

March 13, 2017

Mr. Jose L. Gomez, ASLA
Beilinson Gomez Architecture
8101 Biscayne Boulevard, Suite 309
Miami, Florida 33138

Re: Elevate Church – Technical Memorandum

Dear Mr. Gomez:

As requested, Traf Tech Engineering, Inc. has prepared this technical memorandum specifically addressing the proposed expansion of the Elevate Church facility located at 6250 Miami Lakes Drive within municipal limits of the Town of Miami Lakes, Florida. The property, located within the southwest quadrant of the intersection of Miami Lakes Drive and East Miami Lakeway is improved with a one story structure encompassing 11,299 square feet and exterior ancillary support facilities including a paved parking area, basketball court and play area. Proposed improvements include a new parking area and a new sanctuary encompassing approximately 16,813 square feet within two (2) stories and containing 813 seats. Figure 1 shows the general location of the subject property.

This memorandum documents expected trip generation of the proposed expansion and provides a determination of significance in accordance with the *Concurrency Management Report* specific to the Town of Miami Lakes. The following is a summary of our findings.

Weekday Trip Generation and Significance

A weekday trip generation analysis was performed using rates and formulae published in the Institute of Transportation Engineer's (ITE) report *Trip Generation* (9th Edition). The weekday trip generation analysis was undertaken for daily, and AM and PM peak hour of the adjacent roadway network.

According to ITE, trip generation rates appropriate for the Elevate Church are as follows:

CHURCH (ITE Land Use 560)

