

**Council Meeting: September 10, 2013****SUBJECT: Discussion and Possible Action Regarding Consideration of Duane Avenue Space Allocation Study to Provide Bike Lanes from Stewart Drive to Fair Oaks Avenue****BACKGROUND**

Duane Avenue is included in the City's Bicycle Capital Improvement Program as a candidate for the installation of bike lanes, and the City has received a grant from the Transportation Development Act Article III for the project. Bike lane installation in this area would connect existing bikeways on Stewart Drive and DeGuigne Drive. This section of Duane Avenue currently features two travel lanes in each direction, sidewalks, and parking in limited areas. Adjacent land uses are commercial, apartments, town homes, institutional uses and single family residential homes. Consistent with the City's street space allocation policies, staff has conducted a technical analysis of options to meet minimum design standards for motor vehicles, bicycles, and pedestrians. Staff is presenting this information to Council for consideration on whether to change the existing roadway configuration.

DISCUSSION

In 2008, the City of Sunnyvale adopted a policy on the allocation of street space. The goal was to provide direction on how to consider all modes of transportation when allocating roadway space, particularly in situations that could require the removal of travel lanes, on-street parking, or other roadway reconfigurations, or because of right-of-way constraints. Consideration of bike lanes was a particular intent of the street space allocation policy. Council approval of roadway changes is a policy requirement.

The segment of Duane Avenue from Stewart Drive to Fair Oaks Avenue currently does not feature facilities for bicycles. A location map is provided in Attachment A. Providing bike lanes on Duane Avenue within the existing curb-to-curb width may require elimination of travel lanes or some or all on-street parking. There is not sufficient right-of-way behind the existing curb to widen the road for bike lanes. Staff has identified and studied three options for providing bike lanes. The three study alternatives are summarized as follows:

1. Travel Lane Elimination - One travel lane in each direction, center two-way left turn lane, allow on-street parking, and bike lanes
2. Parking Elimination - Two travel lanes in each direction, bike lanes, and no on-street parking

Issued by the City Manager

3. Travel Lane and Partial Parking Elimination - One travel lane in each direction, center two-way left turn lane, restrict on-street parking for the eastbound direction, buffer zones, and bike lanes

Staff evaluated roadway geometry, motor vehicle speeds, collision history, motor vehicle volumes, and roadway capacity. A summary of findings is included as Attachment B.

Speed surveys show that the 85th percentile travel speeds range from 39-43 miles per hour, which is significantly above the posted 35 miles per hour speed. A review of the collision history for the roadway shows that 30 total vehicle collisions, 5 bicycle-involved collisions, and 1 pedestrian-involved collision have occurred in the last five years. When considering travel lane elimination, motor vehicle volumes should be below 10,000 vehicles per day per lane in order to assure that congestion does not result. Traffic volumes on Duane Avenue are under 5,500 vehicles per day in the westbound direction and 4,500 vehicles per day in the eastbound direction, which is well below the 10,000 vehicles per day per lane guidance. Signalized intersection levels of service would not be affected by travel lane elimination. On-street parking supply and demand was examined and showed 29-42% occupancy throughout the week. Weekday and weekend surveys taken in morning, afternoon, and evening time periods found vehicles parked on the street. Excess off street supply was noted for all land uses in the proposed study area. This section of Duane Avenue currently has a total of 215 parking spaces with 107 parking spaces in the eastbound direction and 108 parking spaces in the westbound direction. Assuming implementation of the 20 feet parking restriction at controlled intersections as approved by the City Council, the City would remove a total of 18 parking spaces with 2 parking spaces in the east bound direction, 8 spaces in the westbound direction and 8 spaces on intersecting streets, independent of any action to construct bike lanes. Detailed parking survey data is included as Attachment C.

The Sunnyvale Bicycle and Pedestrian Advisory Commission considered this item at its July 18, 2013 meeting and voted unanimously to support the staff recommendation to eliminate a travel lane in each direction in order to provide bike lanes, with the added request that the project include implementation of Council-directed parking restrictions within 20 feet of controlled intersections to improve sight distance (Attachment D – Excerpt of the Draft Bicycle and Pedestrian Advisory Commission Meeting Minutes of July 18, 2013). Twenty-foot parking restrictions were directed by Council to be implemented in response to requests and as resources allow, as part of modifications to the Municipal Code and operating procedures regarding a Study Issue on corner vision triangles and intersection sight distance (RTC 11-264, December 11, 2011). Staff has since included the BPAC request in its recommendation to Council.

EXISTING POLICY

Policy LT-5.5: Support a variety of transportation modes.

- LT-5.5a: Promote alternate modes of travel to the automobile.
- LT-5.5d: Maximize the provision of bicycle and pedestrian facilities.
- LT-5.5e: Implement the City of Sunnyvale Bicycle Plan.
- LT-5.5g: Ensure safe and efficient pedestrian and bicycle connections to neighborhood transit stops.

- Policy LT-5.9: Appropriate accommodations for motor vehicles, bicycles and pedestrians shall be determined for City streets to increase the use of bicycles for transportation and to enhance the safety and efficiency of the overall street network for bicyclists, pedestrians, and motor vehicles.
- Policy LT-5.10: All modes of transportation shall have safe access to City streets.
- Policy LT-5.16: When decisions on the configuration of roadway space are made, staff shall present options, including at a minimum an option that meets minimum safety-related design standards for motor vehicles, bicycles and pedestrians.
- Policy LT 5.18: The City Council shall make the final decisions on roadway space reconfiguration when roadway reconfiguration will result in changes to existing accommodations.

ENVIRONMENTAL REVIEW

This project is exempt from the California Environmental Quality Act under section 15304 (h), installation of bike lanes within existing rights-of-way.

FISCAL IMPACT

There are \$94,203 in funds in project 829590, Duane Avenue Bike Lanes from a Transportation Development Act III grant to install striping, signs, loop detection, and legends for bike lanes on Duane Avenue within the existing right of way.

