

Traffic Impact Analysis

Conchy Joe's Development

**Prepared for:
F.M. AYRES 2, LLC**

**For Review By:
Martin County**

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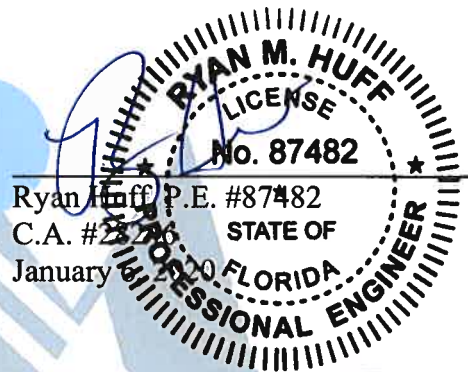
**Office Location &
Mailing Address:**

10975 SE
Federal Hwy
Hobe Sound
Florida
33455

Phone
772-223-8850
Fax
772-223-8851

Email
marketing@
themilcorgroup.
com

Web
www.
themilcorgroup.
com



Trip Generation

Introduction:

The MilCor Group, Inc. has been retained to conduct a traffic analysis for the Conchy Joe's Development in Jensen Beach, Florida. The proposed project includes construction of a new tiki bar adjacent to the river at the Conchy Joe's restaurant, development of the adjacent, currently vacant, waterfront parcel and renovation, repurposing, and expansion of the adjacent Admiral's Table restaurant into a restaurant and microbrewery. The purpose of this study is to determine which roadway links are impacted by the proposed development and what, if any, improvements will be required to meet the adopted Level of Service standards based on the requirements for the Martin County Adequate Public Facilities Ordinance.

Site Data:

The site is located on both sides of NE Indian River Dr. just north of the Jensen Beach Causeway (NE Causeway Blvd) as shown in Exhibit 1, location map. Access to both the east and west portions of the project is provided via existing drives off of Indian River Dr. There are currently no sidewalks, paved shoulder, or bike lanes along the entire frontage of the project. However, the proposed project includes installing a 6' sidewalk on the east side of Indian River Dr. and a 10' multi-modal path on the west side of the road along the project frontage. Additionally, on-street parking is proposed, which requires a posted speed limit of 25 mph. This section of Indian River Dr. currently has a posted speed limit of 35 mph. Therefore, we respectfully request a speed limit reduction to 25 mph.

Project Traffic:

Trip Generation:

Daily, AM, and PM peak hour trip generation rates were calculated based on the ITE Trip Generation Manual, 10th Edition, (Exhibit 2A-2F) for Section 712: Small Office Building & Section 932: High-Turnover (Sit-Down) Restaurant. Although this project is not quite what one would consider a high-turnover restaurant, we utilized this usage based on the ITE explanation of approximately 1 hour of dining time. Additionally, this provides a more conservative design approach.

The calculations considered the existing Conchy Joe's restaurant (Exhibit 2A) subtracted from the proposed Conchy Joe's after expansion (Exhibit 2B), and the proposed Admirals table portion (Exhibit 2C). As well as the existing supporting office buildings (Exhibit 2D) minus the proposed supporting office buildings (Exhibit 2E) The total trips were tallied in Exhibit 2F. The PM Peak had the highest generation, with 79 trips/hour on Martin County roadways. Although neither site intends to be open for breakfast, the AM was used as it provides a conservative design approach.

Trip Distribution and Assignment:

A directional distribution was developed based on a review of land use patterns and existing travel patterns, and existing peak hour directional volumes and growth rates, as provided in the Martin County 2018 Roadway Level of Service Inventory Report. 100% of the trips generated from Conchy Joe's will access NE Indian River Dr. in the link between the Martin/St. Lucie

County line and SR-732 (Causeway Blvd.). 79 trips during the peak hour results in 11.65% of the level of service capacity of this link; therefore, build-out conditions have been evaluated.

