

#### **4.0 TRAFFIC AND TRANSPORTATION**

The project is located on the west side of South Pascack Road, east of the NYS Thruway and south of Convent Road. The primary site entrance is located off South Pascack Road and provides access to the main parking areas and the entrance plaza in front of the main doors to the Gospel Hall. At the request of the Chestnut Ridge Planning Board, a secondary access has also been provided to South Pascack Road approximately 100 feet west of the main entrance. This emergency access will remain gated to restrict access to only emergency circumstances.

Parking utilization at any particular time will depend upon the proposed event. A new access point is proposed near the center of the site frontage on South Pascack Road. The proposed site development provides a total of 165 parking spaces, including 7 handicapped spaces. The zoning requirement specifies the greater of 1 space per 200 feet of square foot area, or 1 space per every 5 seats. The Gospel Hall covers 16,100 square foot and will contain 780 seats. Thus the required parking is 1 space per 5 seats or 156 required spaces. The proposed site plan includes 165 parking spaces or 9 spaces more than are required.

The site location and regional transportation network are shown in Figure 4-1. A Traffic Access & Impact Study was conducted by F. P. Clark Associates, dated June 2010. This study specifically assesses the traffic impacts associated with construction of the Brethren Gospel Hall and is included in Appendix C of this EAF. This Traffic Access & Impact Study was reviewed by the Village's Traffic Consultant, Mr. John Sarna and found to meet the SEQRA requirements of adequately disclosing the impacts of the proposed project on the road system. Mr. Sarna's review memo, dated April 25, 2011, can be found in Appendix H, Correspondence. Mr. Sarna concurs with the results of the Traffic Analysis which indicates there will be no significant changes in average vehicle delay or Levels of Service as a result of the proposed project.

The Traffic Access & Impact Study evaluates existing and future traffic conditions at nine intersections which are proximate to the Brethren Hall property, and which were identified by the Village's Traffic consultant, Mr. John Sarna. The following intersections were analyzed, the locations of which are shown in Figure 4-1:

1. Intersection of South Pascack Road at Garden State Parkway NB Off Ramp/Old Nyack Turnpike
2. Intersection of South Pascack Road at Scotland Hill Road/Convent Road
3. Intersection of Scotland Hill Road at South Pascack Road
4. Intersection of South Pascack Road at Williams Road
5. Intersection of Red Schoolhouse Road at Chestnut Ridge Road
6. Intersection of Red Schoolhouse Road at Williams Road
7. Intersection of Red Schoolhouse Road at Summit Road
8. Intersection of Red Schoolhouse Road at Garden State Parkway Extension SB Off Ramp
9. Intersection of Red Schoolhouse Road at Garden State Parkway Extension NB On Ramp

#### 4.1 Existing Traffic Conditions

The Brethren Gospel Hall project site is located on the west side of South Pascack Road which is Rockland County Route (CR) 35, approximately one mile south of the intersection with Scotland Hill Road. The site address is 467-477 South Pascack Road.

Regional transportation access is provided via the Garden State Parkway Extension and its connections to the New York State Thruway approximately one mile to the north and south. South Pascack Road provides the primary north-south movement in the portion of the Village located to the east of the Garden State Parkway Extension.

In order to establish the existing traffic volumes for the study intersections in the vicinity of the Brethren Church property, manual turning movement traffic counts were conducted in June 2009 and October 2009 to determine the existing traffic volumes for the study intersections. Existing Traffic Volumes are shown on Figures 3 through 10 in the Traffic Study included as Appendix C.

#### 4.2 Existing Roadway Network

The Brethren Gospel hall will have direct access to CR 35 South Pascack Road. The following is a description of the primary roads within the project vicinity: South Pascack Road, Scotland Hill Road, Williams Road, Red Schoolhouse Road, Chestnut Ridge Road, Scotland Road, South Pascack Road (North of Scotland Hill Road), Convent Road, Garden State Parkway Extension.

