

# TECHNICAL MEMORANDUM

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April 3, 2026

Project# 30966

To: Renee Rutherford

Manager of Real Estate Development – Eastern Division

Costco Wholesale Corporation

From: Ryan Cunningham

CC: Misbaou Bah; Sharfuddin Ahmed

RE: Costco at LIVE! Pompano - Driveway and Queueing Analysis

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## EXECUTIVE SUMMARY

This technical memorandum was prepared at the request of Broward County to evaluate driveway and intersection operations, including turn lane storage, along Race Track Road, and assess fueling facility queuing associated with the proposed Costco Warehouse development in the City of Pompano Beach, Florida. The site is located at the southeast corner of Powerline Road and Race Track Road and is part of the approved LIVE! Pompano planned commercial development.

The proposed development will be served by three driveways, including a full-access driveway on Pompano Park Place/Race Track Road operating under minor street stop control. The project location and access points are shown in **Figure 1**, and the site plan is provided in **Appendix A**.

Trip generation estimates were developed using the Institute of Transportation Engineers (ITE) Trip Generation Manual, 12th Edition. The proposed warehouse is projected to generate approximately 687 gross trips during the PM peak hour. An operational, turn lane, and queue analysis was conducted for the North Driveway at Race Track Road and the SW 23 Avenue at Race Track Road intersections under future year build conditions. The analysis indicates that both locations are expected to operate acceptably, with overall Level of Service (LOS) C or better and volume-to-capacity ratios below 1.00 during the weekday PM peak hour. An evaluation of the existing turn lanes on Race Track Road demonstrated that the existing turn lane lengths are sufficient to accommodate the projected queues in the build condition.

The proposed Costco fueling facility will include 32 fueling positions and provide substantial on-site queue storage. Review of nationwide data from comparable Costco fuel stations indicates that 95th percentile fuel queues at these stations are well below the available on-site storage provided at the proposed facility. As a result, fuel station queues are expected to remain fully contained within the site and are not anticipated to affect internal circulation or adjacent roadways.

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Overall, the analysis demonstrates that the proposed site access, driveway operations, turn lane storage, and fueling facility layout are adequate to accommodate anticipated future traffic and queueing conditions associated with the proposed Costco Warehouse development.

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Figure 1: Project Location and Access Points

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Kittelson & Associates, Inc.

## TRIP GENERATION

Trip generation estimates were developed using the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 12th Edition. The proposed Costco Warehouse is classified as a Discount Club (ITE Land Use Code 857), and ancillary gas is included in the ITE land use description. **Table 1** summarizes the PM Peak Hour trip generation results. The proposed warehouse is projected to generate approximately 687 gross trips during the PM peak hour. The detailed ITE trip generation sheets are provided in **Appendix B**.

**Table 1: Trip Generation**

| Land Use Type | ITE Code | Number of Units | Units    | Weekday PM Peak Hour |     |     |
|---------------|----------|-----------------|----------|----------------------|-----|-----|
|               |          |                 |          | Total                | In  | Out |
| Discount Club | 857      | 163.11          | 1,000 SF | 687                  | 343 | 344 |
| Pass-by       |          |                 |          | 34%                  |     |     |
|               |          |                 |          | 234                  | 117 | 117 |
| Total         |          |                 |          | 453                  | 226 | 227 |

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## FUTURE CONDITION ANALYSIS

Intersection turning movement counts (TMCs) were collected during the PM peak period on Tuesday, August 26, 2025, at the following study intersections:

- Race Track Road median opening (location of the planned North Driveway)
- Race Track Road and SW 23 Avenue

The intersection data were evaluated, and the peak 60-minute period was found to be from 4:15 PM to 5:15 PM. Traffic volumes were not adjusted for seasonality, as the applicable seasonal adjustment factor obtained from FDOT's Florida Traffic Online (FTO) was 0.99. Documentation for the FDOT Peak Season Category is included with the raw turning movement count data in **Appendix C**. **Figure 2** presents the existing weekday PM peak-hour traffic volumes.

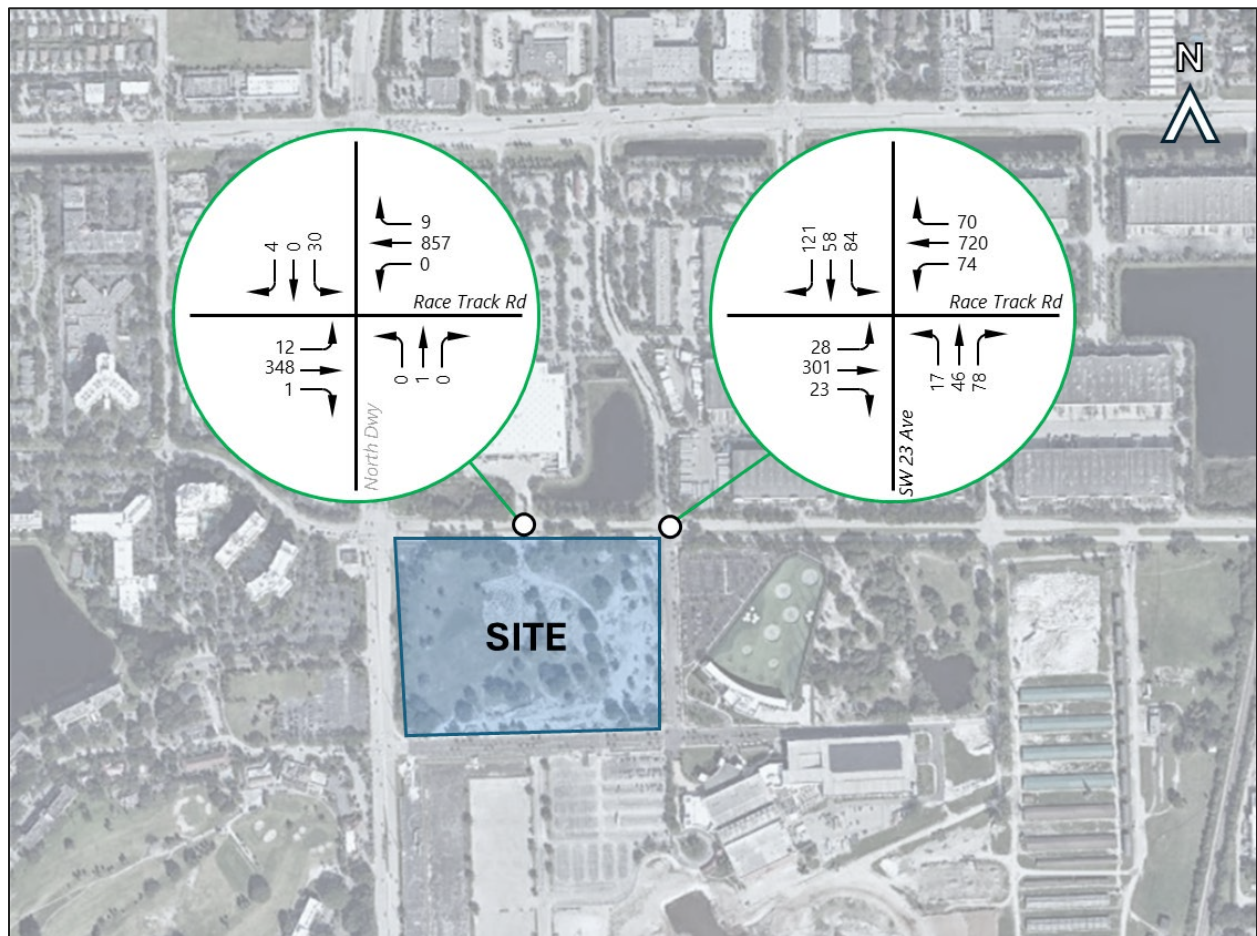


Figure 2. Existing PM Peak Hour Intersection Volumes

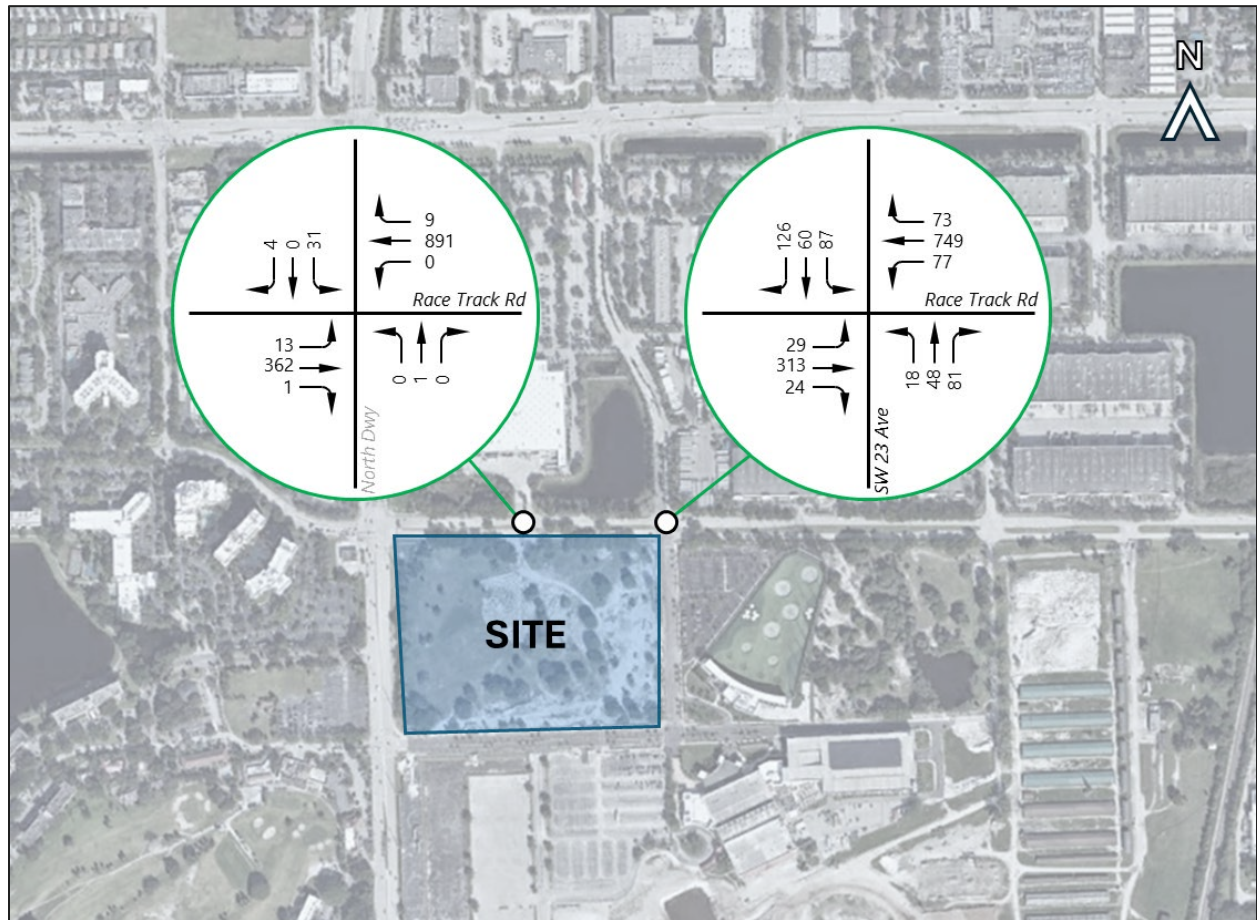
*Note: The driveway does not exist under existing conditions*

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## FUTURE NO-BUILD VOLUMES

Future no-build traffic volumes were developed by applying background growth to the existing traffic volumes. A one-year background growth rate of 1.04% was applied to the existing volumes to develop the future no-build traffic conditions. This growth rate was obtained from the Traffic Impact Study prepared by Kimley-Horn (April 2021) for the project area. Relevant excerpts from the approved Kimley-Horn Traffic Impact Study are included in **Appendix D**. The resulting future no-build weekday PM peak-hour traffic volumes are shown in **Figure 3**.



