

## MEMORANDUM

To: The City of Panama City Beach  
From: Kimley-Horn and Associates, Inc.  
Date: November 10, 2022

**Subject: Hombre Apartments Concurrency Analysis**

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### **Purpose and Methodology**

The purpose of this memorandum is to summarize the concurrency analysis prepared for the proposed Hombre Apartments housing development located southwest of the intersection of US 98 and N Glades Trail in Panama City Beach, Florida. This traffic study analyzes the impacts of the 267-unit, multifamily housing development to the surrounding roadway network. The site plan can be found in **Attachment A**.

### **Trip Generation**

The subject development is proposed to consist of 267 multifamily units. The Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11<sup>th</sup> Edition* was utilized to calculate the trip generation potential of the proposed development. ITE trip generation rates for Land Use Code 220 (Multifamily Housing [Low-Rise]) were applied to calculate the daily and PM peak hour trips anticipated from the proposed development. The development is expected to generate approximately 1,787 daily net new trips and 135 PM peak hour net new trips (85 entering, 50 exiting). **Table 1** summarizes the trip generation calculations.

**Table 1: Trip Generation**

ITE LUC	Land Use	Density		Daily Trips	PM Peak Hour		
					Total	In	Out
220	Multifamily Housing (Low-Rise)	267	Units	1,787	135	85	50
<b>GROSS TRIPS</b>				<b>1,787</b>	<b>135</b>	<b>85</b>	<b>50</b>

### **Trip Distribution**

The trip distribution of the project trips generated by the development is consistent with the distribution of AADT on the surrounding roadways obtained from the Bay County Congestion Management Process 2017 Level of Service Analysis. This distribution was used to determine the project trips and impacts to the surrounding roadway segments.

### Roadway Segment Analysis

The operating conditions were analyzed for the PM peak hour, peak direction using Bay County's Congestion Management Plan. Segment capacity analyses were conducted for buildout conditions for SR 30A (US 98). The study area typically includes the roadway segments that are forecasted to provide service to at least 5% of the maximum service volume (MSV) capacity in the PM peak hour at project buildout. For the Hombre Apartments development, the project trips do not reach 5% of the maximum service threshold of any segments. To be conservative, the roadway segment adjacent to the site entrance and one segment beyond the east and west boundaries of the site-adjacent segment were analyzed.

Per Bay County's Land Development Code (LDC), for a proposed development to achieve concurrency requirements, the impacted segments are not to exceed LOS D along all state and county-maintained roadways. The Congestion Management Process Plan provided the peak hour, peak direction volumes, as well as the LOS standard for each segment and the max volume, shown in **Attachment B**. Traffic volumes were obtained from FDOT Florida Traffic Online and can be found in **Attachment C**. A summary of the existing conditions segment capacity analysis is shown in **Table 2**. **Table 3** displays the analysis of the segments during the peak hour, peak direction with the addition of the buildout project trips.

**Table 2: Existing Concurrency Segment Analysis**

Roadway Segment		Number of Lanes	Speed Limit (mph)	2021 PHPD Volume	Existing (2022) - PM Peak Hour			
					PKHR/DR MSV	PHPD Volume <sup>1</sup>	Peak Direction	Deficiency?
From	To							
<b>SR 30A (US 98)</b>								
Mandy Lane	R Jackson Boulevard	4	45	2,139	2,000 (D)	2,197	WB	Yes
R Jackson Boulevard	SR 30/ US 98A/ Front Beach Road	4	55	1,839	2,000 (D)	1,889	WB	No
SR 30/ US 98A/ Front Beach Road	Thomas Dr/ CR 3031	4	45	2,338	2,000 (D)	2,402	EB	Yes

<sup>1</sup> Existing PHPD based on 2021 traffic count data from FDOT Florida Traffic Online that was grown to 2022.

