Oceanside Circulation Element Update

Appendix E1

Sunnyvale – Circulation Element Compliance

Prepared by IBI Group

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Subject Summary of Traffic Impact Analysis in the Context of the Sunnyvale Decision

Based on the December 2010 court ruling in Northern California, *Sunnyvale West Neighborhood Assn, et al v. City of Sunnyvale City Council*, the court directed that existing conditions are to be used as the baseline for evaluating the impacts of a proposed project. The traffic analysis in the Program EIR for the Oceanside General Plan Circulation Element Update provides a comparison of the traffic impacts of the three project alternatives to existing conditions.

The Circulation Element Update aims to modify the current 1995 roadway network plan and identify the level of service on multiple intersections and roadways throughout the City. The Program EIR for the Circulation Element Update includes an analysis for the existing conditions scenario, the 1995 Circulation Element (slightly modified) scenario, and two additional 2030 network alternatives. The following tables provide a summary of the level of service analysis for both intersections and roadway segments for the existing and future scenarios. Detailed analysis results which include the volume-to-capacity ratio for segments and delay for intersections can be found in Appendix E of the Oceanside Circulation Element Update Program EIR. The City of Oceanside's acceptable level of service for intersections and segments is LOS D. Any segment or intersection analyzed in the Circulation Element Update that does not operate at LOS D in the 2030 future scenario is deemed to have an impact and mitigation measures are recommended for the facility in the Program EIR under Section 4.2.4.

Existing Conditions Compared to Future 2030 Alternatives
Intersection Operations

	Intersection	Peak Hour	Control Type	Existing LOS[a]	Modified 1995 CE LOS[a]	Alterna-tive 1 LOS[a]	Alterna-tive 2 LOS[a]
1	Coast Hwy & SR76	AM	Signal	B	B	B	B
		PM		B	C	C	C
2	Coast Hwy & Surfrider Way	AM	Signal	B	B	B	A
		PM		B	B	B	B
3	Coast Hwy & Mission Ave	AM	Signal	B	B	B	B
		PM		B	B	B	C
4	Coast Hwy & Oceanside Blvd	AM	Signal	D	D	D	B
		PM		D	D	D	**F**
5	Coast Hwy & Vista Way	AM	Signal	C	C	C	A
		PM		D	D	D	**F**
6	Mission Ave & Horne St	AM	Signal	C	C	C	C
		PM		C	D	D	D
7	Mission Ave & I-5SB Ramps	AM	Signal	C	D	D	D
		PM		C	**E**	**E**	**E**
8	Mission Ave & I-5NB Ramps	AM	Unsig.	C	D	D	D
		PM		**F**	D	**E**	**E**
9	Mission Ave & Canyon Dr	AM	Signal	C	C	C	C
		PM		C	D	D	D
10	Oceanside Blvd & I-5 SB Ramps	AM	Signal	C	D	D	**E**
		PM		**E**	**F**	**F**	**F**
11	Oceanside Blvd & I-5 NB Ramps	AM	Signal	C	C	C	C
		PM		C	**E**	**E**	**F**
12	Oceanside Blvd & Crouch St	AM	Signal	C	C	D	D
		PM		D	**E**	**E**	**E**
13	SR76 & Foussat Rd	AM	Signal	D	**E**	**E**	**E**
		PM		C	D	D	**E**
14	El Camino Real & Mission Ave	AM	Signal	D	D	D	D
		PM		C	D	D	D
15	El Camino Real & Mesa Dr	AM	Signal	C	D	D	D
		PM		C	C	D	D
16	El Camino Real & Oceanside Blvd	AM	Signal	D	**E**	**E**	**E**
		PM		C	D	D	D
17	El Camino Real & Vista Way	AM	Signal	D	D	D	**E**
		PM		D	**E**	**E**	**F**
18	El Camino Real & SR78 WB Ramps	AM	Signal	C	C	C	D
		PM		C	D	D	D