**Figure 3. Future No-Build PM Peak Hour Intersection Volumes**

*Note: The driveway does not exist under future no-build conditions*

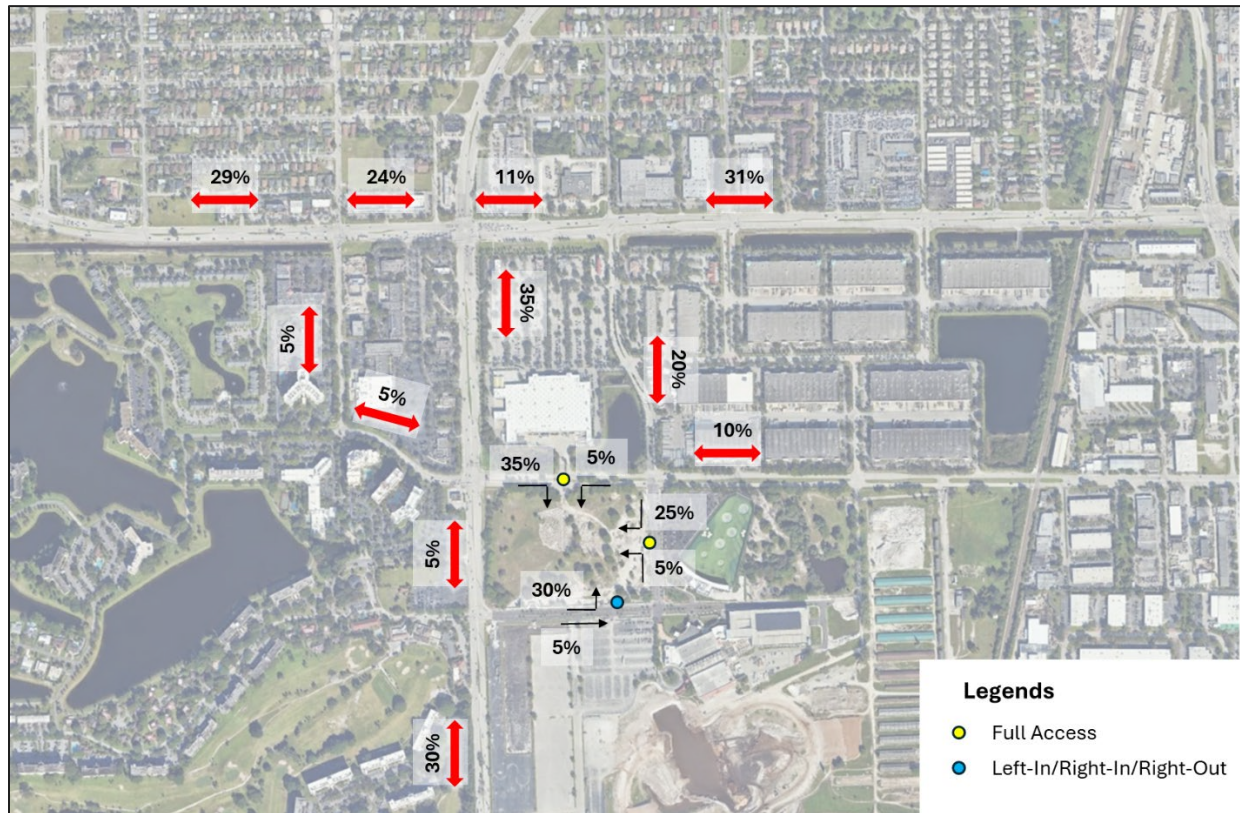
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## DRIVEWAY TRIP DISTRIBUTION AND ASSIGNMENT

The project driveway trip distribution and assignment were estimated based on driveway locations, local traffic patterns and roadway connectivity. It is anticipated that approximately 40% of project-generated trips will utilize the North Driveway at Race Track Road. An estimated 30% of trips are expected to access the site via the West Driveway at SW 23 Avenue, with the remaining 30% anticipated to use the South Driveway at Isle of Capri Boulevard. **Figure 4** shows the project trip distribution.



**Figure 4: Project Trip Distribution**

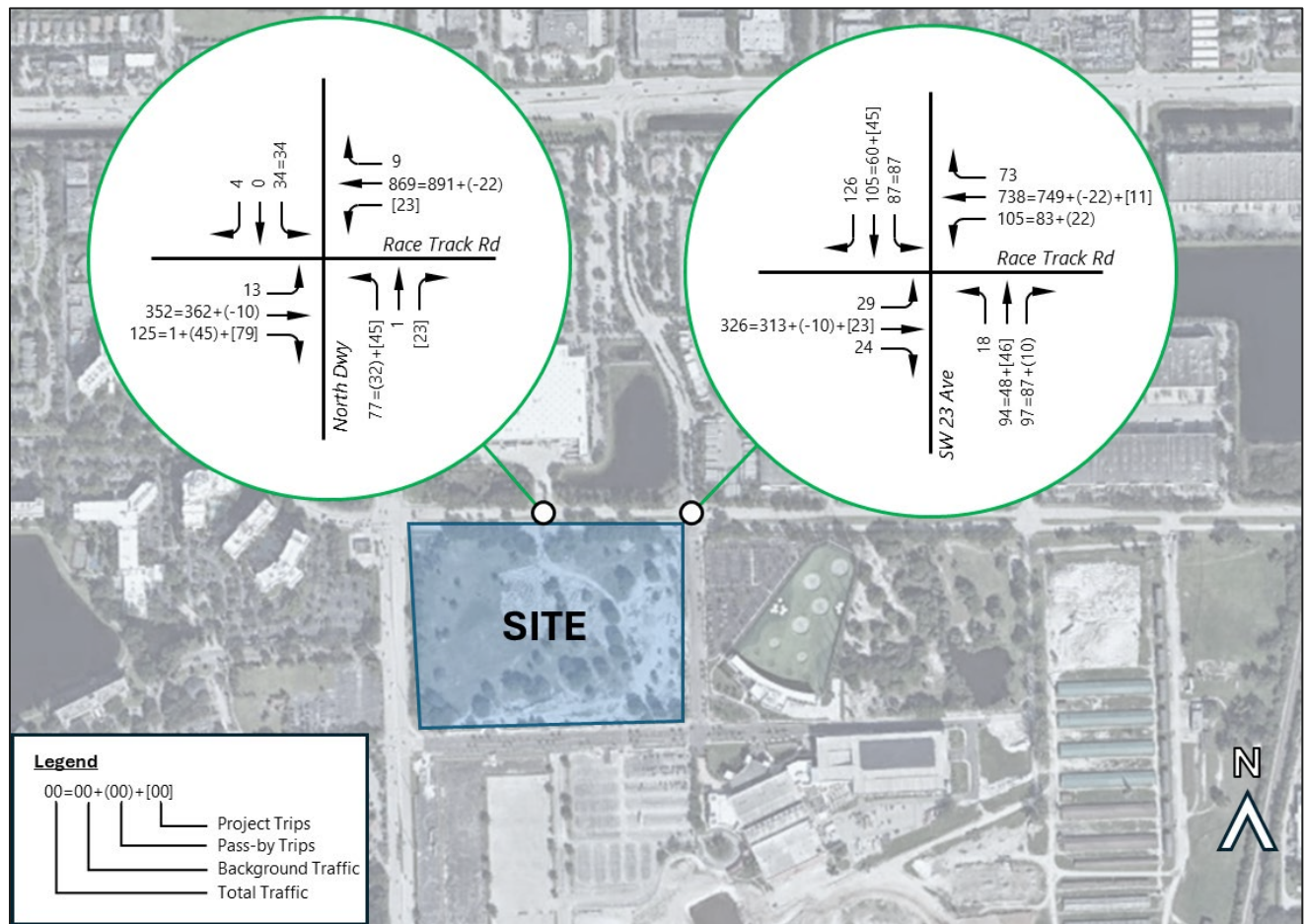
## FUTURE BUILD CONDITION ANALYSIS

An intersection capacity analysis was conducted at the study intersections using Synchro 12 software, following the methodologies outlined in the Highway Capacity Manual (HCM), 7th Edition. For the future build condition analysis, distributed project trips, including pass-by trips, were added to the future no-build traffic volumes, which reflect existing traffic with one year of background growth applied.

Pass-by trips were assigned to the site driveways and removed from the surrounding roadway network, consistent with standard traffic impact analysis practice, to avoid double-counting traffic already present on adjacent roadways. The resulting volumes represent total traffic conditions with the proposed development in place. The resulting future build traffic volumes were used to evaluate intersection operations and are shown in **Figure 5**.

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**Figure 5. Future Build PM Peak Hour Intersection Volumes**

The results of the intersection capacity analysis for the future build conditions during the weekday PM peak hour are summarized in **Table 2**, with detailed Synchro analysis printouts provided in **Appendix E**. As shown in **Table 2**, all the movements are expected to operate at an overall Level of Service (LOS) of C or better, with a volume-to-capacity (v/c) ratio below 1.00.

**Table 2** shows the Synchro intersection analysis results for the future build conditions.

**Table 2. Build Conditions Intersection Analysis**

| Intersection                           | Control Type            | Performance Measure | PM Peak Period |      |      |      |      |
|--|-------------------------|---------------------|----------------|------|------|------|------|
|  |                         |                     | Overall        | EB   | WB   | NB   | SB   |
| 1 - North Driveway and Race Track Road | Two-Way Stop Controlled | Delay (s/veh)       | -              | 10.3 | 8.5  | 20.8 | 14.2 |
|  |                         | LOS                 | -              | B    | A    | C    | B    |
|  |                         | v/c ratio*          | -              | 0.02 | 0.01 | 0.28 | 0.09 |
| 2- SW 23 Avenue and Race Track Road    | Signalized              | Delay (s/veh)       | 18.2           | 14.4 | 14.4 | 29.9 | 31.8 |
|  |                         | LOS                 | B              | B    | B    | C    | C    |
|  |                         | v/c ratio*          | -              | 0.59 | 0.77 | 0.34 | 0.43 |

\*v/c ratios are reported for the highest movement on each approach

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## TURN LANE ANALYSIS

An evaluation of the existing turn lanes on Race Track Road was conducted to confirm that the existing turn lane lengths can accommodate the proposed development. The existing turn lane lengths were measured using Google Earth and were evaluated relative to the FDOT Design Manual (FDM) Exhibit 212-1, and the 95th percentile queues were calculated from the HCM 7<sup>th</sup> Edition output of the Future Build Intersection analysis. The FDM Exhibit 212-1, and the detailed Synchro output reports are provided in **Appendix E**.