PUBLIC CONTACT

Public contact was made by posting the Council agenda on the City's official-notice bulletin board outside City Hall, at the Sunnyvale Senior Center, Community Center and Department of Public Safety; and by making the agenda and report available at the Sunnyvale Public Library, the Office of the City Clerk and on the City's Web site.

The Bicycle and Pedestrian Advisory Commission held a public hearing on a draft Report to Council at its July 18, 2013 meeting.

ALTERNATIVES

1. Direct staff to allocate street space on Duane Avenue in order to provide two automobile travel lanes, bike lanes in each direction, a center two-way left turn lane, and on-street parking, and to implement parking restrictions within 20' of controlled intersections as part of the bike lane installation project.
2. Direct staff to allocate street space on Duane Avenue in order to provide four automobile travel lanes, bike lanes in each direction, and remove on-street parking.
3. Direct staff to allocate street space on Duane Avenue in order to provide two automobile travel lanes, bike lanes in each direction, buffer zones, a center two-way left turn lane, and restrict on-street parking for the eastbound direction.
4. Direct staff to allocate street space on Duane Avenue in an alternative configuration as determined by Council.
5. Direct staff to make no changes from the existing configuration.

RECOMMENDATION

Staff and the Bicycle and Pedestrian Advisory Commission recommend Alternative No. 1: Direct staff to allocate street space on Duane Avenue in order to provide one bike lane in each direction, one travel lane in each direction, a center two-way left turn lane, and on-street parking and to implement parking restrictions within 20' of controlled intersections as part of the bike lane installation project.

Alternative 1 provides bike lanes and sufficient roadway capacity to meet motor vehicle travel demand. Exercising this alternative will result in a roadway cross section that accommodates all modes of travel. Traffic volumes on Duane Avenue are under 5,500 vehicles per day in the westbound direction and 4,500 vehicles per day in the eastbound direction, which is well below the 10,000 vehicles per day per lane guidance and roadway congestion is not anticipated with travel lane elimination. Signalized intersection levels of service would not be affected by travel lane elimination.

Furthermore, installation of a two-way left turn lane is a safety enhancement and can decrease the chances of rear end collisions. Speed surveys show that the 85th percentile travel speeds range from 39-43 miles per hour, which is significantly above the posted 35 miles per hour speed. Removal of a travel lane in each direction will reduce speeds to effectively the speed of the slowest car on the roadway by eliminating the ability for passing. Two-way left turn lanes have been shown to decrease rear end collisions between turning vehicles and following vehicles.

Installation of bike lanes will create marked space for bicycles on the roadway, which increases the comfort level of bicyclists from a safety standpoint and increases drivers' awareness of bicycles using the roadway and should have a positive effect on safety. All alternatives studied allow for installation of bike lanes that exceed California Department of Transportation minimum width standards, which will further increase bicycle rider comfort and separation from motor vehicles.

The parking studies show that vehicles occupy both sides of the allowable on-street parking spaces on Duane Avenue and removing all on-street parking will disturb residents and businesses within the surrounding neighborhood. Restricting parking within 20' of controlled intersections will eliminate parking space for approximately 18 vehicles, but is a previous Council direction that can be implemented using funding resources from grant funds secured to implement the bike lane installation project.

Reviewed by:

Kent Steffens, Director, Public Works

Prepared by: Jack Witthaus, Transportation and Traffic Manager

Approved by:

Gary M. Luebbers
City Manager

ATTACHMENTS

- A. Project Location Map
- B. Street Space Allocation Study Summary
- C. Detailed Parking Survey Data
- D. Excerpt of the Draft Bicycle and Pedestrian Advisory Commission Meeting Minutes of July 18, 2013

Attachment A



Attachment B: STREET SPACE ALLOCATION STUDY SUMMARY



Operational Feature	Minimum Standard or Criterion	Existing	Alternative 1: 2 lanes, 1 TWLTL, and on street parking	Alternative 2: 4 lanes and no on street parking	Alternative 3: 2 lanes, 1 TWLTL, buffer zones, and on street parking restriction for eastbound direction
Vehicle travel lane width (typical)	10' travel	12', 12', 12', 12' Total 48'	12', 12', 12' Total 36'	14', 12' 12' 14' Total 52'	12', 12' 12' Total 36'
Parking lane width	8' parking	8' parking, 16' total	8' parking, 16' total	No parking	9' parking WB
Bike lane width	5'	0'	6', Total 12'	6', Total 12'	6', Total 12'
Buffer zones					4' WB 3' EB
AM Peak Hour Intersection level of service	Level of Service "D" or above	Stewart/Duane "LOS C" DeGuigne/Duane "LOS C" Fair Oaks/Duane "LOS C"	Same	Same	Same
PM Peak Hour Intersection level of service	Level of Service "D" or above	Stewart/Duane "LOS D" DeGuigne/Duane "LOS C" Fair Oaks/Duane "LOS C"	Same	Same	Same
Roadway capacity	10,000 vpd/per lane	EB 2718 WB 2278	EB 5436 WB 4556	EB 2718 WB 2278	EB 5436 WB 4556
Sidewalks		Yes	Yes	Yes	Yes
Crash reduction potential	High = incidence of bike collisions pedestrian collisions	5 bike involved collisions and 1 pedestrian involved collisions in 5 years	Moderate	Low	Moderate
Crosswalk installation potential	Low travel speed/volume	None	None	None	None
Speed compatibility and speed reduction potential		35 MPH posted speed, 39-43 MPH 85% speed	Increased speed regulation from removing 2 travel lanes likely to reduce speeds, TWLTL likely to reduce rear-end collisions	Not likely to reduce speeds, may cause an increase in speeds due to reduced side friction from absence of parked motor vehicles.	Increased speed regulation from removing 2 travel lanes likely to reduce speeds, TWLTL likely to reduce rear-end collisions

WEEKDAY PARKING STUDY



CORRIDOR DUANE AVE
DATE OF SURVEY 6/26/13 WEDNESDAY

ON-STREET PARKING OCCUPANCY: Assumes removal 14 spaces for WB and 2 for EB at intersections per Council direction for sight distance improvement.

