TRAFFIC IMPACT MEMO

Date: March 8, 2021

Re: 1301 President Barack Obama Highway
Riviera Beach, FL 33404
Site Redevelopment - Traffic Impact Memo

This memo will discuss the proposed changes to 1301 President Barack Obama Highway in Riviera Beach, Florida as it relates to the surrounding transportation network, and has been prepared to document the proposed site's impact on nearby roadways. The redevelopment's trip generation does not exceed 500 new daily trips and thus does not warrant a Traffic Impact Study (TIS) per Palm Beach County guidelines.

EXISTING SITE INFORMATION

The proposed site, located within the City of Riviera Beach, is a set of two lots totaling nine acres zoned as part of the General Industrial District (IG). The site currently includes an industrial building totaling approximately 33,000 square feet of area on the western lot; the eastern lot features a recently developed industrial building totaling 120,000 square feet. The western building is currently in use by Baron Sign as a manufacturing and administrative building. Together, the two lots feature five existing full-access driveways along W 13th Street to the south and President Barack Obama Highway to the east. Approximately 190 automobile parking stalls and 14 semi-truck loading docks are currently available onsite.

TRANSPORTATION FACILITIES

The site is located in the northwest quadrant at the intersection of President Barack Obama Highway & W 13th Street. President Barack Obama Highway runs north-south along the site's eastern frontage, extending through Riviera Beach north into Lake Park and south to West Palm Beach. W 13th Street is an east-west collector intersecting with Broadway Avenue (US 1) to the east, while meeting Australian Avenue and N Congress Avenue to the west. Pedestrian facilities are available in the form of sidewalks and crosswalks along all previously mentioned roadways. At-grade railroad crossings are present along several roads, including but not limited to President Barack Obama Highway and W Blue Heron Boulevard to the north, W 13th Street immediately east of the site and along Australian Avenue north of its intersection with W 13th Street.

President Barack Obama Highway is a 5-lane-undivided roadway with a two-way left turn lane and will likely serve a large portion of site traffic. Its intersection with W 13th Street is signalized. To the north, W Blue Heron Boulevard (SR 708), a 6-lane divided roadway, provides access to I-95 and will operate as another major route for site traffic. Alternate access to I-95 may be provided by way of 45th Street, a 4-lane divided road, to the south. Dr Martin Luther King Jr Boulevard (SR 710) runs parallel to SR 708 and 45th Street to the south of the site, providing local access to the surrounding area before continuing west as the Beeline Highway into rural Palm Beach County.

W 13th Street runs along the site's southern frontage and will provide access to the site via multiple driveways. W 13th Street is a three-lane roadway with a two-way left turn lane, expanding to four-lane undivided to the east near Broadway Avenue and dropping to two-lane undivided past Australian Avenue. Australian Avenue is a 4-lane divided road that runs north-south to the west of the site and provides alternate access to SR 708 (and therefore I-95) and SR 710 for site traffic entering and exiting from driveways along W 13th Street.

PROPOSED SITE INFORMATION

A prospective tenant is pursuing a lease and proposing use of the site as a delivery station for an e-commerce retailer. The existing footprint of the site's eastern building will be occupied, with the neighboring building currently in use by Baron Sign to be demolished and replaced with surface parking. A conceptual plan is provided in Attachment A. Changes to the internal circulation of the site (e.g., restriping, paving and barrier erection) are proposed to accommodate the tenant's specific operations. The delivery station will occupy the newly constructed 120,000 square foot existing building and will allow for internal loading of delivery vehicles. The proposed site plan provides 111 automobile spaces and 334 van stalls. There are no proposed changes to existing driveway locations.

The proposed delivery station will operate 24/7 to support delivery of packages to customers between 10:00 AM and 9:00 PM. Approximately seven line-haul trucks are expected to deliver packages to the delivery station each day, primarily between the hours of 8:00 PM and 7:00 AM, after which the customers' packages are sorted, picked to delivery routes, placed onto movable racks and staged for dispatch. Approximately 28 employees and 15 managers support this operation. The site's primary shift is designed to run between 2:00 AM and 12:00 PM and helps to mitigate the site's traffic impact during rush hour periods. An additional 12 managers and dispatchers supervising the delivery operations arrive at 6:00 AM and depart at 2:30 PM, followed by another shift of dispatchers arriving at 1:30 PM and departing at 10:00 PM.