Queueing results for the build condition are summarized in **Table 3**, including a comparison of the 95th percentile queue lengths to the existing turn lane lengths. The analysis indicates that the existing turn lane lengths are sufficient to accommodate the projected queues in the build condition.

**Table 3. Turn Lane Analysis**

| Intersection                       | Movement | Speed | Required Deceleration (ft) | Build Conditions Analysis     |                                      | Total Existing Turn Lane Length (ft) |
|------------------------------------|----------|-------|----------------------------|-------------------------------|--------------------------------------|--------------------------------------|
|                                    |          |       |                            | 95 <sup>th</sup> % Queue (ft) | Total Required Turn Lane Length (ft) |                                      |
| North Driveway and Race Track Road | EBR      | 30    | 145                        | 0                             | 145                                  | 260                                  |
|                                    | WBL      | 30    | 145                        | 0                             | 145                                  | 300                                  |
| SW 23 Avenue and Race Track Road   | EBL      | 30    | 145                        | 50                            | 195                                  | 285                                  |
|                                    | EBR      | 30    | 145                        | 100                           | 245                                  | 285                                  |
|                                    | WBL      | 30    | 145                        | 125                           | 270                                  | 485                                  |

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## FUELING FACILITY QUEUING

The proposed Costco fueling facility is designed to accommodate anticipated fueling demand and vehicle queues without impacting internal site circulation or access. The facility will include 16 pumps arranged in a 4-by-4 configuration, providing 32 fueling positions. Based on studies of Costco fuel facilities across the nation, typical fueling service time is approximately 3.5 minutes per vehicle, resulting in a service rate of about 17 vehicles per hour per fueling position. At the proposed Costco fueling facility with 32 fueling positions, this equates to a total service capacity of approximately 548 vehicles per hour, which exceeds the number of vehicles expected to enter the site during the peak periods.

In addition to vehicles actively fueling, the site design provides storage for approximately 48 queued vehicles within the fueling area, fully contained on site and shown in **Figure 6**. To evaluate expected queueing, observed data from existing Costco fuel facilities with 32 fueling positions were reviewed. At these comparable locations, 95th percentile weekday PM peak queues generally range from 7 to 17 vehicles, while Saturday midday peak queues range from 13 to 24 vehicles. These observed queue lengths are well below the available on-site queue storage provided at the proposed facility. **Table 4** summarizes the observed 95th percentile queue lengths at similar Costco fuel stations.

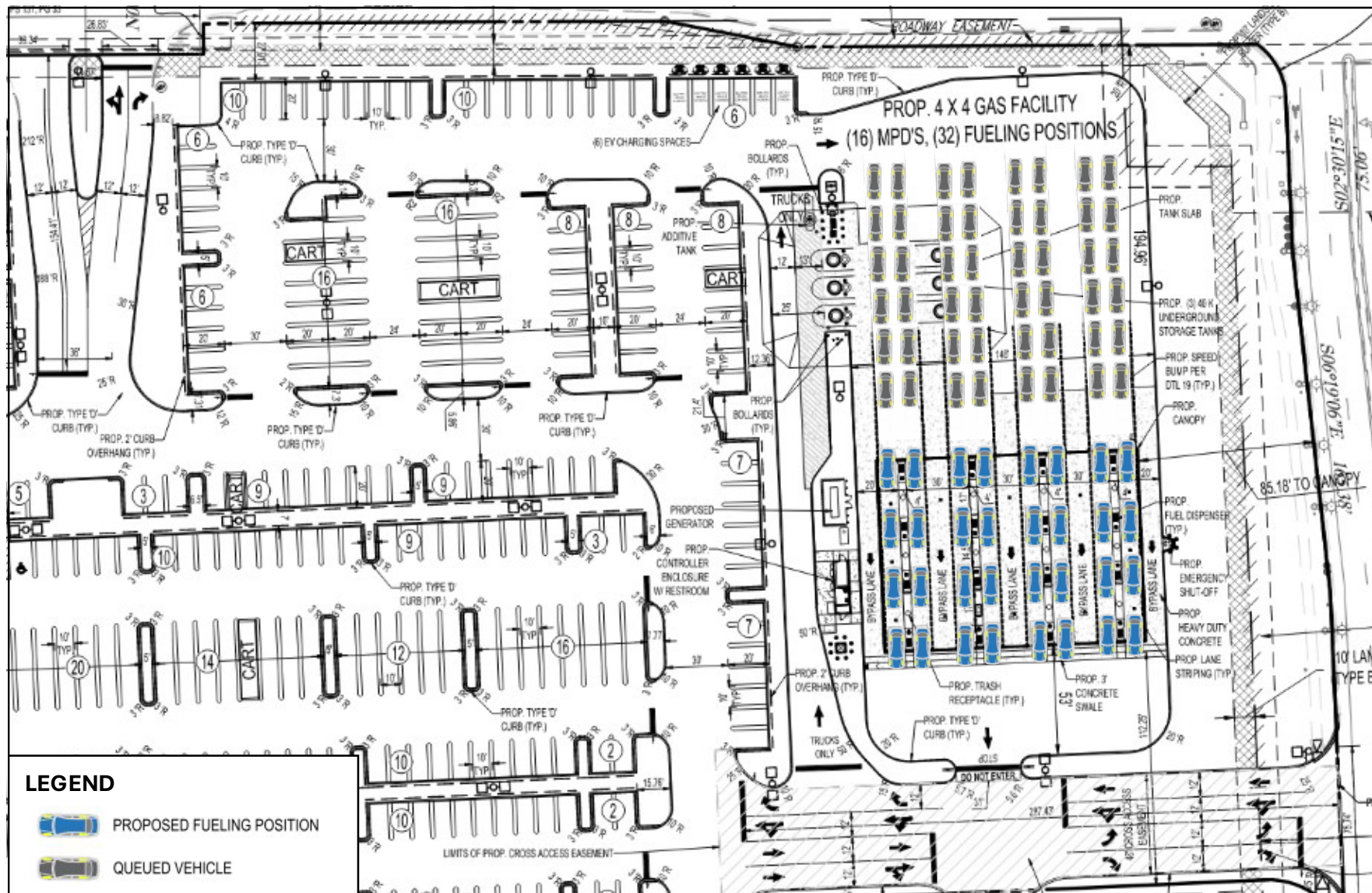
**Table 4. Existing Costco Facility with 32 Fueling Positions and 95th Percentile Gas Queue**

| Warehouse Names | Warehouse City          | Number of Fueling Positions | Weekday AM 95th Percentile | Weekday PM 95th Percentile | Saturday Midday 95th Percentile |
|-----------------|-------------------------|-----------------------------|----------------------------|----------------------------|---------------------------------|
| Santee          | Santee, CA              | 32                          | 1                          | 7                          | 13                              |
| S San Francisco | South San Francisco, CA | 32                          | 1                          | 10                         | 22                              |
| El Camino       | South San Francisco, CA | 32                          | 0                          | 17                         | 35                              |
| La Mesa         | La Mesa, CA             | 32                          | 5                          | 17                         | 24                              |

While temporary increases in demand may occur during holiday travel periods, the proposed fueling area is designed to serve and store up to approximately 80 vehicles at one time, including vehicles fueling and queued, without affecting site circulation or access to other uses. Given the high fueling service capacity and substantial on-site queue storage, the proposed Costco fueling facility is expected to operate efficiently and accommodate anticipated gas station queues without adverse impacts to internal circulation or to surrounding roadways.

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### Figure 6: Queuing Figure

## FINDINGS AND CONCLUSION

Based on the analyses documented in this technical memorandum, the following findings and conclusions are provided:

- The proposed development is projected to generate approximately 687 gross trips during the PM peak hour.
- The North Driveway at Race Track Road and the SW 23 Avenue at Race Track Road intersection are expected to operate at an overall Level of Service (LOS) C or better during the weekday PM peak hour under future build conditions. All analyzed movements operate with volume-to-capacity ratios below 1.00, indicating adequate operational capacity.
- An evaluation of the existing turn lanes on Race Track Road demonstrated that the existing turn lane lengths are sufficient to accommodate the projected queues in the build condition.
- The proposed Costco fueling facility, which includes 32 fueling positions, provides a high service capacity of approximately 548 vehicles per hour. The site design also accommodates approximately 48 queued vehicles within the fueling area, with a total on-site capacity of up to 80 vehicles during peak conditions.
- Observed queue data from comparable Costco fuel stations nationwide show that 95th percentile gas station queues are well below the available on-site storage provided at the proposed facility. As a result, fuel station queues are expected to remain fully contained within the fueling station area and are not anticipated to affect internal circulation or adjacent roadways.

Overall, the analyses demonstrate that the proposed site access, driveway operations, turn lane storage, and fueling facility layout are adequate to accommodate anticipated future traffic and queuing conditions associated with construction of the proposed Costco site.

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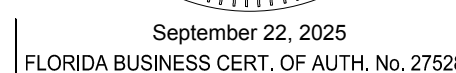
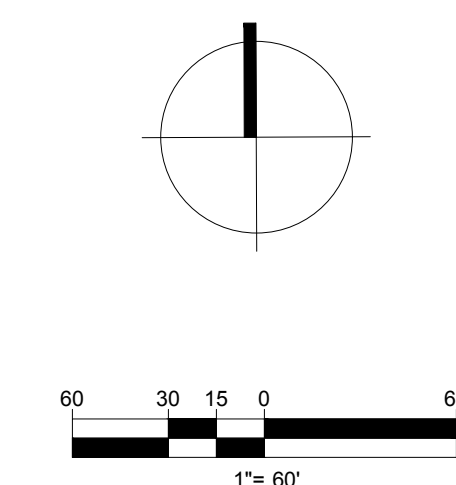
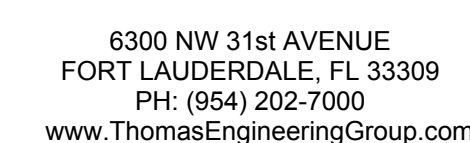
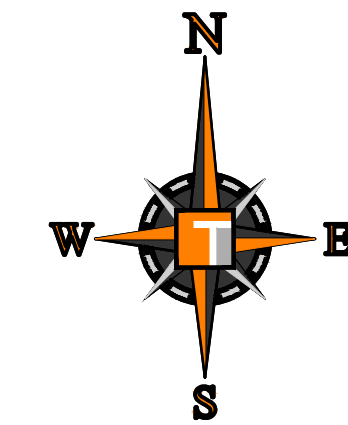
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## Appendix A Site Plan







|                           |                                     |
|---------------------------|-------------------------------------|
| F240051<br>SEPT. 22, 2025 | <b>CIRCULATION PLAN<br/>(TRUCK)</b> |
|---------------------------|-------------------------------------|