South Pascack Road - This is a north-south, two-lane, County-maintained roadway. It is designated Rockland County Route 35 in the vicinity of the site frontage. It has a posted limit of 30 miles per hour, generally provides a double yellow centerline and does not provide any paved shoulders or sidewalks near the subject property.

This road begins to the north of the subject property at a T-type intersection with Scotland Hill Road and continues in a southerly direction intersecting with Williams Road and continuing south into New Jersey. The section of the road south of Williams Road is generally a narrower roadway; however, continues to provide one travel lane in each direction, a double yellow centerline and a posted speed limit of 30 miles per hour.

Scotland Hill Road - This is a generally north-south, Village-maintained roadway. It begins to the north at the intersection of Nyack Turnpike and intersects South Pascack Road at a STOP sign controlled intersection and terminates at a T-type intersection with Convent Road. This road has a posted speed limit of 30 miles per hour, provides one travel lane in each direction and includes a double yellow centerline in the Study Area.

Williams Road – This is a local, east-west, Village-maintained roadway, located to the south of the subject property. It provides one travel lane in each direction, a double yellow centerline, with no curbs, shoulders or sidewalks. It begins to the west at a T-type, STOP sign controlled intersection with Red Schoolhouse Road. It continues to the east and terminates at a T-type, STOP sign controlled intersection with South Pascack Road. This road has a posted speed limit of 30 miles per hour and generally serves a residential neighborhood.

Red Schoolhouse Road – This is a north-south, County-maintained roadway, located to the west of the subject property and west of the Garden State Parkway Extension. It is designated

Rockland County Route 41 and begins to the north at a T-type, signalized intersection with Chestnut Ridge Road and continues south providing access from the southbound lanes of the Garden State Parkway Extension and northbound lanes of the Parkway Extension at a partial-type Interchange.

This road continues to the south of the Parkway Extension into Bergen County of New Jersey. It has a posted speed limit of 30 miles per hour, provides a double yellow centerline and access to both residential and commercial development. The southbound off-ramp from the Garden State Parkway Extension to Red Schoolhouse Road is controlled with a traffic signal. The northbound on-ramp to the Garden State Parkway Extension is an uncontrolled intersection. The intersections with Williams Road and Summit Road are controlled with STOP signs on the side road approaches. At the Summit Road northbound approach on Red Schoolhouse Road there is a NO LEFT TURN restriction from 7:00 to 10:00 A.M. on Monday through Friday, except for School buses.

Chestnut Ridge Road – This is generally a north-south, two-lane, State-maintained roadway, located to the northwest of the site and northwest of the Garden State Parkway Extension. It has a posted speed limit of 40 miles per hour to the southwest of the Red Schoolhouse Road intersection and 45 miles per hour to the northeast of this same intersection.

The intersection with Red Schoolhouse Road is controlled with a traffic signal and provides additional turn lanes on the northbound, westbound and southbound approaches. It provides access to mostly commercial development between the intersections of Red Schoolhouse Road and Scotland Road to the north and more residential development to the southwest of the intersection with Red Schoolhouse Road.

Scotland Road – This is generally an east-west, Village-maintained roadway. It begins to the west at a T-type intersection with Chestnut Ridge Road and continues to the northeast and terminates at a T-type intersection with Scotland Hill road. These two intersections are controlled with STOP signs on the Scotland Road approaches.

South Pascack Road (North of Scotland Hill Road) – This is a north-south, two-lane, County-maintained roadway. It is designated Rockland County Route 35 and continues to the north of the Convent Road intersection with Scotland Hill Road.

This road continues in a northerly direction and intersects with Old Nyack Turnpike, which provides access to the southbound (eastbound) lanes of the New York State Thruway.

South Pascack Road continues in a northerly direction north of the New York State Thruway and terminates at Lawrence Street to the north.