AM COUNTS	EASTBOUND			WESTBOUND			EAST/WESTBOUND		
	On Street Parking Capacity	On Street Parking Demand		On Street Parking Capacity	On Street Parking Demand		On Street Parking Capacity	On Street Parking Demand	
Street Segment	No.	No.	%	No.	No.	%	No.	No.	%
09:00-10:00	20	8	40%	33	9	27%	53	17	32%
Fair Oaks to San Juan	20	8	40%	33	9	27%	53	17	32%
San Juan to DeGuigne	50	19	38%	55	24	44%	105	43	41%
DeGuigne to Duane Court	37	5	14%	20	6	30%	57	11	19%

MID COUNTS	EASTBOUND			WESTBOUND			EAST/WESTBOUND		
	On Street Parking Capacity	On Street Parking Demand		On Street Parking Capacity	On Street Parking Demand		On Street Parking Capacity	On Street Parking Demand	
Street Segment	No.	No.	%	No.	No.	%	No.	No.	%
12:00-13:00	20	7	35%	33	8	24%	53	15	28%
Fair Oaks to San Juan	20	7	35%	33	8	24%	53	15	28%
San Juan to DeGuigne	50	15	30%	55	22	40%	105	37	35%
DeGuigne to Duane Court	37	5	14%	20	5	25%	57	10	18%

PM COUNTS	EASTBOUND			WESTBOUND			EAST/WESTBOUND		
	On Street Parking Capacity	On Street Parking Demand		On Street Parking Capacity	On Street Parking Demand		On Street Parking Capacity	On Street Parking Demand	
Street Segment	No.	No.	%	No.	No.	%	No.	No.	%
21:00-22:00	20	9	45%	33	7	21%	53	16	30%
Fair Oaks to San Juan	20	9	45%	33	7	21%	53	16	30%
San Juan to DeGuigne	50	19	38%	55	26	47%	105	45	43%
DeGuigne to Duane Court	37	3	8%	20	9	45%	57	12	21%

OFF-STREET PARKING OCCUPANCY:

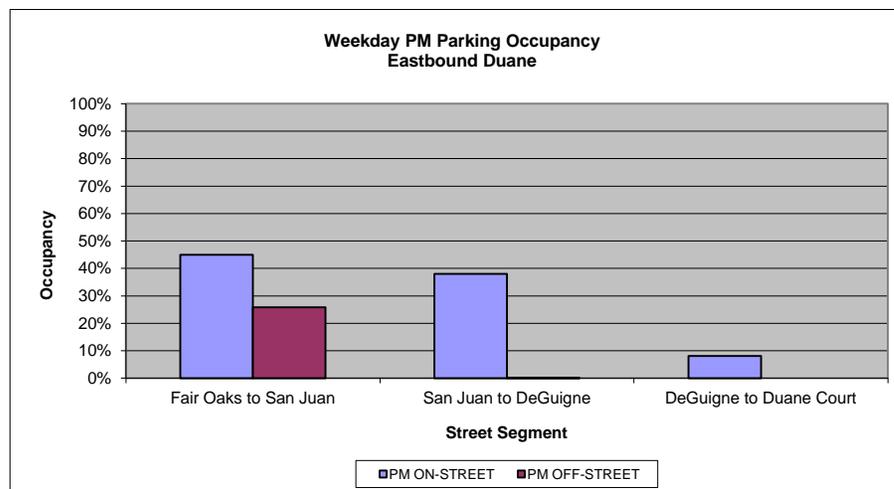
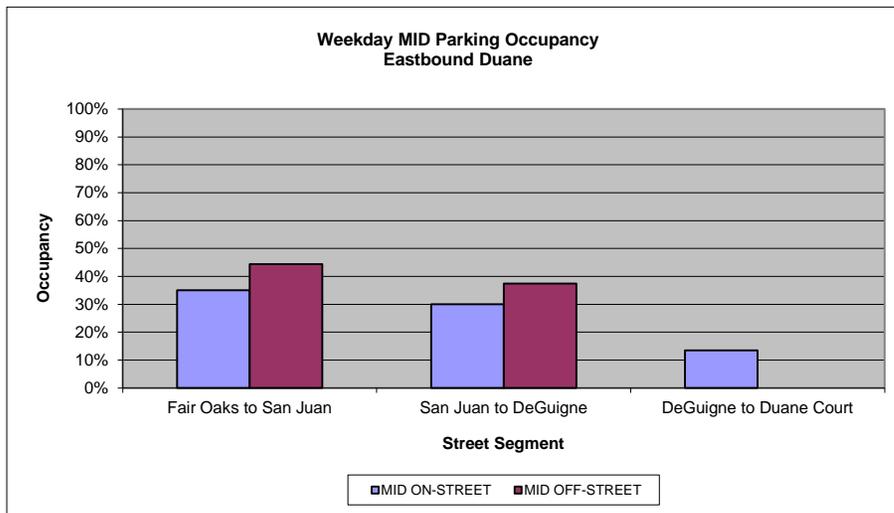
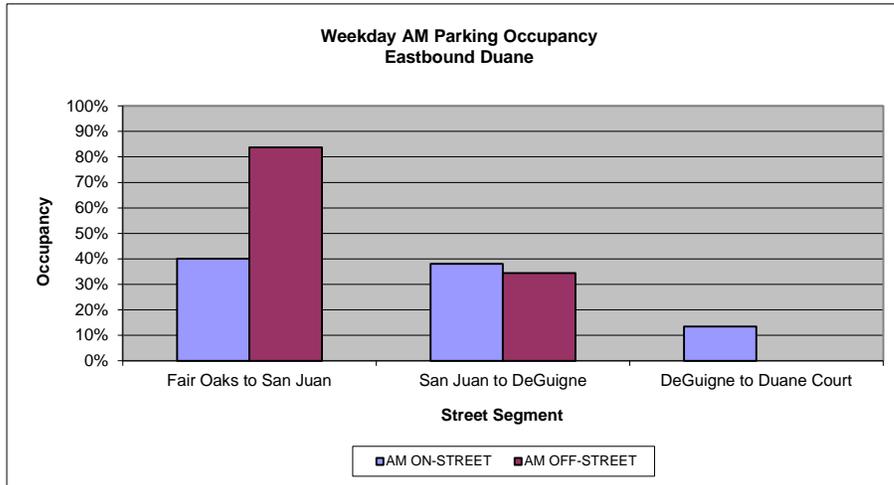
EASTBOUND	Capacity	AM		MID		PM	
		9:00-10:00	12:00-13:00	12:00-13:00	21:00-22:00		
Fair Oaks to San Juan (Drwy Parking)	23	10	43%	7	30%	19	83%
Lot 2 - Church Parking Lot	57	57	100%	29	50%	2	3%
Lot 7 - Rainbow Child Develop Parking	372	149	40%	112	30%	0	0%
Lot 8 - Spasion Inc Parking Lot	799	240	30%	320	40%	0	0%
Lot 9 - Sandis Parking Lot	25	23	90%	16	65%	1	2%