Daily Trip Generation

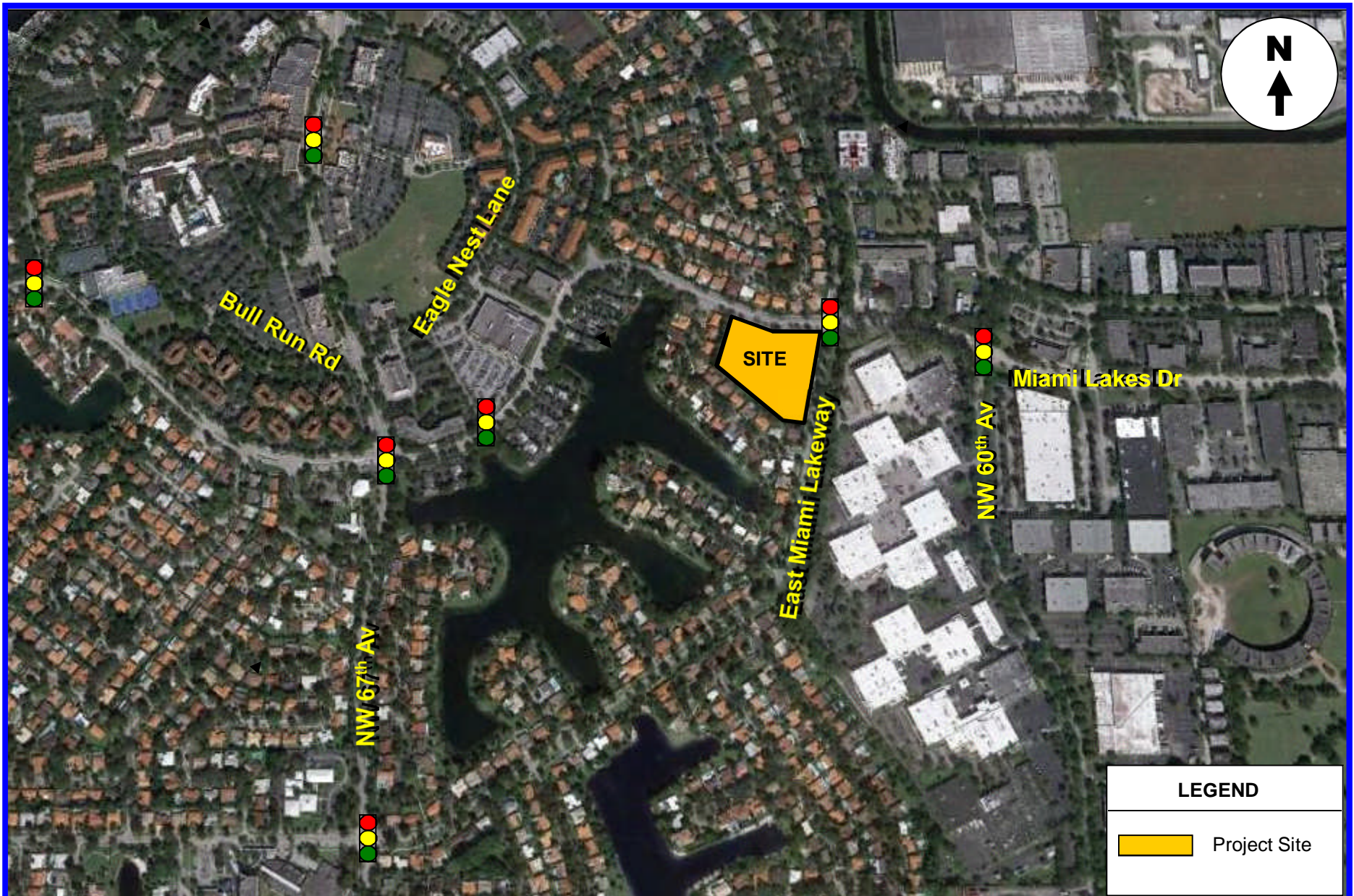
$$T = 9.11 (X)$$

Where T = number of daily trips, X = gross floor area

AM Peak Hour of Adjacent Street Traffic

$$T = 0.56 (X) \text{ (62\% inbound and 38\% outbound)}$$

Where T = number of peak hour trips, X = gross floor area



PM Peak Hour of Adjacent Street Traffic

$T = 0.34 (X) + 5.24$ (48% inbound and 52% outbound)

Where T = number of peak hour trips, X = gross floor area

TABLE 1 Trip Generation Analysis Elevate Church								
	Size	Daily Trips	Peak Hour of Adjacent Street					
			AM			PM		
			In	Out	Total	In	Out	Total
Existing	11,299 sf	103	4	2	6	4	5	9
Total	28,112 sf	256	10	6	16	7	8	15
Net New	16,813 sf	153	6	4	10	3	3	6

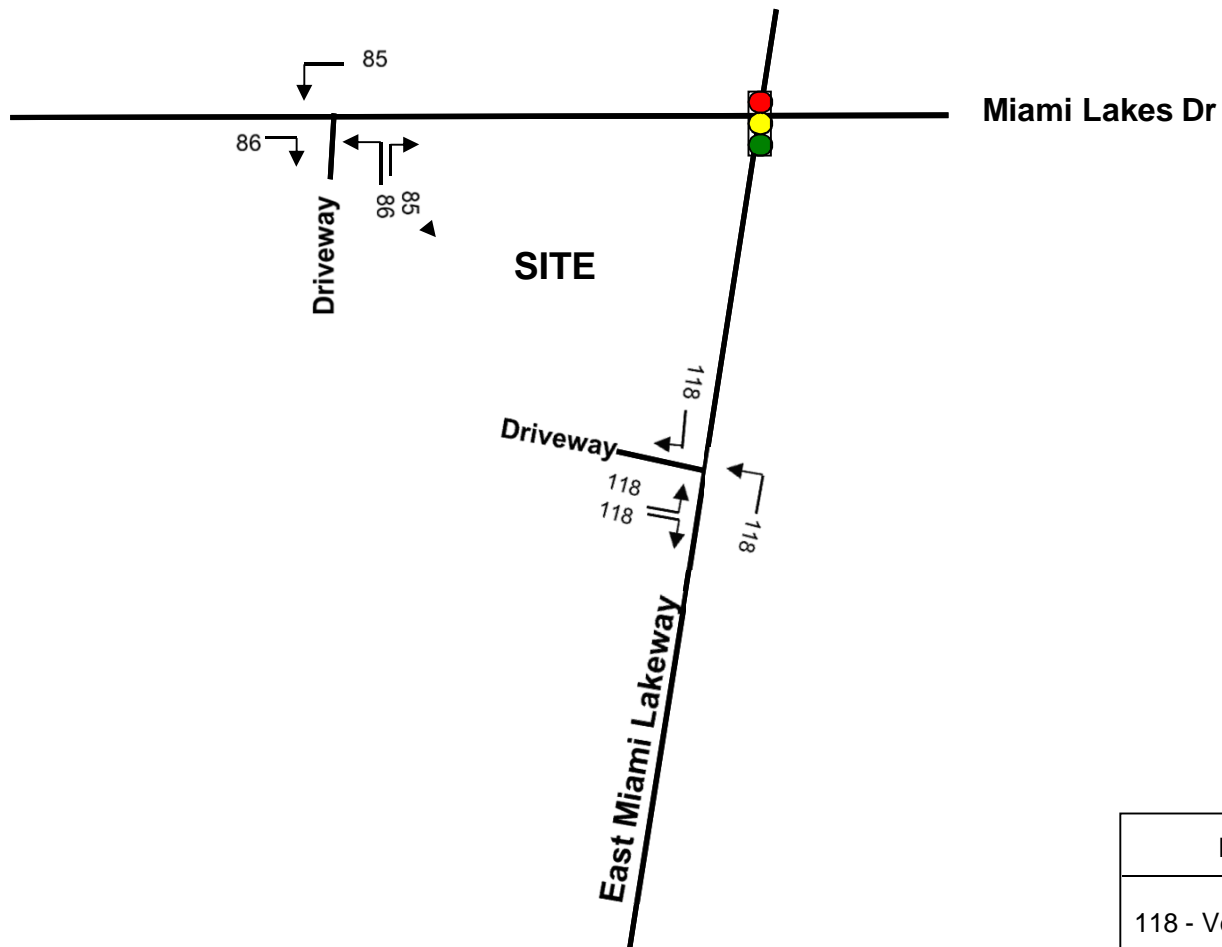
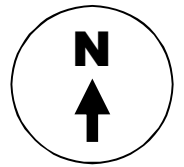
Source: ITE's report *Trip Generation* (9th Edition)