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SEPT. 22, 2025

POMPANO BEACH, FLORIDA

# POMPANO BEACH



## Appendix B

### ITE Trip Generation (Edition 12) Reports





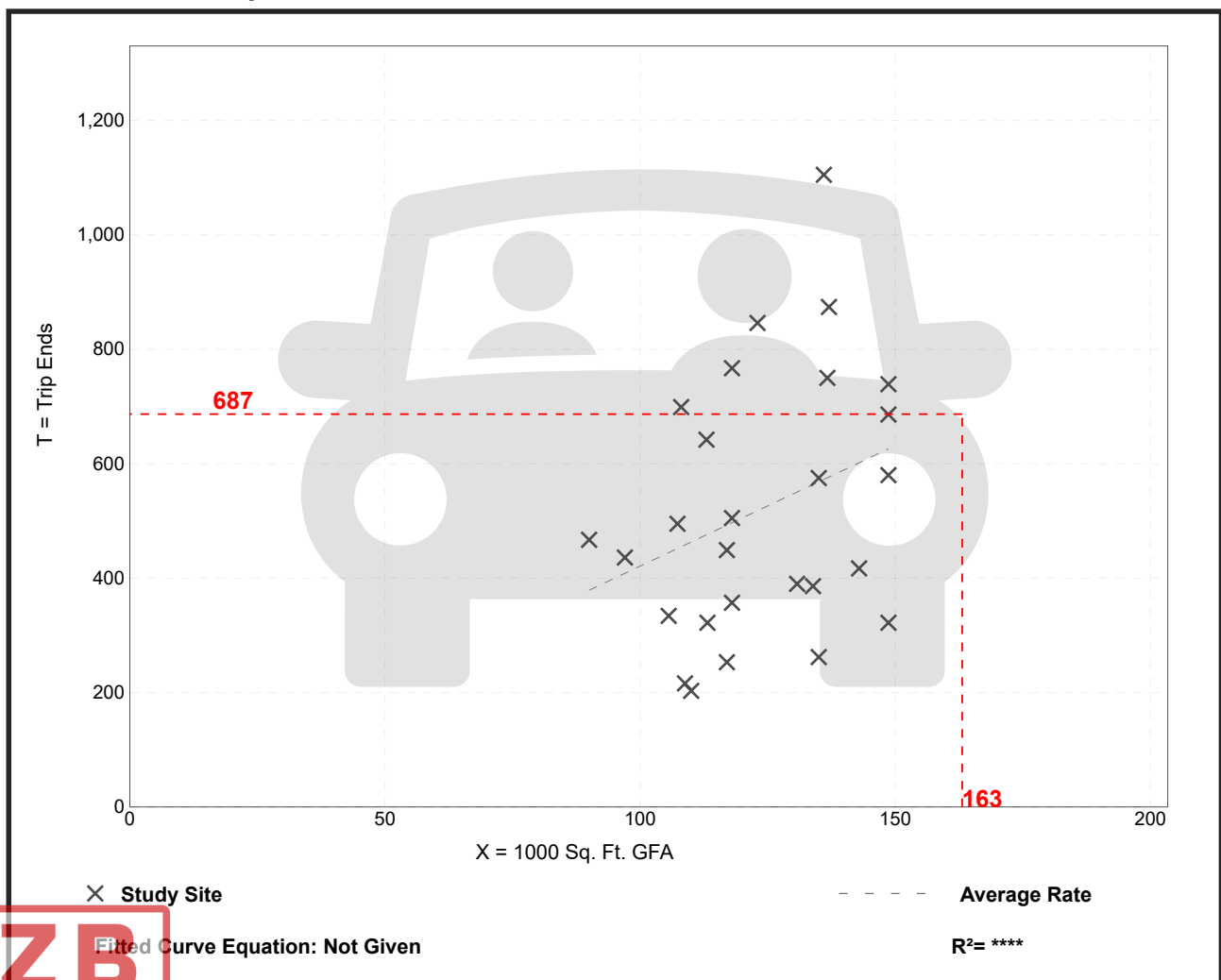
# Discount Club (857)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA  
On a: Weekday,  
Peak Hour of Adjacent Street Traffic,  
One Hour Between 4 and 6 p.m.  
Setting/Location: General Urban/Suburban  
Number of Studies: 27  
Avg. 1000 Sq. Ft. GFA: 124  
Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 4.21         | 1.85 - 8.13    | 1.73               |

## Data Plot and Equation



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## Appendix C

### Turning Movement Counts and Peak Seasonal Factor

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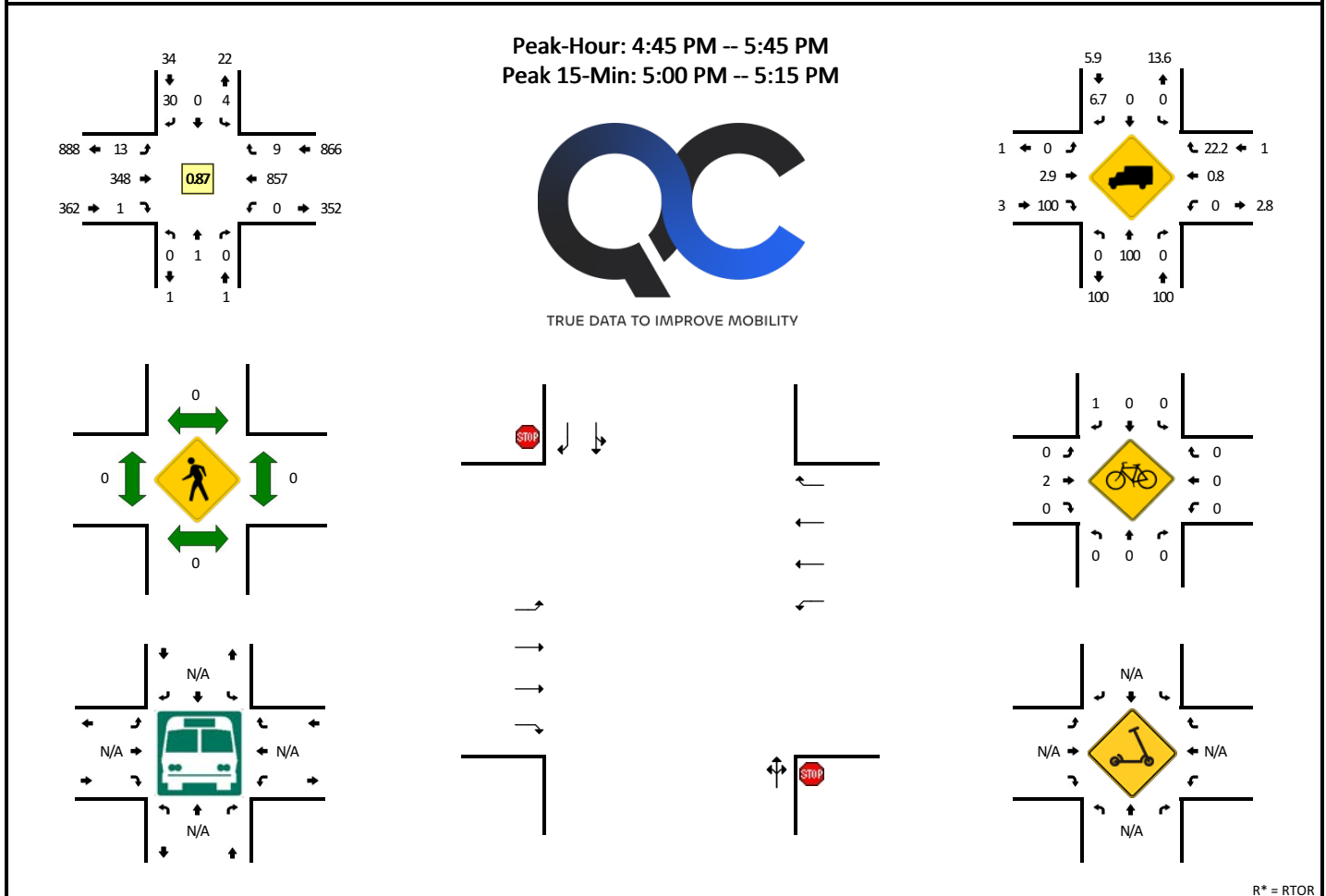
PZ25-12000023  
06/24/2026

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Kittelson & Associates, Inc.

