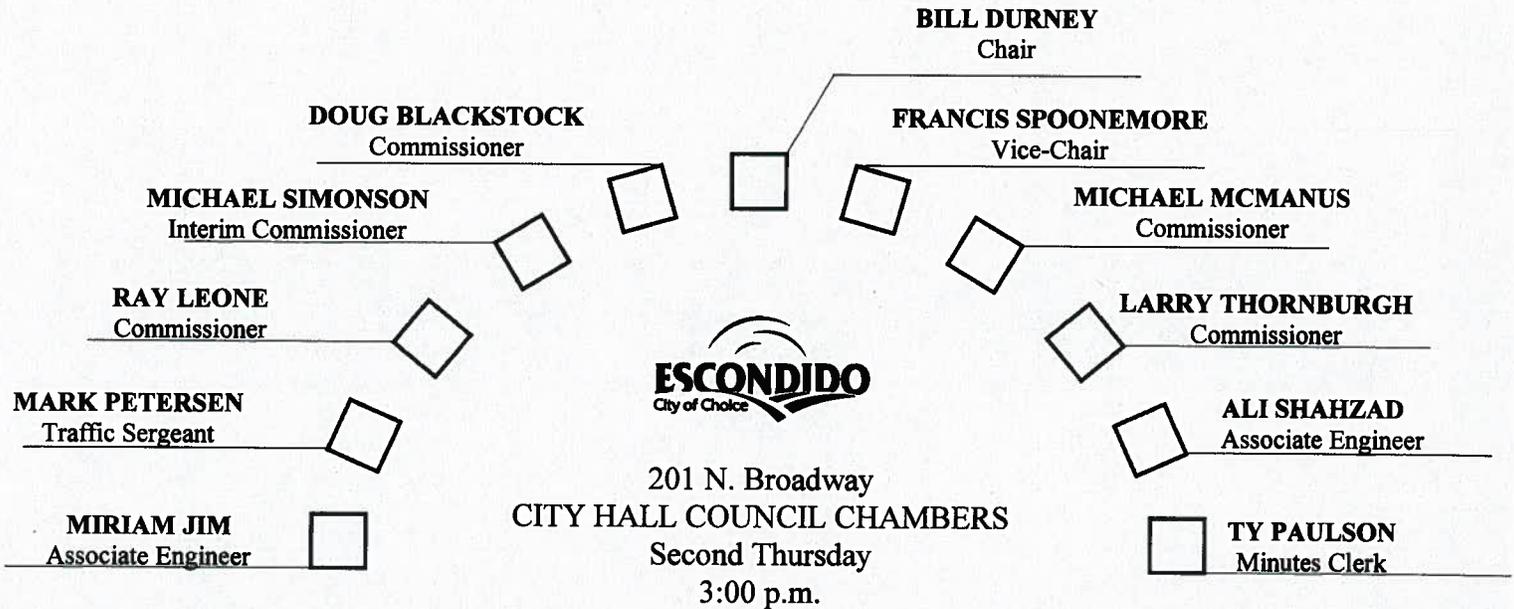


CITY OF ESCONDIDO

Transportation & Community Safety Commission



AGENDA

October 13th, 2016

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- A. FLAG SALUTE
- B. ROLL CALL AND DETERMINATION OF QUORUM
- C. ORAL COMMUNICATIONS* (At this time, members of the public are encouraged to speak to the Commission concerning items not already on this agenda. A time limit of three [3] minutes per speaker and a total time allotment of fifteen [15] minutes will be observed.)

The Brown Act provides an opportunity for the members of the public to directly address the Commission on any item of interest to the public, before or during the Commission's consideration of the item. If you wish to speak regarding an agenda item, please fill out a speaker's slip and give it to the minute's clerk who will forward it to the Chairman.

If you wish to speak concerning an item not on the agenda, you may do so under "Oral Communications" which is listed on the agenda.

The City of Escondido recognizes its obligation to provide equal access to public meetings to those qualified individuals with disabilities. Please contact the Human Resources Department (839-4643) with any requests for reasonable accommodation, to include sign language interpreter, at least twenty-four (24) hours prior to the meeting.