As shown in Table 1 above, the proposed expansion is expected to result in 153 net new vehicle trips on a typical weekday with ten (10) vehicle trips occurring during the AM peak hour and six (6) vehicle trips occurring during the PM peak hour.

The Town of Miami Lakes in 2006 adopted a concurrency management system which allows a proposed development that consumes less than two (2) percent of the adopted level(s) of service of adjacent roadways to be deemed an insignificant impact. A site plan prepared by Beilinson Gomez Architecture and dated October 2016 shows the Elevate Church will have direct access to and from Miami Lakes Drive and East Miami Lakeway. Miami Lakes Drive is a five (5) lane facility with a capacity of 3,120 vehicles per hour (vph) while East Miami Lakeway has two (2) lanes according to the *Concurrency Management Report* and a capacity of 1,180 vph. Conservatively placing all net new vehicle trips on the roadway with the least capacity (East Miami Lakeway) yields a capacity consumption of 0.85 percent and 0.51 percent during AM and PM peak hours, respectively. From a traffic engineering perspective the expansion as proposed is not expected to significantly impact the adjacent roadway network on a typical weekday.

Sunday Trip Generation

According to church staff, services are currently, and will continue to be, held on Sundays beginning at 9:30 AM, 11:00 AM and 12:30 PM. With 813 seats in the new sanctuary and assuming a vehicle occupancy of two (2) persons per vehicle it can be concluded that during the Sunday peak hour of the Elevate Church 407 vehicles will both enter and exit the subject property. Figure 2 shows expected distribution of these peak hour trips at the project driveways. It is important to note that entering and exiting trips estimated above assume 100 percent occupancy of the new sanctuary. Currently, the peak is noted to occur during the second service (the 11:00 AM service) when 254 individuals are in attendance (204 adults and 50 children).



Mitigation Options

Although not anticipated, there may be vehicles exiting onto East Miami Lakeway that may attempt to use a residential street (Egan Lane), immediately south of the church property, as a means to reach westbound Miami Lakes Drive. Options to address this movement include:

- Installing signage to prohibit exiting right turns at the driveway on Sundays.
- Providing a police presence to facilitate vehicular movement both at the driveway and within the immediate area, if necessary.
- Installation of traffic calming features along Egan Lane to discourage cut-through traffic.

Please note, the three measures to discourage use of Egan Lane by patrons of the Elevate Church as described above are provided for discussion purposes only.

In conclusion, weekday traffic estimates specific to the proposed expansion show that vehicular impacts to adjacent roadways is expected to be minimal. It can also be concluded that during the Sunday peak hour of the Elevate Church, at most 407 vehicles will both enter and exit the subject property. In the event use of Egan Lane by church patrons is observed, measures to minimize these impacts include use of appropriate signs, use of police presence and/or installation of traffic calming features.

Please give me a call if you have any questions.

TRAF TECH ENGINEERING, INC.

Joaquin E. Vargas, P.E.
Senior Transportation Engineer

