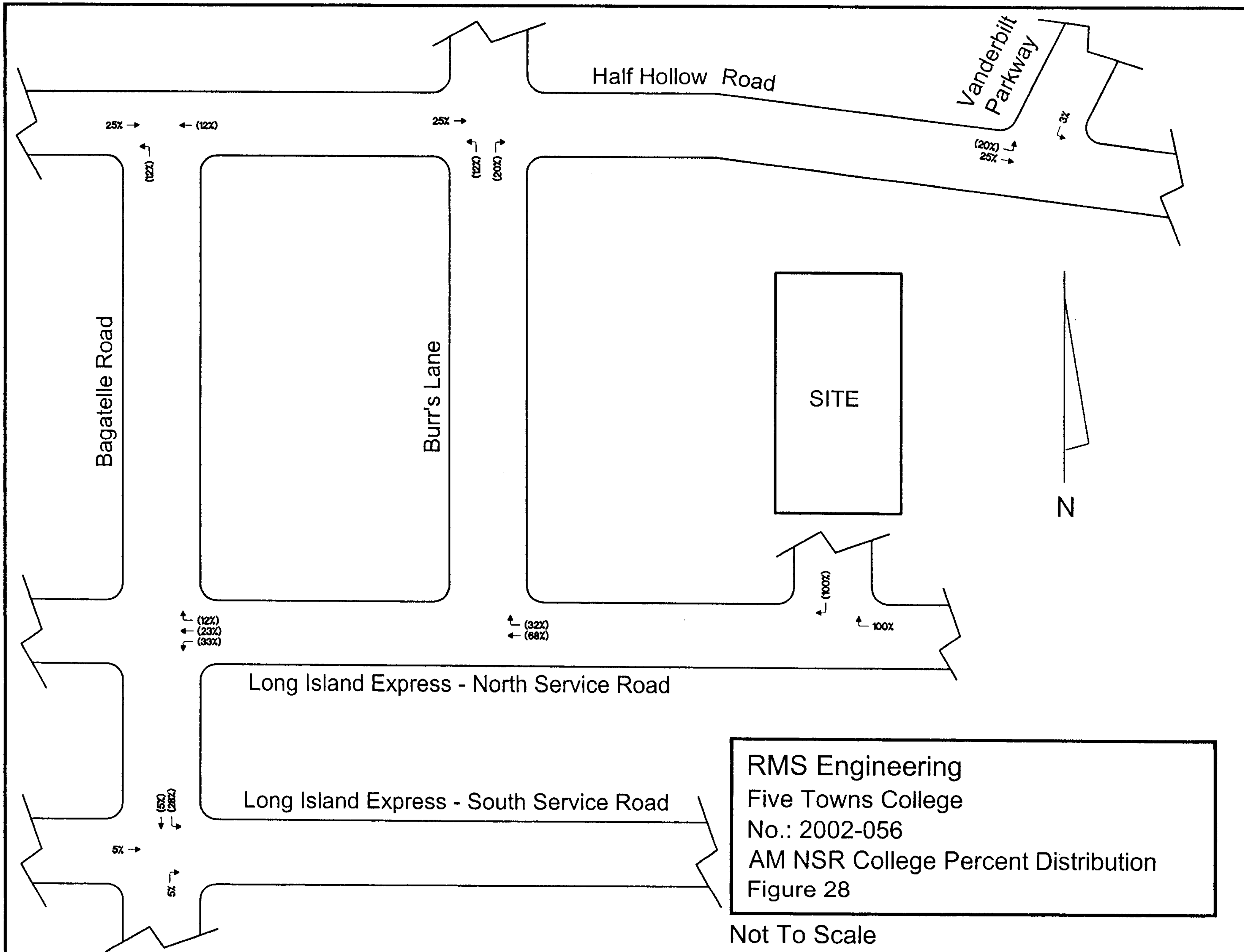
RMS ENGINEERING



RMS Engineering
Five Towns College
No.: 2002-056
AM NSR Commuter Percent Distribution
Figure 27

Not To Scale

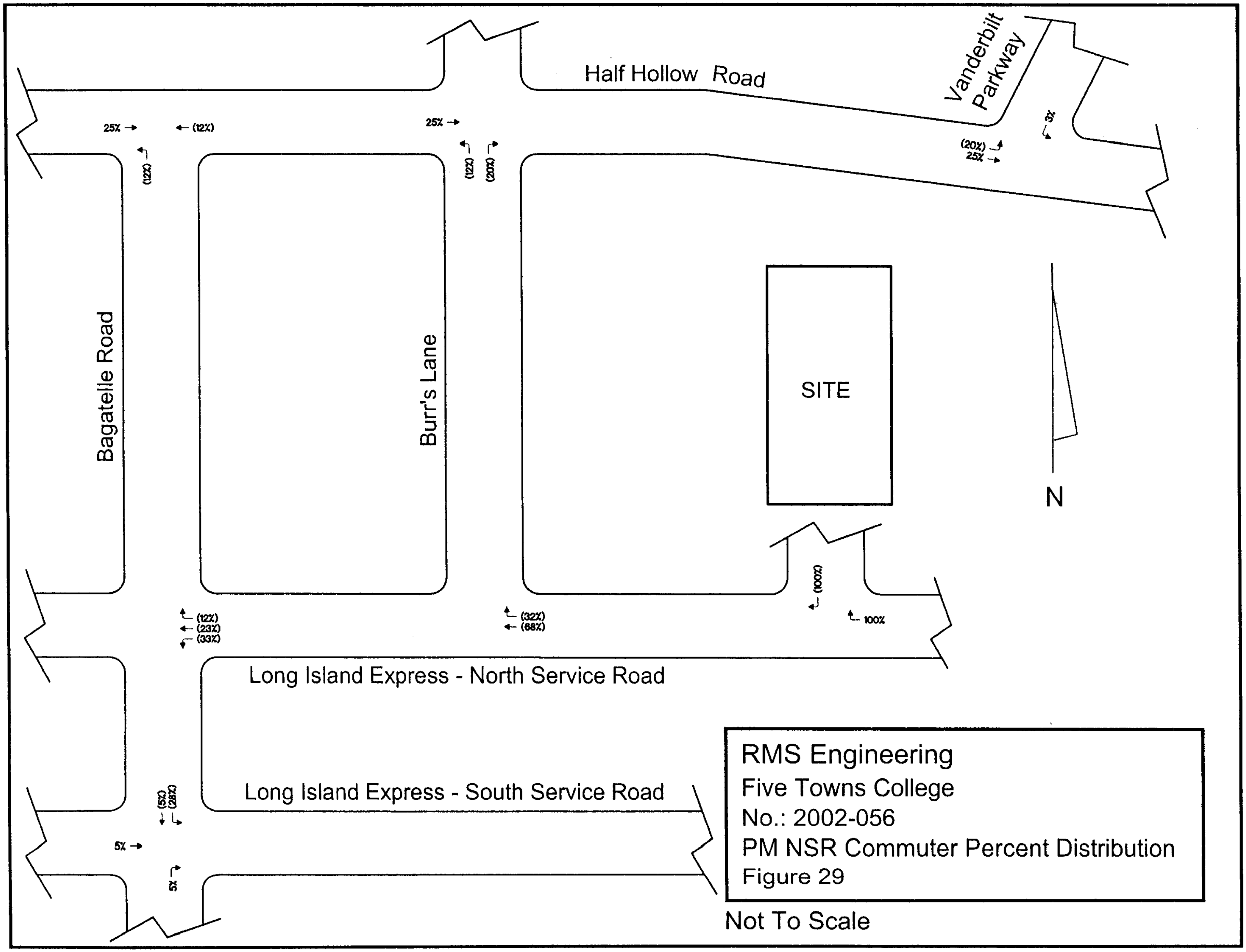
RMS ENGINEERING



RMS Engineering
Five Towns College
No.: 2002-056
AM NSR College Percent Distribution
Figure 28

Not To Scale

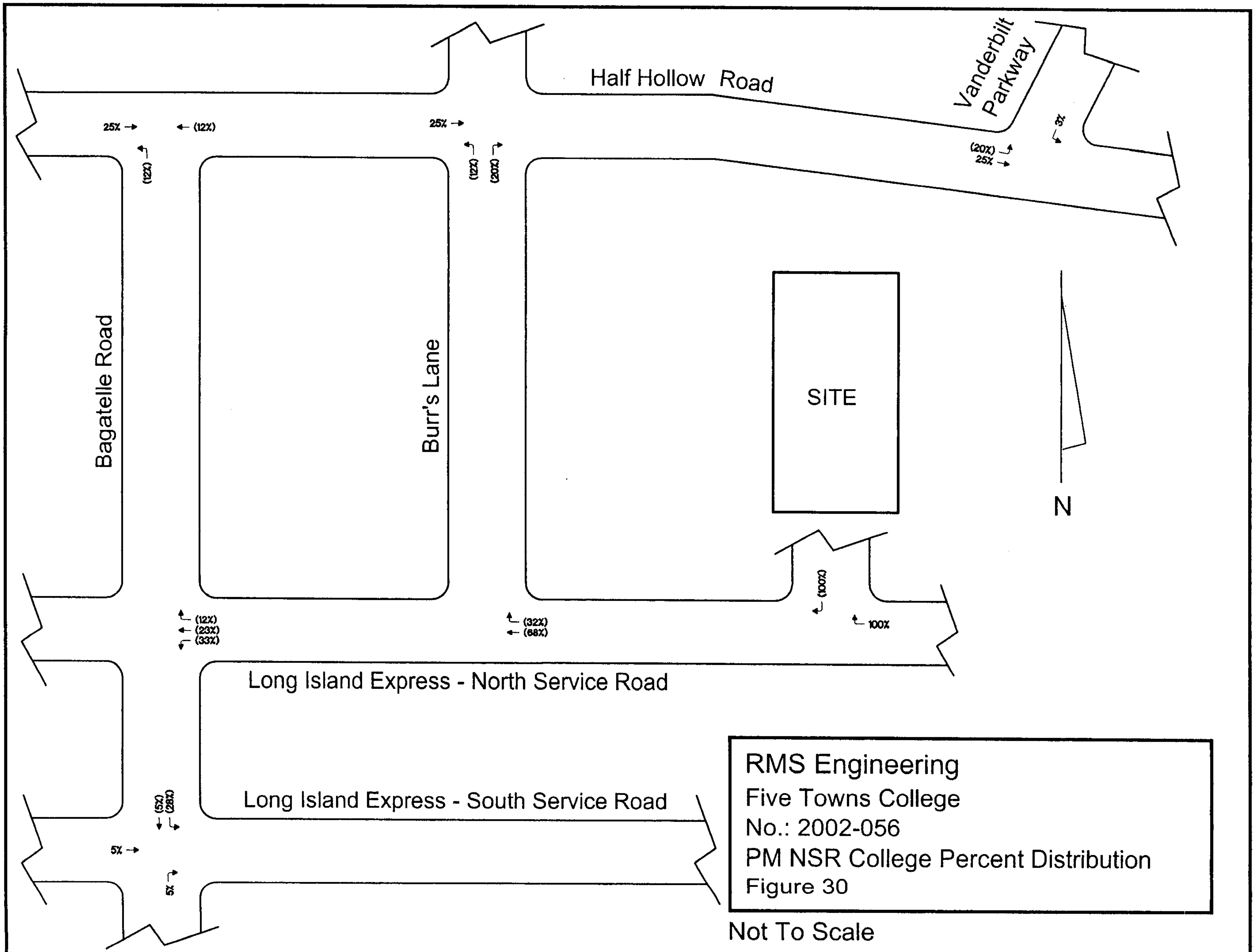
RMS ENGINEERING



RMS Engineering
Five Towns College
No.: 2002-056
PM NSR Commuter Percent Distribution
Figure 29

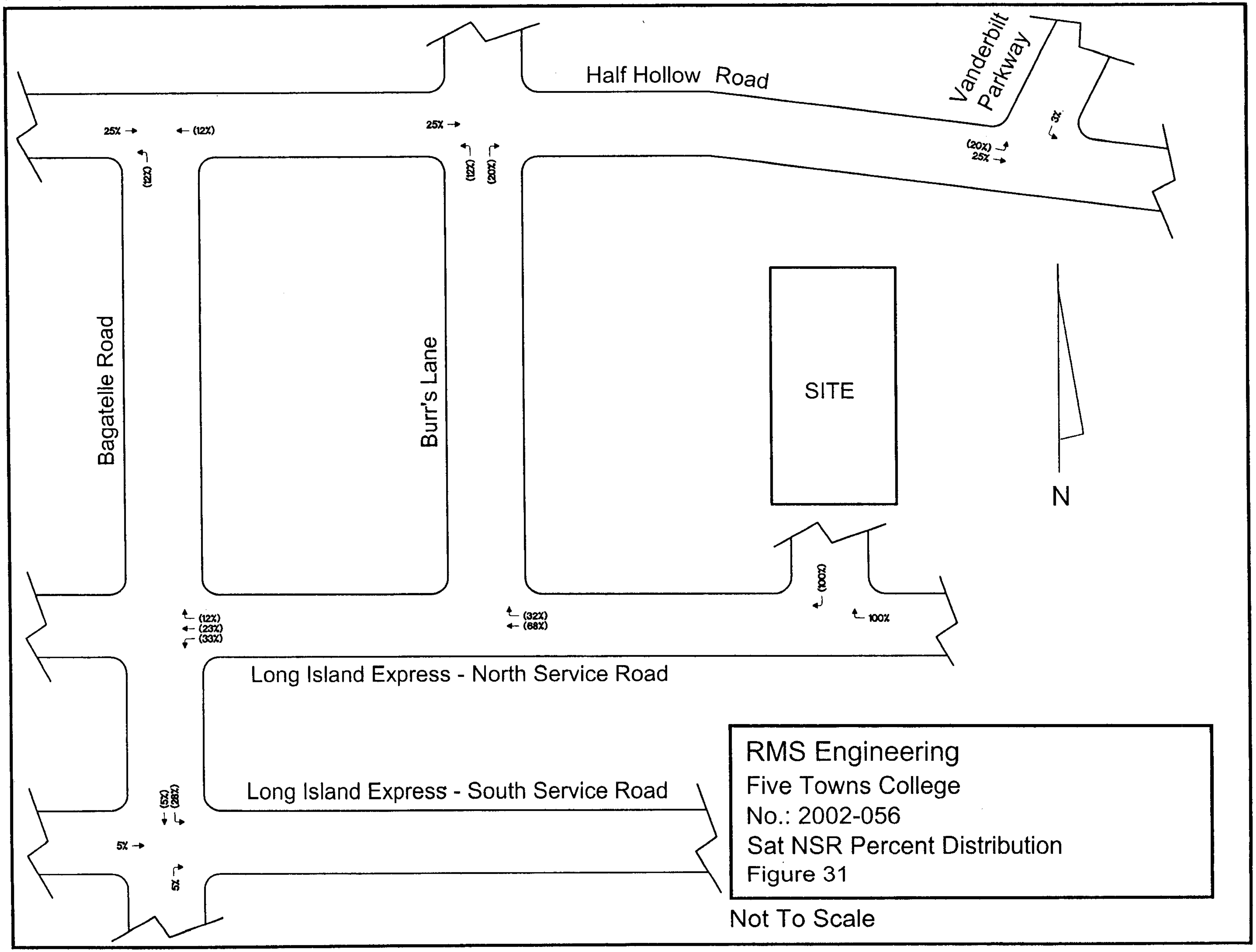
Not To Scale

RMS ENGINEERING



Not To Scale

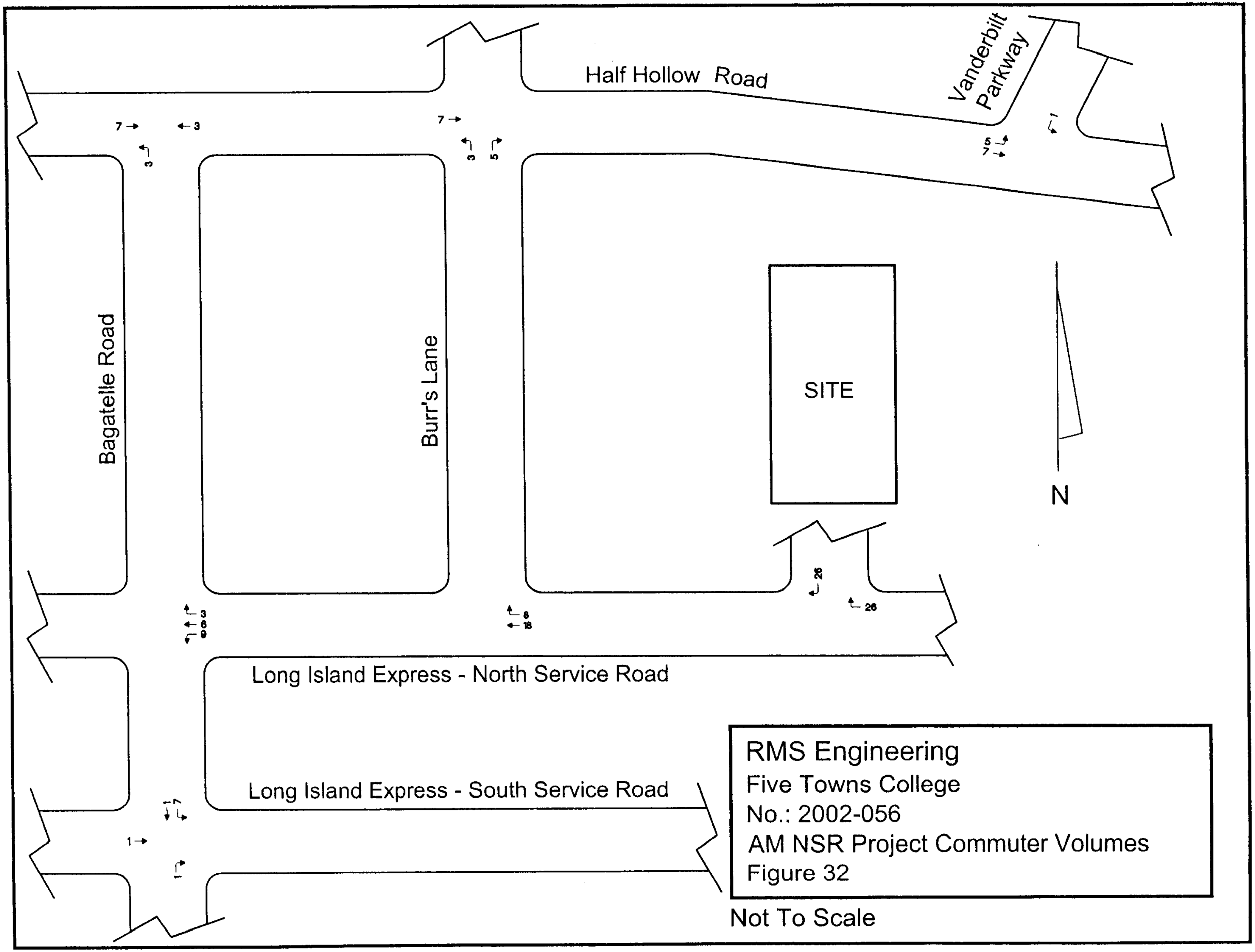
RMS ENGINEERING



RMS Engineering
Five Towns College
No.: 2002-056
Sat NSR Percent Distribution
Figure 31

Not To Scale

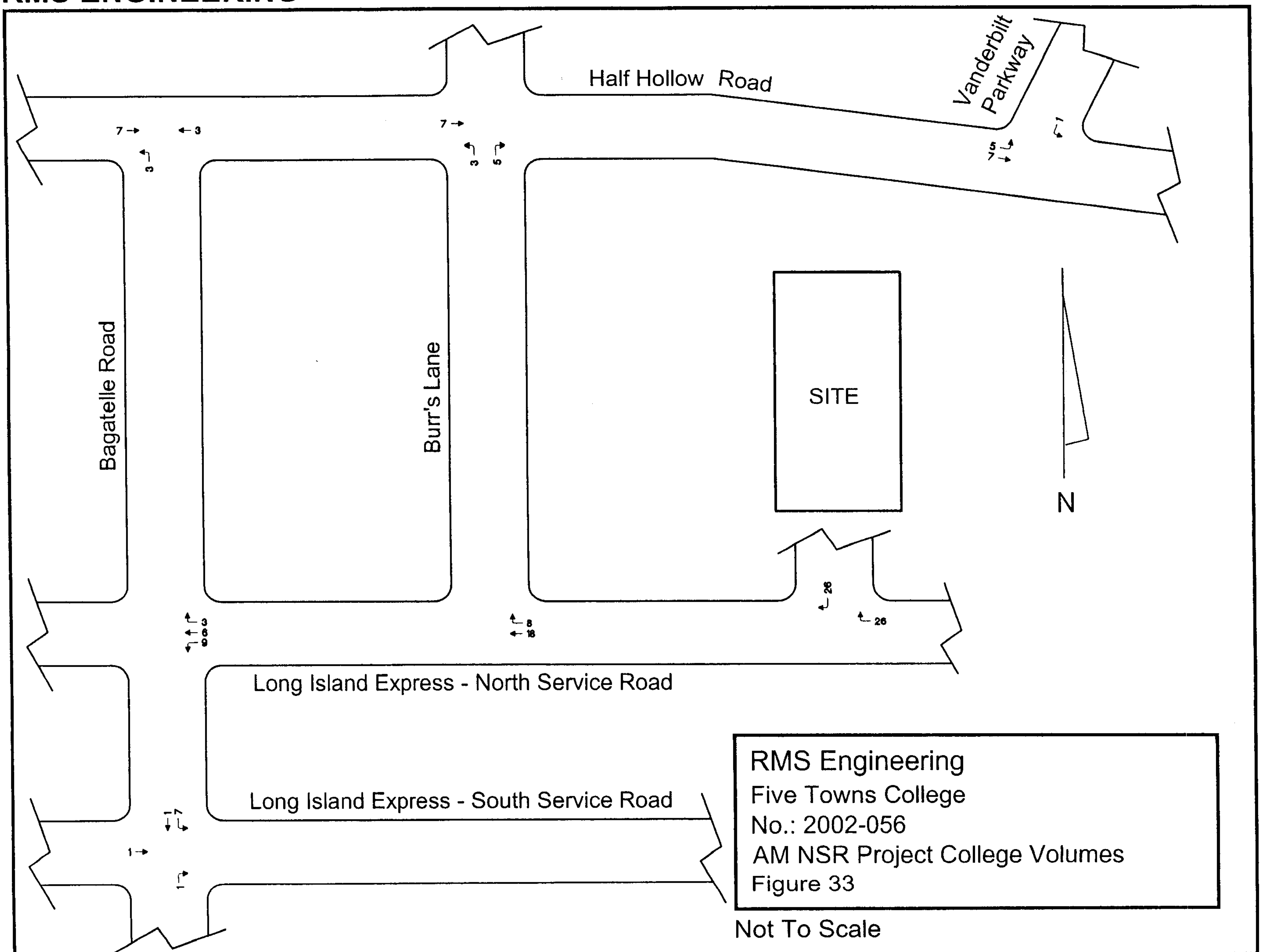
RMS ENGINEERING



RMS Engineering
Five Towns College
No.: 2002-056
AM NSR Project Commuter Volumes
Figure 32

Not To Scale

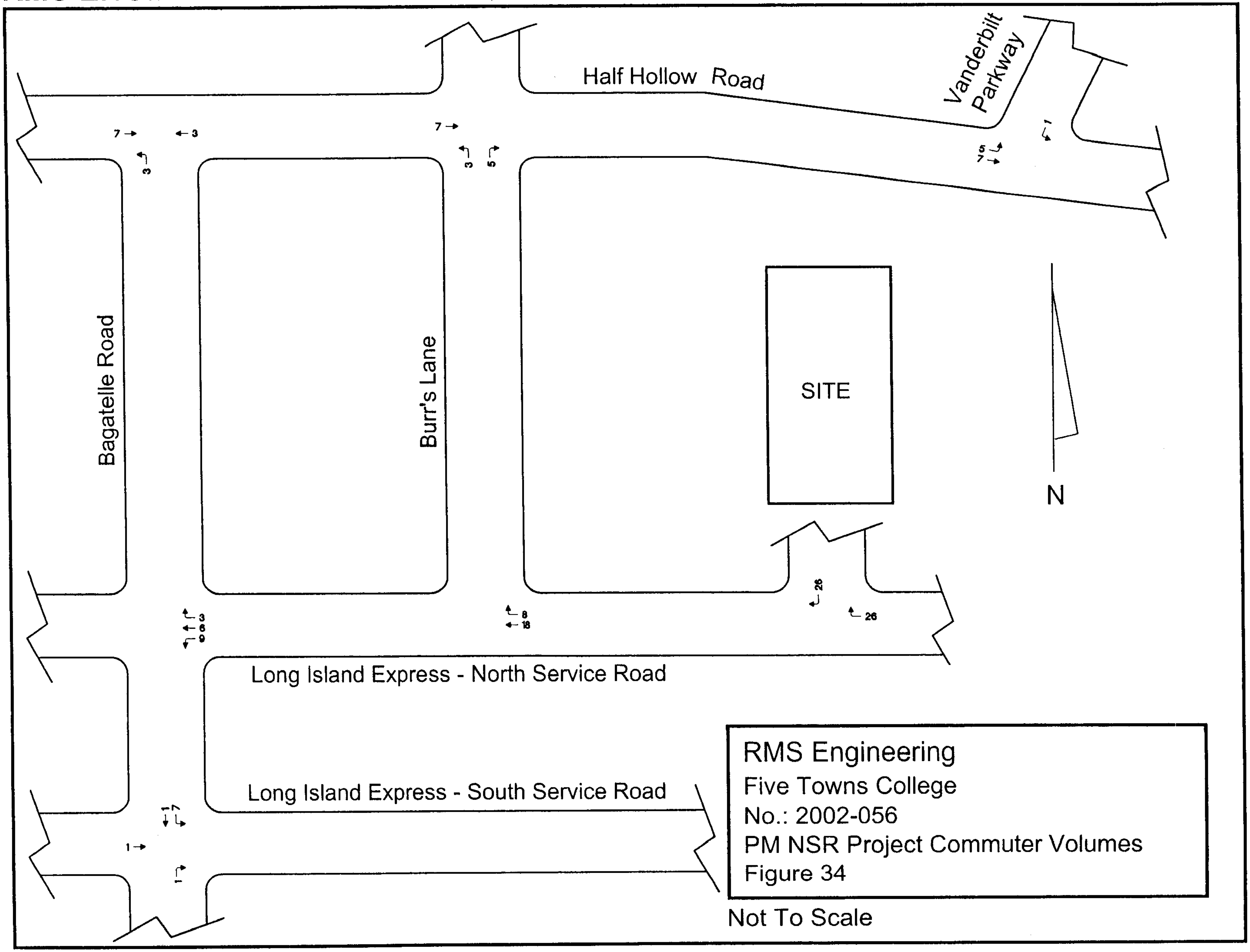
RMS ENGINEERING



RMS Engineering
Five Towns College
No.: 2002-056
AM NSR Project College Volumes
Figure 33

Not To Scale

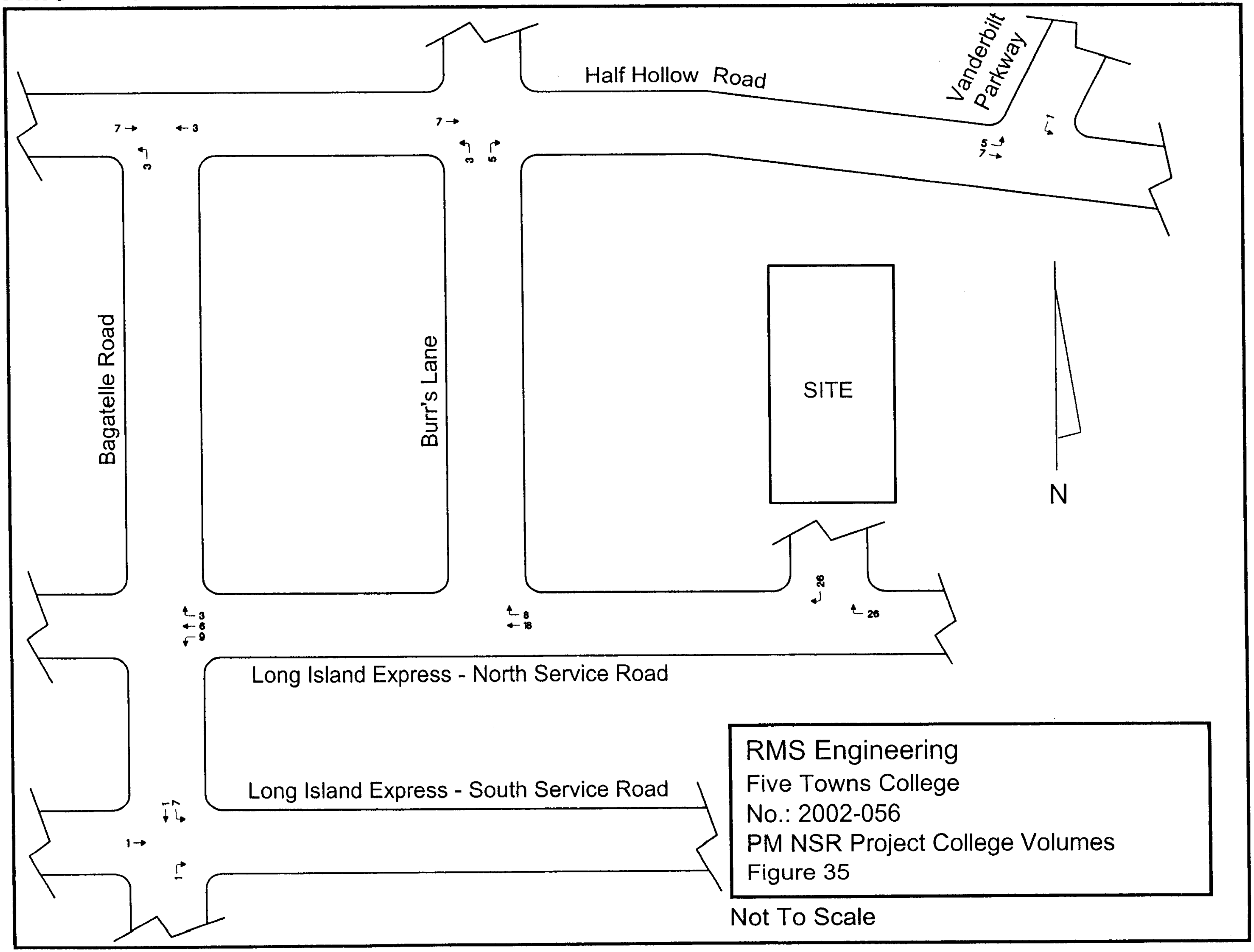
RMS ENGINEERING



RMS Engineering
Five Towns College
No.: 2002-056
PM NSR Project Commuter Volumes
Figure 34

Not To Scale

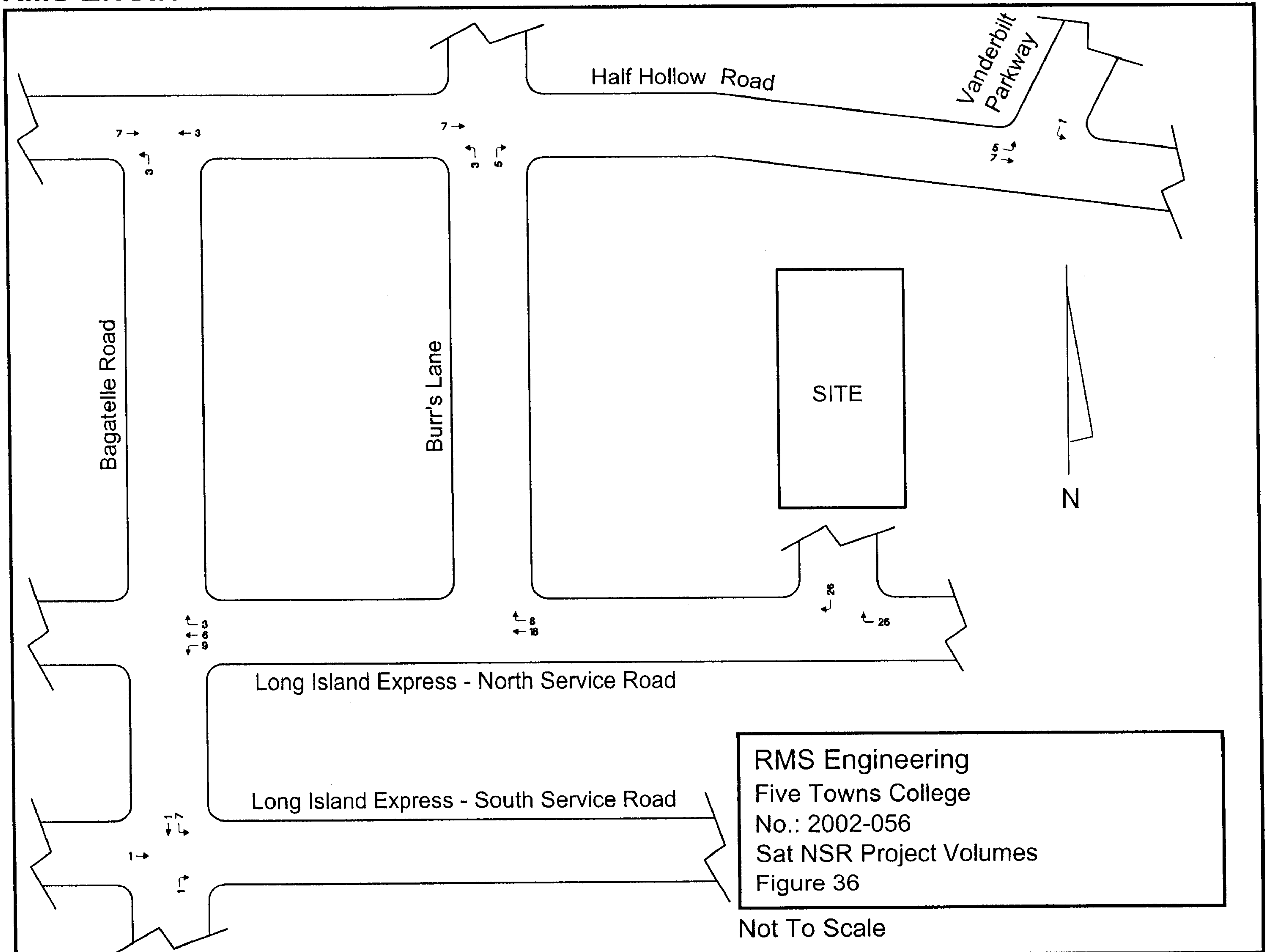
RMS ENGINEERING



RMS Engineering
Five Towns College
No.: 2002-056
PM NSR Project College Volumes
Figure 35

Not To Scale

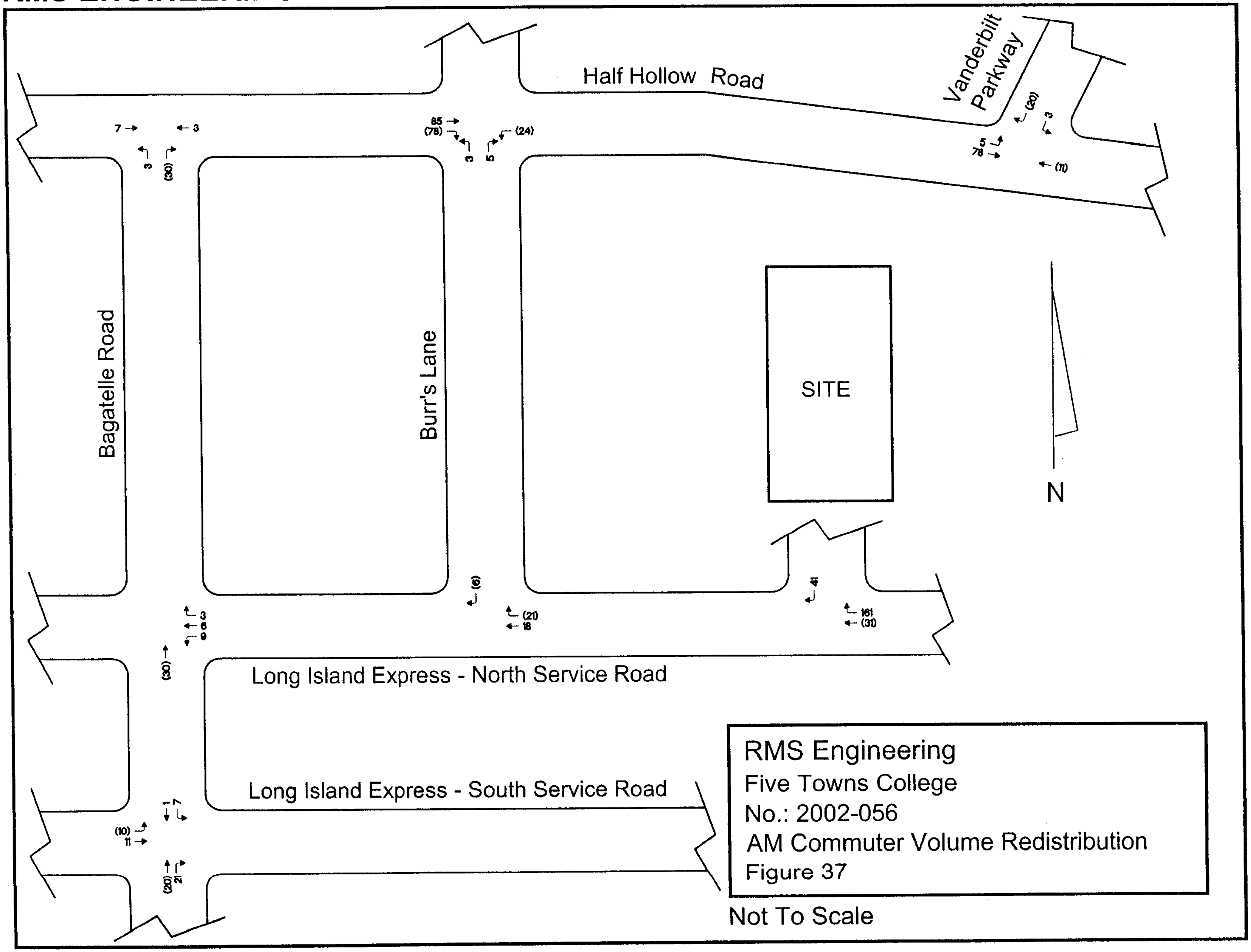
RMS ENGINEERING



RMS Engineering
Five Towns College
No.: 2002-056
Sat NSR Project Volumes
Figure 36

Not To Scale

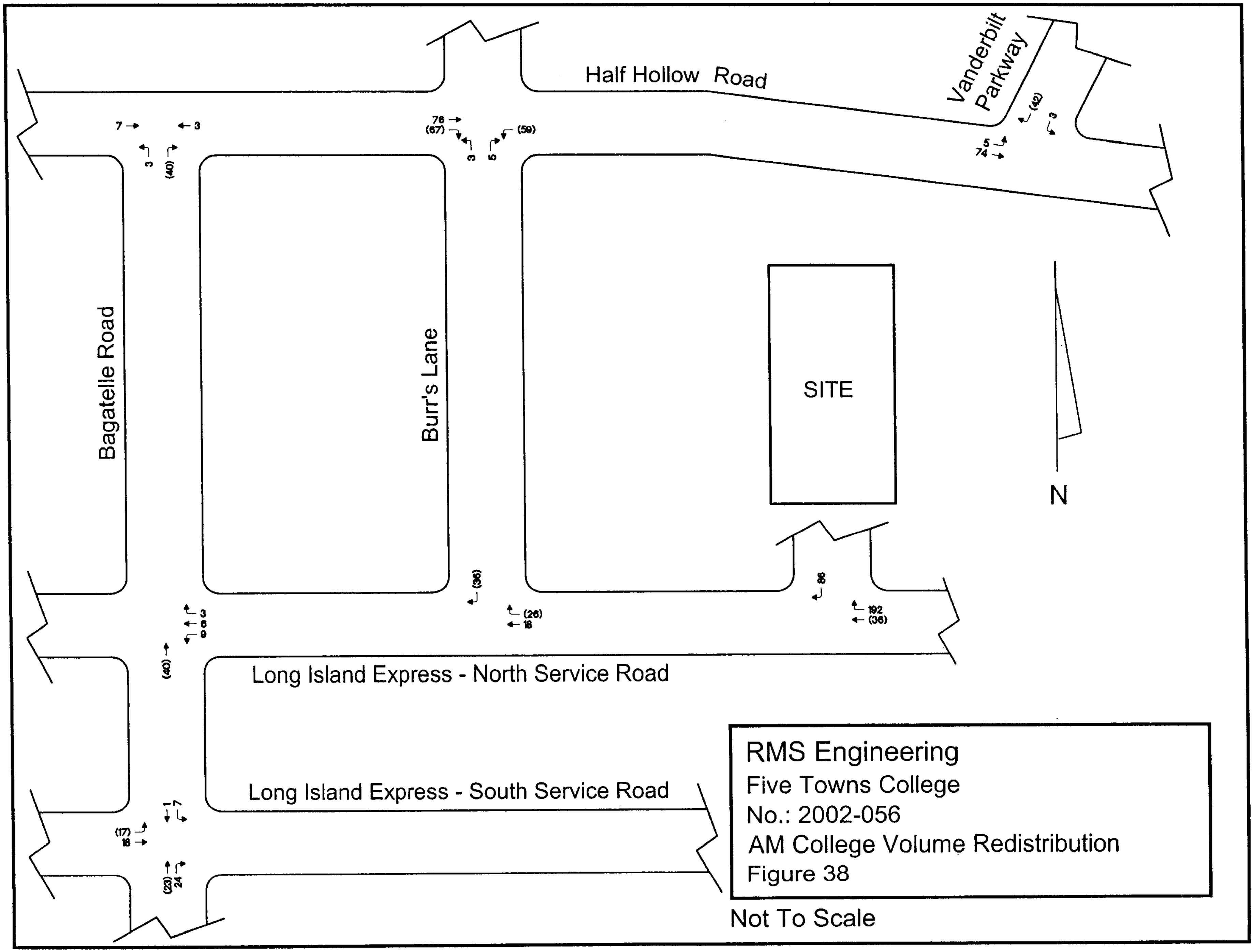
RMS ENGINEERING



RMS Engineering
Five Towns College
No.: 2002-056
AM Commuter Volume Redistribution
Figure 37

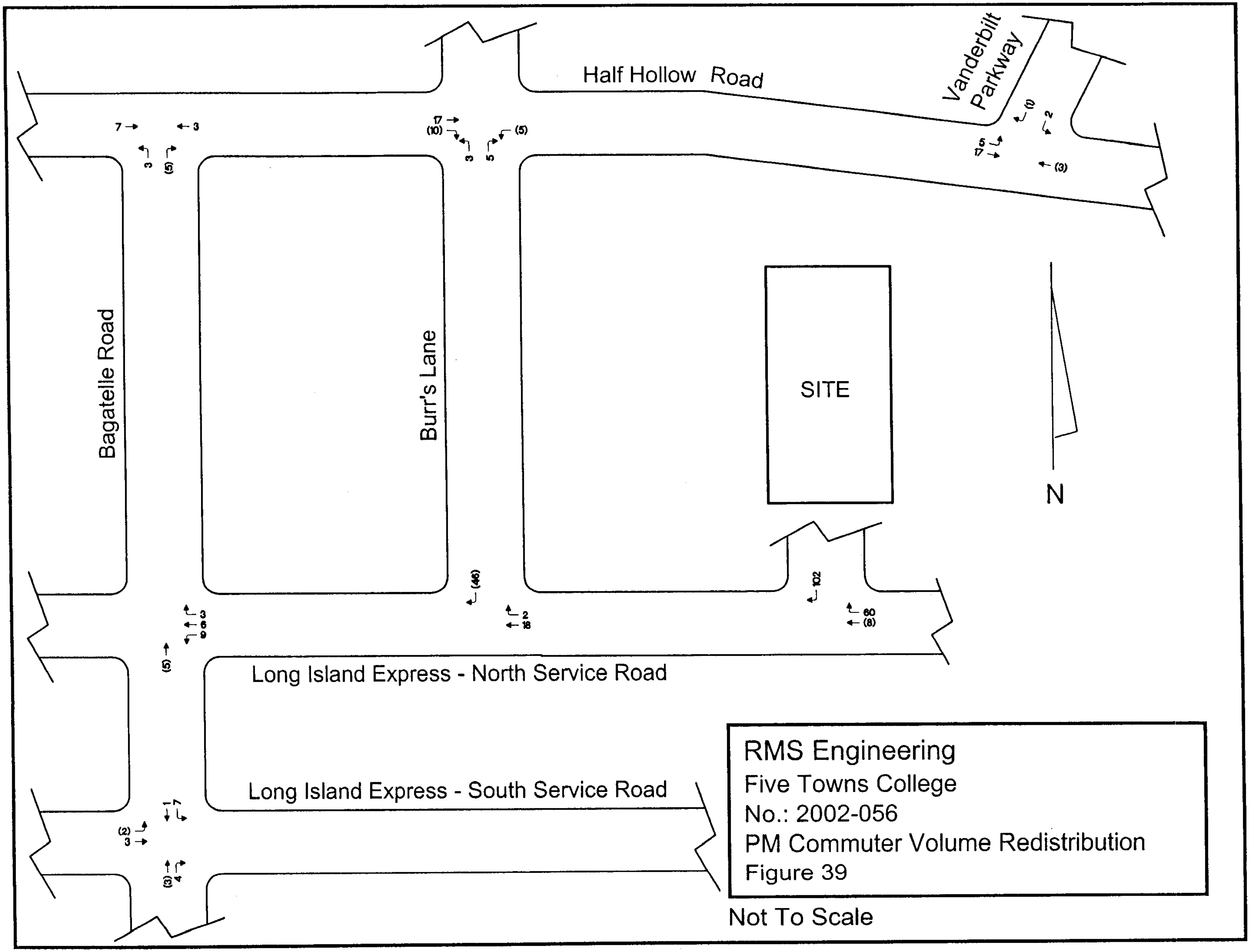
Not To Scale

RMS ENGINEERING



Not To Scale

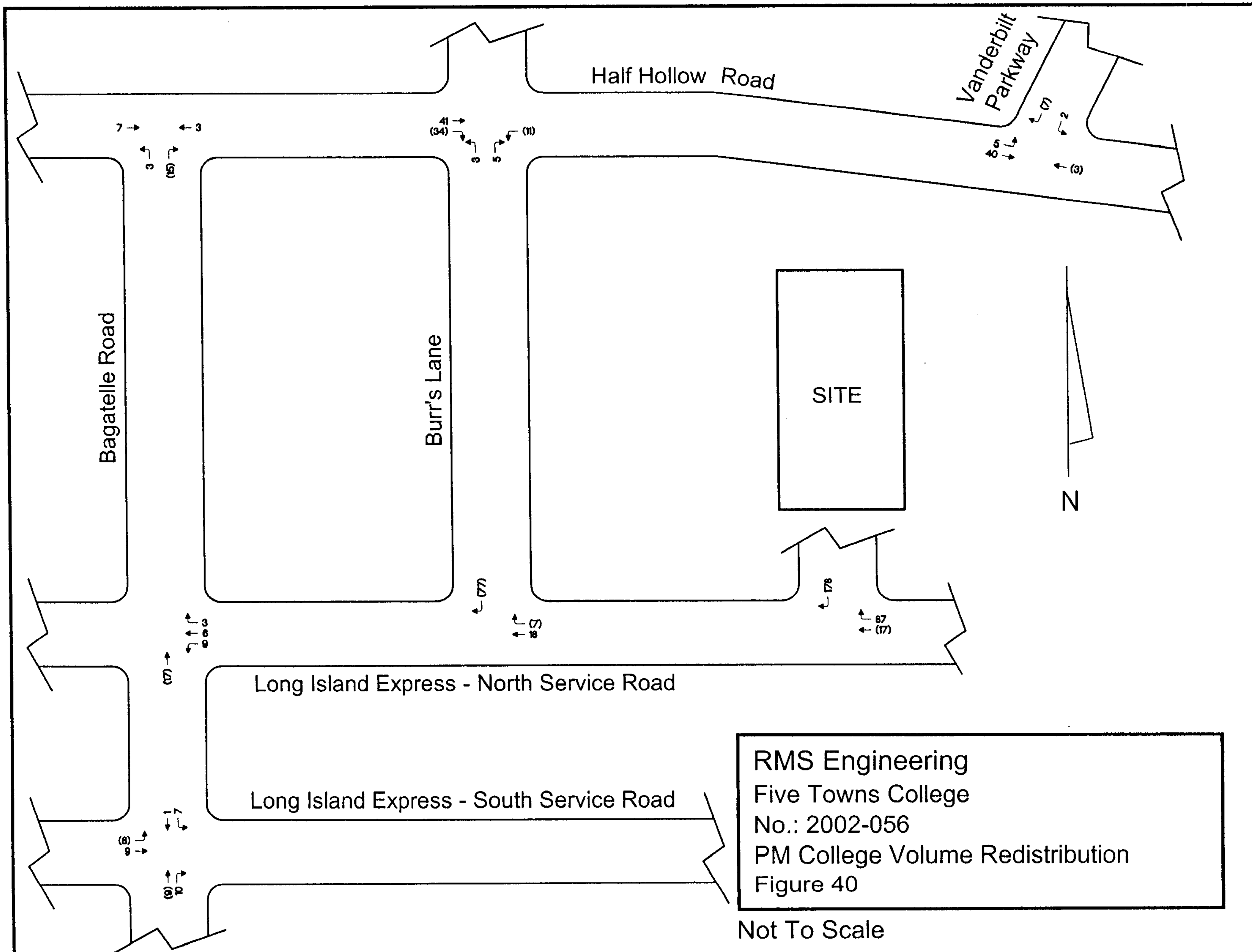
RMS ENGINEERING



RMS Engineering
Five Towns College
No.: 2002-056
PM Commuter Volume Redistribution
Figure 39

Not To Scale

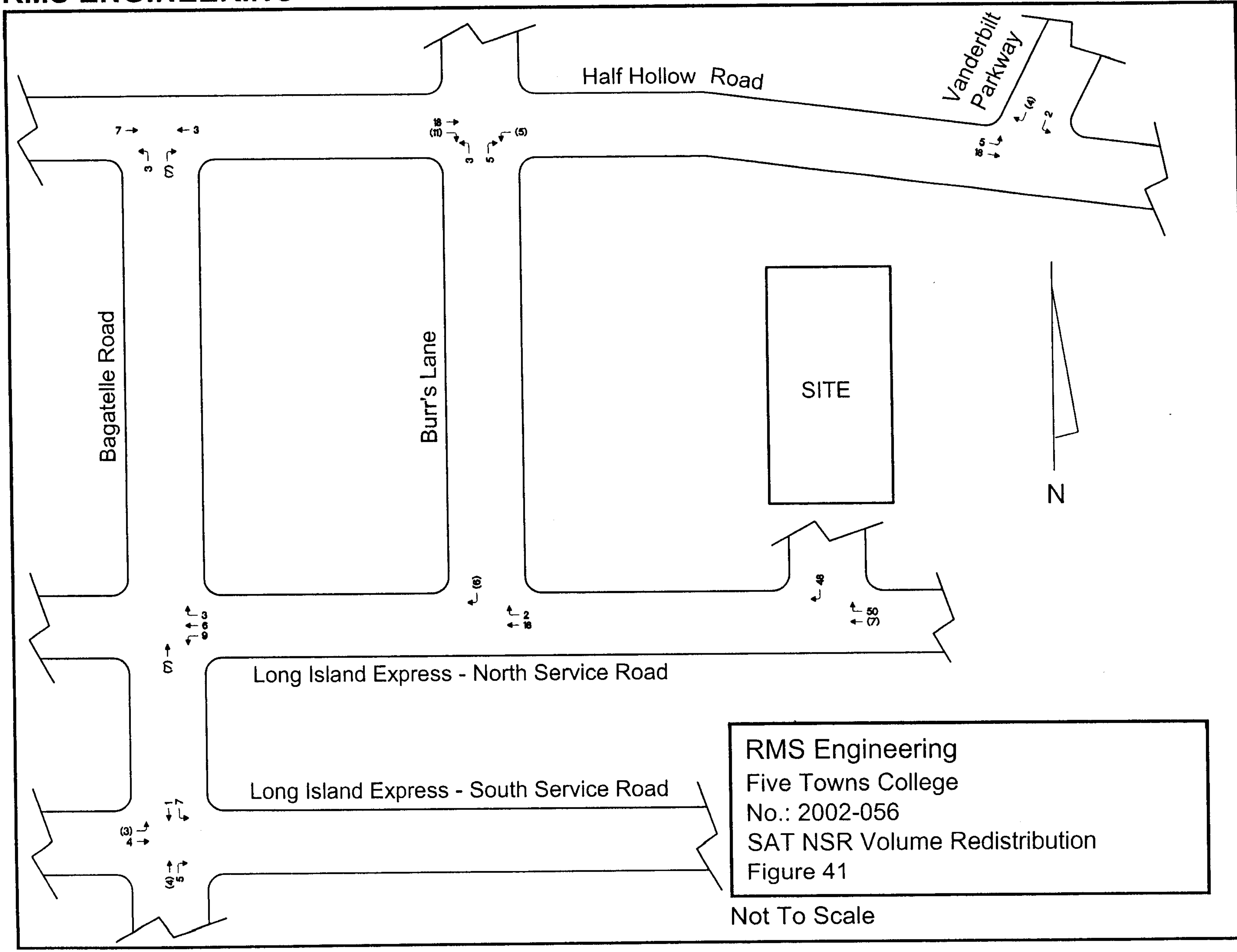
RMS ENGINEERING



RMS Engineering
Five Towns College
No.: 2002-056
PM College Volume Redistribution
Figure 40

Not To Scale

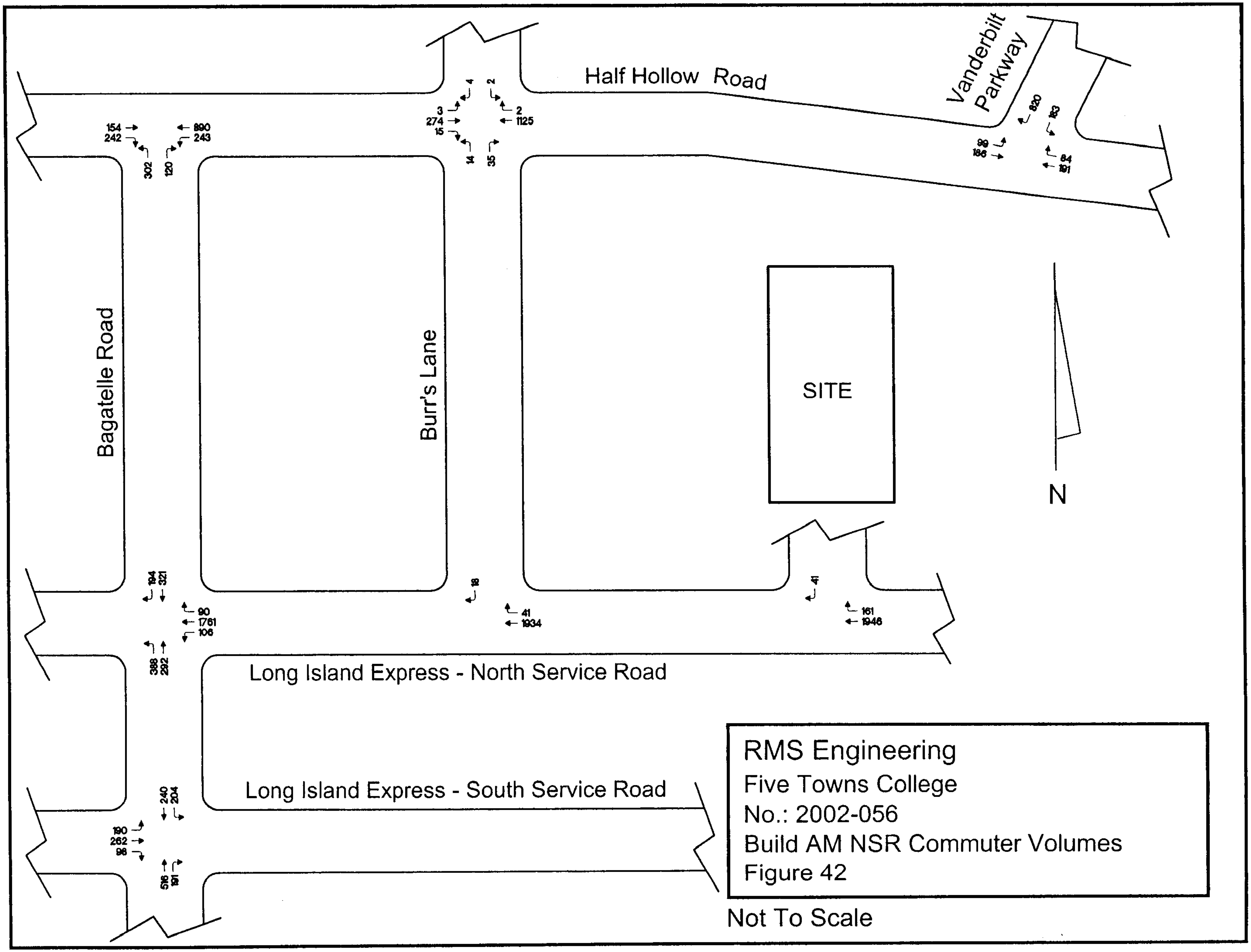
RMS ENGINEERING



RMS Engineering
Five Towns College
No.: 2002-056
SAT NSR Volume Redistribution
Figure 41

Not To Scale

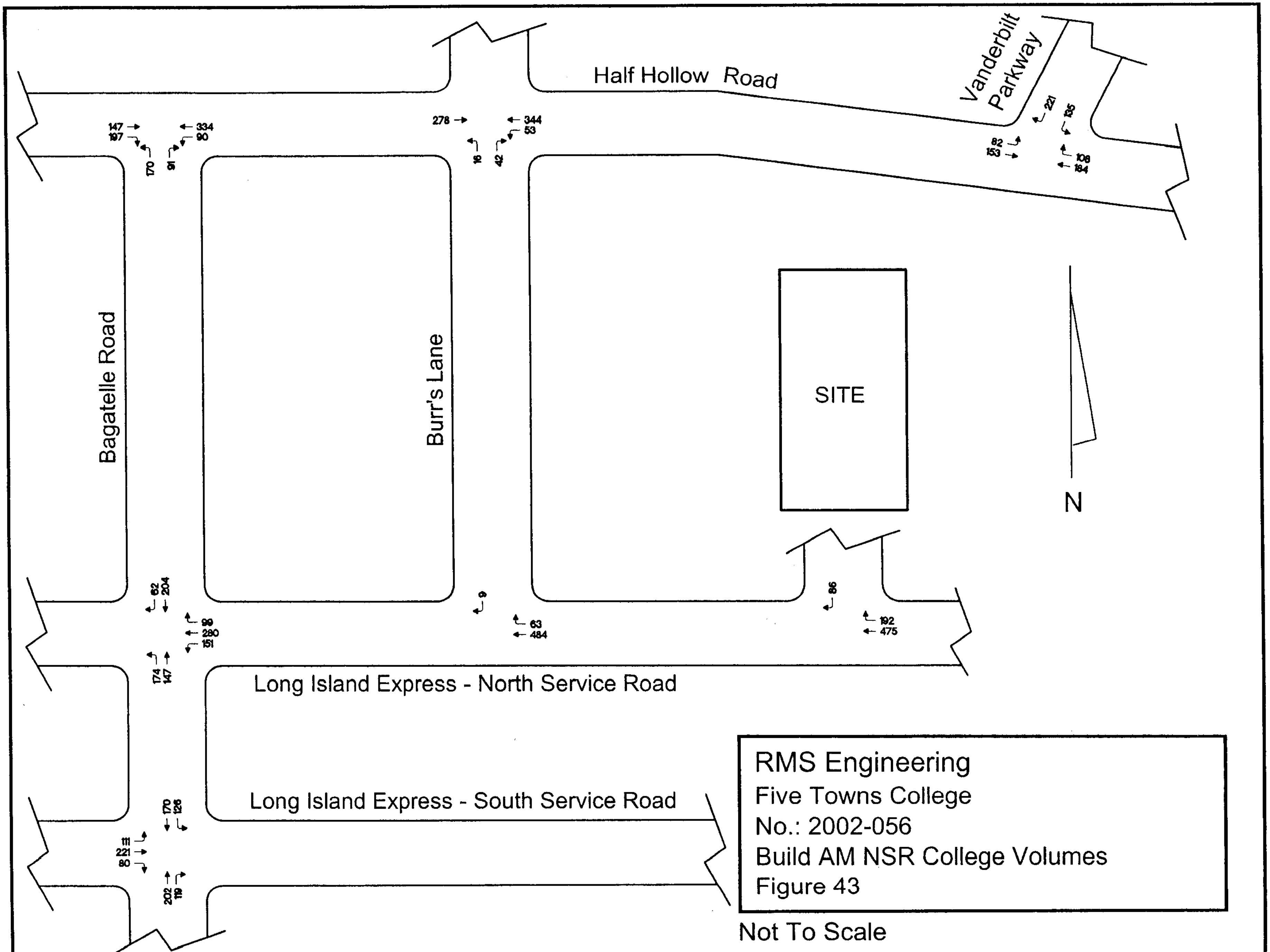
RMS ENGINEERING



RMS Engineering
Five Towns College
No.: 2002-056
Build AM NSR Commuter Volumes
Figure 42

Not To Scale

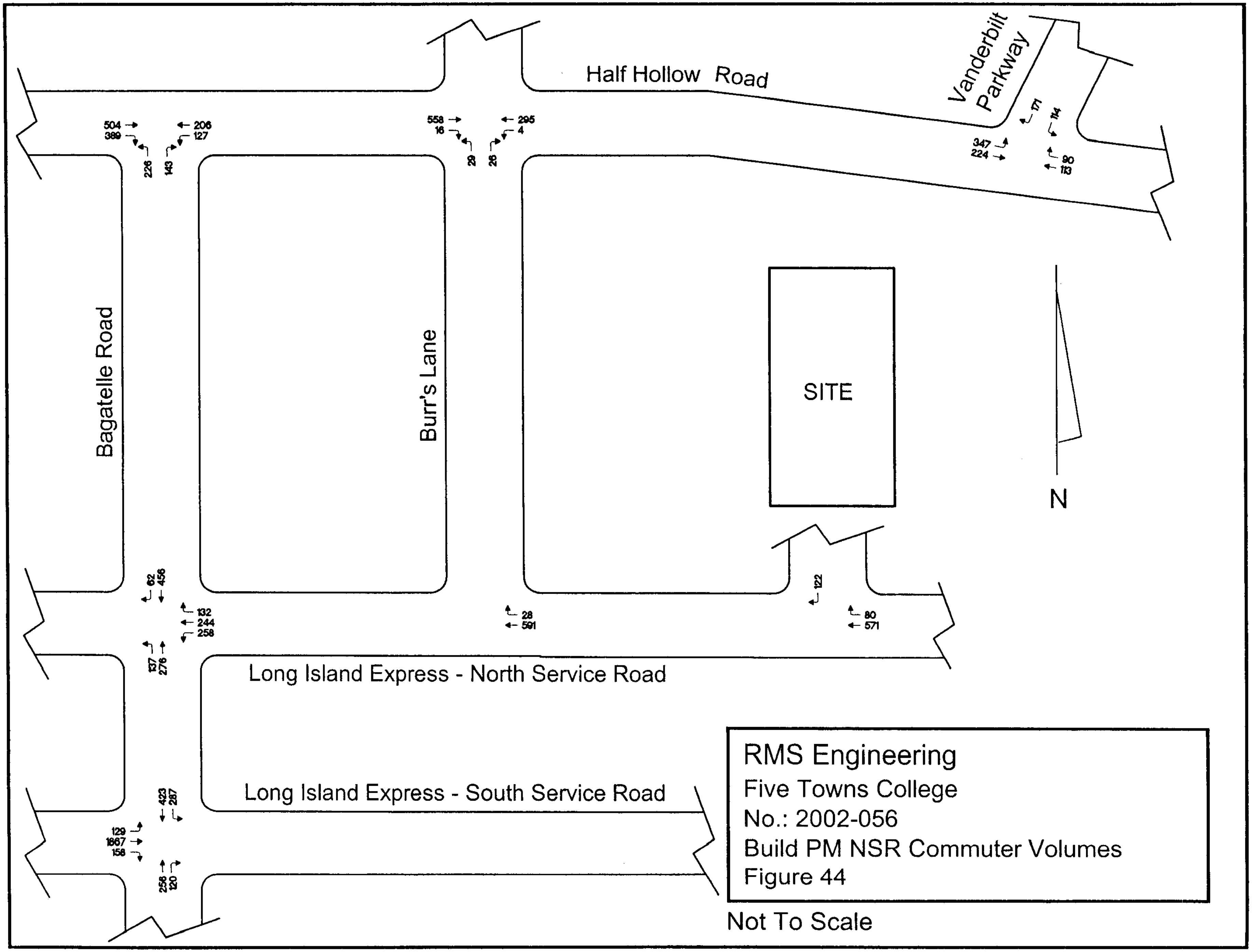
RMS ENGINEERING



RMS Engineering
Five Towns College
No.: 2002-056
Build AM NSR College Volumes
Figure 43

Not To Scale

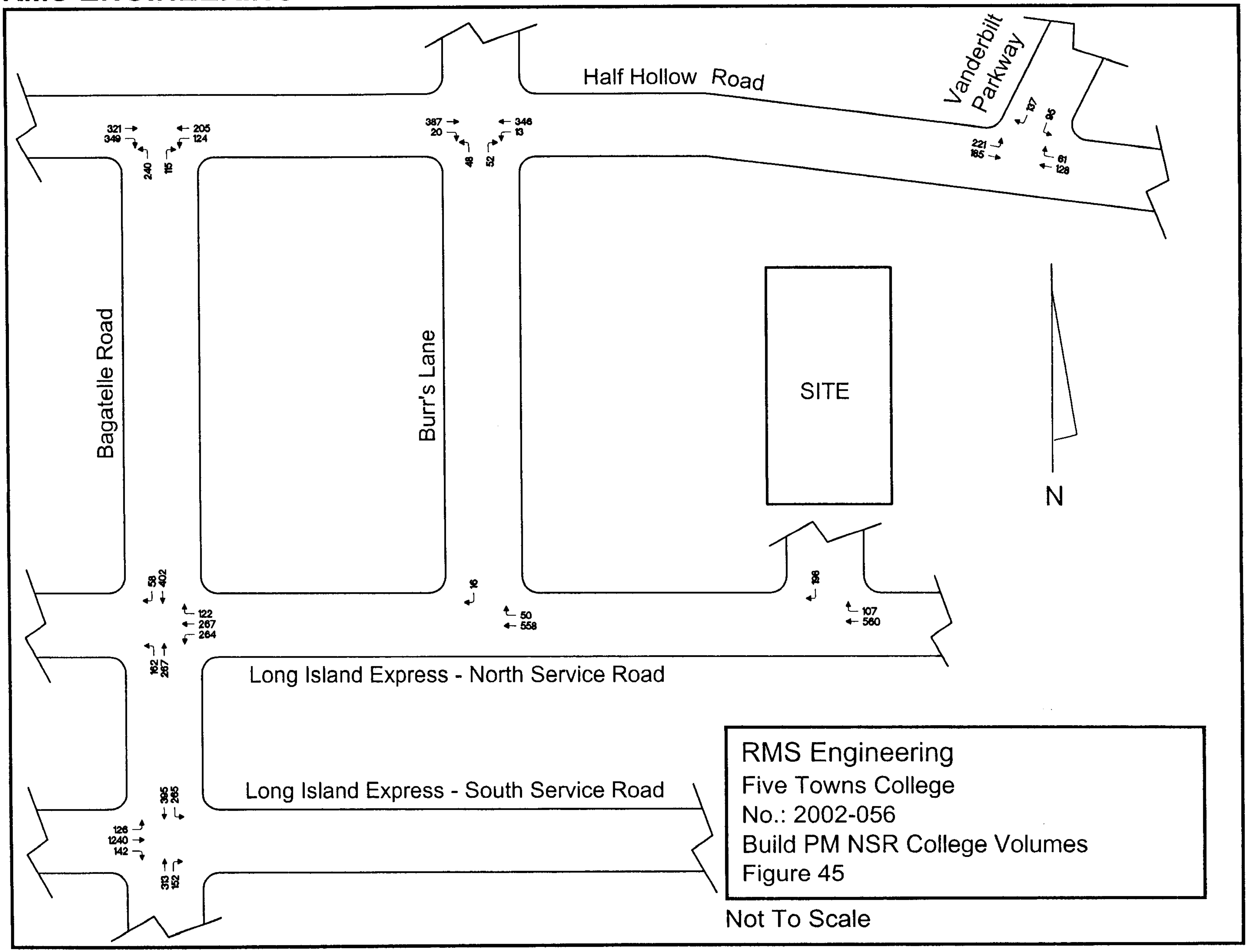
RMS ENGINEERING



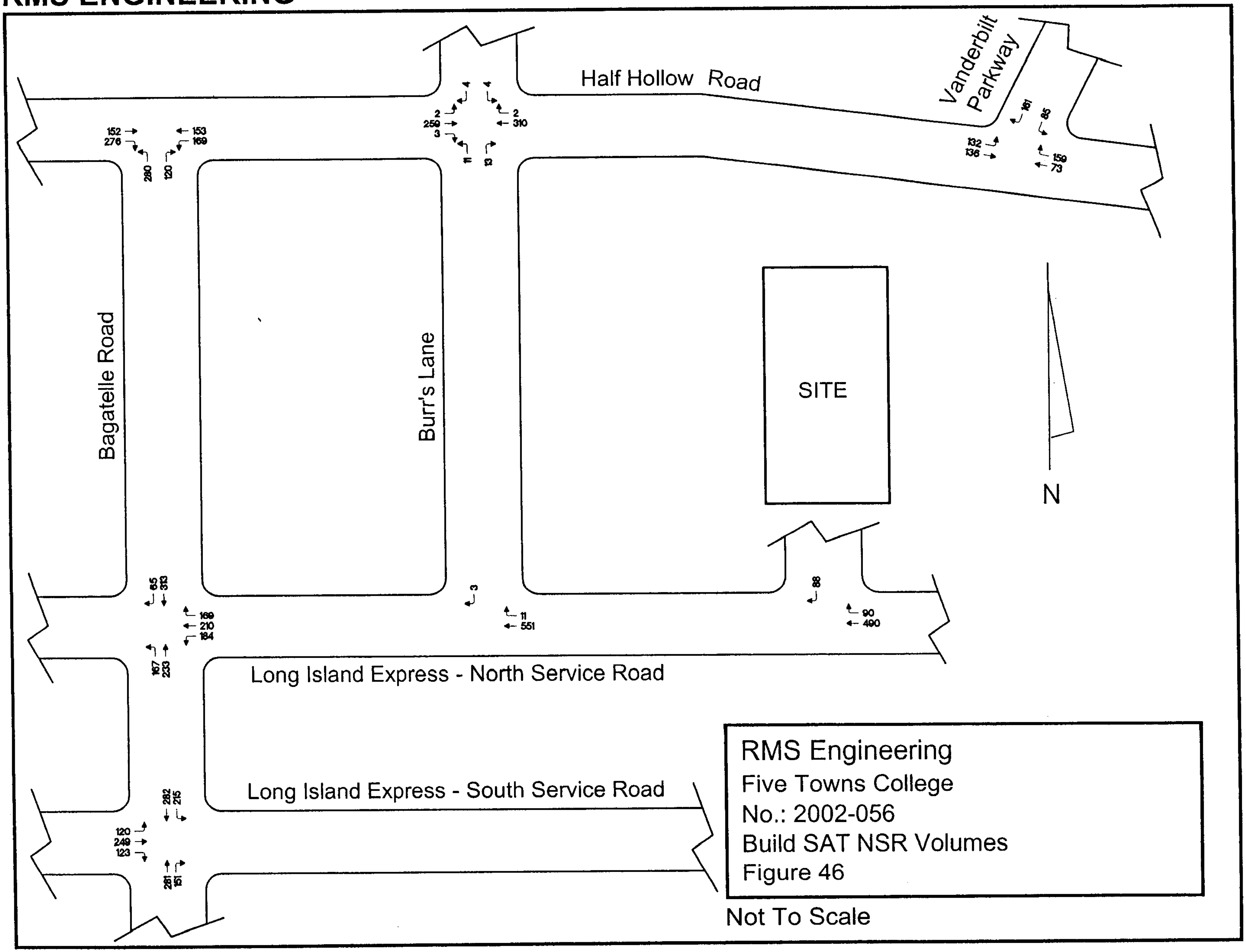
RMS Engineering
Five Towns College
No.: 2002-056
Build PM NSR Commuter Volumes
Figure 44