**LOCATION:** North Dwy -- Race Track Rd  
**CITY/STATE:** Pompano Beach, FL

**QC JOB #:** 17208103  
**DATE:** Tue, Aug 26 2025



R\* = RTOR

| 15-Min Count Period Beginning At | North Dwy (Northbound) |      |       |   |    | North Dwy (Southbound) |      |       |   |    | Race Track Rd (Eastbound) |      |       |   |    | Race Track Rd (Westbound) |      |       |   |    | Total | Hourly Totals |
|----------------------------------|------------------------|------|-------|---|----|------------------------|------|-------|---|----|---------------------------|------|-------|---|----|---------------------------|------|-------|---|----|-------|---------------|
|                                  | Left                   | Thru | Right | U | R* | Left                   | Thru | Right | U | R* | Left                      | Thru | Right | U | R* | Left                      | Thru | Right | U | R* |       |               |
| 4:00 PM                          | 0                      | 0    | 0     | 0 | 0  | 1                      | 0    | 5     | 0 | 0  | 6                         | 84   | 1     | 0 | 0  | 0                         | 156  | 0     | 0 | 0  | 253   |               |
| 4:15 PM                          | 0                      | 0    | 0     | 0 | 0  | 0                      | 0    | 6     | 0 | 0  | 2                         | 85   | 0     | 1 | 0  | 0                         | 186  | 0     | 0 | 0  | 280   |               |
| 4:30 PM                          | 1                      | 0    | 0     | 0 | 0  | 0                      | 0    | 5     | 0 | 0  | 4                         | 72   | 0     | 0 | 0  | 0                         | 207  | 2     | 0 | 0  | 291   |               |
| 4:45 PM                          | 0                      | 0    | 0     | 0 | 0  | 0                      | 0    | 3     | 0 | 0  | 4                         | 79   | 1     | 0 | 0  | 0                         | 172  | 5     | 0 | 0  | 264   | 1088          |
| 5:00 PM                          | 0                      | 1    | 0     | 0 | 0  | 2                      | 0    | 7     | 0 | 0  | 3                         | 83   | 0     | 1 | 0  | 0                         | 267  | 1     | 0 | 0  | 365   | 1200          |
| 5:15 PM                          | 0                      | 0    | 0     | 0 | 0  | 0                      | 0    | 9     | 0 | 0  | 3                         | 97   | 0     | 0 | 0  | 0                         | 221  | 3     | 0 | 0  | 333   | 1253          |
| 5:30 PM                          | 0                      | 0    | 0     | 0 | 0  | 2                      | 0    | 11    | 0 | 0  | 2                         | 89   | 0     | 0 | 0  | 0                         | 197  | 0     | 0 | 0  | 301   | 1263          |
| 5:45 PM                          | 0                      | 0    | 0     | 0 | 0  | 2                      | 0    | 2     | 0 | 0  | 2                         | 62   | 0     | 0 | 0  | 0                         | 152  | 0     | 2 | 0  | 222   | 1221          |
| 6:00 PM                          | 0                      | 0    | 0     | 0 | 0  | 0                      | 0    | 7     | 0 | 0  | 6                         | 70   | 0     | 0 | 0  | 0                         | 194  | 3     | 0 | 0  | 280   | 1136          |
| 6:15 PM                          | 0                      | 0    | 0     | 0 | 0  | 0                      | 0    | 7     | 0 | 0  | 6                         | 53   | 0     | 0 | 0  | 0                         | 147  | 2     | 0 | 0  | 215   | 1018          |
| 6:30 PM                          | 0                      | 0    | 0     | 0 | 0  | 0                      | 0    | 10    | 0 | 0  | 1                         | 49   | 0     | 1 | 0  | 0                         | 109  | 1     | 1 | 0  | 172   | 889           |
| 6:45 PM                          | 0                      | 0    | 0     | 0 | 0  | 1                      | 0    | 8     | 0 | 0  | 2                         | 55   | 0     | 0 | 0  | 0                         | 79   | 2     | 0 | 0  | 147   | 814           |
| Peak 15-Min Flowrates            | Northbound             |      |       |   |    | Southbound             |      |       |   |    | Eastbound                 |      |       |   |    | Westbound                 |      |       |   |    | Total |               |
|                                  | Left                   | Thru | Right | U | R* | Left                   | Thru | Right | U | R* | Left                      | Thru | Right | U | R* | Left                      | Thru | Right | U | R* |       |               |
| All Vehicles                     | 0                      | 4    | 0     | 0 | 0  | 8                      | 0    | 28    | 0 | 0  | 12                        | 332  | 0     | 4 | 0  | 0                         | 1068 | 4     | 0 | 0  | 1460  |               |
| Heavy Trucks                     | 0                      | 4    | 0     | 0 | 0  | 0                      | 0    | 0     | 0 | 0  | 0                         | 20   | 0     | 0 | 0  | 0                         | 4    | 0     | 0 | 0  | 28    |               |
| Buses                            |                        |      |       |   |    |                        |      |       |   |    |                           |      |       |   |    |                           |      |       |   |    |       |               |
| Pedestrians                      |                        | 0    |       |   |    |                        | 0    |       |   |    |                           | 0    |       |   |    |                           | 0    |       |   |    | 0     |               |
| Bicycles                         | 0                      | 0    | 0     |   |    | 0                      | 0    | 0     |   |    | 0                         | 8    | 0     |   |    | 0                         | 0    | 0     |   |    | 8     |               |
| Scoters                          |                        |      |       |   |    |                        |      |       |   |    |                           |      |       |   |    |                           |      |       |   |    |       |               |

**Comments:**

Report generated on 9/5/2025 2:11 PM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

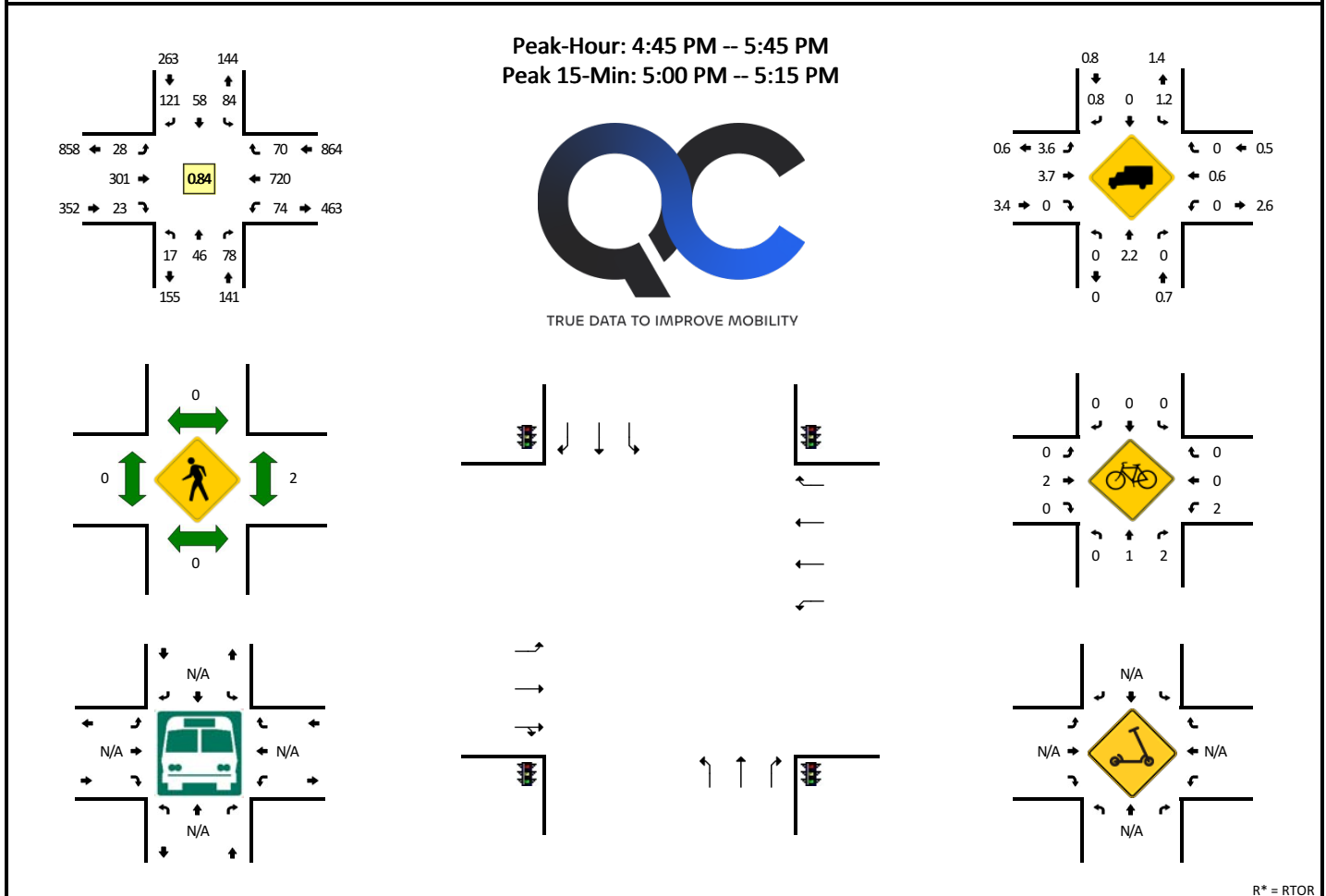
**PZB**

PZ25-12000023  
06/24/2026



**LOCATION:** SW 23rd Ave -- Pompano Park Pl  
**CITY/STATE:** Pompano Beach, FL

**QC JOB #:** 17208102  
**DATE:** Tue, Aug 26 2025



R\* = RTOR

| 15-Min Count Period Beginning At | SW 23rd Ave (Northbound) |      |       |   |    | SW 23rd Ave (Southbound) |      |       |   |    | Pompano Park Pl (Eastbound) |      |       |   |    | Pompano Park Pl (Westbound) |      |       |   |    | Total | Hourly Totals |
|----------------------------------|--------------------------|------|-------|---|----|--------------------------|------|-------|---|----|-----------------------------|------|-------|---|----|-----------------------------|------|-------|---|----|-------|---------------|
|                                  | Left                     | Thru | Right | U | R* | Left                     | Thru | Right | U | R* | Left                        | Thru | Right | U | R* | Left                        | Thru | Right | U | R* |       |               |
| 4:00 PM                          | 3                        | 10   | 8     | 0 | 11 | 21                       | 15   | 9     | 0 | 21 | 3                           | 75   | 3     | 0 | 1  | 14                          | 125  | 5     | 0 | 3  | 327   |               |
| 4:15 PM                          | 3                        | 5    | 12    | 0 | 10 | 12                       | 16   | 3     | 0 | 14 | 2                           | 78   | 2     | 0 | 5  | 8                           | 174  | 15    | 0 | 1  | 360   |               |
| 4:30 PM                          | 1                        | 6    | 11    | 0 | 8  | 19                       | 22   | 15    | 0 | 15 | 5                           | 56   | 6     | 0 | 4  | 14                          | 171  | 12    | 0 | 1  | 366   |               |
| 4:45 PM                          | 4                        | 14   | 4     | 0 | 13 | 21                       | 14   | 5     | 0 | 15 | 6                           | 63   | 2     | 0 | 6  | 14                          | 152  | 8     | 0 | 7  | 348   | 1401          |
| 5:00 PM                          | 7                        | 11   | 7     | 0 | 14 | 20                       | 15   | 21    | 0 | 14 | 7                           | 77   | 2     | 0 | 3  | 29                          | 234  | 10    | 0 | 9  | 480   | 1554          |
| 5:15 PM                          | 3                        | 10   | 8     | 0 | 12 | 19                       | 14   | 9     | 0 | 22 | 3                           | 89   | 1     | 0 | 1  | 15                          | 179  | 17    | 0 | 3  | 405   | 1599          |
| 5:30 PM                          | 3                        | 11   | 9     | 0 | 11 | 24                       | 15   | 14    | 0 | 21 | 12                          | 72   | 5     | 0 | 3  | 16                          | 155  | 13    | 0 | 3  | 387   | 1620          |
| 5:45 PM                          | 4                        | 10   | 5     | 0 | 9  | 27                       | 16   | 7     | 0 | 22 | 6                           | 50   | 6     | 0 | 4  | 19                          | 120  | 19    | 0 | 9  | 333   | 1605          |
| 6:00 PM                          | 2                        | 9    | 5     | 0 | 17 | 20                       | 12   | 15    | 0 | 21 | 5                           | 61   | 1     | 0 | 4  | 18                          | 171  | 9     | 0 | 3  | 373   | 1498          |
| 6:15 PM                          | 4                        | 12   | 6     | 0 | 8  | 16                       | 17   | 12    | 0 | 21 | 3                           | 38   | 2     | 1 | 8  | 12                          | 100  | 10    | 1 | 4  | 275   | 1368          |
| 6:30 PM                          | 1                        | 7    | 12    | 0 | 9  | 18                       | 15   | 5     | 1 | 15 | 4                           | 40   | 4     | 0 | 2  | 17                          | 91   | 6     | 1 | 5  | 253   | 1234          |
| 6:45 PM                          | 3                        | 5    | 6     | 0 | 7  | 21                       | 7    | 4     | 0 | 7  | 4                           | 48   | 5     | 0 | 3  | 14                          | 68   | 7     | 0 | 1  | 210   | 1111          |
| Peak 15-Min Flowrates            | Northbound               |      |       |   |    | Southbound               |      |       |   |    | Eastbound                   |      |       |   |    | Westbound                   |      |       |   |    | Total |               |
|                                  | Left                     | Thru | Right | U | R* | Left                     | Thru | Right | U | R* | Left                        | Thru | Right | U | R* | Left                        | Thru | Right | U | R* |       |               |
| All Vehicles                     | 28                       | 44   | 84    | 0 | 56 | 80                       | 60   | 140   | 0 | 56 | 28                          | 308  | 20    | 0 | 12 | 116                         | 936  | 76    | 0 | 36 | 2080  |               |
| Heavy Trucks                     | 0                        | 4    | 0     |   |    | 4                        | 0    | 4     |   |    | 4                           | 16   | 0     |   |    | 0                           | 0    | 0     |   |    | 32    |               |
| Buses                            |                          |      |       |   |    |                          |      |       |   |    |                             |      |       |   |    |                             |      |       |   |    |       |               |
| Pedestrians                      |                          | 0    |       |   |    |                          | 0    |       |   |    |                             | 0    |       |   |    |                             | 4    |       |   |    | 4     |               |
| Bicycles                         | 0                        | 0    | 8     |   |    | 0                        | 0    | 0     |   |    | 0                           | 8    | 0     |   |    | 0                           | 0    | 0     |   |    | 16    |               |
| Scooters                         |                          |      |       |   |    |                          |      |       |   |    |                             |      |       |   |    |                             |      |       |   |    |       |               |