Convent Road – This is generally an east-west, County-maintained roadway. It provides two travel lanes and is a continuation of South Pascack Road and Scotland Hill Road to the west and intersects and terminates to the east Old Middletown Road. This is designated Rockland County Route 46. It provides access to mostly a residential area and Town facilities.

Garden State Parkway and Extension – This is a north-south, limited-access, median-divided Parkway in the State of New Jersey. At the State line it is part of the New York State Thruway and provides a connection to the New York State Thruway (Interstate 87/Interstate 287), which is located to the north of the subject property.

### 4.3 Level of Service Criteria

Peak hour vehicle delays were calculated to establish the quality of operation (level of service) at intersection approach lanes under the existing conditions. Future conditions without the project and future conditions with the project were also analyzed.

In order to determine existing and future traffic operating conditions at the study area intersections, capacity analyses were performed based on procedures from the 2000 I.T.E. Highway Capacity Manual. The following is a brief description of the methodology:

#### *Signalized Intersection Capacity Analysis*

The capacity analysis for a signalized intersection was performed in accordance with the procedure described in the 2000 Highway Capacity Manual, published by the Transportation Research Board. The terminology used in identifying traffic flow conditions is Levels of Service. A Level of Service "A" represents the best condition and a Level of Service "F" represents the worst condition. A Level of Service "C" is generally used as a design standard while a Level of Service "D" is acceptable during peak periods. A Level of Service "E" represents an operation near capacity. In order to identify an intersection's Level of Service, the average amount of vehicle delay is computed for each approach to the intersection as well as for the overall intersection.

#### *Unsignalized Intersection Capacity Analysis*

The unsignalized intersection capacity analysis was performed in accordance with the procedures described in the 2000 Highway Capacity Manual. The procedure is based on total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line. The average total delay for any particular critical movement is a function of the service rate or capacity of the approach and the degree of saturation. In order to identify the level of service, the average amount of vehicle delay is computed for each critical movement to the intersection as well as for the overall intersection. Additional information concerning signalized and unsignalized levels of service can be found in Appendix C.

Table 4-1 presents the levels of service criteria for signalized and unsignalized intersections.

<b>TABLE 4-1</b>			
<b>Level of Service Criteria</b>			
<i>UNSIGNALIZED INTERSECTIONS</i>		<i>SIGNALIZED INTERSECTIONS</i>	
<i>Level of Service</i>	<i>Average Total Delay (Seconds Per Vehicle)</i>	<i>Level of Service</i>	<i>Stopped Delay Per Vehicle (Sec)</i>
A	$\leq 10$	A	$\leq 10$
B	$>10 \text{ and } \leq 15$	B	$>10 \text{ and } \leq 20$
C	$>15 \text{ and } \leq 25$	C	$>20 \text{ and } \leq 35$
D	$>25 \text{ and } \leq 35$	D*	$>35 \text{ and } \leq 55$
E	$>35 \text{ and } \leq 50$	E	$>55 \text{ and } \leq 80$
F	$> 50$	F	$> 80.0$

SOURCE: Highway Capacity Manual, Transportation Research Board, National Research Council, Special Report 209, Washington, D.C..

\* For urban areas, the minimum level of service for design of lane-groups (one or more movements) assuming reasonable costs and impacts.

The New York State Department of Transportation (NYS DOT) generally seeks a minimum level of service D (delay of 55 seconds or less for a signalized intersection) for all lane groups. The NYS DOT Highway Design Manual notes: “*In some cases, it may be necessary to accept level of service E or F on individual lane groups due to unreasonable costs or impacts associated with improving the level of service.*” A lane group is a set of lanes on an approach having the same common movement(s).

For all intersections, the volume to capacity ratio is an indication of the unused capacity or the ability of the intersection to process more traffic. It is possible to have a movement with an adequate level of service (level of service A, B, C or D) and be at capacity for the movement. It is also possible to have a movement with a level of service E or F, with additional capacity available on the movement. The NYS DOT goal for volume to capacity (V/C) ratios at signalized intersections for lane groups is generally below 0.95. The ability of an entire intersection to handle more traffic is a complex issue as traffic can be added to under capacity movements without impacting over capacity movements.