Existing Conditions Compared to Future 2030 Alternatives
Intersection Operations

	Intersection	Peak Hour	Control Type	Existing LOS[a]	Modified 1995 CE LOS[a]	Alterna-tive 1 LOS[a]	Alterna-tive 2 LOS[a]
19	El Camino Real & SR78 EB Ramps	AM	Signal	C	C	C	C
		PM		D	D	D	E
20	Vista Way & Jefferson St	AM	Signal	C	C	C	C
		PM		C	E	E	E
21	Douglas Dr & North River Rd	AM	Signal	C	D	D	D
		PM		C	D	D	D
22	Douglas Dr & El Camino Real	AM	Signal	D	F	F	F
		PM		C	E	E	F
23	Douglas Dr & Mission Ave	AM	Signal	C	E	E	F
		PM		D	E	E	F
24	Rancho Del Oro Dr & SR76	AM	Signal	D	D	D	D
		PM		D	D	D	D
25	Rancho Del Oro Dr & Mesa Dr	AM	Signal	C	D	D	D
		PM		C	C	C	D
26	Rancho Del Oro Rd & Oceanside Blvd	AM	Signal	C	C	C	C
		PM		C	D	D	D
27	Rancho Del Oro Rd & Vista Del Oro Dr [b]	AM	AWSC [c]	B	F	F	F
		PM		B	F	F	F
28	Rancho Del Oro Rd & Cameo Dr [b]	AM	AWSC [c]	E	F	F	F
		PM		E	F	F	F
29	Rancho Del Oro Rd & Trieste Way & Sicily Way [b]	AM	AWSC [c]	B	F	F	C
		PM		B	F	F	D
30	Rancho Del Oro Rd & Vista Way	AM	Signal	C	C	D	B
		PM		D	D	D	C
31	Vandegrift Blvd & Douglas Dr	AM	Signal	B	C	C	C
		PM		B	C	C	C
32	Vandegrift Blvd & North River Rd	AM	Signal	B	B	B	B
		PM		C	D	D	D
33	College Blvd & North River Rd	AM	Signal	C	C	C	C
		PM		E	F	F	F
34	College Blvd & SR76	AM	Signal	D	E	F	F
		PM		F	F	F	F
35	College Blvd & Mesa Dr	AM	Signal	C	D	D	D
		PM		D	D	D	E
36	Old Grove Rd & Mesa Dr	AM	Signal	B	C	C	C
		PM		C	D	D	D

Existing Conditions Compared to Future 2030 Alternatives
Intersection Operations

	Intersection	Peak Hour	Control Type	Existing LOS[a]	Modified 1995 CE LOS[a]	Alterna-tive 1 LOS[a]	Alterna-tive 2 LOS[a]
37	College Blvd & Old Grove Rd	AM	Signal	C	D	C	**E**
		PM		C	D	D	D
38	College Blvd & Oceanside Blvd	AM	Signal	D	D	D	D
		PM		D	**E**	D	**E**
39	College Blvd & Olive Dr	AM	Signal	C	C	C	C
		PM		C	C	D	D
40	College Blvd & Vista Way	AM	Signal	D	C	C	D
		PM		D	C	C	D
41	College Blvd & SR78 EB Off Ramp	AM	Signal	B	B	B	B
		PM		B	B	C	B
42	College Blvd & Plaza Dr	AM	Signal	C	C	C	C
		PM		C	C	C	D
43	College Blvd & Lake Blvd	AM	Signal	B	C	C	C
		PM		C	**E**	**E**	**E**
44	Vista Way & SR78 WB Ramp	AM	Signal	C	C	C	C
		PM		C	C	C	D
45	Plaza Dr & SR78 EB Ramp	AM	Signal	C	C	C	C
		PM		C	C	C	D
46	North Santa Fe Ave & Mesa Dr	AM	Signal	B	B	B	B
		PM		C	B	B	B
47	Melrose Dr & SR76	AM	Signal	C	D	D	D
		PM		C	**E**	D	C
48	Melrose Dr & North Santa Fe Ave	AM	Signal	B	C	C	C
		PM		C	C	C	B
49	Melrose Dr & Oceanside Blvd	AM	Signal	C	C	C	C
		PM		C	D	D	D
50	Melrose Dr & Cannon Rd	AM	Signal	B	D	D	D
		PM		B	C	D	D

