

December 16, 2017

Mr. Owen Trepanier
President
Trepanier & Associates, Inc.
1421 First Street, P.O. Box 2155
Key West, Florida 33045-2155

**Re: Dion's Flagler Avenue Mixed-Use – Key West, Florida
Traffic Statement**

Dear Owen:

There is an existing gas station with convenience store and a light industrial building located in the southwest quadrant at the intersection of Flagler Avenue and Riviera Street in Key West, Monroe County, Florida. More specifically, the subject site is located at 3228 Flagler Avenue. The existing development consists of a gas station with eight (8) fueling positions and approximately 4,705 square feet of building area of which approximately 2,807 square feet is utilized for the convenience store. The remainder of the existing building area (approximately 1,898 square feet) is utilized for light industrial purposes. Vehicular access to the site is provided on Flagler Avenue, Riviera Street, and Riviera Drive.

The light industrial portion of the site is proposed to be demolished and redeveloped with eight (8) residential apartment dwelling units. Access to the residential portion of the site will be provided by one (1) full access driveway on Riviera Street. Vehicular access to the gas station and convenience store will remain unchanged. A preliminary site plan is presented in Attachment A to this memorandum. The purpose of this traffic statement is to document the trip generation characteristics associated with the existing and proposed development and to document the AM and PM peak hour driveway volumes.

Trip Generation Analysis

The trip generation for this project was determined utilizing the trip generation rates and equations contained in the Institute of Transportation Engineer's (ITE) *Trip Generation Manual (10th Edition)*. According to the subject ITE manual, the most appropriate land use categories for the subject land uses are Land Use #945 – Gasoline / Service Station with Convenience Market, Land Use #110 – General Light Industrial, and Land Use #220 – Multi-Family Housing (Low-Rise). The trip generation rates and equations used to determine the vehicle trips associated with this analysis are presented below.

Gasoline / Service Station with Convenience Market – ITE Land Use #945

- Weekday: $T = 205.36 (X)$
where T = number of trips and X = number of vehicle fueling positions
- AM Peak Hour: $T = 12.47 (X)$ (51% in / 49% out)
- PM Peak Hour: $T = 13.99 (X)$ (51% in / 49% out)

General Light Industrial – ITE Land Use #110

- ❑ Weekday: $T = 4.96 (X)$
where $T =$ number of trips and $X = 1,000$ square feet of gross floor area
- ❑ AM Peak Hour: $\text{Ln}(T) = 0.74 \text{Ln}(X) + 0.39$ (88% in / 12% out)
- ❑ PM Peak Hour: $\text{Ln}(T) = 0.69 \text{Ln}(X) + 0.43$ (13% in / 87% out)

Multi-Family Housing (Low-Rise) – ITE Land Use #220

- ❑ Weekday: $T = 7.32 (X)$
where $T =$ number of trips and $X =$ number of dwelling units
- ❑ AM Peak Hour: $\text{Ln}(T) = 0.95 \text{Ln}(X) - 0.51$ (23% in / 77% out)
- ❑ PM Peak Hour: $\text{Ln}(T) = 0.89 \text{Ln}(X) - 0.02$ (63% in / 37% out)

Table 1 below summarizes the trip generation characteristics associated with the existing and proposed development on the Dion’s Flagler Avenue Mixed-Use site in the City of Key West, Florida.

Land Use	Size	Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
			In	Out	Total	In	Out	Total
Existing								
Gas Station w/ C-Store	8 FP	1,643	51	49	100	57	55	112
Light Industrial	1,898 SF	9	2	0	2	0	2	2
Total (Existing)		1,652	53	49	102	57	57	114
Proposed								
Gas Station w/ C-Store	8 FP	1,643	51	49	100	57	55	112
Apartments	8 DU	59	1	3	4	4	2	6
Total (Proposed)		1,702	52	52	104	61	57	118
Difference (Proposed - Existing)		50	(1)	3	2	4	0	4

Compiled by: KBP Consulting, Inc. (December 2017).