Delivery drivers arrive at the delivery station at 9:00 AM. Drivers park their personal vehicles onsite and pick up their assigned delivery vans. Starting at 9:50 and ending at 11:10 AM, 70 delivery vans will load and depart from the delivery station at a rate of roughly 18 vans every 20 minutes to facilitate a regulated traffic flow into the surrounding area. The first wave of delivery vans leaves at 10:10 AM. This departure window is designed to mitigate impact on peak periods of the surrounding transportation network. Approximately eight to ten hours after dispatch, delivery routes are completed, and the vans return to the station between 7:10 and 9:10 PM. The drivers park the delivery van onsite and leave using a personal vehicle.

TRIP GENERATION COMPARISON

The trip generation for the site's existing uses as warehouse and light industrial facilities was estimated using the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 10th Edition. Based on the size of the existing buildings onsite, the lots generate approximately 420 daily trips. Attachment B shows the calculated trip generation based on ITE methodology. The prospective tenant has developed a traffic schedule for this site based on their unique operations and key characteristics of the site. The proposed delivery station is estimated to generate 492 daily trips. An hourly breakdown of trip generation by vehicle type is provided in Attachment C. Table 1 below compares the daily and hourly trip generation of the site in both existing and proposed conditions. The prospective tenant intentionally schedules shifts to avoid local peak periods; Attachment C also shows beginning and end times of each shift as well as how many personnel are expected to correspond to each shift.

Based on the estimated trip generation shown on Page 3, the proposed site use is expected to generate 72 additional daily trips, 59 fewer AM peak hour trips and 28 fewer PM peak hour trips. Under the proposed use, the site will see an increase in daily trips, but a decrease in peak hour trips.

Table 1: Trip Generation Comparison

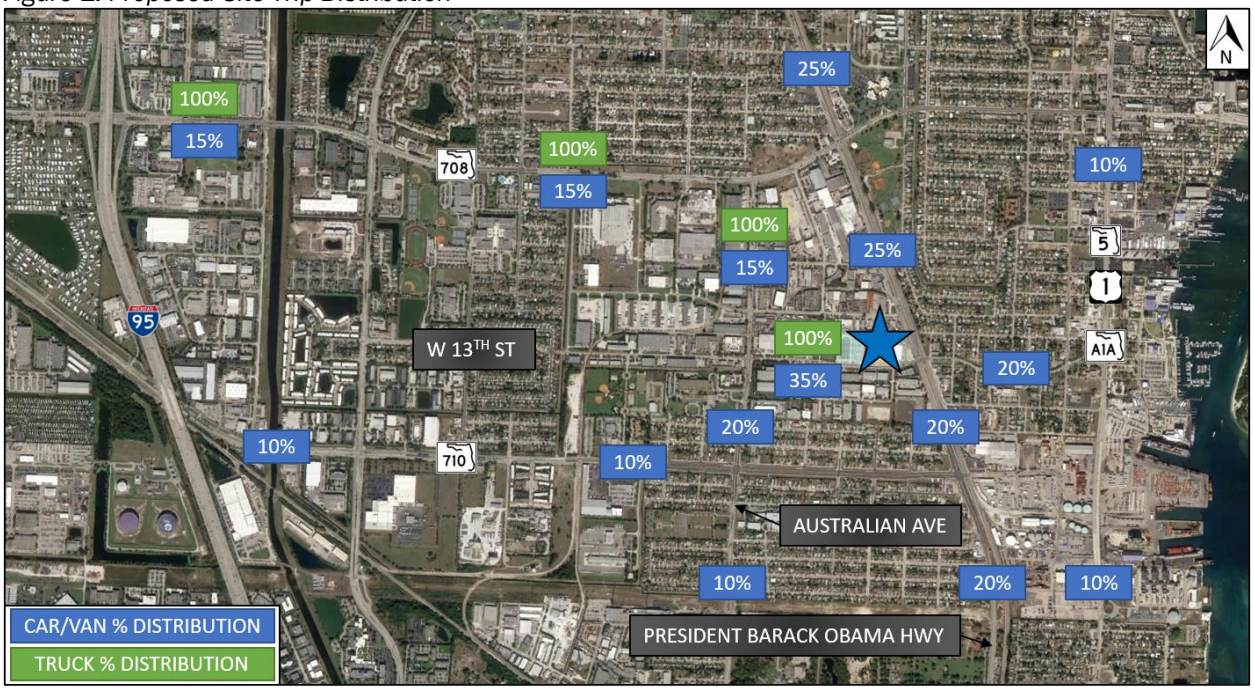
Land Use	Code	Project Density	Period	Total	Inbound	Outbound
Existing: Light Industrial (Baron Sign)	110	33,000 square feet	Daily	184	92	92
			AM	20	18	2
			PM	17	2	15
Existing: Warehousing	150	120,000 square feet	Daily	236	118	118
			AM	40	31	9
			PM	42	11	31
Existing: Total	N/A	153,000 square feet	Daily	420	210	210
			AM	60	49	11
			PM	59	13	46
Proposed: Delivery Station	User-Specified	17,600 packages/day	Daily	492	296	296
			AM	1	1	0
			PM	31	21	11