Not To Scale

RMS ENGINEERING



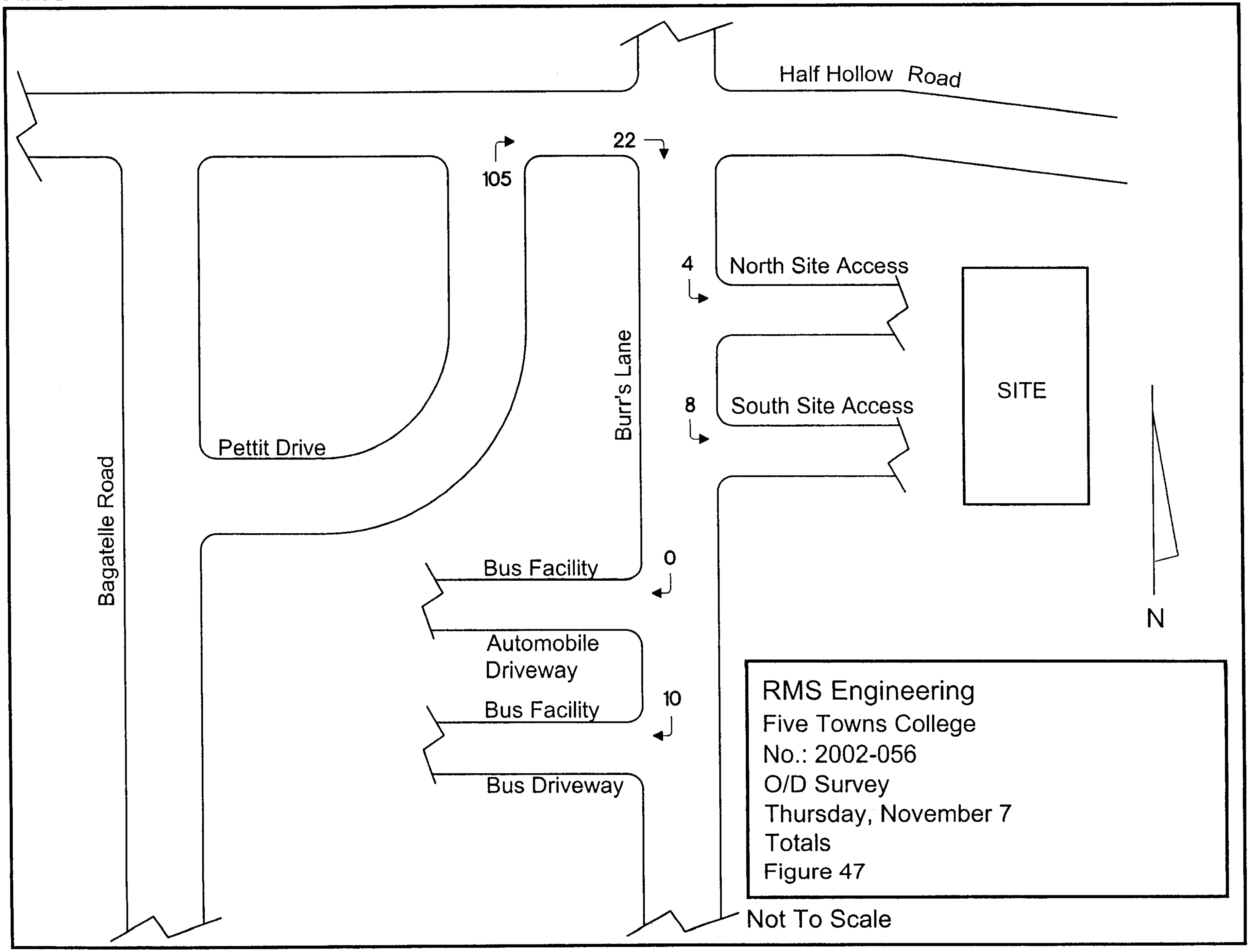
RMS ENGINEERING



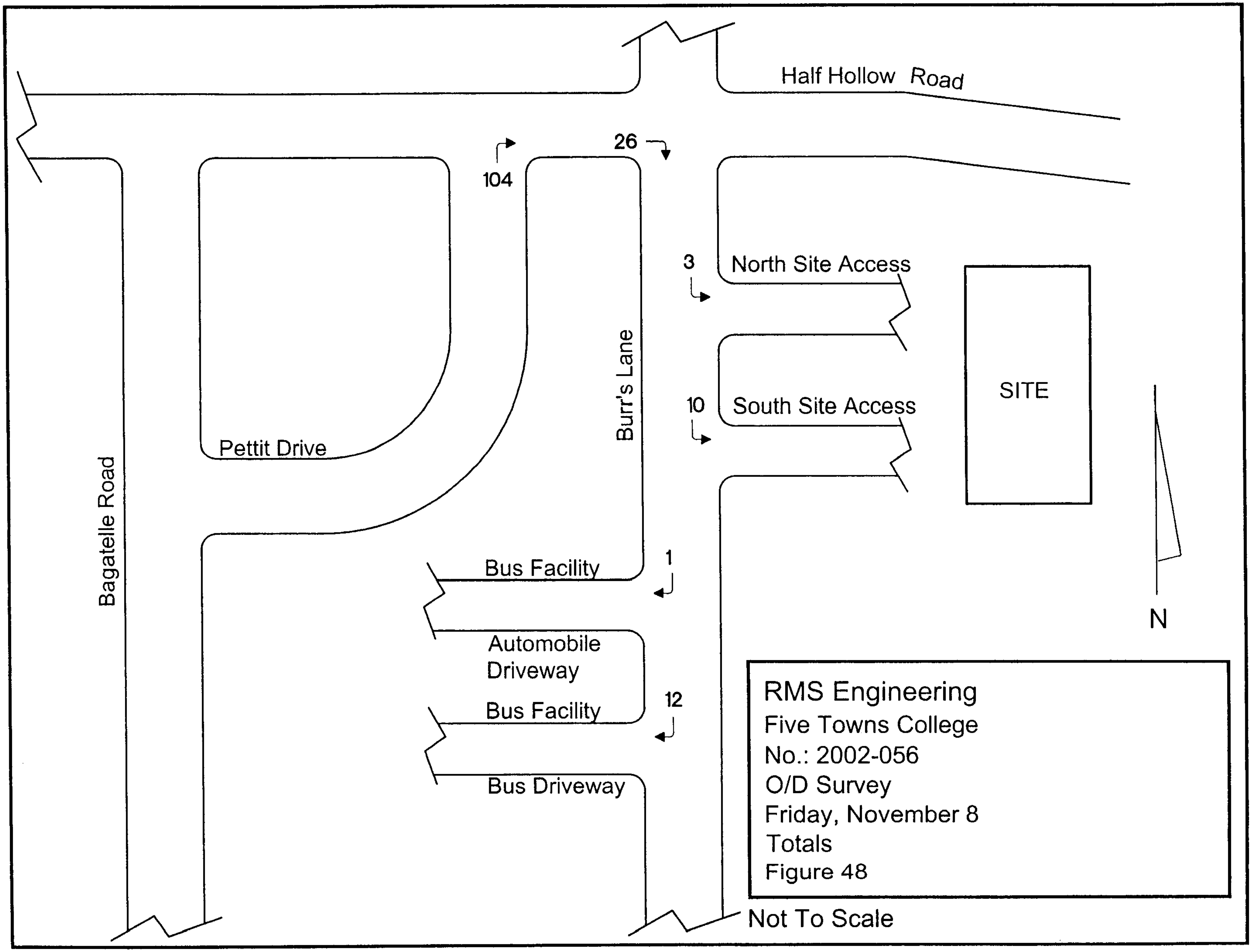
RMS Engineering
Five Towns College
No.: 2002-056
Build SAT NSR Volumes
Figure 46

Not To Scale

RMS ENGINEERING



RMS ENGINEERING



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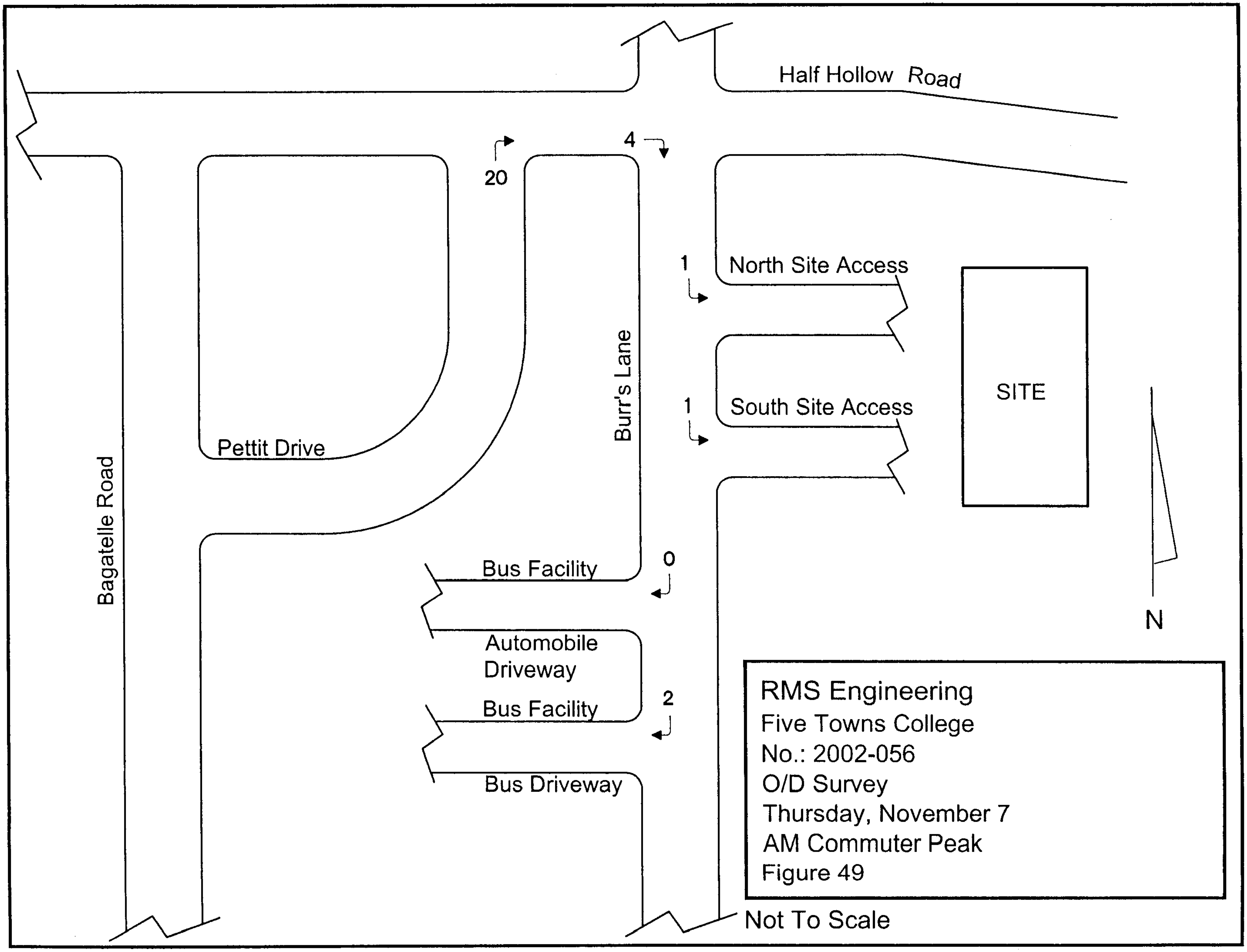

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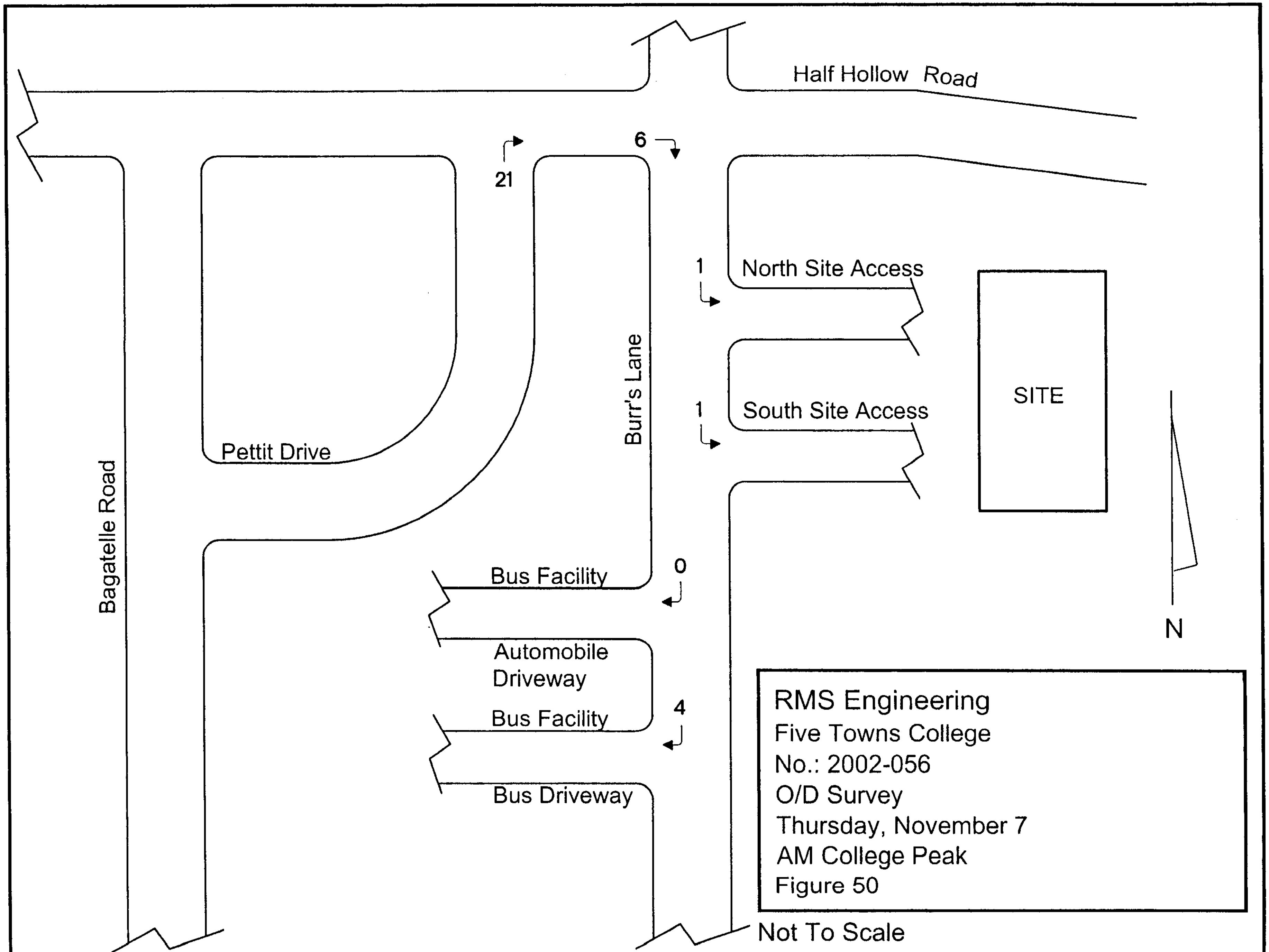
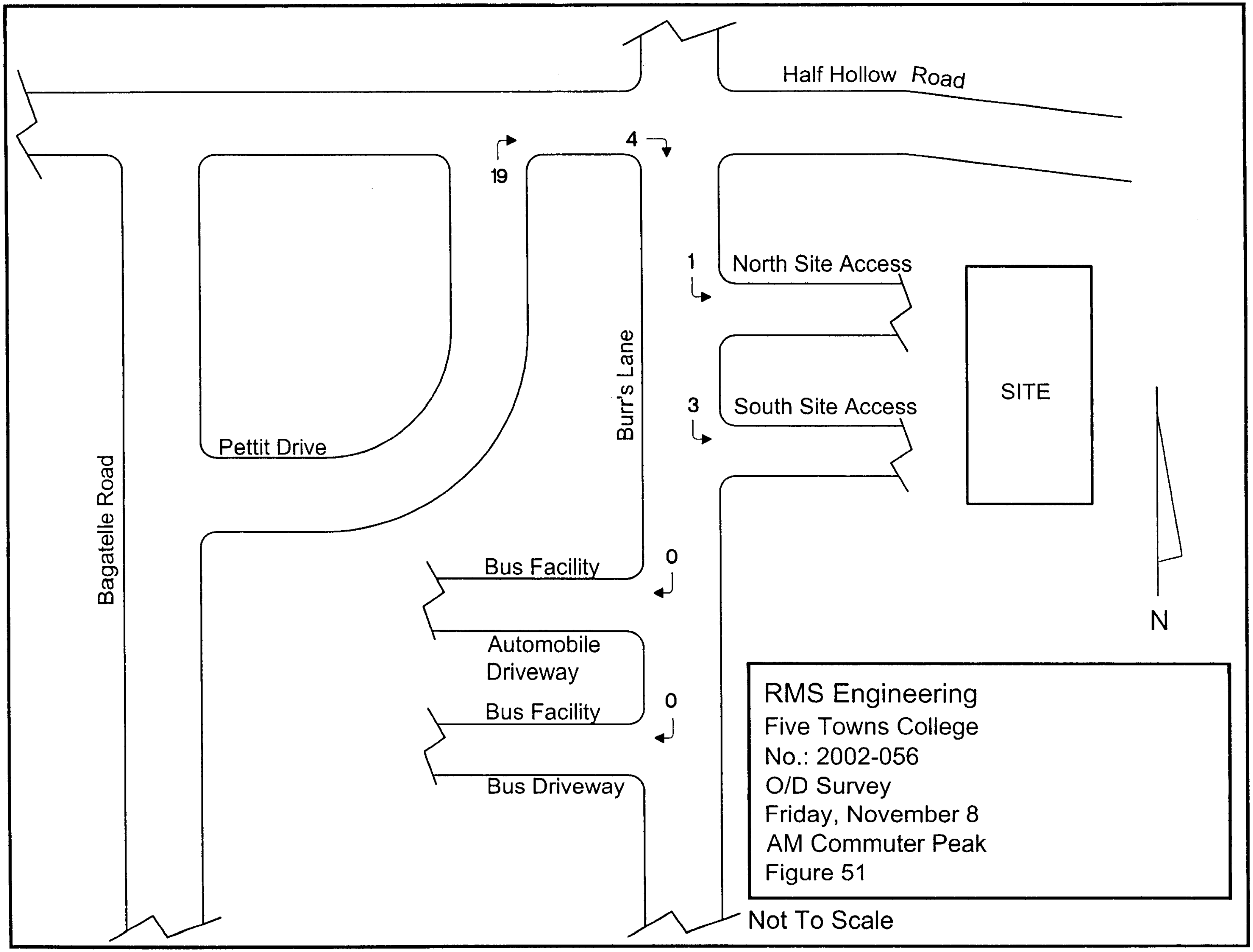
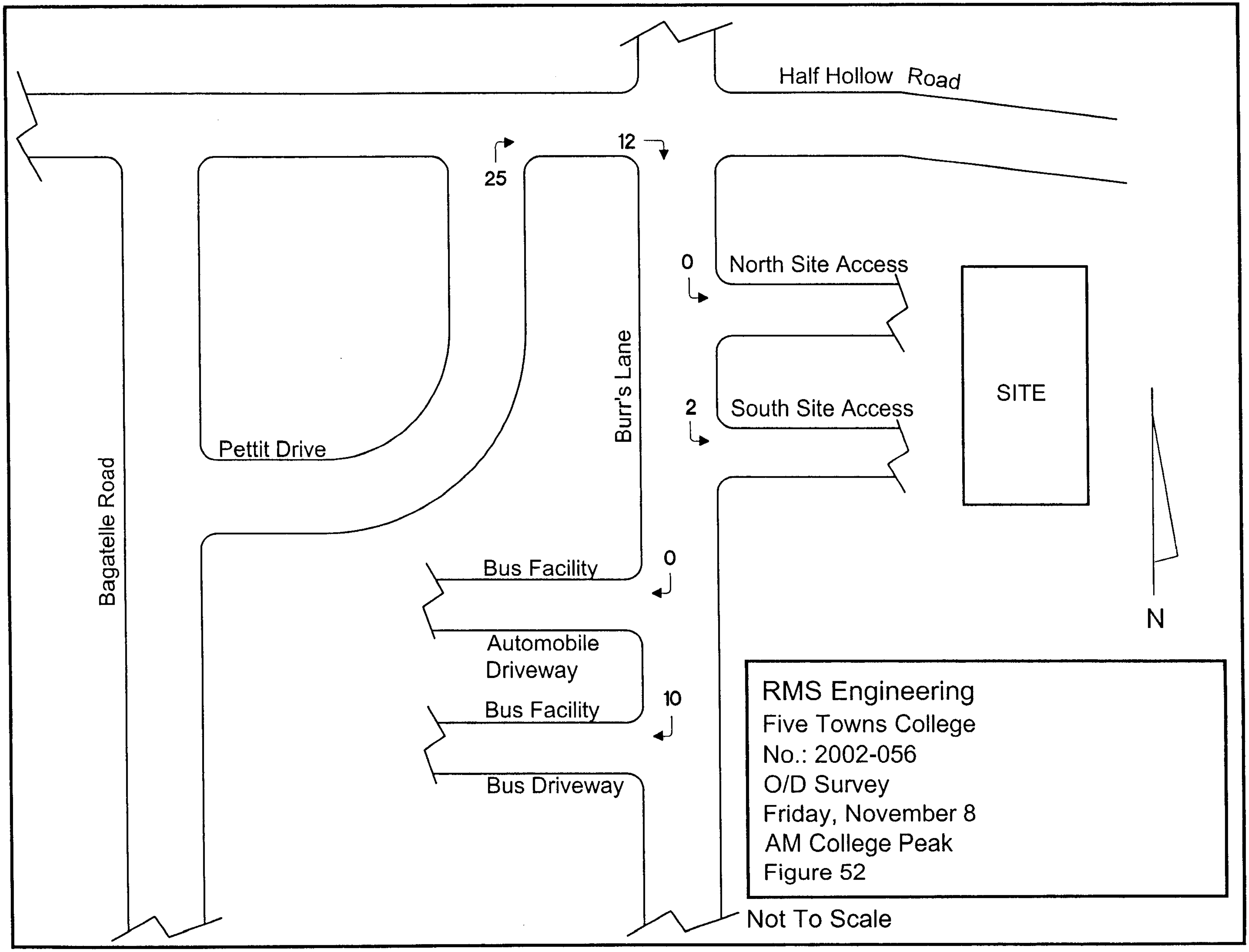


RMS Engineering
Five Towns College
No.: 2002-056
O/D Survey
Thursday, November 7
AM College Peak
Figure 50

Not To Scale

RMS ENGINEERING




Half Hollow Road
25
12
North Site Access
0
South Site Access
2
SITE
N
Pettit Drive
Burr's Lane
Bagatelle Road
Bus Facility
0
Automobile Driveway
Bus Facility
10
Bus Driveway
RMS Engineering
Five Towns College
No.: 2002-056
O/D Survey
Friday, November 8
AM College Peak
Figure 52

Not To Scale

II. Tables

RMS ENGINEERING

TABLE 1

FIVE TOWNS COLLEGE
LEVEL OF SERVICE SUMMARY
EXISTING CONDITIONS - SIGNALIZED INTERSECTIONS
RMS JOB No. 2002-056
JANUARY 2003

		AM PEAK HOUR		PM PEAK HOUR		SAT PEAK HOUR	
INTERSECTION	CONDITION	DELAY (SEC/VEH)	LOS	DELAY (SEC/VEH)	LOS	DELAY (SEC/VEH)	LOS
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE RD AT BAGATELLE ROAD	EXISTING COMMUTER PEAK HOUR	40.2	D	96.3	F	16.2	B
	EXISTING COLLEGE PEAK HOUR	17.5	B	24.0	C	N/A	N/A
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE RD AT BAGATELLE ROAD	EXISTING COMMUTER PEAK HOUR	61.5	E	17.2	B	15.2	B
	EXISTING COLLEGE PEAK HOUR	16.6	B	16.8	B	N/A	N/A
HALF HOLLOW ROAD AT BAGATELLE ROAD	EXISTING COMMUTER PEAK HOUR	27.3	C	13.0	B	13.5	B
	EXISTING COLLEGE PEAK HOUR	13.0	B	12.3	B	N/A	N/A
HALF HOLLOW ROAD AT VANDERBILT PARKWAY (CR 67)	EXISTING COMMUTER PEAK HOUR	16.7	B	25.8	C	16.0	B
	EXISTING COLLEGE PEAK HOUR	16.6	B	17.1	B	N/A	N/A

RMS ENGINEERING

TABLE 2

FIVE TOWNS COLLEGE
LEVEL OF SERVICE SUMMARY
EXISTING CONDITIONS - UNSIGNALIZED INTERSECTIONS
RMS JOB No. 2002-056
JANUARY 2003

INTERSECTION	CONDITION	AM PEAK HOUR			PM PEAK HOUR			SAT PEAK HOUR		
		MVMNT	LOS	CONTROL DELAY (SEC/VEH)	MVMNT	LOS	CONTROL DELAY (SEC/VEH)	MVMNT	LOS	CONTROL DELAY (SEC/VEH)
HALF HOLLOW ROAD AT BURR'S LANE	EXISTING COMMUTER PEAK HOUR	EB	B	11.2	EB	A	7.9	EB	A	8.0
		WB	A	8.0	WB	A	9.1	WB	A	7.8
		NB	C	22.7	NB	C	16.3	NB	B	12.2
		SB	D	28.1	N/A	N/A	N/A	SB	B	11.3
	EXISTING COLLEGE PEAK HOUR	EB	A	8.0	EB	A	8.1	N/A	N/A	N/A
		WB	A	8.2	WB	A	8.7	N/A	N/A	N/A
		NB	B	12.4	NB	B	14.8	N/A	N/A	N/A
BURR'S LANE AT NORTH SITE ACCESS	EXISTING COMMUTER PEAK HOUR	SBLT	A	7.3	SBLT	A	7.3	SBLT	A	7.3
		WB	A	8.9	WB	A	9.0	WB	A	8.7
	EXISTING COLLEGE PEAK HOUR	SBLT	A	7.3	SBLT	A	7.3	N/A	N/A	N/A
		WB	A	9.1	WB	A	9.6	N/A	N/A	N/A
BURR'S LANE AT SOUTH SITE ACCESS	EXISTING COMMUTER PEAK HOUR	SBLT	A	7.5	SBLT	A	7.3	SBLT	A	7.2
		WB	B	10.3	WB	A	8.9	WB	A	8.4
	EXISTING COLLEGE PEAK HOUR	SBLT	A	7.5	SBLT	A	7.4	N/A	N/A	N/A
		WB	B	10.9	WB	A	9.2	N/A	N/A	N/A
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE RD AT BURR'S LANE	EXISTING COMMUTER PEAK HOUR	SBR	C	18.0	SBR	A	10.0-	SBR	A	9.5
	EXISTING COLLEGE PEAK HOUR	SBR	A	10.0-	SBR	B	10.4	SBR	N/A	N/A

RMS ENGINEERING

TABLE 3

FIVE TOWNS COLLEGE
TRIP GENERATION SUMMARY
RMS JOB No. 2002-056
JANUARY 2003

PEAK HOUR		PROPOSED FIVE TOWNS COLLEGE EXPANSION
AM PEAK HOUR	ENTER:	26 tph
	EXIT:	26 tph
	TOTAL	52 tph
PM PEAK HOUR	ENTER:	26 tph
	EXIT:	26 tph
	TOTAL	52 tph
SATURDAY PEAK HOUR	ENTER:	26 tph
	EXIT:	26 tph
	TOTAL	52 tph

Note - Trips generated are regardless of peak hour scenario
tph - trips per hour

RMS ENGINEERING

TABLE 4

FIVE TOWNS COLLEGE
EXISTING GENERATION SUMMARY
RMS JOB No. 2002-056
JANUARY 2003

PEAK HOUR		EXISTING FIVE TOWNS COLLEGE TRIP GENERATION	
PEAK HOUR TYPE		COMMUTER	COLLEGE
AM PEAK HOUR	ENTER:	131 tph	160 tph
	EXIT:	14 tph	56 tph
	TOTAL	145 tph	216 tph
PM PEAK HOUR	ENTER:	30 tph	58 tph
	EXIT:	72 tph	148 tph
	TOTAL	102 tph	206 tph
SATURDAY PEAK HOUR	ENTER:	21 tph	N/A
	EXIT:	18 tph	N/A
	TOTAL	39 tph	N/A

N/A - Not Applicable
tph - trips per hour

RMS ENGINEERING

TABLE 5

FIVE TOWNS COLLEGE
LEVEL OF SERVICE SUMMARY
FUTURE CONDITIONS - SIGNALIZED INTERSECTIONS
BURR'S LANE ACCESS SCENARIO
RMS JOB No. 2002-056
JANUARY 2003

INTERSECTION	CONDITION	AM PEAK HOUR DELAY (SEC/VEH)	AM PEAK HOUR LOS	PM PEAK HOUR DELAY (SEC/VEH)	PM PEAK HOUR LOS	SAT PEAK HOUR DELAY (SEC/VEH)	SAT PEAK HOUR LOS
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE RD AT BAGATELLE ROAD	NO BUILD COMMUTER PEAK HOUR	43.5	D	108.3	F	16.5	B
	NO BUILD COLLEGE PEAK HOUR	17.6	B	25.8	C	N/A	N/A
	BURR'S LANE BUILD COMMUTER PEAK HOUR	44.1	D	108.2	F	16.5	B
	BURR'S LANE BUILD COLLEGE PEAK HOUR	17.6	B	26.0	C	N/A	N/A
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE RD AT BAGATELLE ROAD	NO BUILD COMMUTER PEAK HOUR	74.1	E	17.7	B	16.1	B
	NO BUILD COLLEGE PEAK HOUR	17.0	B	17.3	B	N/A	N/A
	BURR'S LANE BUILD COMMUTER PEAK HOUR	75.8	E	17.8	B	16.1	B
	BURR'S LANE BUILD COLLEGE PEAK HOUR	17.1	B	17.3	B	N/A	N/A
HALF HOLLOW ROAD AT BAGATELLE ROAD	NO BUILD COMMUTER PEAK HOUR	30.9	C	13.4	B	13.9	B
	NO BUILD COLLEGE PEAK HOUR	13.0	B	12.7	B	N/A	N/A
	BURR'S LANE BUILD COMMUTER PEAK HOUR	31.4	C	13.6	B	13.9	B
	BURR'S LANE BUILD COLLEGE PEAK HOUR	13.1	B	12.8	B	N/A	N/A
HALF HOLLOW ROAD AT VANDERBILT PARKWAY (CR 67)	NO BUILD COMMUTER PEAK HOUR	16.9	B	29.8	C	16.4	B
	NO BUILD COLLEGE PEAK HOUR	16.8	B	17.7	B	N/A	N/A
	BURR'S LANE BUILD COMMUTER PEAK HOUR	17.0	B	30.6	C	16.4	B
	BURR'S LANE BUILD COLLEGE PEAK HOUR	16.9	B	17.9	B	N/A	N/A

RMS ENGINEERING **TABLE 6**

FIVE TOWNS COLLEGE
LEVEL OF SERVICE SUMMARY
FUTURE CONDITIONS - SIGNALIZED INTERSECTIONS
NSR ACCESS SCENARIO
RMS JOB No. 2002-056
JANUARY 2003

INTERSECTION	CONDITION	AM PEAK HOUR DELAY (SEC/VEH)	AM PEAK HOUR LOS	PM PEAK HOUR DELAY (SEC/VEH)	PM PEAK HOUR LOS	SAT PEAK HOUR DELAY (SEC/VEH)	SAT PEAK HOUR LOS
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE RD	NO BUILD COMMUTER PEAK HOUR	43.5	D	108.3	F	16.5	B
	NO BUILD COLLEGE PEAK HOUR	17.6	B	25.8	C	N/A	N/A
	NSR BUILD COMMUTER PEAK HOUR	38.5	D	108.4	F	16.5	B
	NSR BUILD COLLEGE PEAK HOUR	17.4	B	25.8	C	N/A	N/A
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE RD AT BAGATELLE ROAD	NO BUILD COMMUTER PEAK HOUR	74.1	E	17.7	B	16.1	B
	NO BUILD COLLEGE PEAK HOUR	17.0	B	17.3	B	N/A	N/A
	NSR BUILD COMMUTER PEAK HOUR	77.6	E	17.8	B	16.3	B
	NSR BUILD COLLEGE PEAK HOUR	17.3	B	17.4	B	N/A	N/A
HALF HOLLOW ROAD AT BAGATELLE ROAD	NO BUILD COMMUTER PEAK HOUR	30.9	C	13.4	B	13.9	B
	NO BUILD COLLEGE PEAK HOUR	13.0	B	12.7	B	N/A	N/A
	NSR BUILD COMMUTER PEAK HOUR	31.8	C	13.5	B	14.1	B
	NSR BUILD COLLEGE PEAK HOUR	12.6	B	12.7	B	N/A	N/A
HALF HOLLOW ROAD AT VANDERBILT PARKWAY (CR 67)	NO BUILD COMMUTER PEAK HOUR	16.9	B	29.8	C	16.4	B
	NO BUILD COLLEGE PEAK HOUR	16.8	B	17.7	B	N/A	N/A
	NSR BUILD COMMUTER PEAK HOUR	16.8	B	30.2	C	16.4	B
	NSR BUILD COLLEGE PEAK HOUR	16.7	B	17.8	B	N/A	N/A

RMS ENGINEERING

TABLE 7

FIVE TOWNS COLLEGE
LEVEL OF SERVICE SUMMARY
FUTURE CONDITIONS - UNSIGNALIZED INTERSECTIONS
BURR'S LANE SCENARIO
RMS JOB No. 2002-056
JANUARY 2003

INTERSECTION	CONDITION	AM PEAK HOUR MVMNT	AM PEAK HOUR LOS	AM PEAK HOUR CONTROL DELAY (SEC/VEH)	PM PEAK HOUR MVMNT	PM PEAK HOUR LOS	PM PEAK HOUR CONTROL DELAY (SEC/VEH)	SAT PEAK HOUR MVMNT	SAT PEAK HOUR LOS	SAT PEAK HOUR CONTROL DELAY (SEC/VEH)
HALF HOLLOW ROAD AT BURR'S LANE	NO BUILD COMMUTER PEAK HOUR	EB	B	11.4	EB	A	8.0	EB	A	8.0
		WB	A	8.0	WB	A	9.2	WB	A	8.0
		NB	D	25.4	NB	C	17.2	NB	B	13.2
		SB	D	33.1	N/A	N/A	N/A	SB	B	12.2
	BUILD COMMUTER PEAK HOUR	EB	B	11.4	EB	A	8.0	EB	A	8.0
		WB	A	8.1	WB	A	9.3	WB	A	8.0
		NB	D	27.7	NB	C	18.0	NB	B	13.6
		SB	D	34.3	N/A	N/A	N/A	SB	B	12.4
	NO BUILD COLLEGE PEAK HOUR	EB	A	8.0	EB	A	8.1	N/A	N/A	N/A
		WB	A	8.3	WB	A	8.7	N/A	N/A	N/A
		NB	B	12.7	NB	C	15.6	N/A	N/A	N/A
	BUILD COLLEGE PEAK HOUR	EB	A	8.0	EB	A	8.1	N/A	N/A	N/A
		WB	A	8.3	WB	A	8.8	N/A	N/A	N/A
		NB	B	13.1	NB	C	16.2	N/A	N/A	N/A
BURR'S LANE AT NORTH SITE ACCESS	NO BUILD COMMUTER PEAK HOUR	SBLT	A	7.3	SBLT	A	7.3	SBLT	A	7.3
		WB	A	8.9	WB	A	9.0	WB	A	8.9
	BUILD COMMUTER PEAK HOUR	SBLT	A	7.3	SBLT	A	7.3	SBLT	A	7.3
		WB	A	9.1	WB	A	9.3	WB	A	9.1
	NO BUILD COLLEGE PEAK HOUR	SBLT	A	7.3	SBLT	A	7.3	N/A	N/A	N/A
		WB	A	9.2	WB	A	9.6	N/A	N/A	N/A
	BUILD COLLEGE PEAK HOUR	SBLT	A	7.3	SBLT	A	7.4	N/A	N/A	N/A
		WB	A	9.3	WB	A	9.8	N/A	N/A	N/A
BURR'S LANE AT SOUTH SITE ACCESS	NO BUILD COMMUTER PEAK HOUR	SBLT	A	7.5	SBLT	A	7.3	SBLT	A	7.3
		WB	B	10.4	WB	A	9.2	WB	A	9.2
	BUILD COMMUTER PEAK HOUR	SBLT	A	7.6	SBLT	A	7.4	SBLT	A	7.4
		WB	B	10.9	WB	A	9.5	WB	A	9.5
	NO BUILD COLLEGE PEAK HOUR	SBLT	A	7.5	SBLT	A	7.4	N/A	N/A	N/A
		WB	B	11.0	WB	A	9.5	N/A	N/A	N/A
	BUILD COLLEGE PEAK HOUR	SBLT	A	7.6	SBLT	A	7.5	N/A	N/A	N/A
		WB	B	11.7	WB	A	9.9	N/A	N/A	N/A
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE RD AT BURR'S LANE	NO BUILD COMMUTER PEAK HOUR	SBR	C	18.9	SBR	B	10.5	SBR	B	10.0+
	BUILD COMMUTER PEAK HOUR	SBR	C	19.6	SBR	B	10.7	SBR	B	10.2
	NO BUILD COLLEGE PEAK HOUR	SBR	B	10.1	SBR	B	10.9	SBR	N/A	N/A
	BUILD COLLEGE PEAK HOUR	SBR	B	10.3	SBR	B	11.1	SBR	N/A	N/A

RMS ENGINEERING

TABLE 8

FIVE TOWNS COLLEGE
LEVEL OF SERVICE SUMMARY
FUTURE CONDITIONS - UNSIGNALIZED INTERSECTIONS
NSR ACCESS SCENARIO
RMS JOB No. 2002-056
JANUARY 2003

		AM PEAK HOUR			PM PEAK HOUR			SAT PEAK HOUR		
INTERSECTION	CONDITION	MVMNT	LOS	CONTROL DELAY (SEC/VEH)	MVMNT	LOS	CONTROL DELAY (SEC/VEH)	MVMNT	LOS	CONTROL DELAY (SEC/VEH)
HALF HOLLOW ROAD AT BURR'S LANE	NO BUILD COMMUTER PEAK HOUR	EB	B	11.4	EB	A	8.0	EB	A	8.0
		WB	A	8.0	WB	A	9.2	WB	A	8.0
		NB	D	25.4	NB	C	17.2	NB	B	13.2
		SB	D	33.1	N/A	N/A	N/A	SB	B	12.2
	NSR BUILD COMMUTER PEAK HOUR	EB	B	11.4	EB	A	8.0	EB	A	8.1
		WB	A	8.0	WB	A	9.2	WB	A	7.9
		NB	D	29.2	NB	C	17.5	NB	B	12.9
		SB	D	32.7	N/A	N/A	N/A	SB	B	13.1
	NO BUILD COLLEGE PEAK HOUR	EB	A	8.0	EB	A	8.1	N/A	N/A	N/A
		WB	A	8.3	WB	A	8.7	N/A	N/A	N/A
		NB	B	12.7	NB	C	15.6	N/A	N/A	N/A
	NSR BUILD COLLEGE PEAK HOUR	EB	A	8.1	EB	A	8.1	N/A	N/A	N/A
		WB	A	8.1	WB	A	8.7	N/A	N/A	N/A
		NB	B	13.2	NB	C	16.1	N/A	N/A	N/A
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE RD AT COLLEGE ENTRANCE	NSR BUILD COMMUTER PEAK HOUR	SB	C	20.0	SB	B	11.0	SB	B	10.4
	NSR BUILD COLLEGE PEAK HOUR	SB	B	10.4	SB	B	11.9	N/A	N/A	N/A
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE RD AT BURR'S LANE	NO BUILD COMMUTER PEAK HOUR	SBR	C	18.9	SBR	B	10.5	SBR	B	10.0+
	BUILD COMMUTER PEAK HOUR	SBR	C	18.6	SBR	B	10.0+	SBR	A	9.9
	NO BUILD COLLEGE PEAK HOUR	SBR	B	10.1	SBR	B	10.9	SBR	N/A	N/A
	BUILD COLLEGE PEAK HOUR	SBR	A	9.9	SBR	B	10.1	SBR	N/A	N/A

RMS ENGINEERING

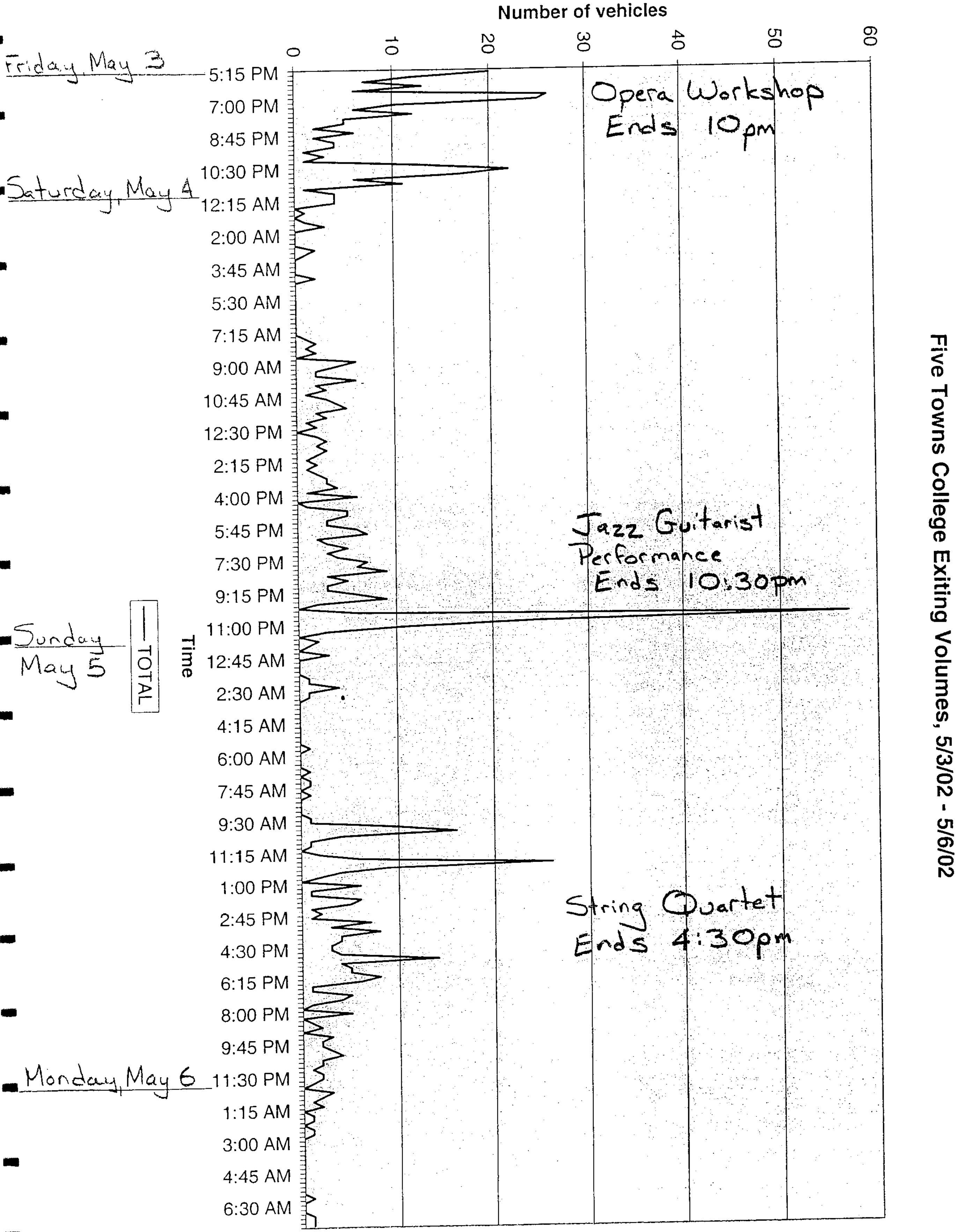
TABLE 9

FIVE TOWNS COLLEGE
ORIGIN DESTINATION SURVEY
THURSDAY, NOVEMBER 7th, 2002
FRIDAY, NOVEMBER 8th, 2002
RMS JOB No. 2002-056
JANUARY 2003

DATE	1	2	3	4	5	6
NOVEMBER 7 THURSDAY	105	22	4 (3 buses)	8	0	10
NOVEMBER 8 FRIDAY	104	26	3 (2 buses)	10	1	12

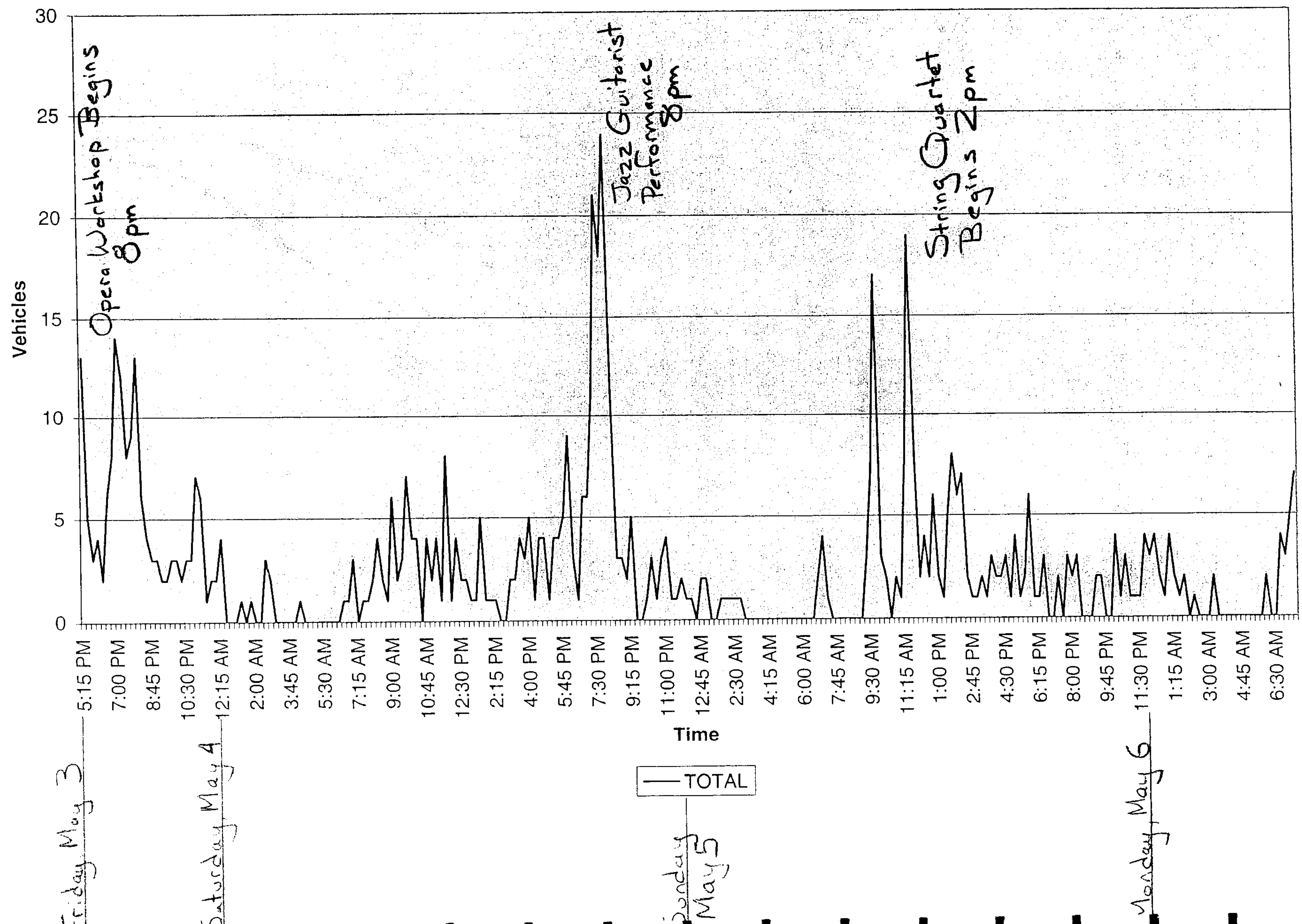
1 - Number of Vehicles making a northbound right turn from Pettit Drive to Half Hollow Road
2 - Number of vehicles from #1 making an eastbound right turn on to Burr's Lane
3 - Number of vehicles from #2 turning into Five Towns College North Driveway
4 - Number of vehicles from #2 turning into Five Towns College South Driveway
5 - Number of vehicles from #2 turning into Bus Facility Automobile Parking Lot
6 - Number of vehicles from #2 turning into Bus Facility Bus Parking Lot

III. Charts



Five Towns College Exiting Volumes, 5/3/02 - 5/6/02
Number of vehicles
0
10
20
30
40
50
60
Time
TOTAL
Friday, May 3
5:15 PM
7:00 PM
8:45 PM
10:30 PM
Saturday, May 4
12:15 AM
2:00 AM
3:45 AM
5:30 AM
7:15 AM
9:00 AM
10:45 AM
12:30 PM
2:15 PM
4:00 PM
5:45 PM
7:30 PM
9:15 PM
Sunday May 5
11:00 PM
12:45 AM
2:30 AM
4:15 AM
6:00 AM
7:45 AM
9:30 AM
11:15 AM
1:00 PM
2:45 PM
4:30 PM
6:15 PM
8:00 PM
9:45 PM
Monday, May 6
11:30 PM
1:15 AM
3:00 AM
4:45 AM
6:30 AM
Opera Workshop Ends 10pm
Jazz Guitarist Performance Ends 10:30pm
String Quartet Ends 4:30pm

Five Towns College Entering Volumes, 5/3/02 - 5/6/02



APPENDIX B: LEVEL OF SERVICE DESCRIPTIONS

I. Signalized Intersections

II. Unsignalized Intersection

LEVEL OF SERVICE
SIGNALIZED INTERSECTION

Level of service for signalized intersection is defined in terms of delay, which is a measure of driver discomfort, frustration, fuel consumption, and lost travel time. The delay experience by a motorist is made up of a number of factors that relate to control, geometry, traffic, and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during ideal conditions: in the absence of traffic control, in the absence of geometric delay, in the absence of any incidents, and when there are no other vehicles on the road. The portion of the total delay attributed to the control facility is called the control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Control delay may also be referred to as signal delay (for signalized intersections).

Level of service criteria for signalized intersections are determined in terms of the average control delay per vehicle. The following average control delays are used to determine approach levels of service:

Level of Service A	< 10.0 sec./veh.
Level of Service B	> 10.0 and < 20.0 sec./veh.
Level of Service C	> 20.0 and < 35.0 sec./veh.
Level of Service D	> 35.0 and < 55.0 sec./veh.
Level of Service E	> 55.0 and < 80.0 sec./veh.
Level of Service F	> 80.0 sec./veh.

Level of Service-A describes operations with a very low control delay. This occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short traffic signal cycles may contribute to low delay.

Level of Service-B generally occurs with good progression and/or short traffic signal cycle lengths. More vehicles stop than for level of service A, causing higher average delays.

Level of Service-C has higher delays than level of service B. These higher delays may result from fair progression and/or longer cycle lengths. Individual cycle failures, where motorists are required to wait through an entire signal cycle, may begin to appear in this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.

Level of Service-D at this level the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths or high volume to capacity ratios. Many vehicles stop and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.

Level of Service-E is considered the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths and high volume to capacity ratios. Individual cycle failures are frequent occurrences.

Level of Service-F is considered unacceptable to most drivers. This condition often occurs with oversaturations, i.e., when arrival flow rates exceed the capacity of the intersection. It may occur at volume to capacity ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

II. Unsignalized Intersection

LEVEL OF SERVICE
TWO WAY STOP CONTROLLED INTERSECTIONS

The level of service and capacity of a two way stop controlled (TWSC) intersection are the criteria by which the quality of traffic service is measured. The levels of service range between level of service A (relatively congestion-free) and level of service F (congested).

The right of way at the TWSC intersection is controlled by stop signs on two opposing legs of an intersection (on one leg of a "T"-type intersection). The capacity of a controlled leg is based on the distribution of gaps in the major street traffic flow, driver judgement in selecting a gap through which to execute the desired maneuver and the follow up time required by each driver in a queue.

The level of service for a TWSC intersection is determined by the computed or measured control delay and is defined for each minor movement. Level of service is not defined for the intersection as a whole. The delay experienced by a motorist is made up of a number of factors that relate to control, geometry, traffic, and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during conditions with ideal geometry and in the absence of incidents, control, and traffic. This program only quantifies that portion of the total delay attributed to traffic control measures, either traffic signals or stop signs. This delay is called control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration. Average control delay for any particular minor movement is a function of the approach and the degree of saturation.

The following average control delays are used to determine approach levels of service:

Level of Service A	≤ 10 sec./veh.
Level of Service B	> 10 and ≤ 15 sec./veh.
Level of Service C	> 15 and ≤ 25 sec./veh.
Level of Service D	> 25 and ≤ 35 sec./veh.
Level of Service E	> 35 and ≤ 50 sec./veh.
Level of Service F	> 50 sec./veh.

APPENDIX C: TRAFFIC VOLUME AND TRIP DISTRIBUTION/ASSIGNMENT SPREADSHEETS

I. Existing Conditions – Burr's Lane

II. Proposed Site Conditions – North Service Road

I. Existing Conditions – Burr's Lane

RMS Engineering

AM PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

GROWTH FACTOR: 1.00%
NO. OF YEARS: 2
GROWTH RATE: 1.030

FIVE TOWNS COLLEGE PEAK HOUR
BURR'S LANE ACCESS

LOCATION	DIR	MVMT	EXISTING VOLUME	AMBIENT NO BUILD VOLUME
LONG ISLAND EXPRESSWAY	NB	LEFT	0	0
(I-495)		THROUGH	218	225
SOUTH SERVICE ROAD		RIGHT	92	95
AT	SB	LEFT	94	97
BAGATELLE ROAD		THROUGH	164	169
		RIGHT	0	0
1	EB	LEFT	124	128
		THROUGH	186	192
		RIGHT	77	80
	WB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
LONG ISLAND EXPRESSWAY	NB	LEFT	168	174
(I-495)		THROUGH	181	187
NORTH SERVICE ROAD		RIGHT	0	0
AT	SB	LEFT	0	0
BAGATELLE ROAD		THROUGH	176	182
		RIGHT	60	62
2	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	137	142
		THROUGH	262	270
		RIGHT	74	77
HALF HOLLOW ROAD	NB	LEFT	143	148
AT		THROUGH	0	0
BAGATELLE ROAD		RIGHT	127	131
	SB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
3	EB	LEFT	0	0
		THROUGH	134	139
		RIGHT	169	175
	WB	LEFT	87	90
		THROUGH	312	322
		RIGHT	0	0
HALF HOLLOW ROAD	NB	LEFT	12	13
AT		THROUGH	0	0
BURR'S LANE		RIGHT	35	37
	SB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
4	EB	LEFT	0	0
		THROUGH	196	202
		RIGHT	65	67
	WB	LEFT	108	112
		THROUGH	329	339
		RIGHT	0	0

RMS Engineering

AM PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

GROWTH FACTOR: 1.00%
NO. OF YEARS: 2
GROWTH RATE: 1.030

FIVE TOWNS COLLEGE PEAK HOUR
BURR'S LANE ACCESS

LOCATION	DIR	MVMT	EXISTING VOLUME	AMBIENT NO BUILD VOLUME
HALF HOLLOW ROAD AT VANDERBILT PARKWAY	NB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	SB	LEFT	128	132
		THROUGH	0	0
		RIGHT	246	254
5	EB	LEFT	73	76
		THROUGH	76	79
		RIGHT	0	0
	WB	LEFT	0	0
		THROUGH	178	184
		RIGHT	104	108
BURR'S LANE AT NORTH COLLEGE ACCESS	NB	LEFT	0	0
		THROUGH	32	33
		RIGHT	5	6
	SB	LEFT	19	20
		THROUGH	154	159
		RIGHT	0	0
6	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	8	9
		THROUGH	0	0
		RIGHT	15	16
BURR'S LANE AT SOUTH COLLEGE ACCESS	NB	LEFT	0	0
		THROUGH	27	28
		RIGHT	29	30
	SB	LEFT	107	111
		THROUGH	55	57
		RIGHT	0	0
7	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	28	29
		THROUGH	0	0
		RIGHT	5	6
BURR'S LANE AT LONG ISLAND ESPERSSWAY (I-495) NORTH SERVICE ROAD	NB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	SB	LEFT	0	0
		THROUGH	0	0
		RIGHT	43	45
8	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	0	0
		THROUGH	430	443
		RIGHT	86	89

RMS Engineering

AM PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

OTHER PLANNED PROJECTS

FIVE TOWNS COLLEGE PEAK HOUR
BURR'S LANE ACCESS

	1 GREENS AT HALF HOLLOW		2 47 SINGLE FAMILY HOMES		3 10 SINGLE FAMILY HOMES	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS
	VOL		VOL		VOL	
ENTER	96	ENTER	11	ENTER	4	
EXIT	87	EXIT	32	EXIT	12	
TOTAL	183	TOTAL	43	TOTAL	16	

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	%EN	%EX	2 VOL	%EN	%EX	3 VOL	SUBTOTAL VOL
LONG ISLAND EXPRESSWAY	NB	LEFT			0			0			0	0
(I-495)		THROUGH			0			0			0	0
SOUTH SERVICE ROAD		RIGHT			0			0			0	0
AT	SB	LEFT		25	22			0			0	22
BAGATELLE ROAD		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
1	EB	LEFT			0			0			0	0
		THROUGH			0		25	8		25	3	11
		RIGHT			0			0			0	0
	WB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
LONG ISLAND EXPRESSWAY	NB	LEFT			0			0			0	0
(I-495)		THROUGH			0			0			0	0
NORTH SERVICE ROAD		RIGHT			0			0			0	0
AT	SB	LEFT			0			0			0	0
BAGATELLE ROAD		THROUGH		25	22			0			0	22
		RIGHT			0			0			0	0
2	EB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	WB	LEFT			0			0			0	0
		THROUGH			0	25		3	25		1	4
		RIGHT	20		19			0			0	19
HALF HOLLOW ROAD	NB	LEFT	20		19			0			0	19
AT		THROUGH			0			0			0	0
BAGATELLE ROAD		RIGHT			0			0			0	0
	SB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
3	EB	LEFT			0			0			0	0
		THROUGH			0		10	3		10	1	4
		RIGHT		25	22			0			0	22
	WB	LEFT			0			0			0	0
		THROUGH	5		5	10		1	10		0	6
		RIGHT			0			0			0	0
HALF HOLLOW ROAD	NB	LEFT			0			0			0	0
AT		THROUGH			0			0			0	0
BURR'S LANE		RIGHT			0			0			0	0
	SB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
4	EB	LEFT			0			0			0	0
		THROUGH			0		10	3		10	1	4
		RIGHT			0			0			0	0
	WB	LEFT			0			0			0	0
		THROUGH			0	10		1	10		0	1
		RIGHT			0			0			0	0

RMS Engineering

AM PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

OTHER PLANNED PROJECTS

FIVE TOWNS COLLEGE PEAK HOUR
BURR'S LANE ACCESS

	1 GREENS AT HALF HOLLOW	2 47 SINGLE FAMILY HOMES	3 10 SINGLE FAMILY HOMES	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS
	VOL	VOL	VOL	
ENTER	96	11	4	
EXIT	87	32	12	
TOTAL	183	43	16	

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	%EN	%EX	2 VOL	%EN	%EX	3 VOL	SUBTOTAL VOL
HALF HOLLOW ROAD	NB	LEFT			0			0			0	0
AT		THROUGH			0			0			0	0
VANDERBILT PARKWAY		RIGHT			0			0			0	0
	SB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0		10	3		10	1	4
5	EB	LEFT			0	10		1	10		0	1
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	WB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
BURR'S LANE	NB	LEFT			0			0			0	0
AT		THROUGH			0			0			0	0
NORTH COLLEGE ACCESS		RIGHT			0			0			0	0
	SB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
6	EB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	WB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
BURR'S LANE	NB	LEFT			0			0			0	0
AT		THROUGH			0			0			0	0
SOUTH COLLEGE ACCESS		RIGHT			0			0			0	0
	SB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
7	EB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	WB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
BURR'S LANE	NB	LEFT			0			0			0	0
AT		THROUGH			0			0			0	0
LONG ISLAND ESPERSSWAY		RIGHT			0			0			0	0
(I-495)	SB	LEFT			0			0			0	0
NORTH SERVICE ROAD		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
8	EB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	WB	LEFT			0			0			0	0
		THROUGH	20		19	25		3	25		1	23
		RIGHT			0			0			0	0

RMS Engineering

AM PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

OWNS COLLEGE PEAK HOUR
BURR'S LANE ACCESS

LOCATION	DIR	MVMT	AMBIENT NO BUILD VOLUME	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS	SUBTOTAL NO BUILD VOLUME
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE ROAD AT BAGATELLE ROAD 1	NB	LEFT	0	0	0
		THROUGH	225	0	225
		RIGHT	95	0	95
	SB	LEFT	97	22	119
		THROUGH	169	0	169
		RIGHT	0	0	0
	EB	LEFT	128	0	128
		THROUGH	192	11	203
		RIGHT	80	0	80
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BAGATELLE ROAD 2	NB	LEFT	174	0	174
		THROUGH	187	0	187
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	182	22	204
		RIGHT	62	0	62
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	142	0	142
		THROUGH	270	4	274
		RIGHT	77	19	96
HALF HOLLOW ROAD AT BAGATELLE ROAD 3	NB	LEFT	148	19	167
		THROUGH	0	0	0
		RIGHT	131	0	131
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	139	4	143
		RIGHT	175	22	197
	WB	LEFT	90	0	90
		THROUGH	322	6	328
		RIGHT	0	0	0
HALF HOLLOW ROAD AT BURR'S LANE 4	NB	LEFT	13	0	13
		THROUGH	0	0	0
		RIGHT	37	0	37
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	202	4	206
		RIGHT	67	0	67
	WB	LEFT	112	0	112
		THROUGH	339	1	340
		RIGHT	0	0	0

RMS Engineering

AM PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

OWNS COLLEGE PEAK HOUR

BURR'S LANE ACCESS

LOCATION	DIR	MVMT	AMBIENT NO BUILD VOLUME	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS	SUBTOTAL NO BUILD VOLUME
HALF HOLLOW ROAD AT VANDERBILT PARKWAY 5	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	132	0	132
		THROUGH	0	0	0
		RIGHT	254	4	258
	EB	LEFT	76	1	77
		THROUGH	79	0	79
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	184	0	184
		RIGHT	108	0	108
BURR'S LANE AT NORTH COLLEGE ACCESS 6	NB	LEFT	0	0	0
		THROUGH	33	0	33
		RIGHT	6	0	6
	SB	LEFT	20	0	20
		THROUGH	159	0	159
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	9	0	9
		THROUGH	0	0	0
		RIGHT	16	0	16
BURR'S LANE AT SOUTH COLLEGE ACCESS 7	NB	LEFT	0	0	0
		THROUGH	28	0	28
		RIGHT	30	0	30
	SB	LEFT	111	0	111
		THROUGH	57	0	57
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	29	0	29
		THROUGH	0	0	0
		RIGHT	6	0	6
BURR'S LANE AT LONG ISLAND ESPERSSWAY (I-495) NORTH SERVICE ROAD 8	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	45	0	45
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	443	23	466
		RIGHT	89	0	89

RMS Engineering

AM PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

FIVE TOWNS COLLEGE PEAK HOUR
BURR'S LANE ACCESS

	FIVE TOWNS EXPANSION 208 BEDS VOL	SUBTOTAL TRAFFIC GENERATED
ENTER	26	
EXIT	26	
TOTAL	52	

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	SUBTOTAL VOL
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE ROAD AT BAGATELLE ROAD 1	NB	LEFT			0	0
		THROUGH	5		1	1
		RIGHT			0	0
	SB	LEFT		14	4	4
		THROUGH		8	2	2
		RIGHT			0	0
	EB	LEFT	9		2	2
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BAGATELLE ROAD 2	NB	LEFT			0	0
		THROUGH	14		4	4
		RIGHT			0	0
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT		22	6	6
		THROUGH		42	11	11
		RIGHT			0	0
HALF HOLLOW ROAD AT BAGATELLE ROAD 3	NB	LEFT			0	0
		THROUGH			0	0
		RIGHT	14		4	4
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH	16		4	4
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH		9	2	2
		RIGHT			0	0
HALF HOLLOW ROAD AT BURR'S LANE 4	NB	LEFT		9	2	2
		THROUGH			0	0
		RIGHT		27	7	7
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT	30		8	8
	WB	LEFT	49		13	13
		THROUGH			0	0
		RIGHT			0	0

RMS Engineering

AM PEAK HOUR
Project Name: Five Towns College
Project No.: 2002-056

FIVE TOWNS COLLEGE PEAK HOUR
BURR'S LANE ACCESS

					FIVE TOWNS EXPANSION 208 BEDS	SUBTOTAL TRAFFIC GENERATED
					VOL	
				ENTER	26	
				EXIT	26	
				TOTAL	52	
LOCATION	**DIR**	**MVMT**	**%EN**	**%EX**	1 **VOL**	SUBTOTAL VOL
HALF HOLLOW ROAD	NB	LEFT			0	0
AT		THROUGH			0	0
VANDERBILT PARKWAY		RIGHT			0	0
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT	28		7	7
5	EB	LEFT		13	3	3
		THROUGH		14	4	4
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH	21		5	5
		RIGHT			0	0
BURR'S LANE	NB	LEFT			0	0
AT		THROUGH		9	2	2
NORTH COLLEGE ACCESS		RIGHT	3		1	1
	SB	LEFT	12		3	3
		THROUGH	67		17	17
		RIGHT			0	0
6	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT		14	4	4
		THROUGH			0	0
		RIGHT		27	7	7
BURR'S LANE	NB	LEFT			0	0
AT		THROUGH	3		1	1
SOUTH COLLEGE ACCESS		RIGHT	18		5	5
	SB	LEFT	67		17	17
		THROUGH		14	4	4
		RIGHT			0	0
7	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT		50	13	13
		THROUGH			0	0
		RIGHT		9	2	2
BURR'S LANE	NB	LEFT			0	0
AT		THROUGH			0	0
LONG ISLAND ESPERSSWAY		RIGHT			0	0
(I-495)	SB	LEFT			0	0
NORTH SERVICE ROAD		THROUGH			0	0
		RIGHT		64	17	17
8	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH			0	0
		RIGHT	21		5	5

RMS Engineering

AM PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

FIVE TOWNS COLLEGE PEAK HOUR

BURR'S LANE ACCESS

LOCATION	DIR	MVMT	SUBTOTAL NO BUILD VOLUME	TRAFFIC GENERATED BY PROPOSED PROJECT	TOTAL BUILD VOLUME
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE ROAD AT BAGATELLE ROAD 1	NB	LEFT	0	0	0
		THROUGH	225	1	226
		RIGHT	95	0	95
	SB	LEFT	119	4	123
		THROUGH	169	2	171
		RIGHT	0	0	0
	EB	LEFT	128	2	130
		THROUGH	203	0	203
		RIGHT	80	0	80
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BAGATELLE ROAD 2	NB	LEFT	174	0	174
		THROUGH	187	4	191
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	204	0	204
		RIGHT	62	0	62
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	142	6	148
		THROUGH	274	11	285
		RIGHT	96	0	96
HALF HOLLOW ROAD AT BAGATELLE ROAD 3	NB	LEFT	167	0	167
		THROUGH	0	0	0
		RIGHT	131	4	135
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	143	4	147
		RIGHT	197	0	197
	WB	LEFT	90	0	90
		THROUGH	328	2	330
		RIGHT	0	0	0
HALF HOLLOW ROAD AT BURR'S LANE 4	NB	LEFT	13	2	15
		THROUGH	0	0	0
		RIGHT	37	7	44
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	206	0	206
		RIGHT	67	8	75
	WB	LEFT	112	13	125
		THROUGH	340	0	340
		RIGHT	0	0	0

RMS Engineering

AM PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

FIVE TOWNS COLLEGE PEAK HOUR
BURR'S LANE ACCESS

LOCATION	DIR	MVMT	SUBTOTAL NO BUILD VOLUME	TRAFFIC GENERATED BY PROPOSED PROJECT	TOTAL BUILD VOLUME
HALF HOLLOW ROAD AT VANDERBILT PARKWAY 5	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	132	0	132
		THROUGH	0	0	0
		RIGHT	258	7	265
	EB	LEFT	77	3	80
		THROUGH	79	4	83
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	184	5	189
		RIGHT	108	0	108
BURR'S LANE AT NORTH COLLEGE ACCESS 6	NB	LEFT	0	0	0
		THROUGH	33	2	35
		RIGHT	6	1	7
	SB	LEFT	20	3	23
		THROUGH	159	17	176
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	9	4	13
		THROUGH	0	0	0
		RIGHT	16	7	23
BURR'S LANE AT SOUTH COLLEGE ACCESS 7	NB	LEFT	0	0	0
		THROUGH	28	1	29
		RIGHT	30	5	35
	SB	LEFT	111	17	128
		THROUGH	57	4	61
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	29	13	42
		THROUGH	0	0	0
		RIGHT	6	2	8
BURR'S LANE AT LONG ISLAND ESPERSSWAY (I-495) NORTH SERVICE ROAD 8	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	45	17	62
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	466	0	466
		RIGHT	89	5	94

RMS Engineering

AM PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

GROWTH FACTOR: 1.00%
NO. OF YEARS: 2
GROWTH RATE: 1.030

COMMUTER PEAK HOUR
BURR'S LANE ACCESS

LOCATION	DIR	MVMT	EXISTING VOLUME	AMBIENT NO BUILD VOLUME
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE ROAD AT BAGATELLE ROAD 1				
	NB	LEFT	0	0
		THROUGH	520	536
		RIGHT	165	170
	SB	LEFT	169	175
		THROUGH	232	239
		RIGHT	0	0
	EB	LEFT	194	200
		THROUGH	233	240
		RIGHT	95	98
	WB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BAGATELLE ROAD 2				
	NB	LEFT	376	388
		THROUGH	312	322
		RIGHT	0	0
	SB	LEFT	0	0
		THROUGH	290	299
		RIGHT	188	194
	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	94	97
		THROUGH	1700	1751
		RIGHT	66	68
HALF HOLLOW ROAD AT BAGATELLE ROAD 3				
	NB	LEFT	271	280
		THROUGH	0	0
		RIGHT	145	150
	SB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	EB	LEFT	0	0
		THROUGH	141	146
		RIGHT	213	220
	WB	LEFT	235	243
		THROUGH	852	878
		RIGHT	0	0
HALF HOLLOW ROAD AT BURR'S LANE 4				
	NB	LEFT	10	11
		THROUGH	0	0
		RIGHT	29	30
	SB	LEFT	1	2
		THROUGH	0	0
		RIGHT	3	4
	EB	LEFT	2	3
		THROUGH	183	189
		RIGHT	90	93
	WB	LEFT	23	24
		THROUGH	1087	1120
		RIGHT	1	2

RMS Engineering

AM PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

GROWTH FACTOR: 1.00%
NO. OF YEARS: 2
GROWTH RATE: 1.030

COMMUTER PEAK HOUR
BURR'S LANE ACCESS

LOCATION	DIR	MVMT	EXISTING VOLUME	AMBIENT NO BUILD VOLUME
HALF HOLLOW ROAD	NB	LEFT	0	0
AT		THROUGH	0	0
VANDERBILT PARKWAY		RIGHT	0	0
	SB	LEFT	174	180
		THROUGH	0	0
		RIGHT	806	831
5	EB	LEFT	90	93
		THROUGH	104	108
		RIGHT	0	0
	WB	LEFT	0	0
		THROUGH	196	202
		RIGHT	81	84
BURR'S LANE	NB	LEFT	0	0
AT		THROUGH	31	32
NORTH COLLEGE ACCESS		RIGHT	4	5
	SB	LEFT	13	14
		THROUGH	100	103
		RIGHT	0	0
6	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	4	5
		THROUGH	0	0
		RIGHT	8	9
BURR'S LANE	NB	LEFT	0	0
AT		THROUGH	35	37
SOUTH COLLEGE ACCESS		RIGHT	25	26
	SB	LEFT	89	92
		THROUGH	15	16
		RIGHT	0	0
7	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	2	3
		THROUGH	0	0
		RIGHT	0	0
BURR'S LANE	NB	LEFT	0	0
AT		THROUGH	0	0
LONG ISLAND ESPERSSWAY		RIGHT	0	0
(I-495)	SB	LEFT	0	0
NORTH SERVICE ROAD		THROUGH	0	0
		RIGHT	23	24
8	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	0	0
		THROUGH	1837	1893
		RIGHT	60	62

RMS Engineering

AM PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

OTHER PLANNED PROJECTS

COMMUTER PEAK HOUR
BURR'S LANE ACCESS

	1 GREENS AT HALF HOLLOW	2 47 SINGLE FAMILY HOMES	3 10 SINGLE FAMILY HOMES	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS
	VOL	VOL	VOL	
ENTER	96	11	4	
EXIT	87	32	12	
TOTAL	183	43	16	

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	%EN	%EX	2 VOL	%EN	%EX	3 VOL	SUBTOTAL VOL
LONG ISLAND EXPRESSWAY	NB	LEFT			0			0			0	0
(I-495)		THROUGH			0			0			0	0
SOUTH SERVICE ROAD		RIGHT			0			0			0	0
AT	SB	LEFT		25	22			0			0	22
BAGATELLE ROAD		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
1	EB	LEFT			0			0			0	0
		THROUGH			0		25	8		25	3	11
		RIGHT			0			0			0	0
	WB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
LONG ISLAND EXPRESSWAY	NB	LEFT			0			0			0	0
(I-495)		THROUGH			0			0			0	0
NORTH SERVICE ROAD		RIGHT			0			0			0	0
AT	SB	LEFT			0			0			0	0
BAGATELLE ROAD		THROUGH		25	22			0			0	22
		RIGHT			0			0			0	0
2	EB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	WB	LEFT			0			0			0	0
		THROUGH			0	25		3	25		1	4
		RIGHT	20		19			0			0	19
HALF HOLLOW ROAD	NB	LEFT	20		19			0			0	19
AT		THROUGH			0			0			0	0
BAGATELLE ROAD		RIGHT			0			0			0	0
	SB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
3	EB	LEFT			0			0			0	0
		THROUGH			0		10	3		10	1	4
		RIGHT		25	22			0			0	22
	WB	LEFT			0			0			0	0
		THROUGH	5		5	10		1	10		0	6
		RIGHT			0			0			0	0
HALF HOLLOW ROAD	NB	LEFT			0			0			0	0
AT		THROUGH			0			0			0	0
BURR'S LANE		RIGHT			0			0			0	0
	SB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
4	EB	LEFT			0			0			0	0
		THROUGH			0		10	3		10	1	4
		RIGHT			0			0			0	0
	WB	LEFT			0			0			0	0
		THROUGH			0	10		1	10		0	1
		RIGHT			0			0			0	0
HALF HOLLOW ROAD	NB	LEFT			0			0			0	0
AT		THROUGH			0			0			0	0
VANDERBILT PARKWAY		RIGHT			0			0			0	0
	SB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0		10	3		10	1	4
5	EB	LEFT			0	10		1	10		0	1
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	WB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0