**Table 3: Future Buildout Concurrency Segment Analysis**

Roadway Segment  From                      To		Adopted LOS	Background (2023)					Buildout (2023)					
			PHPD MSV	2022 Existing PHPD	Peak Direction	Annual Growth Rate	Background 2023 PHPD	Deficient?	Project Trips			2023 Buildout PM PHPD	Deficient?
									% Project Distrib.	IN = 85	OUT = 50		
				NB/EB	SB/WB								
<b>SR 30A (US 98)</b>													
Mandy Lane	R Jackson Boulevard	D	2,000	2,197	WB	2.7%	2,257	Yes	20%	17	10	2,267	Yes
R Jackson Boulevard	SR 30/ US 98A/ Front Beach Road	D	2,000	1,889	WB	2.7%	1,941	No	60%	51	30	1,971	No
SR 30/ US 98A/ Front Beach Road	Thomas Dr/ CR 3031	D	2,000	2,402	EB	2.7%	2,467	Yes	30%	26	15	2,493	Yes

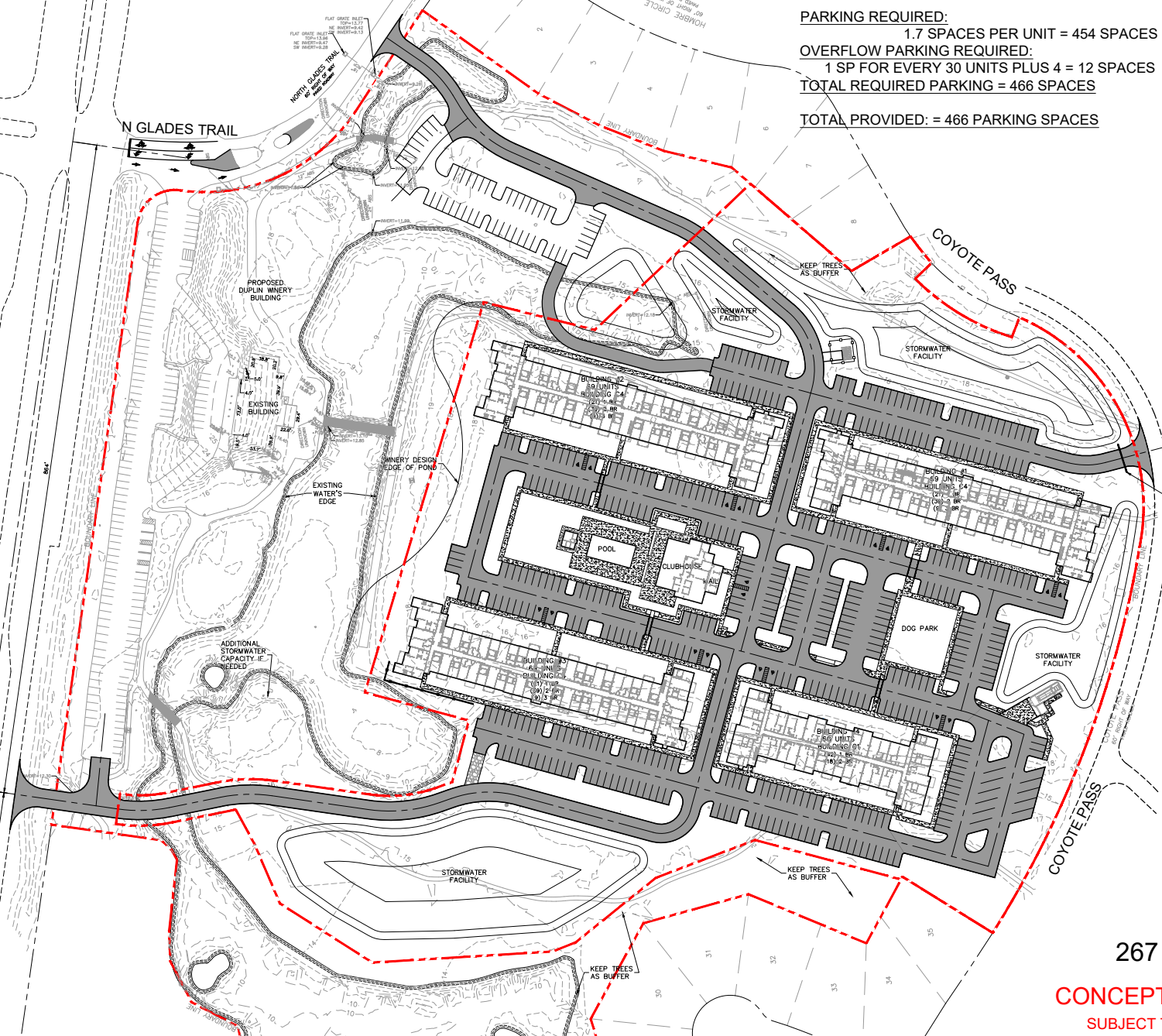
**Conclusion**

This traffic impact analysis was performed for the proposed Hombre Apartments located in Bay County, Florida. The concurrency segment analysis completed for the surrounding roadways indicated that two segments along SR 30A (from Mandy Lane to R Jackson Boulevard and from SR 30/US 98A/ Front Beach Road) are currently exceeding their peak hour capacity under existing conditions. Per Florida Statutes Chapter 163, Section 3180, the developer is not responsible for the funding of existing deficiencies. No roadway segments were identified as future buildout deficiencies as a result of project impacts.

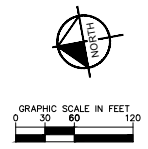
## **Attachment A**

Projected by: Kimley-Horn and Associates, Inc. Date: July 20, 2022. 02:37:59pm. K:\V\09\_02\14218600-Hornbuck\_MF\_STA\03\_CADD\_Coospects\Monroe\_Development - CSP11.dwg  
 This document, together with the concepts and designs presented herein, is an instrument of service, to be used only for the specific purpose and client for which it was prepared. Future use and/or improper reliance on this document without written authorization and signature by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

HIGHWAY 98  
PANAMA CITY BEACH PARKWAY



**PARKING REQUIRED:**  
 1.7 SPACES PER UNIT = 454 SPACES  
**OVERFLOW PARKING REQUIRED:**  
 1 SP FOR EVERY 30 UNITS PLUS 4 = 12 SPACES  
**TOTAL REQUIRED PARKING = 466 SPACES**  
**TOTAL PROVIDED: = 466 PARKING SPACES**



**267 UNITS**  
**CONCEPTUAL PLAN**  
 SUBJECT TO CHANGE

<b>HOMBRE APARTMENTS</b> PREPARED FOR <b>RULE JOY TRAMMELL &amp; RUBIO</b> CITY OF PANAMA CITY BEACH, FLORIDA	KHA PROJECT DATE: JULY 2022 SCALE AS SHOWN DESIGNED BY: JMR DRAWN BY: MOW CHECKED BY: JMR DATE: 3-11-2022	<b>CONCEPTUAL SITE PLAN</b>	<b>PRELIMINARY</b> <b>NOT FOR CONSTRUCTION</b>	REVISIONS	DATE