TRIP DISTRIBUTION

The proposed site is part of a larger network of facilities that include sort centers, warehouses, and other delivery stations. Trip distribution varies depending on the type of vehicle. Trucks entering and exiting the site are bound for larger warehouses and sortation centers, primarily operating along freeways. Delivery vans have a specific delivery area with routes that fluctuate daily. Site employees entering and exiting the site are considered typical commuter trips. The distribution of delivery vans and employees in personal vehicles are considered identical as both involve residential land use as either the origin or destination of the trips.

A total of 14 daily truck trips are associated with the site. These trucks are expected to travel north of the site toward I-95 by way of W 13th Street, Australian Avenue and SR 708. Delivery vans and employee vehicles will travel in all directions of the site, with most traffic using President Barack Obama Highway, SR 708, and US 1. Some of these trips will utilize I-95, however most are expected to utilize local routes to service residential areas. Figure 1 shows the distribution of the proposed site for trucks and all other site traffic.

Figure 1: Proposed Site Trip Distribution

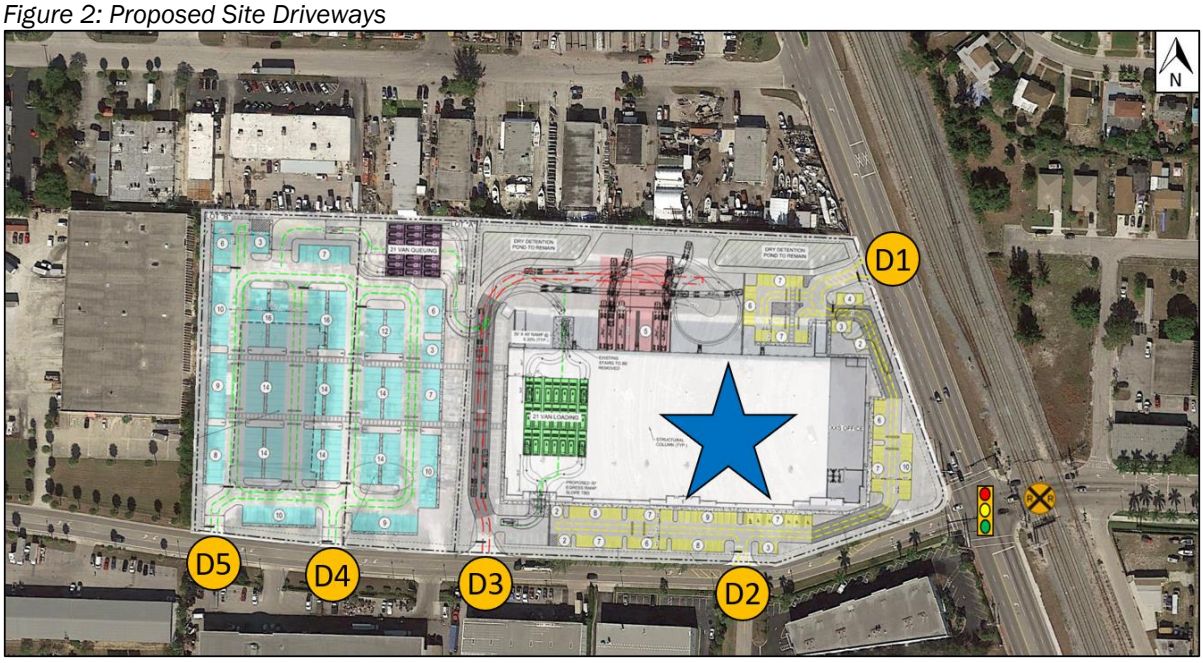


SITE CIRCULATION

Five full-access driveways currently serve the site; no changes are proposed to site access. Four driveways are located along W 13th Street along the southern frontage of the site, with the final driveway situated on President Barack Obama Highway. Figure 2 shows the site plan overlaid onto existing aerial imagery. Driveway 1, located at the northeast corner of the site, and Driveway 2 are dedicated for site employees. Driveway 3 serves all truck traffic and leads to loading docks along the north of the site, while also being used as an exit for all delivery vehicles upon loading. Driveways 4 and 5 lead to surface lots to the west of site's main building and will serve delivery vehicles and their drivers. As noted in Attachment A by colored arrows, there are three circulation paths inside the site: site employees are shown in yellow, trucks in red and delivery vehicles in green.

The site plan shows designated circulation routes and parking areas for all vehicle types. While trucks and exiting delivery vans will utilize the same driveway, they are unlikely to interfere with each other as they enter and exit the site at different times of day. Trucks primarily access the site during the overnight hours, with delivery vans exiting in the late morning and returning in the evening. Parking and circulation of employees' personal vehicles are separated from other vehicle types.