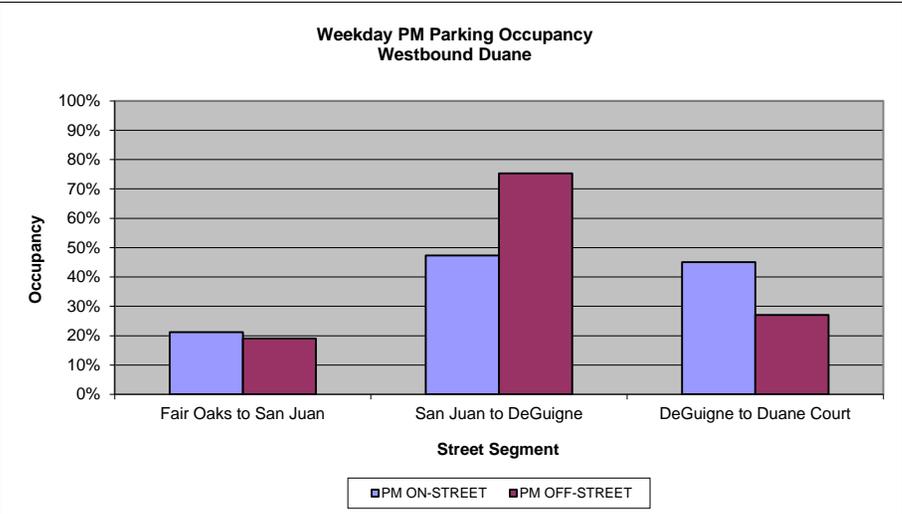
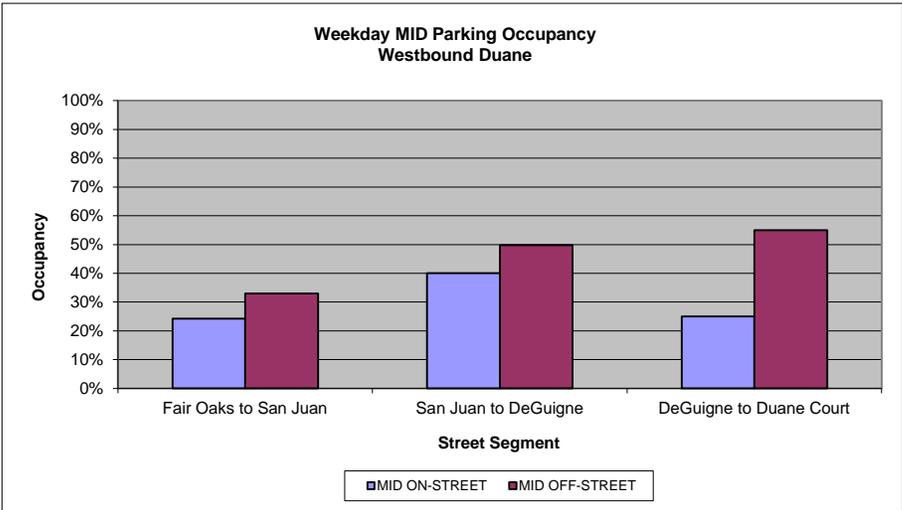
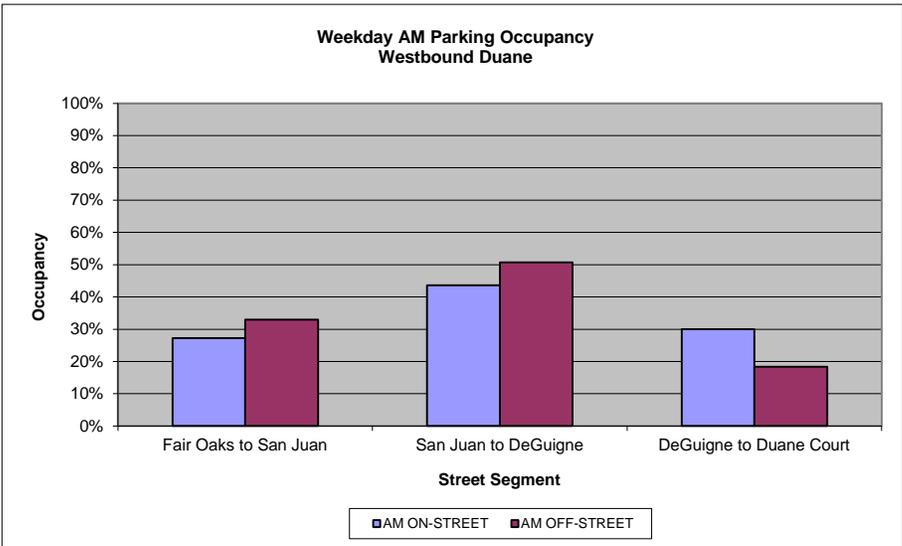
WESTBOUND	Capacity	AM		MID		PM	
		9:00-10:00	12:00-13:00	12:00-13:00	21:00-22:00		
Duane Court to Deguigne (Drwy Parking)	46	16	35%	14	30%	28	61%
Lot 10 - Fair Oaks Plaza Parking	223	33	15%	134	60%	45	20%
Lot 6 - Apartment Complex	15	8	53%	7	47%	11	73%
Lot 5 - Apartment Complex	28	11	40%	11	40%	22	80%
Lot 4 - Apartment Complex	12	7	58%	9	75%	11	92%
Lot 3 - Apartment Complex	42	23	55%	21	50%	29	70%
Lot 1 - Apartment Complex	27	9	33%	9	33%	5	19%