#### **4.4 Existing Levels of Service**

Existing traffic volumes for the roadway network are shown in Figures 3 through 10 of the Traffic Study. A summary of the capacity analyses for the area intersections under Existing Conditions is provided in the Level of Service Summary Table 3 contained in Appendix C.

#### **4.5 Traffic Study Methodologies**

As described in more detail in Appendix C, in order to determine potential impact to area roadways, detailed information was provided by the Brethren Church for eight different time periods on various days throughout the week and weekends. This was used to determine the level of Church activity and related traffic. Based on this preliminary analysis the specific time periods for each of the services or events, number of people attending and the estimates of site generated traffic, as provided by the Applicant based on previous experience, were identified. This information was matched to the results of the detailed traffic counting program at the nine study intersections for eight different time periods to determine the potential impact to area roads and to specifically identify time periods that should be analyzed in more detail to determine impact from the proposed Church.

As a results of this preliminary assessment, the Village’s Traffic Consultant identified four time periods, which have been analyzed in further detail in the Traffic Access & Impact Study, contained in full as Appendix C and summarized herein. Based on the recommendation of the Village’s Traffic Consultant, future conditions for the following four peak hour time periods were analyzed in detail for to determine potential impacts;

- Wednesday evening arrivals – 4:45 to 5:45 P.M.
- Saturday morning departures – 10:00 to 11:00 A.M.
- Sunday mid-morning departures for the bi-weekly service – 11:30 A.M. to 12:30 P.M.
- Sunday afternoon arrivals – 2:30 to 3:30 P.M.

#### 4.6 No-Build Traffic Conditions

in order to identify project related impacts, first an evaluation of what future conditions are projected to be without the proposed project, the **No-Build** analysis must be determined. Based on historical data, the annual background growth for the area is between 1½ percent to 2 percent. To account for normal background growth as well as other potential traffic growth in the area, the analysis conducted for the Year 2009 Existing Traffic Volumes were increased by a total background growth of 4 percent. In addition to the background growth rate, traffic from two other pending projects were included in the No-build analysis of future conditions; traffic from a 9-lot single family subdivision and traffic from a 7,000 square foot landscaping facility to be located on Red Schoolhouse Road.

The No-Build Traffic Volumes are shown on Figures 19 through 22 of the Traffic Study for the four time periods identified for traffic analysis.

#### 4.7 Build Traffic Conditions

The proposal is to construct the Brethren Gospel Hall on the subject property and provide a capacity for services for up 780 people. However, the Church and its services will not operate at full capacity for each of its services during the week and on weekends. As described in the Project Description, the Applicant has provided detailed information related to the number of people attending each of the services. This is based on their experience at other facilities and the anticipated shift of certain members to this Church in Chestnut Ridge.

Under normal operating conditions the Church will have events and activities occurring approximately four times per week. Based upon a varying schedule services may occur at up to eight different time periods on various days. The level of activity will be between 50 and 325 people in attendance. Typical attendance is approximately 185 persons. It is important to note that Church doctrine and custom dictates that its members travel to and from all services and events as families. Therefore, vehicle occupancy rates are higher. This results in the lower site traffic estimates. As detailed in the Traffic Access & Impact Study the projected number of vehicle trips ranges from 40 to 80 during the peak hours of Church usage.

Special Event use of the Church is expected once or twice a year. During those events, in addition to automobiles, the Church anticipates some visiting members will arrive by chartered buses. This will result in a significant benefit to area roads and the Church parking as many of the attendees will not drive in private vehicles. The Applicant will prepare a Special Event Traffic Management Plan (SETMP) to accommodate its needs and reduce impacts to area roadways, similar to the sample SETMP included in Appendix F.