RMS Engineering

AM PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

OTHER PLANNED PROJECTS

COMMUTER PEAK HOUR
BURR'S LANE ACCESS

	1 GREENS AT HALF HOLLOW	2 47 SINGLE FAMILY HOMES	3 10 SINGLE FAMILY HOMES	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS
	VOL	VOL	VOL	
ENTER	96	11	4	
EXIT	87	32	12	
TOTAL	183	43	16	

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	%EN	%EX	2 VOL	%EN	%EX	3 VOL	SUBTOTAL VOL
BURR'S LANE AT NORTH COLLEGE ACCESS	NB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	SB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
6	EB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	WB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
BURR'S LANE AT SOUTH COLLEGE ACCESS	NB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	SB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
7	EB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	WB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
BURR'S LANE AT LONG ISLAND ESPERSSWAY (I-495) NORTH SERVICE ROAD	NB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	SB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
8	EB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	WB	LEFT			0			0			0	0
		THROUGH	20		19	25		3	25		1	23
		RIGHT			0			0			0	0

RMS Engineering

AM PEAK HOUR
Project Name: Five Towns College
Project No.: 2002-056

COMMUTER PEAK HOUR
BURR'S LANE ACCESS

LOCATION	DIR	MVMT	AMBIENT NO BUILD VOLUME	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS	SUBTOTAL NO BUILD VOLUME
LONG ISLAND EXPRESSWAY	NB	LEFT	0	0	0
(I-495)		THROUGH	536	0	536
SOUTH SERVICE ROAD		RIGHT	170	0	170
AT	SB	LEFT	175	22	197
BAGATELLE ROAD		THROUGH	239	0	239
		RIGHT	0	0	0
1	EB	LEFT	200	0	200
		THROUGH	240	11	251
		RIGHT	98	0	98
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
LONG ISLAND EXPRESSWAY	NB	LEFT	388	0	388
(I-495)		THROUGH	322	0	322
NORTH SERVICE ROAD		RIGHT	0	0	0
AT	SB	LEFT	0	0	0
BAGATELLE ROAD		THROUGH	299	22	321
		RIGHT	194	0	194
2	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	97	0	97
		THROUGH	1751	4	1755
		RIGHT	68	19	87
HALF HOLLOW ROAD	NB	LEFT	280	19	299
AT		THROUGH	0	0	0
BAGATELLE ROAD		RIGHT	150	0	150
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
3	EB	LEFT	0	0	0
		THROUGH	146	4	150
		RIGHT	220	22	242
	WB	LEFT	243	0	243
		THROUGH	878	6	884
		RIGHT	0	0	0
HALF HOLLOW ROAD	NB	LEFT	11	0	11
AT		THROUGH	0	0	0
BURR'S LANE		RIGHT	30	0	30
	SB	LEFT	2	0	2
		THROUGH	0	0	0
		RIGHT	4	0	4
4	EB	LEFT	3	0	3
		THROUGH	189	4	193
		RIGHT	93	0	93
	WB	LEFT	24	0	24
		THROUGH	1120	1	1121
		RIGHT	2	0	2

RMS Engineering

AM PEAK HOUR
Project Name: Five Towns College
Project No.: 2002-056

COMMUTER PEAK HOUR
BURR'S LANE ACCESS

LOCATION	**DIR**	**MVMT**	**AMBIENT NO BUILD VOLUME**	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS	**SUBTOTAL NO BUILD VOLUME**
HALF HOLLOW ROAD AT VANDERBILT PARKWAY	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	180	0	180
		THROUGH	0	0	0
		RIGHT	831	4	835
5	EB	LEFT	93	1	94
		THROUGH	108	0	108
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	202	0	202
		RIGHT	84	0	84
BURR'S LANE AT NORTH COLLEGE ACCESS	NB	LEFT	0	0	0
		THROUGH	32	0	32
		RIGHT	5	0	5
	SB	LEFT	14	0	14
		THROUGH	103	0	103
		RIGHT	0	0	0
6	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	5	0	5
		THROUGH	0	0	0
		RIGHT	9	0	9
BURR'S LANE AT SOUTH COLLEGE ACCESS	NB	LEFT	0	0	0
		THROUGH	37	0	37
		RIGHT	26	0	26
	SB	LEFT	92	0	92
		THROUGH	16	0	16
		RIGHT	0	0	0
7	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	3	0	3
		THROUGH	0	0	0
		RIGHT	0	0	0
BURR'S LANE AT LONG ISLAND ESPERSSWAY (I-495) NORTH SERVICE ROAD	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	24	0	24
8	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	1893	23	1916
		RIGHT	62	0	62

RMS Engineering

AM PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

	FIVE TOWNS EXPANSION 208 BEDS	SUBTOTAL TRAFFIC GENERATED
	VOL	
ENTER	26	
EXIT	26	
TOTAL	52	

COMMUTER PEAK HOUR

BURR'S LANE ACCESS

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	SUBTOTAL VOL
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE ROAD AT BAGATELLE ROAD 1	NB	LEFT			0	0
		THROUGH	9		2	2
		RIGHT			0	0
	SB	LEFT		1	0	0
		THROUGH		2	1	1
		RIGHT			0	0
	EB	LEFT	23		6	6
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BAGATELLE ROAD 2	NB	LEFT			0	0
		THROUGH	32		8	8
		RIGHT			0	0
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT		3	1	1
		THROUGH		40	10	10
		RIGHT			0	0
HALF HOLLOW ROAD AT BAGATELLE ROAD 3	NB	LEFT			0	0
		THROUGH			0	0
		RIGHT	32		8	8
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH	30		8	8
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH		15	4	4
		RIGHT			0	0
HALF HOLLOW ROAD AT BURR'S LANE 4	NB	LEFT		15	4	4
		THROUGH			0	0
		RIGHT		42	11	11
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT	62		16	16
	WB	LEFT	16		4	4
		THROUGH			0	0
		RIGHT			0	0

RMS Engineering

AM PEAK HOUR
Project Name: Five Towns College
Project No.: 2002-056

	FIVE TOWNS EXPANSION 208 BEDS	SUBTOTAL TRAFFIC GENERATED
	VOL	
ENTER	26	
EXIT	26	
TOTAL	52	

COMMUTER PEAK HOUR
BURR'S LANE ACCESS

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	SUBTOTAL VOL
HALF HOLLOW ROAD AT VANDERBILT PARKWAY 5	NB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT	13		3	3
	EB	LEFT		19	5	5
		THROUGH		23	6	6
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH	3		1	1
		RIGHT			0	0
BURR'S LANE AT NORTH COLLEGE ACCESS 6	NB	LEFT			0	0
		THROUGH			0	0
		RIGHT	3		1	1
	SB	LEFT	10		3	3
		THROUGH	68		18	18
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT		29	8	8
		THROUGH			0	0
		RIGHT		57	15	15
BURR'S LANE AT SOUTH COLLEGE ACCESS 7	NB	LEFT			0	0
		THROUGH	3		1	1
		RIGHT	19		5	5
	SB	LEFT	68		18	18
		THROUGH		29	8	8
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT		14	4	4
		THROUGH			0	0
		RIGHT			0	0
BURR'S LANE AT LONG ISLAND ESPERSSWAY (I-495) NORTH SERVICE ROAD 8	NB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT		43	11	11
	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH			0	0
		RIGHT	22		6	6

RMS Engineering

AM PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

COMMUTER PEAK HOUR

BURR'S LANE ACCESS

LOCATION	DIR	MVMT	SUBTOTAL NO BUILD VOLUME	TRAFFIC GENERATED BY PROPOSED PROJECT	TOTAL BUILD VOLUME
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE ROAD AT BAGATELLE ROAD 1	NB	LEFT	0	0	0
		THROUGH	536	2	538
		RIGHT	170	0	170
	SB	LEFT	197	0	197
		THROUGH	239	1	240
		RIGHT	0	0	0
	EB	LEFT	200	6	206
		THROUGH	251	0	251
		RIGHT	98	0	98
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BAGATELLE ROAD 2	NB	LEFT	388	0	388
		THROUGH	322	8	330
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	321	0	321
		RIGHT	194	0	194
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	97	1	98
		THROUGH	1755	10	1765
		RIGHT	87	0	87
HALF HOLLOW ROAD AT BAGATELLE ROAD 3	NB	LEFT	299	0	299
		THROUGH	0	0	0
		RIGHT	150	8	158
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	150	8	158
		RIGHT	242	0	242
	WB	LEFT	243	0	243
		THROUGH	884	4	888
		RIGHT	0	0	0
HALF HOLLOW ROAD AT BURR'S LANE 4	NB	LEFT	11	4	15
		THROUGH	0	0	0
		RIGHT	30	11	41
	SB	LEFT	2	0	2
		THROUGH	0	0	0
		RIGHT	4	0	4
	EB	LEFT	3	0	3
		THROUGH	193	0	193
		RIGHT	93	16	109
	WB	LEFT	24	4	28
		THROUGH	1121	0	1121
		RIGHT	2	0	2

RMS Engineering

AM PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

COMMUTER PEAK HOUR

BURR'S LANE ACCESS

LOCATION	DIR	MVMT	SUBTOTAL NO BUILD VOLUME	TRAFFIC GENERATED BY PROPOSED PROJECT	TOTAL BUILD VOLUME
HALF HOLLOW ROAD AT VANDERBILT PARKWAY 5	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	180	0	180
		THROUGH	0	0	0
		RIGHT	835	3	838
	EB	LEFT	94	5	99
		THROUGH	108	6	114
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	202	1	203
		RIGHT	84	0	84
BURR'S LANE AT NORTH COLLEGE ACCESS 6	NB	LEFT	0	0	0
		THROUGH	32	0	32
		RIGHT	5	1	6
	SB	LEFT	14	3	17
		THROUGH	103	18	121
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	5	8	13
		THROUGH	0	0	0
		RIGHT	9	15	24
BURR'S LANE AT SOUTH COLLEGE ACCESS 7	NB	LEFT	0	0	0
		THROUGH	37	1	38
		RIGHT	26	5	31
	SB	LEFT	92	18	110
		THROUGH	16	8	24
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	3	4	7
		THROUGH	0	0	0
		RIGHT	0	0	0
BURR'S LANE AT LONG ISLAND ESPERSSWAY (I-495) NORTH SERVICE ROAD 8	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	24	11	35
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	1916	0	1916
		RIGHT	62	6	68

RMS Engineering

PM PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

GROWTH FACTOR: 1.00%

NO. OF YEARS: 2

GROWTH RATE: 1.030

FIVE TOWNS COLLEGE PEAK HOUR

BURR'S LANE ACCESS

LOCATION	DIR	MVMT	EXISTING VOLUME	AMBIENT NO BUILD VOLUME
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE ROAD AT BAGATELLE ROAD 1	NB	LEFT	0	0
		THROUGH	312	322
		RIGHT	136	141
	SB	LEFT	221	228
		THROUGH	381	393
		RIGHT	0	0
	EB	LEFT	130	134
		THROUGH	1185	1221
		RIGHT	137	142
	WB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BAGATELLE ROAD 2	NB	LEFT	157	162
		THROUGH	275	284
		RIGHT	0	0
	SB	LEFT	0	0
		THROUGH	365	376
		RIGHT	56	58
	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	242	250
		THROUGH	235	243
		RIGHT	79	82
HALF HOLLOW ROAD AT BAGATELLE ROAD 3	NB	LEFT	197	203
		THROUGH	0	0
		RIGHT	123	127
	SB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	EB	LEFT	0	0
		THROUGH	295	304
		RIGHT	313	323
	WB	LEFT	120	124
		THROUGH	186	192
		RIGHT	0	0
HALF HOLLOW ROAD AT BURR'S LANE 4	NB	LEFT	43	45
		THROUGH	0	0
		RIGHT	45	47
	SB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	EB	LEFT	0	0
		THROUGH	328	338
		RIGHT	52	54
	WB	LEFT	23	24
		THROUGH	329	339
		RIGHT	0	0

RMS Engineering

PM PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

GROWTH FACTOR: 1.00%
NO. OF YEARS: 2
GROWTH RATE: 1.030

FIVE TOWNS COLLEGE PEAK HOUR
BURR'S LANE ACCESS

LOCATION	DIR	MVMT	EXISTING VOLUME	AMBIENT NO BUILD VOLUME
HALF HOLLOW ROAD AT VANDERBILT PARKWAY 5	NB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	SB	LEFT	90	93
		THROUGH	0	0
		RIGHT	130	134
	EB	LEFT	201	208
		THROUGH	135	140
		RIGHT	0	0
	WB	LEFT	0	0
		THROUGH	127	131
		RIGHT	59	61
BURR'S LANE AT NORTH COLLEGE ACCESS 6	NB	LEFT	0	0
		THROUGH	20	21
		RIGHT	12	13
	SB	LEFT	33	34
		THROUGH	55	57
		RIGHT	0	0
	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	54	56
		THROUGH	0	0
		RIGHT	34	36
BURR'S LANE AT SOUTH COLLEGE ACCESS 7	NB	LEFT	0	0
		THROUGH	51	53
		RIGHT	3	4
	SB	LEFT	10	11
		THROUGH	65	67
		RIGHT	0	0
	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	23	24
		THROUGH	0	0
		RIGHT	37	39
BURR'S LANE AT LONG ISLAND ESPERSSWAY (I-495) NORTH SERVICE ROAD 8	NB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	SB	LEFT	0	0
		THROUGH	0	0
		RIGHT	90	93
	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	0	0
		THROUGH	466	480
		RIGHT	55	57

RMS Engineering

PM PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

OTHER PLANNED PROJECTS

FIVE TOWNS COLLEGE PEAK HOUR BURR'S LANE ACCESS

	1 GREENS AT HALF HOLLOW	2 47 SINGLE FAMILY HOMES	3 10 SINGLE FAMILY HOMES	4 DIX HILLS SOCCER CLUB	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS
	VOL	VOL	VOL	VOL	
ENTER	144	35	9	20	
EXIT	104	20	5	20	
TOTAL	248	55	14	40	

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	%EN	%EX	2 VOL	%EN	%EX	3 VOL	%EN	%EX	3 VOL	SUBTOTAL VOL
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE ROAD AT BAGATELLE ROAD 1	NB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0	5		1	1
	SB	LEFT		25	26			0			0		20	4	30
		THROUGH			0			0			0		5	1	1
		RIGHT			0			0			0			0	0
	EB	LEFT			0			0			0			0	0
		THROUGH			0		25	5		25	1	20		4	10
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BAGATELLE ROAD 2	NB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	SB	LEFT			0			0			0			0	0
		THROUGH		25	26			0			0			0	26
		RIGHT			0			0			0			0	0
	EB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0		25	5	5
		THROUGH			0	25		9	25		2		35	7	18
		RIGHT	20		29			0			0		40	8	37
HALF HOLLOW ROAD AT BAGATELLE ROAD 3	NB	LEFT	20		29			0			0		25	5	34
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0		15	3	3
	SB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	EB	LEFT			0			0			0			0	0
		THROUGH			0		10	2		10	1	25		5	8
		RIGHT		25	26			0			0			0	26
	WB	LEFT			0			0			0			0	0
		THROUGH	5		7	10		4	10		1			0	12
		RIGHT			0			0			0			0	0
HALF HOLLOW ROAD AT BURR'S LANE 4	NB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	SB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	EB	LEFT			0			0			0			0	0
		THROUGH			0		10	2		10	1	25	15	8	11
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0			0	0
		THROUGH			0	10		4	10		1			0	5
		RIGHT			0			0			0			0	0

RMS Engineering

PM PEAK HOUR
Project Name: Five Towns College
Project No.: 2002-056

OTHER PLANNED PROJECTS

FIVE TOWNS COLLEGE PEAK HOUR
BURR'S LANE ACCESS

	1 GREENS AT HALF HOLLOW	2 47 SINGLE FAMILY HOMES	3 10 SINGLE FAMILY HOMES	4 DIX HILLS SOCCER CLUB	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS
	VOL	VOL	VOL	VOL	
ENTER	144	35	9	20	
EXIT	104	20	5	20	
TOTAL	248	55	14	40	

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	%EN	%EX	2 VOL	%EN	%EX	3 VOL	%EN	%EX	3 VOL	SUBTOTAL VOL
HALF HOLLOW ROAD AT VANDERBILT PARKWAY	NB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	SB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0		10	2		10	1			0	3
5	EB	LEFT			0	10		4	10		1		15	3	8
		THROUGH			0			0			0	25		5	5
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
BURR'S LANE AT NORTH COLLEGE ACCESS	NB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	SB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
6	EB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
BURR'S LANE AT SOUTH COLLEGE ACCESS	NB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0	100		20	20
	SB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
7	EB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0		100	20	20
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
BURR'S LANE AT LONG ISLAND ESPERSSWAY (I-495) NORTH SERVICE ROAD	NB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	SB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0		100	20	20
8	EB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0			0	0
		THROUGH	20		29	25		9	25		2			0	40
		RIGHT			0			0			0	100		20	20

RMS Engineering

PM PEAK HOUR
Project Name: Five Towns College
Project No.: 2002-056

FIVE TOWNS COLLEGE PEAK HOUR
BURR'S LANE ACCESS

LOCATION	DIR	MVMT	AMBIENT NO BUILD VOLUME	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS	SUBTOTAL NO BUILD VOLUME
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE ROAD AT BAGATELLE ROAD 1	NB	LEFT	0	0	0
		THROUGH	322	0	322
		RIGHT	141	1	142
	SB	LEFT	228	30	258
		THROUGH	393	1	394
		RIGHT	0	0	0
	EB	LEFT	134	0	134
		THROUGH	1221	10	1231
		RIGHT	142	0	142
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BAGATELLE ROAD 2	NB	LEFT	162	0	162
		THROUGH	284	0	284
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	376	26	402
		RIGHT	58	0	58
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	250	5	255
		THROUGH	243	18	261
		RIGHT	82	37	119
HALF HOLLOW ROAD AT BAGATELLE ROAD 3	NB	LEFT	203	34	237
		THROUGH	0	0	0
		RIGHT	127	3	130
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	304	8	312
		RIGHT	323	26	349
	WB	LEFT	124	0	124
		THROUGH	192	12	204
		RIGHT	0	0	0
HALF HOLLOW ROAD AT BURR'S LANE 4	NB	LEFT	45	0	45
		THROUGH	0	0	0
		RIGHT	47	0	47
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	338	11	349
		RIGHT	54	0	54
	WB	LEFT	24	0	24
		THROUGH	339	5	344
		RIGHT	0	0	0

RMS Engineering

PM PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

FIVE TOWNS COLLEGE PEAK HOUR

BURR'S LANE ACCESS

LOCATION	DIR	MVMT	AMBIENT NO BUILD VOLUME	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS	SUBTOTAL NO BUILD VOLUME
HALF HOLLOW ROAD AT VANDERBILT PARKWAY	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	93	0	93
		THROUGH	0	0	0
		RIGHT	134	3	137
5	EB	LEFT	208	8	216
		THROUGH	140	5	145
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	131	0	131
		RIGHT	61	0	61
BURR'S LANE AT NORTH COLLEGE ACCESS	NB	LEFT	0	0	0
		THROUGH	21	0	21
		RIGHT	13	0	13
	SB	LEFT	34	0	34
		THROUGH	57	0	57
		RIGHT	0	0	0
6	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	56	0	56
		THROUGH	0	0	0
		RIGHT	36	0	36
BURR'S LANE AT SOUTH COLLEGE ACCESS	NB	LEFT	0	0	0
		THROUGH	53	0	53
		RIGHT	4	20	24
	SB	LEFT	11	0	11
		THROUGH	67	0	67
		RIGHT	0	0	0
7	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	24	20	44
		THROUGH	0	0	0
		RIGHT	39	0	39
BURR'S LANE AT LONG ISLAND ESPERSSWAY (I-495) NORTH SERVICE ROAD	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	93	20	113
8	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	480	40	520
		RIGHT	57	20	77

RMS Engineering

PM PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

FIVE TOWNS COLLEGE PEAK HOUR

BURR'S LANE ACCESS

	FIVE TOWNS EXPANSION 208 BEDS VOL	SUBTOTAL TRAFFIC GENERATED
ENTER	26	
EXIT	26	
TOTAL	52	

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	SUBTOTAL VOL
LONG ISLAND EXPRESSWAY	NB	LEFT			0	0
(I-495)		THROUGH	4		1	1
SOUTH SERVICE ROAD		RIGHT			0	0
AT	SB	LEFT		10	3	3
BAGATELLE ROAD		THROUGH		17	4	4
		RIGHT			0	0
1	EB	LEFT	11		3	3
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
LONG ISLAND EXPRESSWAY	NB	LEFT			0	0
(I-495)		THROUGH	15		4	4
NORTH SERVICE ROAD		RIGHT			0	0
AT	SB	LEFT			0	0
BAGATELLE ROAD		THROUGH			0	0
		RIGHT			0	0
2	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT		27	7	7
		THROUGH		25	7	7
		RIGHT			0	0
HALF HOLLOW ROAD	NB	LEFT			0	0
AT		THROUGH			0	0
BAGATELLE ROAD		RIGHT	15		4	4
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
3	EB	LEFT			0	0
		THROUGH	36		9	9
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH		23	6	6
		RIGHT			0	0
HALF HOLLOW ROAD	NB	LEFT		23	6	6
AT		THROUGH			0	0
BURR'S LANE		RIGHT		25	7	7
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
4	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT	51		13	13
	WB	LEFT	23		6	6
		THROUGH			0	0
		RIGHT			0	0

RMS Engineering

PM PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

	FIVE TOWNS EXPANSION 208 BEDS	SUBTOTAL TRAFFIC GENERATED
	VOL	
ENTER	26	
EXIT	26	
TOTAL	52	

FIVE TOWNS COLLEGE PEAK HOUR

BURR'S LANE ACCESS

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	SUBTOTAL VOL
HALF HOLLOW ROAD AT VANDERBILT PARKWAY	NB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT	12		3	3
5	EB	LEFT		15	4	4
		THROUGH		10	3	3
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH	11		3	3
		RIGHT			0	0
BURR'S LANE AT NORTH COLLEGE ACCESS	NB	LEFT			0	0
		THROUGH		23	6	6
		RIGHT	5		1	1
	SB	LEFT	17		4	4
		THROUGH	57		15	15
		RIGHT			0	0
6	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT		15	4	4
		THROUGH			0	0
		RIGHT		.25	7	7
BURR'S LANE AT SOUTH COLLEGE ACCESS	NB	LEFT			0	0
		THROUGH	5		1	1
		RIGHT	21		5	5
	SB	LEFT	57		15	15
		THROUGH		15	4	4
		RIGHT			0	0
7	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT		37	10	10
		THROUGH			0	0
		RIGHT		23	6	6
BURR'S LANE AT LONG ISLAND ESPERSSWAY (I-495) NORTH SERVICE ROAD	NB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT		52	14	14
8	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH			0	0
		RIGHT	26		7	7

RMS Engineering

PM PEAK HOUR
Project Name: Five Towns College
Project No.: 2002-056

FIVE TOWNS COLLEGE PEAK HOUR
BURR'S LANE ACCESS

LOCATION	DIR	MVMT	SUBTOTAL NO BUILD VOLUME	TRAFFIC GENERATED BY PROPOSED PROJECT	TOTAL BUILD VOLUME
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE ROAD AT BAGATELLE ROAD 1	NB	LEFT	0	0	0
		THROUGH	322	1	323
		RIGHT	142	0	142
	SB	LEFT	258	3	261
		THROUGH	394	4	398
		RIGHT	0	0	0
	EB	LEFT	134	3	137
		THROUGH	1231	0	1231
		RIGHT	142	0	142
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BAGATELLE ROAD 2	NB	LEFT	162	0	162
		THROUGH	284	4	288
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	402	0	402
		RIGHT	58	0	58
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	255	7	262
		THROUGH	261	7	268
		RIGHT	119	0	119
HALF HOLLOW ROAD AT BAGATELLE ROAD 3	NB	LEFT	237	0	237
		THROUGH	0	0	0
		RIGHT	130	4	134
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	312	9	321
		RIGHT	349	0	349
	WB	LEFT	124	0	124
		THROUGH	204	6	210
		RIGHT	0	0	0
HALF HOLLOW ROAD AT BURR'S LANE 4	NB	LEFT	45	6	51
		THROUGH	0	0	0
		RIGHT	47	7	54
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	349	0	349
		RIGHT	54	13	67
	WB	LEFT	24	6	30
		THROUGH	344	0	344
		RIGHT	0	0	0

RMS Engineering

PM PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

FIVE TOWNS COLLEGE PEAK HOUR

BURR'S LANE ACCESS

LOCATION	DIR	MVMT	SUBTOTAL NO BUILD VOLUME	TRAFFIC GENERATED BY PROPOSED PROJECT	TOTAL BUILD VOLUME
HALF HOLLOW ROAD AT VANDERBILT PARKWAY	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	93	0	93
		THROUGH	0	0	0
		RIGHT	137	3	140
5	EB	LEFT	216	4	220
		THROUGH	145	3	148
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	131	3	134
		RIGHT	61	0	61
BURR'S LANE AT NORTH COLLEGE ACCESS	NB	LEFT	0	0	0
		THROUGH	21	6	27
		RIGHT	13	1	14
	SB	LEFT	34	4	38
		THROUGH	57	15	72
		RIGHT	0	0	0
6	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	56	4	60
		THROUGH	0	0	0
		RIGHT	36	7	43
BURR'S LANE AT SOUTH COLLEGE ACCESS	NB	LEFT	0	0	0
		THROUGH	53	1	54
		RIGHT	24	5	29
	SB	LEFT	11	15	26
		THROUGH	67	4	71
		RIGHT	0	0	0
7	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	44	10	54
		THROUGH	0	0	0
		RIGHT	39	6	45
BURR'S LANE AT LONG ISLAND ESPERSSWAY (I-495) NORTH SERVICE ROAD	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	113	14	127
8	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	520	0	520
		RIGHT	77	7	84

RMS Engineering

PM PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

GROWTH FACTOR: 1.00%
NO. OF YEARS: 2
GROWTH RATE: 1.030

COMMUTER PEAK HOUR
BURR'S LANE ACCESS

LOCATION	DIR	MVMT	EXISTING VOLUME	AMBIENT NO BUILD VOLUME
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE ROAD AT BAGATELLE ROAD 1	NB	LEFT	0	0
		THROUGH	251	259
		RIGHT	111	115
	SB	LEFT	242	250
		THROUGH	408	421
		RIGHT	0	0
	EB	LEFT	127	131
		THROUGH	1800	1854
		RIGHT	153	158
	WB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BAGATELLE ROAD 2	NB	LEFT	133	137
		THROUGH	272	281
		RIGHT	0	0
	SB	LEFT	0	0
		THROUGH	417	430
		RIGHT	60	62
	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	236	244
		THROUGH	213	220
		RIGHT	89	92
HALF HOLLOW ROAD AT BAGATELLE ROAD 3	NB	LEFT	183	189
		THROUGH	0	0
		RIGHT	140	145
	SB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	EB	LEFT	0	0
		THROUGH	472	487
		RIGHT	352	363
	WB	LEFT	123	127
		THROUGH	187	193
		RIGHT	0	0
HALF HOLLOW ROAD AT BURR'S LANE 4	NB	LEFT	25	26
		THROUGH	0	0
		RIGHT	20	21
	SB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	EB	LEFT	0	0
		THROUGH	517	533
		RIGHT	25	26
	WB	LEFT	8	9
		THROUGH	279	288
		RIGHT	0	0

RMS Engineering

PM PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

GROWTH FACTOR: 1.00%
NO. OF YEARS: 2
GROWTH RATE: 1.030

COMMUTER PEAK HOUR
BURR'S LANE ACCESS

LOCATION	DIR	MVMT	EXISTING VOLUME	AMBIENT NO BUILD VOLUME
HALF HOLLOW ROAD AT VANDERBILT PARKWAY 5	NB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	SB	LEFT	108	112
		THROUGH	0	0
		RIGHT	157	162
	EB	LEFT	324	334
		THROUGH	196	202
		RIGHT	0	0
	WB	LEFT	0	0
		THROUGH	112	116
		RIGHT	87	90
BURR'S LANE AT NORTH COLLEGE ACCESS 6	NB	LEFT	0	0
		THROUGH	20	21
		RIGHT	5	6
	SB	LEFT	14	15
		THROUGH	31	32
		RIGHT	0	0
	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	24	25
		THROUGH	0	0
		RIGHT	8	9
BURR'S LANE AT SOUTH COLLEGE ACCESS 7	NB	LEFT	0	0
		THROUGH	27	28
		RIGHT	1	2
	SB	LEFT	10	11
		THROUGH	23	24
		RIGHT	0	0
	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	22	23
		THROUGH	0	0
		RIGHT	18	19
BURR'S LANE AT LONG ISLAND ESPERSSWAY (I-495) NORTH SERVICE ROAD 8	NB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	SB	LEFT	0	0
		THROUGH	0	0
		RIGHT	40	42
	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	0	0
		THROUGH	498	513
		RIGHT	25	26

RMS Engineering

PM PEAK HOUR
Project Name: Five Towns College
Project No.: 2002-056

OTHER PLANNED PROJECTS

COMMUTER PEAK HOUR
BURR'S LANE ACCESS

	1 GREENS AT HALF HOLLOW	2 47 SINGLE FAMILY HOMES	3 10 SINGLE FAMILY HOMES	4 DIX HILLS SOCCER CLUB	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS
	VOL	VOL	VOL	VOL	
ENTER	144	35	9	20	
EXIT	104	20	5	20	
TOTAL	248	55	14	40	

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	%EN	%EX	2 VOL	%EN	%EX	3 VOL	%EN	%EX	3 VOL	SUBTOTAL VOL
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE ROAD AT BAGATELLE ROAD 1	NB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0	5		1	1
	SB	LEFT		25	26			0			0		20	4	30
		THROUGH			0			0			0		5	1	1
		RIGHT			0			0			0			0	0
	EB	LEFT			0			0			0			0	0
		THROUGH			0		25	5		25	1	20		4	10
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BAGATELLE ROAD 2	NB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	SB	LEFT			0			0			0			0	0
		THROUGH		25	26			0			0			0	26
		RIGHT			0			0			0			0	0
	EB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0		25	5	5
		THROUGH			0	25		9	25		2		35	7	18
		RIGHT	20		29			0			0		40	8	37
HALF HOLLOW ROAD AT BAGATELLE ROAD 3	NB	LEFT	20		29			0			0		25	5	34
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0		15	3	3
	SB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	EB	LEFT			0			0			0			0	0
		THROUGH			0		10	2		10	1	25		5	8
		RIGHT		25	26			0			0			0	26
	WB	LEFT			0			0			0			0	0
		THROUGH	5		7	10		4	10		1			0	12
		RIGHT			0			0			0			0	0
HALF HOLLOW ROAD AT BURR'S LANE 4	NB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	SB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	EB	LEFT			0			0			0			0	0
		THROUGH			0		10	2		10	1	25	15	8	11
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0			0	0
		THROUGH			0	10		4	10		1			0	5
		RIGHT			0			0			0			0	0

RMS Engineering

PM PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

OTHER PLANNED PROJECTS

COMMUTER PEAK HOUR
BURR'S LANE ACCESS

	1 GREENS AT HALF HOLLOW	2 47 SINGLE FAMILY HOMES	3 10 SINGLE FAMILY HOMES	4 DIX HILLS SOCCER CLUB	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS
	VOL	VOL	VOL	VOL	
ENTER	144	35	9	20	
EXIT	104	20	5	20	
TOTAL	248	55	14	40	

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	%EN	%EX	2 VOL	%EN	%EX	3 VOL	%EN	%EX	3 VOL	SUBTOTAL VOL
HALF HOLLOW ROAD AT VANDERBILT PARKWAY	NB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	SB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0		10	2		10	1			0	3
5	EB	LEFT			0	10		4	10		1		15	3	8
		THROUGH			0			0			0	25		5	5
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
BURR'S LANE AT NORTH COLLEGE ACCESS	NB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	SB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
6	EB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
BURR'S LANE AT SOUTH COLLEGE ACCESS	NB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0	100		20	20
	SB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
7	EB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0		100	20	20
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
					0			0			0			0	0
BURR'S LANE AT LONG ISLAND ESPERSSWAY (I-495) NORTH SERVICE ROAD	NB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	SB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0		100	20	20
8	EB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0			0	0
		THROUGH	20		29	25		9	25		2			0	40
		RIGHT			0			0			0	100		20	20

RMS Engineering

PM PEAK HOUR
Project Name: Five Towns College
Project No.: 2002-056

COMMUTER PEAK HOUR
BURR'S LANE ACCESS

LOCATION	DIR	MVMT	AMBIENT NO BUILD VOLUME	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS	SUBTOTAL NO BUILD VOLUME
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE ROAD AT BAGATELLE ROAD 1	NB	LEFT	0	0	0
		THROUGH	259	0	259
		RIGHT	115	1	116
	SB	LEFT	250	30	280
		THROUGH	421	1	422
		RIGHT	0	0	0
	EB	LEFT	131	0	131
		THROUGH	1854	10	1864
		RIGHT	158	0	158
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BAGATELLE ROAD 2	NB	LEFT	137	0	137
		THROUGH	281	0	281
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	430	26	456
		RIGHT	62	0	62
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	244	5	249
		THROUGH	220	18	238
		RIGHT	92	37	129
HALF HOLLOW ROAD AT BAGATELLE ROAD 3	NB	LEFT	189	34	223
		THROUGH	0	0	0
		RIGHT	145	3	148
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	487	8	495
		RIGHT	363	26	389
	WB	LEFT	127	0	127
		THROUGH	193	12	205
		RIGHT	0	0	0
HALF HOLLOW ROAD AT BURR'S LANE 4	NB	LEFT	26	0	26
		THROUGH	0	0	0
		RIGHT	21	0	21
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	533	11	544
		RIGHT	26	0	26
	WB	LEFT	9	0	9
		THROUGH	288	5	293
		RIGHT	0	0	0

RMS Engineering

PM PEAK HOUR
Project Name: Five Towns College
Project No.: 2002-056

COMMUTER PEAK HOUR
BURR'S LANE ACCESS

LOCATION	DIR	MVMT	AMBIENT NO BUILD VOLUME	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS	SUBTOTAL NO BUILD VOLUME
HALF HOLLOW ROAD AT VANDERBILT PARKWAY 5	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	112	0	112
		THROUGH	0	0	0
		RIGHT	162	3	165
	EB	LEFT	334	8	342
		THROUGH	202	5	207
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	116	0	116
		RIGHT	90	0	90
BURR'S LANE AT NORTH COLLEGE ACCESS 6	NB	LEFT	0	0	0
		THROUGH	21	0	21
		RIGHT	6	0	6
	SB	LEFT	15	0	15
		THROUGH	32	0	32
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	25	0	25
		THROUGH	0	0	0
		RIGHT	9	0	9
BURR'S LANE AT SOUTH COLLEGE ACCESS 7	NB	LEFT	0	0	0
		THROUGH	28	0	28
		RIGHT	2	20	22
	SB	LEFT	11	0	11
		THROUGH	24	0	24
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	23	20	43
		THROUGH	0	0	0
		RIGHT	19	0	19
BURR'S LANE AT LONG ISLAND ESPERSSWAY (I-495) NORTH SERVICE ROAD 8	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	42	20	62
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	513	40	553
		RIGHT	26	20	46

RMS Engineering

PM PEAK HOUR
Project Name: Five Towns College
Project No.: 2002-056

COMMUTER PEAK HOUR
BURR'S LANE ACCESS

	FIVE TOWNS EXPANSION 208 BEDS	SUBTOTAL TRAFFIC GENERATED
	VOL	
ENTER	26	
EXIT	26	
TOTAL	52	

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	SUBTOTAL VOL
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE ROAD AT BAGATELLE ROAD 1	NB	LEFT			0	0
		THROUGH	9		2	2
		RIGHT			0	0
	SB	LEFT		13	3	3
		THROUGH		21	5	5
		RIGHT			0	0
	EB	LEFT	5		1	1
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BAGATELLE ROAD 2	NB	LEFT			0	0
		THROUGH	14		4	4
		RIGHT			0	0
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT		34	9	9
		THROUGH		30	8	8
		RIGHT			0	0
HALF HOLLOW ROAD AT BAGATELLE ROAD 3	NB	LEFT			0	0
		THROUGH			0	0
		RIGHT	14		4	4
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH	45		12	12
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH		20	5	5
		RIGHT			0	0
HALF HOLLOW ROAD AT BURR'S LANE 4	NB	LEFT		20	5	5
		THROUGH			0	0
		RIGHT		16	4	4
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT	59		15	15
	WB	LEFT	20		5	5
		THROUGH			0	0
		RIGHT			0	0

RMS Engineering

PM PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

COMMUTER PEAK HOUR

BURR'S LANE ACCESS

	FIVE TOWNS EXPANSION 208 BEDS	SUBTOTAL TRAFFIC GENERATED
	VOL	
ENTER	26	
EXIT	26	
TOTAL	52	

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	SUBTOTAL VOL
HALF HOLLOW ROAD AT VANDERBILT PARKWAY 5	NB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT	16		4	4
	EB	LEFT		10	3	3
		THROUGH		6	2	2
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH	4		1	1
		RIGHT			0	0
BURR'S LANE AT NORTH COLLEGE ACCESS 6	NB	LEFT			0	0
		THROUGH		11	3	3
		RIGHT	4		1	1
	SB	LEFT	33		9	9
		THROUGH	46		12	12
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT		31	8	8
		THROUGH			0	0
		RIGHT		25	7	7
BURR'S LANE AT SOUTH COLLEGE ACCESS 7	NB	LEFT			0	0
		THROUGH	4		1	1
		RIGHT	17		4	4
	SB	LEFT	46		12	12
		THROUGH		31	8	8
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT		33	9	9
		THROUGH			0	0
		RIGHT		11	3	3
BURR'S LANE AT LONG ISLAND ESPERSSWAY (I-495) NORTH SERVICE ROAD 8	NB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT		64	17	17
	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH			0	0
		RIGHT	21		5	5

RMS Engineering

PM PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

COMMUTER PEAK HOUR

BURR'S LANE ACCESS

LOCATION	DIR	MVMT	SUBTOTAL NO BUILD VOLUME	TRAFFIC GENERATED BY PROPOSED PROJECT	TOTAL BUILD VOLUME
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE ROAD AT BAGATELLE ROAD 1	NB	LEFT	0	0	0
		THROUGH	259	2	261
		RIGHT	116	0	116
	SB	LEFT	280	3	283
		THROUGH	422	5	427
		RIGHT	0	0	0
	EB	LEFT	131	1	132
		THROUGH	1864	0	1864
		RIGHT	158	0	158
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BAGATELLE ROAD 2	NB	LEFT	137	0	137
		THROUGH	281	4	285
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	456	0	456
		RIGHT	62	0	62
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	249	9	258
		THROUGH	238	8	246
		RIGHT	129	0	129
HALF HOLLOW ROAD AT BAGATELLE ROAD 3	NB	LEFT	223	0	223
		THROUGH	0	0	0
		RIGHT	148	4	152
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	495	12	507
		RIGHT	389	0	389
	WB	LEFT	127	0	127
		THROUGH	205	5	210
		RIGHT	0	0	0
HALF HOLLOW ROAD AT BURR'S LANE 4	NB	LEFT	26	5	31
		THROUGH	0	0	0
		RIGHT	21	4	25
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	544	0	544
		RIGHT	26	15	41
	WB	LEFT	9	5	14
		THROUGH	293	0	293
		RIGHT	0	0	0

RMS Engineering

PM PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

COMMUTER PEAK HOUR

BURR'S LANE ACCESS

LOCATION	DIR	MVMT	SUBTOTAL NO BUILD VOLUME	TRAFFIC GENERATED BY PROPOSED PROJECT	TOTAL BUILD VOLUME
HALF HOLLOW ROAD AT VANDERBILT PARKWAY	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	112	0	112
		THROUGH	0	0	0
		RIGHT	165	4	169
5	EB	LEFT	342	3	345
		THROUGH	207	2	209
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	116	1	117
		RIGHT	90	0	90
BURR'S LANE AT NORTH COLLEGE ACCESS	NB	LEFT	0	0	0
		THROUGH	21	3	24
		RIGHT	6	1	7
	SB	LEFT	15	9	24
		THROUGH	32	12	44
		RIGHT	0	0	0
6	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	25	8	33
		THROUGH	0	0	0
		RIGHT	9	7	16
BURR'S LANE AT SOUTH COLLEGE ACCESS	NB	LEFT	0	0	0
		THROUGH	28	1	29
		RIGHT	22	4	26
	SB	LEFT	11	12	23
		THROUGH	24	8	32
		RIGHT	0	0	0
7	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	43	9	52
		THROUGH	0	0	0
		RIGHT	19	3	22
BURR'S LANE AT LONG ISLAND ESPERSSWAY (I-495) NORTH SERVICE ROAD	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	62	17	79
8	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	553	0	553
		RIGHT	46	5	51

RMS Engineering

SAT PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

GROWTH FACTOR: 1.00%
NO. OF YEARS: 2
GROWTH RATE: 1.030

COMMUTER PEAK HOUR
BURR'S LANE ACCESS

LOCATION	DIR	MVMT	EXISTING VOLUME	AMBIENT NO BUILD VOLUME
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE ROAD AT BAGATELLE ROAD 1	NB	LEFT	0	0
		THROUGH	276	285
		RIGHT	139	144
	SB	LEFT	136	141
		THROUGH	270	279
		RIGHT	0	0
	EB	LEFT	119	123
		THROUGH	222	229
		RIGHT	119	123
	WB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BAGATELLE ROAD 2	NB	LEFT	162	167
		THROUGH	233	240
		RIGHT	0	0
	SB	LEFT	0	0
		THROUGH	246	254
		RIGHT	63	65
	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	160	165
		THROUGH	174	180
		RIGHT	89	92
HALF HOLLOW ROAD AT BAGATELLE ROAD 3	NB	LEFT	202	209
		THROUGH	0	0
		RIGHT	117	121
	SB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	EB	LEFT	0	0
		THROUGH	127	131
		RIGHT	210	217
	WB	LEFT	164	169
		THROUGH	128	132
		RIGHT	0	0
HALF HOLLOW ROAD AT BURR'S LANE 4	NB	LEFT	7	8
		THROUGH	0	0
		RIGHT	7	8
	SB	LEFT	1	2
		THROUGH	0	0
		RIGHT	3	4
	EB	LEFT	1	2
		THROUGH	218	225
		RIGHT	13	14
	WB	LEFT	4	5
		THROUGH	286	295
		RIGHT	1	2

RMS Engineering

SAT PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

GROWTH FACTOR: 1.00%
NO. OF YEARS: 2
GROWTH RATE: 1.030

COMMUTER PEAK HOUR
BURR'S LANE ACCESS

LOCATION	DIR	MVMT	EXISTING VOLUME	AMBIENT NO BUILD VOLUME
HALF HOLLOW ROAD AT VANDERBILT PARKWAY 5	NB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	SB	LEFT	80	83
		THROUGH	0	0
		RIGHT	142	147
	EB	LEFT	113	117
		THROUGH	104	108
		RIGHT	0	0
	WB	LEFT	0	0
		THROUGH	70	73
		RIGHT	154	159
BURR'S LANE AT NORTH COLLEGE ACCESS 6	NB	LEFT	0	0
		THROUGH	12	13
		RIGHT	6	7
	SB	LEFT	7	8
		THROUGH	10	11
		RIGHT	0	0
	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	4	5
		THROUGH	0	0
		RIGHT	2	3
BURR'S LANE AT SOUTH COLLEGE ACCESS 7	NB	LEFT	0	0
		THROUGH	8	9
		RIGHT	0	0
	SB	LEFT	8	9
		THROUGH	6	7
		RIGHT	0	0
	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	2	3
		THROUGH	0	0
		RIGHT	10	11
BURR'S LANE AT LONG ISLAND ESPERSSWAY (I-495) NORTH SERVICE ROAD 8	NB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	SB	LEFT	0	0
		THROUGH	0	0
		RIGHT	8	9
	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	0	0
		THROUGH	412	425
		RIGHT	8	9

RMS Engineering

SAT PEAK HOUR
Project Name: Five Towns College
Project No.: 2002-056

OTHER PLANNED PROJECTS

COMMUTER PEAK HOUR
BURR'S LANE ACCESS

	1 GREENS AT HALF HOLLOW	2 47 SINGLE FAMILY HOMES	3 10 SINGLE FAMILY HOMES	4 DIX HILLS SOCCER CLUB	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS
	VOL	VOL	VOL	VOL	
ENTER	290	29	11	40	
EXIT	236	24	9	40	
TOTAL	526	53	20	80	

LOCATION	DIR	MVMT	1 %EN	1 %EX	1 VOL	2 %EN	2 %EX	2 VOL	3 %EN	3 %EX	3 VOL	4 %EN	4 %EX	4 VOL	SUBTOTAL VOL
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE ROAD AT BAGATELLE ROAD 1	NB	LEFT			0			0			0			0	0
		THROUGH			0			0			0	9		4	4
		RIGHT			0			0			0			0	0
	SB	LEFT		25	59			0			0		13	5	64
		THROUGH			0			0			0		21	8	8
		RIGHT			0			0			0			0	0
	EB	LEFT			0			0			0	5		2	2
		THROUGH			0		25	6		25	2			0	8
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BAGATELLE ROAD 2	NB	LEFT			0			0			0			0	0
		THROUGH			0			0			0	13		5	5
		RIGHT			0			0			0			0	0
	SB	LEFT			0			0			0			0	0
		THROUGH		25	59			0			0			0	59
		RIGHT			0			0			0			0	0
	EB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0		34	14	14
		THROUGH			0	25		7	25		3		30	12	22
		RIGHT	20		58			0			0			0	58
HALF HOLLOW ROAD AT BAGATELLE ROAD 3	NB	LEFT	20		58			0			0			0	58
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0	14		6	6
	SB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	EB	LEFT			0			0			0			0	0
		THROUGH			0		10	2		10	1	45		18	21
		RIGHT		25	59			0			0			0	59
	WB	LEFT			0			0			0			0	0
		THROUGH	5		15	10		3	10		1		20	8	27
		RIGHT			0			0			0			0	0
HALF HOLLOW ROAD AT BURR'S LANE 4	NB	LEFT			0			0			0		20	8	8
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0		16	6	6
	SB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	EB	LEFT			0			0			0			0	0
		THROUGH			0		10	2		10	1			0	3
		RIGHT			0			0			0	59		24	24
	WB	LEFT			0			0			0	20		8	8
		THROUGH			0	10		3	10		1			0	4
		RIGHT			0			0			0			0	0

RMS Engineering

SAT PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

OTHER PLANNED PROJECTS

COMMUTER PEAK HOUR

BURR'S LANE ACCESS

	1 GREENS AT HALF HOLLOW	2 47 SINGLE FAMILY HOMES	3 10 SINGLE FAMILY HOMES	4 DIX HILLS SOCCER CLUB	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS
	VOL	VOL	VOL	VOL	
ENTER	290	29	11	40	
EXIT	236	24	9	40	
TOTAL	526	53	20	80	

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	%EN	%EX	2 VOL	%EN	%EX	3 VOL	%EN	%EX	3 VOL	SUBTOTAL VOL
HALF HOLLOW ROAD	NB	LEFT			0			0			0			0	0
AT		THROUGH			0			0			0			0	0
VANDERBILT PARKWAY		RIGHT			0			0			0			0	0
	SB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0		10	2		10	1	16		6	9
5	EB	LEFT			0	10		3	10		1		10	4	8
		THROUGH			0			0			0		6	2	2
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0			0	0
		THROUGH			0			0			0	4		2	2
		RIGHT			0			0			0			0	0
BURR'S LANE	NB	LEFT			0			0			0			0	0
AT		THROUGH			0			0			0		36	14	14
NORTH COLLEGE ACCESS		RIGHT			0			0			0			0	0
	SB	LEFT			0			0			0			0	0
		THROUGH			0			0			0	79		32	32
		RIGHT			0			0			0			0	0
6	EB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
BURR'S LANE	NB	LEFT			0			0			0			0	0
AT		THROUGH			0			0			0			0	0
SOUTH COLLEGE ACCESS		RIGHT			0			0			0	21		8	8
	SB	LEFT			0			0			0	79		32	32
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
7	EB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0		64	26	26
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0		36	14	14
					0			0			0			0	0
BURR'S LANE	NB	LEFT			0			0			0			0	0
AT		THROUGH			0			0			0			0	0
LONG ISLAND ESPERSSWAY		RIGHT			0			0			0			0	0
(I-495)	SB	LEFT			0			0			0			0	0
NORTH SERVICE ROAD		THROUGH			0			0			0			0	0
		RIGHT			0			0			0		64	26	26
8	EB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0			0	0
		THROUGH	20		58	25		7	25		3			0	68
		RIGHT			0			0			0	21		8	8

RMS Engineering

SAT PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

COMMUTER PEAK HOUR
BURR'S LANE ACCESS

LOCATION	DIR	MVMT	AMBIENT NO BUILD VOLUME	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS	SUBTOTAL NO BUILD VOLUME
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE ROAD AT BAGATELLE ROAD 1	NB	LEFT	0	0	0
		THROUGH	285	4	289
		RIGHT	144	0	144
	SB	LEFT	141	64	205
		THROUGH	279	8	287
		RIGHT	0	0	0
	EB	LEFT	123	2	125
		THROUGH	229	8	237
		RIGHT	123	0	123
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BAGATELLE ROAD 2	NB	LEFT	167	0	167
		THROUGH	240	5	245
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	254	59	313
		RIGHT	65	0	65
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	165	14	179
		THROUGH	180	22	202
		RIGHT	92	58	150
HALF HOLLOW ROAD AT BAGATELLE ROAD 3	NB	LEFT	209	58	267
		THROUGH	0	0	0
		RIGHT	121	6	127
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	131	21	152
		RIGHT	217	59	276
	WB	LEFT	169	0	169
		THROUGH	132	27	159
		RIGHT	0	0	0
HALF HOLLOW ROAD AT BURR'S LANE 4	NB	LEFT	8	8	16
		THROUGH	0	0	0
		RIGHT	8	6	14
	SB	LEFT	2	0	2
		THROUGH	0	0	0
		RIGHT	4	0	4
	EB	LEFT	2	0	2
		THROUGH	225	3	228
		RIGHT	14	24	38
	WB	LEFT	5	8	13
		THROUGH	295	4	299
		RIGHT	2	0	2

RMS Engineering

SAT PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

COMMUTER PEAK HOUR
BURR'S LANE ACCESS

LOCATION	DIR	MVMT	AMBIENT NO BUILD VOLUME	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS	SUBTOTAL NO BUILD VOLUME
HALF HOLLOW ROAD AT VANDERBILT PARKWAY	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	83	0	83
		THROUGH	0	0	0
		RIGHT	147	9	156
5	EB	LEFT	117	8	125
		THROUGH	108	2	110
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	73	2	75
		RIGHT	159	0	159
BURR'S LANE AT NORTH COLLEGE ACCESS	NB	LEFT	0	0	0
		THROUGH	13	14	27
		RIGHT	7	0	7
	SB	LEFT	8	0	8
		THROUGH	11	32	43
		RIGHT	0	0	0
6	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	5	0	5
		THROUGH	0	0	0
		RIGHT	3	0	3
BURR'S LANE AT SOUTH COLLEGE ACCESS	NB	LEFT	0	0	0
		THROUGH	9	0	9
		RIGHT	0	8	8
	SB	LEFT	9	32	41
		THROUGH	7	0	7
		RIGHT	0	0	0
7	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	3	26	29
		THROUGH	0	0	0
		RIGHT	11	14	25
BURR'S LANE AT LONG ISLAND ESPERSSWAY (I-495) NORTH SERVICE ROAD	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	9	26	35
8	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	425	68	493
		RIGHT	9	8	17

RMS Engineering

SAT PEAK HOUR
Project Name: Five Towns College
Project No.: 2002-056

COMMUTER PEAK HOUR
BURR'S LANE ACCESS

	FIVE TOWNS EXPANSION 208 BEDS VOL	SUBTOTAL TRAFFIC GENERATED
ENTER	26	
EXIT	26	
TOTAL	52	

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	SUBTOTAL VOL
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE ROAD AT BAGATELLE ROAD 1	NB	LEFT			0	0
		THROUGH	9		2	2
		RIGHT			0	0
	SB	LEFT		13	3	3
		THROUGH		21	5	5
		RIGHT			0	0
	EB	LEFT	5		1	1
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BAGATELLE ROAD 2	NB	LEFT			0	0
		THROUGH	14		4	4
		RIGHT			0	0
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT		34	9	9
		THROUGH		30	8	8
		RIGHT			0	0
HALF HOLLOW ROAD AT BAGATELLE ROAD 3	NB	LEFT			0	0
		THROUGH			0	0
		RIGHT	14		4	4
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH	45		12	12
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH		20	5	5
		RIGHT			0	0
HALF HOLLOW ROAD AT BURR'S LANE 4	NB	LEFT		20	5	5
		THROUGH			0	0
		RIGHT		16	4	4
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT	59		15	15
	WB	LEFT	20		5	5
		THROUGH			0	0
		RIGHT			0	0

RMS Engineering

SAT PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

COMMUTER PEAK HOUR
BURR'S LANE ACCESS

	FIVE TOWNS EXPANSION 208 BEDS	SUBTOTAL TRAFFIC GENERATED
	VOL	
ENTER	26	
EXIT	26	
TOTAL	52	

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	SUBTOTAL VOL
HALF HOLLOW ROAD	NB	LEFT			0	0
AT		THROUGH			0	0
VANDERBILT PARKWAY		RIGHT			0	0
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT	16		4	4
5	EB	LEFT		10	3	3
		THROUGH		6	2	2
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH	4		1	1
		RIGHT			0	0
BURR'S LANE	NB	LEFT			0	0
AT		THROUGH		11	3	3
NORTH COLLEGE ACCESS		RIGHT	4		1	1
	SB	LEFT	33		9	9
		THROUGH	46		12	12
		RIGHT			0	0
6	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT		31	8	8
		THROUGH			0	0
		RIGHT		25	7	7
BURR'S LANE	NB	LEFT			0	0
AT		THROUGH	4		1	1
SOUTH COLLEGE ACCESS		RIGHT	17		4	4
	SB	LEFT	46		12	12
		THROUGH		31	8	8
		RIGHT			0	0
7	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT		33	9	9
		THROUGH			0	0
		RIGHT		11	3	3
					0	0
BURR'S LANE	NB	LEFT			0	0
AT		THROUGH			0	0
LONG ISLAND ESPERSSWAY		RIGHT			0	0
(I-495)	SB	LEFT			0	0
NORTH SERVICE ROAD		THROUGH			0	0
		RIGHT		64	17	17
8	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH			0	0
		RIGHT	21		5	5

RMS Engineering

SAT PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

COMMUTER PEAK HOUR
BURR'S LANE ACCESS

LOCATION	DIR	MVMT	SUBTOTAL NO BUILD VOLUME	TRAFFIC GENERATED BY PROPOSED PROJECT	TOTAL BUILD VOLUME
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE ROAD AT BAGATELLE ROAD 1	NB	LEFT	0	0	0
		THROUGH	289	2	291
		RIGHT	144	0	144
	SB	LEFT	205	3	208
		THROUGH	287	5	292
		RIGHT	0	0	0
	EB	LEFT	125	1	126
		THROUGH	237	0	237
		RIGHT	123	0	123
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BAGATELLE ROAD 2	NB	LEFT	167	0	167
		THROUGH	245	4	249
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	313	0	313
		RIGHT	65	0	65
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	179	9	188
		THROUGH	202	8	210
		RIGHT	150	0	150
HALF HOLLOW ROAD AT BAGATELLE ROAD 3	NB	LEFT	267	0	267
		THROUGH	0	0	0
		RIGHT	127	4	131
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	152	12	164
		RIGHT	276	0	276
	WB	LEFT	169	0	169
		THROUGH	159	5	164
		RIGHT	0	0	0
HALF HOLLOW ROAD AT BURR'S LANE 4	NB	LEFT	16	5	21
		THROUGH	0	0	0
		RIGHT	14	4	18
	SB	LEFT	2	0	2
		THROUGH	0	0	0
		RIGHT	4	0	4
	EB	LEFT	2	0	2
		THROUGH	228	0	228
		RIGHT	38	15	53
	WB	LEFT	13	5	18
		THROUGH	299	0	299
		RIGHT	2	0	2

RMS Engineering

SAT PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

COMMUTER PEAK HOUR
BURR'S LANE ACCESS

LOCATION	DIR	MVMT	SUBTOTAL NO BUILD VOLUME	TRAFFIC GENERATED BY PROPOSED PROJECT	TOTAL BUILD VOLUME
HALF HOLLOW ROAD AT VANDERBILT PARKWAY	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	83	0	83
		THROUGH	0	0	0
		RIGHT	156	4	160
5	EB	LEFT	125	3	128
		THROUGH	110	2	112
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	75	1	76
		RIGHT	159	0	159
BURR'S LANE AT NORTH COLLEGE ACCESS	NB	LEFT	0	0	0
		THROUGH	27	3	30
		RIGHT	7	1	8
	SB	LEFT	8	9	17
		THROUGH	43	12	55
		RIGHT	0	0	0
6	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	5	8	13
		THROUGH	0	0	0
		RIGHT	3	7	10
BURR'S LANE AT SOUTH COLLEGE ACCESS	NB	LEFT	0	0	0
		THROUGH	9	1	10
		RIGHT	8	4	12
	SB	LEFT	41	12	53
		THROUGH	7	8	15
		RIGHT	0	0	0
7	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	29	9	38
		THROUGH	0	0	0
		RIGHT	25	3	28
BURR'S LANE AT LONG ISLAND ESPERSSWAY (I-495) NORTH SERVICE ROAD	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	35	17	52
8	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	493	0	493
		RIGHT	17	5	22

II. Proposed Site Conditions – North Service Road

RMS Engineering

AM PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

GROWTH FACTOR: 1.00%
NO. OF YEARS: 2
GROWTH RATE: 1.030

FIVE TOWNS COLLEGE PEAK USE

LOCATION	DIR	MVMT	EXISTING VOLUME	AMBIENT NO BUILD VOLUME
LONG ISLAND EXPRESSWAY	NB	LEFT	0	0
(I-495)		THROUGH	218	225
SOUTH SERVICE ROAD		RIGHT	92	95
AT	SB	LEFT	94	97
BAGATELLE ROAD		THROUGH	164	169
		RIGHT	0	0
1	EB	LEFT	124	128
		THROUGH	186	192
		RIGHT	77	80
	WB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
LONG ISLAND EXPRESSWAY	NB	LEFT	168	174
(I-495)		THROUGH	181	187
NORTH SERVICE ROAD		RIGHT	0	0
AT	SB	LEFT	0	0
BAGATELLE ROAD		THROUGH	176	182
		RIGHT	60	62
2	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	137	142
		THROUGH	262	270
		RIGHT	74	77
HALF HOLLOW ROAD	NB	LEFT	143	148
AT		THROUGH	0	0
BAGATELLE ROAD		RIGHT	127	131
	SB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
3	EB	LEFT	0	0
		THROUGH	134	139
		RIGHT	169	175
	WB	LEFT	87	90
		THROUGH	312	322
		RIGHT	0	0
HALF HOLLOW ROAD	NB	LEFT	12	13
AT		THROUGH	0	0
BURR'S LANE		RIGHT	35	37
	SB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
4	EB	LEFT	0	0
		THROUGH	196	202
		RIGHT	65	67
	WB	LEFT	108	112
		THROUGH	329	339
		RIGHT	0	0

RMS Engineering

AM PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

GROWTH FACTOR: 1.00%
NO. OF YEARS: 2
GROWTH RATE: 1.030

FIVE TOWNS COLLEGE PEAK USE

LOCATION	DIR	MVMT	EXISTING VOLUME	AMBIENT NO BUILD VOLUME
HALF HOLLOW ROAD AT VANDERBILT PARKWAY 5				
	NB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	SB	LEFT	128	132
		THROUGH	0	0
		RIGHT	246	254
	EB	LEFT	73	76
		THROUGH	76	79
		RIGHT	0	0
	WB	LEFT	0	0
		THROUGH	178	184
		RIGHT	104	108
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT COLLEGE ENTRANCE 6				
	NB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	SB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	0	0
		THROUGH	516	532
		RIGHT	0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BURR'S LANE 7				
	NB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	SB	LEFT	0	0
		THROUGH	0	0
		RIGHT	43	45
	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	0	0
		THROUGH	430	443
		RIGHT	86	89

RMS Engineering

AM PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

OTHER PLANNED PROJECTS

FIVE TOWNS COLLEGE PEAK USE

	1 GREENS AT HALF HOLLOW	2 47 SINGLE FAMILY HOMES	3 10 SINGLE FAMILY HOMES	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS
	VOL	VOL	VOL	
ENTER	96	11	4	
EXIT	87	32	12	
TOTAL	183	43	16	

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	%EN	%EX	2 VOL	%EN	%EX	3 VOL	SUBTOTAL VOL
LONG ISLAND EXPRESSWAY	NB	LEFT			0			0			0	0
(I-495)		THROUGH			0			0			0	0
SOUTH SERVICE ROAD		RIGHT			0			0			0	0
AT	SB	LEFT		25	22			0			0	22
BAGATELLE ROAD		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
1	EB	LEFT			0			0			0	0
		THROUGH			0		25	8		25	3	11
		RIGHT			0			0			0	0
	WB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
LONG ISLAND EXPRESSWAY	NB	LEFT			0			0			0	0
(I-495)		THROUGH			0			0			0	0
NORTH SERVICE ROAD		RIGHT			0			0			0	0
AT	SB	LEFT			0			0			0	0
BAGATELLE ROAD		THROUGH		25	22			0			0	22
		RIGHT			0			0			0	0
2	EB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	WB	LEFT			0			0			0	0
		THROUGH			0	25		3	25		1	4
		RIGHT	20		19			0			0	19
HALF HOLLOW ROAD	NB	LEFT	20		19			0			0	19
AT		THROUGH			0			0			0	0
BAGATELLE ROAD		RIGHT			0			0			0	0
	SB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
3	EB	LEFT			0			0			0	0
		THROUGH			0	10		1	10		0	1
		RIGHT		25	22			0			0	22
	WB	LEFT			0			0			0	0
		THROUGH	5		5		10	3		10	1	9
		RIGHT			0			0			0	0
HALF HOLLOW ROAD	NB	LEFT			0			0			0	0
AT		THROUGH			0			0			0	0
BURR'S LANE		RIGHT			0			0			0	0
	SB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
4	EB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	WB	LEFT			0			0			0	0
		THROUGH	5		5			0			0	5
		RIGHT			0			0			0	0

RMS Engineering

AM PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

OTHER PLANNED PROJECTS

FIVE TOWNS COLLEGE PEAK USE

	1 GREENS AT HALF HOLLOW	2 47 SINGLE FAMILY HOMES	3 10 SINGLE FAMILY HOMES	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS
	VOL	VOL	VOL	
ENTER	96	11	4	
EXIT	87	32	12	
TOTAL	183	43	16	

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	%EN	%EX	2 VOL	%EN	%EX	3 VOL	SUBTOTAL VOL
HALF HOLLOW ROAD AT VANDERBILT PARKWAY	NB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	SB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT	5		5		10	3		10	1	9
5	EB	LEFT			0	10		1	10		0	1
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	WB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT COLLEGE ENTRANCE	NB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	SB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
6	EB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	WB	LEFT			0			0			0	0
		THROUGH	20		19	25		3	25		1	23
		RIGHT			0			0			0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BURR'S LANE	NB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	SB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
7	EB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	WB	LEFT			0			0			0	0
		THROUGH	20		19	25		3	25		1	23
		RIGHT			0			0			0	0

RMS Engineering

AM PEAK HOUR
Project Name: Five Towns College
Project No.: 2002-056

TOWNS COLLEGE PEAK USE

LOCATION	DIR	MVMT	AMBIENT NO BUILD VOLUME	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS	SUBTOTAL NO BUILD VOLUME
LONG ISLAND EXPRESSWAY	NB	LEFT	0	0	0
(I-495)		THROUGH	225	0	225
SOUTH SERVICE ROAD		RIGHT	95	0	95
AT	SB	LEFT	97	22	119
BAGATELLE ROAD		THROUGH	169	0	169
		RIGHT	0	0	0
1	EB	LEFT	128	0	128
		THROUGH	192	11	203
		RIGHT	80	0	80
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
LONG ISLAND EXPRESSWAY	NB	LEFT	174	0	174
(I-495)		THROUGH	187	0	187
NORTH SERVICE ROAD		RIGHT	0	0	0
AT	SB	LEFT	0	0	0
BAGATELLE ROAD		THROUGH	182	22	204
		RIGHT	62	0	62
2	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	142	0	142
		THROUGH	270	4	274
		RIGHT	77	19	96
HALF HOLLOW ROAD	NB	LEFT	148	19	167
AT		THROUGH	0	0	0
BAGATELLE ROAD		RIGHT	131	0	131
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
3	EB	LEFT	0	0	0
		THROUGH	139	1	140
		RIGHT	175	22	197
	WB	LEFT	90	0	90
		THROUGH	322	9	331
		RIGHT	0	0	0
HALF HOLLOW ROAD	NB	LEFT	13	0	13
AT		THROUGH	0	0	0
BURR'S LANE		RIGHT	37	0	37
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
4	EB	LEFT	0	0	0
		THROUGH	202	0	202
		RIGHT	67	0	67
	WB	LEFT	112	0	112
		THROUGH	339	5	344
		RIGHT	0	0	0

RMS Engineering

AM PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

TOWNS COLLEGE PEAK USE

LOCATION	DIR	MVMT	AMBIENT NO BUILD VOLUME	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS	SUBTOTAL NO BUILD VOLUME
HALF HOLLOW ROAD AT VANDERBILT PARKWAY 5	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	132	0	132
		THROUGH	0	0	0
		RIGHT	254	9	263
	EB	LEFT	76	1	77
		THROUGH	79	0	79
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	184	0	184
		RIGHT	108	0	108
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT COLLEGE ENTRANCE 6	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	532	23	555
		RIGHT	0	0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BURR'S LANE 7	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	45	0	45
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	443	23	466
		RIGHT	89	0	89

RMS Engineering

AM PEAK HOUR
Project Name: Five Towns College
Project No.: 2002-056

FIVE TOWNS COLLEGE PEAK USE

	FIVE TOWNS EXPANSION 208 BEDS VOL	SUBTOTAL TRAFFIC GENERATED
ENTER	26	
EXIT	26	
TOTAL	52	

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	SUBTOTAL VOL
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE ROAD AT BAGATELLE ROAD 1	NB	LEFT			0	0
		THROUGH			0	0
		RIGHT	5		1	1
	SB	LEFT		28	7	7
		THROUGH		5	1	1
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH	5		1	1
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BAGATELLE ROAD 2	NB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT		33	9	9
		THROUGH		23	6	6
		RIGHT		12	3	3
HALF HOLLOW ROAD AT BAGATELLE ROAD 3	NB	LEFT		12	3	3
		THROUGH			0	0
		RIGHT			0	0
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH	25		7	7
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH		12	3	3
		RIGHT			0	0
HALF HOLLOW ROAD AT BURR'S LANE 4	NB	LEFT		12	3	3
		THROUGH			0	0
		RIGHT		20	5	5
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH	25		7	7
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0

RMS Engineering

AM PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

FIVE TOWNS COLLEGE PEAK USE

	FIVE TOWNS EXPANSION 208 BEDS	SUBTOTAL TRAFFIC GENERATED
	VOL	
ENTER	26	
EXIT	26	
TOTAL	52	

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	SUBTOTAL VOL
HALF HOLLOW ROAD AT VANDERBILT PARKWAY 5	NB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	SB	LEFT	3		1	1
		THROUGH			0	0
		RIGHT			0	0
	EB	LEFT		20	5	5
		THROUGH	25		7	7
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT COLLEGE ENTRANCE 6	NB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT		100	26	26
	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH			0	0
		RIGHT	100		26	26
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BURR'S LANE 7	NB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH		68	18	18
		RIGHT		32	8	8

RMS Engineering

AM PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

FIVE TOWNS COLLEGE PEAK USE

LOCATION	DIR	MVMT	SUBTOTAL NO BUILD VOLUME	TRAFFIC GENERATED BY PROPOSED PROJECT	TOTAL BUILD VOLUME
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE ROAD AT BAGATELLE ROAD 1	NB	LEFT	0	0	0
		THROUGH	225	-23	202
		RIGHT	95	24	119
	SB	LEFT	119	7	126
		THROUGH	169	1	170
		RIGHT	0	0	0
	EB	LEFT	128	-17	111
		THROUGH	203	18	221
		RIGHT	80	0	80
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BAGATELLE ROAD 2	NB	LEFT	174	0	174
		THROUGH	187	-40	147
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	204	0	204
		RIGHT	62	0	62
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	142	9	151
		THROUGH	274	6	280
		RIGHT	96	3	99
HALF HOLLOW ROAD AT BAGATELLE ROAD 3	NB	LEFT	167	3	170
		THROUGH	0	0	0
		RIGHT	131	-40	91
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	140	7	147
		RIGHT	197	0	197
	WB	LEFT	90	0	90
		THROUGH	331	3	334
		RIGHT	0	0	0
HALF HOLLOW ROAD AT BURR'S LANE 4	NB	LEFT	13	3	16
		THROUGH	0	0	0
		RIGHT	37	5	42
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	202	76	278
		RIGHT	67	-67	0
	WB	LEFT	112	-59	53
		THROUGH	344	0	344
		RIGHT	0	0	0

RMS Engineering

AM PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

FIVE TOWNS COLLEGE PEAK USE

LOCATION	DIR	MVMT	SUBTOTAL NO BUILD VOLUME	TRAFFIC GENERATED BY PROPOSED PROJECT	TOTAL BUILD VOLUME
HALF HOLLOW ROAD AT VANDERBILT PARKWAY 5	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	132	3	135
		THROUGH	0	0	0
		RIGHT	263	-42	221
	EB	LEFT	77	5	82
		THROUGH	79	74	153
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	184	0	184
		RIGHT	108	0	108
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT COLLEGE ENTRANCE 6	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	86	86
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	555	-36	519
		RIGHT	0	192	192
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BURR'S LANE 7	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	45	-36	9
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	466	18	484
		RIGHT	89	-26	63

RMS Engineering

AM PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

GROWTH FACTOR: 1.00%
NO. OF YEARS: 2
GROWTH RATE: 1.030

COMMUTER PEAK HOUR

LOCATION	DIR	MVMT	EXISTING VOLUME	AMBIENT NO BUILD VOLUME
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE ROAD AT BAGATELLE ROAD 1				
	NB	LEFT	0	0
		THROUGH	520	536
		RIGHT	165	170
	SB	LEFT	169	175
		THROUGH	232	239
		RIGHT	0	0
	EB	LEFT	194	200
		THROUGH	233	240
		RIGHT	95	98
	WB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BAGATELLE ROAD 2				
	NB	LEFT	376	388
		THROUGH	312	322
		RIGHT	0	0
	SB	LEFT	0	0
		THROUGH	290	299
		RIGHT	188	194
	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	94	97
		THROUGH	1700	1751
		RIGHT	66	68
HALF HOLLOW ROAD AT BAGATELLE ROAD 3				
	NB	LEFT	271	280
		THROUGH	0	0
		RIGHT	145	150
	SB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	EB	LEFT	0	0
		THROUGH	141	146
		RIGHT	213	220
	WB	LEFT	235	243
		THROUGH	852	878
		RIGHT	0	0
HALF HOLLOW ROAD AT BURR'S LANE 4				
	NB	LEFT	10	11
		THROUGH	0	0
		RIGHT	29	30
	SB	LEFT	1	2
		THROUGH	0	0
		RIGHT	3	4
	EB	LEFT	2	3
		THROUGH	183	189
		RIGHT	90	93
	WB	LEFT	23	24
		THROUGH	1087	1120
		RIGHT	1	2

RMS Engineering

AM PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

GROWTH FACTOR: 1.00%
NO. OF YEARS: 2
GROWTH RATE: 1.030

COMMUTER PEAK HOUR

LOCATION	DIR	MVMT	EXISTING VOLUME	AMBIENT NO BUILD VOLUME
HALF HOLLOW ROAD AT VANDERBILT PARKWAY 5				
	NB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	SB	LEFT	174	180
		THROUGH	0	0
		RIGHT	806	831
	EB	LEFT	90	93
		THROUGH	104	108
		RIGHT	0	0
	WB	LEFT	0	0
		THROUGH	196	202
		RIGHT	81	84
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT COLLEGE ENTRANCE 6				
	NB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	SB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	0	0
		THROUGH	1897	1954
		RIGHT	0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BURR'S LANE 7				
	NB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	SB	LEFT	0	0
		THROUGH	0	0
		RIGHT	23	24
	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	0	0
		THROUGH	1837	1893
		RIGHT	60	62

RMS Engineering

AM PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

OTHER PLANNED PROJECTS

COMMUTER PEAK HOUR

	1 GREENS AT HALF HOLLOW	2 47 SINGLE FAMILY HOMES	3 10 SINGLE FAMILY HOMES	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS
	VOL	VOL	VOL	
ENTER	96	11	4	
EXIT	87	32	12	
TOTAL	183	43	16	