D. APPROVAL OF MINUTES OF AUGUST 4, 2016 SPECIAL MEETING

E. CONSENT ITEMS – Staff will provide Overview for single vote - No Items

F. NEW BUSINESS

1. Centre City Parkway from Citracado Pkwy. to El Norte Parkway – Signal Coordination Project – Before and After Travel Time with new signal timing plans

Source: Staff
Recommendation: Receive and File report
Previous action: None.

2. Speed Surveys – Various Citywide

Source: Staff
Recommendation: Approval
Previous action: On-going new surveys of expired segments.

G. OLD BUSINESS

1. An overview of various projects involving the City.

Source: Staff

Written or verbal reports may be presented on the following topics:

- a. Traffic Signals in Design: El Norte/Fig & East Valley Pkwy/Date – Design 100% complete, construction documents to be submitted to Caltrans for construction funds authorization, NEPA revalidation received from Caltrans.
- b. Traffic Signals – in Plancheck: Hotel Traffic Signal on La Terraza Blvd. (2nd check). Centre City/Mission signal modification. Emmanuel Faith Traffic Signal on Encino/17th Ave. El Norte/Bike Path crossing near bridge over flood control channel (Planchecks in progress). Under Construction: North Ash/ Vista Ave., North Ash/Sheridan Avenue, El Norte/Vista Verde Way Centre City/Washington signal modification, Harmony Grove/Citracado Pkwy., County/City Signal on Boyle/Bear Valley Pkwy. Construction in Progress.
- c. FY 15/16 TMPL Project Progress – Gamble St. Radar Signs, N. Broadway Radar Sign installation. Complete and Radar Signs are active, data downloaded.
- d. Centre City Pkwy ICM I-15 corridor and 9th Avenue corridor – Traffic signal timing synchronization.

H. SCHOOL AREA SAFETY

- a. Construction at Central Elementary – Temporary bus zone.
- b. Construction at Orange Glen Elementary – New crosswalk striping by school district.
- c. Future bond projects coordination.

I. COUNCIL ACTION* (A briefing on recent Council actions on Commission related items.)

- a. Municipal Code revision for Sec. 28-142. (October 26, 2016).
- b. All-Way Stop at N. Escondido Blvd. and W. Lincoln Ave (Sept. 14, 2016).
- c. Pilot Residential Parking Permit Program (RPPP) for NTP #2 (Sept. 28, 2016)
- d. Downtown Parking from 2 to 3 hr. from CCP to Valley Blvd. (Sept. 28, 2016)

J. ORAL COMMUNICATIONS* (At this time, members of the public are encouraged to speak to the Commission.)

K. TRANSPORTATION COMMISSIONERS* (Commissioners may bring up questions or items for future discussion.)

L. ADJOURNMENT

In order for the Transportation Commission to take action or conclude discussion, an item must appear on the agenda which is posted 72 hours in advance of the meeting. Therefore, all items brought up under the categories marked with an asterisk () can have no action. Such items can be referred to staff or scheduled for a future agenda.

AVAILABILITY OF SUPPLEMENTAL MATERIALS AFTER AGENDA POSTING: Any supplemental writings or documents provided to the Commission regarding any item on this agenda will be made available for public inspection in the Engineering Office located at 201 N. Broadway during normal business hours, or in the Council Chambers while the meeting is in session.

(October 13th, 2016) TCSC Agenda

CITY OF ESCONDIDO

MINUTES OF THE REGULAR MEETING OF THE TRANSPORTATION AND COMMUNITY SAFETY COMMISSION

August 4, 2016

The Special meeting of the Escondido Transportation and Community Safety Commission was called to order at 3:00 p.m., Thursday, by Chair Durney, in the City Council Chambers, 201 North Broadway, Escondido, California.

Commissioners present: Chair Durney, Vice-chair Spoonemore, Commissioner Simonson, Commissioner Thornburgh, Commissioner McManus, and Commissioner Blackstock.