## **Attachment B**

CONGESTION MANAGEMENT PROCESS 2014 LEVEL OF SERVICE ANALYSIS - BAY COUNTY STATE ROADS																
STATE ROAD AND SEGMENT	FUNC. CLASS	NO. LNS.	FACILITY TYPE	TOTAL # OF SIG.	SEG. LTH (ML.)	LOS AREA	LOS (STD) & MAX VOL	FDOT COUNT STA #	2014 AADT	AADT			PK HR. / PK DIR.			
										ANALYSIS YEAR	AADT VOLUME	AADT LOS	LOS STD/ MAX VOL	VOLUME	LOS	
<b>SR30A (US98) (cont.)</b>																
Panama City Beach Parkway SR79 to Mandy Lane  <b>6.067 - 6.760</b> <b>Roadway ID 46160000</b>	Principal Arterial	6	Divided 45 MPH	0	0.700	Urbanized	(D) 98,300	275	45,500	2004	32,000	B	(D) 4,860	1,613	B	
										2005	36,000	B		1,814	B	
										2006	37,000	B		1,865	B	
										2007	37,000	B		1,865	B	
										2008	34,500	B		1,739	B	
										2009	31,500	B		1,588	B	
										2010	38,000	B		1,915	B	
										2011	38,500	B		1,940	B	
										2012	40,000	B		2,016	B	
										% of MV	2013	39,000		B	1,966	B
										46.29%	2014	45,500		B	2,293	B
										51.10%	2019	50,236		B	2,532	B
										56.42%	2024	55,464		C	2,795	C
										Mandy Lane to R. Jackson Boulevard  <b>6.760 - 11.290</b> <b>Roadway ID 46160000</b>	Principal Arterial	4		Divided 45 MPH	5	4.500
2005	38,000	D	1,915	D												
2006	37,500	C	1,890	C												
2007	37,500	C	1,890	C												
2008	36,500	C	1,840	C												
2009	42,500	F*	2,142	F*												
2010	44,000	F*	2,218	F*												
2011	42,500	F*	2,142	F*												
2012	39,500	D	1,991	D												
% of MV	2013	43,000	F*	2,167	F*											
116.83%	2014	46,500	F*	2,344	F*											
128.99%	2019	51,340	F*	2,588	F*											
142.42%	2024	56,683	F*	2,857	F*											
R. Jackshon Boulevard to SR 30 / US 98A / Front Beach Road  <b>11.290 - 14.229</b> <b>Roadway ID 46160000</b>	Principal Arterial	4	Divided 55 MPH	1	2.939	Urbanized	(D) 39,800	203	37,500				2004			
										2005	26,000	C	1,310	C		
										2006	30,000	C	1,512	C		
										2007	30,000	C	1,512	C		
										2008	31,500	C	1,588	C		
										2009	33,000	C	1,663	C		
										2010	36,500	C	1,840	C		
										2011	34,500	C	1,739	C		
										2012	37,000	C	1,865	C		
										% of MV	2013	37,500	C	1,890	C	
										94.22%	2014	37,500	C	1,890	C	
										104.03%	2019	41,403	F*	2,087	F*	
										114.86%	2024	45,712	F*	2,304	F*	