Tables 4-2 summarizes the number of trips to be generated during the various services. Under normal circumstances, the project will generate a maximum of 80 trips which are projected to occur during the Sunday morning Interchange gathering. The Sunday afternoon Gospel Preaching is projected to generate 45 trips and the Wednesday evening meetings will generate approximately 40 vehicular trips.

Table 4-2 Project Site Trip Generation		
Church Service	Trips	
	Enter	Exit
Wednesday Evening Meeting	40	40
Typical Saturday Morning	40	40
Bi-weekly Sunday Interchange Meeting	80	80
Sunday afternoon Gospel Preaching	45	45

The Brethren Church trustees provided detailed information of where its members reside and will use this Church in the future. Based on the information provided, distribution patterns were developed for the typical weekday evening, typical Saturday morning and Sunday afternoon services. Based on this analysis it was determined that 70 percent of the site-generated traffic would arrive from the south on South Pascack Road and turn left into the subject property. This Church traffic will use Williams Road, Red Schoolhouse Road, Summit Road and the Garden State Parkway Extension, which connects to the New York State Thruway to the north. These distribution patterns were found to be acceptable by the Village's Traffic Consultant. ( Refer to John Sarna memo dated April 25, 2011, included in Appendix H Correspondence. )

The 30 percent arriving from the north on South Pascack Road will be split with 15 percent arriving from the northwest on Scotland Hill Road, 10 percent arriving from the north on South Pascack Road north of the Scotland Hill Road intersection and the remaining 5 percent from the east on Convent Road. Figure 23 graphically shows these distribution patterns for the time periods noted above.

For the bi-weekly Sunday mid-morning service and the special event Sunday mid-morning service a different distribution pattern was developed based on the where members reside. It was determined that 80 percent of the site-generated traffic will travel to and from the south on South Pascack Road and also use Williams Road, Red Schoolhouse Road and the Garden State Parkway Extension. Thirty percent will use the southbound off-ramp. This traffic will be split with 40 percent using Summit Road, 30 percent using the Parkway Extension and 5 percent using Red Schoolhouse Road to the north. Figure 24 shows these distribution patterns. Figures 25 through 28 graphically illustrate the site traffic generation for each of the time periods and each of the intersections included in this analysis. Figures 23 and 24 of the Traffic Study show the anticipated arrival/departure distributions.

The trips projected for the AM and PM peak hours were distributed over the project network (see Appendix C, Figures 25 through 28).

The project-generated traffic was added to the No-Build traffic to produce the Build traffic condition. Appendix C, Figures 29 through 32 show traffic volumes for the Build condition.

#### 4.8 Capacity Analysis Results

In order to evaluate existing and future traffic operating conditions for the area intersections, capacity analyses were conducted utilizing the procedures described above. Based upon this analysis, there is no change to the operating level of service as a result of church services at the Brethren Gospel Hall. The capacity analysis worksheets are contained in Appendix C. The following is a brief description of No-build and Build conditions for each of the intersections analyzed, the results of the capacity analyses and any corresponding recommended improvements. No-Build and Build Traffic Levels of Service are shown in the Level of Service Summary provided in Appendix C as Tables 6 and 7.