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	%EN	%EX	2 VOL	%EN	%EX	3 VOL	SUBTOTAL VOL
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE ROAD AT BAGATELLE ROAD 1	NB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	SB	LEFT		25	22			0			0	22
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	EB	LEFT			0			0			0	0
		THROUGH			0		25	8		25	3	11
		RIGHT			0			0			0	0
	WB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BAGATELLE ROAD 2	NB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	SB	LEFT			0			0			0	0
		THROUGH		25	22			0			0	22
		RIGHT			0			0			0	0
	EB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	WB	LEFT			0			0			0	0
		THROUGH			0	25		3	25		1	4
		RIGHT	20		19			0			0	19
HALF HOLLOW ROAD AT BAGATELLE ROAD 3	NB	LEFT	20		19			0			0	19
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	SB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	EB	LEFT			0			0			0	0
		THROUGH			0	10		1	10		0	1
		RIGHT		25	22			0			0	22
	WB	LEFT			0			0			0	0
		THROUGH	5		5		10	3		10	1	9
		RIGHT			0			0			0	0
HALF HOLLOW ROAD AT BURR'S LANE 4	NB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	SB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	EB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	WB	LEFT			0			0			0	0
		THROUGH	5		5			0			0	5
		RIGHT			0			0			0	0

RMS Engineering

AM PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

OTHER PLANNED PROJECTS

COMMUTER PEAK HOUR

	1 GREENS AT HALF HOLLOW	2 47 SINGLE FAMILY HOMES	3 10 SINGLE FAMILY HOMES	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS
	VOL	VOL	VOL	
ENTER	96	11	4	
EXIT	87	32	12	
TOTAL	183	43	16	

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	%EN	%EX	2 VOL	%EN	%EX	3 VOL	SUBTOTAL VOL
		.										
HALF HOLLOW ROAD AT VANDERBILT PARKWAY	NB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	SB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT	5		5		10	3		10	1	9
5	EB	LEFT			0	10		1	10		0	1
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	WB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT COLLEGE ENTRANCE	NB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	SB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
6	EB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	WB	LEFT			0			0			0	0
		THROUGH	20		19	25		3	25		1	23
		RIGHT			0			0			0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BURR'S LANE	NB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	SB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
7	EB	LEFT			0			0			0	0
		THROUGH			0			0			0	0
		RIGHT			0			0			0	0
	WB	LEFT			0			0			0	0
		THROUGH	20		19	25		3	25		1	23
		RIGHT			0			0			0	0

RMS Engineering

AM PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

COMMUTER PEAK HOUR

LOCATION	DIR	MVMT	AMBIENT NO BUILD VOLUME	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS	SUBTOTAL NO BUILD VOLUME
LONG ISLAND EXPRESSWAY	NB	LEFT	0	0	0
(I-495)		THROUGH	536	0	536
SOUTH SERVICE ROAD		RIGHT	170	0	170
AT	SB	LEFT	175	22	197
BAGATELLE ROAD		THROUGH	239	0	239
		RIGHT	0	0	0
1	EB	LEFT	200	0	200
		THROUGH	240	11	251
		RIGHT	98	0	98
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
LONG ISLAND EXPRESSWAY	NB	LEFT	388	0	388
(I-495)		THROUGH	322	0	322
NORTH SERVICE ROAD		RIGHT	0	0	0
AT	SB	LEFT	0	0	0
BAGATELLE ROAD		THROUGH	299	22	321
		RIGHT	194	0	194
2	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	97	0	97
		THROUGH	1751	4	1755
		RIGHT	68	19	87
HALF HOLLOW ROAD	NB	LEFT	280	19	299
AT		THROUGH	0	0	0
BAGATELLE ROAD		RIGHT	150	0	150
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
3	EB	LEFT	0	0	0
		THROUGH	146	1	147
		RIGHT	220	22	242
	WB	LEFT	243	0	243
		THROUGH	878	9	887
		RIGHT	0	0	0
HALF HOLLOW ROAD	NB	LEFT	11	0	11
AT		THROUGH	0	0	0
BURR'S LANE		RIGHT	30	0	30
	SB	LEFT	2	0	2
		THROUGH	0	0	0
		RIGHT	4	0	4
4	EB	LEFT	3	0	3
		THROUGH	189	0	189
		RIGHT	93	0	93
	WB	LEFT	24	0	24
		THROUGH	1120	5	1125
		RIGHT	2	0	2

RMS Engineering

AM PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

COMMUTER PEAK HOUR

LOCATION	DIR	MVMT	AMBIENT NO BUILD VOLUME	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS	SUBTOTAL NO BUILD VOLUME
HALF HOLLOW ROAD AT VANDERBILT PARKWAY	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	180	0	180
		THROUGH	0	0	0
		RIGHT	831	9	840
5	EB	LEFT	93	1	94
		THROUGH	108	0	108
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	202	0	202
		RIGHT	84	0	84
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT COLLEGE ENTRANCE	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
6	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	1954	23	1977
		RIGHT	0	0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BURR'S LANE	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	24	0	24
7	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	1893	23	1916
		RIGHT	62	0	62

RMS Engineering

AM PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

COMMUTER PEAK HOUR

					FIVE TOWNS EXPANSION 208 BEDS	SUBTOTAL TRAFFIC GENERATED
					VOL	
				ENTER	26	
				EXIT	26	
				TOTAL	52	
					1	SUBTOTAL
LOCATION	**DIR**	**MVMT**	**%EN**	**%EX**	**VOL**	VOL
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE ROAD AT BAGATELLE ROAD 1	NB	LEFT			0	0
		THROUGH			0	0
		RIGHT	5		1	1
	SB	LEFT		28	7	7
		THROUGH		5	1	1
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH	5		1	1
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BAGATELLE ROAD 2	NB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT		33	9	9
		THROUGH		23	6	6
		RIGHT		12	3	3
HALF HOLLOW ROAD AT BAGATELLE ROAD 3	NB	LEFT		12	3	3
		THROUGH			0	0
		RIGHT			0	0
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH	25		7	7
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH		12	3	3
		RIGHT			0	0
HALF HOLLOW ROAD AT BURR'S LANE 4	NB	LEFT		12	3	3
		THROUGH			0	0
		RIGHT		20	5	5
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH	25		7	7
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0

RMS Engineering

AM PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

COMMUTER PEAK HOUR

	FIVE TOWNS EXPANSION 208 BEDS VOL
ENTER	26
EXIT	26
TOTAL	52

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	SUBTOTAL VOL (SUBTOTAL TRAFFIC GENERATED)
HALF HOLLOW ROAD AT VANDERBILT PARKWAY 5	NB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	SB	LEFT	3		1	1
		THROUGH			0	0
		RIGHT			0	0
	EB	LEFT		20	5	5
		THROUGH	25		7	7
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT COLLEGE ENTRANCE 6	NB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT		100	26	26
	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH			0	0
		RIGHT	100		26	26
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BURR'S LANE 7	NB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH		68	18	18
		RIGHT		32	8	8

RMS Engineering

AM PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

COMMUTER PEAK HOUR

LOCATION	DIR	MVMT	SUBTOTAL NO BUILD VOLUME	TRAFFIC GENERATED BY PROPOSED PROJECT	TOTAL BUILD VOLUME
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE ROAD AT BAGATELLE ROAD 1	NB	LEFT	0	0	0
		THROUGH	536	-20	516
		RIGHT	170	21	191
	SB	LEFT	197	7	204
		THROUGH	239	1	240
		RIGHT	0	0	0
	EB	LEFT	200	-10	190
		THROUGH	251	11	262
		RIGHT	98	0	98
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BAGATELLE ROAD 2	NB	LEFT	388	0	388
		THROUGH	322	-30	292
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	321	0	321
		RIGHT	194	0	194
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	97	9	106
		THROUGH	1755	6	1761
		RIGHT	87	3	90
HALF HOLLOW ROAD AT BAGATELLE ROAD 3	NB	LEFT	299	3	302
		THROUGH	0	0	0
		RIGHT	150	-30	120
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	147	7	154
		RIGHT	242	0	242
	WB	LEFT	243	0	243
		THROUGH	887	3	890
		RIGHT	0	0	0
HALF HOLLOW ROAD AT BURR'S LANE 4	NB	LEFT	11	3	14
		THROUGH	0	0	0
		RIGHT	30	5	35
	SB	LEFT	2	0	2
		THROUGH	0	0	0
		RIGHT	4	0	4
	EB	LEFT	3	0	3
		THROUGH	189	85	274
		RIGHT	93	-78	15
	WB	LEFT	24	-24	0
		THROUGH	1125	0	1125
		RIGHT	2	0	2

RMS Engineering

AM PEAK HOUR
Project Name: Five Towns College
Project No.: 2002-056

COMMUTER PEAK HOUR

LOCATION	DIR	MVMT	SUBTOTAL NO BUILD VOLUME	TRAFFIC GENERATED BY PROPOSED PROJECT	TOTAL BUILD VOLUME
HALF HOLLOW ROAD AT VANDERBILT PARKWAY 5	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	180	3	183
		THROUGH	0	0	0
		RIGHT	840	-20	820
	EB	LEFT	94	5	99
		THROUGH	108	78	186
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	202	-11	191
		RIGHT	84	0	84
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT COLLEGE ENTRANCE 6	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	41	41
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	1977	-31	1946
		RIGHT	0	161	161
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BURR'S LANE 7	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	24	-6	18
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	1916	18	1934
		RIGHT	62	-21	41

RMS Engineering

PM PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

GROWTH FACTOR: 1.00%
NO. OF YEARS: 2
GROWTH RATE: 1.030

FIVE TOWNS COLLEGE PEAK HOUR

LOCATION	DIR	MVMT	EXISTING VOLUME	AMBIENT NO BUILD VOLUME
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE ROAD AT BAGATELLE ROAD 1				
	NB	LEFT	0	0
		THROUGH	312	322
		RIGHT	136	141
	SB	LEFT	221	228
		THROUGH	381	393
		RIGHT	0	0
	EB	LEFT	130	134
		THROUGH	1185	1221
		RIGHT	137	142
	WB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BAGATELLE ROAD 2				
	NB	LEFT	157	162
		THROUGH	275	284
		RIGHT	0	0
	SB	LEFT	0	0
		THROUGH	365	376
		RIGHT	56	58
	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	242	250
		THROUGH	235	243
		RIGHT	79	82
HALF HOLLOW ROAD AT BAGATELLE ROAD 3				
	NB	LEFT	197	203
		THROUGH	0	0
		RIGHT	123	127
	SB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	EB	LEFT	0	0
		THROUGH	295	304
		RIGHT	313	323
	WB	LEFT	120	124
		THROUGH	186	192
		RIGHT	0	0
HALF HOLLOW ROAD AT BURR'S LANE 4				
	NB	LEFT	43	45
		THROUGH	0	0
		RIGHT	45	47
	SB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	EB	LEFT	0	0
		THROUGH	328	338
		RIGHT	52	54
	WB	LEFT	23	24
		THROUGH	329	339
		RIGHT	0	0

RMS Engineering

PM PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

GROWTH FACTOR: 1.00%
NO. OF YEARS: 2
GROWTH RATE: 1.030

FIVE TOWNS COLLEGE PEAK HOUR

LOCATION	DIR	MVMT	EXISTING VOLUME	AMBIENT NO BUILD VOLUME
HALF HOLLOW ROAD AT VANDERBILT PARKWAY 5	NB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	SB	LEFT	90	93
		THROUGH	0	0
		RIGHT	130	134
	EB	LEFT	201	208
		THROUGH	135	140
		RIGHT	0	0
	WB	LEFT	0	0
		THROUGH	127	131
		RIGHT	59	61
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT COLLEGE ENTRANCE 6	NB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	SB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	0	0
		THROUGH	521	537
		RIGHT	0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BURR'S LANE 7	NB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	SB	LEFT	0	0
		THROUGH	0	0
		RIGHT	90	93
	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	0	0
		THROUGH	466	480
		RIGHT	55	57

RMS Engineering

PM PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

OTHER
PLANNED
PROJECTS

FIVE TOWNS COLLEGE PEAK HOUR

	1 GREENS AT HALF HOLLOW	2 47 SINGLE FAMILY HOMES	3 10 SINGLE FAMILY HOMES	4 DIX HILLS SOCCER CLUB	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS
	VOL	VOL	VOL	VOL	
ENTER	144	35	9	20	
EXIT	104	20	5	20	
TOTAL	248	55	14	40	

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	%EN	%EX	2 VOL	%EN	%EX	3 VOL	%EN	%EX	3 VOL	SUBTOTAL VOL
LONG ISLAND EXPRESSWAY	NB	LEFT			0			0			0			0	0
(I-495)		THROUGH			0			0			0			0	0
SOUTH SERVICE ROAD		RIGHT			0			0			0	5		1	1
AT	SB	LEFT		25	26			0			0		20	4	30
BAGATELLE ROAD		THROUGH			0			0			0		5	1	1
		RIGHT			0			0			0			0	0
1	EB	LEFT			0			0			0			0	0
		THROUGH			0		25	5		25	1	20		4	10
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
LONG ISLAND EXPRESSWAY	NB	LEFT			0			0			0			0	0
(I-495)		THROUGH			0			0			0			0	0
NORTH SERVICE ROAD		RIGHT			0			0			0			0	0
AT	SB	LEFT			0			0			0			0	0
BAGATELLE ROAD		THROUGH		25	26			0			0			0	26
		RIGHT			0			0			0			0	0
2	EB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0		25	5	5
		THROUGH			0	25		9	25		2		35	7	18
		RIGHT	20		29			0			0		40	8	37
HALF HOLLOW ROAD	NB	LEFT	20		29			0			0		25	5	34
AT		THROUGH			0			0			0			0	0
BAGATELLE ROAD		RIGHT			0			0			0		15	3	3
	SB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
3	EB	LEFT			0			0			0			0	0
		THROUGH			0	10		4	10		1	25		5	10
		RIGHT		25	26			0			0			0	26
	WB	LEFT			0			0			0			0	0
		THROUGH	5		7		10	2		10	1			0	10
		RIGHT			0			0			0			0	0
HALF HOLLOW ROAD	NB	LEFT			0			0			0			0	0
AT		THROUGH			0			0			0			0	0
BURR'S LANE		RIGHT			0			0			0			0	0
	SB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
4	EB	LEFT			0			0			0			0	0
		THROUGH			0			0			0	25	15	8	8
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0			0	0
		THROUGH	5		7			0			0			0	7
		RIGHT			0			0			0			0	0

RMS Engineering

PM PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

OTHER PLANNED PROJECTS

FIVE TOWNS COLLEGE PEAK HOUR

	1 GREENS AT HALF HOLLOW		2 47 SINGLE FAMILY HOMES		3 10 SINGLE FAMILY HOMES		4 DIX HILLS SOCCER CLUB	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS
	VOL		VOL		VOL		VOL	
ENTER	144	ENTER	35	ENTER	9	ENTER	20	
EXIT	104	EXIT	20	EXIT	5	EXIT	20	
TOTAL	248	TOTAL	55	TOTAL	14	TOTAL	40	

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	%EN	%EX	2 VOL	%EN	%EX	3 VOL	%EN	%EX	3 VOL	SUBTOTAL VOL
HALF HOLLOW ROAD	NB	LEFT			0			0			0			0	0
AT		THROUGH			0			0			0			0	0
VANDERBILT PARKWAY		RIGHT			0			0			0			0	0
	SB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT	5		7		10	2		10	1			0	10
5	EB	LEFT			0	10		4	10		1		15	3	8
		THROUGH			0			0			0	25		5	5
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
LONG ISLAND EXPRESSWAY	NB	LEFT			0			0			0			0	0
(I-495)		THROUGH			0			0			0			0	0
NORTH SERVICE ROAD		RIGHT			0			0			0			0	0
AT	SB	LEFT			0			0			0			0	0
COLLEGE ENTRANCE		THROUGH			0			0			0			0	0
		RIGHT			0			0			0		100	20	20
6	EB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0			0	0
		THROUGH	20		29	25		9	25		2			0	40
		RIGHT			0			0			0	100		20	20
LONG ISLAND EXPRESSWAY	NB	LEFT			0			0			0			0	0
(I-495)		THROUGH			0			0			0			0	0
NORTH SERVICE ROAD		RIGHT			0			0			0			0	0
AT	SB	LEFT			0			0			0			0	0
BURR'S LANE		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
7	EB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0			0	0
		THROUGH	20		29	25		9	25		2		100	20	60
		RIGHT			0			0			0			0	0

RMS Engineering

PM PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

OWNS COLLEGE PEAK HOUR

LOCATION	DIR	MVMT	AMBIENT NO BUILD VOLUME	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS	SUBTOTAL NO BUILD VOLUME
LONG ISLAND EXPRESSWAY	NB	LEFT	0	0	0
(I-495)		THROUGH	322	0	322
SOUTH SERVICE ROAD		RIGHT	141	1	142
AT	SB	LEFT	228	30	258
BAGATELLE ROAD		THROUGH	393	1	394
		RIGHT	0	0	0
1	EB	LEFT	134	0	134
		THROUGH	1221	10	1231
		RIGHT	142	0	142
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
LONG ISLAND EXPRESSWAY	NB	LEFT	162	0	162
(I-495)		THROUGH	284	0	284
NORTH SERVICE ROAD		RIGHT	0	0	0
AT	SB	LEFT	0	0	0
BAGATELLE ROAD		THROUGH	376	26	402
		RIGHT	58	0	58
2	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	250	5	255
		THROUGH	243	18	261
		RIGHT	82	37	119
HALF HOLLOW ROAD	NB	LEFT	203	34	237
AT		THROUGH	0	0	0
BAGATELLE ROAD		RIGHT	127	3	130
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
3	EB	LEFT	0	0	0
		THROUGH	304	10	314
		RIGHT	323	26	349
	WB	LEFT	124	0	124
		THROUGH	192	10	202
		RIGHT	0	0	0
HALF HOLLOW ROAD	NB	LEFT	45	0	45
AT		THROUGH	0	0	0
BURR'S LANE		RIGHT	47	0	47
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
4	EB	LEFT	0	0	0
		THROUGH	338	8	346
		RIGHT	54	0	54
	WB	LEFT	24	0	24
		THROUGH	339	7	346
		RIGHT	0	0	0

RMS Engineering

PM PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

OWNS COLLEGE PEAK HOUR

LOCATION	DIR	MVMT	AMBIENT NO BUILD VOLUME	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS	SUBTOTAL NO BUILD VOLUME
HALF HOLLOW ROAD	NB	LEFT	0	0	0
AT		THROUGH	0	0	0
VANDERBILT PARKWAY		RIGHT	0	0	0
	SB	LEFT	93	0	93
		THROUGH	0	0	0
		RIGHT	134	10	144
5	EB	LEFT	208	8	216
		THROUGH	140	5	145
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	131	0	131
		RIGHT	61	0	61
LONG ISLAND EXPRESSWAY	NB	LEFT	0	0	0
(I-495)		THROUGH	0	0	0
NORTH SERVICE ROAD		RIGHT	0	0	0
AT	SB	LEFT	0	0	0
COLLEGE ENTRANCE		THROUGH	0	0	0
		RIGHT	0	20	20
6	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	537	40	577
		RIGHT	0	20	20
LONG ISLAND EXPRESSWAY	NB	LEFT	0	0	0
(I-495)		THROUGH	0	0	0
NORTH SERVICE ROAD		RIGHT	0	0	0
AT	SB	LEFT	0	0	0
BURR'S LANE		THROUGH	0	0	0
		RIGHT	93	0	93
7	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	480	60	540
		RIGHT	57	0	57

RMS Engineering

PM PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

FIVE TOWNS COLLEGE PEAK HOUR

	FIVE TOWNS EXPANSION 208 BEDS VOL	SUBTOTAL TRAFFIC GENERATED
ENTER	26	
EXIT	26	
TOTAL	52	

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	SUBTOTAL VOL
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE ROAD AT BAGATELLE ROAD 1	NB	LEFT			0	0
		THROUGH			0	0
		RIGHT	5		1	1
	SB	LEFT		28	7	7
		THROUGH		5	1	1
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH	5		1	1
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BAGATELLE ROAD 2	NB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT		33	9	9
		THROUGH		23	6	6
		RIGHT		12	3	3
HALF HOLLOW ROAD AT BAGATELLE ROAD 3	NB	LEFT		12	3	3
		THROUGH			0	0
		RIGHT			0	0
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH	25		7	7
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH		12	3	3
		RIGHT			0	0
HALF HOLLOW ROAD AT BURR'S LANE 4	NB	LEFT		12	3	3
		THROUGH			0	0
		RIGHT		20	5	5
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH	25		7	7
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0

RMS Engineering

PM PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

FIVE TOWNS COLLEGE PEAK HOUR

					FIVE TOWNS EXPANSION 208 BEDS	SUBTOTAL TRAFFIC GENERATED
					VOL	
				ENTER	26	
				EXIT	26	
				TOTAL	52	
LOCATION	**DIR**	**MVMT**	**%EN**	**%EX**	1 **VOL**	SUBTOTAL VOL
HALF HOLLOW ROAD AT VANDERBILT PARKWAY 5	NB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	SB	LEFT	3		1	1
		THROUGH			0	0
		RIGHT			0	0
	EB	LEFT		20	5	5
		THROUGH	25		7	7
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT COLLEGE ENTRANCE 6	NB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT		100	26	26
	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH			0	0
		RIGHT	100		26	26
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BURR'S LANE 7	NB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH		68	18	18
		RIGHT		32	8	8

RMS Engineering

PM PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

FIVE TOWNS COLLEGE PEAK HOUR

LOCATION	DIR	MVMT	SUBTOTAL NO BUILD VOLUME	TRAFFIC GENERATED BY PROPOSED PROJECT	TOTAL BUILD VOLUME
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE ROAD AT BAGATELLE ROAD 1	NB	LEFT	0	0	0
		THROUGH	322	-9	313
		RIGHT	142	10	152
	SB	LEFT	258	7	265
		THROUGH	394	1	395
		RIGHT	0	0	0
	EB	LEFT	134	-8	126
		THROUGH	1231	9	1240
		RIGHT	142	0	142
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BAGATELLE ROAD 2	NB	LEFT	162	0	162
		THROUGH	284	-17	267
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	402	0	402
		RIGHT	58	0	58
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	255	9	264
		THROUGH	261	6	267
		RIGHT	119	3	122
HALF HOLLOW ROAD AT BAGATELLE ROAD 3	NB	LEFT	237	3	240
		THROUGH	0	0	0
		RIGHT	130	-15	115
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	314	7	321
		RIGHT	349	0	349
	WB	LEFT	124	0	124
		THROUGH	202	3	205
		RIGHT	0	0	0
HALF HOLLOW ROAD AT BURR'S LANE 4	NB	LEFT	45	3	48
		THROUGH	0	0	0
		RIGHT	47	5	52
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	346	41	387
		RIGHT	54	-34	20
	WB	LEFT	24	-11	13
		THROUGH	346	0	346
		RIGHT	0	0	0

RMS Engineering

PM PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

FIVE TOWNS COLLEGE PEAK HOUR

LOCATION	DIR	MVMT	SUBTOTAL NO BUILD VOLUME	TRAFFIC GENERATED BY PROPOSED PROJECT	TOTAL BUILD VOLUME
HALF HOLLOW ROAD AT VANDERBILT PARKWAY	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	93	2	95
		THROUGH	0	0	0
		RIGHT	144	-7	137
5	EB	LEFT	216	5	221
		THROUGH	145	40	185
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	131	-3	128
		RIGHT	61	0	61
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT COLLEGE ENTRANCE	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	20	178	198
6	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	577	-17	560
		RIGHT	20	87	107
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BURR'S LANE	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	93	-77	16
7	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	540	18	558
		RIGHT	57	-7	50

RMS Engineering

PM PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

GROWTH FACTOR: 1.00%
NO. OF YEARS: 2
GROWTH RATE: 1.030

COMMUTER PEAK HOUR

LOCATION	DIR	MVMT	EXISTING VOLUME	AMBIENT NO BUILD VOLUME
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE ROAD AT BAGATELLE ROAD 1	NB	LEFT	0	0
		THROUGH	251	259
		RIGHT	111	115
	SB	LEFT	242	250
		THROUGH	408	421
		RIGHT	0	0
	EB	LEFT	127	131
		THROUGH	1800	1854
		RIGHT	153	158
	WB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BAGATELLE ROAD 2	NB	LEFT	133	137
		THROUGH	272	281
		RIGHT	0	0
	SB	LEFT	0	0
		THROUGH	417	430
		RIGHT	60	62
	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	236	244
		THROUGH	213	220
		RIGHT	89	92
HALF HOLLOW ROAD AT BAGATELLE ROAD 3	NB	LEFT	183	189
		THROUGH	0	0
		RIGHT	140	145
	SB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	EB	LEFT	0	0
		THROUGH	472	487
		RIGHT	352	363
	WB	LEFT	123	127
		THROUGH	187	193
		RIGHT	0	0
HALF HOLLOW ROAD AT BURR'S LANE 4	NB	LEFT	25	26
		THROUGH	0	0
		RIGHT	20	21
	SB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	EB	LEFT	0	0
		THROUGH	517	533
		RIGHT	25	26
	WB	LEFT	8	9
		THROUGH	279	288
		RIGHT	0	0

RMS Engineering

PM PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

GROWTH FACTOR: 1.00%
NO. OF YEARS: 2
GROWTH RATE: 1.030

COMMUTER PEAK HOUR

LOCATION	DIR	MVMT	EXISTING VOLUME	AMBIENT NO BUILD VOLUME
HALF HOLLOW ROAD	NB	LEFT	0	0
AT		THROUGH	0	0
VANDERBILT PARKWAY		RIGHT	0	0
	SB	LEFT	108	112
		THROUGH	0	0
		RIGHT	157	162
5	EB	LEFT	324	334
		THROUGH	196	202
		RIGHT	0	0
	WB	LEFT	0	0
		THROUGH	112	116
		RIGHT	87	90
LONG ISLAND EXPRESSWAY	NB	LEFT	0	0
(I-495)		THROUGH	0	0
NORTH SERVICE ROAD		RIGHT	0	0
AT	SB	LEFT	0	0
COLLEGE ENTRANCE		THROUGH	0	0
		RIGHT	0	0
6	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	0	0
		THROUGH	523	539
		RIGHT	0	0
LONG ISLAND EXPRESSWAY	NB	LEFT	0	0
(I-495)		THROUGH	0	0
NORTH SERVICE ROAD		RIGHT	0	0
AT	SB	LEFT	0	0
BURR'S LANE		THROUGH	0	0
		RIGHT	40	42
7	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	0	0
		THROUGH	498	513
		RIGHT	25	26

RMS Engineering

PM PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

OTHER PLANNED PROJECTS

COMMUTER PEAK HOUR

	1 GREENS AT HALF HOLLOW	2 47 SINGLE FAMILY HOMES	3 10 SINGLE FAMILY HOMES	4 DIX HILLS SOCCER CLUB	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS
	VOL	VOL	VOL	VOL	
ENTER	144	35	9	20	
EXIT	104	20	5	20	
TOTAL	248	55	14	40	

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	%EN	%EX	2 VOL	%EN	%EX	3 VOL	%EN	%EX	3 VOL	SUBTOTAL VOL
LONG ISLAND EXPRESSWAY	NB	LEFT			0			0			0			0	0
(I-495)		THROUGH			0			0			0			0	0
SOUTH SERVICE ROAD		RIGHT			0			0			0	5		1	1
AT	SB	LEFT		25	26			0			0		20	4	30
BAGATELLE ROAD		THROUGH			0			0			0		5	1	1
		RIGHT			0			0			0			0	0
1	EB	LEFT			0			0			0			0	0
		THROUGH			0		25	5		25	1	20		4	10
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
LONG ISLAND EXPRESSWAY	NB	LEFT			0			0			0			0	0
(I-495)		THROUGH			0			0			0			0	0
NORTH SERVICE ROAD		RIGHT			0			0			0			0	0
AT	SB	LEFT			0			0			0			0	0
BAGATELLE ROAD		THROUGH		25	26			0			0			0	26
		RIGHT			0			0			0			0	0
2	EB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0		25	5	5
		THROUGH			0	25		9	25		2		35	7	18
		RIGHT	20		29			0			0		40	8	37
HALF HOLLOW ROAD	NB	LEFT	20		29			0			0		25	5	34
AT		THROUGH			0			0			0			0	0
BAGATELLE ROAD		RIGHT			0			0			0		15	3	3
	SB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
3	EB	LEFT			0			0			0			0	0
		THROUGH			0	10		4	10		1	25		5	10
		RIGHT		25	26			0			0			0	26
	WB	LEFT			0			0			0			0	0
		THROUGH	5		7		10	2		10	1			0	10
		RIGHT			0			0			0			0	0
HALF HOLLOW ROAD	NB	LEFT			0			0			0			0	0
AT		THROUGH			0			0			0			0	0
BURR'S LANE		RIGHT			0			0			0			0	0
	SB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
4	EB	LEFT			0			0			0			0	0
		THROUGH			0			0			0	25	15	8	8
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0			0	0
		THROUGH	5		7			0			0			0	7
		RIGHT			0			0			0			0	0

RMS Engineering

PM PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

OTHER
PLANNED
PROJECTS

COMMUTER PEAK HOUR

	1 GREENS AT HALF HOLLOW	2 47 SINGLE FAMILY HOMES	3 10 SINGLE FAMILY HOMES	4 DIX HILLS SOCCER CLUB	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS
	VOL	VOL	VOL	VOL	
ENTER	144	35	9	20	
EXIT	104	20	5	20	
TOTAL	248	55	14	40	

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	%EN	%EX	2 VOL	%EN	%EX	3 VOL	%EN	%EX	3 VOL	SUBTOTAL VOL
HALF HOLLOW ROAD	NB	LEFT			0			0			0			0	0
AT		THROUGH			0			0			0			0	0
VANDERBILT PARKWAY		RIGHT			0			0			0			0	0
	SB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT	5		7		10	2		10	1			0	10
5	EB	LEFT			0	10		4	10		1		15	3	8
		THROUGH			0			0			0	25		5	5
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
LONG ISLAND EXPRESSWAY	NB	LEFT			0			0			0			0	0
(I-495)		THROUGH			0			0			0			0	0
NORTH SERVICE ROAD		RIGHT			0			0			0			0	0
AT	SB	LEFT			0			0			0			0	0
COLLEGE ENTRANCE		THROUGH			0			0			0			0	0
		RIGHT			0			0			0		100	20	20
6	EB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0			0	0
		THROUGH	20		29	25		9	25		2			0	40
		RIGHT			0			0			0	100		20	20
LONG ISLAND EXPRESSWAY	NB	LEFT			0			0			0			0	0
(I-495)		THROUGH			0			0			0			0	0
NORTH SERVICE ROAD		RIGHT			0			0			0			0	0
AT	SB	LEFT			0			0			0			0	0
BURR'S LANE		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
7	EB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0			0	0
		THROUGH	20		29	25		9	25		2		100	20	60
		RIGHT			0			0			0			0	0

RMS Engineering

PM PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

COMMUTER PEAK HOUR

LOCATION	DIR	MVMT	AMBIENT NO BUILD VOLUME	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS	SUBTOTAL NO BUILD VOLUME
LONG ISLAND EXPRESSWAY	NB	LEFT	0	0	0
(I-495)		THROUGH	259	0	259
SOUTH SERVICE ROAD		RIGHT	115	1	116
AT	SB	LEFT	250	30	280
BAGATELLE ROAD		THROUGH	421	1	422
		RIGHT	0	0	0
1	EB	LEFT	131	0	131
		THROUGH	1854	10	1864
		RIGHT	158	0	158
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
LONG ISLAND EXPRESSWAY	NB	LEFT	137	0	137
(I-495)		THROUGH	281	0	281
NORTH SERVICE ROAD		RIGHT	0	0	0
AT	SB	LEFT	0	0	0
BAGATELLE ROAD		THROUGH	430	26	456
		RIGHT	62	0	62
2	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	244	5	249
		THROUGH	220	18	238
		RIGHT	92	37	129
HALF HOLLOW ROAD	NB	LEFT	189	34	223
AT		THROUGH	0	0	0
BAGATELLE ROAD		RIGHT	145	3	148
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
3	EB	LEFT	0	0	0
		THROUGH	487	10	497
		RIGHT	363	26	389
	WB	LEFT	127	0	127
		THROUGH	193	10	203
		RIGHT	0	0	0
HALF HOLLOW ROAD	NB	LEFT	26	0	26
AT		THROUGH	0	0	0
BURR'S LANE		RIGHT	21	0	21
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
4	EB	LEFT	0	0	0
		THROUGH	533	8	541
		RIGHT	26	0	26
	WB	LEFT	9	0	9
		THROUGH	288	7	295
		RIGHT	0	0	0

RMS Engineering

PM PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

COMMUTER PEAK HOUR

LOCATION	DIR	MVMT	AMBIENT NO BUILD VOLUME	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS	SUBTOTAL NO BUILD VOLUME
HALF HOLLOW ROAD AT VANDERBILT PARKWAY	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	112	0	112
		THROUGH	0	0	0
		RIGHT	162	10	172
5	EB	LEFT	334	8	342
		THROUGH	202	5	207
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	116	0	116
		RIGHT	90	0	90
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT COLLEGE ENTRANCE	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	20	20
6	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	539	40	579
		RIGHT	0	20	20
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BURR'S LANE	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	42	0	42
7	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	513	60	573
		RIGHT	26	0	26

RMS Engineering

PM PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

COMMUTER PEAK HOUR

					FIVE TOWNS EXPANSION 208 BEDS	SUBTOTAL TRAFFIC GENERATED
					VOL	
				ENTER	26	
				EXIT	26	
				TOTAL	52	
LOCATION	**DIR**	**MVMT**	**%EN**	**%EX**	1 **VOL**	SUBTOTAL VOL
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE ROAD AT BAGATELLE ROAD 1	NB	LEFT			0	0
		THROUGH			0	0
		RIGHT	5		1	1
	SB	LEFT		28	7	7
		THROUGH		5	1	1
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH	5		1	1
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BAGATELLE ROAD 2	NB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT		33	9	9
		THROUGH		23	6	6
		RIGHT		12	3	3
HALF HOLLOW ROAD AT BAGATELLE ROAD 3	NB	LEFT		12	3	3
		THROUGH			0	0
		RIGHT			0	0
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH	25		7	7
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH		12	3	3
		RIGHT			0	0
HALF HOLLOW ROAD AT BURR'S LANE 4	NB	LEFT		12	3	3
		THROUGH			0	0
		RIGHT		20	5	5
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH	25		7	7
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0

RMS Engineering

PM PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

COMMUTER PEAK HOUR

	FIVE TOWNS EXPANSION 208 BEDS VOL	SUBTOTAL TRAFFIC GENERATED
ENTER	26	
EXIT	26	
TOTAL	52	

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	SUBTOTAL VOL
HALF HOLLOW ROAD AT VANDERBILT PARKWAY	NB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	SB	LEFT	3		1	1
		THROUGH			0	0
		RIGHT			0	0
5	EB	LEFT		20	5	5
		THROUGH	25		7	7
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT COLLEGE ENTRANCE	NB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT		100	26	26
6	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH			0	0
		RIGHT	100		26	26
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BURR'S LANE	NB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
7	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH		68	18	18
		RIGHT		32	8	8

RMS Engineering

PM PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

COMMUTER PEAK HOUR

LOCATION	DIR	MVMT	SUBTOTAL NO BUILD VOLUME	TRAFFIC GENERATED BY PROPOSED PROJECT	TOTAL BUILD VOLUME
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE ROAD AT BAGATELLE ROAD 1	NB	LEFT	0	0	0
		THROUGH	259	-3	256
		RIGHT	116	4	120
	SB	LEFT	280	7	287
		THROUGH	422	1	423
		RIGHT	0	0	0
	EB	LEFT	131	-2	129
		THROUGH	1864	3	1867
		RIGHT	158	0	158
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BAGATELLE ROAD 2	NB	LEFT	137	0	137
		THROUGH	281	-5	276
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	456	0	456
		RIGHT	62	0	62
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	249	9	258
		THROUGH	238	6	244
		RIGHT	129	3	132
HALF HOLLOW ROAD AT BAGATELLE ROAD 3	NB	LEFT	223	3	226
		THROUGH	0	0	0
		RIGHT	148	-5	143
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	497	7	504
		RIGHT	389	0	389
	WB	LEFT	127	0	127
		THROUGH	203	3	206
		RIGHT	0	0	0
HALF HOLLOW ROAD AT BURR'S LANE 4	NB	LEFT	26	3	29
		THROUGH	0	0	0
		RIGHT	21	5	26
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	541	17	558
		RIGHT	26	-10	16
	WB	LEFT	9	-5	4
		THROUGH	295	0	295
		RIGHT	0	0	0

RMS Engineering

PM PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

COMMUTER PEAK HOUR

LOCATION	DIR	MVMT	SUBTOTAL NO BUILD VOLUME	TRAFFIC GENERATED BY PROPOSED PROJECT	TOTAL BUILD VOLUME
HALF HOLLOW ROAD	NB	LEFT	0	0	0
AT		THROUGH	0	0	0
VANDERBILT PARKWAY		RIGHT	0	0	0
	SB	LEFT	112	2	114
		THROUGH	0	0	0
		RIGHT	172	-1	171
5	EB	LEFT	342	5	347
		THROUGH	207	17	224
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	116	-3	113
		RIGHT	90	0	90
LONG ISLAND EXPRESSWAY	NB	LEFT	0	0	0
(I-495)		THROUGH	0	0	0
NORTH SERVICE ROAD		RIGHT	0	0	0
AT	SB	LEFT	0	0	0
COLLEGE ENTRANCE		THROUGH	0	0	0
		RIGHT	20	102	122
6	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	579	-8	571
		RIGHT	20	60	80
LONG ISLAND EXPRESSWAY	NB	LEFT	0	0	0
(I-495)		THROUGH	0	0	0
NORTH SERVICE ROAD		RIGHT	0	0	0
AT	SB	LEFT	0	0	0
BURR'S LANE		THROUGH	0	0	0
		RIGHT	42	-46	-4
7	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	573	18	591
		RIGHT	26	2	28

RMS Engineering

SAT PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

GROWTH FACTOR: 1.00%
NO. OF YEARS: 2
GROWTH RATE: 1.030

COMMUTER PEAK HOUR

LOCATION	DIR	MVMT	EXISTING VOLUME	AMBIENT NO BUILD VOLUME
LONG ISLAND EXPRESSWAY	NB	LEFT	0	0
(I-495)		THROUGH	276	285
SOUTH SERVICE ROAD		RIGHT	139	144
AT	SB	LEFT	136	141
BAGATELLE ROAD		THROUGH	270	279
		RIGHT	0	0
1	EB	LEFT	119	123
		THROUGH	222	229
		RIGHT	119	123
	WB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
LONG ISLAND EXPRESSWAY	NB	LEFT	162	167
(I-495)		THROUGH	233	240
NORTH SERVICE ROAD		RIGHT	0	0
AT	SB	LEFT	0	0
BAGATELLE ROAD		THROUGH	246	254
		RIGHT	63	65
2	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	160	165
		THROUGH	174	180
		RIGHT	89	92
HALF HOLLOW ROAD	NB	LEFT	202	209
AT		THROUGH	0	0
BAGATELLE ROAD		RIGHT	117	121
	SB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
3	EB	LEFT	0	0
		THROUGH	127	131
		RIGHT	210	217
	WB	LEFT	164	169
		THROUGH	128	132
		RIGHT	0	0
HALF HOLLOW ROAD	NB	LEFT	7	8
AT		THROUGH	0	0
BURR'S LANE		RIGHT	7	8
	SB	LEFT	3	4
		THROUGH	0	0
		RIGHT	3	4
4	EB	LEFT	1	2
		THROUGH	218	225
		RIGHT	13	14
	WB	LEFT	4	5
		THROUGH	286	295
		RIGHT	1	2

RMS Engineering

SAT PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

GROWTH FACTOR: 1.00%
NO. OF YEARS: 2
GROWTH RATE: 1.030

COMMUTER PEAK HOUR

LOCATION	DIR	MVMT	EXISTING VOLUME	AMBIENT NO BUILD VOLUME
HALF HOLLOW ROAD	NB	LEFT	0	0
AT		THROUGH	0	0
VANDERBILT PARKWAY		RIGHT	0	0
	SB	LEFT	80	83
		THROUGH	0	0
		RIGHT	142	147
5	EB	LEFT	113	117
		THROUGH	104	108
		RIGHT	0	0
	WB	LEFT	0	0
		THROUGH	70	73
		RIGHT	154	159
LONG ISLAND EXPRESSWAY	NB	LEFT	0	0
(I-495)		THROUGH	0	0
NORTH SERVICE ROAD		RIGHT	0	0
AT	SB	LEFT	0	0
COLLEGE ENTRANCE		THROUGH	0	0
		RIGHT	0	0
6	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	0	0
		THROUGH	416	429
		RIGHT	0	0
LONG ISLAND EXPRESSWAY	NB	LEFT	0	0
(I-495)		THROUGH	0	0
NORTH SERVICE ROAD		RIGHT	0	0
AT	SB	LEFT	0	0
BURR'S LANE		THROUGH	0	0
		RIGHT	8	9
7	EB	LEFT	0	0
		THROUGH	0	0
		RIGHT	0	0
	WB	LEFT	0	0
		THROUGH	412	425
		RIGHT	8	9

RMS Engineering

SAT PEAK HOUR
Project Name: Five Towns College
Project No.: 2002-056

OTHER
PLANNED
PROJECTS

COMMUTER PEAK HOUR

	1 GREENS AT HALF HOLLOW	2 47 SINGLE FAMILY HOMES	3 10 SINGLE FAMILY HOMES	4 DIX HILLS SOCCER CLUB	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS
	VOL	VOL	VOL	VOL	
ENTER	290	29	11	40	
EXIT	236	24	9	40	
TOTAL	526	53	20	80	

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	%EN	%EX	2 VOL	%EN	%EX	3 VOL	%EN	%EX	3 VOL	SUBTOTAL VOL
LONG ISLAND EXPRESSWAY	NB	LEFT			0			0			0			0	0
(I-495)		THROUGH			0			0			0			0	0
SOUTH SERVICE ROAD		RIGHT			0			0			0	5		2	2
AT	SB	LEFT		25	59			0			0		20	8	67
BAGATELLE ROAD		THROUGH			0			0			0		5	2	2
		RIGHT			0			0			0			0	0
1	EB	LEFT			0			0			0			0	0
		THROUGH			0		25	6		25	2	20		8	16
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
LONG ISLAND EXPRESSWAY	NB	LEFT			0			0			0			0	0
(I-495)		THROUGH			0			0			0			0	0
NORTH SERVICE ROAD		RIGHT			0			0			0			0	0
AT	SB	LEFT			0			0			0			0	0
BAGATELLE ROAD		THROUGH		25	59			0			0			0	59
		RIGHT			0			0			0			0	0
2	EB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0		25	10	10
		THROUGH			0	25		7	25		3		35	14	24
		RIGHT	20		58			0			0		40	16	74
HALF HOLLOW ROAD	NB	LEFT	20		58			0			0		25	10	68
AT		THROUGH			0			0			0			0	0
BAGATELLE ROAD		RIGHT			0			0			0		15	6	6
	SB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
3	EB	LEFT			0			0			0			0	0
		THROUGH			0	10		3	10		1	25		10	14
		RIGHT		25	59			0			0			0	59
	WB	LEFT			0			0			0			0	0
		THROUGH	5		15		10	2		10	1			0	18
		RIGHT			0			0			0			0	0
HALF HOLLOW ROAD	NB	LEFT			0			0			0			0	0
AT		THROUGH			0			0			0			0	0
BURR'S LANE		RIGHT			0			0			0			0	0
	SB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
4	EB	LEFT			0			0			0			0	0
		THROUGH			0			0			0	25	15	16	16
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0			0	0
		THROUGH	5		15			0			0			0	15
		RIGHT			0			0			0			0	0

RMS Engineering

SAT PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

OTHER PLANNED PROJECTS

COMMUTER PEAK HOUR

	1 GREENS AT HALF HOLLOW	2 47 SINGLE FAMILY HOMES	3 10 SINGLE FAMILY HOMES	4 DIX HILLS SOCCER CLUB	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS
	VOL	VOL	VOL	VOL	
ENTER	290	29	11	40	
EXIT	236	24	9	40	
TOTAL	526	53	20	80	

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	%EN	%EX	2 VOL	%EN	%EX	3 VOL	%EN	%EX	3 VOL	SUBTOTAL VOL
HALF HOLLOW ROAD AT VANDERBILT PARKWAY	NB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	SB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT	5		15		10	2		10	1			0	18
5	EB	LEFT			0	10		3	10		1		15	6	10
		THROUGH			0			0			0	25		10	10
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT COLLEGE ENTRANCE	NB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	SB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0		100	40	40
6	EB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0			0	0
		THROUGH	20		58	25		7	25		3			0	68
		RIGHT			0			0			0	100		40	40
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BURR'S LANE	NB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	SB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
7	EB	LEFT			0			0			0			0	0
		THROUGH			0			0			0			0	0
		RIGHT			0			0			0			0	0
	WB	LEFT			0			0			0			0	0
		THROUGH	20		58	25		7	25		3		100	40	108
		RIGHT			0			0			0			0	0

RMS Engineering

SAT PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

COMMUTER PEAK HOUR

LOCATION	DIR	MVMT	AMBIENT NO BUILD VOLUME	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS	SUBTOTAL NO BUILD VOLUME
LONG ISLAND EXPRESSWAY	NB	LEFT	0	0	0
(I-495)		THROUGH	285	0	285
SOUTH SERVICE ROAD		RIGHT	144	2	146
AT	SB	LEFT	141	67	208
BAGATELLE ROAD		THROUGH	279	2	281
		RIGHT	0	0	0
1	EB	LEFT	123	0	123
		THROUGH	229	16	245
		RIGHT	123	0	123
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
LONG ISLAND EXPRESSWAY	NB	LEFT	167	0	167
(I-495)		THROUGH	240	0	240
NORTH SERVICE ROAD		RIGHT	0	0	0
AT	SB	LEFT	0	0	0
BAGATELLE ROAD		THROUGH	254	59	313
		RIGHT	65	0	65
2	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	165	10	175
		THROUGH	180	24	204
		RIGHT	92	74	166
HALF HOLLOW ROAD	NB	LEFT	209	68	277
AT		THROUGH	0	0	0
BAGATELLE ROAD		RIGHT	121	6	127
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
3	EB	LEFT	0	0	0
		THROUGH	131	14	145
		RIGHT	217	59	276
	WB	LEFT	169	0	169
		THROUGH	132	18	150
		RIGHT	0	0	0
HALF HOLLOW ROAD	NB	LEFT	8	0	8
AT		THROUGH	0	0	0
BURR'S LANE		RIGHT	8	0	8
	SB	LEFT	4	0	4
		THROUGH	0	0	0
		RIGHT	4	0	4
4	EB	LEFT	2	0	2
		THROUGH	225	16	241
		RIGHT	14	0	14
	WB	LEFT	5	0	5
		THROUGH	295	15	310
		RIGHT	2	0	2

RMS Engineering

SAT PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

COMMUTER PEAK HOUR

LOCATION	DIR	MVMT	AMBIENT NO BUILD VOLUME	SUBTOTAL TRAFFIC GENERATED BY OTHER PROJECTS	SUBTOTAL NO BUILD VOLUME
HALF HOLLOW ROAD AT VANDERBILT PARKWAY	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	83	0	83
		THROUGH	0	0	0
		RIGHT	147	18	165
5	EB	LEFT	117	10	127
		THROUGH	108	10	118
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	73	0	73
		RIGHT	159	0	159
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT COLLEGE ENTRANCE	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	40	40
6	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	429	68	497
		RIGHT	0	40	40
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BURR'S LANE	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	9	0	9
7	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	425	108	533
		RIGHT	9	0	9

RMS Engineering

SAT PEAK HOUR

Project Name: Five Towns College
Project No.: 2002-056

COMMUTER PEAK HOUR

					FIVE TOWNS EXPANSION 208 BEDS	SUBTOTAL TRAFFIC GENERATED
					VOL	
				ENTER	26	
				EXIT	26	
				TOTAL	52	
LOCATION	**DIR**	**MVMT**	**%EN**	**%EX**	1 **VOL**	SUBTOTAL VOL
LONG ISLAND EXPRESSWAY	NB	LEFT			0	0
(I-495)		THROUGH			0	0
SOUTH SERVICE ROAD		RIGHT	5		1	1
AT	SB	LEFT		28	7	7
BAGATELLE ROAD		THROUGH		5	1	1
		RIGHT			0	0
1	EB	LEFT			0	0
		THROUGH	5		1	1
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
LONG ISLAND EXPRESSWAY	NB	LEFT			0	0
(I-495)		THROUGH			0	0
NORTH SERVICE ROAD		RIGHT			0	0
AT	SB	LEFT			0	0
BAGATELLE ROAD		THROUGH			0	0
		RIGHT			0	0
2	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT		33	9	9
		THROUGH		23	6	6
		RIGHT		12	3	3
HALF HOLLOW ROAD	NB	LEFT		12	3	3
AT		THROUGH			0	0
BAGATELLE ROAD		RIGHT			0	0
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
3	EB	LEFT			0	0
		THROUGH	25		7	7
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH		12	3	3
		RIGHT			0	0
HALF HOLLOW ROAD	NB	LEFT		12	3	3
AT		THROUGH			0	0
BURR'S LANE		RIGHT		20	5	5
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
4	EB	LEFT			0	0
		THROUGH	25		7	7
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0

RMS Engineering

SAT PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

COMMUTER PEAK HOUR

	FIVE TOWNS EXPANSION 208 BEDS	SUBTOTAL TRAFFIC GENERATED
	VOL	
ENTER	26	
EXIT	26	
TOTAL	52	

LOCATION	DIR	MVMT	%EN	%EX	1 VOL	SUBTOTAL VOL
HALF HOLLOW ROAD AT VANDERBILT PARKWAY 5	NB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	SB	LEFT	3		1	1
		THROUGH			0	0
		RIGHT			0	0
	EB	LEFT		20	5	5
		THROUGH	25		7	7
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT COLLEGE ENTRANCE 6	NB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT		100	26	26
	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH			0	0
		RIGHT	100		26	26
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BURR'S LANE 7	NB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	SB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	EB	LEFT			0	0
		THROUGH			0	0
		RIGHT			0	0
	WB	LEFT			0	0
		THROUGH		68	18	18
		RIGHT		32	8	8

RMS Engineering

SAT PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

COMMUTER PEAK HOUR

LOCATION	DIR	MVMT	SUBTOTAL NO BUILD VOLUME	TRAFFIC GENERATED BY PROPOSED PROJECT	TOTAL BUILD VOLUME
LONG ISLAND EXPRESSWAY (I-495) SOUTH SERVICE ROAD AT BAGATELLE ROAD 1	NB	LEFT	0	0	0
		THROUGH	285	-4	281
		RIGHT	146	5	151
	SB	LEFT	208	7	215
		THROUGH	281	1	282
		RIGHT	0	0	0
	EB	LEFT	123	-3	120
		THROUGH	245	4	249
		RIGHT	123	0	123
	WB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BAGATELLE ROAD 2	NB	LEFT	167	0	167
		THROUGH	240	-7	233
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	313	0	313
		RIGHT	65	0	65
	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	175	9	184
		THROUGH	204	6	210
		RIGHT	166	3	169
HALF HOLLOW ROAD AT BAGATELLE ROAD 3	NB	LEFT	277	3	280
		THROUGH	0	0	0
		RIGHT	127	-7	120
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	EB	LEFT	0	0	0
		THROUGH	145	7	152
		RIGHT	276	0	276
	WB	LEFT	169	0	169
		THROUGH	150	3	153
		RIGHT	0	0	0
HALF HOLLOW ROAD AT BURR'S LANE 4	NB	LEFT	8	3	11
		THROUGH	0	0	0
		RIGHT	8	5	13
	SB	LEFT	4	0	4
		THROUGH	0	0	0
		RIGHT	4	0	4
	EB	LEFT	2	0	2
		THROUGH	241	18	259
		RIGHT	14	-11	3
	WB	LEFT	5	-5	0
		THROUGH	310	0	310
		RIGHT	2	0	2

RMS Engineering

SAT PEAK HOUR

Project Name: Five Towns College

Project No.: 2002-056

COMMUTER PEAK HOUR

LOCATION	DIR	MVMT	SUBTOTAL NO BUILD VOLUME	TRAFFIC GENERATED BY PROPOSED PROJECT	TOTAL BUILD VOLUME
HALF HOLLOW ROAD AT VANDERBILT PARKWAY	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	83	2	85
		THROUGH	0	0	0
		RIGHT	165	-4	161
5	EB	LEFT	127	5	132
		THROUGH	118	18	136
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	73	0	73
		RIGHT	159	0	159
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT COLLEGE ENTRANCE	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	40	48	88
6	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	497	-7	490
		RIGHT	40	50	90
LONG ISLAND EXPRESSWAY (I-495) NORTH SERVICE ROAD AT BURR'S LANE	NB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	SB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	9	-6	3
7	EB	LEFT	0	0	0
		THROUGH	0	0	0
		RIGHT	0	0	0
	WB	LEFT	0	0	0
		THROUGH	533	18	551
		RIGHT	9	2	11

APPENDIX D: CAPACITY ANALYSIS WORKSHEETS – EXISTING CONDITIONS

I. Signalized Intersections

II. Unsignalized Intersections

I. Signalized Intersections

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Existing Am Peak
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
E/W St: Long Island Expressway SSR

Inter.: LIE SSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2002
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	3	0	0	0	0	0	1	1	1	1	0
LGConfig		LTR						T	R	L	T	
Volume	194	233	95					520	165	169	232	
Lane Width		11.0						12.0	12.0	11.0	12.0	
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	P				NB Left				
Thru	P				Thru	A			
Right	P				Right	A			
Peds					Peds				
WB Left					SB Left	A	A		
Thru					Thru	A	A		
Right					Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	26.5					24.0	12.5		
Yellow	4.0					3.5	3.5		
All Red	2.0					2.0	2.0		

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1610	4518	0.35	0.36	19.5	B	19.5	B
Westbound								
Northbound								
T	566	1776	1.07	0.32	84.8	F	69.7	E
R	464	1455	0.41	0.32	22.0	C		
Southbound								
L	437	1544	0.48	0.54	24.7	C		
T	922	1696	0.31	0.54	10.2	B	16.3	B

Intersection Delay = 40.2 (sec/veh) Intersection LOS = D

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Existing Am Peak
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
E/W St: Long Island Expressway SSR

Inter.: LIE SSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2002
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	3	0	0	0	0	0	1	1	1	1	0
LGConfig		LTR						T	R	L	T	
Volume	124	186	77					218	92	94	164	
Lane Width		11.0						12.0	12.0	11.0	12.0	
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left	P				NB	Left				
Thru	P					Thru	A			
Right	P					Right	A			
Peds						Peds				
WB Left					SB	Left	A	A		
Thru						Thru	A	A		
Right						Right				
Peds						Peds				
NB Right					EB	Right				
SB Right					WB	Right				
Green	26.5						24.0	12.5		
Yellow	4.0						3.5	3.5		
All Red	2.0						2.0	2.0		

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1613	4529	0.26	0.36	18.6	B	18.6	B
Westbound								
Northbound								
T	571	1792	0.44	0.32	22.2	C	21.6	C
R	472	1482	0.23	0.32	20.3	C		
Southbound								
L	574	1586	0.20	0.54	14.3	B		
T	931	1712	0.22	0.54	9.6	A	11.3	B

Intersection Delay = 17.5 (sec/veh) Intersection LOS = B

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Existing Pm Peak
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
E/W St: Long Island Expressway SSR

Inter.: LIE SSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2002
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	3	0	0	0	0	0	1	1	1	1	0
LGConfig		LTR						T	R	L	T	
Volume	127	1800	153					251	111	242	408	
Lane Width		11.0						12.0	12.0	11.0	12.0	
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4
EB Left	P			
Thru	P			
Right	P			
Peds				
WB Left				
Thru				
Right				
Peds				
NB Right				
SB Right				
Green	26.5			
Yellow	4.0			
All Red	2.0			

Phase Combination	5	6	7	8
NB Left				
Thru	A			
Right	A			
Peds				
SB Left	A	A		
Thru	A	A		
Right				
Peds				
EB Right				
WB Right				
Green	22.0	9.5		
Yellow	3.5	3.5		
All Red	2.0	2.0		

Cycle Length: 75.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1842	4847	1.24	0.38	136.5	F	136.5	F
Westbound								
Northbound								
T	584	1863	0.47	0.31	21.4	C	20.8	C
R	496	1583	0.25	0.31	19.4	B		
Southbound								
L	532	1646	0.54	0.51	19.8	B		
T	956	1863	0.50	0.51	12.4	B	15.2	B

Intersection Delay = 96.3 (sec/veh) Intersection LOS = F

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Existing Pm Peak
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
E/W St: Long Island Expressway SSR

Inter.: LIE SSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2002
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	3	0	0	0	0	0	1	1	1	1	0
LGConfig		LTR						T	R	L	T	
Volume	130	1185	137					312	136	221	381	
Lane Width		11.0						12.0	12.0	11.0	12.0	
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left	P				NB	Left				
Thru	P					Thru	A			
Right	P					Right	A			
Peds						Peds				
WB Left					SB	Left	A	A		
Thru						Thru	A	A		
Right						Right				
Peds						Peds				
NB Right					EB	Right				
SB Right					WB	Right				
Green	26.5						22.0	9.5		
Yellow	4.0						3.5	3.5		
All Red	2.0						2.0	2.0		

Cycle Length: 75.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1816	4778	0.88	0.38	28.1	C	28.1	C
Westbound								
Northbound								
T	578	1845	0.59	0.31	23.4	C	22.3	C
R	496	1583	0.30	0.31	19.9	B		
Southbound								
L	461	1544	0.56	0.51	22.2	C		
T	903	1759	0.50	0.51	12.3	B	16.0	B

Intersection Delay = 24.0 (sec/veh) Intersection LOS = C

Analyst: REB
Agency: RMS Engineering
Date: 8/12/2002
Period: Existing SAT Peak
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
E/W St: Long Island Expressway SSR

Inter.: LIE SSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2002
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	3	0	0	0	0	0	2	0	1	1	0
LGConfig		LTR						TR		L	T	
Volume	119	222	119					276	139	136	270	
Lane Width		11.0						12.0		11.0	12.0	
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left	A				NB	Left				
Thru	A					Thru	P			
Right	A					Right	P			
Peds						Peds				
WB Left					SB	Left	P	A		
Thru						Thru	P	A		
Right						Right				
Peds						Peds				
NB Right					EB	Right				
SB Right					WB	Right				
Green	25.0						24.5	8.5		
Yellow	4.0						3.5	3.5		
All Red	2.0						2.0	2.0		

Cycle Length: 75.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1679	4665	0.30	0.36	17.3	B	17.3	B
Westbound								
Northbound								
TR	1165	3362	0.42	0.35	19.9	B	19.9	B
Southbound								
L	565	1711	0.28	0.53	12.9	B		
T	994	1863	0.32	0.53	10.0+	B	11.0	B

Intersection Delay = 16.2 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1b

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Existing Am Peak
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
E/W St: Long Island Expressway NSR

Inter.: LIE NSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2002
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	3	0	1	1	0	0	2	0
LGConfig					LTR		L	T			TR	
Volume				94	1700	66	376	312			290	188
Lane Width					11.0		11.0	11.0			12.0	
RTOR Vol						0						0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left					NB	Left	A	A		
Thru						Thru	A	A		
Right						Right				
Peds						Peds				
WB Left	P				SB	Left				
Thru	P					Thru	A			
Right	P					Right	A			
Peds						Peds				
NB Right					EB	Right				
SB Right					WB	Right				
Green	26.5						24.0	12.5		
Yellow	4.0						3.5	3.5		
All Red	2.0						2.0	2.0		

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
LTR	1728	4850	1.12	0.36	88.8	F	88.8	F
Northbound								
L	560	1711	0.70	0.54	25.1	C		
T	916	1685	0.35	0.54	10.6	B	18.5	B
Southbound								
TR	991	3109	0.60	0.32	23.9	C	23.9	C

Intersection Delay = 61.5 (sec/veh) Intersection LOS = E

HCS2000: Signalized Intersections Release 4.1b

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Existing Am Peak
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
E/W St: Long Island Expressway NSR

Inter.: LIE NSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2002
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	3	0	1	1	0	0	2	0
LGConfig					LTR		L	T			TR	
Volume				137	262	74	168	181			176	60
Lane Width					11.0		11.0	11.0			12.0	
RTOR Vol						0						0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left					NB	Left	A	A		
	Thru						Thru	A	A		
	Right						Right				
	Peds						Peds				
WB	Left	P				SB	Left				
	Thru	P					Thru	A			
	Right	P					Right	A			
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		26.5						24.0	12.5		
Yellow		4.0						3.5	3.5		
All Red		2.0						2.0	2.0		

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
LTR	1655	4646	0.30	0.36	19.0	B	19.0	B
Northbound								
L	701	1711	0.25	0.54	10.8	B		
T	942	1733	0.20	0.54	9.5	A	10.1	B
Southbound								
TR	1030	3231	0.28	0.32	20.6	C	20.6	C

Intersection Delay = 16.6 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1b

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Existing Pm Peak
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
E/W St: Long Island Expressway NSR

Inter.: LIE NSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2002
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	0	0	0	3	0	1	1	0	0	2	0
LGConfig					LTR		L	T			TR	
Volume				236	213	89	133	272			417	60
Lane Width					11.0		11.0	11.0			12.0	
RTOR Vol						0						0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left					NB	Left	A	A		
	Thru						Thru	A	A		
	Right						Right				
	Peds						Peds				
WB	Left	P				SB	Left				
	Thru	P					Thru	A			
	Right	P					Right	A			
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		26.5						22.0	9.5		
Yellow		4.0						3.5	3.5		
All Red		2.0						2.0	2.0		

Cycle Length: 75.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
LTR	1783	4691	0.31	0.38	16.8	B	16.8	B
Northbound								
L	529	1711	0.28	0.51	15.0	B		
T	925	1801	0.32	0.51	10.9	B	12.2	B
Southbound								
TR	1070	3414	0.52	0.31	21.6	C	21.6	C

Intersection Delay = 17.2 (sec/veh) Intersection LOS = B

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Existing Pm Peak
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
E/W St: Long Island Expressway NSR

Inter.: LIE NSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2002
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	0	0	0	3	0	1	1	0	0	2	0
LGConfig					LTR		L	T			TR	
Volume				242	235	79	157	275			365	56
Lane Width					11.0		11.0	11.0			12.0	
RTOR Vol						0						0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left					NB	Left	A	A		
	Thru						Thru	A	A		
	Right						Right				
	Peds						Peds				
WB	Left	P				SB	Left				
	Thru	P					Thru	A			
	Right	P					Right	A			
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		26.5						22.0	9.5		
Yellow		4.0						3.5	3.5		
All Red		2.0						2.0	2.0		

Cycle Length: 75.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
LTR	1767	4650	0.33	0.38	17.0	B	17.0	B
Northbound								
L	557	1711	0.31	0.51	14.4	B		
T	873	1701	0.35	0.51	11.0	B	12.3	B
Southbound								
TR	1078	3439	0.45	0.31	20.9	C	20.9	C

Intersection Delay = 16.8 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1b

Analyst: REB
Agency: RMS Engineering
Date: 8/12/2002
Period: Existing SAT Peak
Project ID: Five Towns College, 2002-056
E/W St: Long Island Expressway NSR

Inter.: LIE NSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2002
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	3	0	1	1	0	0	2	0
LGConfig					LTR		L	T			TR	
Volume				160	174	89	162	233			246	63
Lane Width					11.0		11.0	11.0			12.0	
RTOR Vol						0						0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left					NB	Left	A	A		
	Thru						Thru	A	A		
	Right						Right				
	Peds						Peds				
WB	Left	P				SB	Left				
	Thru	P					Thru	A			
	Right	P					Right	A			
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		25.0						24.5	8.5		
Yellow		4.0						3.5	3.5		
All Red		2.0						2.0	2.0		

Cycle Length: 75.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
LTR	1682	4672	0.28	0.36	17.5	B	17.5	B
Northbound								
L	627	1711	0.29	0.53	11.5	B		
T	961	1801	0.27	0.53	9.7	A	10.4	B
Southbound								
TR	1189	3431	0.31	0.35	18.1	B	18.1	B

Intersection Delay = 15.2 (sec/veh) Intersection LOS = B

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Existing AM Peak
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd and Bagatelle R
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2002
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	1	1	0	1	0	1	0	0	0
LGConfig		T	R	L	T		L		R			
Volume		141	213	235	852		271		145			
Lane Width		13.0	14.0	10.0	10.0		11.0		15.0			
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left					NB	Left	A			
Thru	P					Thru				
Right	P					Right	A			
Peds						Peds				
WB Left	P				SB	Left				
Thru	P					Thru				
Right						Right				
Peds						Peds				
NB Right					EB	Right	A			
SB Right					WB	Right				
Green	54.9						34.4			
Yellow	3.5						3.0			
All Red	1.6						2.6			

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
T	971	1722	0.18	0.56	11.0	B	4.4	A
R	1401	1401	0.19	1.00	0.1	A		
Westbound								
L	591	1048	0.44	0.56	14.9	B		
T	971	1722	0.96	0.56	42.2	D	36.3	D
Northbound								
L	561	1586	0.56	0.35	27.3	C	26.0	C
R	593	1676	0.28	0.35	23.5	C		
Southbound								

Intersection Delay = 27.3 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1b

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Existing AM Peak
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd and Bagatelle R
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2002
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	1	1	0	1	0	1	0	0	0
LGConfig		T	R	L	T		L		R			
Volume		134	169	87	312		143		127			
Lane Width		13.0	14.0	10.0	10.0		11.0		15.0			
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4
EB	Left				
	Thru	P			
	Right	P			
	Peds				
WB	Left	P			
	Thru	P			
	Right				
	Peds				
NB	Right				
SB	Right				
Green		54.9			
Yellow		3.5			
All Red		1.6			

		5	6	7	8
NB	Left	A			
	Thru				
	Right	A			
	Peds				
SB	Left				
	Thru				
	Right				
	Peds				
EB	Right	A			
WB	Right				
Green		34.4			
Yellow		3.0			
All Red		2.6			

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
T	1025	1818	0.16	0.56	10.8	B	4.8	A
R	1552	1552	0.14	1.00	0.0+	A		
Westbound								
L	605	1072	0.16	0.56	11.0	B		
T	962	1705	0.36	0.56	13.0	B	12.6	B
Northbound								
L	577	1631	0.29	0.35	23.5	C	23.3	C
R	588	1660	0.25	0.35	23.1	C		
Southbound								

Intersection Delay = 13.0 (sec/veh) Intersection LOS = B

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Existing PM Peak
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd and Bagatelle R
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2002
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	1	1	1	1	0	1	0	1	0	0	0
LGConfig		T	R	L	T		L		R			
Volume		472	352	123	187		183		140			
Lane Width		13.0	14.0	10.0	10.0		11.0		15.0			
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left					NB	Left	A			
Thru	P					Thru				
Right	P					Right	A			
Peds						Peds				
WB Left	P				SB	Left				
Thru	P					Thru				
Right						Right				
Peds						Peds				
NB Right					EB	Right	A			
SB Right					WB	Right				
Green	54.9						34.4			
Yellow	3.5						3.0			
All Red	1.6						2.6			

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
T	1086	1925	0.49	0.56	14.7	B	8.4	A
R	1641	1641	0.24	1.00	0.1	A		
Westbound								
L	358	635	0.37	0.56	14.9	B		
T	971	1722	0.21	0.56	11.2	B	12.7	B
Northbound								
L	588	1662	0.37	0.35	24.5	C	24.0	C
R	617	1742	0.27	0.35	23.3	C		
Southbound								

Intersection Delay = 13.0 (sec/veh) Intersection LOS = B

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Existing PM Peak
Project ID: Five Towns Collere, 2002-056 COLLEGE PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd and Bagatelle R
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2002
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	1	1	1	1	0	1	0	1	0	0	0
LGConfig		T	R	L	T		L		R			
Volume		295	313	120	186		197		123			
Lane Width		13.0	14.0	10.0	10.0		11.0		15.0			
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left					NB	Left	A			
Thru	P					Thru				
Right	P					Right	A			
Peds						Peds				
WB Left	P				SB	Left				
Thru	P					Thru				
Right						Right				
Peds						Peds				
NB Right					EB	Right	A			
SB Right					WB	Right				
Green	54.9						34.4			
Yellow	3.5						3.0			
All Red	1.6						2.6			

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
T	1075	1906	0.31	0.56	12.2	B	6.0	A
R	1689	1689	0.21	1.00	0.1	A		
Westbound								
L	477	845	0.27	0.56	12.6	B		
T	944	1673	0.21	0.56	11.3	B	11.8	B
Northbound								
L	606	1711	0.39	0.35	24.6	C	24.0	C
R	617	1742	0.24	0.35	23.0	C		
Southbound								

Intersection Delay = 12.3 (sec/veh) Intersection LOS = B

Analyst: REB
Agency: RMS Engineering
Date: 8/12/2002
Period: Existing SAT Peak
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd. at Bagatelle R
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2002
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	1	1	0	1	0	1	0	0	0
LGConfig		T	R	L	T		L		R			
Volume		127	210	164	128		202		117			
Lane Width		13.0	14.0	10.0	10.0		11.0		15.0			
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left					NB	Left	A			
Thru	P					Thru				
Right	P					Right	A			
Peds						Peds				
WB Left	P				SB	Left				
Thru	P					Thru				
Right						Right				
Peds						Peds				
NB Right					EB	Right	A			
SB Right					WB	Right				
Green	54.9						34.4			
Yellow	3.5						3.0			
All Red	1.6						2.6			

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
T	1086	1925	0.12	0.56	10.5	B	4.0	A
R	1689	1689	0.13	1.00	0.0+	A		
Westbound								
L	634	1124	0.32	0.56	12.9	B		
T	981	1739	0.16	0.56	10.8	B	12.0	B
Northbound								
L	606	1711	0.39	0.35	24.7	C	24.0	C
R	617	1742	0.22	0.35	22.8	C		
Southbound								

Intersection Delay = 13.5 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1b

HCS2000: Signalized Intersections Release 4.1b

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Existing Am Peak
Project ID: Five Towns College, 2002-056, COMMUTER PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd at Vanderbilt P
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2002
N/S St: Vanderbilt Parkway

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	0	1	0	0	0	0	1	0	0
LGConfig	L	T			TR					L		
Volume	90	104			196	81				174		
Lane Width	10.0	16.0			11.0					11.0		
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left	P				NB	Left				
Thru	P					Thru				
Right						Right				
Peds						Peds				
WB Left					SB	Left	A			
Thru	P					Thru				
Right	P					Right				
Peds						Peds				
NB Right					EB	Right				
SB Right					WB	Right				
Green	40.0						40.0			
Yellow	3.5						3.5			
All Red	1.5						1.5			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	308	668	0.33	0.46	18.3	B		
T	863	1872	0.14	0.46	14.3	B	16.1	B
Westbound								
TR	776	1683	0.44	0.46	18.1	B	18.1	B
Northbound								
Southbound								
L	752	1631	0.25	0.46	15.0	B	15.0	B

Intersection Delay = 16.7 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1b

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Existing Am Peak
Project ID: Five Towns College, 2002-056, COLLEGE PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd at Vanderbilt P
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2002
N/S St: Vanderbilt Parkway

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	0	1	0	0	0	0	1	0	0
LGConfig	L	T			TR					L		
Volume	73	76			178	104				128		
Lane Width	10.0	16.0			11.0					11.0		
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left	P				NB	Left				
Thru	P					Thru				
Right						Right				
Peds						Peds				
WB Left					SB	Left	A			
Thru	P					Thru				
Right	P					Right				
Peds						Peds				
NB Right					EB	Right				
SB Right					WB	Right				
Green	40.0						40.0			
Yellow	3.5						3.5			
All Red	1.5						1.5			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	321	697	0.26	0.46	16.8	B		
T	911	1976	0.09	0.46	13.9	B	15.3	B
Westbound								
TR	784	1700	0.44	0.46	18.2	B	18.2	B
Northbound								
Southbound								
L	774	1678	0.18	0.46	14.4	B	14.4	B

Intersection Delay = 16.6 (sec/veh) Intersection LOS = B

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Existing Pm Peak
Project ID: Five Towns College, 2002-056, COMMUTER PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd at Vanderbilt P
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2002
N/S St: Vanderbilt Parkway

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	1	1	0	0	1	0	0	0	0	1	0	0
LGConfig	L	T			TR					L		
Volume	324	196			112	87				108		
Lane Width	10.0	16.0			11.0					11.0		
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	P				NB Left				
Thru	P				Thru				
Right					Right				
Peds					Peds				
WB Left					SB Left	A			
Thru	P				Thru				
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	40.0					40.0			
Yellow	3.5					3.5			
All Red	1.5					1.5			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	426	924	0.86	0.46	41.9	D		
T	973	2111	0.23	0.46	15.2	B	31.8	C
Westbound								
TR	768	1666	0.29	0.46	16.0	B	16.0	B
Northbound								
Southbound								
L	789	1711	0.15	0.46	14.1	B	14.1	B

Intersection Delay = 25.8 (sec/veh) Intersection LOS = C

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Existing Pm Peak
Project ID: Five Towns College, 2002-056, COLLEGE PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd at Vanderbilt P
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2002
N/S St: Vanderbilt Parkway