Updated 2015, using 2012 FDOT LOS Tables. LOS Standards and Max Allowable Volumes are based on those established for State Roadways. "E" following the count indicates an estimated count. "T" following the Count Station number indicated a Telemetered Traffic Monitoring Site. These Tables Are For General Purposes Only. Not To Be Used For Concurrence Management Purposes. Prepared for the FY 2014/15 Transportation Planning Organization Congestion Management Process. % of MV=Percent of Motor Vehicles. > 100% equals deficiency.

CONGESTION MANAGEMENT PROCESS 2014 LEVEL OF SERVICE ANALYSIS - BAY COUNTY STATE ROADS																
STATE ROAD AND SEGMENT	FUNC. CLASS	NO. LNS.	FACILITY TYPE	TOTAL # OF SIG.	SEG. LTH (ML.)	LOS AREA	LOS (STD) & MAX VOL	FDOT COUNT STA #	2014 AADT	AADT			PK HR. / PK DIR.			
										ANALYSIS YEAR	AADT VOLUME	AADT LOS	LOS STD/ MAX VOL	VOLUME	LOS	
<b>SR30A (US98) (cont.)</b>																
Panama City Beach Parkway SR 30 / US 98A / Front Beach Road to Thomas Drive / CR 3031  <b>0 - 0.414 Roadway ID 46010100</b>	Principal Arterial	4	Divided 45 MPH	1	0.414	Urbanized	(D) 39,800	100	53,000	2004	43,500	F*	(D) 2,000	2,192	F*	
										2005	43,500	F*		2,192	F*	
										2006	43,500	F*		2,192	F*	
										2007	42,700	F*		2,152	F*	
										2008	41,800	F*		2,107	F*	
										2009	41,000	F*		2,066	F*	
										2010	47,500	F*		2,394	F*	
										2011	46,500	F*		2,344	F*	
										2012	44,500	F*		2,243	F*	
										% of MV	2013	51,500		F*	2,596	F*
										133.17%	2014	53,000		F*	2,671	F*
										147.03%	2019	58,516		F*	2,949	F*
										162.33%	2024	64,607		F*	3,256	F*
										Thomas Drive / CR 3031 to Hathaway Bridge (west approach)  <b>0.414 - 1.00 Roadway ID 46010100</b>	Principal Arterial	6		Divided 45 MPH	1	0.586
2005	68,000	F*	3,427	F*												
2006	69,500	F*	3,503	F*												
2007	48,000	C	2,419	C												
2008	54,000	C	2,722	C												
2009	54,000	C	2,722	C												
2010	50,000	C	2,520	C												
2011	53,000	C	2,671	C												
2012	50,500	C	2,545	C												
% of MV	2013	55,000	C	2,772	C											
91.82%	2014	55,000	C	2,772	C											
101.38%	2019	60,724	F*	3,061	F*											
111.93%	2024	67,045	F*	3,379	F*											
Hathaway Bridge (west approach) Bullnose W end of bridge to Bullnose E end of bridge  <b>1.00 - 1.953 Roadway ID 46010100</b>	Principal Arterial	6	Divided 45 MPH	1	0.953	Urbanized	(D) 59,900	5221 5084	61,500				2004			
									NA	2005	62,500	F*	3,150	F*		
										2006	64,000	F*	3,226	F*		
										2007	65,000	F*	3,276	F*		
										2008	55,000	C	2,772	C		
										2009	61,500	F*	3,100	F*		
										2010	60,000	F*	3,024	F*		
										2011	61,000	F*	3,074	F*		
										2012	59,000	D	2,974	D		
									% of MV	2013	60,500	F*	3,049	F*		
									102.67%	2014	61,500	F*	3,100	F*		
									113.36%	2019	67,901	F*	3,422	F*		
									125.16%	2024	74,968	F*	3,778	F*		