**Comments:**

Report generated on 9/5/2025 2:11 PM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

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PZ25-12000023  
06/24/2026

2024 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL  
CATEGORY: 8601 CEN.-W OF US1 TO SR7

|      |                         | MOCF: 0.99 |      |
|------|-------------------------|------------|------|
| WEEK | DATES                   | SF         | PSCF |
| 1    | 01/01/2024 - 01/06/2024 | 0.99       | 1.00 |
| 2    | 01/07/2024 - 01/13/2024 | 1.01       | 1.02 |
| 3    | 01/14/2024 - 01/20/2024 | 1.04       | 1.05 |
| 4    | 01/21/2024 - 01/27/2024 | 1.03       | 1.04 |
| 5    | 01/28/2024 - 02/03/2024 | 1.02       | 1.03 |
| 6    | 02/04/2024 - 02/10/2024 | 1.01       | 1.02 |
| 7    | 02/11/2024 - 02/17/2024 | 1.00       | 1.01 |
| 8    | 02/18/2024 - 02/24/2024 | 1.00       | 1.01 |
| 9    | 02/25/2024 - 03/02/2024 | 1.00       | 1.01 |
| 10   | 03/03/2024 - 03/09/2024 | 0.99       | 1.00 |
| 11   | 03/10/2024 - 03/16/2024 | 0.99       | 1.00 |
| 12   | 03/17/2024 - 03/23/2024 | 0.99       | 1.00 |
| 13   | 03/24/2024 - 03/30/2024 | 0.99       | 1.00 |
| 14   | 03/31/2024 - 04/06/2024 | 0.99       | 1.00 |
| 15   | 04/07/2024 - 04/13/2024 | 0.99       | 1.00 |
| 16   | 04/14/2024 - 04/20/2024 | 0.99       | 1.00 |
| 17   | 04/21/2024 - 04/27/2024 | 0.99       | 1.00 |
| 18   | 04/28/2024 - 05/04/2024 | 1.00       | 1.01 |
| 19   | 05/05/2024 - 05/11/2024 | 1.00       | 1.01 |
| 20   | 05/12/2024 - 05/18/2024 | 1.00       | 1.01 |
| 21   | 05/19/2024 - 05/25/2024 | 1.01       | 1.02 |
| 22   | 05/26/2024 - 06/01/2024 | 1.02       | 1.03 |
| 23   | 06/02/2024 - 06/08/2024 | 1.03       | 1.04 |
| 24   | 06/09/2024 - 06/15/2024 | 1.04       | 1.05 |
| 25   | 06/16/2024 - 06/22/2024 | 1.04       | 1.05 |
| 26   | 06/23/2024 - 06/29/2024 | 1.04       | 1.05 |
| 27   | 06/30/2024 - 07/06/2024 | 1.04       | 1.05 |
| 28   | 07/07/2024 - 07/13/2024 | 1.04       | 1.05 |
| 29   | 07/14/2024 - 07/20/2024 | 1.04       | 1.05 |
| 30   | 07/21/2024 - 07/27/2024 | 1.02       | 1.03 |
| 31   | 07/28/2024 - 08/03/2024 | 1.01       | 1.02 |
| 32   | 08/04/2024 - 08/10/2024 | 1.00       | 1.01 |
| 33   | 08/11/2024 - 08/17/2024 | 0.99       | 1.00 |
| 34   | 08/18/2024 - 08/24/2024 | 0.99       | 1.00 |
| 35   | 08/25/2024 - 08/31/2024 | 0.99       | 1.00 |
| 36   | 09/01/2024 - 09/07/2024 | 1.00       | 1.01 |
| 37   | 09/08/2024 - 09/14/2024 | 1.00       | 1.01 |
| 38   | 09/15/2024 - 09/21/2024 | 1.00       | 1.01 |
| *39  | 09/22/2024 - 09/28/2024 | 1.00       | 1.01 |
| *40  | 09/29/2024 - 10/05/2024 | 1.00       | 1.01 |
| *41  | 10/06/2024 - 10/12/2024 | 1.00       | 1.01 |
| *42  | 10/13/2024 - 10/19/2024 | 1.00       | 1.01 |
| *43  | 10/20/2024 - 10/26/2024 | 1.00       | 1.01 |
| *44  | 10/27/2024 - 11/02/2024 | 0.99       | 1.00 |
| *45  | 11/03/2024 - 11/09/2024 | 0.99       | 1.00 |
| *46  | 11/10/2024 - 11/16/2024 | 0.99       | 1.00 |
| *47  | 11/17/2024 - 11/23/2024 | 0.99       | 1.00 |
| *48  | 11/24/2024 - 11/30/2024 | 0.99       | 1.00 |
| *49  | 12/01/2024 - 12/07/2024 | 0.99       | 1.00 |
| *50  | 12/08/2024 - 12/14/2024 | 0.99       | 1.00 |
| *51  | 12/15/2024 - 12/21/2024 | 0.99       | 1.00 |
| 52   | 12/22/2024 - 12/28/2024 | 1.01       | 1.02 |
| 53   | 12/29/2024 - 12/31/2024 | 1.04       | 1.05 |

\* PEAK SEASON

04-MAR-2025 16:32:53

830UPD

4\_8601\_PKSEASON.TXT



## Appendix D

### 2021 Traffic Impact Study (Kimley Horn)



*Traffic Impact Analysis  
for Submittal to the  
Florida Department of Transportation*

**Live! Resorts Pompano**  
Pompano Beach, Florida



**Kimley»Horn**

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Updated April 2021

March 2021

February 2021

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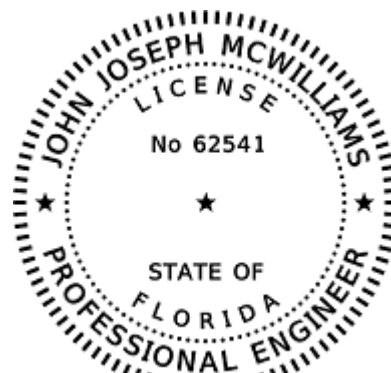


*Traffic Impact Analysis  
for Submittal to the  
Florida Department of Transportation*

**Live! Resorts Pompano**  
Pompano Beach, Florida

*Prepared for:*  
Pompano Park JV Holdings, LLC

*Prepared by:*  
Kimley-Horn and Associates, Inc.



This document has been  
digitally signed and sealed by  
John J. McWilliams, P.E., on  
the date adjacent to the seal.

Printed copies of this document  
are not considered signed and  
sealed and the signature must  
be verified on any electronic  
copies.

**Kimley»Horn**

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March 2021

February 2021

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John J. McWilliams, P.E.  
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Fort Lauderdale, FL 33324  
Registry 00000696

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PZ25-12000023  
06/24/2026

## EXECUTIVE SUMMARY

Pompano Park JV Holdings, LLC is proposing to redevelop the property located on the southeast corner of the intersection of SR 845/Powerline Road and SW 3<sup>rd</sup> Street/Race Track Road in Pompano Beach, Florida, referred to as Live! Resorts Pompano. Currently, the site contains a racetrack with grandstand (to be razed), 45,000 square feet of casino, and 112,000 square feet of retail/food and beverage space. The proposed redevelopment is phased. The initial phase of the redevelopment consists of 1,500,000 square feet of industrial space, 300,000 square feet of commercial/retail space, 69,840 square feet of casino, a 300-seat jai alai fronton, 800 residential dwelling units, and 225 hotel rooms and is anticipated to be completed in 2022. The redevelopment's full build-out consists of 775,000 square feet of office space, 1,500,000 square feet of industrial space, 550,000 square feet of commercial/retail space, 69,840 square feet of casino, a 300-seat jai alai fronton, an 18-screen movie theater, 4,100 residential dwelling units, and 950 hotel rooms and is anticipated to be completed in 2029.

Trip generation calculations for the proposed redevelopment were performed using the Institute of Transportation Engineers' (ITE's) *Trip Generation Manual*, 10<sup>th</sup> Edition. The initial phase (2022) is expected to generate 1,000 net new weekday A.M. peak hour vehicular trips and 1,367 net new weekday P.M. peak hour vehicular trips. Full build-out (2029) of the site is expected to generate 2,983 net new weekday A.M. peak hour vehicular trips and 3,589 net new weekday P.M. peak hour vehicular trips.

Intersection capacity and turn lane queue analyses were performed for existing, 2022 future background, 2022 initial phase, 2029 future background, and 2029 full build-out conditions. Intersection capacity analyses indicate that intersection improvements are needed at study area intersections and project driveways to mitigate the impact of trips attributable to the proposed redevelopment. Mitigation improvements include the following:

### Initial Phase Improvements:

- SR 814/W Atlantic Boulevard and SR 845/Powerline Road
  - Either of the following improvement options:
    - Improvement A

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- Addition of a second eastbound right-turn lane
  - Signal timing optimization
- Improvement B
  - Constructed in place of Improvement A
  - Addition of a third northbound left-turn lane
  - Signal phasing modification (northbound/southbound lead/lag phasing) and timing optimization
- SR 814/W Atlantic Boulevard and Andrews Avenue
  - Addition of northbound right-turn overlap phase
  - Signal timing optimization
- SW 3<sup>rd</sup> Street/Race Track Road and SR 845/Powerline Road
  - Signal timing optimization
- SW 3<sup>rd</sup> Street/Race Track Road and SW 15<sup>th</sup> Avenue/East Project Driveway
  - Signalization
- SR 845/Powerline Road and South Project Driveway
  - Signalization
- SR 845/Powerline Road and W McNab Road
  - Signal timing optimization
- SR 870/Commercial Boulevard and I-95 northbound/southbound ramps
  - Signal timing optimization

Full Build-Out Improvements:

- SR 814/W Atlantic Boulevard and SW 27<sup>th</sup> Avenue
  - Signal timing optimization
- SR 814/W Atlantic Boulevard and SR 845/Powerline Road
  - Remaining of the following improvement options:
    - Improvement A
      - Addition of a second eastbound right-turn lane
      - Signal timing optimization
    - Improvement B
      - Addition of a third northbound left-turn lane

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- Signal phasing modification (northbound/southbound lead/lag phasing) and timing optimization
  - Addition of westbound and southbound right-turn overlap phases
- SW 3<sup>rd</sup> Street/Race Track Road and SR 845/Powerline Road
  - Addition of a second westbound right-turn lane
  - Addition of a third westbound left-turn lane
  - Addition of eastbound, westbound, and northbound right-turn overlap phases
  - Signal timing optimization
- SW 3<sup>rd</sup> Street/Race Track Road and SW 23<sup>rd</sup> Avenue/West Project Driveway
  - Signal timing optimization
- SW 3<sup>rd</sup> Street/ Race Track Road and S Andrews Avenue
  - Signal timing optimization
- SR 845/Powerline Road and N Palm Aire Drive/North Project Driveway
  - Signal timing optimization
- SR 845/Powerline Road and W McNab Road
  - Addition of eastbound, westbound, and northbound right-turn overlap phases
  - Signal timing optimization

Note that the initial phase improvements are assumed to be in place by year 2029 and are included in the full build-out (2029) analyses. Per the requirements of the City of Pompano Beach, the initial phase improvements must be constructed prior to a trip threshold generally coinciding with the completion of the initial phase development plan. Furthermore, mitigation improvements associated with the full build out are required to be completed prior to construction of 75 percent (75%) of the development plan. The design and construction of all identified improvements are the responsibility of the project. All improvements are subject to review and approval of the maintaining agencies including the City of Pompano Beach, Broward County, and the Florida Department of Transportation (FDOT).