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	1	1	0	0	1	0	0	0	0	1	0	0
LGConfig	L	T			TR					L		
Volume	201	135			127	59				90		
Lane Width	10.0	16.0			11.0					11.0		
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	P				NB Left				
Thru	P				Thru				
Right					Right				
Peds					Peds				
WB Left					SB Left	A			
Thru	P				Thru				
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	40.0					40.0			
Yellow	3.5					3.5			
All Red	1.5					1.5			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	437	948	0.52	0.46	21.6	C		
T	973	2111	0.16	0.46	14.4	B	18.7	B
Westbound								
TR	779	1689	0.27	0.46	15.7	B	15.7	B
Northbound								
Southbound								
L	789	1711	0.13	0.46	13.9	B	13.9	B

Intersection Delay = 17.1 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1b

Analyst: REB
Agency: RMS Engineering
Date: 8/12/2002
Period: Existing SAT Peak
Project ID: Five Towns College, 2002-056
E/W St: Half Hollow Road

Inter.: Half Hollow Rd at Vanderbilt P
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2002
N/S St: Vanderbilt Parkway

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	1	1	0	0	1	0	0	0	0	1	0	0
LGConfig	L	T			TR					L		
Volume	113	104			70	154				80		
Lane Width	10.0	16.0			11.0					12.0		
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left	P				NB	Left				
Thru	P					Thru				
Right						Right				
Peds						Peds				
WB Left					SB	Left	A			
Thru	P					Thru				
Right	P					Right				
Peds						Peds				
NB Right					EB	Right				
SB Right					WB	Right				
Green	40.0						40.0			
Yellow	3.5						3.5			
All Red	1.5						1.5			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	395	856	0.33	0.46	17.6	B		
T	973	2111	0.12	0.46	14.1	B	15.9	B
Westbound								
TR	753	1633	0.35	0.46	16.9	B	16.9	B
Northbound								
Southbound								
L	816	1770	0.11	0.46	13.8	B	13.8	B

Intersection Delay = 16.0 (sec/veh) Intersection LOS = B

II. Unsignalized Intersections

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing Am Peak
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056, COMMUTER PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume	2	183	90	23	1087	1
Peak-Hour Factor, PHF	0.81	0.81	0.81	0.91	0.91	0.91
Hourly Flow Rate, HFR	2	225	111	25	1194	1
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R	LTR		
Upstream Signal?		Yes			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	10		29	1		3
Peak Hour Factor, PHF	0.90		0.90	0.80		0.80
Hourly Flow Rate, HFR	11		32	1		3
Percent Heavy Vehicles	30		40	2		2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0		0	0		0
Configuration		LR			LR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR			LR	
v (vph)	2	25		43			4	
C(m) (vph)	584	1223		246			160	
v/c	0.00	0.02		0.17			0.03	
95% queue length	0.01	0.06		0.62			0.08	
Control Delay	11.2	8.0		22.7			28.1	
LOS	B	A		C			D	
Approach Delay				22.7			28.1	
Approach LOS				C			D	

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing Am Peak
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056, COMMUTER PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	2	183	90	23	1087	1
Peak-Hour Factor, PHF	0.81	0.81	0.81	0.91	0.91	0.91
Peak-15 Minute Volume	1	56	28	6	299	0
Hourly Flow Rate, HFR	2	225	111	25	1194	1
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R	LTR		
Upstream Signal?		Yes			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	10		29	1		3
Peak Hour Factor, PHF	0.90		0.90	0.80		0.80
Peak-15 Minute Volume	3		8	0		1
Hourly Flow Rate, HFR	11		32	1		3
Percent Heavy Vehicles	30		40	2		2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0		0	0		0
Configuration		LR			LR	

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

		Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2	Left-Turn	0	1700	3	0	100	30	700
	Through	140	1700	3	59	100	30	700
S5	Left-Turn							
	Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:	225	1194
Shared ln volume, major rt vehicles:	0	1
Sat flow rate, major th vehicles:	1700	1700
Sat flow rate, major rt vehicles:	1700	1700
Number of major street through lanes:	1	1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement		1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	4.1	7.1		6.2	7.1		6.2
t(c,hv)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	2	30		40	2		2
t(c,g)				0.20	0.20	0.10	0.20	0.20	0.10
Grade/100				0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.00	0.00		0.00	0.00		0.00
t(c,T):	1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c)	1-stage	4.1	4.1	7.4		6.6	7.1		6.2
	2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)	2.20	2.20	3.50		3.30	3.50		3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)	2	2	30		40	2		2
t(f)	2.2	2.2	3.8		3.7	3.5		3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog	140	0		
Total Saturation Flow Rate, s (vph)	1700	1700		
Arrival Type	3	3		
Effective Green, g (sec)	59	0		
Cycle Length, C (sec)	100	100		
Rp (from table 9-2)	1.000	1.000		
Proportion vehicles arriving on green P	0.590	0.000		
g(q1)	3.4	0.0		
g(q2)	0.3	0.0		
g(q)	3.7	0.0		

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha	0.550			
beta	0.645			
Travel time, t(a) (sec)	15.873			
Smoothing Factor, F	0.151			
Proportion of conflicting flow, f	0.414	0.000		
Max platooned flow, V(c,max)	318	0		
Min platooned flow, V(c,min)	1000	1000		
Duration of blocked period, t(p)	0.0	0.0		
Proportion time blocked, p	0.000		0.000	

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	0.000
p(subo)	0.000
Constrained or unconstrained?	U

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)	1.000		
p(4)	1.000		
p(7)	1.000		
p(8)			
p(9)	1.000		
p(10)	1.000		
p(11)			
p(12)	1.000		

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x	1195	336	1475		225	1544		1194
s	1700	1700	1700		1700	1700		1700
Px	1.000	1.000	1.000		1.000	1.000		1.000
V c,u,x	1195	336	1475		225	1544		1194
C r,x	584	1223	90		728	94		227
C plat,x	584	1223	90		728	94		227

Two-Stage Process

	7		8		10		11	
	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2
V(c,x)								
s	1700	1700			1700	1700		
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	225	1194
Potential Capacity	728	227
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	728	227
Probability of Queue free St.	0.96	0.99

Step 2: LT from Major St.	4	1
Conflicting Flows	336	1195
Potential Capacity	1223	584
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1223	584
Probability of Queue free St.	0.98	1.00
Maj L-Shared Prob Q free St.	0.93	1.00

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.93	0.93
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	1475	1544
Potential Capacity	90	94
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	0.93	0.93
Maj. L, Min T Adj. Imp Factor.	0.94	0.94
Cap. Adj. factor due to Impeding mvmnt	0.93	0.90
Movement Capacity	84	85

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.93	0.93
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	1475	1544
Potential Capacity	90	94
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	0.93	0.93
Maj. L, Min T Adj. Imp Factor.	0.94	0.94
Cap. Adj. factor due to Impeding mvmnt	0.93	0.90
Movement Capacity	84	85
Results for Two-stage process:		
a		
y		
C t	84	85

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	11		32	1		3
Movement Capacity (vph)	84		728	85		227
Shared Lane Capacity (vph)		246			160	

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	84		728	85		227
Volume	11		32	1		3
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		246			160	
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR			LR	
v (vph)	2	25		43			4	
C(m) (vph)	584	1223		246			160	
v/c	0.00	0.02		0.17			0.03	
95% queue length	0.01	0.06		0.62			0.08	
Control Delay	11.2	8.0		22.7			28.1	
LOS	B	A		C			D	
Approach Delay				22.7			28.1	
Approach LOS				C			D	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.98
v(il), Volume for stream 2 or 5	225	1194
v(i2), Volume for stream 3 or 6	0	1
s(il), Saturation flow rate for stream 2 or 5	1700	1700
s(i2), Saturation flow rate for stream 3 or 6	1700	1700
P*(oj)	1.00	0.93
d(M,LT), Delay for stream 1 or 4	11.2	8.0
N, Number of major street through lanes	1	1
d(rank,1) Delay for stream 2 or 5	0.0	0.6

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing Am Peak
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056, COLLEGE PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume	0	196	65	108	329	0
Peak-Hour Factor, PHF	0.81	0.81	0.81	0.91	0.91	0.91
Hourly Flow Rate, HFR	0	241	80	118	361	0
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	
Upstream Signal?		Yes			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	12		35			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	13		38			
Percent Heavy Vehicles	10		22			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR				
v (vph)	0	118		51				
C(m) (vph)	1198	1239		539				
v/c	0.00	0.10		0.09				
95% queue length	0.00	0.32		0.31				
Control Delay	8.0	8.2		12.4				
LOS	A	A		B				
Approach Delay				12.4				
Approach LOS				B				

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing Am Peak
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056, COLLEGE PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	0	196	65	108	329	0
Peak-Hour Factor, PHF	0.81	0.81	0.81	0.91	0.91	0.91
Peak-15 Minute Volume	0	60	20	30	90	0
Hourly Flow Rate, HFR	0	241	80	118	361	0
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	
Upstream Signal?		Yes			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	12		35			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	3		10			
Hourly Flow Rate, HFR	13		38			
Percent Heavy Vehicles	10		22			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn	0	1700	3	0	100	30	700
Through	130	1700	3	59	100	30	700
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:	241	361
Shared ln volume, major rt vehicles:	0	0
Sat flow rate, major th vehicles:	1700	1700
Sat flow rate, major rt vehicles:	1700	1700
Number of major street through lanes:	1	1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)	4.1	4.1	7.1		6.2			
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)	2	2	10		22			
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)	0.00	0.00	0.70		0.00			
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage	4.1	4.1	6.5		6.4			
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)	2.20	2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)	2	2	10		22			
t(f)	2.2	2.2	3.6		3.5			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog	130	0		
Total Saturation Flow Rate, s (vph)	1700	1700		
Arrival Type	3	3		
Effective Green, g (sec)	59	0		
Cycle Length, C (sec)	100	100		
Rp (from table 9-2)	1.000	1.000		
Proportion vehicles arriving on green P	0.590	0.000		
g(q1)	3.1	0.0		
g(q2)	0.3	0.0		
g(q)	3.4	0.0		

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha	0.550			
beta	0.645			
Travel time, t(a) (sec)	15.873			
Smoothing Factor, F	0.151			
Proportion of conflicting flow, f	0.405	0.000		
Max platooned flow, V(c,max)	293	0		
Min platooned flow, V(c,min)	1000	1000		
Duration of blocked period, t(p)	0.0	0.0		
Proportion time blocked, p	0.000		0.000	

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	0.000
p(subo)	0.000
Constrained or unconstrained?	U

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)	1.000		
p(4)	1.000		
p(7)	1.000		
p(8)			
p(9)	1.000		
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x	361	321	838		241			
s	1700	1700	1700		1700			
Px	1.000	1.000	1.000		1.000			
V c,u,x	361	321	838		241			
C r,x	1198	1239	326		751			
C plat,x	1198	1239	326		751			

Two-Stage Process

	7		8		10		11	
	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2
V(c,x)								
s	1700	1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	241	
Potential Capacity	751	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	751	
Probability of Queue free St.	0.95	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	321	361
Potential Capacity	1239	1198
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1239	1198
Probability of Queue free St.	0.90	1.00
Maj L-Shared Prob Q free St.	0.88	1.00

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.88	0.88
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	838	
Potential Capacity	326	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.88
Maj. L, Min T Adj. Imp Factor.		0.91
Cap. Adj. factor due to Impeding mvmnt	0.90	0.86
Movement Capacity	295	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.88	0.88
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	838	
Potential Capacity	326	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.88
Maj. L, Min T Adj. Imp Factor.		0.91
Cap. Adj. factor due to Impeding mvmnt	0.90	0.86
Movement Capacity	295	
Results for Two-stage process:		
a		
y		
C t	295	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	13		38			
Movement Capacity (vph)	295		751			
Shared Lane Capacity (vph)		539				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	295		751			
Volume	13		38			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		539				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR				
v (vph)	0	118		51				
C(m) (vph)	1198	1239		539				
v/c	0.00	0.10		0.09				
95% queue length	0.00	0.32		0.31				
Control Delay	8.0	8.2		12.4				
LOS	A	A		B				
Approach Delay				12.4				
Approach LOS				B				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.90
v(il), Volume for stream 2 or 5	241	361
v(i2), Volume for stream 3 or 6	0	0
s(il), Saturation flow rate for stream 2 or 5	1700	1700
s(i2), Saturation flow rate for stream 3 or 6	1700	1700
P*(oj)	1.00	0.88
d(M,LT), Delay for stream 1 or 4	8.0	8.2
N, Number of major street through lanes	1	1
d(rank,1) Delay for stream 2 or 5	0.0	1.0

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing Pm Peak
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056, COMMUTER PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume	0	517	25	8	279	0
Peak-Hour Factor, PHF	0.92	0.92	0.92	0.85	0.85	0.85
Hourly Flow Rate, HFR	0	561	27	9	328	0
Percent Heavy Vehicles	2	--	--	25	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	
Upstream Signal?		Yes			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	25		20			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	27		22			
Percent Heavy Vehicles	16		10			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR				
v (vph)	0	9		49				
C(m) (vph)	1232	887		368				
v/c	0.00	0.01		0.13				
95% queue length	0.00	0.03		0.46				
Control Delay	7.9	9.1		16.3				
LOS	A	A		C				
Approach Delay				16.3				
Approach LOS				C				

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing Pm Peak
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056, COMMUTER PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	0	517	25	8	279	0
Peak-Hour Factor, PHF	0.92	0.92	0.92	0.85	0.85	0.85
Peak-15 Minute Volume	0	140	7	2	82	0
Hourly Flow Rate, HFR	0	561	27	9	328	0
Percent Heavy Vehicles	2	--	--	25	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	
Upstream Signal?		Yes			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	25		20			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	7		6			
Hourly Flow Rate, HFR	27		22			
Percent Heavy Vehicles	16		10			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

		Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2	Left-Turn	0	1700	3	0	100	30	700
	Through	470	1700	3	59	100	30	700
S5	Left-Turn							
	Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:	561	328
Shared ln volume, major rt vehicles:	0	0
Sat flow rate, major th vehicles:	1700	1700
Sat flow rate, major rt vehicles:	1700	1700
Number of major street through lanes:	1	1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement		1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	4.1	7.1		6.2			
t(c,hv)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	25	16		10			
t(c,g)				0.20	0.20	0.10	0.20	0.20	0.10
Grade/100				0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.00	0.70		0.00			
t(c,T):	1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c)	1-stage	4.1	4.3	6.6		6.3			
	2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)	2.20	2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)	2	25	16		10			
t(f)	2.2	2.4	3.6		3.4			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog	470	0		
Total Saturation Flow Rate, s (vph)	1700	1700		
Arrival Type	3	3		
Effective Green, g (sec)	59	0		
Cycle Length, C (sec)	100	100		
Rp (from table 9-2)	1.000	1.000		
Proportion vehicles arriving on green P	0.590	0.000		
g(q1)	11.3	0.0		
g(q2)	4.3	0.0		
g(q)	15.7	0.0		

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha	0.550			
beta	0.645			
Travel time, t(a) (sec)	15.873			
Smoothing Factor, F	0.151			
Proportion of conflicting flow, f	0.799	0.000		
Max platooned flow, V(c,max)	1254	0		
Min platooned flow, V(c,min)	1000	1000		
Duration of blocked period, t(p)	9.6	0.0		
Proportion time blocked, p	0.096		0.000	

Computation 3-Platoon Event Periods	Result
p(2)	0.096
p(5)	0.000
p(dom)	0.096
p(subo)	0.000
Constrained or unconstrained?	U

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)	1.000		
p(4)	0.904		
p(7)	0.904		
p(8)			
p(9)	0.904		
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x	328	588	907		561			
s	1700	1700	1700		1700			
Px	1.000	0.904	0.904		0.904			
V c,u,x	328	470	823		440			
C r,x	1232	981	325		601			
C plat,x	1232	887	294		543			

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s	1700	1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	561	
Potential Capacity	543	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	543	
Probability of Queue free St.	0.96	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	588	328
Potential Capacity	887	1232
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	887	1232
Probability of Queue free St.	0.99	1.00
Maj L-Shared Prob Q free St.	0.99	1.00

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	907	
Potential Capacity	294	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.99	0.95
Movement Capacity	291	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	907	
Potential Capacity	294	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.99	0.95
Movement Capacity	291	
Results for Two-stage process:		
a		
y		
C t	291	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	27		22			
Movement Capacity (vph)	291		543			
Shared Lane Capacity (vph)		368				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	291		543			
Volume	27		22			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		368				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR				
v (vph)	0	9		49				
C(m) (vph)	1232	887		368				
v/c	0.00	0.01		0.13				
95% queue length	0.00	0.03		0.46				
Control Delay	7.9	9.1		16.3				
LOS	A	A		C				
Approach Delay				16.3				
Approach LOS				C				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.99
v(il), Volume for stream 2 or 5	561	328
v(i2), Volume for stream 3 or 6	0	0
s(il), Saturation flow rate for stream 2 or 5	1700	1700
s(i2), Saturation flow rate for stream 3 or 6	1700	1700
P*(oj)	1.00	0.99
d(M,LT), Delay for stream 1 or 4	7.9	9.1
N, Number of major street through lanes	1	1
d(rank,1) Delay for stream 2 or 5	0.0	0.1

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing Pm Peak
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056, COLLEGE PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume	0	328	52	23	329	0
Peak-Hour Factor, PHF	0.92	0.92	0.92	0.85	0.85	0.85
Hourly Flow Rate, HFR	0	356	56	27	387	0
Percent Heavy Vehicles	2	--	--	30	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	
Upstream Signal?		Yes			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	43		45			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	47		50			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR				
v (vph)	0	27		97				
C(m) (vph)	1171	1011		465				
v/c	0.00	0.03		0.21				
95% queue length	0.00	0.08		0.78				
Control Delay	8.1	8.7		14.8				
LOS	A	A		B				
Approach Delay				14.8				
Approach LOS				B				

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing Pm Peak
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056, COLLEGE PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	0	328	52	23	329	0
Peak-Hour Factor, PHF	0.92	0.92	0.92	0.85	0.85	0.85
Peak-15 Minute Volume	0	89	14	7	97	0
Hourly Flow Rate, HFR	0	356	56	27	387	0
Percent Heavy Vehicles	2	--	--	30	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	
Upstream Signal?		Yes			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	43		45			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	12		12			
Hourly Flow Rate, HFR	47		50			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

		Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2	Left-Turn	0	1700	3	0	100	30	700
	Through	290	1700	3	59	100	30	700
S5	Left-Turn							
	Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:	356	387
Shared ln volume, major rt vehicles:	0	0
Sat flow rate, major th vehicles:	1700	1700
Sat flow rate, major rt vehicles:	1700	1700
Number of major street through lanes:	1	1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement		1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	4.1	7.1		6.2			
t(c,hv)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	30	2		2			
t(c,g)				0.20	0.20	0.10	0.20	0.20	0.10
Grade/100				0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.00	0.70		0.00			
t(c,T):	1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c)	1-stage	4.1	4.4	6.4		6.2			
	2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)	2.20	2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)	2	30	2		2			
t(f)	2.2	2.5	3.5		3.3			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog	290	0		
Total Saturation Flow Rate, s (vph)	1700	1700		
Arrival Type	3	3		
Effective Green, g (sec)	59	0		
Cycle Length, C (sec)	100	100		
Rp (from table 9-2)	1.000	1.000		
Proportion vehicles arriving on green P	0.590	0.000		
g(q1)	7.0	0.0		
g(q2)	1.4	0.0		
g(q)	8.4	0.0		

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha		0.550		
beta		0.645		
Travel time, t(a) (sec)		15.873		
Smoothing Factor, F		0.151		
Proportion of conflicting flow, f	0.704	0.000		
Max platooned flow, V(c,max)	895	0		
Min platooned flow, V(c,min)	1000	1000		
Duration of blocked period, t(p)	0.0	0.0		
Proportion time blocked, p	0.000		0.000	

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	0.000
p(subo)	0.000
Constrained or unconstrained?	U

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)	1.000		
p(4)	1.000		
p(7)	1.000		
p(8)			
p(9)	1.000		
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x	387	412	797		356			
s	1700	1700	1700		1700			
Px	1.000	1.000	1.000		1.000			
V c,u,x	387	412	797		356			
C r,x	1171	1011	356		688			
C plat,x	1171	1011	356		688			

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s	1700	1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	356	
Potential Capacity	688	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	688	
Probability of Queue free St.	0.93	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	412	387
Potential Capacity	1011	1171
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1011	1171
Probability of Queue free St.	0.97	1.00
Maj L-Shared Prob Q free St.	0.97	1.00

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.97	0.97
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	797	
Potential Capacity	356	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.97
Maj. L, Min T Adj. Imp Factor.		0.97
Cap. Adj. factor due to Impeding mvmnt	0.97	0.90
Movement Capacity	346	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.97	0.97
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	797	
Potential Capacity	356	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.97
Maj. L, Min T Adj. Imp Factor.		0.97
Cap. Adj. factor due to Impeding mvmnt	0.97	0.90
Movement Capacity	346	
Results for Two-stage process:		
a		
y		
C t	346	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	47		50			
Movement Capacity (vph)	346		688			
Shared Lane Capacity (vph)		465				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	346		688			
Volume	47		50			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		465				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR				
v (vph)	0	27		97				
C(m) (vph)	1171	1011		465				
v/c	0.00	0.03		0.21				
95% queue length	0.00	0.08		0.78				
Control Delay	8.1	8.7		14.8				
LOS	A	A		B				
Approach Delay				14.8				
Approach LOS				B				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.97
v(i1), Volume for stream 2 or 5	356	387
v(i2), Volume for stream 3 or 6	0	0
s(i1), Saturation flow rate for stream 2 or 5	1700	1700
s(i2), Saturation flow rate for stream 3 or 6	1700	1700
P*(oj)	1.00	0.97
d(M,LT), Delay for stream 1 or 4	8.1	8.7
N, Number of major street through lanes	1	1
d(rank,1) Delay for stream 2 or 5	0.0	0.3

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing SAT Peak
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056, COMMUTER PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume	1	218	13	4	286	1
Peak-Hour Factor, PHF	0.80	0.80	0.80	0.82	0.82	0.82
Hourly Flow Rate, HFR	1	272	16	4	348	1
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	
Upstream Signal?		Yes			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	7		7	1		3
Peak Hour Factor, PHF	0.90		0.90	0.80		0.80
Hourly Flow Rate, HFR	7		7	1		3
Percent Heavy Vehicles	2		2	2		2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0		0	0		0
Configuration		LR			LR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR			LR	
v (vph)	1	4		14			4	
C(m) (vph)	1210	1274		517			577	
v/c	0.00	0.00		0.03			0.01	
95% queue length	0.00	0.01		0.08			0.02	
Control Delay	8.0	7.8		12.2			11.3	
LOS	A	A		B			B	
Approach Delay				12.2			11.3	
Approach LOS				B			B	

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing SAT Peak
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056, COMMUTER PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	1	218	13	4	286	1
Peak-Hour Factor, PHF	0.80	0.80	0.80	0.82	0.82	0.82
Peak-15 Minute Volume	0	68	4	1	87	0
Hourly Flow Rate, HFR	1	272	16	4	348	1
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	
Upstream Signal?		Yes			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	7		7	1		3
Peak Hour Factor, PHF	0.90		0.90	0.80		0.80
Peak-15 Minute Volume	2		2	0		1
Hourly Flow Rate, HFR	7		7	1		3
Percent Heavy Vehicles	2		2	2		2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0		0	0		0
Configuration		LR			LR	

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

		Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2	Left-Turn	0	1700	3	0	100	30	700
	Through	125	1700	3	59	100	30	700
S5	Left-Turn							
	Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:	272	348
Shared ln volume, major rt vehicles:	0	1
Sat flow rate, major th vehicles:	1700	1700
Sat flow rate, major rt vehicles:	1700	1700
Number of major street through lanes:	1	1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement		1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	4.1	7.1		6.2	7.1		6.2
t(c,hv)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	2	2		2	2		2
t(c,g)				0.20	0.20	0.10	0.20	0.20	0.10
Grade/100				0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.00	0.00		0.00	0.00		0.00
t(c,T):	1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c)	1-stage	4.1	4.1	7.1		6.2	7.1		6.2
	2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)	2.20	2.20	3.50		3.30	3.50		3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)	2	2	2		2	2		2
t(f)	2.2	2.2	3.5		3.3	3.5		3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog	125	0		
Total Saturation Flow Rate, s (vph)	1700	1700		
Arrival Type	3	3		
Effective Green, g (sec)	59	0		
Cycle Length, C (sec)	100	100		
Rp (from Exhibit 16-11)	1.000	1.000		
Proportion vehicles arriving on green P	0.590	0.000		
g(q1)	3.0	0.0		
g(q2)	0.2	0.0		
g(q)	3.3	0.0		

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha		0.550		
beta		0.645		
Travel time, t(a) (sec)		15.873		
Smoothing Factor, F		0.151		
Proportion of conflicting flow, f	0.433	0.000		
Max platooned flow, V(c,max)	303	0		
Min platooned flow, V(c,min)	1000	1000		
Duration of blocked period, t(p)	0.0	0.0		
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	0.000
p(subo)	0.000
Constrained or unconstrained?	U

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)	1.000		
p(4)	1.000		
p(7)	1.000		
p(8)			
p(9)	1.000		
p(10)	1.000		
p(11)			
p(12)	1.000		

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x	349	288	632		272	642		348
s	1700	1700	1700		1700	1700		1700
Px	1.000	1.000	1.000		1.000	1.000		1.000
V c,u,x	349	288	632		272	642		348
C r,x	1210	1274	393		767	387		695
C plat,x	1210	1274	393		767	387		695

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s	1700	1700			1700	1700		
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	272	348
Potential Capacity	767	695
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	767	695
Probability of Queue free St.	0.99	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	288	349
Potential Capacity	1274	1210
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1274	1210
Probability of Queue free St.	1.00	1.00
Maj L-Shared Prob Q free St.	1.00	1.00

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	632	642
Potential Capacity	393	387
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	1.00
Maj. L, Min T Adj. Imp Factor.	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity	390	382

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	632	642
Potential Capacity	393	387
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	1.00
Maj. L, Min T Adj. Imp Factor.	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity	390	382
Results for Two-stage process:		
a		
y		
C t	390	382

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	7		7	1		3
Movement Capacity (vph)	390		767	382		695
Shared Lane Capacity (vph)		517			577	

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	390		767	382		695
Volume	7		7	1		3
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		517			577	
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR			LR	
v (vph)	1	4		14			4	
C(m) (vph)	1210	1274		517			577	
v/c	0.00	0.00		0.03			0.01	
95% queue length	0.00	0.01		0.08			0.02	
Control Delay	8.0	7.8		12.2			11.3	
LOS	A	A		B			B	
Approach Delay				12.2			11.3	
Approach LOS				B			B	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	1.00
v(il), Volume for stream 2 or 5	272	348
v(i2), Volume for stream 3 or 6	0	1
s(il), Saturation flow rate for stream 2 or 5	1700	1700
s(i2), Saturation flow rate for stream 3 or 6	1700	1700
P*(oj)	1.00	1.00
d(M,LT), Delay for stream 1 or 4	8.0	7.8
N, Number of major street through lanes	1	1
d(rank,1) Delay for stream 2 or 5	0.0	0.0

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing AM Peak
Intersection: Burr's Lane at North Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
East/West Street: North Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume		31	4	13	100	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Hourly Flow Rate, HFR		37	4	13	107	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	4		8			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	4		8			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		13		12				
C(m) (vph)		1568		947				
v/c		0.01		0.01				
95% queue length		0.03		0.04				
Control Delay		7.3		8.9				
LOS		A		A				
Approach Delay				8.9				
Approach LOS				A				

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing AM Peak
Intersection: Burr's Lane at North Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
East/West Street: North Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		31	4	13	100	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Peak-15 Minute Volume		9	1	3	27	
Hourly Flow Rate, HFR		37	4	13	107	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	4		8			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	1		2			
Hourly Flow Rate, HFR	4		8			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

		Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2	Left-Turn							
	Through							
S5	Left-Turn							
	Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		107
Shared ln volume, major rt vehicles:		0
Sat flow rate, major th vehicles:		1700
Sat flow rate, major rt vehicles:		1700
Number of major street through lanes:		1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	7.1		6.2			
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	2		2			
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.70		0.00			
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage		4.1	6.4		6.2			
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)		2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)		2	2		2			
t(f)		2.2	3.5		3.3			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from table 9-2)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods

	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x		41	172		39			
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s		1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	39	
Potential Capacity	1033	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1033	
Probability of Queue free St.	0.99	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	41	
Potential Capacity	1568	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1568	
Probability of Queue free St.	0.99	1.00
Maj L-Shared Prob Q free St.	0.99	

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	172	
Potential Capacity	818	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity	811	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	172	
Potential Capacity	818	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity	811	
Results for Two-stage process:		
a		
y		
C t	811	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	4		8			
Movement Capacity (vph)	811		1033			
Shared Lane Capacity (vph)		947				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	811		1033			
Volume	4		8			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		947				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		13		12				
C(m) (vph)		1568		947				
v/c		0.01		0.01				
95% queue length		0.03		0.04				
Control Delay		7.3		8.9				
LOS		A		A				
Approach Delay				8.9				
Approach LOS				A				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.99
v(il), Volume for stream 2 or 5		107
v(i2), Volume for stream 3 or 6		0
s(il), Saturation flow rate for stream 2 or 5		1700
s(i2), Saturation flow rate for stream 3 or 6		1700
P*(oj)		0.99
d(M,LT), Delay for stream 1 or 4		7.3
N, Number of major street through lanes		1
d(rank,1) Delay for stream 2 or 5		0.1

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing AM Peak
Intersection: Burr's Lane at North Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
East/West Street: North Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume		32	5	19	154	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Hourly Flow Rate, HFR		39	6	20	165	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR			LT	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	8		15			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	8		16			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		20		24				
C(m) (vph)		1563		906				
v/c		0.01		0.03				
95% queue length		0.04		0.08				
Control Delay		7.3		9.1				
LOS		A		A				
Approach Delay				9.1				

Approach LOS A

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing AM Peak
Intersection: Burr's Lane at North Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
East/West Street: North Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		32	5	19	154	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Peak-15 Minute Volume		10	2	5	41	
Hourly Flow Rate, HFR		39	6	20	165	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR			LT	
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	8		15			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	2		4			
Hourly Flow Rate, HFR	8		16			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		165
Shared ln volume, major rt vehicles:		0
Sat flow rate, major th vehicles:		1700
Sat flow rate, major rt vehicles:		1700
Number of major street through lanes:		1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement		1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)			4.1	7.1		6.2			
t(c,hv)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)			2	2		2			
t(c,g)				0.20	0.20	0.10	0.20	0.20	0.10
Grade/100				0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)			0.00	0.70		0.00			
t(c,T):	1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c)	1-stage		4.1	6.4		6.2			
	2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)		2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)		2	2		2			
t(f)		2.2	3.5		3.3			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from table 9-2)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p	0.000		0.000	

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x		45	247		42			
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s		1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	42	
Potential Capacity	1029	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1029	
Probability of Queue free St.	0.98	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	45	
Potential Capacity	1563	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1563	
Probability of Queue free St.	0.99	1.00
Maj L-Shared Prob Q free St.	0.99	

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	247	
Potential Capacity	741	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.99	0.97
Movement Capacity	732	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	247	
Potential Capacity	741	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.99	0.97
Movement Capacity	732	
Results for Two-stage process:		
a		
y		
C t	732	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	8		16			
Movement Capacity (vph)	732		1029			
Shared Lane Capacity (vph)		906				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	732		1029			
Volume	8		16			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		906				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		20		24				
C(m) (vph)		1563		906				
v/c		0.01		0.03				
95% queue length		0.04		0.08				
Control Delay		7.3		9.1				
LOS		A		A				
Approach Delay				9.1				
Approach LOS				A				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.99
v(i1), Volume for stream 2 or 5		165
v(i2), Volume for stream 3 or 6		0
s(i1), Saturation flow rate for stream 2 or 5		1700
s(i2), Saturation flow rate for stream 3 or 6		1700
P*(oj)		0.99
d(M,LT), Delay for stream 1 or 4		7.3
N, Number of major street through lanes		1
d(rank,1) Delay for stream 2 or 5		0.1

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing PM Peak
Intersection: Burr's Lane at North Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
East/West Street: North Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume		20	5	14	31	
Peak-Hour Factor, PHF		0.85	0.85	0.87	0.87	
Hourly Flow Rate, HFR		23	5	16	35	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration			TR	LT		
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	24		8			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	26		8			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		16		34				
C(m) (vph)		1585		930				
v/c		0.01		0.04				
95% queue length		0.03		0.11				
Control Delay		7.3		9.0				
LOS		A		A				
Approach Delay				9.0				
Approach LOS				A				

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing PM Peak
Intersection: Burr's Lane at North Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
East/West Street: North Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		20	5	14	31	
Peak-Hour Factor, PHF		0.85	0.85	0.87	0.87	
Peak-15 Minute Volume		6	1	4	9	
Hourly Flow Rate, HFR		23	5	16	35	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration			TR	LT		
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	24		8			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	7		2			
Hourly Flow Rate, HFR	26		8			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		35
Shared ln volume, major rt vehicles:		0
Sat flow rate, major th vehicles:		1700
Sat flow rate, major rt vehicles:		1700
Number of major street through lanes:		1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	7.1		6.2			
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	2		2			
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.70		0.00			
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage		4.1	6.4		6.2			
2-stage								

Follow-Up Time Calculations Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)		2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)		2	2		2			
t(f)		2.2	3.5		3.3			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from table 9-2)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x		28	93		26			
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s		1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	26	
Potential Capacity	1050	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1050	
Probability of Queue free St.	0.99	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	28	
Potential Capacity	1585	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1585	
Probability of Queue free St.	0.99	1.00
Maj L-Shared Prob Q free St.	0.99	

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	93	
Potential Capacity	907	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.99	0.98
Movement Capacity	898	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	93	
Potential Capacity	907	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.99	0.98
Movement Capacity	898	
Results for Two-stage process:		
a		
y		
C t	898	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	26		8			
Movement Capacity (vph)	898		1050			
Shared Lane Capacity (vph)		930				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	898		1050			
Volume	26		8			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		930				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		16		34				
C(m) (vph)		1585		930				
v/c		0.01		0.04				
95% queue length		0.03		0.11				
Control Delay		7.3		9.0				
LOS		A		A				
Approach Delay				9.0				
Approach LOS				A				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.99
v(il), Volume for stream 2 or 5		35
v(i2), Volume for stream 3 or 6		0
s(il), Saturation flow rate for stream 2 or 5		1700
s(i2), Saturation flow rate for stream 3 or 6		1700
P*(oj)		0.99
d(M,LT), Delay for stream 1 or 4		7.3
N, Number of major street through lanes		1
d(rank,1) Delay for stream 2 or 5		0.1

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst:
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing PM Peak
Intersection: Burr's Lane at North Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
East/West Street: North Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume		20	12	33	55	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Hourly Flow Rate, HFR		24	14	35	59	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration			TR	LT		
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	54		34			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	60		37			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		35		97				
C(m) (vph)		1572		887				
v/c		0.02		0.11				
95% queue length		0.07		0.37				
Control Delay		7.3		9.6				
LOS		A		A				
Approach Delay				9.6				
Approach LOS				A				

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst:
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing PM Peak
Intersection: Burr's Lane at North Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
East/West Street: North Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		20	12	33	55	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Peak-15 Minute Volume		6	4	9	15	
Hourly Flow Rate, HFR		24	14	35	59	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration			TR	LT		
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	54		34			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	15		9			
Hourly Flow Rate, HFR	60		37			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		59
Shared ln volume, major rt vehicles:		0
Sat flow rate, major th vehicles:		1700
Sat flow rate, major rt vehicles:		1700
Number of major street through lanes:		1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	7.1		6.2			
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	2		2			
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.70		0.00			
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage		4.1	6.4		6.2			
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)		2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)		2	2		2			
t(f)		2.2	3.5		3.3			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from table 9-2)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x		38	160		31			
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s		1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	31	
Potential Capacity	1043	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1043	
Probability of Queue free St.	0.96	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	38	
Potential Capacity	1572	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1572	
Probability of Queue free St.	0.98	1.00
Maj L-Shared Prob Q free St.	0.98	

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.98	0.98
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	160	
Potential Capacity	831	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.98
Maj. L, Min T Adj. Imp Factor.		0.98
Cap. Adj. factor due to Impeding mvmnt	0.98	0.95
Movement Capacity	812	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.98	0.98
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	160	
Potential Capacity	831	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.98
Maj. L, Min T Adj. Imp Factor.		0.98
Cap. Adj. factor due to Impeding mvmnt	0.98	0.95
Movement Capacity	812	
Results for Two-stage process:		
a		
y		
C t	812	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	60		37			
Movement Capacity (vph)	812		1043			
Shared Lane Capacity (vph)		887				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	812		1043			
Volume	60		37			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		887				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		35		97				
C(m) (vph)		1572		887				
v/c		0.02		0.11				
95% queue length		0.07		0.37				
Control Delay		7.3		9.6				
LOS		A		A				
Approach Delay				9.6				
Approach LOS				A				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.98
v(il), Volume for stream 2 or 5		59
v(i2), Volume for stream 3 or 6		0
s(il), Saturation flow rate for stream 2 or 5		1700
s(i2), Saturation flow rate for stream 3 or 6		1700
P*(oj)		0.98
d(M,LT), Delay for stream 1 or 4		7.3
N, Number of major street through lanes		1
d(rank,1) Delay for stream 2 or 5		0.2

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing SAT Peak
Intersection: Burr's Lane at North Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056
East/West Street: North Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume		12	6	7	10	
Peak-Hour Factor, PHF		0.80	0.80	0.83	0.83	
Hourly Flow Rate, HFR		14	7	8	12	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	4		2			
Peak Hour Factor, PHF	0.80		0.80			
Hourly Flow Rate, HFR	4		2			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		8		6				
C(m) (vph)		1595		991				
v/c		0.01		0.01				
95% queue length		0.02		0.02				
Control Delay		7.3		8.7				
LOS		A		A				
Approach Delay				8.7				
Approach LOS				A				

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing SAT Peak
Intersection: Burr's Lane at North Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056
East/West Street: North Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		12	6	7	10	
Peak-Hour Factor, PHF		0.80	0.80	0.83	0.83	
Peak-15 Minute Volume		4	2	2	3	
Hourly Flow Rate, HFR		14	7	8	12	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	4		2			
Peak Hour Factor, PHF	0.80		0.80			
Peak-15 Minute Volume	1		1			
Hourly Flow Rate, HFR	4		2			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

		Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2	Left-Turn							
	Through							
S5	Left-Turn							
	Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		12
Shared ln volume, major rt vehicles:		0
Sat flow rate, major th vehicles:		1700
Sat flow rate, major rt vehicles:		1700
Number of major street through lanes:		1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	7.1		6.2			
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	2		2			
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.70		0.00			
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage		4.1	6.4		6.2			
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)		2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)		2	2		2			
t(f)		2.2	3.5		3.3			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from Exhibit 16-11)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x		21	46		18			
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s		1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	18	
Potential Capacity	1061	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1061	
Probability of Queue free St.	1.00	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	21	
Potential Capacity	1595	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1595	
Probability of Queue free St.	0.99	1.00
Maj L-Shared Prob Q free St.	0.99	

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	46	
Potential Capacity	964	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity	959	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	46	
Potential Capacity	964	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity	959	
Results for Two-stage process:		
a		
y		
C t	959	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	4		2			
Movement Capacity (vph)	959		1061			
Shared Lane Capacity (vph)		991				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	959		1061			
Volume	4		2			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		991				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		8		6				
C(m) (vph)		1595		991				
v/c		0.01		0.01				
95% queue length		0.02		0.02				
Control Delay		7.3		8.7				
LOS		A		A				
Approach Delay				8.7				
Approach LOS				A				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.99
v(il), Volume for stream 2 or 5		12
v(i2), Volume for stream 3 or 6		0
s(il), Saturation flow rate for stream 2 or 5		1700
s(i2), Saturation flow rate for stream 3 or 6		1700
P*(oj)		0.99
d(M,LT), Delay for stream 1 or 4		7.3
N, Number of major street through lanes		1
d(rank,1) Delay for stream 2 or 5		0.0

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing AM Peak
Intersection: Burr's Lane at South Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
East/West Street: South Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume		35	25	89	15	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Hourly Flow Rate, HFR		42	30	95	16	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration			TR	LT		
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	2		0			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	2		0			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		95		2				
C(m) (vph)		1528		681				
v/c		0.06		0.00				
95% queue length		0.20		0.01				
Control Delay		7.5		10.3				
LOS		A		B				
Approach Delay				10.3				
Approach LOS				B				

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing AM Peak
Intersection: Burr's Lane at South Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
East/West Street: South Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		35	25	89	15	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Peak-15 Minute Volume		11	8	24	4	
Hourly Flow Rate, HFR		42	30	95	16	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration			TR	LT		
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	2		0			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	1		0			
Hourly Flow Rate, HFR	2		0			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

		Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2	Left-Turn							
	Through							
S5	Left-Turn							
	Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		16
Shared ln volume, major rt vehicles:		0
Sat flow rate, major th vehicles:		1700
Sat flow rate, major rt vehicles:		1700
Number of major street through lanes:		1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement		1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)			4.1	7.1		6.2			
t(c,hv)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)			2	2		2			
t(c,g)				0.20	0.20	0.10	0.20	0.20	0.10
Grade/100				0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)			0.00	0.70		0.00			
t(c,T):	1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c)	1-stage		4.1	6.4		6.2			
	2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)		2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)		2	2		2			
t(f)		2.2	3.5		3.3			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from table 9-2)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x		72	263		57			
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s		1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	57	
Potential Capacity	1009	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1009	
Probability of Queue free St.	1.00	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	72	
Potential Capacity	1528	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1528	
Probability of Queue free St.	0.94	1.00
Maj L-Shared Prob Q free St.	0.94	

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.94	0.94
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	263	
Potential Capacity	726	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.94
Maj. L, Min T Adj. Imp Factor.		0.95
Cap. Adj. factor due to Impeding mvmnt	0.94	0.95
Movement Capacity	681	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.94	0.94
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	263	
Potential Capacity	726	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.94
Maj. L, Min T Adj. Imp Factor.		0.95
Cap. Adj. factor due to Impeding mvmnt	0.94	0.95
Movement Capacity	681	
Results for Two-stage process:		
a		
y		
C t	681	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	2		0			
Movement Capacity (vph)	681		1009			
Shared Lane Capacity (vph)		681				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	681		1009			
Volume	2		0			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		681				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		95		2				
C(m) (vph)		1528		681				
v/c		0.06		0.00				
95% queue length		0.20		0.01				
Control Delay		7.5		10.3				
LOS		A		B				
Approach Delay				10.3				
Approach LOS				B				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.94
v(il), Volume for stream 2 or 5		16
v(i2), Volume for stream 3 or 6		0
s(il), Saturation flow rate for stream 2 or 5		1700
s(i2), Saturation flow rate for stream 3 or 6		1700
P*(oj)		0.94
d(M,LT), Delay for stream 1 or 4		7.5
N, Number of major street through lanes		1
d(rank,1) Delay for stream 2 or 5		0.5

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing AM Peak
Intersection: Burr's Lane at South Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
East/West Street: South Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume		27	29	107	55	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Hourly Flow Rate, HFR		32	35	115	59	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration			TR		LT	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	28		5			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	31		5			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		115		36				
C(m) (vph)		1535		644				
v/c		0.07		0.06				
95% queue length		0.24		0.18				
Control Delay		7.5		10.9				
LOS		A		B				
Approach Delay				10.9				

Approach LOS   B

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing AM Peak
Intersection: Burr's Lane at South Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
East/West Street: South Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		27	29	107	55	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Peak-15 Minute Volume		8	9	29	15	
Hourly Flow Rate, HFR		32	35	115	59	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration			TR		LT	
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	28		5			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	8		1			
Hourly Flow Rate, HFR	31		5			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		59
Shared ln volume, major rt vehicles:		0
Sat flow rate, major th vehicles:		1700
Sat flow rate, major rt vehicles:		1700
Number of major street through lanes:		1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	7.1		6.2			
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	2		2			
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.70		0.00			
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage		4.1	6.4		6.2			
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)		2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)		2	2		2			
t(f)		2.2	3.5		3.3			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from table 9-2)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x		67	339		50			
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s		1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	50	
Potential Capacity	1018	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1018	
Probability of Queue free St.	1.00	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	67	
Potential Capacity	1535	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1535	
Probability of Queue free St.	0.93	1.00
Maj L-Shared Prob Q free St.	0.92	

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.92	0.92
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	339	
Potential Capacity	657	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.92
Maj. L, Min T Adj. Imp Factor.		0.94
Cap. Adj. factor due to Impeding mvmnt	0.93	0.94
Movement Capacity	608	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.92	0.92
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	339	
Potential Capacity	657	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.92
Maj. L, Min T Adj. Imp Factor.		0.94
Cap. Adj. factor due to Impeding mvmnt	0.93	0.94
Movement Capacity	608	
Results for Two-stage process:		
a		
y		
C t	608	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	31		5			
Movement Capacity (vph)	608		1018			
Shared Lane Capacity (vph)		644				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	608		1018			
Volume	31		5			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		644				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		115		36				
C(m) (vph)		1535		644				
v/c		0.07		0.06				
95% queue length		0.24		0.18				
Control Delay		7.5		10.9				
LOS		A		B				
Approach Delay				10.9				
Approach LOS				B				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.93
v(il), Volume for stream 2 or 5		59
v(i2), Volume for stream 3 or 6		0
s(il), Saturation flow rate for stream 2 or 5		1700
s(i2), Saturation flow rate for stream 3 or 6		1700
P*(oj)		0.92
d(M,LT), Delay for stream 1 or 4		7.5
N, Number of major street through lanes		1
d(rank,1) Delay for stream 2 or 5		0.6

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing PM Peak
Intersection: Burr's Lane at South Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
East/West Street: South Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume		27	1	10	23	
Peak-Hour Factor, PHF		0.85	0.85	0.87	0.87	
Hourly Flow Rate, HFR		31	1	11	26	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	22		18			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	24		20			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		11		44				
C(m) (vph)		1580		969				
v/c		0.01		0.05				
95% queue length		0.02		0.14				
Control Delay		7.3		8.9				
LOS		A		A				
Approach Delay				8.9				
Approach LOS				A				

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing PM Peak
Intersection: Burr's Lane at South Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
East/West Street: South Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		27	1	10	23	
Peak-Hour Factor, PHF		0.85	0.85	0.87	0.87	
Peak-15 Minute Volume		8	0	3	7	
Hourly Flow Rate, HFR		31	1	11	26	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	22		18			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	6		5			
Hourly Flow Rate, HFR	24		20			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		26
Shared ln volume, major rt vehicles:		0
Sat flow rate, major th vehicles:		1700
Sat flow rate, major rt vehicles:		1700
Number of major street through lanes:		1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	7.1		6.2			
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	2		2			
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.70		0.00			
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage		4.1	6.4		6.2			
2-stage								

Follow-Up Time Calculations Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)		2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)		2	2		2			
t(f)		2.2	3.5		3.3			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from table 9-2)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x		32	80		32			
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s		1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	32	
Potential Capacity	1042	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1042	
Probability of Queue free St.	0.98	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	32	
Potential Capacity	1580	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1580	
Probability of Queue free St.	0.99	1.00
Maj L-Shared Prob Q free St.	0.99	

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	80	
Potential Capacity	922	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.99	0.98
Movement Capacity	916	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	80	
Potential Capacity	922	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.99	0.98
Movement Capacity	916	
Results for Two-stage process:		
a		
y		
C t	916	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	24		20			
Movement Capacity (vph)	916		1042			
Shared Lane Capacity (vph)		969				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	916		1042			
Volume	24		20			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		969				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		11		44				
C(m) (vph)		1580		969				
v/c		0.01		0.05				
95% queue length		0.02		0.14				
Control Delay		7.3		8.9				
LOS		A		A				
Approach Delay				8.9				
Approach LOS				A				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.99
v(il), Volume for stream 2 or 5		26
v(i2), Volume for stream 3 or 6		0
s(il), Saturation flow rate for stream 2 or 5		1700
s(i2), Saturation flow rate for stream 3 or 6		1700
P*(oj)		0.99
d(M,LT), Delay for stream 1 or 4		7.3
N, Number of major street through lanes		1
d(rank,1) Delay for stream 2 or 5		0.1

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing PM Peak
Intersection: Burr's Lane at South Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
East/West Street: South Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume		51	3	10	65	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Hourly Flow Rate, HFR		62	3	10	69	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration			TR		LT	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	23		37			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	25		41			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		10		66				
C(m) (vph)		1537		930				
v/c		0.01		0.07				
95% queue length		0.02		0.23				
Control Delay		7.4		9.2				
LOS		A		A				
Approach Delay				9.2				
Approach LOS				A				

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing PM Peak
Intersection: Burr's Lane at South Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
East/West Street: South Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		51	3	10	65	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Peak-15 Minute Volume		16	1	3	17	
Hourly Flow Rate, HFR		62	3	10	69	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration			TR		LT	
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	23		37			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	6		10			
Hourly Flow Rate, HFR	25		41			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		69
Shared ln volume, major rt vehicles:		0
Sat flow rate, major th vehicles:		1700
Sat flow rate, major rt vehicles:		1700
Number of major street through lanes:		1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	7.1		6.2			
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	2		2			
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.70		0.00			
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage		4.1	6.4		6.2			
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)		2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)		2	2		2			
t(f)		2.2	3.5		3.3			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from table 9-2)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x		65	153		64			
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7		8		10		11	
	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2
V(c,x)								
s		1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	64	
Potential Capacity	1000	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1000	
Probability of Queue free St.	0.96	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	65	
Potential Capacity	1537	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1537	
Probability of Queue free St.	0.99	1.00
Maj L-Shared Prob Q free St.	0.99	

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	153	
Potential Capacity	839	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.99	0.95
Movement Capacity	834	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	153	
Potential Capacity	839	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.99	0.95
Movement Capacity	834	
Results for Two-stage process:		
a		
y		
C t	834	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	25		41			
Movement Capacity (vph)	834		1000			
Shared Lane Capacity (vph)		930				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	834		1000			
Volume	25		41			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		930				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		10		66				
C(m) (vph)		1537		930				
v/c		0.01		0.07				
95% queue length		0.02		0.23				
Control Delay		7.4		9.2				
LOS		A		A				
Approach Delay				9.2				
Approach LOS				A				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.99
v(il), Volume for stream 2 or 5		69
v(i2), Volume for stream 3 or 6		0
s(il), Saturation flow rate for stream 2 or 5		1700
s(i2), Saturation flow rate for stream 3 or 6		1700
P*(oj)		0.99
d(M,LT), Delay for stream 1 or 4		7.4
N, Number of major street through lanes		1
d(rank,1) Delay for stream 2 or 5		0.0

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing SAT Peak
Intersection: Burr's Lane at South Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056
East/West Street: South Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume		8	0	8	6	
Peak-Hour Factor, PHF		0.80	0.80	0.83	0.83	
Hourly Flow Rate, HFR		9	0	9	7	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration			TR	LT		
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	2		10			
Peak Hour Factor, PHF	0.80		0.80			
Hourly Flow Rate, HFR	2		12			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		9		14				
C(m) (vph)		1611		1058				
v/c		0.01		0.01				
95% queue length		0.02		0.04				
Control Delay		7.2		8.4				
LOS		A		A				
Approach Delay				8.4				
Approach LOS				A				

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing SAT Peak
Intersection: Burr's Lane at South Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056
East/West Street: South Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		8	0	8	6	
Peak-Hour Factor, PHF		0.80	0.80	0.83	0.83	
Peak-15 Minute Volume		2	0	2	2	
Hourly Flow Rate, HFR		9	0	9	7	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration			TR	LT		
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	2		10			
Peak Hour Factor, PHF	0.80		0.80			
Peak-15 Minute Volume	1		3			
Hourly Flow Rate, HFR	2		12			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		7
Shared ln volume, major rt vehicles:		0
Sat flow rate, major th vehicles:		1700
Sat flow rate, major rt vehicles:		1700
Number of major street through lanes:		1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	7.1		6.2			
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	2		2			
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.70		0.00			
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage		4.1	6.4		6.2			
2-stage								

Follow-Up Time Calculations Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)		2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)		2	2		2			
t(f)		2.2	3.5		3.3			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from Exhibit 16-11)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5 Single-Stage Process Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x		9	34		9			
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s		1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	9	
Potential Capacity	1073	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1073	
Probability of Queue free St.	0.99	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	9	
Potential Capacity	1611	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1611	
Probability of Queue free St.	0.99	1.00
Maj L-Shared Prob Q free St.	0.99	

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	34	
Potential Capacity	979	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.98
Movement Capacity	974	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	34	
Potential Capacity	979	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.98
Movement Capacity	974	
Results for Two-stage process:		
a		
y		
C t	974	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	2		12			
Movement Capacity (vph)	974		1073			
Shared Lane Capacity (vph)		1058				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	974		1073			
Volume	2		12			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		1058				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		9		14				
C(m) (vph)		1611		1058				
v/c		0.01		0.01				
95% queue length		0.02		0.04				
Control Delay		7.2		8.4				
LOS		A		A				
Approach Delay				8.4				
Approach LOS				A				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.99
v(il), Volume for stream 2 or 5		7
v(i2), Volume for stream 3 or 6		0
s(il), Saturation flow rate for stream 2 or 5		1700
s(i2), Saturation flow rate for stream 3 or 6		1700
P*(oj)		0.99
d(M,LT), Delay for stream 1 or 4		7.2
N, Number of major street through lanes		1
d(rank,1) Delay for stream 2 or 5		0.0

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst:
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing AM Peak Commuter
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056 COMMUTER PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume					1837	60
Peak-Hour Factor, PHF					0.96	0.96
Hourly Flow Rate, HFR					1913	62
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume						23
Peak Hour Factor, PHF						0.93
Hourly Flow Rate, HFR						24
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								24
C(m) (vph)								300
v/c								0.08
95% queue length								0.26
Control Delay								18.0
LOS								C
Approach Delay							18.0	
Approach LOS							C	

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst:
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing AM Peak Commuter
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056 COMMUTER PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume					1837	60
Peak-Hour Factor, PHF					0.96	0.96
Peak-15 Minute Volume					478	16
Hourly Flow Rate, HFR					1913	62
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume						23
Peak Hour Factor, PHF						0.93
Peak-15 Minute Volume						6
Hourly Flow Rate, HFR						24
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation Movement		1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)									6.2
t(c,hv)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)									2
t(c,g)				0.20	0.20	0.10	0.20	0.20	0.10
Grade/100				0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)									0.00
t(c,T):	1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c)	1-stage								6.2
	2-stage								

Follow-Up Time Calculations Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)								3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)								2
t(f)								3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from Exhibit 16-11)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5 Single-Stage Process Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x								988
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s								
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows		988
Potential Capacity		300
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		300
Probability of Queue free St.	1.00	0.92

Step 2: LT from Major St.	4	1
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.92	1.00
Movement Capacity		

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.92	1.00
Movement Capacity		
Results for Two-stage process:		
a		
y		
C t		

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)						24
Movement Capacity (vph)						300
Shared Lane Capacity (vph)						

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep						300
Volume						24
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh						
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								24
C(m) (vph)								300
v/c								0.08
95% queue length								0.26
Control Delay								18.0
LOS								C
Approach Delay							18.0	
Approach LOS							C	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	1.00
v(i1), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(i1), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4		
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing AM Peak College
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056 COLLEGE PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume					430	86
Peak-Hour Factor, PHF					0.95	0.95
Hourly Flow Rate, HFR					452	90
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume						43
Peak Hour Factor, PHF						0.93
Hourly Flow Rate, HFR						46
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								46
C(m) (vph)								768
v/c								0.06
95% queue length								0.19
Control Delay								10.0-
LOS								A
Approach Delay							10.0-	

Approach LOS   A

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing AM Peak College
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056 COLLEGE PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume					430	86
Peak-Hour Factor, PHF					0.95	0.95
Peak-15 Minute Volume					113	23
Hourly Flow Rate, HFR					452	90
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume						43
Peak Hour Factor, PHF						0.93
Peak-15 Minute Volume						12
Hourly Flow Rate, HFR						46
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)								6.2
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)								2
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)								0.00
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage								6.2
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)								3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)								2
t(f)								3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from Exhibit 16-11)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x								271
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s								
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows		271
Potential Capacity		768
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		768
Probability of Queue free St.	1.00	0.94

Step 2: LT from Major St.	4	1
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.94	1.00
Movement Capacity		

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.94	1.00
Movement Capacity		
Results for Two-stage process:		
a		
y		
C t		

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)						46
Movement Capacity (vph)						768
Shared Lane Capacity (vph)						

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep						768
Volume						46
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh						
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								46
C(m) (vph)								768
v/c								0.06
95% queue length								0.19
Control Delay								10.0-
LOS								A
Approach Delay							10.0-	
Approach LOS							A	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	1.00
v(il), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(il), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4		
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst:
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing PM Peak Commuter
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056 COMMUTER PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume					498	25
Peak-Hour Factor, PHF					0.96	0.96
Hourly Flow Rate, HFR					518	26
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume						40
Peak Hour Factor, PHF						0.87
Hourly Flow Rate, HFR						45
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								45
C(m) (vph)								767
v/c								0.06
95% queue length								0.19
Control Delay								10.0-
LOS								A
Approach Delay							10.0-	
Approach LOS							A	

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst:
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing PM Peak Commuter
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056 COMMUTER PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume					498	25
Peak-Hour Factor, PHF					0.96	0.96
Peak-15 Minute Volume					130	7
Hourly Flow Rate, HFR					518	26
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume						40
Peak Hour Factor, PHF						0.87
Peak-15 Minute Volume						11
Hourly Flow Rate, HFR						45
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)								6.2
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)								2
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)								0.00
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage								6.2
2-stage								

Follow-Up Time Calculations Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)								3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)								2
t(f)								3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from Exhibit 16-11)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x								272
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s								
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows		272
Potential Capacity		767
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		767
Probability of Queue free St.	1.00	0.94

Step 2: LT from Major St.	4	1
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.94	1.00
Movement Capacity		

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.94	1.00
Movement Capacity		
Results for Two-stage process:		
a		
y		
C t		

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)						45
Movement Capacity (vph)						767
Shared Lane Capacity (vph)						

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep						767
Volume						45
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh						
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								45
C(m) (vph)								767
v/c								0.06
95% queue length								0.19
Control Delay								10.0
LOS								A
Approach Delay							10.0	
Approach LOS							A	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	1.00
v(i1), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(i1), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4		
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst:
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing PM Peak College
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056 COLLEGE PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume					466	55
Peak-Hour Factor, PHF					0.96	0.96
Hourly Flow Rate, HFR					485	57
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume						90
Peak Hour Factor, PHF						0.93
Hourly Flow Rate, HFR						96
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								96
C(m) (vph)								768
v/c								0.13
95% queue length								0.43
Control Delay								10.4
LOS								B
Approach Delay							10.4	
Approach LOS							B	

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst:
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing PM Peak College
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056 COLLEGE PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume					466	55
Peak-Hour Factor, PHF					0.96	0.96
Peak-15 Minute Volume					121	14
Hourly Flow Rate, HFR					485	57
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume						90
Peak Hour Factor, PHF						0.93
Peak-15 Minute Volume						24
Hourly Flow Rate, HFR						96
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)								6.2
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)								2
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)								0.00
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage								6.2
2-stage								

Follow-Up Time Calculations Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)								3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)								2
t(f)								3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from Exhibit 16-11)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5 Single-Stage Process Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x								271
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7		8		10		11	
	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2
V(c,x)								
s								
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows		271
Potential Capacity		768
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		768
Probability of Queue free St.	1.00	0.88

Step 2: LT from Major St.	4	1
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.88	1.00
Movement Capacity		

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.88	1.00
Movement Capacity		
Results for Two-stage process:		
a		
y		
C t		

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)						96
Movement Capacity (vph)						768
Shared Lane Capacity (vph)						

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep						768
Volume						96
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh						
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								96
C(m) (vph)								768
v/c								0.13
95% queue length								0.43
Control Delay								10.4
LOS								B
Approach Delay							10.4	
Approach LOS							B	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	1.00
v(il), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(il), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4		
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing SAT Peak Commuter
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056 COMMUTER PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume					412	8
Peak-Hour Factor, PHF					0.91	0.91
Hourly Flow Rate, HFR					452	8
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume						8
Peak Hour Factor, PHF						0.83
Hourly Flow Rate, HFR						9
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								9
C(m) (vph)								809
v/c								0.01
95% queue length								0.03
Control Delay								9.5
LOS								A
Approach Delay							9.5	
Approach LOS							A	

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Existing SAT Peak Commuter
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056 COMMUTER PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume					412	8
Peak-Hour Factor, PHF					0.91	0.91
Peak-15 Minute Volume					113	2
Hourly Flow Rate, HFR					452	8
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume						8
Peak Hour Factor, PHF						0.83
Peak-15 Minute Volume						2
Hourly Flow Rate, HFR						9
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)								6.2
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)								2
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)								0.00
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage								6.2
2-stage								

Follow-Up Time Calculations Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)								3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)								2
t(f)								3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from Exhibit 16-11)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x								230
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s								
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows		230
Potential Capacity		809
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		809
Probability of Queue free St.	1.00	0.99

Step 2: LT from Major St.	4	1
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.99	1.00
Movement Capacity		

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.99	1.00
Movement Capacity		
Results for Two-stage process:		
a		
y		
C t		

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)						9
Movement Capacity (vph)						809
Shared Lane Capacity (vph)						

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep						809
Volume						9
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh						
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								9
C(m) (vph)								809
v/c								0.01
95% queue length								0.03
Control Delay								9.5
LOS								A
Approach Delay							9.5	
Approach LOS							A	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	1.00
v(i1), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(i1), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4		
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		

APPENDIX E: CAPACITY ANALYSIS WORKSHEETS – NO BUILD CONDITIONS

I. Signalized Intersections

II. Unsignalized Intersections

I. Signalized Intersections

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: No Build Am Peak
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
E/W St: Long Island Expressway SSR

Inter.: LIE SSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	3	0	0	0	0	0	1	1	1	1	0
LGConfig		LTR						T	R	L	T	
Volume	200	251	98					536	170	197	239	
Lane Width		11.0						12.0	12.0	11.0	12.0	
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left	P				NB	Left				
Thru	P					Thru	A			
Right	P					Right	A			
Peds						Peds				
WB Left					SB	Left	A	A		
Thru						Thru	A	A		
Right						Right				
Peds						Peds				
NB Right					EB	Right				
SB Right					WB	Right				
Green	26.5						24.0	12.5		
Yellow	4.0						3.5	3.5		
All Red	2.0						2.0	2.0		

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1611	4522	0.37	0.36	19.7	B	19.7	B
Westbound								
Northbound								
T	566	1776	1.10	0.32	95.6	F	77.9	E
R	464	1455	0.43	0.32	22.1	C		
Southbound								
L	437	1544	0.56	0.54	26.3	C		
T	922	1696	0.32	0.54	10.3	B	17.6	B

Intersection Delay = 43.5 (sec/veh) Intersection LOS = D

HCS2000: Signalized Intersections Release 4.1b

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: No Build Am Peak
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
E/W St: Long Island Expressway SSR

Inter.: LIE SSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	3	0	0	0	0	0	1	1	1	1	0
LGConfig		LTR						T	R	L	T	
Volume	128	203	80					225	95	119	169	
Lane Width		11.0						12.0	12.0	11.0	12.0	
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left	P				NB	Left				
Thru	P					Thru	A			
Right	P					Right	A			
Peds						Peds				
WB Left					SB	Left	A	A		
Thru						Thru	A	A		
Right						Right				
Peds						Peds				
NB Right					EB	Right				
SB Right					WB	Right				
Green	26.5						24.0	12.5		
Yellow	4.0						3.5	3.5		
All Red	2.0						2.0	2.0		

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1615	4534	0.27	0.36	18.8	B	18.8	B
Westbound								
Northbound								
T	571	1792	0.46	0.32	22.3	C	21.7	C
R	472	1482	0.23	0.32	20.3	C		
Southbound								
L	568	1586	0.26	0.54	15.2	B		
T	931	1712	0.23	0.54	9.6	A	11.9	B

Intersection Delay = 17.6 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1b

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: No Build Pm Peak
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
E/W St: Long Island Expressway SSR

Inter.: LIE SSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	3	0	0	0	0	0	1	1	1	1	0
LGConfig		LTR						T	R	L	T	
Volume	131	1864	158					259	116	280	422	
Lane Width		11.0						12.0	12.0	11.0	12.0	
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4
EB Left	P			
Thru	P			
Right	P			
Peds				
WB Left				
Thru				
Right				
Peds				
NB Right				
SB Right				
Green	26.5			
Yellow	4.0			
All Red	2.0			

	5	6	7	8
NB Left				
Thru	A			
Right	A			
Peds				
SB Left	A	A		
Thru	A	A		
Right				
Peds				
EB Right				
WB Right				
Green	22.0	9.5		
Yellow	3.5	3.5		
All Red	2.0	2.0		

Cycle Length: 75.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1842	4847	1.28	0.38	155.5	F	155.5	F
Westbound								
Northbound								
T	584	1863	0.49	0.31	21.5	C	20.9	C
R	496	1583	0.26	0.31	19.5	B		
Southbound								
L	526	1646	0.63	0.51	22.3	C		
T	956	1863	0.52	0.51	12.6	B	16.5	B

Intersection Delay = 108.3 (sec/veh) Intersection LOS = F

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: No Build Pm Peak
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
E/W St: Long Island Expressway SSR

Inter.: LIE SSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	3	0	0	0	0	0	1	1	1	1	0
LGConfig		LTR						T	R	L	T	
Volume	134	1231	142					322	142	258	394	
Lane Width		11.0						12.0	12.0	11.0	12.0	
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	P				NB	Left				
	Thru	P					Thru	A			
	Right	P					Right	A			
	Peds						Peds				
WB	Left					SB	Left	A	A		
	Thru						Thru	A	A		
	Right						Right				
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		26.5						22.0	9.5		
Yellow		4.0						3.5	3.5		
All Red		2.0						2.0	2.0		

Cycle Length: 75.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1816	4778	0.91	0.38	30.5	C	30.5	C
Westbound								
Northbound								
T	578	1845	0.61	0.31	23.8	C	22.6	C
R	496	1583	0.31	0.31	20.0-	B		
Southbound								
L	455	1544	0.67	0.51	25.7	C		
T	903	1759	0.51	0.51	12.6	B	17.8	B

Intersection Delay = 25.8 (sec/veh) Intersection LOS = C

Analyst: REB
Agency: RMS Engineering
Date: 8/12/2002
Period: No Build SAT Peak Burr
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
E/W St: Long Island Expressway SSR

Inter.: LIE SSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	3	0	0	0	0	0	2	0	1	1	0
LGConfig		LTR						TR		L	T	
Volume	125	237	123					289	144	205	287	
Lane Width		11.0						12.0		11.0	12.0	
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left	A				NB	Left				
Thru	A					Thru	P			
Right	A					Right	P			
Peds						Peds				
WB Left					SB	Left	P	A		
Thru						Thru	P	A		
Right						Right				
Peds						Peds				
NB Right					EB	Right				
SB Right					WB	Right				
Green	25.0						24.5	8.5		
Yellow	4.0						3.5	3.5		
All Red	2.0						2.0	2.0		

Cycle Length: 75.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1681	4669	0.32	0.36	17.4	B	17.4	B
Westbound								
Northbound								
TR	1166	3363	0.44	0.35	20.1	C	20.1	C
Southbound								
L	555	1711	0.43	0.53	15.2	B		
T	994	1863	0.34	0.53	10.2	B	12.3	B

Intersection Delay = 16.5 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1c

HCS2000: Signalized Intersections Release 4.1b

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: No Build Am Peak
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
E/W St: Long Island Expressway NSR

Inter.: LIE NSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	3	0	1	1	0	0	2	0
LGConfig					LTR		L	T			TR	
Volume				97	1755	87	388	322			321	194
Lane Width					11.0		11.0	11.0			12.0	
RTOR Vol						0						0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4
EB	Left				
	Thru				
	Right				
	Peds				
WB	Left	P			
	Thru	P			
	Right	P			
	Peds				
NB	Right				
SB	Right				
Green		26.5			
Yellow		4.0			
All Red		2.0			

		5	6	7	8
NB	Left	A	A		
	Thru	A	A		
	Right				
	Peds				
SB	Left				
	Thru	A			
	Right	A			
	Peds				
EB	Right				
WB	Right				
Green		24.0	12.5		
Yellow		3.5	3.5		
All Red		2.0	2.0		

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
LTR	1725	4843	1.17	0.36	109.3	F	109.3	F
Northbound								
L	542	1711	0.75	0.54	28.1	C		
T	916	1685	0.37	0.54	10.6	B	20.2	C
Southbound								
TR	992	3111	0.64	0.32	24.7	C	24.7	C

Intersection Delay = 74.1 (sec/veh) Intersection LOS = E

HCS2000: Signalized Intersections Release 4.1b

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: No Build Am Peak
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
E/W St: Long Island Expressway NSR

Inter.: LIE NSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	0	0	0	3	0	1	1	0	0	2	0
LGConfig					LTR		L	T			TR	
Volume				142	274	96	174	187			204	62
Lane Width					11.0		11.0	11.0			12.0	
RTOR Vol						0						0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4
EB Left				
Thru				
Right				
Peds				
WB Left	P			
Thru	P			
Right	P			
Peds				
NB Right				
SB Right				
Green	26.5			
Yellow	4.0			
All Red	2.0			

	5	6	7	8
NB Left	A	A		
Thru	A	A		
Right				
Peds				
SB Left				
Thru	A			
Right	A			
Peds				
EB Right				
WB Right				
Green	24.0	12.5		
Yellow	3.5	3.5		
All Red	2.0	2.0		

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
LTR	1649	4628	0.33	0.36	19.3	B	19.3	B
Northbound								
L	680	1711	0.27	0.54	11.4	B		
T	942	1733	0.21	0.54	9.5	A	10.4	B
Southbound								
TR	1032	3237	0.32	0.32	20.8	C	20.8	C

Intersection Delay = 17.0 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1c

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: No Build Pm Peak
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
E/W St: Long Island Expressway NSR

Inter.: LIE NSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	0	0	0	3	0	1	1	0	0	2	0
LGConfig					LTR		L	T			TR	
Volume				249	238	129	137	281			456	62
Lane Width					11.0		11.0	11.0			12.0	
RTOR Vol						0						0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4
EB	Left				
	Thru				
	Right				
	Peds				
WB	Left	P			
	Thru	P			
	Right	P			
	Peds				
NB	Right				
SB	Right				
Green		26.5			
Yellow		4.0			
All Red		2.0			

		5	6	7	8
NB	Left	A	A		
	Thru	A	A		
	Right				
	Peds				
SB	Left				
	Thru	A			
	Right	A			
	Peds				
EB	Right				
WB	Right				
Green		22.0	9.5		
Yellow		3.5	3.5		
All Red		2.0	2.0		

Cycle Length: 75.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
LTR	1773	4667	0.36	0.38	17.3	B	17.3	B
Northbound								
L	510	1711	0.30	0.51	16.1	B		
T	925	1801	0.33	0.51	10.9	B	12.6	B
Southbound								
TR	1071	3417	0.56	0.31	22.1	C	22.1	C

Intersection Delay = 17.7 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1c

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: No Build Pm Peak
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
E/W St: Long Island Expressway NSR

Inter.: LIE NSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	0	0	0	3	0	1	1	0	0	2	0
LGConfig					LTR		L	T			TR	
Volume				255	261	119	162	284			402	58
Lane Width					11.0		11.0	11.0			12.0	
RTOR Vol						0						0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left					NB	Left	A	A		
Thru						Thru	A	A		
Right						Right				
Peds						Peds				
WB Left	P				SB	Left				
Thru	P					Thru	A			
Right	P					Right	A			
Peds						Peds				
NB Right					EB	Right				
SB Right					WB	Right				
Green	26.5						22.0	9.5		
Yellow	4.0						3.5	3.5		
All Red	2.0						2.0	2.0		

Cycle Length: 75.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
LTR	1759	4628	0.38	0.38	17.4	B	17.4	B
Northbound								
L	538	1711	0.33	0.51	15.4	B		
T	873	1701	0.36	0.51	11.1	B	12.7	B
Southbound								
TR	1079	3443	0.49	0.31	21.3	C	21.3	C

Intersection Delay = 17.3 (sec/veh) Intersection LOS = B

Analyst: REB
Agency: RMS Engineering
Date: 8/12/2002
Period: No Build SAT Peak Burr
Project ID: Five Towns College, 2002-056
E/W St: Long Island Expressway NSR

Inter.: LIE NSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	0	0	0	3	0	1	1	0	0	2	0
LGConfig					LTR		L	T			TR	
Volume				179	202	150	167	245			313	65
Lane Width					11.0		11.0	11.0			12.0	
RTOR Vol						0						0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left					NB	Left	A	A		
Thru						Thru	A	A		
Right						Right				
Peds						Peds				
WB Left	P				SB	Left				
Thru	P					Thru	A			
Right	P					Right	A			
Peds						Peds				
NB Right					EB	Right				
SB Right					WB	Right				
Green	25.0						24.5	8.5		
Yellow	4.0						3.5	3.5		
All Red	2.0						2.0	2.0		

Cycle Length: 75.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
LTR	1666	4629	0.35	0.36	18.2	B	18.2	B
Northbound								
L	586	1711	0.32	0.53	12.8	B		
T	961	1801	0.29	0.53	9.8	A	11.0	B
Southbound								
TR	1195	3448	0.38	0.35	18.6	B	18.6	B