	EASTBOUND			WESTBOUND			EAST/WESTBOUND		
AM COUNTS									
09:00-10:00	Off Street Parking Capacity	Off Street Parking Demand		Off Street Parking Capacity	Off Street Parking Demand		Off Street Parking Capacity	Off Street Parking Demand	
Street Segment	No.	No.	%	No.	No.	%	No.	No.	%
Fair Oaks to San Juan	80	67	84%	27	9	33%	107	76	71%
San Juan to DeGuigne	1196	412	34%	97	49	51%	1293	461	36%
DeGuigne to Duane Court				269	49	18%	269	49	18%

	EASTBOUND			WESTBOUND			EAST/WESTBOUND		
MID COUNTS									
12:00-13:00	Off Street Parking Capacity	Off Street Parking Demand		Off Street Parking Capacity	Off Street Parking Demand		Off Street Parking Capacity	Off Street Parking Demand	
Street Segment	No.	No.	%	No.	No.	%	No.	No.	%
Fair Oaks to San Juan	80	36	44%	27	9	33%	107	45	42%
San Juan to DeGuigne	1196	448	37%	97	48	50%	1293	496	38%
DeGuigne to Duane Court				269	148	55%	269	148	55%

	EASTBOUND			WESTBOUND			EAST/WESTBOUND		
PM COUNTS									
21:00-22:00	Off Street Parking Capacity	Off Street Parking Demand		Off Street Parking Capacity	Off Street Parking Demand		Off Street Parking Capacity	Off Street Parking Demand	
Street Segment	No.	No.	%	No.	No.	%	No.	No.	%
Fair Oaks to San Juan	80	21	26%	27	5	19%	107	26	24%
San Juan to DeGuigne	1196	1	0%	97	73	75%	1293	74	6%
DeGuigne to Duane Court				269	73	27%	269	73	27%





WEEKEND PARKING STUDY



CORRIDOR
DATE OF SURVEY

DUANE AVE
6/22/13 SATURDAY

ON-STREET PARKING OCCUPANCY: Assumes removal of 14 spaces for WB and 2 for EB at intersections per Council direction for sight distance improvement.

	EASTBOUND			WESTBOUND			EAST/WESTBOUND		
AM COUNTS	On Street Parking Capacity	On Street Parking Demand		On Street Parking Capacity	On Street Parking Demand		On Street Parking Capacity	On Street Parking Demand	
09:00-10:00	No.	No.	%	No.	No.	%	No.	No.	%
Street Segment	No.	No.	%	No.	No.	%	No.	No.	%
Fair Oaks to San Juan	20	9	45%	33	12	36%	53	21	40%
San Juan to DeGuigne	50	26	52%	55	26	47%	105	52	50%
DeGuigne to Duane Court	37	9	24%	20	8	40%	57	17	30%

	EASTBOUND			WESTBOUND			EAST/WESTBOUND		
MID COUNTS	On Street Parking Capacity	On Street Parking Demand		On Street Parking Capacity	On Street Parking Demand		On Street Parking Capacity	On Street Parking Demand	
12:00-13:00	No.	No.	%	No.	No.	%	No.	No.	%
Street Segment	No.	No.	%	No.	No.	%	No.	No.	%
Fair Oaks to San Juan	20	7	35%	33	9	27%	53	16	30%
San Juan to DeGuigne	50	20	40%	55	16	29%	105	36	34%
DeGuigne to Duane Court	37	5	14%	20	6	30%	57	11	19%

	EASTBOUND			WESTBOUND			EAST/WESTBOUND		
PM COUNTS	On Street Parking Capacity	On Street Parking Demand		On Street Parking Capacity	On Street Parking Demand		On Street Parking Capacity	On Street Parking Demand	
21:00-22:00	No.	No.	%	No.	No.	%	No.	No.	%
Street Segment	No.	No.	%	No.	No.	%	No.	No.	%
Fair Oaks to San Juan	20	10	50%	33	13	39%	53	23	43%
San Juan to DeGuigne	50	22	44%	55	31	56%	105	53	50%
DeGuigne to Duane Court	37	7	19%	20	7	35%	57	14	25%

OFF-STREET PARKING OCCUPANCY:

By Property

EASTBOUND	Capacity	AM		MID		PM	
		9:00-10:00		12:00-13:00		21:00-22:00	
Fair Oaks to San Juan (Drwy Parking)	23	16	70%	12	52%	16	70%
Lot 2 - Church Parking Lot	57	2	4%	29	51%	26	46%
Lot 7 - Rainbow Child Develop Parking	372	26	7%	37	10%	19	5%
Lot 8 - Spasion Inc Parking Lot	799	80	10%	80	10%	40	5%
Lot 9 - Sandis Parking Lot	25	3	12%	0	0%	1	4%