Updated 2015, using 2012 FDOT LOS Tables. LOS Standards and Max Allowable Volumes are based on those established for State Roadways. "E" following the count indicates an estimated count. "T" following the Count Station number indicated a Telemetered Traffic Monitoring Site. These Tables Are For General Purposes Only. Not To Be Used For Concurrence Management Purposes. Prepared for the FY 2014/15 Transportation Planning Organization Congestion Management Process. % of MV=Percent of Motor Vehicles. > 100% equals deficiency.



## **Attachment C**

COUNTY: 46  
 STATION: 0100  
 DESCRIPTION: US 98 - BETWEEN THOMAS & FRONT BCH/BACK BCH SPLIT  
 START DATE: 09/07/2021  
 START TIME: 0800

TIME	DIRECTION: E					DIRECTION: W					COMBINED TOTAL	
	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL		
0000	50	41	56	37	184	77	48	36	40	201	385	
0100	42	29	30	25	126	30	37	25	32	124	250	
0200	25	23	21	24	93	22	22	25	9	78	171	
0300	29	34	44	45	152	26	24	19	25	94	246	
0400	45	34	75	75	229	25	25	38	40	128	357	
0500	77	109	148	176	510	48	71	108	130	357	867	
0600	222	305	380	428	1335	188	228	313	341	1070	2405	
0700	548	513	595	643	2299	358	459	538	474	1829	4128	
0800	620	532	559	521	2232	367	382	352	358	1459	3691	
0900	505	506	566	535	2112	355	380	353	354	1442	3554	
1000	442	485	516	509	1952	379	354	372	370	1475	3427	
1100	513	567	496	476	2052	329	358	346	318	1351	3403	
1200	473	563	475	534	2045	368	356	361	383	1468	3513	
1300	445	486	492	499	1922	316	379	373	384	1452	3374	
1400	519	511	510	558	2098	408	434	453	425	1720	3818	
1500	557	630	547	609	2343	426	445	424	449	1744	4087	
1600	632	567	531	608	2338	454	474	520	478	1926	4264	
1700	604	599	575	504	2282	563	498	466	415	1942	4224	
1800	410	428	449	335	1622	388	353	323	324	1388	3010	
1900	313	322	342	280	1257	264	272	270	251	1057	2314	
2000	269	259	258	203	989	221	188	213	197	819	1808	
2100	219	182	173	144	718	163	144	166	151	624	1342	
2200	142	106	126	112	486	151	175	131	137	594	1080	
2300	93	81	77	66	317	121	114	79	73	387	704	
24-HOUR TOTALS:					31693						24729	56422

	DIRECTION: E		DIRECTION: W		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	730	2390	715	1838	715	4209
P.M.	1515	2418	1630	2059	1630	4401
DAILY	1515	2418	1630	2059	1630	4401

COUNTY: 46  
 STATION: 0203  
 DESCRIPTION: US 98 (BACK BCH) - 425' E OF CAULEY AVE (W OF RAMP)  
 START DATE: 09/02/2021  
 START TIME: 1400