Source: Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition).

As indicated above, the proposed development scenario (i.e. gas station with convenience store and residential apartments) at the subject site is expected to generate 1,702 daily vehicle trips, 104 AM peak hour vehicle trips, and 118 PM peak hour vehicle trips. When compared with the existing development on this site (i.e. gas station with convenience store and light industrial space), this represents a minimal increase of 50 daily vehicle trips, a nominal increase of two (2) AM peak hour vehicle trips, and a nominal increase of four (4) PM peak hour vehicle trips. The resulting driveway volumes for the residential component of this project are presented in Attachment B to this memorandum. (The driveway volumes associated with the gas station and convenience store will remain unchanged.)

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Conclusions

In summary, the foregoing trip generation analysis indicates that the proposed residential use on the Dion's Flagler Avenue Mixed-Use site will have little to no impact on the trip generation characteristics of the site. There will be a minimal increase (+50) in daily vehicle trips, a slight increase (+2) in AM peak hour vehicle trips, and a slight increase (+4) in PM peak hour vehicle trips.

If you have any questions or require additional information, please do not hesitate to contact me.

Sincerely,

KBP CONSULTING, INC.

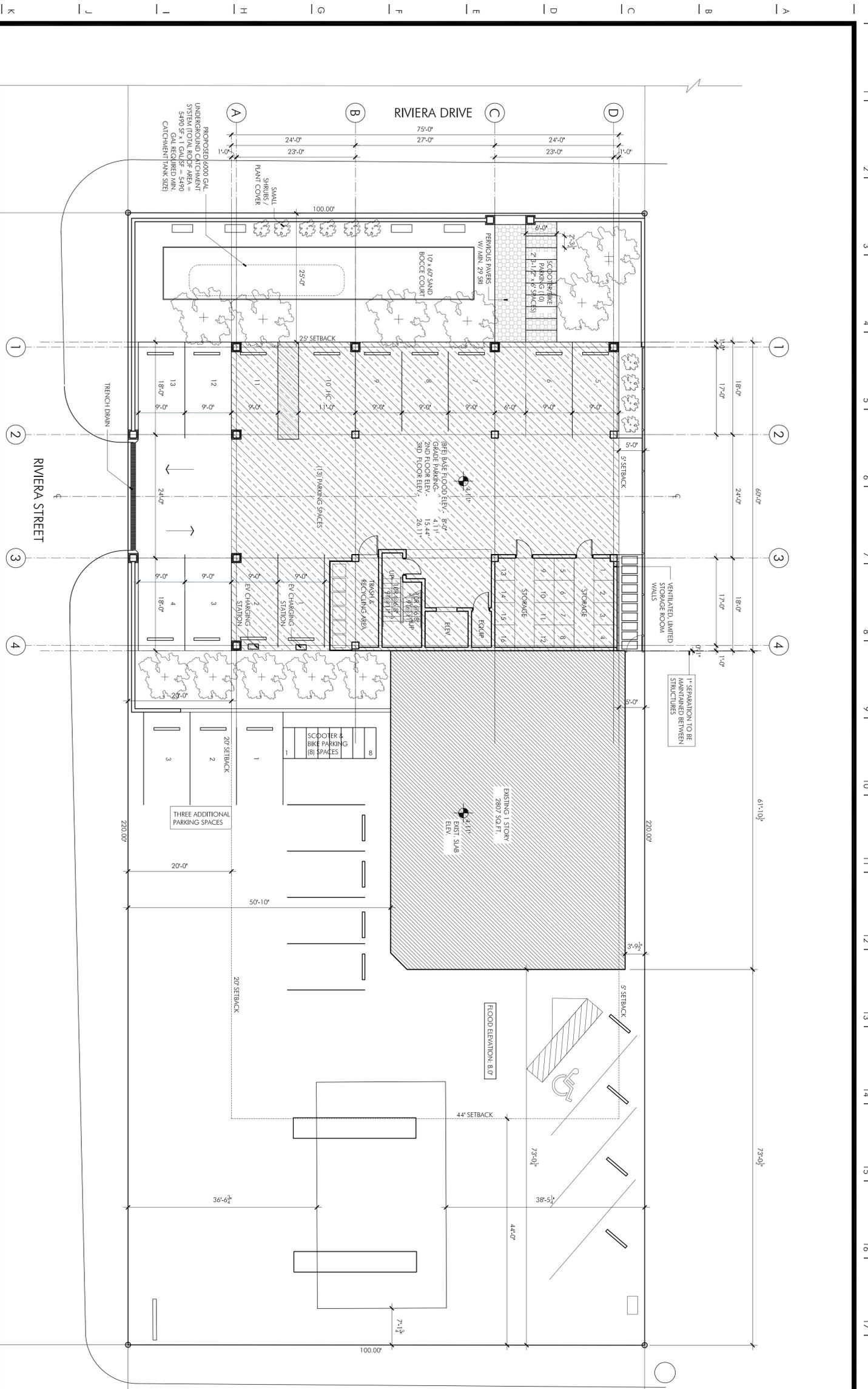
A handwritten signature in blue ink, appearing to read 'Karl B. Peterson', with a stylized flourish at the end.