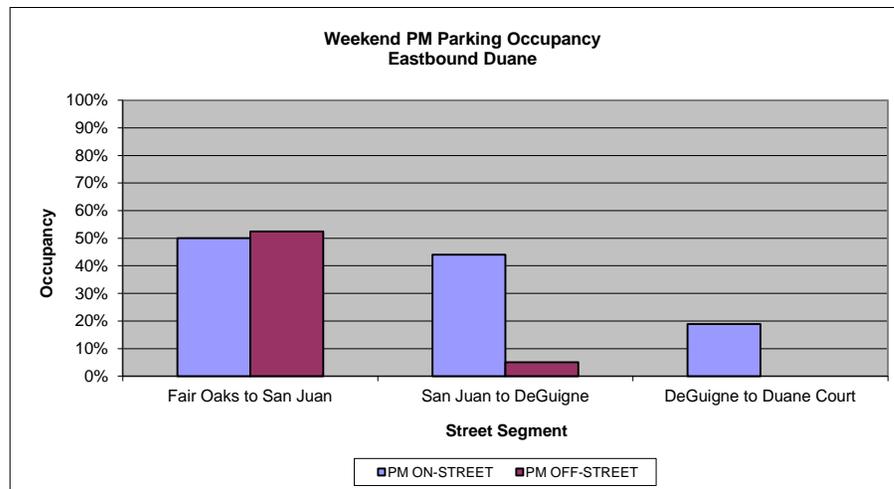
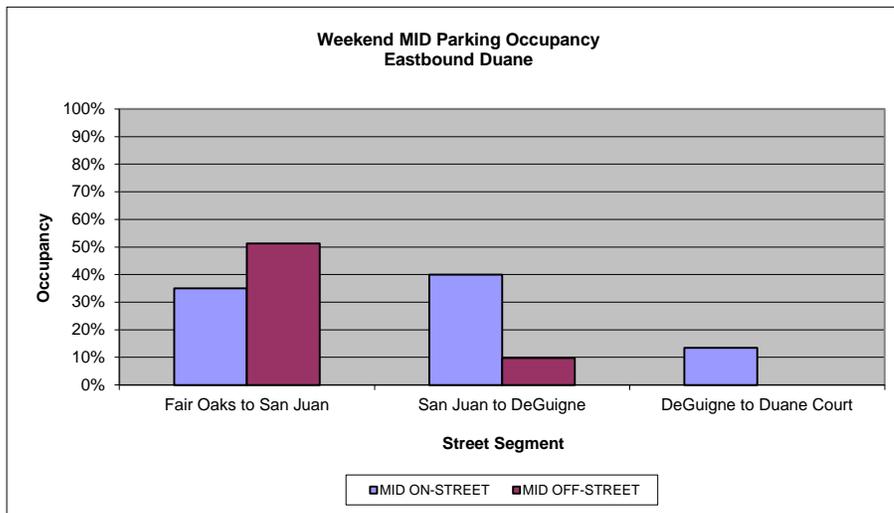
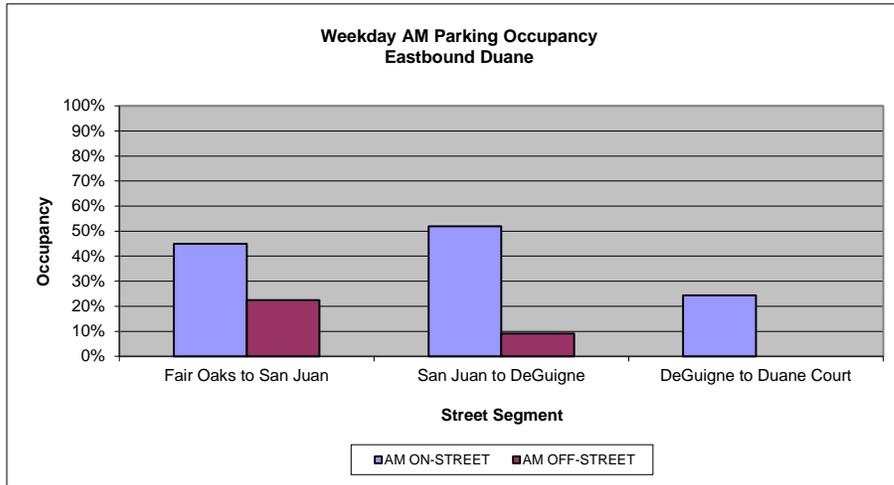
WESTBOUND	Capacity	AM		MID		PM	
		9:00-10:00		12:00-13:00		21:00-22:00	
Duane Court to Deguigne (Drwy Parking)	46	26	57%	22	48%	29	63%
Lot 10 - Fair Oaks Plaza Parking	223	33	15%	45	20%	45	20%
Lot 6 - Apartment Complex	15	13	87%	5	33%	13	87%
Lot 5 - Apartment Complex	28	20	71%	20	71%	21	75%
Lot 4 - Apartment Complex	12	8	67%	8	67%	12	100%
Lot 3 - Apartment Complex	42	25	60%	21	50%	34	81%
Lot 1 - Apartment Complex	27	14	52%	14	52%	16	59%