- Chestnut Ridge Road at Red Schoolhouse Road/Access Drive*  
**No-Build** – Results of the analysis of this signalized intersection indicate it will operate at an overall Level of Service “B” or better during the four peak hours included in this analysis.  
**Build** – Results of the analysis with site traffic added to the intersection indicate all Levels of Service will be maintained, as well as each lane group. The increase in vehicle delay due to site traffic was found to be insignificant with no impact during these time periods.
- Red Schoolhouse Road at Garden State Parkway Extension Southbound Off-Ramp*  
**No-Build** – Results of the analysis of this signalized intersection indicate it will operate at a Level of Service “B” or better during the four peak hours included in the analysis.  
**Build** – Results of the analysis indicate that the overall Levels of Service will remain the same, with site traffic added to the intersection, for each of the peak hours. The increase in average vehicle delay will be no impact for a very insignificant increase.
- South Pascack Road at Garden State Parkway Extension Northbound Off-Ramps/Nyack Turnpike*  
**No-Build** – Results of the analysis of this signalized intersection indicate it will operate at an overall Level of Service “E” during the weekday evening service arrival peak hour, “B,” “B” and “D” during the four peak hours previously noted.  
**Build** – Results of the analysis indicate that the increase in traffic due to Church activity will have no impact on Levels of Service. The increase in average vehicle delay will be insignificant, if any, for each lane group during each of the peak hours.
- Red Schoolhouse Road at Williams Road*  
**No-Build** – Results of the analysis of this STOP sign-controlled intersection indicate it will operate at Level of Service “C” or better, “B” or better, “B” or better and “B” or better during the four peak hours previously noted.  
**Build** – Results of the analysis indicate there will be no change in Level of Service and an insignificant, if any, increase in average vehicle delay.
- Red Schoolhouse Road at Summit Road*  
**No-Build** – Results of the analysis of this STOP sign-controlled intersection indicate it will operate at Level of Service “C” or better during the weekday evening peak hour for arrivals and Level of Service “B” or better during the other three peak hours included in this analysis.  
**Build** – There will be no change in Level of Service for any minor movement for any of the peak hours. Increases in average vehicle delay will be insignificant, if any, during each of the peak hours.



6. *Garden State Parkway Extension Northbound On-Ramp at Red Schoolhouse Road*  
**Build** – Results of the analysis of this left turn movement from Red Schoolhouse Road onto the Parkway will be Level of Service “A” during each of the peak hours.  
**Build** – Results of the analysis indicate this movement will continue to operate at Level of Service “A” during each of the peak hours.
7. *South Pascack Road at Williams Road*  
**No-Build** – Results of the analysis indicate this STOP sign-controlled intersection will operate at Level of Service “B” or better during the weekday evening peak hour for arrivals and Level of Service “A” during the other three time periods.  
**Build** – Results of the analysis indicate there will be no change in Level of Service during the weekday evening peak for arrivals, the Saturday morning peak for departures and the Sunday mid-morning departure peak hour. There will be a change in Level of Service from “A” to “B” on the eastbound minor movements for left and right turns during the Sunday afternoon peak hour for service arrivals. However, the increase in average vehicle delay at the minor movements where there will be a change in Level of Service from “A” to “B” will be 0.7 seconds.
8. *Scotland Hill Road at South Pascack Road*  
**No-Build** – Results of the analysis at this STOP sign-controlled intersection will operate at Level of Service “C” or better and Level of Service “B” or better during the three peak hours other than the weekday evening peak hour for arrivals.  
**Build** – Results of the analysis indicate there will be no change in Level of Service for any movement at this intersection during any of the peak hours. The increase in average vehicle delay will be insignificant, if any, during each of the peak hours.
9. *South Pascack Road/Convent Road at Scotland Hill Road*  
**No-Build** – Results of the analysis of this STOP sign-controlled intersection indicate it will operate at Level of Service “C” or better during the weekday evening service arrival and Sunday afternoon service arrivals peak hours. During the other two peak hours included in this analysis the minor movements will operate at Level of Service “B” or better.  
**Build** – Results of the analysis indicate that there will be no change in Level of Service for any movement and the increase in average vehicle delay will be insignificant, if at all, during each of the peak hours.
10. *South Pascack Road at Site Access Drive*  
**Build** – Results of the analysis indicate this STOP sign-controlled intersection will operate at Level of Service “A” during each of the peak hours.

#### 4.9 Parking

The Brethren Church site plan provides the parking requirements for the project. These are based on minimum parking standards set forth in the Village of Chestnut Ridge zoning code summarized in Table 4-3. Table 4-3 also summarizes the project's proposed parking spaces. As the site plan progresses, the site plan layout will be refined, and the parking requirements will be met. In no event will parking take place along South Pascack Road.