Karl B. Peterson, P.E.
Florida Registration Number 49897
Engineering Business Number 29939

Attachment A

Dion's Flagler Avenue Mixed-Use

Preliminary Site Plan



SITE DATA:

SITE DATA	PERMITTED	EXISTING	PROPOSED	COMPLIANCE
ZONING	CL	CL	CL	COMPLIES
MIN. LOT SIZE	> 5,000 SF	21,982 SF	NO CHANGE	COMPLIES
COMMERCIAL FAR	.8	4,705 SQ. FT. = 21%	12,468 SQ. FT. = 57%	COMPLIES
MAX. HEIGHT	16 UJAC (8 UNITS)	0 UNITS	8 UNITS	COMPLIES
AH - COMPACT INFL. BONUS	1 MAX. 3 AH UNITS	0 UNITS	0 UNITS	COMPLIES
TOTAL RESIDENTIAL UNITS	8	0 UNITS	8	COMPLIES
OPEN SPACE RATIO	40'	< 20'	39'	COMPLIES
LANDSCAPE/PERVIOUS	30% (6,225 SQ. FT.)	< 5%	16% (3,443 SQ. FT.)	COMPLIES
BUILDING COVERAGE	20% (4,396 SQ. FT.)	< 5%	16% (3,505 SQ. FT.)	COMPLIES
IMPERVIOUS SURFACE RATIO	40% (10,991 SQ. FT.)	21% (4,705 SQ. FT.)	38% (8,355 SQ. FT.)	COMPLIES
SETBACK:	60' (13,189.25 SQ. FT.)	100%	84% (18,477 SQ. FT.)	COMPLIES
FRONT	44 FT.	73.05 FT.	73.05 FT.	COMPLIES
SIDE	5 FT.	3.8 FT.	5 FT.	COMPLIES
REAR	20 FT.	51.9 FT.	20 FT.	COMPLIES
STREET SIDE	25 FT.	25 FT.	25 FT.	COMPLIES

NOTES: - REMOVS NEW CONSTRUCTION



SITE PLAN

1" = 10'-0"