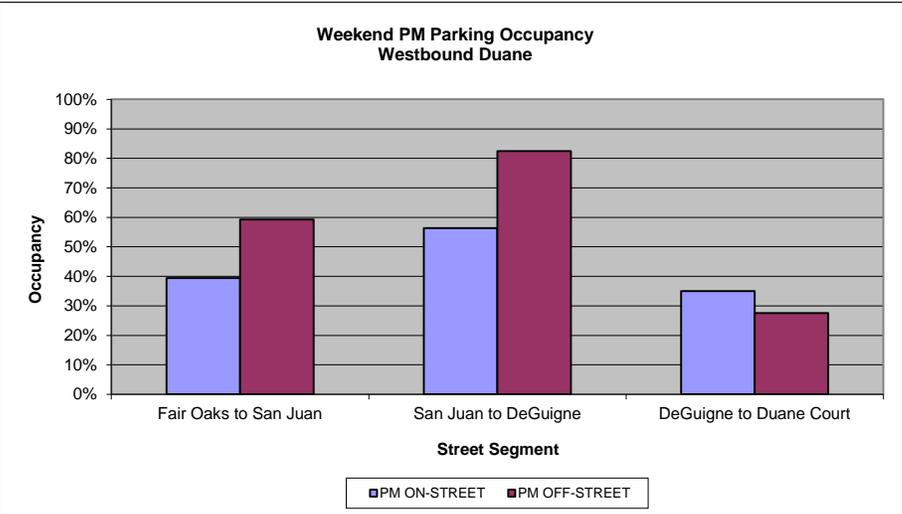
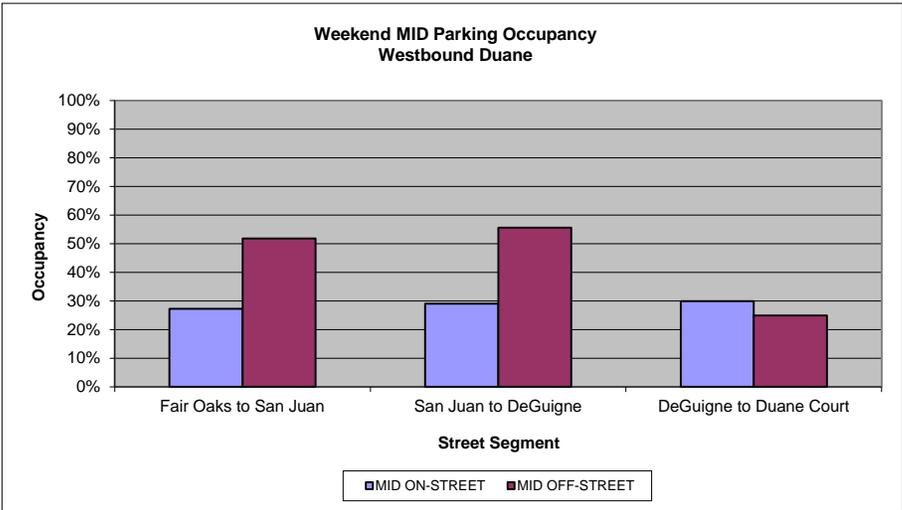
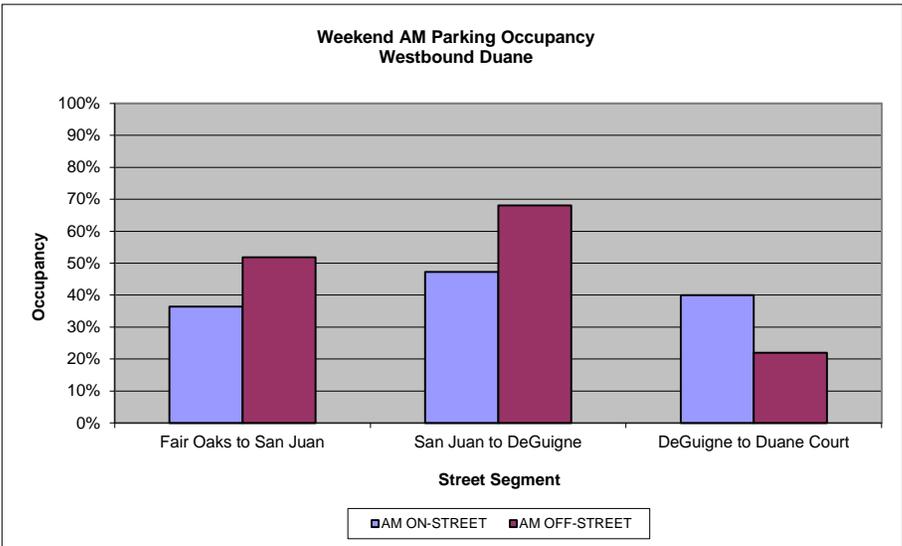
By Adjacent Roadway Segment:

	EASTBOUND			WESTBOUND			EAST/WESTBOUND		
AM COUNTS									
09:00-10:00	Off Street Parking Capacity	Off Street Parking Demand		Off Street Parking Capacity	Off Street Parking Demand		Off Street Parking Capacity	Off Street Parking Demand	
Street Segment	No.	No.	%	No.	No.	%	No.	No.	%
Fair Oaks to San Juan	80	18	23%	27	14	52%	107	32	30%
San Juan to DeGuigne	1196	109	9%	97	66	68%	1293	175	14%
DeGuigne to Duane Court				269	59	22%	269	59	22%

	EASTBOUND			WESTBOUND			EAST/WESTBOUND		
MID COUNTS									
12:00-13:00	Off Street Parking Capacity	Off Street Parking Demand		Off Street Parking Capacity	Off Street Parking Demand		Off Street Parking Capacity	Off Street Parking Demand	
Street Segment	No.	No.	%	No.	No.	%	No.	No.	%
Fair Oaks to San Juan	80	41	51%	27	14	52%	107	55	51%
San Juan to DeGuigne	1196	117	10%	97	54	56%	1293	171	13%
DeGuigne to Duane Court				269	67	25%	269	67	25%

	EASTBOUND			WESTBOUND			EAST/WESTBOUND		
PM COUNTS									
21:00-22:00	Off Street Parking Capacity	Off Street Parking Demand		Off Street Parking Capacity	Off Street Parking Demand		Off Street Parking Capacity	Off Street Parking Demand	
Street Segment	No.	No.	%	No.	No.	%	No.	No.	%
Fair Oaks to San Juan	80	42	53%	27	16	59%	107	58	54%
San Juan to DeGuigne	1196	60	5%	97	80	82%	1293	140	11%
DeGuigne to Duane Court				269	74	28%	269	74	28%





OLIVE AVE (EB/WB)

Weekday Parking Summary

Date of Survey: 10/18/11 (Tuesday)

Street Segment	Capacity (spaces)	Parking Occupancy (parked cars)					
		8:00 AM to 9:30 AM		12:00 PM to 2:00 PM		9:00 PM to 10:00 PM	
		No.	%	No.	%	No.	%
On-Street Parking							
Pastoria to All America	15	10	67%	8	53%	0	0%
All America to Charles	35	19	54%	10	29%	0	0%
Total	50	29	58%	18	36%	0	0%

Street Segment	Capacity (spaces)	Parking Occupancy (parked cars)					
		8:00 AM to 9:30 AM		12:00 PM to 2:00 PM		9:00 PM to 10:00 PM	
		No.	%	No.	%	No.	%
Off-Street Parking							
Pastoria to All America	220	71	32%	151	69%	24	11%
All America to Charles	84	68	81%	48	57%	0	0%
Total	304	139	46%	199	65%	24	8%