Intersection Delay = 16.1 (sec/veh) Intersection LOS = B

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: No Build AM Peak Burr
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd and Bagatelle R
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	1	1	1	1	0	1	0	1	0	0	0
LGConfig		T	R	L	T		L		R			
Volume		150	242	243	884		299		150			
Lane Width		13.0	14.0	10.0	10.0		11.0		15.0			
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left					NB	Left	A			
Thru	P					Thru				
Right	P					Right	A			
Peds						Peds				
WB Left	P				SB	Left				
Thru	P					Thru				
Right						Right				
Peds						Peds				
NB Right					EB	Right	A			
SB Right					WB	Right				
Green	54.9						34.4			
Yellow	3.5						3.0			
All Red	1.6						2.6			

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
T	971	1722	0.19	0.56	11.1	B	4.3	A
R	1401	1401	0.22	1.00	0.1	A		
Westbound								
L	581	1031	0.46	0.56	15.4	B		
T	971	1722	1.00	0.56	50.7	D	43.1	D
Northbound								
L	561	1586	0.62	0.35	28.8	C	27.1	C
R	593	1676	0.29	0.35	23.6	C		
Southbound								

Intersection Delay = 30.9 (sec/veh) Intersection LOS = C

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: No Build AM Peak Burr
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd and Bagatelle R
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	1	1	1	1	0	1	0	1	0	0	0
LGConfig		T	R	L	T		L		R			
Volume		143	197	90	328		167		131			
Lane Width		13.0	14.0	10.0	10.0		11.0		15.0			
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left	A			
Thru	P				Thru				
Right	P				Right	A			
Peds					Peds				
WB Left	P				SB Left				
Thru	P				Thru				
Right					Right				
Peds					Peds				
NB Right					EB Right	A			
SB Right					WB Right				
Green	54.9					34.4			
Yellow	3.5					3.0			
All Red	1.6					2.6			

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
T	1025	1818	0.17	0.56	10.9	B	4.6	A
R	1552	1552	0.16	1.00	0.0+	A		
Westbound								
L	594	1054	0.17	0.56	11.1	B		
T	962	1705	0.38	0.56	13.2	B	12.8	B
Northbound								
L	577	1631	0.34	0.35	24.0	C	23.7	C
R	588	1660	0.26	0.35	23.2	C		
Southbound								

Intersection Delay = 13.0 (sec/veh) Intersection LOS = B

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: No Build PM Peak Burr
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd and Bagatelle R
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	1	1	1	1	0	1	0	1	0	0	0
LGConfig		T	R	L	T		L		R			
Volume		495	389	127	205		223		148			
Lane Width		13.0	14.0	10.0	10.0		11.0		15.0			
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left					NB	Left	A			
Thru	P					Thru				
Right	P					Right	A			
Peds						Peds				
WB Left	P				SB	Left				
Thru	P					Thru				
Right						Right				
Peds						Peds				
NB Right					EB	Right	A			
SB Right					WB	Right				
Green	54.9						34.4			
Yellow	3.5						3.0			
All Red	1.6						2.6			

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
T	1086	1925	0.51	0.56	15.1	B	8.5	A
R	1641	1641	0.27	1.00	0.1	A		
Westbound								
L	345	611	0.40	0.56	15.6	B		
T	971	1722	0.23	0.56	11.4	B	13.1	B
Northbound								
L	588	1662	0.46	0.35	25.5	C	24.7	C
R	617	1742	0.29	0.35	23.5	C		
Southbound								

Intersection Delay = 13.4 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1c

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: No Build PM Peak Burr
Project ID: Five Towns Collere, 2002-056 COLLEGE PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd and Bagatelle R
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	1	1	1	1	0	1	0	1	0	0	0
LGConfig		T	R	L	T		L		R			
Volume		312	349	124	204		237		130			
Lane Width		13.0	14.0	10.0	10.0		11.0		15.0			
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left					NB	Left	A			
	Thru	P					Thru				
	Right	P					Right	A			
	Peds						Peds				
WB	Left	P				SB	Left				
	Thru	P					Thru				
	Right						Right				
	Peds						Peds				
NB	Right					EB	Right	A			
SB	Right					WB	Right				
Green		54.9						34.4			
Yellow		3.5						3.0			
All Red		1.6						2.6			

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
T	1075	1906	0.33	0.56	12.5	B	5.9	A
R	1689	1689	0.23	1.00	0.1	A		
Westbound								
L	463	821	0.29	0.56	12.9	B		
T	944	1673	0.23	0.56	11.5	B	12.0	B
Northbound								
L	606	1711	0.47	0.35	25.6	C	24.8	C
R	617	1742	0.25	0.35	23.2	C		
Southbound								

Intersection Delay = 12.7 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1c

Analyst: REB
Agency: RMS Engineering
Date: 8/12/2002
Period: No Build SAT Peak
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd. at Bagatelle R
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	1	1	1	1	0	1	0	1	0	0	0
LGConfig		T	R	L	T		L		R			
Volume		152	276	169	159		267		127			
Lane Width		13.0	14.0	10.0	10.0		11.0		15.0			
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left					NB	Left	A			
	Thru	P					Thru				
	Right	P					Right	A			
	Peds						Peds				
WB	Left	P				SB	Left				
	Thru	P					Thru				
	Right						Right				
	Peds						Peds				
NB	Right					EB	Right	A			
SB	Right					WB	Right				
Green		54.9						34.4			
Yellow		3.5						3.0			
All Red		1.6						2.6			

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
T	1086	1925	0.15	0.56	10.7	B	3.8	A
R	1689	1689	0.17	1.00	0.0+	A		
Westbound								
L	609	1080	0.34	0.56	13.2	B		
T	981	1739	0.20	0.56	11.1	B	12.2	B
Northbound								
L	606	1711	0.52	0.35	26.3	C	25.3	C
R	617	1742	0.24	0.35	23.0	C		
Southbound								

Intersection Delay = 13.9 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1c

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: No Build Am Peak
Project ID: Five Towns College, 2002-056, COMMUTER PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd at Vanderbilt P
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Vanderbilt Parkway

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	0	1	0	0	0	0	1	0	0
LGConfig	L	T			TR					L		
Volume	94	108			202	84				180		
Lane Width	10.0	16.0			11.0					11.0		
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left	P				NB	Left				
Thru	P					Thru				
Right						Right				
Peds						Peds				
WB Left					SB	Left	A			
Thru	P					Thru				
Right	P					Right				
Peds						Peds				
NB Right					EB	Right				
SB Right					WB	Right				
Green	40.0						40.0			
Yellow	3.5						3.5			
All Red	1.5						1.5			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	302	655	0.35	0.46	18.9	B		
T	863	1872	0.14	0.46	14.3	B	16.4	B
Westbound								
TR	776	1683	0.45	0.46	18.3	B	18.3	B
Northbound								
Southbound								
L	752	1631	0.26	0.46	15.0	B		
							15.0	B

Intersection Delay = 16.9 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1b

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: No Build Am Peak
Project ID: Five Towns College, 2002-056, COLLEGE PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd at Vanderbilt P
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Vanderbilt Parkway

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	0	1	0	0	0	0	1	0	0
LGConfig	L	T			TR					L		
Volume	77	79			184	108				132		
Lane Width	10.0	16.0			11.0					11.0		
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left	P				NB	Left				
Thru	P					Thru				
Right						Right				
Peds						Peds				
WB Left					SB	Left	A			
Thru	P					Thru				
Right	P					Right				
Peds						Peds				
NB Right					EB	Right				
SB Right					WB	Right				
Green	40.0						40.0			
Yellow	3.5						3.5			
All Red	1.5						1.5			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	314	682	0.28	0.46	17.2	B		
T	911	1976	0.10	0.46	13.9	B	15.5	B
Westbound								
TR	784	1700	0.45	0.46	18.4	B	18.4	B
Northbound								
Southbound								
L	774	1678	0.18	0.46	14.4	B	14.4	B

Intersection Delay = 16.8 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1b

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: No Build Pm Peak
Project ID: Five Towns College, 2002-056, COMMUTER PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd at Vanderbilt P
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Vanderbilt Parkway

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	0	1	0	0	0	0	1	0	0
LGConfig	L	T			TR					L		
Volume	342	207			116	90				112		
Lane Width	10.0	16.0			11.0					11.0		
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left	P				NB	Left				
Thru	P					Thru				
Right						Right				
Peds						Peds				
WB Left					SB	Left	A			
Thru	P					Thru				
Right	P					Right				
Peds						Peds				
NB Right					EB	Right				
SB Right					WB	Right				
Green	40.0						40.0			
Yellow	3.5						3.5			
All Red	1.5						1.5			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	420	911	0.93	0.46	51.6	D		
T	973	2111	0.24	0.46	15.3	B	37.9	D
Westbound								
TR	769	1667	0.30	0.46	16.1	B	16.1	B
Northbound								
Southbound								
L	789	1711	0.16	0.46	14.2	B	14.2	B

Intersection Delay = 29.8 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1c

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: No Build Pm Peak
Project ID: Five Towns College, 2002-056, COLLEGE PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd at Vanderbilt P
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Vanderbilt Parkway

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	1	1	0	0	1	0	0	0	0	1	0	0
LGConfig	L	T			TR					L		
Volume	216	145			131	61				93		
Lane Width	10.0	16.0			11.0					11.0		
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left	P				NB	Left				
Thru	P					Thru				
Right						Right				
Peds						Peds				
WB Left					SB	Left	A			
Thru	P					Thru				
Right	P					Right				
Peds						Peds				
NB Right					EB	Right				
SB Right					WB	Right				
Green	40.0						40.0			
Yellow	3.5						3.5			
All Red	1.5						1.5			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	432	936	0.57	0.46	23.0	C		
T	973	2111	0.17	0.46	14.6	B	19.6	B
Westbound								
TR	779	1690	0.27	0.46	15.8	B	15.8	B
Northbound								
Southbound								
L	789	1711	0.13	0.46	14.0	B		
							14.0	B

Intersection Delay = 17.7 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1c

Analyst: REB
Agency: RMS Engineering
Date: 8/12/2002
Period: No Build SAT Peak Burr
Project ID: Five Towns College, 2002-056
E/W St: Half Hollow Road

Inter.: Half Hollow Rd at Vanderbilt P
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Vanderbilt Parkway

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	1	1	0	0	1	0	0	0	0	1	0	0
LGConfig	L	T			TR					L		
Volume	125	110			75	159				83		
Lane Width	10.0	16.0			11.0					12.0		
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4
EB Left	P			
Thru	P			
Right				
Peds				
WB Left				
Thru	P			
Right	P			
Peds				
NB Right				
SB Right				
Green	40.0			
Yellow	3.5			
All Red	1.5			

	5	6	7	8
NB Left				
Thru				
Right				
Peds				
SB Left	A			
Thru				
Right				
Peds				
EB Right				
WB Right				
Green	40.0			
Yellow	3.5			
All Red	1.5			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	386	837	0.37	0.46	18.5	B		
T	973	2111	0.13	0.46	14.2	B	16.5	B
Westbound								
TR	754	1635	0.36	0.46	17.1	B	17.1	B
Northbound								
Southbound								
L	816	1770	0.11	0.46	13.8	B	13.8	B

Intersection Delay = 16.4 (sec/veh) Intersection LOS = B

II. Unsignalized Intersections

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build Am Peak
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056, COMMUTER PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume	3	193	93	24	1121	2
Peak-Hour Factor, PHF	0.81	0.81	0.81	0.91	0.91	0.91
Hourly Flow Rate, HFR	3	238	114	26	1231	2
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	
Upstream Signal?		Yes			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	11		30	2		4
Peak Hour Factor, PHF	0.90		0.90	0.80		0.80
Hourly Flow Rate, HFR	12		33	2		4
Percent Heavy Vehicles	30		40	2		2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0		0	0		0
Configuration		LR			LR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR			LR	
v (vph)	3	26		45			6	
C(m) (vph)	565	1207		221			134	
v/c	0.01	0.02		0.20			0.04	
95% queue length	0.02	0.07		0.74			0.14	
Control Delay	11.4	8.0		25.4			33.1	
LOS	B	A		D			D	
Approach Delay				25.4			33.1	
Approach LOS				D			D	

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build Am Peak
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056, COMMUTER PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	3	193	93	24	1121	2
Peak-Hour Factor, PHF	0.81	0.81	0.81	0.91	0.91	0.91
Peak-15 Minute Volume	1	60	29	7	308	1
Hourly Flow Rate, HFR	3	238	114	26	1231	2
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	
Upstream Signal?		Yes			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	11		30	2		4
Peak Hour Factor, PHF	0.90		0.90	0.80		0.80
Peak-15 Minute Volume	3		8	1		1
Hourly Flow Rate, HFR	12		33	2		4
Percent Heavy Vehicles	30		40	2		2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0		0	0		0
Configuration		LR			LR	

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

		Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2	Left-Turn	0	1700	3	0	100	30	700
	Through	145	1700	3	59	100	30	700
S5	Left-Turn							
	Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:	238	1231
Shared ln volume, major rt vehicles:	0	2
Sat flow rate, major th vehicles:	1700	1700
Sat flow rate, major rt vehicles:	1700	1700
Number of major street through lanes:	1	1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)	4.1	4.1	7.1		6.2	7.1		6.2
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)	2	2	30		40	2		2
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)	0.00	0.00	0.00		0.00	0.00		0.00
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage	4.1	4.1	7.4		6.6	7.1		6.2
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)	2.20	2.20	3.50		3.30	3.50		3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)	2	2	30		40	2		2
t(f)	2.2	2.2	3.8		3.7	3.5		3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog	145	0		
Total Saturation Flow Rate, s (vph)	1700	1700		
Arrival Type	3	3		
Effective Green, g (sec)	59	0		
Cycle Length, C (sec)	100	100		
Rp (from Exhibit 16-11)	1.000	1.000		
Proportion vehicles arriving on green P	0.590	0.000		
g(q1)	3.5	0.0		
g(q2)	0.3	0.0		
g(q)	3.8	0.0		

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha	0.550			
beta	0.645			
Travel time, t(a) (sec)	15.873			
Smoothing Factor, F	0.151			
Proportion of conflicting flow, f	0.408	0.000		
Max platooned flow, V(c,max)	323	0		
Min platooned flow, V(c,min)	1000	1000		
Duration of blocked period, t(p)	0.0	0.0		
Proportion time blocked, p	0.000		0.000	

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	0.000
p(subo)	0.000
Constrained or unconstrained?	U

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)	1.000		
p(4)	1.000		
p(7)	1.000		
p(8)			
p(9)	1.000		
p(10)	1.000		
p(11)			
p(12)	1.000		

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x	1233	352	1530		238	1602		1232
s	1700	1700	1700		1700	1700		1700
Px	1.000	1.000	1.000		1.000	1.000		1.000
V c,u,x	1233	352	1530		238	1602		1232
C r,x	565	1207	83		716	85		216
C plat,x	565	1207	83		716	85		216

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s	1700	1700			1700	1700		
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	238	1232
Potential Capacity	716	216
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	716	216
Probability of Queue free St.	0.95	0.98

Step 2: LT from Major St.	4	1
Conflicting Flows	352	1233
Potential Capacity	1207	565
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1207	565
Probability of Queue free St.	0.98	0.99
Maj L-Shared Prob Q free St.	0.92	0.99

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.92	0.92
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	1530	1602
Potential Capacity	83	85
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	0.92	0.92
Maj. L, Min T Adj. Imp Factor.	0.94	0.94
Cap. Adj. factor due to Impeding mvmnt	0.92	0.89
Movement Capacity	76	76

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.92	0.92
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	1530	1602
Potential Capacity	83	85
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	0.92	0.92
Maj. L, Min T Adj. Imp Factor.	0.94	0.94
Cap. Adj. factor due to Impeding mvmnt	0.92	0.89
Movement Capacity	76	76
Results for Two-stage process:		
a		
y		
C t	76	76

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	12		33	2		4
Movement Capacity (vph)	76		716	76		216
Shared Lane Capacity (vph)		221			134	

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	76		716	76		216
Volume	12		33	2		4
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		221			134	
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR			LR	
v (vph)	3	26		45			6	
C(m) (vph)	565	1207		221			134	
v/c	0.01	0.02		0.20			0.04	
95% queue length	0.02	0.07		0.74			0.14	
Control Delay	11.4	8.0		25.4			33.1	
LOS	B	A		D			D	
Approach Delay				25.4			33.1	
Approach LOS				D			D	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	0.99	0.98
v(il), Volume for stream 2 or 5	238	1231
v(i2), Volume for stream 3 or 6	0	2
s(il), Saturation flow rate for stream 2 or 5	1700	1700
s(i2), Saturation flow rate for stream 3 or 6	1700	1700
P*(oj)	0.99	0.92
d(M,LT), Delay for stream 1 or 4	11.4	8.0
N, Number of major street through lanes	1	1
d(rank,1) Delay for stream 2 or 5	0.1	0.6

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build Am Peak
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056, COLLEGE PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume	0	206	67	112	340	0
Peak-Hour Factor, PHF	0.81	0.81	0.81	0.91	0.91	0.91
Hourly Flow Rate, HFR	0	254	82	123	373	0
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration		LT	R		LTR	
Upstream Signal?		Yes			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	13		37			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	14		41			
Percent Heavy Vehicles	10		22			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR				
v (vph)	0	123		55				
C(m) (vph)	1185	1223		521				
v/c	0.00	0.10		0.11				
95% queue length	0.00	0.33		0.35				
Control Delay	8.0	8.3		12.7				
LOS	A	A		B				
Approach Delay				12.7				
Approach LOS				B				

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build Am Peak
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056, COLLEGE PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	0	206	67	112	340	0
Peak-Hour Factor, PHF	0.81	0.81	0.81	0.91	0.91	0.91
Peak-15 Minute Volume	0	64	21	31	93	0
Hourly Flow Rate, HFR	0	254	82	123	373	0
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration		LT	R		LTR	
Upstream Signal?		Yes			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	13		37			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	4		10			
Hourly Flow Rate, HFR	14		41			
Percent Heavy Vehicles	10		22			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

		Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2	Left-Turn	0	1700	3	0	100	30	700
	Through	135	1700	3	59	100	30	700
S5	Left-Turn							
	Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:	254	373
Shared ln volume, major rt vehicles:	0	0
Sat flow rate, major th vehicles:	1700	1700
Sat flow rate, major rt vehicles:	1700	1700
Number of major street through lanes:	1	1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)	4.1	4.1	7.1		6.2			
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)	2	2	10		22			
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)	0.00	0.00	0.70		0.00			
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage	4.1	4.1	6.5		6.4			
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)	2.20	2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)	2	2	10		22			
t(f)	2.2	2.2	3.6		3.5			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog	135	0		
Total Saturation Flow Rate, s (vph)	1700	1700		
Arrival Type	3	3		
Effective Green, g (sec)	59	0		
Cycle Length, C (sec)	100	100		
Rp (from Exhibit 16-11)	1.000	1.000		
Proportion vehicles arriving on green P	0.590	0.000		
g(q1)	3.3	0.0		
g(q2)	0.3	0.0		
g(q)	3.5	0.0		

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha	0.550			
beta	0.645			
Travel time, t(a) (sec)	15.873			
Smoothing Factor, F	0.151			
Proportion of conflicting flow, f	0.402	0.000		
Max platooned flow, V(c,max)	300	0		
Min platooned flow, V(c,min)	1000	1000		
Duration of blocked period, t(p)	0.0	0.0		
Proportion time blocked, p	0.000		0.000	

Computation 3-Platoon Event Periods

	Result
p(2)	0.000
p(5)	0.000
p(dom)	0.000
p(subo)	0.000
Constrained or unconstrained?	U

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)	1.000		
p(4)	1.000		
p(7)	1.000		
p(8)			
p(9)	1.000		
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x	373	336	873		254			
s	1700	1700	1700		1700			
Px	1.000	1.000	1.000		1.000			
V c,u,x	373	336	873		254			
C r,x	1185	1223	311		738			
C plat,x	1185	1223	311		738			

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s	1700	1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	254	
Potential Capacity	738	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	738	
Probability of Queue free St.	0.94	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	336	373
Potential Capacity	1223	1185
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1223	1185
Probability of Queue free St.	0.90	1.00
Maj L-Shared Prob Q free St.	0.87	1.00

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.87	0.87
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	873	
Potential Capacity	311	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.87
Maj. L, Min T Adj. Imp Factor.		0.90
Cap. Adj. factor due to Impeding mvmnt	0.90	0.85
Movement Capacity	280	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.87	0.87
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	873	
Potential Capacity	311	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.87
Maj. L, Min T Adj. Imp Factor.		0.90
Cap. Adj. factor due to Impeding mvmnt	0.90	0.85
Movement Capacity	280	
Results for Two-stage process:		
a		
y		
C t	280	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	14		41			
Movement Capacity (vph)	280		738			
Shared Lane Capacity (vph)		521				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	280		738			
Volume	14		41			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		521				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR				
v (vph)	0	123		55				
C(m) (vph)	1185	1223		521				
v/c	0.00	0.10		0.11				
95% queue length	0.00	0.33		0.35				
Control Delay	8.0	8.3		12.7				
LOS	A	A		B				
Approach Delay				12.7				
Approach LOS				B				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.90
v(il), Volume for stream 2 or 5	254	373
v(i2), Volume for stream 3 or 6	0	0
s(il), Saturation flow rate for stream 2 or 5	1700	1700
s(i2), Saturation flow rate for stream 3 or 6	1700	1700
P*(oj)	1.00	0.87
d(M,LT), Delay for stream 1 or 4	8.0	8.3
N, Number of major street through lanes	1	1
d(rank,1) Delay for stream 2 or 5	0.0	1.1

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build Pm Peak
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056, COMMUTER PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume	0	544	26	9	293	0
Peak-Hour Factor, PHF	0.92	0.92	0.92	0.85	0.85	0.85
Hourly Flow Rate, HFR	0	591	28	10	344	0
Percent Heavy Vehicles	2	--	--	25	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	
Upstream Signal?		Yes			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	26		21			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	28		23			
Percent Heavy Vehicles	16		10			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR				
v (vph)	0	10		51				
C(m) (vph)	1215	862		345				
v/c	0.00	0.01		0.15				
95% queue length	0.00	0.04		0.51				
Control Delay	8.0	9.2		17.2				
LOS	A	A		C				
Approach Delay				17.2				
Approach LOS				C				

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build Pm Peak
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056, COMMUTER PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	0	544	26	9	293	0
Peak-Hour Factor, PHF	0.92	0.92	0.92	0.85	0.85	0.85
Peak-15 Minute Volume	0	148	7	3	86	0
Hourly Flow Rate, HFR	0	591	28	10	344	0
Percent Heavy Vehicles	2	--	--	25	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	
Upstream Signal?		Yes			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	26		21			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	7		6			
Hourly Flow Rate, HFR	28		23			
Percent Heavy Vehicles	16		10			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

		Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2	Left-Turn	0	1700	3	0	100	30	700
	Through	490	1700	3	59	100	30	700
S5	Left-Turn							
	Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:	591	344
Shared ln volume, major rt vehicles:	0	0
Sat flow rate, major th vehicles:	1700	1700
Sat flow rate, major rt vehicles:	1700	1700
Number of major street through lanes:	1	1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)	4.1	4.1	7.1		6.2			
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)	2	25	16		10			
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)	0.00	0.00	0.70		0.00			
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage	4.1	4.3	6.6		6.3			
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)	2.20	2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)	2	25	16		10			
t(f)	2.2	2.4	3.6		3.4			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog	490	0		
Total Saturation Flow Rate, s (vph)	1700	1700		
Arrival Type	3	3		
Effective Green, g (sec)	59	0		
Cycle Length, C (sec)	100	100		
Rp (from Exhibit 16-11)	1.000	1.000		
Proportion vehicles arriving on green P	0.590	0.000		
g(q1)	11.8	0.0		
g(q2)	4.8	0.0		
g(q)	16.6	0.0		

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha		0.550		
beta		0.645		
Travel time, t(a) (sec)		15.873		
Smoothing Factor, F		0.151		
Proportion of conflicting flow, f	0.792	0.000		
Max platooned flow, V(c,max)	1256	0		
Min platooned flow, V(c,min)	1000	1000		
Duration of blocked period, t(p)	10.4	0.0		
Proportion time blocked, p		0.104		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.104
p(5)	0.000
p(dom)	0.104
p(subo)	0.000
Constrained or unconstrained?	U

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)	1.000		
p(4)	0.896		
p(7)	0.896		
p(8)			
p(9)	0.896		
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x	344	619	955		591			
s	1700	1700	1700		1700			
Px	1.000	0.896	0.896		0.896			
V c,u,x	344	493	868		462			
C r,x	1215	962	305		583			
C plat,x	1215	862	273		522			

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s	1700	1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	591	
Potential Capacity	522	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	522	
Probability of Queue free St.	0.96	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	619	344
Potential Capacity	862	1215
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	862	1215
Probability of Queue free St.	0.99	1.00
Maj L-Shared Prob Q free St.	0.99	1.00

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	955	
Potential Capacity	273	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.99	0.95
Movement Capacity	270	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	955	
Potential Capacity	273	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.99	0.95
Movement Capacity	270	
Results for Two-stage process:		
a		
y		
C t	270	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	28		23			
Movement Capacity (vph)	270		522			
Shared Lane Capacity (vph)		345				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	270		522			
Volume	28		23			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		345				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR				
v (vph)	0	10		51				
C(m) (vph)	1215	862		345				
v/c	0.00	0.01		0.15				
95% queue length	0.00	0.04		0.51				
Control Delay	8.0	9.2		17.2				
LOS	A	A		C				
Approach Delay				17.2				
Approach LOS				C				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.99
v(il), Volume for stream 2 or 5	591	344
v(i2), Volume for stream 3 or 6	0	0
s(il), Saturation flow rate for stream 2 or 5	1700	1700
s(i2), Saturation flow rate for stream 3 or 6	1700	1700
P*(oj)	1.00	0.99
d(M,LT), Delay for stream 1 or 4	8.0	9.2
N, Number of major street through lanes	1	1
d(rank,1) Delay for stream 2 or 5	0.0	0.1

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build Pm Peak Burrs
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056, COLLEGE PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume	0	349	54	24	344	0
Peak-Hour Factor, PHF	0.92	0.92	0.92	0.85	0.85	0.85
Hourly Flow Rate, HFR	0	379	58	28	404	0
Percent Heavy Vehicles	2	--	--	30	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R	LTR		
Upstream Signal?		Yes			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	45		47			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	50		52			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR				
v (vph)	0	28		102				
C(m) (vph)	1155	989		441				
v/c	0.00	0.03		0.23				
95% queue length	0.00	0.09		0.88				
Control Delay	8.1	8.7		15.6				
LOS	A	A		C				
Approach Delay				15.6				
Approach LOS				C				

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build Pm Peak Burrs
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056, COLLEGE PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	0	349	54	24	344	0
Peak-Hour Factor, PHF	0.92	0.92	0.92	0.85	0.85	0.85
Peak-15 Minute Volume	0	95	15	7	101	0
Hourly Flow Rate, HFR	0	379	58	28	404	0
Percent Heavy Vehicles	2	--	--	30	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R	LTR		
Upstream Signal?		Yes			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	45		47			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	12		13			
Hourly Flow Rate, HFR	50		52			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn	0	1700	3	0	100	30	700
Through	305	1700	3	59	100	30	700
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:	379	404
Shared ln volume, major rt vehicles:	0	0
Sat flow rate, major th vehicles:	1700	1700
Sat flow rate, major rt vehicles:	1700	1700
Number of major street through lanes:	1	1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)	4.1	4.1	7.1		6.2			
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)	2	30	2		2			
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)	0.00	0.00	0.70		0.00			
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage	4.1	4.4	6.4		6.2			
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)	2.20	2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)	2	30	2		2			
t(f)	2.2	2.5	3.5		3.3			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog	305	0		
Total Saturation Flow Rate, s (vph)	1700	1700		
Arrival Type	3	3		
Effective Green, g (sec)	59	0		
Cycle Length, C (sec)	100	100		
Rp (from Exhibit 16-11)	1.000	1.000		
Proportion vehicles arriving on green P	0.590	0.000		
g(q1)	7.4	0.0		
g(q2)	1.6	0.0		
g(q)	9.0	0.0		

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha	0.550			
beta	0.645			
Travel time, t(a) (sec)	15.873			
Smoothing Factor, F	0.151			
Proportion of conflicting flow, f	0.698	0.000		
Max platooned flow, V(c,max)	912	0		
Min platooned flow, V(c,min)	1000	1000		
Duration of blocked period, t(p)	0.0	0.0		
Proportion time blocked, p	0.000		0.000	

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	0.000
p(subo)	0.000
Constrained or unconstrained?	U

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)	1.000		
p(4)	1.000		
p(7)	1.000		
p(8)			
p(9)	1.000		
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x	404	437	839		379			
s	1700	1700	1700		1700			
Px	1.000	1.000	1.000		1.000			
V c,u,x	404	437	839		379			
C r,x	1155	989	336		668			
C plat,x	1155	989	336		668			

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s	1700	1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	379	
Potential Capacity	668	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	668	
Probability of Queue free St.	0.92	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	437	404
Potential Capacity	989	1155
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	989	1155
Probability of Queue free St.	0.97	1.00
Maj L-Shared Prob Q free St.	0.96	1.00

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.96	0.96
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	839	
Potential Capacity	336	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.96
Maj. L, Min T Adj. Imp Factor.		0.97
Cap. Adj. factor due to Impeding mvmnt	0.97	0.90
Movement Capacity	326	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.96	0.96
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	839	
Potential Capacity	336	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.96
Maj. L, Min T Adj. Imp Factor.		0.97
Cap. Adj. factor due to Impeding mvmnt	0.97	0.90
Movement Capacity	326	
Results for Two-stage process:		
a		
y		
C t	326	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	50		52			
Movement Capacity (vph)	326		668			
Shared Lane Capacity (vph)		441				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	326		668			
Volume	50		52			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		441				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR				
v (vph)	0	28		102				
C(m) (vph)	1155	989		441				
v/c	0.00	0.03		0.23				
95% queue length	0.00	0.09		0.88				
Control Delay	8.1	8.7		15.6				
LOS	A	A		C				
Approach Delay				15.6				
Approach LOS				C				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.97
v(il), Volume for stream 2 or 5	379	404
v(i2), Volume for stream 3 or 6	0	0
s(il), Saturation flow rate for stream 2 or 5	1700	1700
s(i2), Saturation flow rate for stream 3 or 6	1700	1700
P*(oj)	1.00	0.96
d(M,LT), Delay for stream 1 or 4	8.1	8.7
N, Number of major street through lanes	1	1
d(rank,1) Delay for stream 2 or 5	0.0	0.3

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build SAT Peak
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056, COMMUTER PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume	2	228	38	13	299	2
Peak-Hour Factor, PHF	0.80	0.80	0.80	0.82	0.82	0.82
Hourly Flow Rate, HFR	2	284	47	15	364	2
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	
Upstream Signal?		Yes			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	16		14	2		4
Peak Hour Factor, PHF	0.90		0.90	0.80		0.80
Hourly Flow Rate, HFR	17		15	2		4
Percent Heavy Vehicles	2		2	2		2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0		0	0		0
Configuration		LR			LR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR			LR	
v (vph)	2	15		32			6	
C(m) (vph)	1193	1228		472			506	
v/c	0.00	0.01		0.07			0.01	
95% queue length	0.01	0.04		0.22			0.04	
Control Delay	8.0	8.0		13.2			12.2	
LOS	A	A		B			B	
Approach Delay				13.2			12.2	
Approach LOS				B			B	

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build SAT Peak
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056, COMMUTER PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	2	228	38	13	299	2
Peak-Hour Factor, PHF	0.80	0.80	0.80	0.82	0.82	0.82
Peak-15 Minute Volume	1	71	12	4	91	1
Hourly Flow Rate, HFR	2	284	47	15	364	2
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	
Upstream Signal?		Yes			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	16		14	2		4
Peak Hour Factor, PHF	0.90		0.90	0.80		0.80
Peak-15 Minute Volume	4		4	1		1
Hourly Flow Rate, HFR	17		15	2		4
Percent Heavy Vehicles	2		2	2		2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0		0	0		0
Configuration		LR			LR	

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

		Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2	Left-Turn	0	1700	3	0	100	30	700
	Through	130	1700	3	59	100	30	700
S5	Left-Turn							
	Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:	284	364
Shared ln volume, major rt vehicles:	0	2
Sat flow rate, major th vehicles:	1700	1700
Sat flow rate, major rt vehicles:	1700	1700
Number of major street through lanes:	1	1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement		1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	4.1	7.1		6.2	7.1		6.2
t(c,hv)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	2	2		2	2		2
t(c,g)				0.20	0.20	0.10	0.20	0.20	0.10
Grade/100				0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.00	0.00		0.00	0.00		0.00
t(c,T):	1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c)	1-stage	4.1	4.1	7.1		6.2	7.1		6.2
	2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)	2.20	2.20	3.50		3.30	3.50		3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)	2	2	2		2	2		2
t(f)	2.2	2.2	3.5		3.3	3.5		3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
V prog	130	0		
Total Saturation Flow Rate, s (vph)	1700	1700		
Arrival Type	3	3		
Effective Green, g (sec)	59	0		
Cycle Length, C (sec)	100	100		
Rp (from Exhibit 16-11)	1.000	1.000		
Proportion vehicles arriving on green P	0.590	0.000		
g(q1)	3.1	0.0		
g(q2)	0.3	0.0		
g(q)	3.4	0.0		

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
alpha	0.550			
beta	0.645			
Travel time, t(a) (sec)	15.873			
Smoothing Factor, F	0.151			
Proportion of conflicting flow, f	0.390	0.000		
Max platooned flow, V(c,max)	283	0		
Min platooned flow, V(c,min)	1000	1000		
Duration of blocked period, t(p)	0.0	0.0		
Proportion time blocked, p	0.000		0.000	

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	0.000
p(subo)	0.000
Constrained or unconstrained?	U

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)	1.000		
p(4)	1.000		
p(7)	1.000		
p(8)			
p(9)	1.000		
p(10)	1.000		
p(11)			
p(12)	1.000		

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x	366	331	685		284	714		365
s	1700	1700	1700		1700	1700		1700
Px	1.000	1.000	1.000		1.000	1.000		1.000
V c,u,x	366	331	685		284	714		365
C r,x	1193	1228	362		755	346		680
C plat,x	1193	1228	362		755	346		680

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s	1700	1700			1700	1700		
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	284	365
Potential Capacity	755	680
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	755	680
Probability of Queue free St.	0.98	0.99

Step 2: LT from Major St.	4	1
Conflicting Flows	331	366
Potential Capacity	1228	1193
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1228	1193
Probability of Queue free St.	0.99	1.00
Maj L-Shared Prob Q free St.	0.98	1.00

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.98	0.98
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	685	714
Potential Capacity	362	346
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	0.98	0.98
Maj. L, Min T Adj. Imp Factor.	0.99	0.99
Cap. Adj. factor due to Impeding mvmnt	0.98	0.97
Movement Capacity	355	335

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.98	0.98
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	685	714
Potential Capacity	362	346
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	0.98	0.98
Maj. L, Min T Adj. Imp Factor.	0.99	0.99
Cap. Adj. factor due to Impeding mvmnt	0.98	0.97
Movement Capacity	355	335
Results for Two-stage process:		
a		
y		
C t	355	335

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	17		15	2		4
Movement Capacity (vph)	355		755	335		680
Shared Lane Capacity (vph)		472			506	

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	355		755	335		680
Volume	17		15	2		4
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		472			506	
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR			LR	
v (vph)	2	15		32			6	
C(m) (vph)	1193	1228		472			506	
v/c	0.00	0.01		0.07			0.01	
95% queue length	0.01	0.04		0.22			0.04	
Control Delay	8.0	8.0		13.2			12.2	
LOS	A	A		B			B	
Approach Delay				13.2			12.2	
Approach LOS				B			B	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.99
v(il), Volume for stream 2 or 5	284	364
v(i2), Volume for stream 3 or 6	0	2
s(il), Saturation flow rate for stream 2 or 5	1700	1700
s(i2), Saturation flow rate for stream 3 or 6	1700	1700
P*(oj)	1.00	0.98
d(M,LT), Delay for stream 1 or 4	8.0	8.0
N, Number of major street through lanes	1	1
d(rank,1) Delay for stream 2 or 5	0.0	0.1

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build AM Peak
Intersection: Burr's Lane at North Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
East/West Street: North Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume		32	5	14	103	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Hourly Flow Rate, HFR		39	6	15	110	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration			TR	LT		
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	5		9			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	5		10			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		15		15				
C(m) (vph)		1563		939				
v/c		0.01		0.02				
95% queue length		0.03		0.05				
Control Delay		7.3		8.9				
LOS		A		A				
Approach Delay				8.9				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		110
Shared ln volume, major rt vehicles:		0
Sat flow rate, major th vehicles:		1700
Sat flow rate, major rt vehicles:		1700
Number of major street through lanes:		1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	7.1		6.2			
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	2		2			
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.70		0.00			
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage		4.1	6.4		6.2			
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)		2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)		2	2		2			
t(f)		2.2	3.5		3.3			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from table 9-2)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x		45	182		42			
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Approach LOS   A

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build AM Peak
Intersection: Burr's Lane at North Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
East/West Street: North Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		32	5	14	103	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Peak-15 Minute Volume		10	2	4	28	
Hourly Flow Rate, HFR		39	6	15	110	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration			TR	LT		
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	5		9			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	1		2			
Hourly Flow Rate, HFR	5		10			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s		1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	42	
Potential Capacity	1029	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1029	
Probability of Queue free St.	0.99	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	45	
Potential Capacity	1563	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1563	
Probability of Queue free St.	0.99	1.00
Maj L-Shared Prob Q free St.	0.99	

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	182	
Potential Capacity	807	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.99	0.98
Movement Capacity	799	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	182	
Potential Capacity	807	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.99	0.98
Movement Capacity	799	
Results for Two-stage process:		
a		
y		
C t	799	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	5		10			
Movement Capacity (vph)	799		1029			
Shared Lane Capacity (vph)		939				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	799		1029			
Volume	5		10			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		939				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		15		15				
C(m) (vph)		1563		939				
v/c		0.01		0.02				
95% queue length		0.03		0.05				
Control Delay		7.3		8.9				
LOS		A		A				
Approach Delay				8.9				
Approach LOS				A				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.99
v(il), Volume for stream 2 or 5		110
v(i2), Volume for stream 3 or 6		0
s(il), Saturation flow rate for stream 2 or 5		1700
s(i2), Saturation flow rate for stream 3 or 6		1700
P*(oj)		0.99
d(M,LT), Delay for stream 1 or 4		7.3
N, Number of major street through lanes		1
d(rank,1) Delay for stream 2 or 5		0.1

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build AM Peak
Intersection: Burr's Lane at North Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
East/West Street: North Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume		33	6	20	159	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Hourly Flow Rate, HFR		40	7	21	170	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	9		16			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	10		17			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		21		27				
C(m) (vph)		1560		888				
v/c		0.01		0.03				
95% queue length		0.04		0.09				
Control Delay		7.3		9.2				
LOS		A		A				
Approach Delay				9.2				
Approach LOS				A				

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build AM Peak
Intersection: Burr's Lane at North Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
East/West Street: North Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		33	6	20	159	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Peak-15 Minute Volume		10	2	5	43	
Hourly Flow Rate, HFR		40	7	21	170	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	9		16			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	2		4			
Hourly Flow Rate, HFR	10		17			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		170
Shared ln volume, major rt vehicles:		0
Sat flow rate, major th vehicles:		1700
Sat flow rate, major rt vehicles:		1700
Number of major street through lanes:		1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	7.1		6.2			
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	2		2			
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.70		0.00			
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage		4.1	6.4		6.2			
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)		2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)		2	2		2			
t(f)		2.2	3.5		3.3			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from table 9-2)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x		47	256		44			
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s		1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	44	
Potential Capacity	1026	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1026	
Probability of Queue free St.	0.98	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	47	
Potential Capacity	1560	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1560	
Probability of Queue free St.	0.99	1.00
Maj L-Shared Prob Q free St.	0.99	

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	256	
Potential Capacity	733	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.99	0.97
Movement Capacity	723	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	256	
Potential Capacity	733	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.99	0.97
Movement Capacity	723	
Results for Two-stage process:		
a		
y		
C t	723	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	10		17			
Movement Capacity (vph)	723		1026			
Shared Lane Capacity (vph)		888				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	723		1026			
Volume	10		17			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		888				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		21		27				
C(m) (vph)		1560		888				
v/c		0.01		0.03				
95% queue length		0.04		0.09				
Control Delay		7.3		9.2				
LOS		A		A				
Approach Delay				9.2				
Approach LOS				A				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.99
v(il), Volume for stream 2 or 5		170
v(i2), Volume for stream 3 or 6		0
s(il), Saturation flow rate for stream 2 or 5		1700
s(i2), Saturation flow rate for stream 3 or 6		1700
P*(oj)		0.99
d(M,LT), Delay for stream 1 or 4		7.3
N, Number of major street through lanes		1
d(rank,1) Delay for stream 2 or 5		0.1

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build PM Peak
Intersection: Burr's Lane at North Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
East/West Street: North Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume		21	6	15	32	
Peak-Hour Factor, PHF		0.85	0.85	0.87	0.87	
Hourly Flow Rate, HFR		24	7	17	36	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	25		9			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	27		10			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		17		37				
C(m) (vph)		1582		928				
v/c		0.01		0.04				
95% queue length		0.03		0.12				
Control Delay		7.3		9.0				
LOS		A		A				
Approach Delay				9.0				
Approach LOS				A				

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build PM Peak
Intersection: Burr's Lane at North Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
East/West Street: North Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		21	6	15	32	
Peak-Hour Factor, PHF		0.85	0.85	0.87	0.87	
Peak-15 Minute Volume		6	2	4	9	
Hourly Flow Rate, HFR		24	7	17	36	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	25		9			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	7		2			
Hourly Flow Rate, HFR	27		10			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

		Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2	Left-Turn							
	Through							
S5	Left-Turn							
	Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		36
Shared ln volume, major rt vehicles:		0
Sat flow rate, major th vehicles:		1700
Sat flow rate, major rt vehicles:		1700
Number of major street through lanes:		1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation Movement		1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)			4.1	7.1		6.2			
t(c,hv)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)			2	2		2			
t(c,g)				0.20	0.20	0.10	0.20	0.20	0.10
Grade/100				0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)			0.00	0.70		0.00			
t(c,T):	1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c)	1-stage		4.1	6.4		6.2			
	2-stage								

Follow-Up Time Calculations Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)		2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)		2	2		2			
t(f)		2.2	3.5		3.3			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from table 9-2)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5 Single-Stage Process Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x		31	98		28			
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s		1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	28	
Potential Capacity	1047	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1047	
Probability of Queue free St.	0.99	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	31	
Potential Capacity	1582	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1582	
Probability of Queue free St.	0.99	1.00
Maj L-Shared Prob Q free St.	0.99	

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	98	
Potential Capacity	901	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.99	0.98
Movement Capacity	891	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	98	
Potential Capacity	901	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.99	0.98
Movement Capacity	891	
Results for Two-stage process:		
a		
y		
C t	891	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	27		10			
Movement Capacity (vph)	891		1047			
Shared Lane Capacity (vph)		928				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	891		1047			
Volume	27		10			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		928				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		17		37				
C(m) (vph)		1582		928				
v/c		0.01		0.04				
95% queue length		0.03		0.12				
Control Delay		7.3		9.0				
LOS		A		A				
Approach Delay				9.0				
Approach LOS				A				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.99
v(il), Volume for stream 2 or 5		36
v(i2), Volume for stream 3 or 6		0
s(il), Saturation flow rate for stream 2 or 5		1700
s(i2), Saturation flow rate for stream 3 or 6		1700
P*(oj)		0.99
d(M,LT), Delay for stream 1 or 4		7.3
N, Number of major street through lanes		1
d(rank,1) Delay for stream 2 or 5		0.1

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build PM Peak
Intersection: Burr's Lane at North Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
East/West Street: North Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume		21	13	34	57	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Hourly Flow Rate, HFR		25	15	36	61	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	56		36			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	62		40			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		36		102				
C(m) (vph)		1570		885				
v/c		0.02		0.12				
95% queue length		0.07		0.39				
Control Delay		7.3		9.6				
LOS		A		A				
Approach Delay				9.6				
Approach LOS				A				

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build PM Peak
Intersection: Burr's Lane at North Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
East/West Street: North Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		21	13	34	57	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Peak-15 Minute Volume		6	4	9	15	
Hourly Flow Rate, HFR		25	15	36	61	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	56		36			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	16		10			
Hourly Flow Rate, HFR	62		40			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		61
Shared ln volume, major rt vehicles:		0
Sat flow rate, major th vehicles:		1700
Sat flow rate, major rt vehicles:		1700
Number of major street through lanes:		1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	7.1		6.2			
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	2		2			
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.70		0.00			
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage		4.1	6.4		6.2			
2-stage								

Follow-Up Time Calculations Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)		2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)		2	2		2			
t(f)		2.2	3.5		3.3			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from table 9-2)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5 Single-Stage Process Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x		40	165		32			
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s		1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	32	
Potential Capacity	1042	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1042	
Probability of Queue free St.	0.96	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	40	
Potential Capacity	1570	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1570	
Probability of Queue free St.	0.98	1.00
Maj L-Shared Prob Q free St.	0.98	

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.98	0.98
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	165	
Potential Capacity	826	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.98
Maj. L, Min T Adj. Imp Factor.		0.98
Cap. Adj. factor due to Impeding mvmnt	0.98	0.94
Movement Capacity	807	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.98	0.98
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	165	
Potential Capacity	826	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.98
Maj. L, Min T Adj. Imp Factor.		0.98
Cap. Adj. factor due to Impeding mvmnt	0.98	0.94
Movement Capacity	807	
Results for Two-stage process:		
a		
y		
C t	807	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	62		40			
Movement Capacity (vph)	807		1042			
Shared Lane Capacity (vph)		885				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	807		1042			
Volume	62		40			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		885				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		36		102				
C(m) (vph)		1570		885				
v/c		0.02		0.12				
95% queue length		0.07		0.39				
Control Delay		7.3		9.6				
LOS		A		A				
Approach Delay				9.6				
Approach LOS				A				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.98
v(il), Volume for stream 2 or 5		61
v(i2), Volume for stream 3 or 6		0
s(il), Saturation flow rate for stream 2 or 5		1700
s(i2), Saturation flow rate for stream 3 or 6		1700
P*(oj)		0.98
d(M,LT), Delay for stream 1 or 4		7.3
N, Number of major street through lanes		1
d(rank,1) Delay for stream 2 or 5		0.2

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build SAT Peak
Intersection: Burr's Lane at North Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056
East/West Street: North Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume		27	7	8	43	
Peak-Hour Factor, PHF		0.80	0.80	0.83	0.83	
Hourly Flow Rate, HFR		33	8	9	51	
Percent Heavy Vehicles		--	--	2	--	--
Median Type Undivided						
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	5		3			
Peak Hour Factor, PHF	0.80		0.80			
Hourly Flow Rate, HFR	6		3			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		9		9				
C(m) (vph)		1568		931				
v/c		0.01		0.01				
95% queue length		0.02		0.03				
Control Delay		7.3		8.9				
LOS		A		A				
Approach Delay				8.9				
Approach LOS				A				

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build SAT Peak
Intersection: Burr's Lane at North Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056
East/West Street: North Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		27	7	8	43	
Peak-Hour Factor, PHF		0.80	0.80	0.83	0.83	
Peak-15 Minute Volume		8	2	2	13	
Hourly Flow Rate, HFR		33	8	9	51	
Percent Heavy Vehicles		--	--	2	--	--
Median Type Undivided						
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	5		3			
Peak Hour Factor, PHF	0.80		0.80			
Peak-15 Minute Volume	2		1			
Hourly Flow Rate, HFR	6		3			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		51
Shared ln volume, major rt vehicles:		0
Sat flow rate, major th vehicles:		1700
Sat flow rate, major rt vehicles:		1700
Number of major street through lanes:		1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	7.1		6.2			
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	2		2			
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.70		0.00			
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage		4.1	6.4		6.2			
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)		2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)		2	2		2			
t(f)		2.2	3.5		3.3			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from Exhibit 16-11)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x		41	106		37			
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s		1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	37	
Potential Capacity	1035	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1035	
Probability of Queue free St.	1.00	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	41	
Potential Capacity	1568	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1568	
Probability of Queue free St.	0.99	1.00
Maj L-Shared Prob Q free St.	0.99	

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	106	
Potential Capacity	892	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity	887	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	106	
Potential Capacity	892	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity	887	
Results for Two-stage process:		
a		
y		
C t	887	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	6		3			
Movement Capacity (vph)	887		1035			
Shared Lane Capacity (vph)		931				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	887		1035			
Volume	6		3			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		931				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		9		9				
C(m) (vph)		1568		931				
v/c		0.01		0.01				
95% queue length		0.02		0.03				
Control Delay		7.3		8.9				
LOS		A		A				
Approach Delay				8.9				
Approach LOS				A				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.99
v(il), Volume for stream 2 or 5		51
v(i2), Volume for stream 3 or 6		0
s(il), Saturation flow rate for stream 2 or 5		1700
s(i2), Saturation flow rate for stream 3 or 6		1700
P*(oj)		0.99
d(M,LT), Delay for stream 1 or 4		7.3
N, Number of major street through lanes		1
d(rank,1) Delay for stream 2 or 5		0.0

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build AM Peak
Intersection: Burr's Lane at South Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
East/West Street: South Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume		37	26	92	16	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Hourly Flow Rate, HFR		45	31	98	17	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration			TR	LT		
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	3		0			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	3		0			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		98		3				
C(m) (vph)		1523		670				
v/c		0.06		0.00				
95% queue length		0.21		0.01				
Control Delay		7.5		10.4				
LOS		A		B				
Approach Delay				10.4				
Approach LOS				B				

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build AM Peak
Intersection: Burr's Lane at South Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
East/West Street: South Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		37	26	92	16	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Peak-15 Minute Volume		11	8	25	4	
Hourly Flow Rate, HFR		45	31	98	17	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration			TR	LT		
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	3		0			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	1		0			
Hourly Flow Rate, HFR	3		0			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

		Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2	Left-Turn							
	Through							
S5	Left-Turn							
	Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		17
Shared ln volume, major rt vehicles:		0
Sat flow rate, major th vehicles:		1700
Sat flow rate, major rt vehicles:		1700
Number of major street through lanes:		1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation Movement		1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)			4.1	7.1		6.2			
t(c,hv)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)			2	2		2			
t(c,g)				0.20	0.20	0.10	0.20	0.20	0.10
Grade/100				0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)			0.00	0.70		0.00			
t(c,T):	1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c)	1-stage		4.1	6.4		6.2			
	2-stage								

Follow-Up Time Calculations Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)		2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)		2	2		2			
t(f)		2.2	3.5		3.3			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from table 9-2)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5 Single-Stage Process Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x		76	273		60			
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s		1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	60	
Potential Capacity	1005	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1005	
Probability of Queue free St.	1.00	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	76	
Potential Capacity	1523	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1523	
Probability of Queue free St.	0.94	1.00
Maj L-Shared Prob Q free St.	0.94	

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.94	0.94
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	273	
Potential Capacity	716	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.94
Maj. L, Min T Adj. Imp Factor.		0.95
Cap. Adj. factor due to Impeding mvmnt	0.94	0.95
Movement Capacity	670	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.94	0.94
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	273	
Potential Capacity	716	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.94
Maj. L, Min T Adj. Imp Factor.		0.95
Cap. Adj. factor due to Impeding mvmnt	0.94	0.95
Movement Capacity	670	
Results for Two-stage process:		
a		
y		
C t	670	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	3		0			
Movement Capacity (vph)	670		1005			
Shared Lane Capacity (vph)		670				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	670		1005			
Volume	3		0			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		670				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		98		3				
C(m) (vph)		1523		670				
v/c		0.06		0.00				
95% queue length		0.21		0.01				
Control Delay		7.5		10.4				
LOS		A		B				
Approach Delay				10.4				
Approach LOS				B				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.94
v(il), Volume for stream 2 or 5		17
v(i2), Volume for stream 3 or 6		0
s(il), Saturation flow rate for stream 2 or 5		1700
s(i2), Saturation flow rate for stream 3 or 6		1700
P*(oj)		0.94
d(M,LT), Delay for stream 1 or 4		7.5
N, Number of major street through lanes		1
d(rank,1) Delay for stream 2 or 5		0.5

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build AM Peak
Intersection: Burr's Lane at South Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
East/West Street: South Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume		28	30	111	57	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Hourly Flow Rate, HFR		34	36	119	61	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	29		6			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	32		6			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		119		38				
C(m) (vph)		1531		638				
v/c		0.08		0.06				
95% queue length		0.25		0.19				
Control Delay		7.5		11.0				
LOS		A		B				
Approach Delay				11.0				
Approach LOS				B				

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build AM Peak
Intersection: Burr's Lane at South Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
East/West Street: South Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		28	30	111	57	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Peak-15 Minute Volume		9	9	30	15	
Hourly Flow Rate, HFR		34	36	119	61	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration			TR		LT	
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	29		6			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	8		2			
Hourly Flow Rate, HFR	32		6			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		61
Shared ln volume, major rt vehicles:		0
Sat flow rate, major th vehicles:		1700
Sat flow rate, major rt vehicles:		1700
Number of major street through lanes:		1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	7.1		6.2			
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	2		2			
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.70		0.00			
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage		4.1	6.4		6.2			
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)		2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)		2	2		2			
t(f)		2.2	3.5		3.3			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from table 9-2)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x		70	351		52			
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s		1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	52	
Potential Capacity	1016	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1016	
Probability of Queue free St.	0.99	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	70	
Potential Capacity	1531	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1531	
Probability of Queue free St.	0.92	1.00
Maj L-Shared Prob Q free St.	0.92	

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.92	0.92
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	351	
Potential Capacity	646	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.92
Maj. L, Min T Adj. Imp Factor.		0.94
Cap. Adj. factor due to Impeding mvmnt	0.92	0.93
Movement Capacity	596	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.92	0.92
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	351	
Potential Capacity	646	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.92
Maj. L, Min T Adj. Imp Factor.		0.94
Cap. Adj. factor due to Impeding mvmnt	0.92	0.93
Movement Capacity	596	
Results for Two-stage process:		
a		
y		
C t	596	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	32		6			
Movement Capacity (vph)	596		1016			
Shared Lane Capacity (vph)		638				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	596		1016			
Volume	32		6			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		638				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		119		38				
C(m) (vph)		1531		638				
v/c		0.08		0.06				
95% queue length		0.25		0.19				
Control Delay		7.5		11.0				
LOS		A		B				
Approach Delay				11.0				
Approach LOS				B				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.92
v(il), Volume for stream 2 or 5		61
v(i2), Volume for stream 3 or 6		0
s(il), Saturation flow rate for stream 2 or 5		1700
s(i2), Saturation flow rate for stream 3 or 6		1700
P*(oj)		0.92
d(M,LT), Delay for stream 1 or 4		7.5
N, Number of major street through lanes		1
d(rank,1) Delay for stream 2 or 5		0.6

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build PM Peak
Intersection: Burr's Lane at South Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
East/West Street: South Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume		28	22	11	24	
Peak-Hour Factor, PHF		0.85	0.85	0.87	0.87	
Hourly Flow Rate, HFR		32	25	12	27	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	43		19			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	47		21			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		12		68				
C(m) (vph)		1547		934				
v/c		0.01		0.07				
95% queue length		0.02		0.24				
Control Delay		7.3		9.2				
LOS		A		A				
Approach Delay				9.2				
Approach LOS				A				

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build PM Peak
Intersection: Burr's Lane at South Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
East/West Street: South Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		28	22	11	24	
Peak-Hour Factor, PHF		0.85	0.85	0.87	0.87	
Peak-15 Minute Volume		8	6	3	7	
Hourly Flow Rate, HFR		32	25	12	27	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	43		19			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	12		5			
Hourly Flow Rate, HFR	47		21			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		27
Shared ln volume, major rt vehicles:		0
Sat flow rate, major th vehicles:		1700
Sat flow rate, major rt vehicles:		1700
Number of major street through lanes:		1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	7.1		6.2			
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	2		2			
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.70		0.00			
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage		4.1	6.4		6.2			
2-stage								

Follow-Up Time Calculations Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)		2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)		2	2		2			
t(f)		2.2	3.5		3.3			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from table 9-2)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5 Single-Stage Process Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x		57	95		44			
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s		1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	44	
Potential Capacity	1026	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1026	
Probability of Queue free St.	0.98	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	57	
Potential Capacity	1547	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1547	
Probability of Queue free St.	0.99	1.00
Maj L-Shared Prob Q free St.	0.99	

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	95	
Potential Capacity	905	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.99	0.97
Movement Capacity	898	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	95	
Potential Capacity	905	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.99	0.97
Movement Capacity	898	
Results for Two-stage process:		
a		
y		
C t	898	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	47		21			
Movement Capacity (vph)	898		1026			
Shared Lane Capacity (vph)		934				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	898		1026			
Volume	47		21			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		934				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		12		68				
C(m) (vph)		1547		934				
v/c		0.01		0.07				
95% queue length		0.02		0.24				
Control Delay		7.3		9.2				
LOS		A		A				
Approach Delay				9.2				
Approach LOS				A				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.99
v(il), Volume for stream 2 or 5		27
v(i2), Volume for stream 3 or 6		0
s(il), Saturation flow rate for stream 2 or 5		1700
s(i2), Saturation flow rate for stream 3 or 6		1700
P*(oj)		0.99
d(M,LT), Delay for stream 1 or 4		7.3
N, Number of major street through lanes		1
d(rank,1) Delay for stream 2 or 5		0.1

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build PM Peak
Intersection: Burr's Lane at South Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
East/West Street: South Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume		53	24	11	67	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Hourly Flow Rate, HFR		64	29	11	72	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	44		39			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	48		43			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		11		91				
C(m) (vph)		1501		885				
v/c		0.01		0.10				
95% queue length		0.02		0.34				
Control Delay		7.4		9.5				
LOS		A		A				
Approach Delay				9.5				
Approach LOS				A				

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build PM Peak
Intersection: Burr's Lane at South Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
East/West Street: South Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		53	24	11	67	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Peak-15 Minute Volume		16	7	3	18	
Hourly Flow Rate, HFR		64	29	11	72	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	44		39			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	12		11			
Hourly Flow Rate, HFR	48		43			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		72
Shared ln volume, major rt vehicles:		0
Sat flow rate, major th vehicles:		1700
Sat flow rate, major rt vehicles:		1700
Number of major street through lanes:		1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	7.1		6.2			
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	2		2			
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.70		0.00			
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage		4.1	6.4		6.2			
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)		2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)		2	2		2			
t(f)		2.2	3.5		3.3			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from table 9-2)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x		93	172		78			
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s		1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	78	
Potential Capacity	983	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	983	
Probability of Queue free St.	0.96	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	93	
Potential Capacity	1501	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1501	
Probability of Queue free St.	0.99	1.00
Maj L-Shared Prob Q free St.	0.99	

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	172	
Potential Capacity	818	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.99	0.95
Movement Capacity	812	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	172	
Potential Capacity	818	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.99	0.95
Movement Capacity	812	
Results for Two-stage process:		
a		
y		
C t	812	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	48		43			
Movement Capacity (vph)	812		983			
Shared Lane Capacity (vph)		885				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	812		983			
Volume	48		43			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		885				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		11		91				
C(m) (vph)		1501		885				
v/c		0.01		0.10				
95% queue length		0.02		0.34				
Control Delay		7.4		9.5				
LOS		A		A				
Approach Delay				9.5				
Approach LOS				A				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.99
v(il), Volume for stream 2 or 5		72
v(i2), Volume for stream 3 or 6		0
s(il), Saturation flow rate for stream 2 or 5		1700
s(i2), Saturation flow rate for stream 3 or 6		1700
P*(oj)		0.99
d(M,LT), Delay for stream 1 or 4		7.4
N, Number of major street through lanes		1
d(rank,1) Delay for stream 2 or 5		0.1

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build SAT Peak
Intersection: Burr's Lane at South Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056
East/West Street: South Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume		9	8	41	7	
Peak-Hour Factor, PHF		0.80	0.80	0.83	0.83	
Hourly Flow Rate, HFR		11	9	49	8	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR			LT	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	29		25			
Peak Hour Factor, PHF	0.80		0.80			
Hourly Flow Rate, HFR	36		31			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		49		67				
C(m) (vph)		1596		934				
v/c		0.03		0.07				
95% queue length		0.09		0.23				
Control Delay		7.3		9.2				
LOS		A		A				
Approach Delay				9.2				
Approach LOS				A				

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build SAT Peak
Intersection: Burr's Lane at South Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056
East/West Street: South Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		9	8	41	7	
Peak-Hour Factor, PHF		0.80	0.80	0.83	0.83	
Peak-15 Minute Volume		3	2	12	2	
Hourly Flow Rate, HFR		11	9	49	8	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR			LT	
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	29		25			
Peak Hour Factor, PHF	0.80		0.80			
Peak-15 Minute Volume	9		8			
Hourly Flow Rate, HFR	36		31			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		8
Shared ln volume, major rt vehicles:		0
Sat flow rate, major th vehicles:		1700
Sat flow rate, major rt vehicles:		1700
Number of major street through lanes:		1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	7.1		6.2			
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	2		2			
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.70		0.00			
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage		4.1	6.4		6.2			
2-stage								

Follow-Up Time Calculations Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)		2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)		2	2		2			
t(f)		2.2	3.5		3.3			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from Exhibit 16-11)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5 Single-Stage Process Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x		20	122		16			
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s		1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	16	
Potential Capacity	1063	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1063	
Probability of Queue free St.	0.97	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	20	
Potential Capacity	1596	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1596	
Probability of Queue free St.	0.97	1.00
Maj L-Shared Prob Q free St.	0.97	

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.97	0.97
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	122	
Potential Capacity	873	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.97
Maj. L, Min T Adj. Imp Factor.		0.98
Cap. Adj. factor due to Impeding mvmnt	0.97	0.95
Movement Capacity	846	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.97	0.97
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	122	
Potential Capacity	873	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.97
Maj. L, Min T Adj. Imp Factor.		0.98
Cap. Adj. factor due to Impeding mvmnt	0.97	0.95
Movement Capacity	846	
Results for Two-stage process:		
a		
y		
C t	846	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	36		31			
Movement Capacity (vph)	846		1063			
Shared Lane Capacity (vph)		934				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	846		1063			
Volume	36		31			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		934				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		49		67				
C(m) (vph)		1596		934				
v/c		0.03		0.07				
95% queue length		0.09		0.23				
Control Delay		7.3		9.2				
LOS		A		A				
Approach Delay				9.2				
Approach LOS				A				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.97
v(il), Volume for stream 2 or 5		8
v(i2), Volume for stream 3 or 6		0
s(il), Saturation flow rate for stream 2 or 5		1700
s(i2), Saturation flow rate for stream 3 or 6		1700
P*(oj)		0.97
d(M,LT), Delay for stream 1 or 4		7.3
N, Number of major street through lanes		1
d(rank,1) Delay for stream 2 or 5		0.2

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TWO-WAY STOP CONTROL SUMMARY

Analyst:
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build AM Peak Commuter
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume					1916	62
Peak-Hour Factor, PHF					0.96	0.96
Hourly Flow Rate, HFR					1995	64
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume						24
Peak Hour Factor, PHF						0.93
Hourly Flow Rate, HFR						25
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								25
C(m) (vph)								283
v/c								0.09
95% queue length								0.29
Control Delay								18.9
LOS								C
Approach Delay							18.9	
Approach LOS							C	

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst:
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build AM Peak Commuter
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume					1916	62
Peak-Hour Factor, PHF					0.96	0.96
Peak-15 Minute Volume					499	16
Hourly Flow Rate, HFR					1995	64
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume						24
Peak Hour Factor, PHF						0.93
Peak-15 Minute Volume						6
Hourly Flow Rate, HFR						25
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)								6.2
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)								2
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)								0.00
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage								6.2
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)								3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)								2
t(f)								3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from Exhibit 16-11)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x								1030
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s								
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows		1030
Potential Capacity		283
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		283
Probability of Queue free St.	1.00	0.91

Step 2: LT from Major St.	4	1
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.91	1.00
Movement Capacity		

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.91	1.00
Movement Capacity		
Results for Two-stage process:		
a		
y		
C t		

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)						25
Movement Capacity (vph)						283
Shared Lane Capacity (vph)						

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep						283
Volume						25
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh						
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								25
C(m) (vph)								283
v/c								0.09
95% queue length								0.29
Control Delay								18.9
LOS								C
Approach Delay							18.9	
Approach LOS							C	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	1.00
v(il), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(il), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4		
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst:
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build AM Peak College
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COLLEGE PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume					466	89
Peak-Hour Factor, PHF					0.95	0.95
Hourly Flow Rate, HFR					490	93
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume						45
Peak Hour Factor, PHF						0.93
Hourly Flow Rate, HFR						48
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								48
C(m) (vph)								747
v/c								0.06
95% queue length								0.21
Control Delay								10.1
LOS								B
Approach Delay							10.1	

Approach LOS B

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst:
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build AM Peak College
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COLLEGE PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume					466	89
Peak-Hour Factor, PHF					0.95	0.95
Peak-15 Minute Volume					123	23
Hourly Flow Rate, HFR					490	93
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume						45
Peak Hour Factor, PHF						0.93
Peak-15 Minute Volume						12
Hourly Flow Rate, HFR						48
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation Movement		1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)									6.2
t(c,hv)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)									2
t(c,g)				0.20	0.20	0.10	0.20	0.20	0.10
Grade/100				0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)									0.00
t(c,T):	1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c)	1-stage								6.2
	2-stage								

Follow-Up Time Calculations Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)								3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)								2
t(f)								3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from Exhibit 16-11)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x								292
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s								
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows		292
Potential Capacity		747
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		747
Probability of Queue free St.	1.00	0.94

Step 2: LT from Major St.	4	1
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.94	1.00
Movement Capacity		

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.94	1.00
Movement Capacity		
Results for Two-stage process:		
a		
y		
C t		

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)						48
Movement Capacity (vph)						747
Shared Lane Capacity (vph)						

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep						747
Volume						48
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh						
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								48
C(m) (vph)								747
v/c								0.06
95% queue length								0.21
Control Delay								10.1
LOS								B
Approach Delay							10.1	
Approach LOS							B	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	1.00
v(il), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(il), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4		
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst:
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build PM Peak Commuter
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume					553	46
Peak-Hour Factor, PHF					0.96	0.96
Hourly Flow Rate, HFR					576	47
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume						62
Peak Hour Factor, PHF						0.87
Hourly Flow Rate, HFR						71
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								71
C(m) (vph)								728
v/c								0.10
95% queue length								0.32
Control Delay								10.5
LOS								B
Approach Delay							10.5	
Approach LOS							B	

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst:
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build PM Peak Commuter
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume					553	46
Peak-Hour Factor, PHF					0.96	0.96
Peak-15 Minute Volume					144	12
Hourly Flow Rate, HFR					576	47
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume						62
Peak Hour Factor, PHF						0.87
Peak-15 Minute Volume						18
Hourly Flow Rate, HFR						71
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

		Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2	Left-Turn							
	Through							
S5	Left-Turn							
	Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)								6.2
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)								2
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)								0.00
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage								6.2
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)								3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)								2
t(f)								3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from Exhibit 16-11)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x								312
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7		8		10		11	
	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2
V(c,x)								
s								
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows		312
Potential Capacity		728
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		728
Probability of Queue free St.	1.00	0.90

Step 2: LT from Major St.	4	1
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.90	1.00
Movement Capacity		

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.90	1.00
Movement Capacity		
Results for Two-stage process:		
a		
y		
C t		

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)						71
Movement Capacity (vph)						728
Shared Lane Capacity (vph)						

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep						728
Volume						71
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh						
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								71
C(m) (vph)								728
v/c								0.10
95% queue length								0.32
Control Delay								10.5
LOS								B
Approach Delay							10.5	
Approach LOS							B	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	1.00
v(il), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(il), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4		
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		

HCS2000: Unsignalized Intersections Release 4.1c

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Project ID: Five Towns College, 2002-056 COLLEGE PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume					520	77
Peak-Hour Factor, PHF					0.96	0.96
Hourly Flow Rate, HFR					541	80
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume						113
Peak Hour Factor, PHF						0.93
Hourly Flow Rate, HFR						121
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								121
C(m) (vph)								730
v/c								0.17
95% queue length								0.59
Control Delay								10.9
LOS								B
Approach Delay							10.9	
Approach LOS							B	

HCS2000: Unsignalized Intersections Release 4.1c

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East/West Street: LIE NSR
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Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume					520	77
Peak-Hour Factor, PHF					0.96	0.96
Peak-15 Minute Volume					135	20
Hourly Flow Rate, HFR					541	80
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume						113
Peak Hour Factor, PHF						0.93
Peak-15 Minute Volume						30
Hourly Flow Rate, HFR						121
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)								6.2
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)								2
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)								0.00
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage								6.2
2-stage								

Follow-Up Time Calculations Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)								3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)								2
t(f)								3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from Exhibit 16-11)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x								310
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s								
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows		310
Potential Capacity		730
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		730
Probability of Queue free St.	1.00	0.83

Step 2: LT from Major St.	4	1
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.83	1.00
Movement Capacity		

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.83	1.00
Movement Capacity		
Results for Two-stage process:		
a		
y		
C t		

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)						121
Movement Capacity (vph)						730
Shared Lane Capacity (vph)						

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep						730
Volume						121
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh						
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								121
C(m) (vph)								730
v/c								0.17
95% queue length								0.59
Control Delay								10.9
LOS								B
Approach Delay							10.9	
Approach LOS							B	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	1.00
v(il), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(il), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4		
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build SAT Peak Commuter
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume					493	17
Peak-Hour Factor, PHF					0.91	0.91
Hourly Flow Rate, HFR					541	18
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume						35
Peak Hour Factor, PHF						0.83
Hourly Flow Rate, HFR						42
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								42
C(m) (vph)								759
v/c								0.06
95% queue length								0.18
Control Delay								10.0+
LOS								B
Approach Delay							10.0+	
Approach LOS							B	

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: No Build SAT Peak Commuter
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume					493	17
Peak-Hour Factor, PHF					0.91	0.91
Peak-15 Minute Volume					135	5
Hourly Flow Rate, HFR					541	18
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume						35
Peak Hour Factor, PHF						0.83
Peak-15 Minute Volume						11
Hourly Flow Rate, HFR						42
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)								6.2
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)								2
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)								0.00
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage								6.2
2-stage								

Follow-Up Time Calculations Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)								3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)								2
t(f)								3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from Exhibit 16-11)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p	0.000		0.000	

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5 Single-Stage Process Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x								280
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s								
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows		280
Potential Capacity		759
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		759
Probability of Queue free St.	1.00	0.94

Step 2: LT from Major St.	4	1
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.94	1.00
Movement Capacity		

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.94	1.00
Movement Capacity		
Results for Two-stage process:		
a		
y		
C t		

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)						42
Movement Capacity (vph)						759
Shared Lane Capacity (vph)						

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep						759
Volume						42
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh						
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								42
C(m) (vph)								759
v/c								0.06
95% queue length								0.18
Control Delay								10.0+
LOS								B
Approach Delay							10.0+	
Approach LOS							B	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	1.00
v(il), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(il), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4		
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		

APPENDIX F: CAPACITY ANALYSIS WORKSHEETS – BUILD CONDITIONS – EXISTING SITE ACCESS

I. Signalized Intersections

II. Unsignalized Intersections

I. Signalized Intersections

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Build Am Peak Burr
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
E/W St: Long Island Expressway SSR

Inter.: LIE SSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	3	0	0	0	0	0	1	1	1	1	0
LGConfig		LTR						T	R	L	T	
Volume	206	251	98					538	170	197	240	
Lane Width		11.0						12.0	12.0	11.0	12.0	
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	P				NB	Left				
	Thru	P					Thru	A			
	Right	P					Right	A			
	Peds						Peds				
WB	Left					SB	Left	A	A		
	Thru						Thru	A	A		
	Right						Right				
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		26.5						24.0	12.5		
Yellow		4.0						3.5	3.5		
All Red		2.0						2.0	2.0		

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1611	4522	0.37	0.36	19.8	B	19.8	B
Westbound								
Northbound								
T	566	1776	1.11	0.32	97.5	F	79.4	E
R	464	1455	0.43	0.32	22.1	C		
Southbound								
L	437	1544	0.56	0.54	26.4	C		
T	922	1696	0.33	0.54	10.3	B	17.6	B

Intersection Delay = 44.1 (sec/veh) Intersection LOS = D

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Build Am Peak Burr
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
E/W St: Long Island Expressway SSR

Inter.: LIE SSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	3	0	0	0	0	0	1	1	1	1	0
LGConfig		LTR						T	R	L	T	
Volume	130	203	80					226	95	123	171	
Lane Width		11.0						12.0	12.0	11.0	12.0	
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left	P				NB	Left				
Thru	P					Thru	A			
Right	P					Right	A			
Peds						Peds				
WB Left					SB	Left	A	A		
Thru						Thru	A	A		
Right						Right				
Peds						Peds				
NB Right					EB	Right				
SB Right					WB	Right				
Green	26.5						24.0	12.5		
Yellow	4.0						3.5	3.5		
All Red	2.0						2.0	2.0		

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1615	4534	0.27	0.36	18.8	B	18.8	B
Westbound								
Northbound								
T	571	1792	0.46	0.32	22.3	C	21.7	C
R	472	1482	0.23	0.32	20.3	C		
Southbound								
L	567	1586	0.27	0.54	15.3	B		
T	931	1712	0.23	0.54	9.6	A	12.0	B

Intersection Delay = 17.6 (sec/veh) Intersection LOS = B

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Build Pm Peak Burr
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
E/W St: Long Island Expressway SSR