Footnotes:
a. LOS = Level of Service
b. These intersection calculations were done in Traffix using 2000 HCM methodologies. Synchro only allows geometry of 2-lanes per leg for AWSC intersections.
c. AWSC – all way stop controlled intersection

Notes:
1. Acceptable level of service at intersections in Oceanside is LOS D.
2. **Bold** and red/orange shading indicates an unacceptable level of service.

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Existing Conditions Compared to Future 2030 Alternatives
Segment Operations

Existing		Future	Modified 1995 CE	Alternative 1 - 2030	Alternative 2 - 2030
Street	**LOS**	**Street**	**LOS**	**LOS**	**LOS**
Cannon Road					
Melrose Drive to Western City Limits	A	Melrose Drive to Western City Limits	C	C	C
Canyon Drive					
SR76 to Mission Avenue	A	SR76 to Mission Avenue	B	B	B
Mission Avenue to Oceanside Blvd	C	Mission Avenue to Oceanside Blvd	B	B	B
Coast Highway					
Harbor Drive to SR76	D	Harbor Drive to SR76	C	C	**F**
SR76 to Mission Avenue	D	SR76 to Mission Avenue	D	D	**F**
Mission Avenue to Wisconsin Avenue	D	Mission Avenue to Wisconsin Avenue	**E**	D	**F**
Wisconsin Avenue to Oceanside Blvd	**E**	Wisconsin Avenue to Oceanside Blvd	**E**	**E**	**F**
Oceanside Boulevard to Cassidy Street	D	Oceanside Boulevard to Cassidy Street	D	D	**F**
Cassidy Street to Vista Way	D	Cassidy Street to Vista Way	D	D	**F**
Vista Way to Southern City Limits	C	Vista Way to Southern City Limits	D	C	**F**
College Boulevard					
N. River Road to SR76	C	N. River Road to SR76	D	D	**E**
SR76 to Frazee Road	D	SR76 to Frazee Road	**E**	**E**	**E**
Frazee Road to Mesa Drive	D	Frazee Road to Mesa Drive	**E**	**E**	**E**
Mesa Drive to Old Grove Road	C	Mesa Drive to Old Grove Road	D	D	D
		Old Grove Road to Avenida de la Plata	C	**E**	**E**
Old Grove Road to Oceanside Blvd	**E**	Avenida de la Plata to Oceanside Blvd	D	D	D
Oceanside Boulevard to Olive Drive	**F**	Oceanside Boulevard to Olive Drive	**F**	**E**	**F**