Figure 2: Proposed Site Driveways

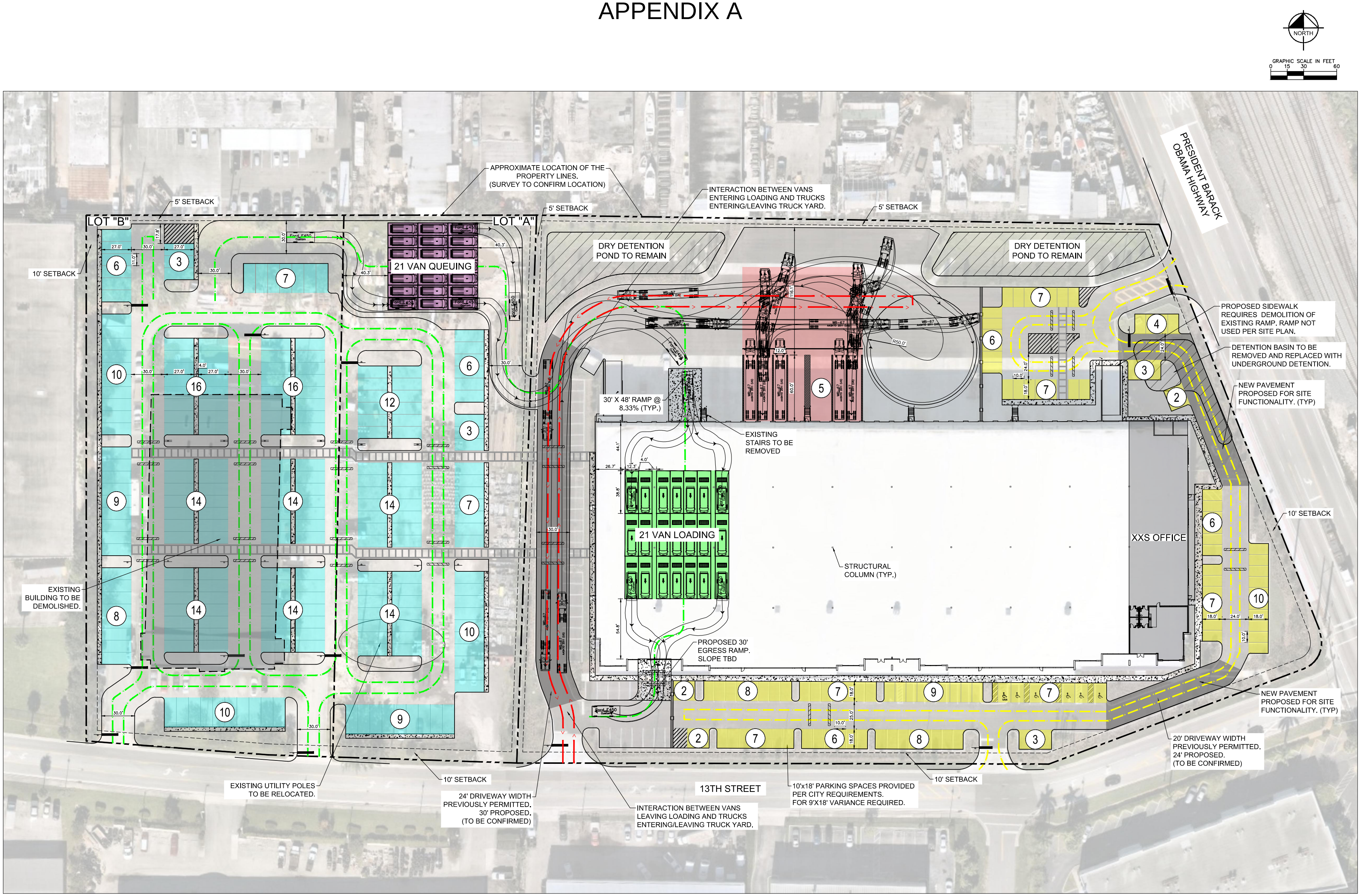


TRAFFIC IMPACT ASSESSMENT

The proposed site is scheduled to generate 1 trip during the AM peak hour and 31 trips during the PM peak hour. President Barack Obama Highway, SR 708 and US 1 will see the majority of these trips based on the trip distribution described. These roadways have at least four travel lanes near the site and are expected to perform adequately upon the addition of site traffic. Based on the distribution map in this document, turning site traffic trips are made at signalized intersections (other than entering and exiting the site itself). The most significant turning movement occurs along the eastbound approach at the signalized intersection of President Barack Obama Highway & W 13th Street, with 45% of site trips turning left or right – totaling only five vehicles during the PM peak hour. The proposed site is not expected to significantly impact the existing transportation network.

Attachment A: Conceptual Site Schematic