Based on the site location and roadway network, it is anticipated that the trips will be distributed with 100% of all trips will obviously be on Indian River Dr. with 40% traveling North to St. Lucie County, and the remaining 60% traveling south and continuing within Martin County roadways. At the roundabout to the south of the project 15% of trips will travel east onto NE Causeway Blvd., 15% will travel on Pineapple Way, and the remaining 30% will continue south on Indian River Dr. This southbound traffic then splits with 15% of trips continuing south on Indian River Dr. and 15% of the total trips heading east on Jensen Beach Blvd.

The calculations are shown in Exhibit 3 and illustrated in Exhibit 4.

Future Traffic Conditions

Utilizing 79 peak hour trips, with 100% assigned, results in 11.65% of the level of service. This is very conservative as 40% of this traffic travels north and is not within the Martin county roadway system for more than three quarters of a mile. Also, Indian River drive from CR-707A to SR-732 was assigned 24 peak hour trips which equates to 3.50% of the level of service. Neither Roadway is expected to exceed their level of service at the time of build out, please see Exhibit 5 for build-out year analysis.

Scheduled Roadway Improvements:

There are no scheduled improvements on any links on which the project has significant impact.

Required Improvements:

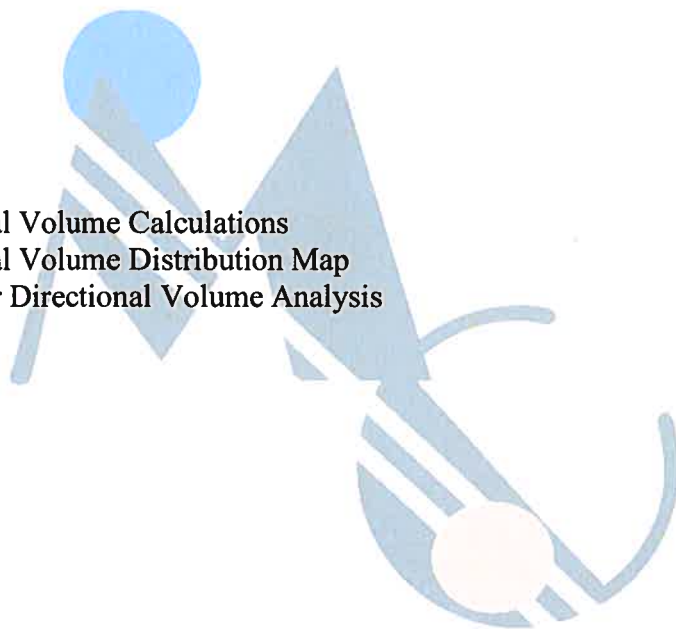
None.

Project Phasing:

There is no phasing proposed. Construction of the infrastructure for this project will begin in 2019, and will be complete in 2021.

Attachments:

- Exhibit 1 ——— Location Map
- Exhibit 2A-2F — Traffic Projections
- Exhibit 3 ——— Peak Hour Directional Volume Calculations
- Exhibit 4 ——— Peak Hour Directional Volume Distribution Map
- Exhibit 5 ——— Year 2021 Peak Hour Directional Volume Analysis



**Exhibit 2A
Traffic Projections
Conchy Joe's
East Side of Project (Existing)**

Land Use:	High-Turnover (Sit-Down) Restaurant
ITE Code:	932
Trip Generation per 1,000 Sq Ft GFA	
X =	9.294
Daily:	T = 112.18 x (1,000 Sq. Ft.) T = 1043 Total Trips
Peak hour of adjacent Street Traffic, one Hour Between 7 and 9 a.m.	
	T = 9.94 x (1,000 Sq. Ft.) 92 Total Trips
Directional Distribution: 55% entering & 45% exiting	
Entering:	51 Trips
Exiting:	42 Trips
Peak hour of adjacent Street Traffic, one Hour Between 4 and 6 p.m.	
	T = 9.77 x (1,000 Sq. Ft.) T = 91 Total Trips
Directional Distribution: 62% entering & 38% exiting	
Entering:	56 Trips
Exiting:	35 Trips
The PM peak generates the highest trip counts.	