Weekend Parking Summary

Date of Survey: 10/22/11 (Saturday)

Street Segment	Capacity (spaces)	Parking Occupancy (parked cars)					
		10:00 AM to 11:00 AM		2:00 PM to 3:00 PM		9:00 PM to 10:00 PM	
		No.	%	No.	%	No.	%
On-Street Parking							
Pastoria to All America	15	2	13%	7	47%	0	0%
All America to Charles	35	2	6%	7	20%	0	0%
Total	50	4	8%	14	28%	0	0%

Street Segment	Capacity (spaces)	Parking Occupancy (parked cars)					
		10:00 AM to 11:00 AM		2:00 PM to 3:00 PM		9:00 PM to 10:00 PM	
		No.	%	No.	%	No.	%
Off-Street Parking							
Pastoria to All America	220	126	57%	171	78%	17	8%
All America to Charles	84	1	1%	4	5%	0	0%
Total	304	127	42%	175	58%	17	6%

PUBLIC COMMENTS

Art Schwartz apologized for not attending meetings, and announced that he plans to attend future meetings.

Ralph Durham stated that on westbound California between Frances Street and San Anselmo Way, there is a failed curb that is a hazard to bikes, and that on W. Maude Avenue from N. Mathilda Avenue to N. Pastoria Avenue there is no bike space near the LinkedIn campus. Mr. Durham also stated that timing on westbound Maude to southbound Mary is insufficient for bikes.

Garth Williams, a Friends of Stevens Creek Trail Board member, distributed their annual report. Mr. Williams also announced the Trailblazer Race at La Avenida on September 29 and provided the Board's website address for more information: www.stevenscreektrail.org.

PUBLIC HEARINGS/GENERAL BUSINESS**2. Review and Make a Recommendation on a Duane Avenue Street Space Allocation Study**

Chair Manidakos stated that the report was good, and that the traffic volume is sufficient to install bike lanes. He suggested that the project include words and arrows for pavement legends in addition to the bicyclist symbol.

Commissioner Jackson stated that he thought the report over-considered parking, and stated that he thinks a discussion of mode shift due to bike lane installation should be included, which may reduce anticipated motor vehicle traffic volume. He also noted that lanes are not narrower, and that there is no potential to reduce side friction.

Commissioner Switzer asked to verify the street space policy adoption date, and suggested considering crosswalks near the montessori school.

The public hearing was opened. Art Schwartz stated that he appreciates the Remington Drive – Spinosa Drive crosswalk.

Ralph Durham stated that he would like cross sections of options, and stated that he lives near the area, which has a 4 lane configuration that contributes to visibility issues, congestion and collisions. He also stated that left turns made from San Luisito and San Juan have sight distance problems, and that a red zone used to be present at San Luisito, but has since faded out. Mr. Durham also stated that speeds are very high; that a crosswalk is needed to serve the bus stop at San Luisito; and that parking on Duane Avenue near Fair Oaks Avenue should be eliminated due to the lack of room for bike lanes. Mr. Durham also stated that he supports Alternative 1. He has been harassed by motorists when riding on Duane Avenue.

Chair Manidakos stated that the 4 lane configuration encourages speeding, and a 3 lane configuration will calm traffic.

Commissioner Jackson stated that parking should be a lesser concern per Council policy and that providing complete bike lanes should be the priority.

In response to Chair Manidakos' inquiry about a crosswalk at San Luisito, Staff stated that a crosswalk study was conducted recently, and the location did not meet warrants.

Motion by Chair Manidakos, second by Commissioner Switzer to support staff recommendation.

Commissioner Jackson friendly amendment to put parking restrictions at intersections, accepted. Motion carries, 5-0.

3. Review and Make a Recommendation on a Mary Avenue Street Space Allocation Study

Staff summarized the recommendation.

Chair Manidakos inquired about 6 ft. lanes. Staff stated this was likely not possible between Evelyn Avenue and Central Expressway.

Chair Manidakos stated that at El Camino Real and Evelyn Avenue parking removal is justified, and that at Evelyn Avenue and Central Expressway there is a pinch point. He noted that northbound right turns at Central are difficult for bikes. He also stated that southbound at Evelyn Avenue right turns are heavy and bikes cannot see the programmed visibility signal. Chair Manidakos suggested a light targeted at bikes. He also stated that the RTC is a little confusing and needs to present all four segments only. He stated that street cross sections should be presented by street segment.

Commissioner Jackson noted that on page 32, the web site terminology differs from references in RTC, and that on page 34 he disagrees with the statement that street space policies conflict. He believes near El Camino Real bike lanes are 5 feet northbound and southbound, and recommends narrower travel lanes. Commissioner Jackson also expressed the need for clear demarcation of beginning of parking lanes. He stated that near Bidwell bike lanes are 5 feet on one side and 9 feet on the other, and on southbound Mary bike lanes are 4.5 feet. Commissioner Jackson stated that he would like to see 20 feet parking buffers implemented at intersections, suggested constructing 1 foot gutters in areas where 6 foot bike lanes cannot be provided, and also suggested radar speed feedback signs.

Commissioner Switzer suggested considering crosswalks and other pedestrian safety improvements.

The public hearing was opened. Art Schwartz stated that cars are cutting corners at intersections and believes cars at signalized intersections will trip through green when turning right. Mr. Schwartz stated that he thinks lane dividers should be provided.

Commissioner Jackson stated that it is difficult for bicycles to see delineators.

Mr. Durham stated that he supports El Camino Real to Fremont Avenue lanes, and thinks variable width lanes north of El Camino will be a good improvement. He also suggested squaring off lanes at parking transitions, and recommended colored bike lanes at right turn transitions. Mr. Durham also suggested at the train tracks consider a bike box southbound on the south side of railroad tracks.

Commissioner Switzer stated that she supports green lanes, and supports considering them at right turn lanes.

Motion by Chair Manidakos to support the staff recommendation with the added provision to provide a design that maximizes 6 foot bike lanes and provide colored bike lanes at intersection turn lanes.