Attachment B: Existing ITE Trip Generation
Attachment C: Proposed Trip Generation Worksheet

APPENDIX A



DESIGN INFORMATION

AREA OF BUILDING	LOT A: 0 SF LOT B: 117,700 SF
AREA OF EXTERIOR CANOPY	0 SF
TOTAL SITE AREA	LOT A: ±87,115 SF; 2.00 AC LOT B: ±313,750 SF; 7.20 AC
USEABLE SITE AREA	LOT A: ±80,200 SF; 1.84 AC LOT B: ±296,964 SF; 6.82 AC
DISTURBED SITE AREA	LOT A: ±33,000 SF LOT B: ±8,350 SF
AREA OF NEW OR REPLACED PAVEMENT	LOT A: ±33,000 SF LOT B: ±8,350 SF

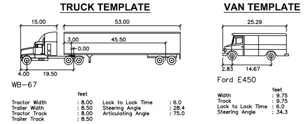
PARKING SUMMARY TABLE

PARKING	REQUIRED	PROPOSED ON-SITE	PROPOSED OFF-SITE	DELTA
ASSOCIATE	60	63	0	3
SUPPORT	6	6	0	0
DSP MANAGERS	14	14	0	0
VAN PERSONAL VEHICLES	21	21	0	0
ACCESSIBLE - STANDARD	5	6	0	1
ACCESSIBLE - VAN	1	1	0	0
TOTAL AUTO SPACES (9' x 18')	107	111	0	4
VAN PERSONAL VEHICLE	42	43	0	1
VAN PARKING	171	171	0	0
VAN BUFFER	9	9	0	0
TOTAL VAN SPACES (11' x 27')	222	223	0	1
TOTAL PARKING	329	334	0	5
UTR/VAN LOADING	21	21	-	0
VAN QUEUING	21	21	-	0
DOCK DOORS FOR INDUCT	4	4	-	0
DOCK DOORS FOR TRASH	1	1	-	0