Intersection improvements are proposed to mitigate the project's impact where the overall intersection is expected to operate below FDOT's Level of Service (LOS) target of LOS D. Note that the proposed intersection improvements result in all intersections operating at, or better than, the

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future background conditions LOS during all analysis scenarios with the exception of the intersection of SR 845/Powerline Road and W McNab Road during the P.M. peak hour under full build-out (2029) conditions.

In addition to the proposed intersection improvements, the following turn lane improvements are proposed at turn lanes adversely impacted by the project. Note that turn lane improvements are only proposed at turn lanes that are not geometrically constrained:

- Initial Phase (2022)
  - The westbound left-turn storage length at the intersection of SR 814/W Atlantic Boulevard and Magner Drive is expected to be deficient. The turn lane can be extended by approximately 160 feet.
- Full Build (2029)
  - The northbound left-turn storage length at the intersection of SR 814/W Atlantic Boulevard and SW 27<sup>th</sup> Avenue is expected to be deficient. The turn lane can be extended into the adjacent two-way left-turn lane.
  - The westbound left-turn storage length at the intersection of SR 814/W Atlantic Boulevard and SW 23<sup>rd</sup> Avenue is expected to be deficient. The turn lane can be extended by approximately 120 feet.
  - The westbound left-turn storage length at the intersection of SR 814/W Atlantic Boulevard and Magner Drive is expected to be deficient. Please note that the turn-lane extension proposed under initial phase (2022) with project conditions is sufficient to accommodate the queue length under full build (2029) with project conditions.

Signal warrant analyses were conducted at the intersections of SW 3<sup>rd</sup> Street/Race Track Road at SW 15<sup>th</sup> Avenue/East Project Driveway and SR 845/Powerline Road at South Project Driveway under the initial phase (2022) conditions. The results of the signal warrant analyses indicate that the intersection of SW 3<sup>rd</sup> Street/Race Track Road at SW 15<sup>th</sup> Avenue/East Project Driveway satisfies Warrant 1 under initial phase (2022) conditions and the intersection of SR 845/Powerline Road at South Project Driveway satisfies Warrant 1 and Warrant 2 under initial phase (2022) conditions. The design and construction of the identified signals are the responsibility of the project.

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## FUTURE BACKGROUND TRAFFIC

Future background traffic conditions are defined as expected traffic conditions on the roadway network during the analysis years without project traffic. Future background traffic was developed for the analysis years corresponding to the completion of the initial phase (2022) and full build-out (2029) of the project. Future background traffic volumes used in the analysis are the sum of the existing traffic and additional amount of traffic generated by growth in the study area. Refer to Figure 3 and Figure 4 for the future background 2022 and 2029 peak hour traffic volumes, respectively.

Future traffic growth on the transportation network was determined based upon historical growth trends at nearby FDOT traffic count stations, a comparison of the 2015 and 2045 traffic volume plots from the Florida Standard Urban Transportation Model Structure (FSUTMS) Southeast Florida Regional Planning Model Version 8 (SERPM 8), historical growth trends at nearby FDOT traffic count stations plus 2045 model data, and a comparison of 2015 and 2045 socioeconomic data. The following FDOT count stations were referenced for this analysis:

- Station No. 0026 located on SR 814/Atlantic Boulevard, east of Powerline Road
- Station No. 0131 located on SR 845/Powerline Road, north of Cypress Creek Road
- Station No. 0174 located on SR 814/Atlantic Boulevard, west of I-95 & east of Andrews Avenue
- Station No. 0450 located on SR 845/Powerline Road, south of SR 814/Atlantic Boulevard
- Station No. 7604 located on McNab Road, west of SR 845/Powerline Road
- Station No. 7727 located on Pompano Park Place, west of Andrews Avenue
- Station No. 9351 located on McNab Road, west of Andrews Avenue

Utilizing historical FDOT count station data, the linear growth trend yielded an annual growth rate of 1.17 percent (1.17%) over the most recent ten (10) year period. The exponential and decaying exponential growth trends yielded an annual growth rate of 1.07 percent (1.07%) over the most recent ten (10) year period.

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Utilizing historical FDOT count station data from the most recent ten (10) year period and 2045 model data, the linear growth trend yielded a growth rate of 0.84 percent (0.84%). The exponential growth trend yielded a growth rate of 0.70 percent (0.70%). The decaying exponential growth trend yielded a growth rate of 1.95 percent (1.95%). Please note that FDOT's *Difference Adjustment* method was applied to account for the large base year model volume deviation between 2015 FDOT historical volumes and 2015 SERPM volumes.

Based on the volume information obtained from the years 2015 and 2045 FSUTMS SERPM model, an annual linear growth rate of 0.76 percent (0.76%) in the vicinity of the redevelopment was calculated. Based on the socioeconomic information obtained from the years 2015 and 2045 FSUTMS SERPM model, an annual linear growth rate of 1.04 percent (1.04%) in the vicinity of the redevelopment was calculated. The historical growth trends with the highest R-Squared values were compared to the growth rates calculated based on volumes and socioeconomic data for the 2015 and 2045 FSUTMS SERPM model. The highest growth rate of 1.04 percent (1.04%) was applied annually to the existing traffic volumes to develop the future 2022 and 2029 background conditions. The worksheets used to analyze the historical growth trends along with the SERPM model outputs are included in Appendix D.

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## Appendix E

### FDM Exhibit 212-1 & Future Synchro Reports





## **Future Build Conditions Synchro Results**

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06/24/2026

HCM 7th TWSC  
1: North Dwy & Race Track Rd

04/03/2026

Intersection

Int Delay, s/veh 1.7

| Movement                 | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT   | NBR  | SBL  | SBT   | SBR  |
|--------------------------|---|---|---|---|---|---|---|---|------|------|---|------|
| Lane Configurations      |  |  |  |  |  |  |  |  |      |      |  |      |
| Traffic Vol, veh/h       | 13  | 352   | 125   | 11  | 869   | 9   | 77  | 1   | 23   | 4    | 0   | 31   |
| Future Vol, veh/h        | 13  | 352   | 125   | 11  | 869   | 9   | 77  | 1   | 23   | 4    | 0   | 31   |
| Conflicting Peds, #/hr   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0    | 0    | 0   | 0    |
| Sign Control             | Free  | Free  | Free  | Free  | Free  | Free  | Stop  | Stop  | Stop | Stop | Stop  | Stop |
| RT Channelized           | -   | -   | None  | -   | -   | None  | -   | -   | None | -    | -   | None |
| Storage Length           | 210   | -   | 160   | 180   | -   | 215   | 0   | -   | -    | -    | -   | -    |
| Veh in Median Storage, # | -   | 0   | -   | -   | 0   | -   | -   | 1   | -    | -    | 1   | -    |
| Grade, %                 | -   | 0   | -   | -   | 0   | -   | -   | 0   | -    | -    | 0   | -    |
| Peak Hour Factor         | 87  | 87  | 87  | 87  | 87  | 87  | 87  | 87  | 87   | 87   | 87  | 87   |
| Heavy Vehicles, %        | 0   | 3   | 0   | 0   | 1   | 22  | 0   | 100   | 0    | 0    | 0   | 7    |
| Mvmt Flow                | 15  | 405   | 144   | 13  | 999   | 10  | 89  | 1   | 26   | 5    | 0   | 36   |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |      |     | Minor2 |      |      |
|----------------------|--------|---|---|--------|---|---|--------|------|-----|--------|------|------|
| Conflicting Flow All | 1009   | 0 | 0 | 548    | 0 | 0 | 959    | 1469 | 202 | 1257   | 1602 | 499  |
| Stage 1              | -      | - | - | -      | - | - | 434    | 434  | -   | 1024   | 1024 | -    |
| Stage 2              | -      | - | - | -      | - | - | 525    | 1034 | -   | 233    | 578  | -    |
| Critical Hdwy        | 4.1    | - | - | 4.1    | - | - | 7.5    | 8.5  | 6.9 | 7.5    | 6.5  | 7.04 |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.5    | 7.5  | -   | 6.5    | 5.5  | -    |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.5    | 7.5  | -   | 6.5    | 5.5  | -    |
| Follow-up Hdwy       | 2.2    | - | - | 2.2    | - | - | 3.5    | 5    | 3.3 | 3.5    | 4    | 3.37 |
| Pot Cap-1 Maneuver   | 695    | - | - | 1031   | - | - | 214    | 53   | 811 | 130    | 107  | 504  |
| Stage 1              | -      | - | - | -      | - | - | 575    | 388  | -   | 256    | 315  | -    |
| Stage 2              | -      | - | - | -      | - | - | 509    | 157  | -   | 755    | 504  | -    |
| Platoon blocked, %   | -      | - | - | -      | - | - | -      | -    | -   | -      | -    | -    |
| Mov Cap-1 Maneuver   | 695    | - | - | 1031   | - | - | 193    | 51   | 811 | 120    | 103  | 504  |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 315    | 111  | -   | 208    | 217  | -    |
| Stage 1              | -      | - | - | -      | - | - | 563    | 380  | -   | 252    | 311  | -    |
| Stage 2              | -      | - | - | -      | - | - | 467    | 155  | -   | 712    | 493  | -    |

| Approach          | EB   | WB   | NB    | SB    |
|-------------------|------|------|-------|-------|
| HCM Ctrl Dly, s/v | 0.27 | 0.11 | 18.45 | 14.16 |
| HCM LOS           |      |      | C     | B     |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL   | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)      | 315   | 642   | 695   | -   | -   | 1031  | -   | -   | 433   |
| HCM Lane V/C Ratio    | 0.281 | 0.043 | 0.022 | -   | -   | 0.012 | -   | -   | 0.093 |
| HCM Ctrl Dly (s/v)    | 20.8  | 10.9  | 10.3  | -   | -   | 8.5   | -   | -   | 14.2  |
| HCM Lane LOS          | C     | B     | B     | -   | -   | A     | -   | -   | B     |
| HCM 95th %tile Q(veh) | 1.1   | 0.1   | 0.1   | -   | -   | 0     | -   | -   | 0.3   |