Inter.: LIE SSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	3	0	0	0	0	0	1	1	1	1	0
LGConfig		LTR						T	R	L	T	
Volume	132	1864	158					261	116	283	427	
Lane Width		11.0						12.0	12.0	11.0	12.0	
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left	P				NB	Left				
Thru	P					Thru	A			
Right	P					Right	A			
Peds						Peds				
WB Left					SB	Left	A	A		
Thru						Thru	A	A		
Right						Right				
Peds						Peds				
NB Right					EB	Right				
SB Right					WB	Right				
Green	26.5						22.0	9.5		
Yellow	4.0						3.5	3.5		
All Red	2.0						2.0	2.0		

Cycle Length: 75.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1842	4847	1.29	0.38	155.8	F	155.8	F
Westbound								
Northbound								
T	584	1863	0.49	0.31	21.6	C	20.9	C
R	496	1583	0.26	0.31	19.5	B		
Southbound								
L	525	1646	0.63	0.51	22.7	C		
T	956	1863	0.53	0.51	12.7	B	16.7	B

Intersection Delay = 108.2 (sec/veh) Intersection LOS = F

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Build Pm Peak Burr
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
E/W St: Long Island Expressway SSR

Inter.: LIE SSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	3	0	0	0	0	0	1	1	1	1	0
LGConfig		LTR						T	R	L	T	
Volume	137	1231	142					323	142	261	398	
Lane Width		11.0						12.0	12.0	11.0	12.0	
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left	P				NB	Left				
Thru	P					Thru	A			
Right	P					Right	A			
Peds						Peds				
WB Left					SB	Left	A	A		
Thru						Thru	A	A		
Right						Right				
Peds						Peds				
NB Right					EB	Right				
SB Right					WB	Right				
Green	26.5						22.0	9.5		
Yellow	4.0						3.5	3.5		
All Red	2.0						2.0	2.0		

Cycle Length: 75.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1816	4778	0.91	0.38	30.7	C	30.7	C
Westbound								
Northbound								
T	578	1845	0.61	0.31	23.8	C	22.7	C
R	496	1583	0.31	0.31	20.0-	B		
Southbound								
L	455	1544	0.67	0.51	26.0	C		
T	903	1759	0.52	0.51	12.6	B	17.9	B

Intersection Delay = 26.0 (sec/veh) Intersection LOS = C

Analyst: REB
Agency: RMS Engineering
Date: 8/12/2002
Period: Build SAT Peak Burr
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
E/W St: Long Island Expressway SSR

Inter.: LIE SSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	3	0	0	0	0	0	2	0	1	1	0
LGConfig		LTR						TR		L	T	
Volume	126	237	123					291	144	208	292	
Lane Width		11.0						12.0		11.0	12.0	
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left	A				NB	Left				
Thru	A					Thru	P			
Right	A					Right	P			
Peds						Peds				
WB Left					SB	Left	P	A		
Thru						Thru	P	A		
Right						Right				
Peds						Peds				
NB Right					EB	Right				
SB Right					WB	Right				
Green	25.0						24.5	8.5		
Yellow	4.0						3.5	3.5		
All Red	2.0						2.0	2.0		

Cycle Length: 75.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1681	4669	0.32	0.36	17.4	B	17.4	B
Westbound								
Northbound								
TR	1166	3364	0.44	0.35	20.1	C	20.1	C
Southbound								
L	554	1711	0.44	0.53	15.4	B		
T	994	1863	0.34	0.53	10.2	B	12.4	B

Intersection Delay = 16.5 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1c

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Build Am Peak Burr
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
E/W St: Long Island Expressway NSR

Inter.: LIE NSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	0	0	0	3	0	1	1	0	0	2	0
LGConfig					LTR		L	T			TR	
Volume				98	1765	87	388	330			321	194
Lane Width					11.0		11.0	11.0			12.0	
RTOR Vol						0						0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left					NB	Left	A	A		
Thru						Thru	A	A		
Right						Right				
Peds						Peds				
WB Left	P				SB	Left				
Thru	P					Thru	A			
Right	P					Right	A			
Peds						Peds				
NB Right					EB	Right				
SB Right					WB	Right				
Green	26.5						24.0	12.5		
Yellow	4.0						3.5	3.5		
All Red	2.0						2.0	2.0		

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
LTR	1725	4843	1.18	0.36	112.2	F	112.2	F
Northbound								
L	542	1711	0.75	0.54	28.1	C		
T	916	1685	0.38	0.54	10.7	B	20.1	C
Southbound								
TR	992	3111	0.64	0.32	24.7	C	24.7	C

Intersection Delay = 75.8 (sec/veh) Intersection LOS = E

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Build Am Peak Burr
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
E/W St: Long Island Expressway NSR

Inter.: LIE NSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	3	0	1	1	0	0	2	0
LGConfig					LTR		L	T			TR	
Volume				148	285	96	174	191			204	62
Lane Width					11.0		11.0	11.0			12.0	
RTOR Vol						0						0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left					NB	Left	A	A		
Thru						Thru	A	A		
Right						Right				
Peds						Peds				
WB Left	P				SB	Left				
Thru	P					Thru	A			
Right	P					Right	A			
Peds						Peds				
NB Right					EB	Right				
SB Right					WB	Right				
Green	26.5						24.0	12.5		
Yellow	4.0						3.5	3.5		
All Red	2.0						2.0	2.0		

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
LTR	1650	4632	0.34	0.36	19.4	B	19.4	B
Northbound								
L	680	1711	0.27	0.54	11.4	B		
T	942	1733	0.21	0.54	9.5	A	10.4	B
Southbound								
TR	1032	3237	0.32	0.32	20.8	C	20.8	C

Intersection Delay = 17.1 (sec/veh) Intersection LOS = B

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Build Pm Peak Burr
Inter.: LIE NSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
E/W St: Long Island Expressway NSR
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	0	0	0	3	0	1	1	0	0	2	0
LGConfig					LTR		L	T			TR	
Volume				258	246	129	137	285			456	62
Lane Width					11.0		11.0	11.0			12.0	
RTOR Vol						0						0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left					NB	Left	A	A		
	Thru						Thru	A	A		
	Right						Right				
	Peds						Peds				
WB	Left	P				SB	Left				
	Thru	P					Thru	A			
	Right	P					Right	A			
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		26.5						22.0	9.5		
Yellow		4.0						3.5	3.5		
All Red		2.0						2.0	2.0		

Cycle Length: 75.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
LTR	1775	4671	0.37	0.38	17.4	B	17.4	B
Northbound								
L	510	1711	0.30	0.51	16.1	B		
T	925	1801	0.34	0.51	11.0	B	12.6	B
Southbound								
TR	1071	3417	0.56	0.31	22.1	C	22.1	C

Intersection Delay = 17.8 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1c

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Build Pm Peak Burr
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
E/W St: Long Island Expressway NSR

Inter.: LIE NSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	0	0	0	3	0	1	1	0	0	2	0
LGConfig					LTR		L	T			TR	
Volume				262	268	119	162	288			402	58
Lane Width					11.0		11.0	11.0			12.0	
RTOR Vol						0						0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left					NB	Left	A	A		
	Thru						Thru	A	A		
	Right						Right				
	Peds						Peds				
WB	Left	P				SB	Left				
	Thru	P					Thru	A			
	Right	P					Right	A			
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		26.5						22.0	9.5		
Yellow		4.0						3.5	3.5		
All Red		2.0						2.0	2.0		

Cycle Length: 75.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
LTR	1759	4630	0.38	0.38	17.5	B	17.5	B
Northbound								
L	538	1711	0.33	0.51	15.4	B		
T	873	1701	0.36	0.51	11.2	B	12.7	B
Southbound								
TR	1079	3443	0.49	0.31	21.3	C	21.3	C

Intersection Delay = 17.3 (sec/veh) Intersection LOS = B

Analyst: REB
Agency: RMS Engineering
Date: 8/12/2002
Period: Build SAT Peak Burr
Project ID: Five Towns College, 2002-056
E/W St: Long Island Expressway NSR

Inter.: LIE NSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	3	0	1	1	0	0	2	0
LGConfig					LTR		L	T			TR	
Volume				188	210	150	167	249			313	65
Lane Width					11.0		11.0	11.0			12.0	
RTOR Vol						0						0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left					NB	Left	A	A		
	Thru						Thru	A	A		
	Right						Right				
	Peds						Peds				
WB	Left	P				SB	Left				
	Thru	P					Thru	A			
	Right	P					Right	A			
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		25.0						24.5	8.5		
Yellow		4.0						3.5	3.5		
All Red		2.0						2.0	2.0		

Cycle Length: 75.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
LTR	1668	4634	0.36	0.36	18.3	B	18.3	B
Northbound								
L	586	1711	0.32	0.53	12.8	B		
T	961	1801	0.29	0.53	9.8	A	11.0	B
Southbound								
TR	1195	3448	0.38	0.35	18.6	B	18.6	B

Intersection Delay = 16.1 (sec/veh) Intersection LOS = B

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Build AM Peak Burr
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd and Bagatelle R
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	1	1	1	1	0	1	0	1	0	0	0
LGConfig		T	R	L	T		L		R			
Volume		158	242	243	888		299		158			
Lane Width		13.0	14.0	10.0	10.0		11.0		15.0			
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left					NB	Left	A			
	Thru	P					Thru				
	Right	P					Right	A			
	Peds						Peds				
WB	Left	P				SB	Left				
	Thru	P					Thru				
	Right						Right				
	Peds						Peds				
NB	Right					EB	Right	A			
SB	Right					WB	Right				
Green		54.9						34.4			
Yellow		3.5						3.0			
All Red		1.6						2.6			

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
T	971	1722	0.20	0.56	11.2	B	4.5	A
R	1401	1401	0.22	1.00	0.1	A		
Westbound								
L	573	1016	0.47	0.56	15.6	B		
T	971	1722	1.01	0.56	51.9	D	44.1	D
Northbound								
L	561	1586	0.62	0.35	28.8	C	27.1	C
R	593	1676	0.31	0.35	23.7	C		
Southbound								

Intersection Delay = 31.4 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1b

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Build AM Peak BURR
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd and Bagatelle R
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	1	1	1	1	0	1	0	1	0	0	0
LGConfig		T	R	L	T		L		R			
Volume		147	197	90	330		167		135			
Lane Width		13.0	14.0	10.0	10.0		11.0		15.0			
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left					NB	Left	A			
Thru	P					Thru				
Right	P					Right	A			
Peds						Peds				
WB Left	P				SB	Left				
Thru	P					Thru				
Right						Right				
Peds						Peds				
NB Right					EB	Right	A			
SB Right					WB	Right				
Green	54.9						34.4			
Yellow	3.5						3.0			
All Red	1.6						2.6			

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
T	1025	1818	0.18	0.56	11.0	B	4.7	A
R	1552	1552	0.16	1.00	0.0+	A		
Westbound								
L	590	1046	0.17	0.56	11.1	B		
T	962	1705	0.38	0.56	13.3	B	12.8	B
Northbound								
L	577	1631	0.34	0.35	24.0	C	23.7	C
R	588	1660	0.27	0.35	23.3	C		
Southbound								

Intersection Delay = 13.1 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1b

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Build PM Peak Burr
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd and Bagatelle R
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	1	1	1	1	0	1	0	1	0	0	0
LGConfig		T	R	L	T		L		R			
Volume		507	389	127	210		223		152			
Lane Width		13.0	14.0	10.0	10.0		11.0		15.0			
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left					NB	Left	A			
Thru	P					Thru				
Right	P					Right	A			
Peds						Peds				
WB Left	P				SB	Left				
Thru	P					Thru				
Right						Right				
Peds						Peds				
NB Right					EB	Right	A			
SB Right					WB	Right				
Green	54.9						34.4			
Yellow	3.5						3.0			
All Red	1.6						2.6			

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
T	1086	1925	0.52	0.56	15.3	B	8.7	A
R	1641	1641	0.27	1.00	0.1	A		
Westbound								
L	338	599	0.41	0.56	15.9	B		
T	971	1722	0.23	0.56	11.5	B	13.2	B
Northbound								
L	588	1662	0.46	0.35	25.5	C	24.7	C
R	617	1742	0.30	0.35	23.6	C		
Southbound								

Intersection Delay = 13.6 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1b

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Build PM Peak Burr
Project ID: Five Towns Collere, 2002-056 COLLEGE PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd and Bagatelle R
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	1	1	1	1	0	1	0	1	0	0	0
LGConfig		T	R	L	T		L		R			
Volume		321	349	124	210		237		134			
Lane Width		13.0	14.0	10.0	10.0		11.0		15.0			
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left	A			
Thru	P				Thru				
Right	P				Right	A			
Peds					Peds				
WB Left	P				SB Left				
Thru	P				Thru				
Right					Right				
Peds					Peds				
NB Right					EB Right	A			
SB Right					WB Right				
Green	54.9					34.4			
Yellow	3.5					3.0			
All Red	1.6					2.6			

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
T	1075	1906	0.34	0.56	12.6	B	6.1	A
R	1689	1689	0.23	1.00	0.1	A		
Westbound								
L	457	810	0.29	0.56	13.0	B		
T	944	1673	0.24	0.56	11.6	B	12.1	B
Northbound								
L	606	1711	0.47	0.35	25.6	C	24.8	C
R	617	1742	0.26	0.35	23.2	C		
Southbound								

Intersection Delay = 12.8 (sec/veh) Intersection LOS = B

Analyst: REB
Agency: RMS Engineering
Date: 8/12/2002
Period: Build SAT Peak Burr
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd. at Bagatelle R
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	1	1	1	1	0	1	0	1	0	0	0
LGConfig		T	R	L	T		L		R			
Volume		164	276	169	164		267		131			
Lane Width		13.0	14.0	10.0	10.0		11.0		15.0			
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left					NB	Left	A			
Thru	P					Thru				
Right	P					Right	A			
Peds						Peds				
WB Left	P				SB	Left				
Thru	P					Thru				
Right						Right				
Peds						Peds				
NB Right					EB	Right	A			
SB Right					WB	Right				
Green	54.9						34.4			
Yellow	3.5						3.0			
All Red	1.6						2.6			

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
T	1086	1925	0.16	0.56	10.8	B	4.0	A
R	1689	1689	0.17	1.00	0.0+	A		
Westbound								
L	598	1061	0.34	0.56	13.4	B		
T	981	1739	0.20	0.56	11.2	B	12.3	B
Northbound								
L	606	1711	0.52	0.35	26.3	C	25.3	C
R	617	1742	0.25	0.35	23.1	C		
Southbound								

Intersection Delay = 13.9 (sec/veh) Intersection LOS = B

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Build Am Peak Burr
Project ID: Five Towns College, 2002-056, COMMUTER PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd at Vanderbilt P
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Vanderbilt Parkway

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	1	1	0	0	1	0	0	0	0	1	0	0
LGConfig	L	T			TR					L		
Volume	99	114			203	84				180		
Lane Width	10.0	16.0			11.0					11.0		
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	P				NB Left				
Thru	P				Thru				
Right					Right				
Peds					Peds				
WB Left					SB Left	A			
Thru	P				Thru				
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	40.0					40.0			
Yellow	3.5					3.5			
All Red	1.5					1.5			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	301	653	0.38	0.46	19.4	B		
T	863	1872	0.15	0.46	14.4	B	16.7	B
Westbound								
TR	776	1683	0.45	0.46	18.4	B	18.4	B
Northbound								
Southbound								
L	752	1631	0.26	0.46	15.0	B	15.0	B

Intersection Delay = 17.0 (sec/veh) Intersection LOS = B

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Build Am Peak Burr
Project ID: Five Towns College, 2002-056, COLLEGE PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd at Vanderbilt P
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Vanderbilt Parkway

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	1	1	0	0	1	0	0	0	0	1	0	0
LGConfig	L	T			TR					L		
Volume	80	83			189	108				132		
Lane Width	10.0	16.0			11.0					11.0		
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	P				NB Left				
Thru	P				Thru				
Right					Right				
Peds					Peds				
WB Left					SB Left	A			
Thru	P				Thru				
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	40.0					40.0			
Yellow	3.5					3.5			
All Red	1.5					1.5			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	311	674	0.29	0.46	17.5	B		
T	911	1976	0.10	0.46	13.9	B	15.7	B
Westbound								
TR	784	1701	0.46	0.46	18.6	B	18.6	B
Northbound								
Southbound								
L	774	1678	0.18	0.46	14.4	B	14.4	B

Intersection Delay = 16.9 (sec/veh) Intersection LOS = B

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Build Pm Peak Burr
Project ID: Five Towns College, 2002-056, COMMUTER PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd at Vanderbilt P
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Vanderbilt Parkway

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	1	1	0	0	1	0	0	0	0	1	0	0
LGConfig	L	T			TR					L		
Volume	345	209			117	90				112		
Lane Width	10.0	16.0			11.0					11.0		
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left	P				NB	Left				
Thru	P					Thru				
Right						Right				
Peds						Peds				
WB Left					SB	Left	A			
Thru	P					Thru				
Right	P					Right				
Peds						Peds				
NB Right					EB	Right				
SB Right					WB	Right				
Green	40.0						40.0			
Yellow	3.5						3.5			
All Red	1.5						1.5			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	419	909	0.94	0.46	53.4	D		
T	973	2111	0.24	0.46	15.3	B	39.0	D
Westbound								
TR	769	1667	0.30	0.46	16.2	B	16.2	B
Northbound								
Southbound								
L	789	1711	0.16	0.46	14.2	B	14.2	B

Intersection Delay = 30.6 (sec/veh) Intersection LOS = C

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Build Pm Peak Burr
Project ID: Five Towns College, 2002-056, COLLEGE PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd at Vanderbilt P
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Vanderbilt Parkway

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	1	1	0	0	1	0	0	0	0	1	0	0
LGConfig	L	T			TR					L		
Volume	220	148			134	61				93		
Lane Width	10.0	16.0			11.0					11.0		
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left	P				NB	Left				
Thru	P					Thru				
Right						Right				
Peds						Peds				
WB Left					SB	Left	A			
Thru	P					Thru				
Right	P					Right				
Peds						Peds				
NB Right					EB	Right				
SB Right					WB	Right				
Green	40.0						40.0			
Yellow	3.5						3.5			
All Red	1.5						1.5			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	429	931	0.58	0.46	23.6	C		
T	973	2111	0.17	0.46	14.6	B	20.0-	B
Westbound								
TR	779	1690	0.28	0.46	15.9	B	15.9	B
Northbound								
Southbound								
L	789	1711	0.13	0.46	14.0	B		
							14.0	B

Intersection Delay = 17.9 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1b

HCS2000: Signalized Intersections Release 4.1c

Analyst: REB
Agency: RMS Engineering
Date: 8/12/2002
Period: Build SAT Peak Burr
Project ID: Five Towns College, 2002-056
E/W St: Half Hollow Road

Inter.: Half Hollow Rd at Vanderbilt P
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Vanderbilt Parkway

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	1	1	0	0	1	0	0	0	0	1	0	0
LGConfig	L	T			TR					L		
Volume	128	112			76	159				83		
Lane Width	10.0	16.0			11.0					12.0		
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left	P				NB	Left				
Thru	P					Thru				
Right						Right				
Peds						Peds				
WB Left					SB	Left	A			
Thru	P					Thru				
Right	P					Right				
Peds						Peds				
NB Right					EB	Right				
SB Right					WB	Right				
Green	40.0						40.0			
Yellow	3.5						3.5			
All Red	1.5						1.5			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	385	836	0.38	0.46	18.7	B		
T	973	2111	0.13	0.46	14.2	B	16.6	B
Westbound								
TR	754	1636	0.37	0.46	17.1	B	17.1	B
Northbound								
Southbound								
L	816	1770	0.11	0.46	13.8	B	13.8	B

Intersection Delay = 16.4 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1c

II. Unsignalized Intersections

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build Am Peak
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056, COMMUTER PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume	3	193	109	28	1121	2
Peak-Hour Factor, PHF	0.81	0.81	0.81	0.91	0.91	0.91
Hourly Flow Rate, HFR	3	238	134	30	1231	2
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	
Upstream Signal?		Yes			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	15		41	2		4
Peak Hour Factor, PHF	0.90		0.90	0.80		0.80
Hourly Flow Rate, HFR	16		45	2		4
Percent Heavy Vehicles	30		40	2		2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0		0	0		0
Configuration		LR			LR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR			LR	
v (vph)	3	30		61			6	
C(m) (vph)	565	1186		219			129	
v/c	0.01	0.03		0.28			0.05	
95% queue length	0.02	0.08		1.10			0.14	
Control Delay	11.4	8.1		27.7			34.3	
LOS	B	A		D			D	
Approach Delay				27.7			34.3	
Approach LOS				D			D	

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build Am Peak
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056, COMMUTER PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	3	193	109	28	1121	2
Peak-Hour Factor, PHF	0.81	0.81	0.81	0.91	0.91	0.91
Peak-15 Minute Volume	1	60	34	8	308	1
Hourly Flow Rate, HFR	3	238	134	30	1231	2
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	
Upstream Signal?		Yes			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	15		41	2		4
Peak Hour Factor, PHF	0.90		0.90	0.80		0.80
Peak-15 Minute Volume	4		11	1		1
Hourly Flow Rate, HFR	16		45	2		4
Percent Heavy Vehicles	30		40	2		2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0		0	0		0
Configuration		LR			LR	

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

		Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2	Left-Turn	0	1700	3	0	100	30	700
	Through	150	1700	3	59	100	30	700
S5	Left-Turn							
	Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:	238	1231
Shared ln volume, major rt vehicles:	0	2
Sat flow rate, major th vehicles:	1700	1700
Sat flow rate, major rt vehicles:	1700	1700
Number of major street through lanes:	1	1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement		1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	4.1	7.1		6.2	7.1		6.2
t(c,hv)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	2	30		40	2		2
t(c,g)				0.20	0.20	0.10	0.20	0.20	0.10
Grade/100				0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.00	0.00		0.00	0.00		0.00
t(c,T):	1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c)	1-stage	4.1	4.1	7.4		6.6	7.1		6.2
	2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)	2.20	2.20	3.50		3.30	3.50		3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)	2	2	30		40	2		2
t(f)	2.2	2.2	3.8		3.7	3.5		3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog	150	0		
Total Saturation Flow Rate, s (vph)	1700	1700		
Arrival Type	3	3		
Effective Green, g (sec)	59	0		
Cycle Length, C (sec)	100	100		
Rp (from table 9-2)	1.000	1.000		
Proportion vehicles arriving on green P	0.590	0.000		
g(q1)	3.6	0.0		
g(q2)	0.4	0.0		
g(q)	4.0	0.0		

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha	0.550			
beta	0.645			
Travel time, t(a) (sec)	15.873			
Smoothing Factor, F	0.151			
Proportion of conflicting flow, f	0.400	0.000		
Max platooned flow, V(c,max)	324	0		
Min platooned flow, V(c,min)	1000	1000		
Duration of blocked period, t(p)	0.0	0.0		
Proportion time blocked, p	0.000		0.000	

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	0.000
p(subo)	0.000
Constrained or unconstrained?	U

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)	1.000		
p(4)	1.000		
p(7)	1.000		
p(8)			
p(9)	1.000		
p(10)	1.000		
p(11)			
p(12)	1.000		

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x	1233	372	1538		238	1626		1232
s	1700	1700	1700		1700	1700		1700
Px	1.000	1.000	1.000		1.000	1.000		1.000
V c,u,x	1233	372	1538		238	1626		1232
C r,x	565	1186	81		716	82		216
C plat,x	565	1186	81		716	82		216

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s	1700	1700			1700	1700		
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	238	1232
Potential Capacity	716	216
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	716	216
Probability of Queue free St.	0.94	0.98

Step 2: LT from Major St.	4	1
Conflicting Flows	372	1233
Potential Capacity	1186	565
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1186	565
Probability of Queue free St.	0.97	0.99
Maj L-Shared Prob Q free St.	0.91	0.99

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.90	0.90
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	1538	1626
Potential Capacity	81	82
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	0.90	0.90
Maj. L, Min T Adj. Imp Factor.	0.93	0.93
Cap. Adj. factor due to Impeding mvmnt	0.91	0.87
Movement Capacity	74	71

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.90	0.90
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	1538	1626
Potential Capacity	81	82
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	0.90	0.90
Maj. L, Min T Adj. Imp Factor.	0.93	0.93
Cap. Adj. factor due to Impeding mvmnt	0.91	0.87
Movement Capacity	74	71
Results for Two-stage process:		
a		
y		
C t	74	71

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	16		45	2		4
Movement Capacity (vph)	74		716	71		216
Shared Lane Capacity (vph)		219			129	

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	74		716	71		216
Volume	16		45	2		4
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		219			129	
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR			LR	
v (vph)	3	30		61			6	
C(m) (vph)	565	1186		219			129	
v/c	0.01	0.03		0.28			0.05	
95% queue length	0.02	0.08		1.10			0.14	
Control Delay	11.4	8.1		27.7			34.3	
LOS	B	A		D			D	
Approach Delay				27.7			34.3	
Approach LOS				D			D	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	0.99	0.97
v(il), Volume for stream 2 or 5	238	1231
v(i2), Volume for stream 3 or 6	0	2
s(il), Saturation flow rate for stream 2 or 5	1700	1700
s(i2), Saturation flow rate for stream 3 or 6	1700	1700
P*(oj)	0.99	0.91
d(M,LT), Delay for stream 1 or 4	11.4	8.1
N, Number of major street through lanes	1	1
d(rank,1) Delay for stream 2 or 5	0.1	0.7

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build Am Peak
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056, COLLEGE PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume	0	206	75	125	340	0
Peak-Hour Factor, PHF	0.81	0.81	0.81	0.91	0.91	0.91
Hourly Flow Rate, HFR	0	254	92	137	373	0
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	
Upstream Signal?		Yes			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	15		44			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	16		48			
Percent Heavy Vehicles	10		22			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR				
v (vph)	0	137		64				
C(m) (vph)	1185	1213		510				
v/c	0.00	0.11		0.13				
95% queue length	0.00	0.38		0.43				
Control Delay	8.0	8.3		13.1				
LOS	A	A		B				
Approach Delay				13.1				
Approach LOS				B				

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build Am Peak
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056, COLLEGE PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	0	206	75	125	340	0
Peak-Hour Factor, PHF	0.81	0.81	0.81	0.91	0.91	0.91
Peak-15 Minute Volume	0	64	23	34	93	0
Hourly Flow Rate, HFR	0	254	92	137	373	0
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	
Upstream Signal?		Yes			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	15		44			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	4		12			
Hourly Flow Rate, HFR	16		48			
Percent Heavy Vehicles	10		22			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn	0	1700	3	0	100	30	700
Through	145	1700	3	59	100	30	700
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:	254	373
Shared ln volume, major rt vehicles:	0	0
Sat flow rate, major th vehicles:	1700	1700
Sat flow rate, major rt vehicles:	1700	1700
Number of major street through lanes:	1	1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)	4.1	4.1	7.1		6.2			
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)	2	2	10		22			
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)	0.00	0.00	0.70		0.00			
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage	4.1	4.1	6.5		6.4			
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)	2.20	2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)	2	2	10		22			
t(f)	2.2	2.2	3.6		3.5			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog	145	0		
Total Saturation Flow Rate, s (vph)	1700	1700		
Arrival Type	3	3		
Effective Green, g (sec)	59	0		
Cycle Length, C (sec)	100	100		
Rp (from table 9-2)	1.000	1.000		
Proportion vehicles arriving on green P	0.590	0.000		
g(q1)	3.5	0.0		
g(q2)	0.3	0.0		
g(q)	3.8	0.0		

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha	0.550			
beta	0.645			
Travel time, t(a) (sec)	15.873			
Smoothing Factor, F	0.151			
Proportion of conflicting flow, f	0.419	0.000		
Max platooned flow, V(c,max)	331	0		
Min platooned flow, V(c,min)	1000	1000		
Duration of blocked period, t(p)	0.0	0.0		
Proportion time blocked, p	0.000		0.000	

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	0.000
p(subo)	0.000
Constrained or unconstrained?	U

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)	1.000		
p(4)	1.000		
p(7)	1.000		
p(8)			
p(9)	1.000		
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x	373	346	901		254			
s	1700	1700	1700		1700			
Px	1.000	1.000	1.000		1.000			
V c,u,x	373	346	901		254			
C r,x	1185	1213	299		738			
C plat,x	1185	1213	299		738			

Two-Stage Process	7		8		10		11	
	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2
V(c,x)								
s	1700	1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	254	
Potential Capacity	738	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	738	
Probability of Queue free St.	0.93	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	346	373
Potential Capacity	1213	1185
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1213	1185
Probability of Queue free St.	0.89	1.00
Maj L-Shared Prob Q free St.	0.86	1.00

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.86	0.86
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	901	
Potential Capacity	299	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.86
Maj. L, Min T Adj. Imp Factor.		0.89
Cap. Adj. factor due to Impeding mvmnt	0.89	0.83
Movement Capacity	265	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.86	0.86
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	901	
Potential Capacity	299	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.86
Maj. L, Min T Adj. Imp Factor.		0.89
Cap. Adj. factor due to Impeding mvmnt	0.89	0.83
Movement Capacity	265	
Results for Two-stage process:		
a		
y		
C t	265	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	16		48			
Movement Capacity (vph)	265		738			
Shared Lane Capacity (vph)		510				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	265		738			
Volume	16		48			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		510				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR				
v (vph)	0	137		64				
C(m) (vph)	1185	1213		510				
v/c	0.00	0.11		0.13				
95% queue length	0.00	0.38		0.43				
Control Delay	8.0	8.3		13.1				
LOS	A	A		B				
Approach Delay				13.1				
Approach LOS				B				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.89
v(il), Volume for stream 2 or 5	254	373
v(i2), Volume for stream 3 or 6	0	0
s(il), Saturation flow rate for stream 2 or 5	1700	1700
s(i2), Saturation flow rate for stream 3 or 6	1700	1700
P*(oj)	1.00	0.86
d(M,LT), Delay for stream 1 or 4	8.0	8.3
N, Number of major street through lanes	1	1
d(rank,1) Delay for stream 2 or 5	0.0	1.2

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build Pm Peak
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056, COMMUTER PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume	0	544	41	14	293	0
Peak-Hour Factor, PHF	0.92	0.92	0.92	0.85	0.85	0.85
Hourly Flow Rate, HFR	0	591	44	16	344	0
Percent Heavy Vehicles	2	--	--	25	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	
Upstream Signal?		Yes			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	31		25			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	34		27			
Percent Heavy Vehicles	16		10			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR				
v (vph)	0	16		61				
C(m) (vph)	1215	848		337				
v/c	0.00	0.02		0.18				
95% queue length	0.00	0.06		0.65				
Control Delay	8.0	9.3		18.0				
LOS	A	A		C				
Approach Delay				18.0				
Approach LOS				C				

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build Pm Peak
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056, COMMUTER PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	0	544	41	14	293	0
Peak-Hour Factor, PHF	0.92	0.92	0.92	0.85	0.85	0.85
Peak-15 Minute Volume	0	148	11	4	86	0
Hourly Flow Rate, HFR	0	591	44	16	344	0
Percent Heavy Vehicles	2	--	--	25	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	
Upstream Signal?		Yes			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	31		25			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	9		7			
Hourly Flow Rate, HFR	34		27			
Percent Heavy Vehicles	16		10			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

		Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2	Left-Turn	0	1700	3	0	100	30	700
	Through	495	1700	3	59	100	30	700
S5	Left-Turn							
	Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:	591	344
Shared ln volume, major rt vehicles:	0	0
Sat flow rate, major th vehicles:	1700	1700
Sat flow rate, major rt vehicles:	1700	1700
Number of major street through lanes:	1	1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement		1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	4.1	7.1		6.2			
t(c,hv)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	25	16		10			
t(c,g)				0.20	0.20	0.10	0.20	0.20	0.10
Grade/100				0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.00	0.70		0.00			
t(c,T):	1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c)	1-stage	4.1	4.3	6.6		6.3			
	2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)	2.20	2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)	2	25	16		10			
t(f)	2.2	2.4	3.6		3.4			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
V prog	495	0		
Total Saturation Flow Rate, s (vph)	1700	1700		
Arrival Type	3	3		
Effective Green, g (sec)	59	0		
Cycle Length, C (sec)	100	100		
Rp (from table 9-2)	1.000	1.000		
Proportion vehicles arriving on green P	0.590	0.000		
g(q1)	11.9	0.0		
g(q2)	4.9	0.0		
g(q)	16.8	0.0		

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
alpha		0.550		
beta		0.645		
Travel time, t(a) (sec)		15.873		
Smoothing Factor, F		0.151		
Proportion of conflicting flow, f	0.780	0.000		
Max platooned flow, V(c,max)	1241	0		
Min platooned flow, V(c,min)	1000	1000		
Duration of blocked period, t(p)	10.3	0.0		
Proportion time blocked, p		0.103		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.103
p(5)	0.000
p(dom)	0.103
p(subo)	0.000
Constrained or unconstrained?	U

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)	1.000		
p(4)	0.897		
p(7)	0.897		
p(8)			
p(9)	0.897		
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x	344	635	967		591			
s	1700	1700	1700		1700			
Px	1.000	0.897	0.897		0.897			
V c,u,x	344	513	883		464			
C r,x	1215	945	299		582			
C plat,x	1215	848	268		522			

Two-Stage Process

	7		8		10		11	
	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2
V(c,x)								
s	1700	1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	591	
Potential Capacity	522	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	522	
Probability of Queue free St.	0.95	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	635	344
Potential Capacity	848	1215
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	848	1215
Probability of Queue free St.	0.98	1.00
Maj L-Shared Prob Q free St.	0.98	1.00

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.98	0.98
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	967	
Potential Capacity	268	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.98
Maj. L, Min T Adj. Imp Factor.		0.98
Cap. Adj. factor due to Impeding mvmnt	0.98	0.93
Movement Capacity	263	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.98	0.98
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	967	
Potential Capacity	268	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.98
Maj. L, Min T Adj. Imp Factor.		0.98
Cap. Adj. factor due to Impeding mvmnt	0.98	0.93
Movement Capacity	263	
Results for Two-stage process:		
a		
y		
C t	263	

Worksheet 8-Shared Lane Calculations

Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (vph)	34		27			
Movement Capacity (vph)	263		522			
Shared Lane Capacity (vph)		337				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7	8	9	10	11	12
	L	T	R	L	T	R
C sep	263		522			
Volume	34		27			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		337				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR				
v (vph)	0	16		61				
C(m) (vph)	1215	848		337				
v/c	0.00	0.02		0.18				
95% queue length	0.00	0.06		0.65				
Control Delay	8.0	9.3		18.0				
LOS	A	A		C				
Approach Delay				18.0				
Approach LOS				C				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.98
v(il), Volume for stream 2 or 5	591	344
v(i2), Volume for stream 3 or 6	0	0
s(il), Saturation flow rate for stream 2 or 5	1700	1700
s(i2), Saturation flow rate for stream 3 or 6	1700	1700
P*(oj)	1.00	0.98
d(M,LT), Delay for stream 1 or 4	8.0	9.3
N, Number of major street through lanes	1	1
d(rank,1) Delay for stream 2 or 5	0.0	0.2

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build Pm Peak Burrs
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056, COLLEGE PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume	0	349	67	30	344	0
Peak-Hour Factor, PHF	0.92	0.92	0.92	0.85	0.85	0.85
Hourly Flow Rate, HFR	0	379	72	35	404	0
Percent Heavy Vehicles	2	--	--	30	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	
Upstream Signal?		Yes			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	51		54			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	56		60			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR				
v (vph)	0	35		116				
C(m) (vph)	1155	977		436				
v/c	0.00	0.04		0.27				
95% queue length	0.00	0.11		1.06				
Control Delay	8.1	8.8		16.2				
LOS	A	A		C				
Approach Delay				16.2				
Approach LOS				C				

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build Pm Peak Burrs
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056, COLLEGE PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	0	349	67	30	344	0
Peak-Hour Factor, PHF	0.92	0.92	0.92	0.85	0.85	0.85
Peak-15 Minute Volume	0	95	18	9	101	0
Hourly Flow Rate, HFR	0	379	72	35	404	0
Percent Heavy Vehicles	2	--	--	30	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	
Upstream Signal?		Yes			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	51		54			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	14		15			
Hourly Flow Rate, HFR	56		60			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

		Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2	Left-Turn	0	1700	3	0	100	30	700
	Through	315	1700	3	59	100	30	700
S5	Left-Turn							
	Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:	379	404
Shared ln volume, major rt vehicles:	0	0
Sat flow rate, major th vehicles:	1700	1700
Sat flow rate, major rt vehicles:	1700	1700
Number of major street through lanes:	1	1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement		1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	4.1	7.1		6.2			
t(c,hv)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	30	2		2			
t(c,g)				0.20	0.20	0.10	0.20	0.20	0.10
Grade/100				0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.00	0.70		0.00			
t(c,T):	1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c)	1-stage	4.1	4.4	6.4		6.2			
	2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)	2.20	2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)	2	30	2		2			
t(f)	2.2	2.5	3.5		3.3			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog	315	0		
Total Saturation Flow Rate, s (vph)	1700	1700		
Arrival Type	3	3		
Effective Green, g (sec)	59	0		
Cycle Length, C (sec)	100	100		
Rp (from table 9-2)	1.000	1.000		
Proportion vehicles arriving on green P	0.590	0.000		
g(q1)	7.6	0.0		
g(q2)	1.7	0.0		
g(q)	9.3	0.0		

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha	0.550			
beta	0.645			
Travel time, t(a) (sec)	15.873			
Smoothing Factor, F	0.151			
Proportion of conflicting flow, f	0.698	0.000		
Max platooned flow, V(c,max)	929	0		
Min platooned flow, V(c,min)	1000	1000		
Duration of blocked period, t(p)	0.0	0.0		
Proportion time blocked, p	0.000		0.000	

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	0.000
p(subo)	0.000
Constrained or unconstrained?	U

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)	1.000		
p(4)	1.000		
p(7)	1.000		
p(8)			
p(9)	1.000		
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x	404	451	853		379			
s	1700	1700	1700		1700			
Px	1.000	1.000	1.000		1.000			
V c,u,x	404	451	853		379			
C r,x	1155	977	330		668			
C plat,x	1155	977	330		668			

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s	1700	1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	379	
Potential Capacity	668	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	668	
Probability of Queue free St.	0.91	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	451	404
Potential Capacity	977	1155
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	977	1155
Probability of Queue free St.	0.96	1.00
Maj L-Shared Prob Q free St.	0.95	1.00

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.95	0.95
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	853	
Potential Capacity	330	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.95
Maj. L, Min T Adj. Imp Factor.		0.96
Cap. Adj. factor due to Impeding mvmnt	0.96	0.88
Movement Capacity	318	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.95	0.95
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	853	
Potential Capacity	330	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.95
Maj. L, Min T Adj. Imp Factor.		0.96
Cap. Adj. factor due to Impeding mvmnt	0.96	0.88
Movement Capacity	318	
Results for Two-stage process:		
a		
y		
C t	318	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	56		60			
Movement Capacity (vph)	318		668			
Shared Lane Capacity (vph)		436				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	318		668			
Volume	56		60			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		436				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR				
v (vph)	0	35		116				
C(m) (vph)	1155	977		436				
v/c	0.00	0.04		0.27				
95% queue length	0.00	0.11		1.06				
Control Delay	8.1	8.8		16.2				
LOS	A	A		C				
Approach Delay				16.2				
Approach LOS				C				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.96
v(il), Volume for stream 2 or 5	379	404
v(i2), Volume for stream 3 or 6	0	0
s(il), Saturation flow rate for stream 2 or 5	1700	1700
s(i2), Saturation flow rate for stream 3 or 6	1700	1700
P*(oj)	1.00	0.95
d(M,LT), Delay for stream 1 or 4	8.1	8.8
N, Number of major street through lanes	1	1
d(rank,1) Delay for stream 2 or 5	0.0	0.4

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build SAT Peak
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056, COMMUTER PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume	2	228	53	18	299	2
Peak-Hour Factor, PHF	0.80	0.80	0.80	0.82	0.82	0.82
Hourly Flow Rate, HFR	2	284	66	21	364	2
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	
Upstream Signal?		Yes			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	21		18	2		4
Peak Hour Factor, PHF	0.90		0.90	0.80		0.80
Hourly Flow Rate, HFR	23		20	2		4
Percent Heavy Vehicles	2		2	2		2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0		0	0		0
Configuration		LR			LR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR			LR	
v (vph)	2	21		43			6	
C(m) (vph)	1193	1209		463			494	
v/c	0.00	0.02		0.09			0.01	
95% queue length	0.01	0.05		0.31			0.04	
Control Delay	8.0	8.0		13.6			12.4	
LOS	A	A		B			B	
Approach Delay				13.6			12.4	
Approach LOS				B			B	

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build SAT Peak
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056, COMMUTER PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	2	228	53	18	299	2
Peak-Hour Factor, PHF	0.80	0.80	0.80	0.82	0.82	0.82
Peak-15 Minute Volume	1	71	17	5	91	1
Hourly Flow Rate, HFR	2	284	66	21	364	2
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	
Upstream Signal?		Yes			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	21		18	2		4
Peak Hour Factor, PHF	0.90		0.90	0.80		0.80
Peak-15 Minute Volume	6		5	1		1
Hourly Flow Rate, HFR	23		20	2		4
Percent Heavy Vehicles	2		2	2		2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0		0	0		0
Configuration		LR			LR	

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

		Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2	Left-Turn	0	1700	3	0	100	30	700
	Through	140	1700	3	59	100	30	700
S5	Left-Turn							
	Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:	284	364
Shared ln volume, major rt vehicles:	0	2
Sat flow rate, major th vehicles:	1700	1700
Sat flow rate, major rt vehicles:	1700	1700
Number of major street through lanes:	1	1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)	4.1	4.1	7.1		6.2	7.1		6.2
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)	2	2	2		2	2		2
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)	0.00	0.00	0.00		0.00	0.00		0.00
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage	4.1	4.1	7.1		6.2	7.1		6.2
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)	2.20	2.20	3.50		3.30	3.50		3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)	2	2	2		2	2		2
t(f)	2.2	2.2	3.5		3.3	3.5		3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog	140	0		
Total Saturation Flow Rate, s (vph)	1700	1700		
Arrival Type	3	3		
Effective Green, g (sec)	59	0		
Cycle Length, C (sec)	100	100		
Rp (from Exhibit 16-11)	1.000	1.000		
Proportion vehicles arriving on green P	0.590	0.000		
g(q1)	3.4	0.0		
g(q2)	0.3	0.0		
g(q)	3.7	0.0		

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha	0.550			
beta	0.645			
Travel time, t(a) (sec)	15.873			
Smoothing Factor, F	0.151			
Proportion of conflicting flow, f	0.398	0.000		
Max platooned flow, V(c,max)	306	0		
Min platooned flow, V(c,min)	1000	1000		
Duration of blocked period, t(p)	0.0	0.0		
Proportion time blocked, p	0.000		0.000	

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	0.000
p(subo)	0.000
Constrained or unconstrained?	U

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)	1.000		
p(4)	1.000		
p(7)	1.000		
p(8)			
p(9)	1.000		
p(10)	1.000		
p(11)			
p(12)	1.000		

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x	366	350	697		284	738		365
s	1700	1700	1700		1700	1700		1700
Px	1.000	1.000	1.000		1.000	1.000		1.000
V c,u,x	366	350	697		284	738		365
C r,x	1193	1209	356		755	334		680
C plat,x	1193	1209	356		755	334		680

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s	1700	1700			1700	1700		
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	284	365
Potential Capacity	755	680
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	755	680
Probability of Queue free St.	0.97	0.99

Step 2: LT from Major St.	4	1
Conflicting Flows	350	366
Potential Capacity	1209	1193
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1209	1193
Probability of Queue free St.	0.98	1.00
Maj L-Shared Prob Q free St.	0.98	1.00

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.98	0.98
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	697	738
Potential Capacity	356	334
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	0.98	0.98
Maj. L, Min T Adj. Imp Factor.	0.98	0.98
Cap. Adj. factor due to Impeding mvmnt	0.98	0.96
Movement Capacity	347	319

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.98	0.98
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	697	738
Potential Capacity	356	334
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	0.98	0.98
Maj. L, Min T Adj. Imp Factor.	0.98	0.98
Cap. Adj. factor due to Impeding mvmnt	0.98	0.96
Movement Capacity	347	319
Results for Two-stage process:		
a		
y		
C t	347	319

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	23		20	2		4
Movement Capacity (vph)	347		755	319		680
Shared Lane Capacity (vph)		463			494	

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	347		755	319		680
Volume	23		20	2		4
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		463			494	
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR			LR	
v (vph)	2	21		43			6	
C(m) (vph)	1193	1209		463			494	
v/c	0.00	0.02		0.09			0.01	
95% queue length	0.01	0.05		0.31			0.04	
Control Delay	8.0	8.0		13.6			12.4	
LOS	A	A		B			B	
Approach Delay				13.6			12.4	
Approach LOS				B			B	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.98
v(il), Volume for stream 2 or 5	284	364
v(i2), Volume for stream 3 or 6	0	2
s(il), Saturation flow rate for stream 2 or 5	1700	1700
s(i2), Saturation flow rate for stream 3 or 6	1700	1700
P*(oj)	1.00	0.98
d(M,LT), Delay for stream 1 or 4	8.0	8.0
N, Number of major street through lanes	1	1
d(rank,1) Delay for stream 2 or 5	0.0	0.2

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build AM Peak
Intersection: Burr's Lane at North Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
East/West Street: North Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume		32	6	17	121	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Hourly Flow Rate, HFR		39	7	18	130	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	13		24			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	14		26			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		18		40				
C(m) (vph)		1562		921				
v/c		0.01		0.04				
95% queue length		0.03		0.14				
Control Delay		7.3		9.1				
LOS		A		A				
Approach Delay				9.1				
Approach LOS				A				

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build AM Peak
Intersection: Burr's Lane at North Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
East/West Street: North Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		32	6	17	121	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Peak-15 Minute Volume		10	2	5	33	
Hourly Flow Rate, HFR		39	7	18	130	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	13		24			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	4		7			
Hourly Flow Rate, HFR	14		26			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		130
Shared ln volume, major rt vehicles:		0
Sat flow rate, major th vehicles:		1700
Sat flow rate, major rt vehicles:		1700
Number of major street through lanes:		1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	7.1		6.2			
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	2		2			
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.70		0.00			
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage		4.1	6.4		6.2			
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)		2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)		2	2		2			
t(f)		2.2	3.5		3.3			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from table 9-2)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x		46	208		42			
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s		1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	42	
Potential Capacity	1029	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1029	
Probability of Queue free St.	0.97	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	46	
Potential Capacity	1562	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1562	
Probability of Queue free St.	0.99	1.00
Maj L-Shared Prob Q free St.	0.99	

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	208	
Potential Capacity	780	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.99	0.97
Movement Capacity	771	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	208	
Potential Capacity	780	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.99	0.97
Movement Capacity	771	
Results for Two-stage process:		
a		
y		
C t	771	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	14		26			
Movement Capacity (vph)	771		1029			
Shared Lane Capacity (vph)		921				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	771		1029			
Volume	14		26			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		921				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		18		40				
C(m) (vph)		1562		921				
v/c		0.01		0.04				
95% queue length		0.03		0.14				
Control Delay		7.3		9.1				
LOS		A		A				
Approach Delay				9.1				
Approach LOS				A				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.99
v(il), Volume for stream 2 or 5		130
v(i2), Volume for stream 3 or 6		0
s(il), Saturation flow rate for stream 2 or 5		1700
s(i2), Saturation flow rate for stream 3 or 6		1700
P*(oj)		0.99
d(M,LT), Delay for stream 1 or 4		7.3
N, Number of major street through lanes		1
d(rank,1) Delay for stream 2 or 5		0.1

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build AM Peak
Intersection: Burr's Lane at North Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
East/West Street: North Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume		35	7	23	176	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Hourly Flow Rate, HFR		42	8	24	189	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration			TR	LT		
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	13		23			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	14		25			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		24		39				
C(m) (vph)		1557		875				
v/c		0.02		0.04				
95% queue length		0.05		0.14				
Control Delay		7.3		9.3				
LOS		A		A				
Approach Delay				9.3				
Approach LOS				A				

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build AM Peak
Intersection: Burr's Lane at North Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
East/West Street: North Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		35	7	23	176	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Peak-15 Minute Volume		11	2	6	47	
Hourly Flow Rate, HFR		42	8	24	189	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration			TR	LT		
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	13		23			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	4		6			
Hourly Flow Rate, HFR	14		25			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		189
Shared ln volume, major rt vehicles:		0
Sat flow rate, major th vehicles:		1700
Sat flow rate, major rt vehicles:		1700
Number of major street through lanes:		1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	7.1		6.2			
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	2		2			
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.70		0.00			
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage		4.1	6.4		6.2			
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)		2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)		2	2		2			
t(f)		2.2	3.5		3.3			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from table 9-2)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x		50	283		46			
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s		1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	46	
Potential Capacity	1023	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1023	
Probability of Queue free St.	0.98	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	50	
Potential Capacity	1557	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1557	
Probability of Queue free St.	0.98	1.00
Maj L-Shared Prob Q free St.	0.98	

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.98	0.98
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	283	
Potential Capacity	707	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.98
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.98	0.96
Movement Capacity	696	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.98	0.98
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	283	
Potential Capacity	707	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.98
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.98	0.96
Movement Capacity	696	
Results for Two-stage process:		
a		
y		
C t	696	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	14		25			
Movement Capacity (vph)	696		1023			
Shared Lane Capacity (vph)		875				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	696		1023			
Volume	14		25			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		875				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		24		39				
C(m) (vph)		1557		875				
v/c		0.02		0.04				
95% queue length		0.05		0.14				
Control Delay		7.3		9.3				
LOS		A		A				
Approach Delay				9.3				
Approach LOS				A				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.98
v(il), Volume for stream 2 or 5		189
v(i2), Volume for stream 3 or 6		0
s(il), Saturation flow rate for stream 2 or 5		1700
s(i2), Saturation flow rate for stream 3 or 6		1700
P*(oj)		0.98
d(M,LT), Delay for stream 1 or 4		7.3
N, Number of major street through lanes		1
d(rank,1) Delay for stream 2 or 5		0.1

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build PM Peak
Intersection: Burr's Lane at North Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
East/West Street: North Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume		24	7	24	44	
Peak-Hour Factor, PHF		0.85	0.85	0.87	0.87	
Hourly Flow Rate, HFR		28	8	27	50	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration			TR		LT	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	33		16			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	36		17			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		27		53				
C(m) (vph)		1575		897				
v/c		0.02		0.06				
95% queue length		0.05		0.19				
Control Delay		7.3		9.3				
LOS		A		A				
Approach Delay				9.3				
Approach LOS				A				

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build PM Peak
Intersection: Burr's Lane at North Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
East/West Street: North Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		24	7	24	44	
Peak-Hour Factor, PHF		0.85	0.85	0.87	0.87	
Peak-15 Minute Volume		7	2	7	13	
Hourly Flow Rate, HFR		28	8	27	50	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration			TR		LT	
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	33		16			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	9		4			
Hourly Flow Rate, HFR	36		17			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		50
Shared ln volume, major rt vehicles:		0
Sat flow rate, major th vehicles:		1700
Sat flow rate, major rt vehicles:		1700
Number of major street through lanes:		1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement		1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)			4.1	7.1		6.2			
t(c,hv)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)			2	2		2			
t(c,g)				0.20	0.20	0.10	0.20	0.20	0.10
Grade/100				0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)			0.00	0.70		0.00			
t(c,T):	1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c)	1-stage		4.1	6.4		6.2			
	2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)		2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)		2	2		2			
t(f)		2.2	3.5		3.3			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from table 9-2)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x		36	136		32			
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7		8		10		11	
	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2
V(c,x)								
s		1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	32	
Potential Capacity	1042	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1042	
Probability of Queue free St.	0.98	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	36	
Potential Capacity	1575	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1575	
Probability of Queue free St.	0.98	1.00
Maj L-Shared Prob Q free St.	0.98	

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.98	0.98
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	136	
Potential Capacity	857	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.98
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.98	0.97
Movement Capacity	842	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.98	0.98
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	136	
Potential Capacity	857	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.98
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.98	0.97
Movement Capacity	842	
Results for Two-stage process:		
a		
y		
C t	842	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	36		17			
Movement Capacity (vph)	842		1042			
Shared Lane Capacity (vph)		897				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	842		1042			
Volume	36		17			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		897				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		27		53				
C(m) (vph)		1575		897				
v/c		0.02		0.06				
95% queue length		0.05		0.19				
Control Delay		7.3		9.3				
LOS		A		A				
Approach Delay				9.3				
Approach LOS				A				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.98
v(il), Volume for stream 2 or 5		50
v(i2), Volume for stream 3 or 6		0
s(il), Saturation flow rate for stream 2 or 5		1700
s(i2), Saturation flow rate for stream 3 or 6		1700
P*(oj)		0.98
d(M,LT), Delay for stream 1 or 4		7.3
N, Number of major street through lanes		1
d(rank,1) Delay for stream 2 or 5		0.1

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build PM Peak
Intersection: Burr's Lane at North Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
East/West Street: North Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume		27	14	38	72	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Hourly Flow Rate, HFR		32	17	40	77	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR			LT	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	60		43			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	66		47			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		40		113				
C(m) (vph)		1558		862				
v/c		0.03		0.13				
95% queue length		0.08		0.45				
Control Delay		7.4		9.8				
LOS		A		A				
Approach Delay				9.8				
Approach LOS				A				

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build PM Peak
Intersection: Burr's Lane at North Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
East/West Street: North Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		27	14	38	72	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Peak-15 Minute Volume		8	4	10	19	
Hourly Flow Rate, HFR		32	17	40	77	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR			LT	
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	60		43			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	17		12			
Hourly Flow Rate, HFR	66		47			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		77
Shared ln volume, major rt vehicles:		0
Sat flow rate, major th vehicles:		1700
Sat flow rate, major rt vehicles:		1700
Number of major street through lanes:		1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	7.1		6.2			
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	2		2			
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.70		0.00			
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage		4.1	6.4		6.2			
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)		2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)		2	2		2			
t(f)		2.2	3.5		3.3			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from table 9-2)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x		49	197		40			
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s		1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	40	
Potential Capacity	1031	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1031	
Probability of Queue free St.	0.95	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	49	
Potential Capacity	1558	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1558	
Probability of Queue free St.	0.97	1.00
Maj L-Shared Prob Q free St.	0.97	

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.97	0.97
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	197	
Potential Capacity	792	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.97
Maj. L, Min T Adj. Imp Factor.		0.98
Cap. Adj. factor due to Impeding mvmnt	0.97	0.93
Movement Capacity	772	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.97	0.97
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	197	
Potential Capacity	792	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.97
Maj. L, Min T Adj. Imp Factor.		0.98
Cap. Adj. factor due to Impeding mvmnt	0.97	0.93
Movement Capacity	772	
Results for Two-stage process:		
a		
y		
C t	772	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	66		47			
Movement Capacity (vph)	772		1031			
Shared Lane Capacity (vph)		862				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	772		1031			
Volume	66		47			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		862				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		40		113				
C(m) (vph)		1558		862				
v/c		0.03		0.13				
95% queue length		0.08		0.45				
Control Delay		7.4		9.8				
LOS		A		A				
Approach Delay				9.8				
Approach LOS				A				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.97
v(i1), Volume for stream 2 or 5		77
v(i2), Volume for stream 3 or 6		0
s(i1), Saturation flow rate for stream 2 or 5		1700
s(i2), Saturation flow rate for stream 3 or 6		1700
P*(oj)		0.97
d(M,LT), Delay for stream 1 or 4		7.4
N, Number of major street through lanes		1
d(rank,1) Delay for stream 2 or 5		0.2

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build SAT Peak
Intersection: Burr's Lane at North Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056
East/West Street: North Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume		30	8	17	55	
Peak-Hour Factor, PHF		0.80	0.80	0.83	0.83	
Hourly Flow Rate, HFR		37	9	20	66	
Percent Heavy Vehicles		--	--	2	--	--
Median Type Undivided						
RT Channelized?						
Lanes		1	0	0	1	
Configuration			TR	LT		
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	13		10			
Peak Hour Factor, PHF	0.80		0.80			
Hourly Flow Rate, HFR	16		12			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		20		28				
C(m) (vph)		1562		907				
v/c		0.01		0.03				
95% queue length		0.04		0.10				
Control Delay		7.3		9.1				
LOS		A		A				
Approach Delay				9.1				
Approach LOS				A				

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build SAT Peak
Intersection: Burr's Lane at North Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056
East/West Street: North Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		30	8	17	55	
Peak-Hour Factor, PHF		0.80	0.80	0.83	0.83	
Peak-15 Minute Volume		9	2	5	17	
Hourly Flow Rate, HFR		37	9	20	66	
Percent Heavy Vehicles		--	--	2	--	--
Median Type Undivided						
RT Channelized?						
Lanes		1	0	0	1	
Configuration			TR	LT		
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	13		10			
Peak Hour Factor, PHF	0.80		0.80			
Peak-15 Minute Volume	4		3			
Hourly Flow Rate, HFR	16		12			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		66
Shared ln volume, major rt vehicles:		0
Sat flow rate, major th vehicles:		1700
Sat flow rate, major rt vehicles:		1700
Number of major street through lanes:		1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	7.1		6.2			
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	2		2			
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.70		0.00			
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage		4.1	6.4		6.2			
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)		2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)		2	2		2			
t(f)		2.2	3.5		3.3			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from Exhibit 16-11)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p	0.000		0.000	

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x		46	148		42			
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7		8		10		11	
	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2
V(c,x)								
s		1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	42	
Potential Capacity	1029	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1029	
Probability of Queue free St.	0.99	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	46	
Potential Capacity	1562	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1562	
Probability of Queue free St.	0.99	1.00
Maj L-Shared Prob Q free St.	0.99	

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	148	
Potential Capacity	844	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.99	0.98
Movement Capacity	833	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	148	
Potential Capacity	844	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.99	0.98
Movement Capacity	833	
Results for Two-stage process:		
a		
y		
C t	833	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	16		12			
Movement Capacity (vph)	833		1029			
Shared Lane Capacity (vph)		907				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	833		1029			
Volume	16		12			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		907				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		20		28				
C(m) (vph)		1562		907				
v/c		0.01		0.03				
95% queue length		0.04		0.10				
Control Delay		7.3		9.1				
LOS		A		A				
Approach Delay				9.1				
Approach LOS				A				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.99
v(il), Volume for stream 2 or 5		66
v(i2), Volume for stream 3 or 6		0
s(il), Saturation flow rate for stream 2 or 5		1700
s(i2), Saturation flow rate for stream 3 or 6		1700
P*(oj)		0.99
d(M,LT), Delay for stream 1 or 4		7.3
N, Number of major street through lanes		1
d(rank,1) Delay for stream 2 or 5		0.1

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build AM Peak
Intersection: Burr's Lane at South Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
East/West Street: South Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume		38	31	110	24	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Hourly Flow Rate, HFR		46	37	118	25	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	7		0			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	7		0			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		118		7				
C(m) (vph)		1514		617				
v/c		0.08		0.01				
95% queue length		0.25		0.03				
Control Delay		7.6		10.9				
LOS		A		B				
Approach Delay				10.9				
Approach LOS				B				

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build AM Peak
Intersection: Burr's Lane at South Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
East/West Street: South Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		38	31	110	24	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Peak-15 Minute Volume		12	9	30	6	
Hourly Flow Rate, HFR		46	37	118	25	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	7		0			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	2		0			
Hourly Flow Rate, HFR	7		0			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		25
Shared ln volume, major rt vehicles:		0
Sat flow rate, major th vehicles:		1700
Sat flow rate, major rt vehicles:		1700
Number of major street through lanes:		1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	7.1		6.2			
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	2		2			
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.70		0.00			
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage		4.1	6.4		6.2			
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)		2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)		2	2		2			
t(f)		2.2	3.5		3.3			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from table 9-2)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x		83	325		64			
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s		1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	64	
Potential Capacity	1000	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1000	
Probability of Queue free St.	1.00	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	83	
Potential Capacity	1514	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1514	
Probability of Queue free St.	0.92	1.00
Maj L-Shared Prob Q free St.	0.92	

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.92	0.92
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	325	
Potential Capacity	669	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.92
Maj. L, Min T Adj. Imp Factor.		0.94
Cap. Adj. factor due to Impeding mvmnt	0.92	0.94
Movement Capacity	617	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.92	0.92
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	325	
Potential Capacity	669	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.92
Maj. L, Min T Adj. Imp Factor.		0.94
Cap. Adj. factor due to Impeding mvmnt	0.92	0.94
Movement Capacity	617	
Results for Two-stage process:		
a		
y		
C t	617	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	7		0			
Movement Capacity (vph)	617		1000			
Shared Lane Capacity (vph)		617				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	617		1000			
Volume	7		0			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		617				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		118		7				
C(m) (vph)		1514		617				
v/c		0.08		0.01				
95% queue length		0.25		0.03				
Control Delay		7.6		10.9				
LOS		A		B				
Approach Delay				10.9				
Approach LOS				B				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.92
v(il), Volume for stream 2 or 5		25
v(i2), Volume for stream 3 or 6		0
s(il), Saturation flow rate for stream 2 or 5		1700
s(i2), Saturation flow rate for stream 3 or 6		1700
P*(oj)		0.92
d(M,LT), Delay for stream 1 or 4		7.6
N, Number of major street through lanes		1
d(rank,1) Delay for stream 2 or 5		0.6

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build AM Peak
Intersection: Burr's Lane at South Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
East/West Street: South Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume		29	35	128	61	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Hourly Flow Rate, HFR		35	42	137	65	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration			TR	LT		
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	42		8			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	46		8			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		137		54				
C(m) (vph)		1522		595				
v/c		0.09		0.09				
95% queue length		0.30		0.30				
Control Delay		7.6		11.7				
LOS		A		B				
Approach Delay				11.7				

Approach LOS B

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build AM Peak
Intersection: Burr's Lane at South Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
East/West Street: South Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		29	35	128	61	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Peak-15 Minute Volume		9	11	34	16	
Hourly Flow Rate, HFR		35	42	137	65	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration			TR	LT		
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	42		8			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	12		2			
Hourly Flow Rate, HFR	46		8			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		65
Shared ln volume, major rt vehicles:		0
Sat flow rate, major th vehicles:		1700
Sat flow rate, major rt vehicles:		1700
Number of major street through lanes:		1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	7.1		6.2			
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	2		2			
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.70		0.00			
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage		4.1	6.4		6.2			
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)		2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)		2	2		2			
t(f)		2.2	3.5		3.3			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from table 9-2)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x		77	395		56			
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s		1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	56	
Potential Capacity	1011	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1011	
Probability of Queue free St.	0.99	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	77	
Potential Capacity	1522	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1522	
Probability of Queue free St.	0.91	1.00
Maj L-Shared Prob Q free St.	0.91	

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.91	0.91
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	395	
Potential Capacity	610	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.91
Maj. L, Min T Adj. Imp Factor.		0.93
Cap. Adj. factor due to Impeding mvmnt	0.91	0.92
Movement Capacity	555	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.91	0.91
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	395	
Potential Capacity	610	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.91
Maj. L, Min T Adj. Imp Factor.		0.93
Cap. Adj. factor due to Impeding mvmnt	0.91	0.92
Movement Capacity	555	
Results for Two-stage process:		
a		
y		
C t	555	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	46		8			
Movement Capacity (vph)	555		1011			
Shared Lane Capacity (vph)		595				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	555		1011			
Volume	46		8			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		595				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		137		54				
C(m) (vph)		1522		595				
v/c		0.09		0.09				
95% queue length		0.30		0.30				
Control Delay		7.6		11.7				
LOS		A		B				
Approach Delay				11.7				
Approach LOS				B				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.91
v(il), Volume for stream 2 or 5		65
v(i2), Volume for stream 3 or 6		0
s(il), Saturation flow rate for stream 2 or 5		1700
s(i2), Saturation flow rate for stream 3 or 6		1700
P*(oj)		0.91
d(M,LT), Delay for stream 1 or 4		7.6
N, Number of major street through lanes		1
d(rank,1) Delay for stream 2 or 5		0.7

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build PM Peak
Intersection: Burr's Lane at South Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
East/West Street: South Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume		29	26	23	32	
Peak-Hour Factor, PHF		0.85	0.85	0.87	0.87	
Hourly Flow Rate, HFR		34	30	26	36	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	52		22			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	57		24			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		26		81				
C(m) (vph)		1538		888				
v/c		0.02		0.09				
95% queue length		0.05		0.30				
Control Delay		7.4		9.5				
LOS		A		A				
Approach Delay				9.5				

Approach LOS A

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build PM Peak
Intersection: Burr's Lane at South Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
East/West Street: South Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		29	26	23	32	
Peak-Hour Factor, PHF		0.85	0.85	0.87	0.87	
Peak-15 Minute Volume		9	8	7	9	
Hourly Flow Rate, HFR		34	30	26	36	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	52		22			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	14		6			
Hourly Flow Rate, HFR	57		24			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		36
Shared ln volume, major rt vehicles:		0
Sat flow rate, major th vehicles:		1700
Sat flow rate, major rt vehicles:		1700
Number of major street through lanes:		1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	7.1		6.2			
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	2		2			
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.70		0.00			
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage		4.1	6.4		6.2			
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)		2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)		2	2		2			
t(f)		2.2	3.5		3.3			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from table 9-2)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x		64	137		49			
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s		1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	49	
Potential Capacity	1020	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1020	
Probability of Queue free St.	0.98	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	64	
Potential Capacity	1538	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1538	
Probability of Queue free St.	0.98	1.00
Maj L-Shared Prob Q free St.	0.98	

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.98	0.98
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	137	
Potential Capacity	856	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.98
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.98	0.96
Movement Capacity	842	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.98	0.98
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	137	
Potential Capacity	856	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.98
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.98	0.96
Movement Capacity	842	
Results for Two-stage process:		
a		
y		
C t	842	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	57		24			
Movement Capacity (vph)	842		1020			
Shared Lane Capacity (vph)		888				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	842		1020			
Volume	57		24			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		888				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		26		81				
C(m) (vph)		1538		888				
v/c		0.02		0.09				
95% queue length		0.05		0.30				
Control Delay		7.4		9.5				
LOS		A		A				
Approach Delay				9.5				
Approach LOS				A				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.98
v(il), Volume for stream 2 or 5		36
v(i2), Volume for stream 3 or 6		0
s(il), Saturation flow rate for stream 2 or 5		1700
s(i2), Saturation flow rate for stream 3 or 6		1700
P*(oj)		0.98
d(M,LT), Delay for stream 1 or 4		7.4
N, Number of major street through lanes		1
d(rank,1) Delay for stream 2 or 5		0.1

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build PM Peak
Intersection: Burr's Lane at South Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
East/West Street: South Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume		54	29	26	71	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Hourly Flow Rate, HFR		65	35	27	76	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	54		45			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	60		50			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		27		110				
C(m) (vph)		1493		847				
v/c		0.02		0.13				
95% queue length		0.06		0.45				
Control Delay		7.5		9.9				
LOS		A		A				
Approach Delay				9.9				
Approach LOS				A				

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build PM Peak
Intersection: Burr's Lane at South Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2002
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
East/West Street: South Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		54	29	26	71	
Peak-Hour Factor, PHF		0.82	0.82	0.93	0.93	
Peak-15 Minute Volume		16	9	7	19	
Hourly Flow Rate, HFR		65	35	27	76	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	54		45			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	15		12			
Hourly Flow Rate, HFR	60		50			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		76
Shared ln volume, major rt vehicles:		0
Sat flow rate, major th vehicles:		1700
Sat flow rate, major rt vehicles:		1700
Number of major street through lanes:		1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	7.1		6.2			
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	2		2			
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.70		0.00			
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage		4.1	6.4		6.2			
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)		2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)		2	2		2			
t(f)		2.2	3.5		3.3			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from table 9-2)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x		100	212		82			
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s		1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	82	
Potential Capacity	978	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	978	
Probability of Queue free St.	0.95	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	100	
Potential Capacity	1493	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1493	
Probability of Queue free St.	0.98	1.00
Maj L-Shared Prob Q free St.	0.98	

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.98	0.98
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	212	
Potential Capacity	776	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.98
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.98	0.94
Movement Capacity	762	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.98	0.98
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	212	
Potential Capacity	776	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.98
Maj. L, Min T Adj. Imp Factor.		0.99
Cap. Adj. factor due to Impeding mvmnt	0.98	0.94
Movement Capacity	762	
Results for Two-stage process:		
a		
y		
C t	762	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	60		50			
Movement Capacity (vph)	762		978			
Shared Lane Capacity (vph)		847				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	762		978			
Volume	60		50			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		847				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		27		110				
C(m) (vph)		1493		847				
v/c		0.02		0.13				
95% queue length		0.06		0.45				
Control Delay		7.5		9.9				
LOS		A		A				
Approach Delay				9.9				
Approach LOS				A				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.98
v(il), Volume for stream 2 or 5		76
v(i2), Volume for stream 3 or 6		0
s(il), Saturation flow rate for stream 2 or 5		1700
s(i2), Saturation flow rate for stream 3 or 6		1700
P*(oj)		0.98
d(M,LT), Delay for stream 1 or 4		7.5
N, Number of major street through lanes		1
d(rank,1) Delay for stream 2 or 5		0.1

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build SAT Peak
Intersection: Burr's Lane at South Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056
East/West Street: South Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume		10	12	53	15	
Peak-Hour Factor, PHF		0.80	0.80	0.83	0.83	
Hourly Flow Rate, HFR		12	14	63	18	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	38		28			
Peak Hour Factor, PHF	0.80		0.80			
Hourly Flow Rate, HFR	47		34			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		63		81				
C(m) (vph)		1588		888				
v/c		0.04		0.09				
95% queue length		0.12		0.30				
Control Delay		7.4		9.5				
LOS		A		A				
Approach Delay				9.5				
Approach LOS				A				

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build SAT Peak
Intersection: Burr's Lane at South Site Acce
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056
East/West Street: South Site Access
North/South Street: Burr's Lane
Intersection Orientation: NS   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		10	12	53	15	
Peak-Hour Factor, PHF		0.80	0.80	0.83	0.83	
Peak-15 Minute Volume		3	4	16	5	
Hourly Flow Rate, HFR		12	14	63	18	
Percent Heavy Vehicles		--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	38		28			
Peak Hour Factor, PHF	0.80		0.80			
Peak-15 Minute Volume	12		9			
Hourly Flow Rate, HFR	47		34			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		18
Shared ln volume, major rt vehicles:		0
Sat flow rate, major th vehicles:		1700
Sat flow rate, major rt vehicles:		1700
Number of major street through lanes:		1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	7.1		6.2			
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	2		2			
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.70		0.00			
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage		4.1	6.4		6.2			
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)		2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)		2	2		2			
t(f)		2.2	3.5		3.3			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	 V(l,prot)	Movement 5 V(t)	 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from Exhibit 16-11)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	 V(l,prot)	Movement 5 V(t)	 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x		26	163		19			
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s		1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	19	
Potential Capacity	1059	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1059	
Probability of Queue free St.	0.97	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	26	
Potential Capacity	1588	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1588	
Probability of Queue free St.	0.96	1.00
Maj L-Shared Prob Q free St.	0.96	

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.96	0.96
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	163	
Potential Capacity	828	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.96
Maj. L, Min T Adj. Imp Factor.		0.97
Cap. Adj. factor due to Impeding mvmnt	0.96	0.94
Movement Capacity	795	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.96	0.96
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	163	
Potential Capacity	828	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.96
Maj. L, Min T Adj. Imp Factor.		0.97
Cap. Adj. factor due to Impeding mvmnt	0.96	0.94
Movement Capacity	795	
Results for Two-stage process:		
a		
y		
C t	795	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	47		34			
Movement Capacity (vph)	795		1059			
Shared Lane Capacity (vph)		888				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	795		1059			
Volume	47		34			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		888				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		63		81				
C(m) (vph)		1588		888				
v/c		0.04		0.09				
95% queue length		0.12		0.30				
Control Delay		7.4		9.5				
LOS		A		A				
Approach Delay				9.5				
Approach LOS				A				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.96
v(il), Volume for stream 2 or 5		18
v(i2), Volume for stream 3 or 6		0
s(il), Saturation flow rate for stream 2 or 5		1700
s(i2), Saturation flow rate for stream 3 or 6		1700
P*(oj)		0.96
d(M,LT), Delay for stream 1 or 4		7.4
N, Number of major street through lanes		1
d(rank,1) Delay for stream 2 or 5		0.3

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TWO-WAY STOP CONTROL SUMMARY

Analyst:
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build AM Peak Commuter
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume					1916	68
Peak-Hour Factor, PHF					0.96	0.96
Hourly Flow Rate, HFR					1995	70
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume						35
Peak Hour Factor, PHF						0.93
Hourly Flow Rate, HFR						37
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								37
C(m) (vph)								283
v/c								0.13
95% queue length								0.44
Control Delay								19.6
LOS								C
Approach Delay							19.6	
Approach LOS							C	

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst:
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build AM Peak Commuter
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume					1916	68
Peak-Hour Factor, PHF					0.96	0.96
Peak-15 Minute Volume					499	18
Hourly Flow Rate, HFR					1995	70
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume						35
Peak Hour Factor, PHF						0.93
Peak-15 Minute Volume						9
Hourly Flow Rate, HFR						37
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)								6.2
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)								2
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)								0.00
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage								6.2
2-stage								

Follow-Up Time Calculations Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)								3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)								2
t(f)								3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from Exhibit 16-11)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5 Single-Stage Process Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x								1032
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s								
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows		1032
Potential Capacity		283
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		283
Probability of Queue free St.	1.00	0.87

Step 2: LT from Major St.	4	1
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.87	1.00
Movement Capacity		

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.87	1.00
Movement Capacity		
Results for Two-stage process:		
a		
y		
C t		

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)						37
Movement Capacity (vph)						283
Shared Lane Capacity (vph)						