SITE NOTES

1. THIS CONCEPT WAS PREPARED WITHOUT THE BENEFIT OF A SURVEY AND WAS BASED ON THE FOLLOWING INFORMATION:
   a. SKETCH PLAN PREPARED BY SIRVA DATED 08/27/2020.
   b. NEARMAPS AERIAL IMAGERY.
   c. GIS INFORMATION REGARDING PROPERTY LINE.
   d. "CIVIL ENGINEERING PLANS FOR JDA INDUSTRIAL WAREHOUSE BUILDING", PREPARED BY MCLEOD, MCCARTHY & ASSOCIATES, P.A., DATED 5/1/2019.
2. THIS CONCEPT WAS PREPARED STRICTLY BASED UPON THE INFORMATION REFERENCED ABOVE AND A PRELIMINARY REVIEW OF THE MUNICIPAL ZONING AND LAND DEVELOPMENT REQUIREMENTS. THIS SITE PLAN IS NOT INTENDED FOR CONSTRUCTION AND SHOULD NOT BE USED FOR THAT PURPOSE.
3. THE FEASIBILITY OF SECURING THE REQUISITE LOCAL, COUNTY AND STATE AGENCY APPROVALS NECESSARY TO PERMIT THE PROPOSED DEVELOPMENT PROGRAM CANNOT BE ASSESSED AT THIS TIME DUE TO THE PRELIMINARY NATURE OF THE AVAILABLE INFORMATION. THIS PLAN IS NOT INTENDED TO BE USED FOR DETAILED ZONING ANALYSIS AND THE INFORMATION CONTAINED HEREIN IS SUBJECT TO CHANGE UPON THE COMPLETION OF ADDITIONAL DUE DILIGENCE EFFORTS, WHICH MAY INCLUDE MEETING WITH THE JURISDICTIONAL AGENCIES.
4. INTERIOR LAYOUT PROVIDED FOR DISCUSSION PURPOSED ONLY. LAYOUT AND OPERATION TO BE CONFIRMED BY ARCHITECT/OWNER. THE LAYOUT FOR THE INTERIOR BUILDING WAS DEVELOPED BASED ON THE ASSUMPTION THAT THE EXISTING INTERIOR PARTITION WALLS CAN AND WILL BE REMOVED.
5. INTERIOR OBSTRUCTIONS TO BE CONFIRMED. THIS CONCEPT ASSUMES COLUMNS ARE SPACED AT 50'X50'.
6. THE PROPOSED LAYOUT IS CONTINGENT ON USING AN ALTERNATIVE STORMWATER MANAGEMENT DESIGN DIFFERING FROM WHAT WAS APPROVED AS PART OF THE "CIVIL ENGINEERING PLANS FOR JDA WAREHOUSE BUILDING", PREPARED BY MCLEOD, MCCARTHY & ASSOCIATES, P.A., DATED 5/1/2019. ALTERNATIVE STORMWATER MANAGEMENT DESIGNS HAVE NOT BEEN EVALUATED BY KIMLEY-HORN AS A PART OF THIS REVIEW. SHOULD ALTERNATIVE STORMWATER MANAGEMENT DESIGNS BE IMPLEMENTED, ADDITIONAL PERMITTING WILL BE REQUIRED.
8. ALL BUFFER AND SETBACK LINES SHOWN ARE PER PREVIOUSLY APPROVED PLANS.
9. THE PROPOSED LAYOUT IS USING EXTENDS OUTSIDE OF THE PERMITTED IMPERVIOUS AREA. AN UNDERGROUND DETENTION SYSTEM IS PROPOSED FOR STORMWATER MITIGATION.

TRUCK TEMPLATE **VAN TEMPLATE**



ASSOCIATE TRAFFIC FLOW DIRECTION
DSP/FLEX TRAFFIC FLOW DIRECTION
TRUCK TRAFFIC FLOW DIRECTION
JERSEY BARRIER

NOT FOR CONSTRUCTION

No.	REVISIONS	DATE	BY
1	REVISED PER CLIENT COMMENTS RECEIVED ON 09/15/2020	09/16/2020	JS

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KHA PROJECT 149817027
DATE 01/06/2021
SCALE AS SHOWN
DESIGNED BY: CJW
DRAWN BY: RJW
CHECKED BY: BAS

SITE CONCEPT

FOR INFORMATIONAL PURPOSES ONLY

ARCHITECT
Baker Barrios

PROPOSED DELIVERY STATION
1301 PRESIDENT BARACK OBAMA HIGHWAY
RIVIERA BEACH, FL 33404
PALM BEACH COUNTY FLORIDA

SHEET NUMBER
SC (R4)