Existing Conditions Compared to Future 2030 Alternatives
Segment Operations

Existing		Future	Modified 1995 CE	Alternative 1 - 2030	Alternative 2 - 2030
Street	**LOS**	**Street**	**LOS**	**LOS**	**LOS**
Olive Drive to Thunder Drive	E	Olive Drive to Thunder Drive	C	E	E
Thunder Drive to Waring Road	D	Thunder Drive to Waring Road	C	D	D
Waring Road to Vista Way	D	Waring Road to Vista Way	E	D	F
Vista Way to SR78	C	Vista Way to SR78	E	E	F
SR78 to Plaza Drive	D	SR78 to Plaza Drive	E	E	F
Plaza Drive to Lake Boulevard	C	Plaza Drive to Lake Boulevard	C	C	D
Lake Boulevard to Southern City Limits	C	Lake Boulevard to Southern City Limits	F	F	F
Douglas Drive					
Vandegrift Boulevard to Via Malaguena	A	Vandegrift Boulevard to Via Malaguena	B	B	B
Via Malaguena to Cardiff Bay Drive	D	Via Malaguena to Cardiff Bay Drive	B	E	E
Cardiff Bay Drive to N. River Road	C	Cardiff Bay Drive to N. River Road	C	C	C
N. River Road to Pala Road	D	N. River Road to Pala Road	E	E	E
Pala Road to El Camino Real	D	Pala Road to El Camino Real	E	E	F
El Camino Real to Mission Avenue	D	El Camino Real to Mission Ave	C	C	C
Mission Avenue to SR76	B	Mission Avenue to SR76	C	C	C
El Camino Real					
Douglas Drive to Mission Avenue	C	Douglas Drive to Mission Avenue	C	C	C
Mission Avenue to Mesa Drive	C	Mission Avenue to Mesa Drive	C	C	C
Mesa Drive to Oceanside Boulevard	D	Mesa Drive to Oceanside Boulevard	E	E	E
Oceanside Blvd to Fire Mountain Road	C	Oceanside Blvd to Fire Mountain Road	C	C	C

Existing Conditions Compared to Future 2030 Alternatives
Segment Operations

Existing		Future	Modified 1995 CE	Alternative 1 - 2030	Alternative 2 - 2030
Street	**LOS**	**Street**	**LOS**	**LOS**	**LOS**
Fire Mountain Road to Via Las Rosas	C	Fire Mountain Road to Via Las Rosas	C	C	C
Via Las Rosas to Vista Way	C	Via Las Rosas to Vista Way	D	D	**F**
Vista Way to SR78	D	Vista Way to SR78	**E**	**E**	**F**
Emerald Drive					
Lake Boulevard to Sunset Dr	A	Lake Boulevard to Sunset Drive	A	A	A
Frazee Road					
Old Grove Road to SR76	A	Old Grove Road to SR76	A	A	A
SR76 to College Boulevard	A	SR76 to College Boulevard	A	A	A
College Boulevard to Sagewood Drive	A	College Boulevard to Sagewood Drive	B	B	C
Lake Boulevard					
College Boulevard to Thunder Drive	B	College Boulevard to Thunder Drive	C	C	C
Thunder Drive to Sundown Lane	**E**	Thunder Drive to Sundown Lane	C	**F**	**F**
Sundown Lane to Sky Haven Lane	C	Sundown Lane to Sky Haven Lane	C	C	C
Sky Haven Lane to Cannon Road	B	Sky Haven Lane to Cannon Road	C	C	C
Melrose Drive					
N. River Road to SR76	-	N. River Road to SR76	A	-	-
SR76 to Spur Avenue	A	SR76 to N. Santa Fe Avenue	B	B	A
N. Santa Fe Avenue to Oceanside Boulevard	A	N. Santa Fe Avenue to Oceanside Boulevard	C	C	B
Oceanside Boulevard to City Limits	B	Oceanside Boulevard to City Limits	C	C	C
City Limits to Cannon Road	B	City Limits to Cannon Road	B	B	C
Cannon Road to Southern City Limits	B	Cannon Road to Southern City Limits	B	B	B