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep						283
Volume						37
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh						
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								37
C(m) (vph)								283
v/c								0.13
95% queue length								0.44
Control Delay								19.6
LOS								C
Approach Delay							19.6	
Approach LOS							C	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	1.00
v(i1), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(i1), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4		
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst:
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build AM Peak College
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COLLEGE PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume					466	94
Peak-Hour Factor, PHF					0.95	0.95
Hourly Flow Rate, HFR					490	98
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume						62
Peak Hour Factor, PHF						0.93
Hourly Flow Rate, HFR						66
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								66
C(m) (vph)								745
v/c								0.09
95% queue length								0.29
Control Delay								10.3
LOS								B
Approach Delay							10.3	

Approach LOS   B

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst:
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build AM Peak College
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COLLEGE PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume					466	94
Peak-Hour Factor, PHF					0.95	0.95
Peak-15 Minute Volume					123	25
Hourly Flow Rate, HFR					490	98
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume						62
Peak Hour Factor, PHF						0.93
Peak-15 Minute Volume						17
Hourly Flow Rate, HFR						66
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)								6.2
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)								2
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)								0.00
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage								6.2
2-stage								

Follow-Up Time Calculations Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)								3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)								2
t(f)								3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from Exhibit 16-11)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x								294
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s								
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows		294
Potential Capacity		745
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		745
Probability of Queue free St.	1.00	0.91

Step 2: LT from Major St.	4	1
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.91	1.00
Movement Capacity		

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.91	1.00
Movement Capacity		
Results for Two-stage process:		
a		
y		
C t		

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)						66
Movement Capacity (vph)						745
Shared Lane Capacity (vph)						

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep						745
Volume						66
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh						
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								66
C(m) (vph)								745
v/c								0.09
95% queue length								0.29
Control Delay								10.3
LOS								B
Approach Delay							10.3	
Approach LOS							B	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	1.00
v(il), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(il), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4		
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst:
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build PM Peak Commuter
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume					553	51
Peak-Hour Factor, PHF					0.96	0.96
Hourly Flow Rate, HFR					576	53
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume						79
Peak Hour Factor, PHF						0.87
Hourly Flow Rate, HFR						90
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								90
C(m) (vph)								726
v/c								0.12
95% queue length								0.42
Control Delay								10.7
LOS								B
Approach Delay							10.7	
Approach LOS							B	

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst:
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build PM Peak Commuter
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume					553	51
Peak-Hour Factor, PHF					0.96	0.96
Peak-15 Minute Volume					144	13
Hourly Flow Rate, HFR					576	53
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume						79
Peak Hour Factor, PHF						0.87
Peak-15 Minute Volume						23
Hourly Flow Rate, HFR						90
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)								6.2
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)								2
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)								0.00
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage								6.2
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)								3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)								2
t(f)								3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from Exhibit 16-11)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p	0.000		0.000	

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x								314
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s								
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows		314
Potential Capacity		726
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		726
Probability of Queue free St.	1.00	0.88

Step 2: LT from Major St.	4	1
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.88	1.00
Movement Capacity		

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.88	1.00
Movement Capacity		
Results for Two-stage process:		
a		
y		
C t		

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)						90
Movement Capacity (vph)						726
Shared Lane Capacity (vph)						

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep						726
Volume						90
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh						
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								90
C(m) (vph)								726
v/c								0.12
95% queue length								0.42
Control Delay								10.7
LOS								B
Approach Delay							10.7	
Approach LOS							B	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	1.00
v(il), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(il), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4		
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst:
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build PM Peak College
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COLLEGE PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume					520	84
Peak-Hour Factor, PHF					0.96	0.96
Hourly Flow Rate, HFR					541	87
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume						127
Peak Hour Factor, PHF						0.93
Hourly Flow Rate, HFR						136
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								136
C(m) (vph)								726
v/c								0.19
95% queue length								0.69
Control Delay								11.1
LOS								B
Approach Delay							11.1	
Approach LOS							B	

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst:
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build PM Peak College
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COLLEGE PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume					520	84
Peak-Hour Factor, PHF					0.96	0.96
Peak-15 Minute Volume					135	22
Hourly Flow Rate, HFR					541	87
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume						127
Peak Hour Factor, PHF						0.93
Peak-15 Minute Volume						34
Hourly Flow Rate, HFR						136
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)								6.2
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)								2
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)								0.00
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage								6.2
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)								3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)								2
t(f)								3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from Exhibit 16-11)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x								314
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s								
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows		314
Potential Capacity		726
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		726
Probability of Queue free St.	1.00	0.81

Step 2: LT from Major St.	4	1
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.81	1.00
Movement Capacity		

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.81	1.00
Movement Capacity		
Results for Two-stage process:		
a		
y		
C t		

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)						136
Movement Capacity (vph)						726
Shared Lane Capacity (vph)						

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep						726
Volume						136
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh						
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								136
C(m) (vph)								726
v/c								0.19
95% queue length								0.69
Control Delay								11.1
LOS								B
Approach Delay							11.1	
Approach LOS							B	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	1.00
v(il), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(il), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4		
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build SAT Peak Commuter
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume					493	22
Peak-Hour Factor, PHF					0.91	0.91
Hourly Flow Rate, HFR					541	24
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume						52
Peak Hour Factor, PHF						0.83
Hourly Flow Rate, HFR						62
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								62
C(m) (vph)								757
v/c								0.08
95% queue length								0.27
Control Delay								10.2
LOS								B
Approach Delay							10.2	

Approach LOS B

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build SAT Peak Commuter
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume					493	22
Peak-Hour Factor, PHF					0.91	0.91
Peak-15 Minute Volume					135	6
Hourly Flow Rate, HFR					541	24
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume						52
Peak Hour Factor, PHF						0.83
Peak-15 Minute Volume						16
Hourly Flow Rate, HFR						62
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)								6.2
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)								2
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)								0.00
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage								6.2
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)								3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)								2
t(f)								3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from Exhibit 16-11)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x								282
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s								
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows		282
Potential Capacity		757
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		757
Probability of Queue free St.	1.00	0.92

Step 2: LT from Major St.	4	1
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.92	1.00
Movement Capacity		

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.92	1.00
Movement Capacity		
Results for Two-stage process:		
a		
y		
C t		

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)						62
Movement Capacity (vph)						757
Shared Lane Capacity (vph)						

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep						757
Volume						62
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh						
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								62
C(m) (vph)								757
v/c								0.08
95% queue length								0.27
Control Delay								10.2
LOS								B
Approach Delay							10.2	
Approach LOS							B	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	1.00
v(i1), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(i1), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4		
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		

APPENDIX G: CAPACITY ANALYSIS WORKSHEETS – BUILD CONDITIONS – PROPOSED SITE ACCESS

I. Build Condition Signalized Intersection

II. Build Condition Unsignalized Intersection

I. Build Condition Signalized Intersection

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Build Am Peak NSR
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
E/W St: Long Island Expressway SSR

Inter.: LIE SSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	3	0	0	0	0	0	1	1	1	1	0
LGConfig		LTR						T	R	L	T	
Volume	190	262	98					516	191	204	240	
Lane Width		11.0						12.0	12.0	11.0	12.0	
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4
EB Left	P			
Thru	P			
Right	P			
Peds				
WB Left				
Thru				
Right				
Peds				
NB Right				
SB Right				
Green	26.5			
Yellow	4.0			
All Red	2.0			

	5	6	7	8
NB Left				
Thru	A			
Right	A			
Peds				
SB Left	A	A		
Thru	A	A		
Right				
Peds				
EB Right				
WB Right				
Green	24.0	12.5		
Yellow	3.5	3.5		
All Red	2.0	2.0		

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1612	4526	0.37	0.36	19.7	B	19.7	B
Westbound								
Northbound								
T	566	1776	1.06	0.32	82.0	F	66.0	E
R	464	1455	0.48	0.32	22.7	C		
Southbound								
L	437	1544	0.58	0.54	26.7	C		
T	922	1696	0.33	0.54	10.3	B	17.9	B

Intersection Delay = 38.5 (sec/veh) Intersection LOS = D

HCS2000: Signalized Intersections Release 4.1b

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Build Am Peak NSR
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
E/W St: Long Island Expressway SSR

Inter.: LIE SSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	3	0	0	0	0	0	1	1	1	1	0
LGConfig		LTR						T	R	L	T	
Volume	111	221	80					202	119	126	170	
Lane Width		11.0						12.0	12.0	11.0	12.0	
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	P				NB	Left				
	Thru	P					Thru	A			
	Right	P					Right	A			
	Peds						Peds				
WB	Left					SB	Left	A	A		
	Thru						Thru	A	A		
	Right						Right				
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		26.5						24.0	12.5		
Yellow		4.0						3.5	3.5		
All Red		2.0						2.0	2.0		

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1620	4546	0.27	0.36	18.8	B	18.8	B
Westbound								
Northbound								
T	571	1792	0.41	0.32	21.9	C	21.5	C
R	472	1482	0.29	0.32	20.8	C		
Southbound								
L	586	1586	0.27	0.54	14.6	B		
T	931	1712	0.23	0.54	9.6	A	11.7	B

Intersection Delay = 17.4 (sec/veh) Intersection LOS = B

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Build Pm Peak NSR
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
E/W St: Long Island Expressway SSR

Inter.: LIE SSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	3	0	0	0	0	0	1	1	1	1	0
LGConfig		LTR						T	R	L	T	
Volume	129	1867	158					256	120	287	423	
Lane Width		11.0						12.0	12.0	11.0	12.0	
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left	P				NB	Left				
Thru	P					Thru	A			
Right	P					Right	A			
Peds						Peds				
WB Left					SB	Left	A	A		
Thru						Thru	A	A		
Right						Right				
Peds						Peds				
NB Right					EB	Right				
SB Right					WB	Right				
Green	26.5						22.0	9.5		
Yellow	4.0						3.5	3.5		
All Red	2.0						2.0	2.0		

Cycle Length: 75.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1842	4847	1.29	0.38	156.0	F	156.0	F
Westbound								
Northbound								
T	584	1863	0.48	0.31	21.4	C	20.9	C
R	496	1583	0.27	0.31	19.6	B		
Southbound								
L	529	1646	0.64	0.51	22.6	C		
T	956	1863	0.52	0.51	12.6	B	16.7	B

Intersection Delay = 108.4 (sec/veh) Intersection LOS = F

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Build Pm Peak NSR
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
E/W St: Long Island Expressway SSR

Inter.: LIE SSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	3	0	0	0	0	0	1	1	1	1	0
LGConfig		LTR						T	R	L	T	
Volume	126	1240	142					313	152	265	395	
Lane Width		11.0						12.0	12.0	11.0	12.0	
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4
EB Left	P			
Thru	P			
Right	P			
Peds				
WB Left				
Thru				
Right				
Peds				
NB Right				
SB Right				
Green	26.5			
Yellow	4.0			
All Red	2.0			

	5	6	7	8
NB Left				
Thru	A			
Right	A			
Peds				
SB Left	A	A		
Thru	A	A		
Right				
Peds				
EB Right				
WB Right				
Green	22.0	9.5		
Yellow	3.5	3.5		
All Red	2.0	2.0		

Cycle Length: 75.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1816	4779	0.91	0.38	30.6	C	30.6	C
Westbound								
Northbound								
T	578	1845	0.60	0.31	23.4	C	22.3	C
R	496	1583	0.34	0.31	20.2	C		
Southbound								
L	461	1544	0.68	0.51	25.8	C		
T	903	1759	0.51	0.51	12.6	B	17.9	B

Intersection Delay = 25.8 (sec/veh) Intersection LOS = C

Analyst: REB
Agency: RMS Engineering
Date: 8/12/2002
Period: Build SAT Peak NSR
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
E/W St: Long Island Expressway SSR

Inter.: LIE SSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	3	0	0	0	0	0	2	0	1	1	0
LGConfig		LTR						TR		L	T	
Volume	120	249	123					281	151	215	282	
Lane Width		11.0						12.0		11.0	12.0	
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left	A				NB	Left				
Thru	A					Thru	P			
Right	A					Right	P			
Peds						Peds				
WB Left					SB	Left	P	A		
Thru						Thru	P	A		
Right						Right				
Peds						Peds				
NB Right					EB	Right				
SB Right					WB	Right				
Green	25.0						24.5	8.5		
Yellow	4.0						3.5	3.5		
All Red	2.0						2.0	2.0		

Cycle Length: 75.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1683	4675	0.32	0.36	17.5	B	17.5	B
Westbound								
Northbound								
TR	1163	3354	0.44	0.35	20.1	C	20.1	C
Southbound								
L	555	1711	0.45	0.53	15.6	B		
T	994	1863	0.33	0.53	10.1	B	12.5	B

Intersection Delay = 16.5 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1b

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Build Am Peak NSR
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
E/W St: Long Island Expressway NSR

Inter.: LIE NSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	0	0	0	3	0	1	1	0	0	2	0
LGConfig					LTR		L	T			TR	
Volume				106	1761	90	388	292			321	194
Lane Width					11.0		11.0	11.0			12.0	
RTOR Vol						0						0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left					NB	Left	A	A		
	Thru						Thru	A	A		
	Right						Right				
	Peds						Peds				
WB	Left	P				SB	Left				
	Thru	P					Thru	A			
	Right	P					Right	A			
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		26.5						24.0	12.5		
Yellow		4.0						3.5	3.5		
All Red		2.0						2.0	2.0		

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
LTR	1724	4839	1.18	0.36	114.0	F	114.0	F
Northbound								
L	542	1711	0.75	0.54	28.1	C		
T	916	1685	0.33	0.54	10.4	B	20.5	C
Southbound								
TR	992	3111	0.64	0.32	24.7	C	24.7	C

Intersection Delay = 77.6 (sec/veh) Intersection LOS = E

HCS2000: Signalized Intersections Release 4.1b

Analyst:	REB	Inter.:	LIE NSR at Bagatelle Road
Agency:	RMS Engineering	Area Type:	All other areas
Date:	6/7/2002	Jurisd:	Town of Huntington
Period:	Build Am Peak NSR	Year :	2004

Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
E/W St: Long Island Expressway NSR N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	0	0	0	3	0	1	1	0	0	2	0
LGConfig					LTR		L	T			TR	
Volume				151	280	99	174	147			204	62
Lane Width					11.0		11.0	11.0			12.0	
RTOR Vol						0						0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4
EB	Left				
	Thru				
	Right				
	Peds				
WB	Left	P			
	Thru	P			
	Right	P			
	Peds				
NB	Right				
SB	Right				
Green		26.5			
Yellow		4.0			
All Red		2.0			

		5	6	7	8
NB	Left	A	A		
	Thru	A	A		
	Right				
	Peds				
SB	Left				
	Thru	A			
	Right	A			
	Peds				
EB	Right				
WB	Right				
Green		24.0	12.5		
Yellow		3.5	3.5		
All Red		2.0	2.0		

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
LTR	1648	4625	0.34	0.36	19.4	B	19.4	B
Northbound								
L	680	1711	0.27	0.54	11.4	B		
T	942	1733	0.16	0.54	9.2	A	10.4	B
Southbound								
TR	1032	3237	0.32	0.32	20.8	C	20.8	C

Intersection Delay = 17.3 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1b

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Build Pm Peak NSR
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
E/W St: Long Island Expressway NSR

Inter.: LIE NSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	3	0	1	1	0	0	2	0
LGConfig					LTR		L	T			TR	
Volume				258	244	132	137	276			456	62
Lane Width					11.0		11.0	11.0			12.0	
RTOR Vol						0						0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left					NB	Left	A	A		
	Thru						Thru	A	A		
	Right						Right				
	Peds						Peds				
WB	Left	P				SB	Left				
	Thru	P					Thru	A			
	Right	P					Right	A			
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		26.5						22.0	9.5		
Yellow		4.0						3.5	3.5		
All Red		2.0						2.0	2.0		

Cycle Length: 75.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
LTR	1773	4667	0.37	0.38	17.4	B	17.4	B
Northbound								
L	510	1711	0.30	0.51	16.1	B		
T	925	1801	0.33	0.51	10.9	B	12.6	B
Southbound								
TR	1071	3417	0.56	0.31	22.1	C	22.1	C

Intersection Delay = 17.8 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1b

Analyst:
Agency: RMS Engineering
Date: 6/7/2002
Period: Build Pm Peak NSR
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
E/W St: Long Island Expressway NSR

Inter.: LIE NSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	0	0	0	3	0	1	1	0	0	2	0
LGConfig					LTR		L	T			TR	
Volume				264	267	122	162	267			402	58
Lane Width					11.0		11.0	11.0			12.0	
RTOR Vol						0						0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left					NB	Left	A	A		
Thru						Thru	A	A		
Right						Right				
Peds						Peds				
WB Left	P				SB	Left				
Thru	P					Thru	A			
Right	P					Right	A			
Peds						Peds				
NB Right					EB	Right				
SB Right					WB	Right				
Green	26.5						22.0	9.5		
Yellow	4.0						3.5	3.5		
All Red	2.0						2.0	2.0		

Cycle Length: 75.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
LTR	1759	4628	0.39	0.38	17.5	B	17.5	B
Northbound								
L	538	1711	0.33	0.51	15.4	B		
T	873	1701	0.34	0.51	11.0	B	12.6	B
Southbound								
TR	1079	3443	0.49	0.31	21.3	C	21.3	C

Intersection Delay = 17.4 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1b

Analyst: REB
Agency: RMS Engineering
Date: 8/12/2002
Period: Build SAT Peak NSR
Project ID: Five Towns College, 2002-056
E/W St: Long Island Expressway NSR

Inter.: LIE NSR at Bagatelle Road
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	0	0	0	3	0	1	1	0	0	2	0
LGConfig					LTR		L	T			TR	
Volume				184	210	169	167	233			313	65
Lane Width					11.0		11.0	11.0			12.0	
RTOR Vol						0						0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left					NB	Left	A	A		
Thru						Thru	A	A		
Right						Right				
Peds						Peds				
WB Left	P				SB	Left				
Thru	P					Thru	A			
Right	P					Right	A			
Peds						Peds				
NB Right					EB	Right				
SB Right					WB	Right				
Green	25.0						24.5	8.5		
Yellow	4.0						3.5	3.5		
All Red	2.0						2.0	2.0		

Cycle Length: 75.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
LTR	1663	4619	0.37	0.36	18.4	B	18.4	B
Northbound								
L	586	1711	0.32	0.53	12.8	B		
T	961	1801	0.27	0.53	9.7	A	11.0	B
Southbound								
TR	1195	3448	0.38	0.35	18.6	B	18.6	B

Intersection Delay = 16.3 (sec/veh) Intersection LOS = B

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Build AM Peak NSR
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd and Bagatelle R
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	1	1	1	1	0	1	0	1	0	0	0
LGConfig		T	R	L	T		L		R			
Volume		154	242	243	890		302		120			
Lane Width		13.0	14.0	10.0	10.0		11.0		15.0			
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left					NB	Left	A			
	Thru	P					Thru				
	Right	P					Right	A			
	Peds						Peds				
WB	Left	P				SB	Left				
	Thru	P					Thru				
	Right						Right				
	Peds						Peds				
NB	Right					EB	Right	A			
SB	Right					WB	Right				
Green		54.9						34.4			
Yellow		3.5						3.0			
All Red		1.6						2.6			

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
T	971	1722	0.20	0.56	11.2	B	4.4	A
R	1401	1401	0.22	1.00	0.1	A		
Westbound								
L	578	1024	0.46	0.56	15.5	B		
T	971	1722	1.01	0.56	52.5	D	44.5	D
Northbound								
L	561	1586	0.63	0.35	29.0	C	27.3	C
R	593	1676	0.24	0.35	23.0	C		
Southbound								

Intersection Delay = 31.8 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1b

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Build AM Peak NSR
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd and Bagatelle R
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	1	1	1	1	0	1	0	1	0	0	0
LGConfig		T	R	L	T		L		R			
Volume		147	197	90	334		170		91			
Lane Width		13.0	14.0	10.0	10.0		11.0		15.0			
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left					NB	Left	A			
	Thru	P					Thru				
	Right	P					Right	A			
	Peds						Peds				
WB	Left	P				SB	Left				
	Thru	P					Thru				
	Right						Right				
	Peds						Peds				
NB	Right					EB	Right	A			
SB	Right					WB	Right				
Green		54.9						34.4			
Yellow		3.5						3.0			
All Red		1.6						2.6			

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
T	1025	1818	0.18	0.56	11.0	B	4.7	A
R	1552	1552	0.16	1.00	0.0+	A		
Westbound								
L	590	1046	0.17	0.56	11.1	B		
T	962	1705	0.39	0.56	13.3	B	12.9	B
Northbound								
L	577	1631	0.34	0.35	24.1	C	23.5	C
R	588	1660	0.18	0.35	22.4	C		
Southbound								

Intersection Delay = 12.6 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1b

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Build PM Peak NSR
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd and Bagatelle R
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	1	1	1	1	0	1	0	1	0	0	0
LGConfig		T	R	L	T		L		R			
Volume		504	389	127	206		226		143			
Lane Width		13.0	14.0	10.0	10.0		11.0		15.0			
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left	A			
Thru	P				Thru				
Right	P				Right	A			
Peds					Peds				
WB Left	P				SB Left				
Thru	P				Thru				
Right					Right				
Peds					Peds				
NB Right					EB Right	A			
SB Right					WB Right				
Green	54.9					34.4			
Yellow	3.5					3.0			
All Red	1.6					2.6			

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
T	1086	1925	0.52	0.56	15.3	B	8.6	A
R	1641	1641	0.27	1.00	0.1	A		
Westbound								
L	340	603	0.40	0.56	15.8	B		
T	971	1722	0.23	0.56	11.5	B	13.1	B
Northbound								
L	588	1662	0.46	0.35	25.5	C	24.7	C
R	617	1742	0.28	0.35	23.4	C		
Southbound								

Intersection Delay = 13.5 (sec/veh) Intersection LOS = B

Analyst:
Agency: RMS Engineering
Date: 6/7/2002
Period: Build PM Peak NSR
Project ID: Five Towns Collere, 2002-056 COLLEGE PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd and Bagatelle R
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	1	1	1	1	0	1	0	1	0	0	0
LGConfig		T	R	L	T		L		R			
Volume		321	349	124	205		240		115			
Lane Width		13.0	14.0	10.0	10.0		11.0		15.0			
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left					NB	Left	A			
Thru	P					Thru				
Right	P					Right	A			
Peds						Peds				
WB Left	P				SB	Left				
Thru	P					Thru				
Right						Right				
Peds						Peds				
NB Right					EB	Right	A			
SB Right					WB	Right				
Green	54.9						34.4			
Yellow	3.5						3.0			
All Red	1.6						2.6			

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
T	1075	1906	0.34	0.56	12.6	B	6.1	A
R	1689	1689	0.23	1.00	0.1	A		
Westbound								
L	457	810	0.29	0.56	13.0	B		
T	944	1673	0.23	0.56	11.5	B	12.1	B
Northbound								
L	606	1711	0.48	0.35	25.7	C	24.8	C
R	617	1742	0.23	0.35	22.9	C		
Southbound								

Intersection Delay = 12.7 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1b

Analyst: REB
Agency: RMS Engineering
Date: 8/12/2002
Period: Build SAT Peak NSR
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd. at Bagatelle R
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2002
N/S St: Bagatelle Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	0	1	1	1	1	0	1	0	1	0	0	0
LGConfig		T	R	L	T		L		R			
Volume		152	276	169	153		280		120			
Lane Width		13.0	14.0	10.0	10.0		11.0		15.0			
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left					NB	Left	A			
	Thru	P					Thru				
	Right	P					Right	A			
	Peds						Peds				
WB	Left	P				SB	Left				
	Thru	P					Thru				
	Right						Right				
	Peds						Peds				
NB	Right					EB	Right	A			
SB	Right					WB	Right				
Green		54.9						34.4			
Yellow		3.5						3.0			
All Red		1.6						2.6			

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
T	1086	1925	0.15	0.56	10.7	B	3.8	A
R	1689	1689	0.17	1.00	0.0+	A		
Westbound								
L	609	1080	0.34	0.56	13.2	B		
T	981	1739	0.19	0.56	11.1	B	12.2	B
Northbound								
L	606	1711	0.54	0.35	26.8	C	25.7	C
R	617	1742	0.23	0.35	22.9	C		
Southbound								

Intersection Delay = 14.1 (sec/veh) Intersection LOS = B

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Build Am Peak NSR
Project ID: Five Towns College, 2002-056, COMMUTER PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd at Vanderbilt P
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Vanderbilt Parkway

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	1	1	0	0	1	0	0	0	0	1	0	0
LGConfig	L	T			TR					L		
Volume	99	186			191	84				183		
Lane Width	10.0	16.0			11.0					11.0		
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	P				NB Left				
Thru	P				Thru				
Right					Right				
Peds					Peds				
WB Left					SB Left	A			
Thru	P				Thru				
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	40.0					40.0			
Yellow	3.5					3.5			
All Red	1.5					1.5			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	309	671	0.37	0.46	19.0	B		
T	863	1872	0.24	0.46	15.4	B	16.7	B
Westbound								
TR	775	1681	0.43	0.46	18.1	B	18.1	B
Northbound								
Southbound								
L	752	1631	0.26	0.46	15.1	B	15.1	B

Intersection Delay = 16.8 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1b

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Build Am Peak NSR
Project ID: Five Towns College, 2002-056, COLLEGE PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd at Vanderbilt P
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Vanderbilt Parkway

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	1	1	0	0	1	0	0	0	0	1	0	0
LGConfig	L	T			TR					L		
Volume	82	153			184	108				135		
Lane Width	10.0	16.0			11.0					11.0		
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	P				NB Left				
Thru	P				Thru				
Right					Right				
Peds					Peds				
WB Left					SB Left	A			
Thru	P				Thru				
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	40.0					40.0			
Yellow	3.5					3.5			
All Red	1.5					1.5			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	314	682	0.30	0.46	17.5	B		
T	911	1976	0.19	0.46	14.8	B	15.7	B
Westbound								
TR	784	1700	0.45	0.46	18.4	B	18.4	B
Northbound								
Southbound								
L	774	1678	0.19	0.46	14.4	B		
							14.4	B

Intersection Delay = 16.7 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1b

HCS2000: Signalized Intersections Release 4.1b

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Build Pm Peak NSR
Project ID: Five Towns College, 2002-056, COMMUTER PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd at Vanderbilt P
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Vanderbilt Parkway

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	1	1	0	0	1	0	0	0	0	1	0	0
LGConfig	L	T			TR					L		
Volume	347	224			113	90				114		
Lane Width	10.0	16.0			11.0					11.0		
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left	P				NB	Left				
Thru	P					Thru				
Right						Right				
Peds						Peds				
WB Left					SB	Left	A			
Thru	P					Thru				
Right	P					Right				
Peds						Peds				
NB Right					EB	Right				
SB Right					WB	Right				
Green	40.0						40.0			
Yellow	3.5						3.5			
All Red	1.5						1.5			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	422	916	0.93	0.46	52.9	D		
T	973	2111	0.26	0.46	15.5	B	38.2	D
Westbound								
TR	768	1666	0.29	0.46	16.1	B	16.1	B
Northbound								
Southbound								
L	789	1711	0.16	0.46	14.2	B	14.2	B

Intersection Delay = 30.2 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1b

Analyst: REB
Agency: RMS Engineering
Date: 6/7/2002
Period: Build Pm Peak NSR
Project ID: Five Towns College, 2002-056, COLLEGE PEAK HOUR
E/W St: Half Hollow Road

Inter.: Half Hollow Rd at Vanderbilt P
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Vanderbilt Parkway

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	1	1	0	0	1	0	0	0	0	1	0	0
LGConfig	L	T			TR					L		
Volume	221	185			128	61				95		
Lane Width	10.0	16.0			11.0					11.0		
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	P				NB Left				
Thru	P				Thru				
Right					Right				
Peds					Peds				
WB Left					SB Left	A			
Thru	P				Thru				
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	40.0					40.0			
Yellow	3.5					3.5			
All Red	1.5					1.5			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	435	943	0.58	0.46	23.3	C		
T	973	2111	0.22	0.46	15.0	B	19.5	B
Westbound								
TR	778	1688	0.27	0.46	15.8	B	15.8	B
Northbound								
Southbound								
L	789	1711	0.13	0.46	14.0	B	14.0	B

Intersection Delay = 17.8 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1b

Analyst: REB
Agency: RMS Engineering
Date: 8/12/2002
Period: Build SAT Peak NSR
Project ID: Five Towns College, 2002-056
E/W St: Half Hollow Road

Inter.: Half Hollow Rd at Vanderbilt P
Area Type: All other areas
Jurisd: Town of Huntington
Year : 2004
N/S St: Vanderbilt Parkway

SIGNALIZED INTERSECTION SUMMARY

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
No. Lanes	1	1	0	0	1	0	0	0	0	1	0	0
LGConfig	L	T			TR					L		
Volume	132	136			73	159				85		
Lane Width	10.0	16.0			11.0					12.0		
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left	P				NB	Left				
Thru	P					Thru				
Right						Right				
Peds						Peds				
WB Left					SB	Left	A			
Thru	P					Thru				
Right	P					Right				
Peds						Peds				
NB Right					EB	Right				
SB Right					WB	Right				
Green	40.0						40.0			
Yellow	3.5						3.5			
All Red	1.5						1.5			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	387	840	0.39	0.46	18.9	B		
T	973	2111	0.16	0.46	14.5	B	16.7	B
Westbound								
TR	753	1634	0.36	0.46	17.0	B	17.0	B
Northbound								
Southbound								
L	816	1770	0.12	0.46	13.9	B	13.9	B

Intersection Delay = 16.4 (sec/veh) Intersection LOS = B

II. Build Condition Unsignalized Intersection

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build Am Peak
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056, COMMUTER PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume	3	274	15	0	1125	2
Peak-Hour Factor, PHF	0.81	0.81	0.81	0.91	0.91	0.91
Hourly Flow Rate, HFR	3	338	18	0	1236	2
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	
Upstream Signal?		Yes			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	14		35	2		4
Peak Hour Factor, PHF	0.90		0.90	0.80		0.80
Hourly Flow Rate, HFR	15		38	2		4
Percent Heavy Vehicles	30		40	2		2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0		0	0		0
Configuration		LR			LR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR			LR	
v (vph)	3	0		53			6	
C(m) (vph)	563	1203		201			136	
v/c	0.01	0.00		0.26			0.04	
95% queue length	0.02	0.00		1.02			0.14	
Control Delay	11.4	8.0		29.2			32.7	
LOS	B	A		D			D	
Approach Delay				29.2			32.7	
Approach LOS				D			D	

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build Am Peak
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056, COMMUTER PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	3	274	15	0	1125	2
Peak-Hour Factor, PHF	0.81	0.81	0.81	0.91	0.91	0.91
Peak-15 Minute Volume	1	85	5	0	309	1
Hourly Flow Rate, HFR	3	338	18	0	1236	2
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	
Upstream Signal?		Yes			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	14		35	2		4
Peak Hour Factor, PHF	0.90		0.90	0.80		0.80
Peak-15 Minute Volume	4		10	1		1
Hourly Flow Rate, HFR	15		38	2		4
Percent Heavy Vehicles	30		40	2		2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0		0	0		0
Configuration		LR			LR	

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

		Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2	Left-Turn	0	1700	3	0	100	30	700
	Through	150	1700	3	59	100	30	700
S5	Left-Turn							
	Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:	338	1236
Shared ln volume, major rt vehicles:	0	2
Sat flow rate, major th vehicles:	1700	1700
Sat flow rate, major rt vehicles:	1700	1700
Number of major street through lanes:	1	1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement		1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	4.1	7.1		6.2	7.1		6.2
t(c,hv)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	2	30		40	2		2
t(c,g)				0.20	0.20	0.10	0.20	0.20	0.10
Grade/100				0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.00	0.00		0.00	0.00		0.00
t(c,T):	1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c)	1-stage	4.1	4.1	7.4		6.6	7.1		6.2
	2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)	2.20	2.20	3.50		3.30	3.50		3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)	2	2	30		40	2		2
t(f)	2.2	2.2	3.8		3.7	3.5		3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog	150	0		
Total Saturation Flow Rate, s (vph)	1700	1700		
Arrival Type	3	3		
Effective Green, g (sec)	59	0		
Cycle Length, C (sec)	100	100		
Rp (from table 9-2)	1.000	1.000		
Proportion vehicles arriving on green P	0.590	0.000		
g(q1)	3.6	0.0		
g(q2)	0.4	0.0		
g(q)	4.0	0.0		

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha	0.550			
beta	0.645			
Travel time, t(a) (sec)	15.873			
Smoothing Factor, F	0.151			
Proportion of conflicting flow, f	0.418	0.000		
Max platooned flow, V(c,max)	339	0		
Min platooned flow, V(c,min)	1000	1000		
Duration of blocked period, t(p)	0.0	0.0		
Proportion time blocked, p	0.000		0.000	

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	0.000
p(subo)	0.000
Constrained or unconstrained?	U

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)	1.000		
p(4)	1.000		
p(7)	1.000		
p(8)			
p(9)	1.000		
p(10)	1.000		
p(11)			
p(12)	1.000		

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x	1238	356	1583		338	1609		1237
s	1700	1700	1700		1700	1700		1700
Px	1.000	1.000	1.000		1.000	1.000		1.000
V c,u,x	1238	356	1583		338	1609		1237
C r,x	563	1203	76		625	84		215
C plat,x	563	1203	76		625	84		215

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s	1700	1700			1700	1700		
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	338	1237
Potential Capacity	625	215
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	625	215
Probability of Queue free St.	0.94	0.98

Step 2: LT from Major St.	4	1
Conflicting Flows	356	1238
Potential Capacity	1203	563
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1203	563
Probability of Queue free St.	1.00	0.99
Maj L-Shared Prob Q free St.	1.00	0.99

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	1583	1609
Potential Capacity	76	84
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	0.99	0.99
Maj. L, Min T Adj. Imp Factor.	0.99	0.99
Cap. Adj. factor due to Impeding mvmnt	0.98	0.93
Movement Capacity	74	78

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	1583	1609
Potential Capacity	76	84
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	0.99	0.99
Maj. L, Min T Adj. Imp Factor.	0.99	0.99
Cap. Adj. factor due to Impeding mvmnt	0.98	0.93
Movement Capacity	74	78
Results for Two-stage process:		
a		
y		
C t	74	78

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	15		38	2		4
Movement Capacity (vph)	74		625	78		215
Shared Lane Capacity (vph)		201			136	

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	74		625	78		215
Volume	15		38	2		4
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		201			136	
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR			LR	
v (vph)	3	0		53			6	
C(m) (vph)	563	1203		201			136	
v/c	0.01	0.00		0.26			0.04	
95% queue length	0.02	0.00		1.02			0.14	
Control Delay	11.4	8.0		29.2			32.7	
LOS	B	A		D			D	
Approach Delay				29.2			32.7	
Approach LOS				D			D	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	0.99	1.00
v(il), Volume for stream 2 or 5	338	1236
v(i2), Volume for stream 3 or 6	0	2
s(il), Saturation flow rate for stream 2 or 5	1700	1700
s(i2), Saturation flow rate for stream 3 or 6	1700	1700
P*(oj)	0.99	1.00
d(M,LT), Delay for stream 1 or 4	11.4	8.0
N, Number of major street through lanes	1	1
d(rank,1) Delay for stream 2 or 5	0.1	0.0

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build Am Peak NSR
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056, COLLEGE PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume	0	278	0	53	344	0
Peak-Hour Factor, PHF	0.81	0.81	0.81	0.91	0.91	0.91
Hourly Flow Rate, HFR	0	343	0	58	378	0
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	
Upstream Signal?		Yes			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	16		42			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	17		46			
Percent Heavy Vehicles	10		22			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR				
v (vph)	0	58		63				
C(m) (vph)	1180	1216		504				
v/c	0.00	0.05		0.13				
95% queue length	0.00	0.15		0.43				
Control Delay	8.1	8.1		13.2				
LOS	A	A		B				
Approach Delay				13.2				
Approach LOS				B				

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build Am Peak NSR
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056, COLLEGE PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	0	278	0	53	344	0
Peak-Hour Factor, PHF	0.81	0.81	0.81	0.91	0.91	0.91
Peak-15 Minute Volume	0	86	0	15	95	0
Hourly Flow Rate, HFR	0	343	0	58	378	0
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	
Upstream Signal?		Yes			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	16		42			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	4		12			
Hourly Flow Rate, HFR	17		46			
Percent Heavy Vehicles	10		22			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn	0	1700	3	0	100	30	700
Through	145	1700	3	59	100	30	700
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:	343	378
Shared ln volume, major rt vehicles:	0	0
Sat flow rate, major th vehicles:	1700	1700
Sat flow rate, major rt vehicles:	1700	1700
Number of major street through lanes:	1	1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)	4.1	4.1	7.1		6.2			
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)	2	2	10		22			
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)	0.00	0.00	0.70		0.00			
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage	4.1	4.1	6.5		6.4			
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)	2.20	2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)	2	2	10		22			
t(f)	2.2	2.2	3.6		3.5			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog	145	0		
Total Saturation Flow Rate, s (vph)	1700	1700		
Arrival Type	3	3		
Effective Green, g (sec)	59	0		
Cycle Length, C (sec)	100	100		
Rp (from table 9-2)	1.000	1.000		
Proportion vehicles arriving on green P	0.590	0.000		
g(q1)	3.5	0.0		
g(q2)	0.3	0.0		
g(q)	3.8	0.0		

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha	0.550			
beta	0.645			
Travel time, t(a) (sec)	15.873			
Smoothing Factor, F	0.151			
Proportion of conflicting flow, f	0.423	0.000		
Max platooned flow, V(c,max)	334	0		
Min platooned flow, V(c,min)	1000	1000		
Duration of blocked period, t(p)	0.0	0.0		
Proportion time blocked, p	0.000		0.000	

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	0.000
p(subo)	0.000
Constrained or unconstrained?	U

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)	1.000		
p(4)	1.000		
p(7)	1.000		
p(8)			
p(9)	1.000		
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x	378	343	837		343			
s	1700	1700	1700		1700			
Px	1.000	1.000	1.000		1.000			
V c,u,x	378	343	837		343			
C r,x	1180	1216	326		656			
C plat,x	1180	1216	326		656			

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s	1700	1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	343	
Potential Capacity	656	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	656	
Probability of Queue free St.	0.93	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	343	378
Potential Capacity	1216	1180
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1216	1180
Probability of Queue free St.	0.95	1.00
Maj L-Shared Prob Q free St.	0.94	1.00

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.94	0.94
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	837	
Potential Capacity	326	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.94
Maj. L, Min T Adj. Imp Factor.		0.95
Cap. Adj. factor due to Impeding mvmnt	0.95	0.89
Movement Capacity	310	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.94	0.94
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	837	
Potential Capacity	326	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.94
Maj. L, Min T Adj. Imp Factor.		0.95
Cap. Adj. factor due to Impeding mvmnt	0.95	0.89
Movement Capacity	310	
Results for Two-stage process:		
a		
y		
C t	310	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	17		46			
Movement Capacity (vph)	310		656			
Shared Lane Capacity (vph)		504				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	310		656			
Volume	17		46			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		504				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement Lane Config	1 LT	4 LTR	7	8 LR	9	10	11	12
v (vph)	0	58		63				
C(m) (vph)	1180	1216		504				
v/c	0.00	0.05		0.13				
95% queue length	0.00	0.15		0.43				
Control Delay	8.1	8.1		13.2				
LOS	A	A		B				
Approach Delay				13.2				
Approach LOS				B				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.95
v(il), Volume for stream 2 or 5	343	378
v(i2), Volume for stream 3 or 6	0	0
s(il), Saturation flow rate for stream 2 or 5	1700	1700
s(i2), Saturation flow rate for stream 3 or 6	1700	1700
P*(oj)	1.00	0.94
d(M,LT), Delay for stream 1 or 4	8.1	8.1
N, Number of major street through lanes	1	1
d(rank,1) Delay for stream 2 or 5	0.0	0.5

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build Pm Peak
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056, COMMUTER PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume	0	558	16	4	295	0
Peak-Hour Factor, PHF	0.92	0.92	0.92	0.85	0.85	0.85
Hourly Flow Rate, HFR	0	606	17	4	347	0
Percent Heavy Vehicles	2	--	--	25	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	
Upstream Signal?		Yes			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	29		26			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	32		28			
Percent Heavy Vehicles	16		10			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR				
v (vph)	0	4		60				
C(m) (vph)	1212	858		347				
v/c	0.00	0.00		0.17				
95% queue length	0.00	0.01		0.62				
Control Delay	8.0	9.2		17.5				
LOS	A	A		C				
Approach Delay				17.5				
Approach LOS				C				

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build Pm Peak
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056, COMMUTER PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	0	558	16	4	295	0
Peak-Hour Factor, PHF	0.92	0.92	0.92	0.85	0.85	0.85
Peak-15 Minute Volume	0	152	4	1	87	0
Hourly Flow Rate, HFR	0	606	17	4	347	0
Percent Heavy Vehicles	2	--	--	25	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	
Upstream Signal?		Yes			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	29		26			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	8		7			
Hourly Flow Rate, HFR	32		28			
Percent Heavy Vehicles	16		10			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

		Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2	Left-Turn	0	1700	3	0	100	30	700
	Through	495	1700	3	59	100	30	700
S5	Left-Turn							
	Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:	606	347
Shared ln volume, major rt vehicles:	0	0
Sat flow rate, major th vehicles:	1700	1700
Sat flow rate, major rt vehicles:	1700	1700
Number of major street through lanes:	1	1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement		1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	4.1	7.1		6.2			
t(c,hv)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	25	16		10			
t(c,g)				0.20	0.20	0.10	0.20	0.20	0.10
Grade/100				0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.00	0.70		0.00			
t(c,T):	1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c)	1-stage	4.1	4.3	6.6		6.3			
	2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)	2.20	2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)	2	25	16		10			
t(f)	2.2	2.4	3.6		3.4			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog	495	0		
Total Saturation Flow Rate, s (vph)	1700	1700		
Arrival Type	3	3		
Effective Green, g (sec)	59	0		
Cycle Length, C (sec)	100	100		
Rp (from table 9-2)	1.000	1.000		
Proportion vehicles arriving on green P	0.590	0.000		
g(q1)	11.9	0.0		
g(q2)	4.9	0.0		
g(q)	16.8	0.0		

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha	0.550			
beta	0.645			
Travel time, t(a) (sec)	15.873			
Smoothing Factor, F	0.151			
Proportion of conflicting flow, f	0.795	0.000		
Max platooned flow, V(c,max)	1265	0		
Min platooned flow, V(c,min)	1000	1000		
Duration of blocked period, t(p)	10.8	0.0		
Proportion time blocked, p	0.108		0.000	

Computation 3-Platoon Event Periods	Result
p(2)	0.108
p(5)	0.000
p(dom)	0.108
p(subo)	0.000
Constrained or unconstrained?	U

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)	1.000		
p(4)	0.892		
p(7)	0.892		
p(8)			
p(9)	0.892		
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x	347	623	961		606			
s	1700	1700	1700		1700			
Px	1.000	0.892	0.892		0.892			
V c,u,x	347	492	871		473			
C r,x	1212	962	304		575			
C plat,x	1212	858	271		513			

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s	1700	1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	606	
Potential Capacity	513	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	513	
Probability of Queue free St.	0.95	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	623	347
Potential Capacity	858	1212
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	858	1212
Probability of Queue free St.	1.00	1.00
Maj L-Shared Prob Q free St.	0.99	1.00

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	961	
Potential Capacity	271	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	0.94
Movement Capacity	270	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	961	
Potential Capacity	271	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.99
Maj. L, Min T Adj. Imp Factor.		1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	0.94
Movement Capacity	270	
Results for Two-stage process:		
a		
y		
C t	270	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	32		28			
Movement Capacity (vph)	270		513			
Shared Lane Capacity (vph)		347				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	270		513			
Volume	32		28			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		347				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR				
v (vph)	0	4		60				
C(m) (vph)	1212	858		347				
v/c	0.00	0.00		0.17				
95% queue length	0.00	0.01		0.62				
Control Delay	8.0	9.2		17.5				
LOS	A	A		C				
Approach Delay				17.5				
Approach LOS				C				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	1.00
v(il), Volume for stream 2 or 5	606	347
v(i2), Volume for stream 3 or 6	0	0
s(il), Saturation flow rate for stream 2 or 5	1700	1700
s(i2), Saturation flow rate for stream 3 or 6	1700	1700
P*(oj)	1.00	0.99
d(M,LT), Delay for stream 1 or 4	8.0	9.2
N, Number of major street through lanes	1	1
d(rank,1) Delay for stream 2 or 5	0.0	0.1

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build Pm Peak
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056, COLLEGE PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume	0	387	20	13	346	0
Peak-Hour Factor, PHF	0.92	0.92	0.92	0.85	0.85	0.85
Hourly Flow Rate, HFR	0	420	21	15	407	0
Percent Heavy Vehicles	2	--	--	30	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	
Upstream Signal?		Yes			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	48		52			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	53		57			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR				
v (vph)	0	15		110				
C(m) (vph)	1152	985		433				
v/c	0.00	0.02		0.25				
95% queue length	0.00	0.05		1.00				
Control Delay	8.1	8.7		16.1				
LOS	A	A		C				
Approach Delay				16.1				

Approach LOS   C

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build Pm Peak
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056, COLLEGE PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	0	387	20	13	346	0
Peak-Hour Factor, PHF	0.92	0.92	0.92	0.85	0.85	0.85
Peak-15 Minute Volume	0	105	5	4	102	0
Hourly Flow Rate, HFR	0	420	21	15	407	0
Percent Heavy Vehicles	2	--	--	30	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	
Upstream Signal?		Yes			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	48		52			
Peak Hour Factor, PHF	0.90		0.90			
Peak-15 Minute Volume	13		14			
Hourly Flow Rate, HFR	53		57			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No				
Storage						
RT Channelized?						
Lanes	0		0			
Configuration		LR				

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

		Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2	Left-Turn	0	1700	3	0	100	30	700
	Through	315	1700	3	59	100	30	700
S5	Left-Turn							
	Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:	420	407
Shared ln volume, major rt vehicles:	0	0
Sat flow rate, major th vehicles:	1700	1700
Sat flow rate, major rt vehicles:	1700	1700
Number of major street through lanes:	1	1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement		1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	4.1	7.1		6.2			
t(c,hv)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	30	2		2			
t(c,g)				0.20	0.20	0.10	0.20	0.20	0.10
Grade/100				0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.00	0.70		0.00			
t(c,T):	1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c)	1-stage	4.1	4.4	6.4		6.2			
	2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)	2.20	2.20	3.50		3.30			
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)	2	30	2		2			
t(f)	2.2	2.5	3.5		3.3			

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog	315	0		
Total Saturation Flow Rate, s (vph)	1700	1700		
Arrival Type	3	3		
Effective Green, g (sec)	59	0		
Cycle Length, C (sec)	100	100		
Rp (from table 9-2)	1.000	1.000		
Proportion vehicles arriving on green P	0.590	0.000		
g(q1)	7.6	0.0		
g(q2)	1.7	0.0		
g(q)	9.3	0.0		

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha	0.550			
beta	0.645			
Travel time, t(a) (sec)	15.873			
Smoothing Factor, F	0.151			
Proportion of conflicting flow, f	0.714	0.000		
Max platooned flow, V(c,max)	950	0		
Min platooned flow, V(c,min)	1000	1000		
Duration of blocked period, t(p)	0.0	0.0		
Proportion time blocked, p	0.000		0.000	

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	0.000
p(subo)	0.000
Constrained or unconstrained?	U

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)	1.000		
p(4)	1.000		
p(7)	1.000		
p(8)			
p(9)	1.000		
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x	407	441	857		420			
s	1700	1700	1700		1700			
Px	1.000	1.000	1.000		1.000			
V c,u,x	407	441	857		420			
C r,x	1152	985	328		633			
C plat,x	1152	985	328		633			

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s	1700	1700						
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	420	
Potential Capacity	633	
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	633	
Probability of Queue free St.	0.91	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows	441	407
Potential Capacity	985	1152
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	985	1152
Probability of Queue free St.	0.98	1.00
Maj L-Shared Prob Q free St.	0.98	1.00

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.98	0.98
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	857	
Potential Capacity	328	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.98
Maj. L, Min T Adj. Imp Factor.		0.98
Cap. Adj. factor due to Impeding mvmnt	0.98	0.90
Movement Capacity	323	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.98	0.98
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	857	
Potential Capacity	328	
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor		0.98
Maj. L, Min T Adj. Imp Factor.		0.98
Cap. Adj. factor due to Impeding mvmnt	0.98	0.90
Movement Capacity	323	
Results for Two-stage process:		
a		
y		
C t	323	

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	53		57			
Movement Capacity (vph)	323		633			
Shared Lane Capacity (vph)		433				

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	323		633			
Volume	53		57			
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		433				
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR				
v (vph)	0	15		110				
C(m) (vph)	1152	985		433				
v/c	0.00	0.02		0.25				
95% queue length	0.00	0.05		1.00				
Control Delay	8.1	8.7		16.1				
LOS	A	A		C				
Approach Delay				16.1				
Approach LOS				C				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	0.98
v(il), Volume for stream 2 or 5	420	407
v(i2), Volume for stream 3 or 6	0	0
s(il), Saturation flow rate for stream 2 or 5	1700	1700
s(i2), Saturation flow rate for stream 3 or 6	1700	1700
P*(oj)	1.00	0.98
d(M,LT), Delay for stream 1 or 4	8.1	8.7
N, Number of major street through lanes	1	1
d(rank,1) Delay for stream 2 or 5	0.0	0.2

HCS2000: Unsignalized Intersections Release 4.1b

TWO-WAY STOP CONTROL SUMMARY

Analyst:
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build SAT Peak
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056, COMMUTER PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume	2	259	3	0	310	2
Peak-Hour Factor, PHF	0.80	0.80	0.80	0.82	0.82	0.82
Hourly Flow Rate, HFR	2	323	3	0	378	2
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	
Upstream Signal?		Yes			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume	11		13	4		4
Peak Hour Factor, PHF	0.90		0.90	0.80		0.80
Hourly Flow Rate, HFR	12		14	4		4
Percent Heavy Vehicles	2		2	2		2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0		0	0		0
Configuration		LR			LR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR			LR	
v (vph)	2	0		26			8	
C(m) (vph)	1178	1234		481			450	
v/c	0.00	0.00		0.05			0.02	
95% queue length	0.01	0.00		0.17			0.05	
Control Delay	8.1	7.9		12.9			13.1	
LOS	A	A		B			B	
Approach Delay				12.9			13.1	
Approach LOS				B			B	

HCS2000: Unsignalized Intersections Release 4.1b

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst:
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build SAT Peak
Intersection: Half Hollow Road at Burr's Lan
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056, COMMUTER PEAK HOUR
East/West Street: Half Hollow Road
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	2	259	3	0	310	2
Peak-Hour Factor, PHF	0.80	0.80	0.80	0.82	0.82	0.82
Peak-15 Minute Volume	1	81	1	0	95	1
Hourly Flow Rate, HFR	2	323	3	0	378	2
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized?			No			
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	
Upstream Signal?		Yes			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	11		13	4		4
Peak Hour Factor, PHF	0.90		0.90	0.80		0.80
Peak-15 Minute Volume	3		4	1		1
Hourly Flow Rate, HFR	12		14	4		4
Percent Heavy Vehicles	2		2	2		2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0		0	0		0
Configuration		LR			LR	

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn	0	1700	3	0	100	30	700
Through	140	1700	3	59	100	30	700
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:	323	378
Shared ln volume, major rt vehicles:	0	2
Sat flow rate, major th vehicles:	1700	1700
Sat flow rate, major rt vehicles:	1700	1700
Number of major street through lanes:	1	1

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)	4.1	4.1	7.1		6.2	7.1		6.2
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)	2	2	2		2	2		2
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)	0.00	0.00	0.00		0.00	0.00		0.00
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage	4.1	4.1	7.1		6.2	7.1		6.2
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)	2.20	2.20	3.50		3.30	3.50		3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)	2	2	2		2	2		2
t(f)	2.2	2.2	3.5		3.3	3.5		3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog	140	0		
Total Saturation Flow Rate, s (vph)	1700	1700		
Arrival Type	3	3		
Effective Green, g (sec)	59	0		
Cycle Length, C (sec)	100	100		
Rp (from table 9-2)	1.000	1.000		
Proportion vehicles arriving on green P	0.590	0.000		
g(q1)	3.4	0.0		
g(q2)	0.3	0.0		
g(q)	3.7	0.0		

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha	0.550			
beta	0.645			
Travel time, t(a) (sec)	15.873			
Smoothing Factor, F	0.151			
Proportion of conflicting flow, f	0.427	0.000		
Max platooned flow, V(c,max)	328	0		
Min platooned flow, V(c,min)	1000	1000		
Duration of blocked period, t(p)	0.0	0.0		
Proportion time blocked, p	0.000		0.000	

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	0.000
p(subo)	0.000
Constrained or unconstrained?	U

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)	1.000		
p(4)	1.000		
p(7)	1.000		
p(8)			
p(9)	1.000		
p(10)	1.000		
p(11)			
p(12)	1.000		

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x	380	326	708		323	715		379
s	1700	1700	1700		1700	1700		1700
Px	1.000	1.000	1.000		1.000	1.000		1.000
V c,u,x	380	326	708		323	715		379
C r,x	1178	1234	350		718	346		668
C plat,x	1178	1234	350		718	346		668

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s	1700	1700			1700	1700		
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	323	379
Potential Capacity	718	668
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	718	668
Probability of Queue free St.	0.98	0.99

Step 2: LT from Major St.	4	1
Conflicting Flows	326	380
Potential Capacity	1234	1178
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1234	1178
Probability of Queue free St.	1.00	1.00
Maj L-Shared Prob Q free St.	1.00	1.00

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows	708	715
Potential Capacity	350	346
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	1.00
Maj. L, Min T Adj. Imp Factor.	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.98
Movement Capacity	347	339

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows	708	715
Potential Capacity	350	346
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	1.00
Maj. L, Min T Adj. Imp Factor.	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.98
Movement Capacity	347	339
Results for Two-stage process:		
a		
y		
C t	347	339

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	12		14	4		4
Movement Capacity (vph)	347		718	339		668
Shared Lane Capacity (vph)		481			450	

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	347		718	339		668
Volume	12		14	4		4
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		481			450	
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LTR		LR			LR	
v (vph)	2	0		26			8	
C(m) (vph)	1178	1234		481			450	
v/c	0.00	0.00		0.05			0.02	
95% queue length	0.01	0.00		0.17			0.05	
Control Delay	8.1	7.9		12.9			13.1	
LOS	A	A		B			B	
Approach Delay				12.9			13.1	
Approach LOS				B			B	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	1.00
v(il), Volume for stream 2 or 5	323	378
v(i2), Volume for stream 3 or 6	0	2
s(il), Saturation flow rate for stream 2 or 5	1700	1700
s(i2), Saturation flow rate for stream 3 or 6	1700	1700
P*(oj)	1.00	1.00
d(M,LT), Delay for stream 1 or 4	8.1	7.9
N, Number of major street through lanes	1	1
d(rank,1) Delay for stream 2 or 5	0.0	0.0

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 8/13/2002
Analysis Time Period: Build AM Peak
Intersection: LIE NSR and College Entrance
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
East/West Street: LIE (I-495) North Service Road
North/South Street: College Entrance
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume					1946	161
Peak-Hour Factor, PHF					0.96	0.96
Hourly Flow Rate, HFR					2027	167
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						No
Lanes					2	1
Configuration					T	R
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume						41
Peak Hour Factor, PHF						0.90
Hourly Flow Rate, HFR						45
Percent Heavy Vehicles						6
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								45
C(m) (vph)								285
v/c								0.16
95% queue length								0.55
Control Delay								20.0
LOS								C
Approach Delay							20.0	
Approach LOS							C	

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 8/13/2002
Analysis Time Period: Build AM Peak
Intersection: LIE NSR and College Entrance
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
East/West Street: LIE (I-495) North Service Road
North/South Street: College Entrance
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume					1946	161
Peak-Hour Factor, PHF					0.96	0.96
Peak-15 Minute Volume					507	42
Hourly Flow Rate, HFR					2027	167
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						No
Lanes					2	1
Configuration					T	R
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume						41
Peak Hour Factor, PHF						0.90
Peak-15 Minute Volume						11
Hourly Flow Rate, HFR						45
Percent Heavy Vehicles						6
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)								6.2
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)								6
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)								0.00
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage								6.3
2-stage								

Follow-Up Time Calculations Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)								3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)								6
t(f)								3.4

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from Exhibit 16-11)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5

Single-Stage Process Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x								1014
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s								
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows		1014
Potential Capacity		285
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		285
Probability of Queue free St.	1.00	0.84

Step 2: LT from Major St.	4	1
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.84	1.00
Movement Capacity		

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.84	1.00
Movement Capacity		
Results for Two-stage process:		
a		
y		
C t		

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)						45
Movement Capacity (vph)						285
Shared Lane Capacity (vph)						

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep						285
Volume						45
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh						
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								45
C(m) (vph)								285
v/c								0.16
95% queue length								0.55
Control Delay								20.0
LOS								C
Approach Delay							20.0	
Approach LOS							C	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	1.00
v(il), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(il), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4		
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 8/13/2002
Analysis Time Period: Build AM Peak
Intersection: LIE NSR and College Entrance
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
East/West Street: LIE (I-495) North Service Road
North/South Street: College Entrance
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume					519	192
Peak-Hour Factor, PHF					0.95	0.95
Hourly Flow Rate, HFR					546	202
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						No
Lanes					2	1
Configuration					T	R
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume						86
Peak Hour Factor, PHF						0.90
Hourly Flow Rate, HFR						95
Percent Heavy Vehicles						6
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								95
C(m) (vph)								756
v/c								0.13
95% queue length								0.43
Control Delay								10.4
LOS								B
Approach Delay							10.4	
Approach LOS							B	

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 8/13/2002
Analysis Time Period: Build AM Peak
Intersection: LIE NSR and College Entrance
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
East/West Street: LIE (I-495) North Service Road
North/South Street: College Entrance
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume					519	192
Peak-Hour Factor, PHF					0.95	0.95
Peak-15 Minute Volume					137	51
Hourly Flow Rate, HFR					546	202
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						No
Lanes					2	1
Configuration					T	R
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume						86
Peak Hour Factor, PHF						0.90
Peak-15 Minute Volume						24
Hourly Flow Rate, HFR						95
Percent Heavy Vehicles						6
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement		1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)									6.2
t(c,hv)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)									6
t(c,g)				0.20	0.20	0.10	0.20	0.20	0.10
Grade/100				0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)									0.00
t(c,T):	1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c)	1-stage								6.3
	2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)								3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)								6
t(f)								3.4

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from Exhibit 16-11)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x								273
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s								
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows		273
Potential Capacity		756
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		756
Probability of Queue free St.	1.00	0.87

Step 2: LT from Major St.	4	1
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.87	1.00
Movement Capacity		

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.87	1.00
Movement Capacity		
Results for Two-stage process:		
a		
y		
C t		

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)						95
Movement Capacity (vph)						756
Shared Lane Capacity (vph)						

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep						756
Volume						95
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh						
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								95
C(m) (vph)								756
v/c								0.13
95% queue length								0.43
Control Delay								10.4
LOS								B
Approach Delay							10.4	
Approach LOS							B	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	1.00
v(i1), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(i1), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4		
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 8/13/2002
Analysis Time Period: Build PM Peak
Intersection: LIE NSR and College Entrance
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
East/West Street: LIE (I-495) North Service Road
North/South Street: College Entrance
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume					571	80
Peak-Hour Factor, PHF					0.96	0.96
Hourly Flow Rate, HFR					594	83
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						No
Lanes					2	1
Configuration					T	R
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume						122
Peak Hour Factor, PHF						0.90
Hourly Flow Rate, HFR						135
Percent Heavy Vehicles						6
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								135
C(m) (vph)								733
v/c								0.18
95% queue length								0.67
Control Delay								11.0
LOS								B
Approach Delay							11.0	
Approach LOS							B	

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 8/13/2002
Analysis Time Period: Build PM Peak
Intersection: LIE NSR and College Entrance
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
East/West Street: LIE (I-495) North Service Road
North/South Street: College Entrance
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume					571	80
Peak-Hour Factor, PHF					0.96	0.96
Peak-15 Minute Volume					149	21
Hourly Flow Rate, HFR					594	83
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						No
Lanes					2	1
Configuration					T	R
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume						122
Peak Hour Factor, PHF						0.90
Peak-15 Minute Volume						34
Hourly Flow Rate, HFR						135
Percent Heavy Vehicles						6
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)								6.2
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)								6
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)								0.00
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage								6.3
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)								3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)								6
t(f)								3.4

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from Exhibit 16-11)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x								297
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s								
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows		297
Potential Capacity		733
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		733
Probability of Queue free St.	1.00	0.82

Step 2: LT from Major St.	4	1
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.82	1.00
Movement Capacity		

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.82	1.00
Movement Capacity		
Results for Two-stage process:		
a		
y		
C t		

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)						135
Movement Capacity (vph)						733
Shared Lane Capacity (vph)						

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep						733
Volume						135
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh						
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								135
C(m) (vph)								733
v/c								0.18
95% queue length								0.67
Control Delay								11.0
LOS								B
Approach Delay							11.0	
Approach LOS							B	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	1.00
v(il), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(il), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4		
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 8/13/2002
Analysis Time Period: Build PM Peak
Intersection: LIE NSR and College Entrance
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
East/West Street: LIE (I-495) North Service Road
North/South Street: College Entrance
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume					560	107
Peak-Hour Factor, PHF					0.96	0.96
Hourly Flow Rate, HFR					583	111
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						No
Lanes					2	1
Configuration					T	R
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume						198
Peak Hour Factor, PHF						0.90
Hourly Flow Rate, HFR						220
Percent Heavy Vehicles						6
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								220
C(m) (vph)								738
v/c								0.30
95% queue length								1.25
Control Delay								11.9
LOS								B
Approach Delay							11.9	
Approach LOS							B	

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 8/13/2002
Analysis Time Period: Build PM Peak
Intersection: LIE NSR and College Entrance
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COLLEGE PEAK HOUR
East/West Street: LIE (I-495) North Service Road
North/South Street: College Entrance
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume					560	107
Peak-Hour Factor, PHF					0.96	0.96
Peak-15 Minute Volume					146	28
Hourly Flow Rate, HFR					583	111
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						No
Lanes					2	1
Configuration					T	R
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume						198
Peak Hour Factor, PHF						0.90
Peak-15 Minute Volume						55
Hourly Flow Rate, HFR						220
Percent Heavy Vehicles						6
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)								6.2
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)								6
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)								0.00
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage								6.3
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)								3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)								6
t(f)								3.4

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from Exhibit 16-11)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x								292
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s								
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows		292
Potential Capacity		738
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		738
Probability of Queue free St.	1.00	0.70

Step 2: LT from Major St.	4	1
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.70	1.00
Movement Capacity		

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.70	1.00
Movement Capacity		
Results for Two-stage process:		
a		
y		
C t		

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)						220
Movement Capacity (vph)						738
Shared Lane Capacity (vph)						

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep						738
Volume						220
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh						
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								220
C(m) (vph)								738
v/c								0.30
95% queue length								1.25
Control Delay								11.9
LOS								B
Approach Delay							11.9	
Approach LOS							B	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	1.00
v(i1), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(i1), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4		
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 8/13/2002
Analysis Time Period: Build SAT Peak
Intersection: LIE NSR and College Entrance
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
East/West Street: LIE (I-495) North Service Road
North/South Street: College Entrance
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume					490	90
Peak-Hour Factor, PHF					0.91	0.91
Hourly Flow Rate, HFR					538	98
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						No
Lanes					2	1
Configuration					T	R
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume						88
Peak Hour Factor, PHF						0.90
Hourly Flow Rate, HFR						97
Percent Heavy Vehicles						6
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								97
C(m) (vph)								760
v/c								0.13
95% queue length								0.44
Control Delay								10.4
LOS								B
Approach Delay							10.4	
Approach LOS							B	

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 8/13/2002
Analysis Time Period: Build SAT Peak
Intersection: LIE NSR and College Entrance
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK HOUR
East/West Street: LIE (I-495) North Service Road
North/South Street: College Entrance
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume					490	90
Peak-Hour Factor, PHF					0.91	0.91
Peak-15 Minute Volume					135	25
Hourly Flow Rate, HFR					538	98
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						No
Lanes					2	1
Configuration					T	R
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume						88
Peak Hour Factor, PHF						0.90
Peak-15 Minute Volume						24
Hourly Flow Rate, HFR						97
Percent Heavy Vehicles						6
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)								6.2
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)								6
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)								0.00
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage								6.3
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)								3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)								6
t(f)								3.4

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from Exhibit 16-11)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x								269
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s								
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows		269
Potential Capacity		760
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		760
Probability of Queue free St.	1.00	0.87

Step 2: LT from Major St.	4	1
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.87	1.00
Movement Capacity		

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.87	1.00
Movement Capacity		
Results for Two-stage process:		
a		
y		
C t		

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)						97
Movement Capacity (vph)						760
Shared Lane Capacity (vph)						

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep						760
Volume						97
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh						
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								97
C(m) (vph)								760
v/c								0.13
95% queue length								0.44
Control Delay								10.4
LOS								B
Approach Delay							10.4	
Approach LOS							B	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	1.00
v(il), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(il), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4		
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst:
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build AM Peak Commuter NSR
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume					1934	41
Peak-Hour Factor, PHF					0.96	0.96
Hourly Flow Rate, HFR					2014	42
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume						18
Peak Hour Factor, PHF						0.93
Hourly Flow Rate, HFR						19
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								19
C(m) (vph)								284
v/c								0.07
95% queue length								0.21
Control Delay								18.6
LOS								C
Approach Delay							18.6	

Approach LOS C

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst:
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build AM Peak Commuter NSR
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume					1934	41
Peak-Hour Factor, PHF					0.96	0.96
Peak-15 Minute Volume					504	11
Hourly Flow Rate, HFR					2014	42
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume						18
Peak Hour Factor, PHF						0.93
Peak-15 Minute Volume						5
Hourly Flow Rate, HFR						19
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)								6.2
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)								2
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)								0.00
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage								6.2
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)								3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)								2
t(f)								3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from Exhibit 16-11)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x								1028
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7		8		10		11	
	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2
V(c,x)								
s								
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows		1028
Potential Capacity		284
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		284
Probability of Queue free St.	1.00	0.93

Step 2: LT from Major St.	4	1
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.93	1.00
Movement Capacity		

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.93	1.00
Movement Capacity		
Results for Two-stage process:		
a		
y		
C t		

Worksheet 8-Shared Lane Calculations

Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (vph)						19
Movement Capacity (vph)						284
Shared Lane Capacity (vph)						

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7	8	9	10	11	12
	L	T	R	L	T	R
C sep						284
Volume						19
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh						
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								19
C(m) (vph)								284
v/c								0.07
95% queue length								0.21
Control Delay								18.6
LOS								C
Approach Delay							18.6	
Approach LOS							C	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	1.00
v(il), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(il), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4		
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst:
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build AM Peak College NSR
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COLLEGE PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume					484	63
Peak-Hour Factor, PHF					0.95	0.95
Hourly Flow Rate, HFR					509	66
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume						9
Peak Hour Factor, PHF						0.93
Hourly Flow Rate, HFR						9
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								9
C(m) (vph)								751
v/c								0.01
95% queue length								0.04
Control Delay								9.9
LOS								A
Approach Delay							9.9	

Approach LOS A

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst:
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build AM Peak College NSR
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COLLEGE PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume					484	63
Peak-Hour Factor, PHF					0.95	0.95
Peak-15 Minute Volume					127	17
Hourly Flow Rate, HFR					509	66
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume						9
Peak Hour Factor, PHF						0.93
Peak-15 Minute Volume						2
Hourly Flow Rate, HFR						9
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)								6.2
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)								2
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)								0.00
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage								6.2
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)								3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)								2
t(f)								3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from Exhibit 16-11)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x								288
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7		8		10		11	
	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2
V(c,x)								
s								
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows		288
Potential Capacity		751
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		751
Probability of Queue free St.	1.00	0.99

Step 2: LT from Major St.	4	1
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.99	1.00
Movement Capacity		

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.99	1.00
Movement Capacity		
Results for Two-stage process:		
a		
y		
C t		

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)						9
Movement Capacity (vph)						751
Shared Lane Capacity (vph)						

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep						751
Volume						9
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh						
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								9
C(m) (vph)								751
v/c								0.01
95% queue length								0.04
Control Delay								9.9
LOS								A
Approach Delay							9.9	
Approach LOS							A	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	1.00
v(il), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(il), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4		
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst:
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build PM Peak Commuter NSR
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume					591	28
Peak-Hour Factor, PHF					0.96	0.96
Hourly Flow Rate, HFR					615	29
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume						0
Peak Hour Factor, PHF						0.87
Hourly Flow Rate, HFR						0
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								0
C(m) (vph)								719
v/c								0.00
95% queue length								0.00
Control Delay								10.0+
LOS								B
Approach Delay								
Approach LOS								

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst:
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build PM Peak Commuter NSR
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume					591	28
Peak-Hour Factor, PHF					0.96	0.96
Peak-15 Minute Volume					154	7
Hourly Flow Rate, HFR					615	29
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume						0
Peak Hour Factor, PHF						0.87
Peak-15 Minute Volume						0
Hourly Flow Rate, HFR						0
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)								6.2
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)								2
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)								0.00
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage								6.2
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)								3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)								2
t(f)								3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from Exhibit 16-11)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x								322
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7		8		10		11	
	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2
V(c,x)								
s								
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows		322
Potential Capacity		719
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		719
Probability of Queue free St.	1.00	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Results for Two-stage process:		
a		
y		
C t		

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)						0
Movement Capacity (vph)						719
Shared Lane Capacity (vph)						

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep						719
Volume						0
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh						
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								0
C(m) (vph)								719
v/c								0.00
95% queue length								0.00
Control Delay								10.0+
LOS								B
Approach Delay								
Approach LOS								

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	1.00
v(il), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(il), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4		
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build PM Peak College NSR
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COLLEGE PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume					558	50
Peak-Hour Factor, PHF					0.96	0.96
Hourly Flow Rate, HFR					581	52
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume						16
Peak Hour Factor, PHF						0.93
Hourly Flow Rate, HFR						17
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								17
C(m) (vph)								724
v/c								0.02
95% queue length								0.07
Control Delay								10.1
LOS								B
Approach Delay							10.1	
Approach LOS							B	

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build PM Peak College NSR
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COLLEGE PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume					558	50
Peak-Hour Factor, PHF					0.96	0.96
Peak-15 Minute Volume					145	13
Hourly Flow Rate, HFR					581	52
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume						16
Peak Hour Factor, PHF						0.93
Peak-15 Minute Volume						4
Hourly Flow Rate, HFR						17
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)								6.2
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)								2
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)								0.00
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage								6.2
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)								3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)								2
t(f)								3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from Exhibit 16-11)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x								316
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s								
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows		316
Potential Capacity		724
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		724
Probability of Queue free St.	1.00	0.98

Step 2: LT from Major St.	4	1
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.98	1.00
Movement Capacity		

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	0.98	1.00
Movement Capacity		
Results for Two-stage process:		
a		
y		
C t		

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)						17
Movement Capacity (vph)						724
Shared Lane Capacity (vph)						

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep						724
Volume						17
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh						
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								17
C(m) (vph)								724
v/c								0.02
95% queue length								0.07
Control Delay								10.1
LOS								B
Approach Delay							10.1	
Approach LOS							B	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	1.00
v(il), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(il), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4		
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build SAT Peak Commuter NSR
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1 L	2 T	3 R	4 L	5 T	6 R
Volume					551	11
Peak-Hour Factor, PHF					0.91	0.91
Hourly Flow Rate, HFR					605	12
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume						3
Peak Hour Factor, PHF						0.83
Hourly Flow Rate, HFR						3
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								3
C(m) (vph)								732
v/c								0.00
95% queue length								0.01
Control Delay								9.9
LOS								A
Approach Delay							9.9	
Approach LOS							A	

HCS2000: Unsignalized Intersections Release 4.1c

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: REB
Agency/Co.: RMS Engineering
Date Performed: 6/7/2002
Analysis Time Period: Build SAT Peak Commuter NSR
Intersection: LIE NSR at Burr's Lane
Jurisdiction: Town of Huntington
Units: U. S. Customary
Analysis Year: 2004
Project ID: Five Towns College, 2002-056 COMMUTER PEAK
East/West Street: LIE NSR
North/South Street: Burr's Lane
Intersection Orientation: EW   Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume					551	11
Peak-Hour Factor, PHF					0.91	0.91
Peak-15 Minute Volume					151	3
Hourly Flow Rate, HFR					605	12
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes					2	0
Configuration					T	TR
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume						3
Peak Hour Factor, PHF						0.83
Peak-15 Minute Volume						1
Hourly Flow Rate, HFR						3
Percent Heavy Vehicles						2
Percent Grade (%)		0			0	
Median Storage						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)								6.2
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)								2
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)								0.00
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage								6.2
2-stage								

Follow-Up Time Calculations Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)								3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)								2
t(f)								3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from Exhibit 16-11)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x								308
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7 Stage1	7 Stage2	8 Stage1	8 Stage2	10 Stage1	10 Stage2	11 Stage1	11 Stage2
V(c,x)								
s								
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows		308
Potential Capacity		732
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		732
Probability of Queue free St.	1.00	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Result for 2 stage process:		
a		
y		
C t		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	
Maj. L, Min T Adj. Imp Factor.	1.00	
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Results for Two-stage process:		
a		
y		
C t		

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)						3
Movement Capacity (vph)						732
Shared Lane Capacity (vph)						

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep						732
Volume						3
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh						
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								3
C(m) (vph)								732
v/c								0.00
95% queue length								0.01
Control Delay								9.9
LOS								A
Approach Delay							9.9	
Approach LOS							A	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	1.00
v(i1), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(i1), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4		
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		