<b>Table 4-3 Proposed Parking Spaces</b>				
<b>Use</b>	<b>R-35 Zoning Requirement</b>	<b>Proposed Project</b>	<b>Required Minimum</b>	<b>Provided</b>
Place of Worship	1 space per 200 square feet	16,100	81 Spaces	165 spaces
	1 space per 5 seats	780 seats	156 Spaces	165 spaces

Source: Village of Chestnut Ridge Zoning Code.

#### 4.10 Special Event Parking Management

There is an annual Special Event where associated Brethren Churches would convene and more than the full occupancy of 780 seats may be used. During this annual event, members of the congregation from distances would arrive by Coach Bus and be dropped off. These Buses would park at an off site location until the Church services were complete. The site plan has been configured to accommodate the turning radius of the Coach buses. In order to effectively manage the parking demand for the Special Events, the degree of organization goes down to fine detail, including the designation of a specific car space for people travelling to the site by car. A sample Special Event Traffic and Parking Management Plan has been included in Appendix F. An event specific plan, similar to this, is prepared for each event to facilitate orderly traffic management. Similar to normal operations, there will be no parking along South Pascack Road during Special Events.

#### 4.11 Sight Distance

Stopping sight distance is the distance a vehicle would require to be able to stop on wet pavement to avoid a collision with a vehicle entering the traffic stream. Intersection sight distance provides an additional margin of safety above stopping sight distance.

Intersection sight distance is defined as the sight distance that is necessary for a vehicle to safely enter the traffic stream requiring only minor speed adjustments by vehicles in the traffic stream. The proposed site access is on South Pascack Road (CR 35). The posted speed limit on South Pascack Road is 30 miles per hour. Table 4-4 shows the Intersection Sight Distances recommended by the American Association of State Highway and Transportation Officials (AASHTO). The sight distance measurements for each approach at the site access is shown on the site plan. Available sight distance to the north is more than 500 feet and sight distance to the south is more than 700 feet. There is more than sufficient intersection sight distance in both directions at the site distance as recommended by the AASHTO guidelines.

<b>Table 4-4 Intersection Sight Distance</b>	
<b>Sight Distance</b>	<b>Speed (in miles/hour)</b>
335 Feet	30
390 Feet	35
445 Feet	40
500 Feet	45
A Policy on Geometric Design of Highways and Streets, American Association of State Highway and Transportation Officials, 5th ed., 2004.	

#### 4.12 Avoidance or Minimization of Potential Impacts

Results of the analyses indicate that there is no change to the operating Levels of Service as a result of services to be conducted at the Brethren Gospel Hall. The increase in traffic at any one of these intersections during the four peak hours identified to be included in the detailed analyses will continue to operate at the same Level of Service which are occurring under existing conditions.

Results of the analyses indicate that with the distribution of site traffic onto several different roadways, in the immediate vicinity of the subject property, the potential impact is actually mitigated. Results of the analysis indicate that the Wednesday evening service arrival peak hour is 4:45 to 5:45 P.M. and typically has its intersections operating with the longest traffic delays due to the current commuter traffic on these roadways. Other time periods for the Saturday morning, Sunday morning or Sunday afternoon indicate much lower traffic volumes on area roads and better overall conditions, without church-related traffic added to these intersections.

Since there is no decline to operating conditions, no off-site mitigation is necessary to accommodate the additional traffic added to area roadways. The existing traffic signals and STOP sign-controlled intersections can be maintained; however, in certain cases the actual timing of a traffic signal may benefit from signal timing adjustments within the capabilities of a specific controller.

As shown on the site plan, the proposed access drive will be controlled with a STOP sign and stop bar. The available sight lines are shown on the site plan. There is more than sufficient intersection sight distance in both directions at the site distance as recommended by the AASHTO guidelines.



Figure 4-1: Traffic Network

Brethren Church

Village of Chestnut Ridge, Rockland County, NY

Source: Frederick P. Clark Associates, Inc., 04/30/10

Scale: NTS