APPENDIX B

General Light Industrial (110)

Based upon methodology from ITE's Trip Generation, 10th Edition (2017)

Project Land Use	Project Density	Project Trips			ITE Code	Variable	Equation Used[1]	In/Out Distribution	
		Total	Inbound	Outbound					
General Light Industrial	33,000 S.F.				110	1000 S.F.			
Daily		**184**	92	92			T = 3.79(X)+57.96	50%	50%
AM Peak Hour		**20**	18	2			LN(T) = 0.74LN (X)+ 0.39	88%	12%
PM Peak Hour		**17**	2	15			LN(T) = 0.69LN(X)+0.43	13%	87%
Reductions for Pass-By Trips									
Daily		**0**	0	0					
AM Peak Hour		**0**	0	0					
PM Peak Hour		**0**	0	0					
TOTAL PROJECT TRIPS									
Daily		**184**	92	92					
AM Peak Hour		**20**	18	2					
PM Peak Hour		**17**	2	15					

Warehousing (150)

Based upon methodology from ITE's Trip Generation, 10th Edition (2017)

Project Land Use	Project Density	Project Trips			ITE Code	Variable	Equation Used[1]	In/Out Distribution	
		Total	Inbound	Outbound					
Warehousing	120,000 S.F.				150	1000 S.F			
Daily		**236**	118	118			T = 1.58 (X) + 45.54	50%	50%
AM Peak Hour		**40**	31	9			T = 0.12 (X) + 25.32	77%	23%
PM Peak Hour		**42**	11	31			T = 0.12 (X) + 27.82	27%	73%
Reductions for Pass-By Trips									
Daily		**0**	0	0					
AM Peak Hour		**0**	0	0					
PM Peak Hour		**0**	0	0					
TOTAL PROJECT TRIPS									
Daily		**236**	118	118					
AM Peak Hour		**40**	31	9					
PM Peak Hour		**42**	11	31					

APPENDIX C

Riviera Beach, FL

Time	Autos			Trucks			Vans			Total		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
00:00	0	0	0	0	0	0	0	0	0	0	0	0
01:00	43	0	43	1	0	1	0	0	0	44	0	44
02:00	0	0	0	0	1	1	0	0	0	0	1	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	1	1	2	0	0	0	1	1	2
05:00	12	0	12	0	0	0	0	0	0	12	0	12
06:00	0	0	0	1	0	1	0	0	0	1	0	1
07:00	0	0	0	0	1	1	0	0	0	0	1	1
07:30	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0
09:00	35	0	35	1	0	1	0	0	0	36	0	36
10:00	35	0	35	0	1	1	0	63	63	35	64	99
11:00	2	0	2	0	0	0	0	7	7	2	7	9
12:00	0	43	43	0	0	0	0	0	0	0	43	43
13:00	21	0	21	0	0	0	0	0	0	21	0	21
14:00	0	12	12	0	0	0	0	0	0	0	12	12
15:00	0	0	0	0	0	0	0	0	0	0	0	0
16:00	21	0	21	0	0	0	0	0	0	21	0	21
16:30	0	11	11	0	0	0	0	0	0	0	11	11
17:00	0	10	10	0	0	0	0	0	0	0	10	10
17:30	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	9	9	1	0	1	0	0	0	1	9	10
19:00	0	18	18	0	1	1	36	0	36	36	19	55
20:00	0	46	46	1	0	1	33	0	33	34	46	80
21:00	0	6	6	0	1	1	1	0	1	1	7	8
22:00	0	14	14	1	0	1	0	0	0	1	14	15
23:00	0	0	0	0	1	1	0	0	0	0	1	1
Total	**169**	**169**	**338**	**7**	**7**	**14**	**70**	**70**	**140**	**246**	**246**	**492**

1st Shift:	2:00 AM	12:30 PM	43	Assoc.
2nd Shift:	6:00 AM	2:30 PM	12	Assoc.
3rd Shift:	1:30 PM	10:00 PM	12	Assoc.
PFSD Shift:	2:00 PM	6:00 PM	9	Assoc.
RTS Shift:	12:00 PM	10:30 PM	2	Assoc.
Drivers:	9:20 AM	9:10 PM	70	Drivers