Exhibit 2B
Traffic Projections
Conchy Joe's
East Side of Project (Proposed)

Land Use:	High-Turnover (Sit-Down) Restaurant
ITE Code:	932
Trip Generation per 1,000 Sq Ft GFA	
X =	14.735
Daily:	$T = 112.18 \times (1,000 \text{ Sq. Ft.})$
	T = 1653 Total Trips
Peak hour of adjacent Street Traffic, one Hour Between 7 and 9 a.m.	
	$T = 9.94 \times (1,000 \text{ Sq. Ft.})$
	146 Total Trips
Directional Distribution: 55% entering & 45% exiting	
Entering:	81 Trips
Exiting:	66 Trips
Peak hour of adjacent Street Traffic, one Hour Between 4 and 6 p.m.	
	$T = 9.77 \times (1,000 \text{ Sq. Ft.})$
	T = 144 Total Trips
Directional Distribution: 62% entering & 38% exiting	
Entering:	89 Trips
Exiting:	55 Trips
The PM peak generates the highest trip counts.	

Exhibit 2C
Traffic Projections
Conchy Joe's
West Side of Project (Proposed Restaurant)

Land Use:	High-Turnover (Sit-Down) Restaurant
ITE Code:	932
Trip Generation per 1,000 Sq Ft GFA	
X =	7.089
Daily:	T = 112.18 x (1,000 Sq. Ft.) T = 795 Total Trips
Peak hour of adjacent Street Traffic, one Hour Between 7 and 9 a.m.	
	T = 9.94 x (1,000 Sq. Ft.) 70 Total Trips
Directional Distribution: 55% entering & 45% exiting	
Entering:	39 Trips
Exiting:	32 Trips
Peak hour of adjacent Street Traffic, one Hour Between 4 and 6 p.m.	
	T = 9.77 x (1,000 Sq. Ft.) T = 69 Total Trips
Directional Distribution: 62% entering & 38% exiting	
Entering:	43 Trips
Exiting:	26 Trips
The PM peak generates the highest trip counts.	

Exhibit 2D
Traffic Projections
Conchy Joe's
West Side of Project (Existing Office)

Land Use: Small Office Building		
ITE Code: 712		
Trip Generation per 1,000 Sq Ft GFA		
X = 1.924		
Daily:	T =	16.19 x (1,000 Sq. Ft.)
	T =	31 Total Trips
Peak hour of adjacent Street Traffic, one Hour Between 7 and 9 a.m.		
	T =	1.92 x (1,000 Sq. Ft.)
	T =	4 Total Trips
Directional Distribution: 83% entering & 18% exiting		
	Entering:	3 Trips
	Exiting:	1 Trips
Peak hour of adjacent Street Traffic, one Hour Between 4 and 6 p.m.		
	T =	2.45 x (1,000 Sq. Ft.)
	T =	5 Total Trips
Directional Distribution: 32% entering & 68% exiting		
	Entering:	2 Trips
	Exiting:	3 Trips
The PM peak generates the highest trip counts.		

Exhibit 2E
Traffic Projections
Conchy Joe's
West Side of Project (Proposed Office)

Land Use:	Small Office Building
ITE Code:	712
Trip Generation per 1,000 Sq Ft GFA	
X =	1.608
Daily:	T = 16.19 x (1,000 Sq. Ft.)
	T = 26 Total Trips
Peak hour of adjacent Street Traffic, one Hour Between 7 and 9 a.m.	
	T = 1.92 x (1,000 Sq. Ft.)
	T = 3 Total Trips
Directional Distribution: 83% entering & 18% exiting	
Entering:	3 Trips
Exiting:	1 Trips
Peak hour of adjacent Street Traffic, one Hour Between 4 and 6 p.m.	
	T = 2.45 x (1,000 Sq. Ft.)
	T = 4 Total Trips
Directional Distribution: 32% entering & 68% exiting	
Entering:	1 Trips
Exiting:	3 Trips
The PM peak generates the highest trip counts.	