TIME	DIRECTION: E					DIRECTION: W					COMBINED TOTAL
	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	
0000	44	32	45	28	149	95	68	51	41	255	404
0100	27	17	22	21	87	53	45	28	22	148	235
0200	17	19	21	16	73	28	25	26	21	100	173
0300	28	24	33	36	121	16	16	14	29	75	196
0400	40	30	72	70	212	27	27	22	39	115	327
0500	68	92	135	150	445	50	72	77	105	304	749
0600	195	260	338	363	1156	121	164	240	329	854	2010
0700	459	417	483	506	1865	290	377	465	402	1534	3399
0800	508	435	424	383	1750	337	370	320	315	1342	3092
0900	386	397	446	399	1628	304	260	317	329	1210	2838
1000	339	356	395	379	1469	325	312	313	366	1316	2785
1100	395	431	386	349	1561	326	358	324	378	1386	2947
1200	380	403	349	411	1543	336	387	350	437	1510	3053
1300	340	364	398	349	1451	367	407	377	379	1530	2981
1400	398	373	402	426	1599	391	448	375	381	1595	3194
1500	414	465	403	435	1717	359	389	438	493	1679	3396
1600	461	425	380	427	1693	469	448	469	453	1839	3532
1700	446	440	398	356	1640	459	434	449	424	1766	3406
1800	300	328	325	237	1190	353	356	341	319	1369	2559
1900	211	220	258	213	902	328	333	299	245	1205	2107
2000	191	187	168	143	689	227	191	201	202	821	1510
2100	152	130	121	101	504	157	192	149	143	641	1145
2200	94	73	98	82	347	165	151	140	124	580	927
2300	68	64	59	48	239	105	109	97	106	417	656
24-HOUR TOTALS:	24030					23591					47621

	DIRECTION: E		DIRECTION: W		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	730	1932	715	1581	730	3506
P.M.	1515	1764	1545	1879	1545	3580
DAILY	730	1932	1545	1879	1545	3580

COUNTY: 46  
 STATION: 0277  
 DESCRIPTION: US 98 (BACK BEACH) - 0.200 M W OF ALF COLEMAN RD  
 START DATE: 08/26/2021  
 START TIME: 0900

TIME	DIRECTION: E					DIRECTION: W					COMBINED TOTAL	
	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL		
0000	27	28	26	26	107	62	74	44	41	221	328	
0100	30	31	12	25	98	18	28	19	20	85	183	
0200	15	20	13	13	61	29	16	9	11	65	126	
0300	18	26	33	34	111	9	9	19	12	49	160	
0400	40	42	72	67	221	27	32	41	52	152	373	
0500	86	101	146	205	538	34	73	121	141	369	907	
0600	193	296	328	359	1176	133	195	298	333	959	2135	
0700	370	433	506	447	1756	372	396	476	460	1704	3460	
0800	519	459	435	497	1910	462	440	398	422	1722	3632	
0900	332	432	487	416	1667	397	407	392	455	1651	3318	
1000	395	434	401	407	1637	379	421	397	429	1626	3263	
1100	408	408	411	421	1648	373	371	385	446	1575	3223	
1200	414	445	426	440	1725	392	428	436	444	1700	3425	
1300	416	437	398	387	1638	475	490	426	461	1852	3490	
1400	420	480	430	441	1771	433	452	487	471	1843	3614	
1500	534	632	469	482	2117	458	495	470	533	1956	4073	
1600	462	508	448	483	1901	485	531	579	515	2110	4011	
1700	529	433	404	373	1739	514	516	501	519	2050	3789	
1800	334	316	302	322	1274	433	432	352	356	1573	2847	
1900	239	238	236	257	970	371	340	271	282	1264	2234	
2000	238	221	219	157	835	244	272	215	203	934	1769	
2100	159	128	144	133	564	197	206	175	174	752	1316	
2200	158	118	89	83	448	210	139	163	136	648	1096	
2300	69	63	45	48	225	118	102	105	84	409	634	
24-HOUR TOTALS:					26137						27269	53406

	DIRECTION: E		DIRECTION: W		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	730	1931	730	1838	730	3769
P.M.	1500	2117	1615	2139	1615	4107
DAILY	1500	2117	1615	2139	1615	4107