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Future Build Conditions

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Synchro 12 Report

# HCM 7th Signalized Intersection Summary

2: SW 23rd Ave & Race Track Rd

04/03/2026



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 29   | 326  | 24   | 110  | 738  | 73   | 18   | 94   | 91   | 87   | 105  | 126  |
| Future Volume (veh/h)        | 29   | 326  | 24   | 110  | 738  | 73   | 18   | 94   | 91   | 87   | 105  | 126  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Lane Width Adj.              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 0.99 | 1.00 |      | 1.00 | 1.00 |      | 0.98 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   |      |      | No   |      |      | No   |      |      |
| Adj Sat Flow, veh/h/ln       | 1841 | 1841 | 1900 | 1900 | 1885 | 1900 | 1900 | 1870 | 1900 | 1885 | 1900 | 1870 |
| Adj Flow Rate, veh/h         | 35   | 388  | 22   | 131  | 879  | 61   | 21   | 112  | 33   | 104  | 125  | 54   |
| Peak Hour Factor             | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 |
| Percent Heavy Veh, %         | 4    | 4    | 0    | 0    | 1    | 0    | 0    | 2    | 0    | 1    | 0    | 2    |
| Cap, veh/h                   | 59   | 1712 | 97   | 170  | 2040 | 917  | 231  | 325  | 275  | 241  | 331  | 275  |
| Arrive On Green              | 0.03 | 0.51 | 0.51 | 0.09 | 0.57 | 0.57 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 |
| Sat Flow, veh/h              | 1753 | 3362 | 190  | 1810 | 3582 | 1610 | 1222 | 1870 | 1583 | 1250 | 1900 | 1580 |
| Grp Volume(v), veh/h         | 35   | 201  | 209  | 131  | 879  | 61   | 21   | 112  | 33   | 104  | 125  | 54   |
| Grp Sat Flow(s), veh/h/ln    | 1753 | 1749 | 1804 | 1810 | 1791 | 1610 | 1222 | 1870 | 1583 | 1250 | 1900 | 1580 |
| Q Serve(g_s), s              | 1.6  | 5.2  | 5.2  | 5.7  | 11.3 | 1.4  | 1.2  | 4.2  | 1.4  | 6.4  | 4.7  | 2.4  |
| Cycle Q Clear(g_c), s        | 1.6  | 5.2  | 5.2  | 5.7  | 11.3 | 1.4  | 5.9  | 4.2  | 1.4  | 10.7 | 4.7  | 2.4  |
| Prop In Lane                 | 1.00 |      | 0.11 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 59   | 890  | 918  | 170  | 2040 | 917  | 231  | 325  | 275  | 241  | 331  | 275  |
| V/C Ratio(X)                 | 0.59 | 0.23 | 0.23 | 0.77 | 0.43 | 0.07 | 0.09 | 0.34 | 0.12 | 0.43 | 0.38 | 0.20 |
| Avail Cap(c_a), veh/h        | 174  | 890  | 918  | 627  | 2040 | 917  | 563  | 834  | 706  | 580  | 847  | 704  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 38.5 | 11.0 | 11.0 | 35.7 | 9.9  | 7.8  | 32.1 | 29.3 | 28.1 | 34.0 | 29.5 | 28.5 |
| Incr Delay (d2), s/veh       | 9.1  | 0.6  | 0.6  | 7.1  | 0.7  | 0.1  | 0.2  | 0.6  | 0.2  | 1.2  | 0.7  | 0.3  |
| Initial Q Delay(d3), s/veh   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln     | 1.5  | 3.6  | 3.7  | 5.0  | 7.4  | 0.8  | 0.7  | 3.5  | 1.0  | 3.6  | 3.9  | 1.6  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d), s/veh        | 47.6 | 11.6 | 11.6 | 42.9 | 10.6 | 7.9  | 32.3 | 29.9 | 28.3 | 35.2 | 30.2 | 28.9 |
| LnGrp LOS                    | D    | B    | B    | D    | B    | A    | C    | C    | C    | D    | C    | C    |
| Approach Vol, veh/h          | 445  |      |      | 1071 |      |      | 166  |      |      | 283  |      |      |
| Approach Delay, s/veh        | 14.4 |      |      | 14.4 |      |      | 29.9 |      |      | 31.8 |      |      |
| Approach LOS                 | B    |      |      | B    |      |      | C    |      |      | C    |      |      |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 8.7  | 52.0 |      | 20.1 | 13.6 | 47.1 |      | 20.1 |      |      |      |      |
| Change Period (Y+Rc), s      | 6.0  | 6.0  |      | 6.0  | 6.0  | 6.0  |      | 6.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 46.0 | 46.0 |      | 36.0 | 28.0 | 26.0 |      | 36.0 |      |      |      |      |
| Max Q Clear Time (g_c+I), s  | 13.6 | 13.3 |      | 7.9  | 7.7  | 7.2  |      | 12.7 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 7.6  |      | 0.8  | 0.3  | 2.3  |      | 1.2  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 7th Control Delay, s/veh | 18.2 |      |      |      |      |      |      |      |      |      |      |      |
| HCM 7th LOS                  | B    |      |      |      |      |      |      |      |      |      |      |      |

**PZB**

Future Build Conditions

Synchro 12 Report

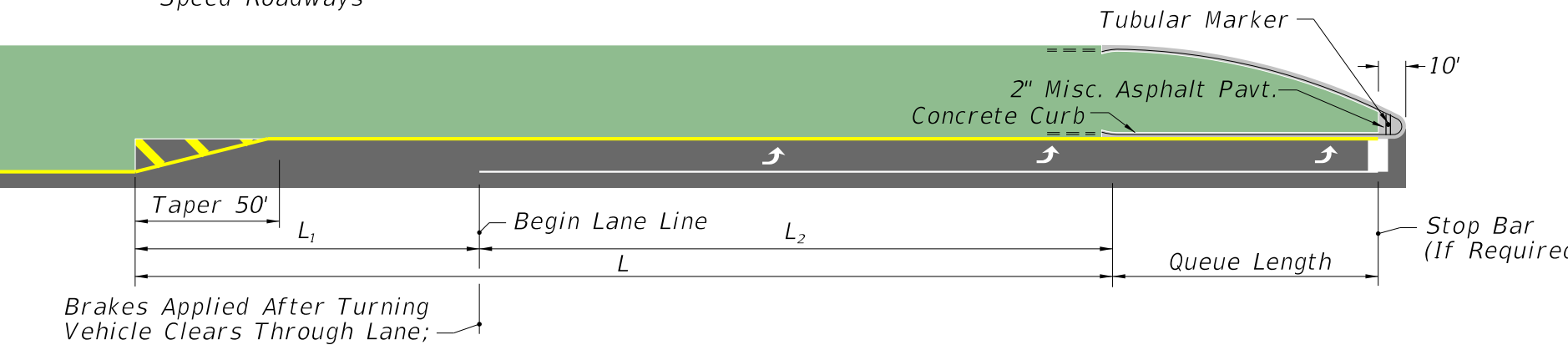
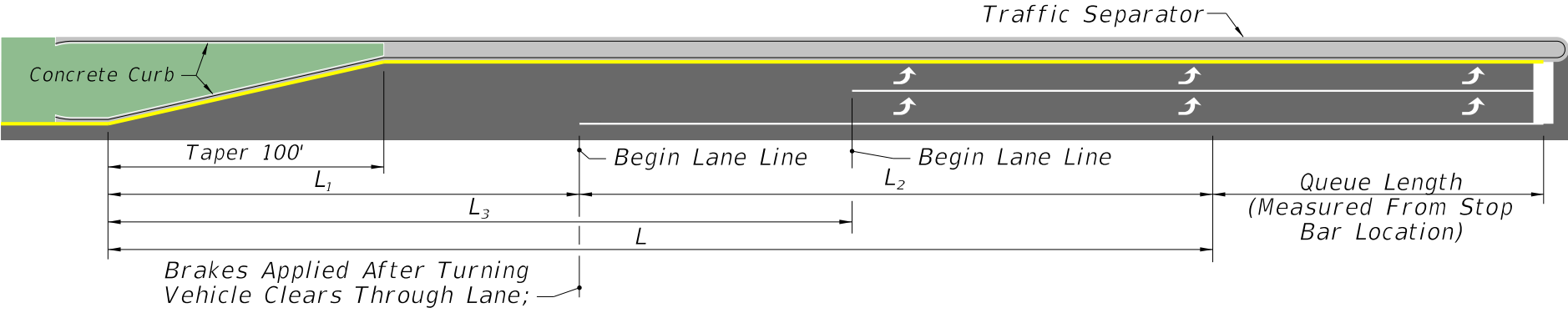
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**Florida Design Manual (FDM)**  
**Exhibit 212-1**

**PZB**

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MEDIAN TURN LANES  
MINIMUM DECELERATION LENGTHS



| MEDIAN TURN LANES  |                   |                                |                                    |                                 |                                |
|--------------------|-------------------|--------------------------------|------------------------------------|---------------------------------|--------------------------------|
| Design Speed (mph) | Entry Speed (mph) | Clearance Distance $L_1$ (ft.) | Brake To Stop Distance $L_2$ (ft.) | Total Decel. Distance $L$ (ft.) | Clearance Distance $L_3$ (ft.) |
| 25                 | 15                | 70                             | 25                                 | 95                              | 90                             |
| 30                 | 20                | 70                             | 50                                 | 120                             | 100                            |
| 35                 | 25                | 70                             | 75                                 | 145                             | 110                            |
| 40                 | 30                | 80                             | 75                                 | 155                             | 120                            |
| 45                 | 35                | 85                             | 100                                | 185                             | 135                            |
| 50                 | 44                | 105                            | 185                                | 290                             | 160                            |
| 55                 | 48                | 125                            | 225                                | 350                             | 195                            |
| 60                 | 52                | 145                            | 260                                | 405                             | 230                            |
| 65                 | 55                | 170                            | 290                                | 460                             | 270                            |
| 70                 | 58                | 200                            | 325                                | 525                             | 300                            |

- NOTE:
- For C3 Context Classification roadways with Design Speeds of 50 mph, the following values may be used under constrained conditions:
    - Entry Speed of 40 mph
    - Brake to stop distance ( $L_2$ ) of 135 ft.
    - Total deceleration distance ( $L$ ) of 240 ft.
  - For RRR Projects with Design Speeds of 50 mph and Entry Speeds of 40 mph, existing brake to stop distances ( $L_2$ ) of 135 ft. and total deceleration distances ( $L$ ) of 240 ft. may be retained.

NOT TO SCALE