DIONS FLAGLER AVE MIXED USE
KEY WEST, FL

For 804.344.0060
email: bobstudio@bobarchitecture.net



108 NORTH FIRST STREET
RICHMOND, VIRGINIA 23219

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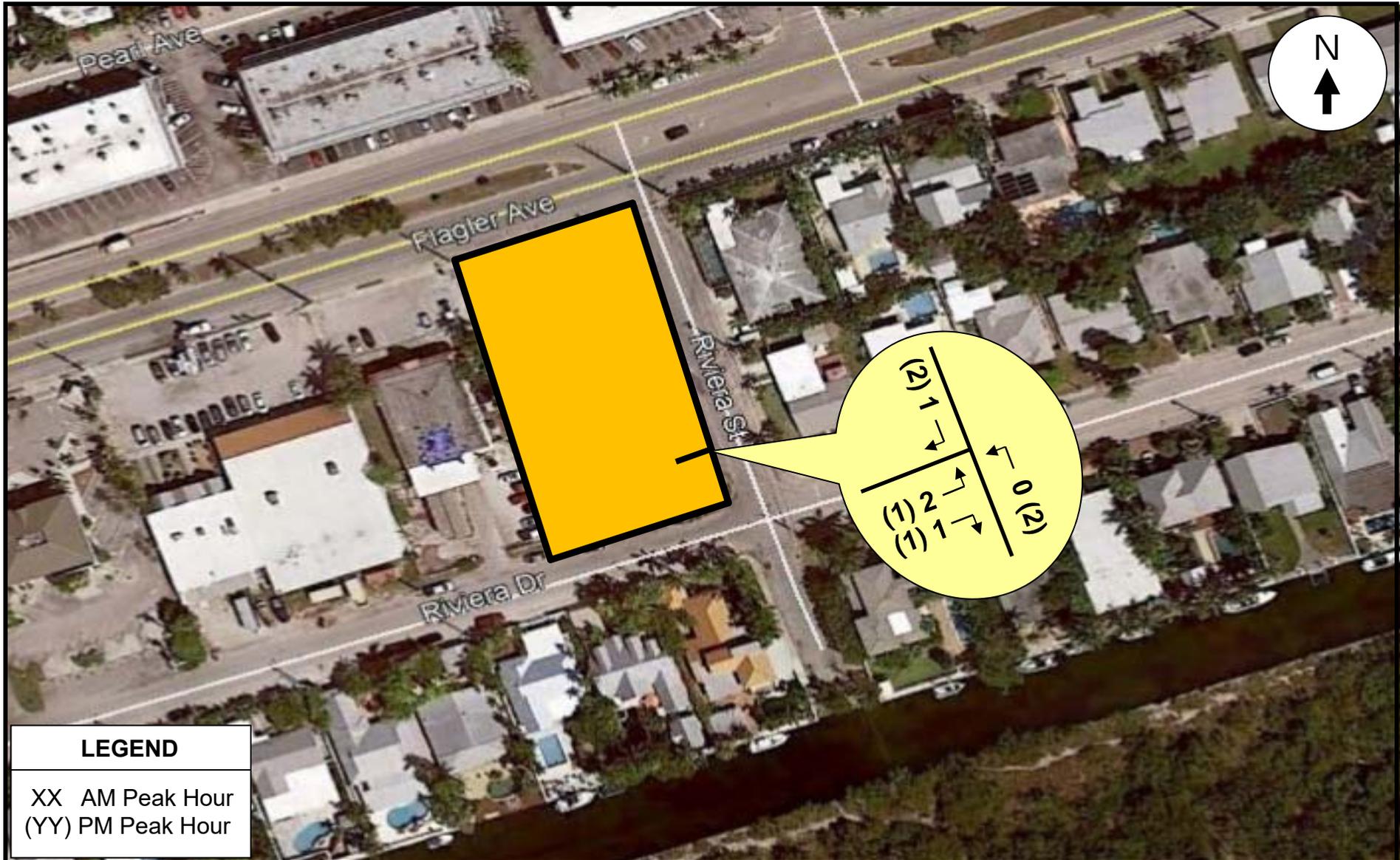
SITE PLAN

A101

Attachment B

Dion's Flagler Avenue Mixed-Use

Driveway Volumes



LEGEND
XX AM Peak Hour
(YY) PM Peak Hour

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Driveway Traffic Assignment Residential Component

FIGURE B-1
Dion's Flagler Ave Mixed-Use
Key West, Florida