Existing Conditions Compared to Future 2030 Alternatives
Segment Operations

Existing		Future	Modified 1995 CE	Alternative 1 - 2030	Alternative 2 - 2030
Street	**LOS**	**Street**	**LOS**	**LOS**	**LOS**
Mesa Drive					
Mission Avenue to Foussat Road	C	Mission Avenue to Foussat Road	F	F	F
Foussat Road to El Camino Real	A	Foussat Road to El Camino Real	C	C	C
El Camino Real to Rancho Del Oro Rd	B	El Camino Real to Rancho Del Oro Dr	C	C	C
Rancho Del Oro Road to Old Grove Rd	B	Rancho Del Oro Dr to Old Grove Rd	C	C	C
Old Grove Road to College Boulevard	C	Old Grove Road to College Boulevard	C	C	C
College Boulevard to N. Santa Fe Ave	B	College Boulevard to N. Santa Fe Ave	C	C	C
Mission Avenue					
Pacific Street to Coast Hwy	A	Pacific Street to Cleveland Street	C	C	C
		Cleveland Street to Coast Highway	C	C	C
Coast Hwy to Horne Street	A	Coast Highway to Clementine Street	B	D	C
		Clementine Street to Horne Street	B	D	C
Horne Street to I-5	B	Horne Street to I-5	C	C	C
I-5 to Canyon Drive	C	I-5 to Canyon Drive	D	D	D
Canyon Drive to Mesa Drive	C	Canyon Drive to Mesa Drive	C	C	C
Mesa Drive to Foussat Road	B	Mesa Drive to Foussat Road	C	C	C
Foussat Road to El Camino Real	C	Foussat Road to El Camino Real	C	C	D
El Camino Real to Douglas Drive	B	El Camino Real to Douglas Drive	C	C	C
Douglas Drive to Rancho Del Oro Road	C	Douglas Drive to Rancho Del Oro Dr	D	D	D
Rancho Del Oro Rd to Old Grove Road	B	Rancho Del Oro Dr to Old Grove Road	B	B	C
Old Grove Road to Frazee Road	A	Old Grove Road to Frazee Road	A	A	A
North Avenue					

Existing Conditions Compared to Future 2030 Alternatives
Segment Operations

Existing		Future	Modified 1995 CE	Alternative 1 - 2030	Alternative 2 - 2030
Street	**LOS**	**Street**	**LOS**	**LOS**	**LOS**
Olive Drive to Temple Heights Drive	B	Olive Drive to Temple Heights Drive	A	A	A
Temple Heights Drive to Melrose Drive	A	Temple Heights Drive to Melrose Dr	A	A	A
North River Road					
Douglas Drive to College Boulevard	B	Douglas Drive to College Boulevard	C	C	C
College Boulevard to Vandegrift Blvd	C	College Boulevard to Vandegrift Blvd	D	**E**	**E**
Vandegrift Boulevard to Stallion Road	D	Vandegrift Boulevard to Stallion Road	A	A	A
Stallion Road to Melrose Drive	B	Stallion Road to Melrose Drive	A	A	A
Melrose Drive to Eastern City Limits	B	Melrose Drive to Eastern City Limits	B	A	A
North Santa Fe Avenue					
SR76 to Mesa Drive	C	SR76 to Mesa Drive	C	C	D
Mesa Drive to Melrose Drive	C	Mesa Drive to Melrose Drive	C	C	C
Oceanside Boulevard					
Pacific Street to Coast Hwy	B	Pacific Street to Coast Highway	D	D	D
Coast Highway to I-5	D	Coast Highway to I-5	D	D	D
I-5 to Crouch Street	**E**	I-5 to Crouch Street	D	D	**E**
Crouch Street to Foussat Road	**F**	Crouch Street to Foussat Road	**E**	**E**	**F**
Foussat Road to El Camino Real	**E**	Foussat Road to El Camino Real	D	D	**E**
El Camino Real to Rancho Del Oro Rd	B	El Camino Real to Rancho Del Oro Rd	C	C	C
Rancho Del Oro Road to College Blvd	B	Rancho Del Oro Road to College Blvd	C	C	C
College Boulevard to Melrose Drive	C	College Boulevard to Melrose Drive	C	C	C
Melrose Drive to Eastern City Limits	B	Melrose Drive to Eastern City Limits	C	C	D