Exhibit 2F
Traffic Projections
Total Development

Basis	East Side Existing	East Side Proposed	West Side Office Existing	West Side Office Proposed	West Side Restaurant Proposed	Total
Weekday Daily	-1043	1653	31	26	795	1463
Weekday AM Peak Hour - Enter	-51	81	3	3	39	74
Weekday AM Peak Hour - Exit	-42	66	1	1	32	57
Weekday PM Peak Hour - Enter	-56	89	2	1	43	79
Weekday PM Peak Hour - Exit	-35	55	3	3	26	52

Exhibit 3
Conchy Joe's
Peak Hour Directional Volume Distribution

Project Total Peak Hour Directional Volume =

78.7 Vehicle Trips

PM Peak Hour Directional Analysis							
				Project		Service	Project
Road		Link	Lanes	% Assign	Volume	Capacity	Impact
CR-707 (Indian River Dr)		CR-707 (Dixie Hwy) to CR-707A (Jensen Beach Blvd.)	2L	15%	12	675	1.75%
CR-707 (Indian River Dr)		CR-707A to SR-732	2L	30%	24	675	3.50%
CR-707 (Indian River Dr)		SR-732 to St. Lucie County	2L	100%	79	675	11.65%
CR-707A (Jensen Beach Blvd.)		Pineapple Way to CR-707	2L	15%	12	675	1.75%
Pineapple Way		CR-707A (Jensen Beach Blvd.) to SR-731	2L	15%	12	750	1.57%
SR-732 (Causeway Blvd)		CR-707 to SR-A1A	4L	15%	12	1190	0.99%

The map displays Jensen Beach and its surrounding areas, including Hutchinson Island to the northeast. Key roads shown include NE Skyline Dr, NE Causeway Blvd, NE Jensen Beach Blvd, NE South St, NE Indian River Dr, NE Pinecrest Lakes Blvd, NE Savannah Rd, NE Palmer St, NE Dixie Hwy, and NE Alice St. The St. Lucie River is located to the south, and the Intracoastal Waterway is to the east. A yellow callout box labeled "Project Location" points to a red dot on NE Skyline Dr. Several data boxes are scattered across the map, each containing the following information:

- Top Left:** A=100%, V=79, C=675, I=11.65%
- Top Right:** A=15%, V=12, C=675, I=1.75%
- Middle Left:** A=15%, V=12, C=750, I=1.57%
- Middle Right:** A=30%, V=24, C=675, I=3.50%
- Bottom Center:** A=15%, V=12, C=675, I=1.75%
- Bottom Right:** A=15%, V=12, C=675, I=1.75%

Other labels on the map include "JENSEN BEACH", "HUTCHINSON ISLAND", "Intracoastal Waterway", and "St. Lucie River". Various numbers (21, 22, 26, 27, 28, 33, 35) are also present, likely representing parcel or lot numbers.

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Exhibit 5
Peak Hour Directional Volume Distribution
Year 2021 Peak Hour Directional Volume Analysis

Analysis based on Martin County 2018 Data; therefore, buildout is in

3 years

Road	Link	Lanes	PM Peak Hour Directional Analysis						Service Capacity	Project Impact
			2018 Volume	Growth (2021) Volume	% / Year	Project % Assign	Volume	Total 2021		
CR-707 (Indian River Dr)	CR-707A to SR-732	2L	241	4	0.5	30%	24	268	675	3.50%
CR-707 (Indian River Dr)	SR-732 to St. Lucie County	2L	334	32	3.1	100%	79	445	675	11.65%