Existing Conditions Compared to Future 2030 Alternatives
Segment Operations

Existing		Future	Modified 1995 CE	Alternative 1 - 2030	Alternative 2 - 2030
Street	**LOS**	**Street**	**LOS**	**LOS**	**LOS**
Old Grove Road					
Frazee Road to SR76	A	Frazee Road to SR76	A	A	A
SR76 to Mission Avenue	A	SR76 to Mission Avenue	B	B	B
Mission Avenue to Mesa Drive	A	Mission Avenue to Mesa Drive	B	B	B
Mesa Drive to College Boulevard	A	Mesa Drive to College Boulevard	C	C	C
Olive Drive					
College Boulevard to Emerald Drive	C	College Boulevard to Emerald Drive	C	C	C
Pala Road					
Foussat Road Los Arbolitos Boulevard	-	Foussat Road Los Arbolitos Boulevard	A	A	-
Los Arbolitos Blvd to Douglas Drive	A	Los Arbolitos Blvd to Douglas Drive	A	A	A
Plaza Drive					
College Blvd to SR78 EB on/off-ramps	C	College Blvd to SR78 EB ramps	D	D	D
SR78 EB ramps to E. City Limits	C	SR78 EB ramps to E. City Limits	C	C	C
Rancho Del Oro Drive					
Mission Avenue to SR76	A	Mission Avenue to SR76	A	A	A
SR76 to Mesa Drive	A	SR76 to Mesa Drive	C	C	C
Mesa Drive to Oceanside Boulevard	A	Mesa Drive to Oceanside Boulevard	C	C	C
Oceanside Boulevard to Cameo Drive	A	Oceanside Boulevard to Cameo Drive	D	D	C
Cameo Drive to SR78	A	Cameo Drive to SR78	D	D	C
Vandegrift Boulevard					
Northern City Limits to Douglas Drive	B	Northern City Limits to Douglas Drive	C	C	C

Existing Conditions Compared to Future 2030 Alternatives
Segment Operations

Existing		Future	Modified 1995 CE	Alternative 1 - 2030	Alternative 2 - 2030
Street	**LOS**	**Street**	**LOS**	**LOS**	**LOS**
Douglas Drive to N. River Road	B	Douglas Drive to N. River Road	C	C	C
Vista Way					
Coast Highway to I-5	**F**	Coast Highway to I-5	C	**F**	**F**
Jefferson Street to El Camino Real	B	Jefferson Street to El Camino Real	C	C	C
El Camino Real to Rancho Del Oro Rd	C	El Camino Real to Rancho Del Oro Rd	C	C	D
Rancho Del Oro Road to College Blvd	D	Rancho Del Oro Road to College Blvd	D	D	**F**
College Boulevard to SR78 WB Ramps	**E**	College Blvd to SR78 WB Ramps	**F**	**F**	**F**
SR78 WB Ramps to Thunder Drive	C	SR78 WB Ramps to Thunder Drive	C	C	D
State Route 76					
I-5 to Canyon Drive	C	I-5 to Canyon Drive	D	D	D
Canyon Drive to Foussat Road	D	Canyon Drive to Foussat Road	D	D	D
Foussat Road to Douglas Drive	D	Foussat Road to Douglas Drive	C	C	D
Douglas Drive to Rancho Del Oro Road	C	Douglas Drive to Rancho Del Oro Dr	C	C	C
Rancho Del Oro Road to Frazee Road	C	Rancho Del Oro Drive to Frazee Road	C	C	D
Frazee Road to College Boulevard	C	Frazee Road to College Boulevard	C	C	C
College Boulevard to N. Santa Fe Avenue	C	College Boulevard to N. Santa Fe Avenue	C	C	D
N. Santa Fe Avenue to Melrose Drive	C	N. Santa Fe Avenue to Melrose Drive	C	C	D
Melrose Drive to Eastern City Limits	**F**	Melrose Drive to Eastern City Limits	**F**	**F**	**E**

Notes:

1. Acceptable level of service at intersections in Oceanside is LOS D.
2. **Bold** and red/orange shading indicates an unacceptable level of service.