Commissioners absent: Commissioner Leone.

Staff present: Homi Namdari, Assistant City Engineer; Ali Shahzad, Associate Engineer/Traffic Division; Virpi Kuukka-Ruotsalainen, Department Specialist; Miriam Jim, Associate Engineer; Jeff Valdivia, Traffic Sergeant; Mike Kearney, Lieutenant; and Ty Paulson, Minutes Clerk.

ORAL COMMUNICATIONS:

Brian Eveland, Escondido, expressed his concern with vehicles speeding on Gamble Lane. He asked if the radar signage had the ability to record speeds and the volume of vehicles. Mr. Shahzad stated that once he obtained this information he would forward it to Mr. Eveland. He noted that 25 MPH signage had been installed on both approaches to Gamble. He also noted that selective police enforcement could be conducted by the Police Department. Mr. Eveland stated that this is what he was requesting.

Gail Conwell, Escondido, noted that she represented her and a number of neighbors regarding concerns with traffic on Eucalyptus Avenue. She asked that the City conduct a study regarding what percentage of traffic was cut-thru traffic on Eucalyptus Avenue from the intersections of Felicita to Citracado and Eucalyptus Avenue to Via Rancho Parkway. She felt this information would help efforts to reduce traffic in the subject area in the future. She requested the most updated speed data from the latest radar signage. She then asked when the Commission would be taking input on traffic calming measures for 2017 and 2018. Ms. Conwell noted that many of the residents were opposed to the striping on Eucalyptus Avenue, noting that the majority of those opposed did not live on Eucalyptus Avenue. She felt additional stop signs along the southern portion of Eucalyptus Avenue would help reduce speeds.

Mr. Shahzad noted there were no traffic calming funds for 2016. Ms. Conwell asked if there would be a time to provide input for 2017 and 2018. Mr. Shahzad replied in the affirmative but noted no dates had been set for public input.

Scott Graves, Escondido, representing San Pasqual Valley Preservation Alliance, noted that the Alliance was developed due to concerns about the Safari Highlands Ranch Development. He stated that they were concerned with potential traffic, peak times, and Level of Service impacts on the children in the area. He stated that in 2011 the California Department of Safety ranked Escondido No. 1 for pedestrian injuries and fatalities. He requested that the Alliance be allowed to speak at the next meeting with staff and the developer as well as go over the traffic analysis in order discuss safety measures for keeping the children safe in the area.

MINUTES:

Moved by Commissioner Simonson, seconded by Commissioner McManus, to approve the minutes of the April 14, 2016, meeting. Motion carried unanimously.

CONSENT ITEMS:

1. None.

NEW BUSINESS:

1. Pilot Residential Parking Permit Program (RPPP) for Neighborhood Transformation Program #2

Sergeant Valdivia referenced the staff report and noted that staff recommended that the Transportation and Community Safety Commission recommend to the City Council adoption of the Resolution to establish a one-year pilot residential parking district in the Rose to Foxdale neighborhood. The District would restrict parking to vehicles displaying valid placards between the hours of 5:00 pm and 5:00 am and no new districts would be authorized during that year. One permit per residence would be allowed along with one guest permit.

Discussion ensued regarding a clarification of the typical vehicle violation that was occurring in the subject area. Additional discussion ensued regarding a clarification of types of crimes occurring in the area.

Chairman Durney asked where the subject individuals would park. Sergeant Valdivia stated that the apartment complex was towing vehicles on its own, noting his view that ultimately it would reduce subletting issues.

Chairman Durney asked if the neighborhood group was in favor of the placard costs. Sergeant Valdivia replied in the affirmative. He also noted that the

neighborhood group stopped obtaining signatures in favor of the subject proposal when they hit 70%.

Discussion ensued regarding a clarification of the proposed enforcement hours.

Commissioner Thornburgh and Sergeant Valdivia discussed the ratio of parking permits to the actual number of parking spaces in the area as well as what other jurisdictions were charging for similar parking programs.

Commissioner Thornburgh felt the cost to the City should be revenue neutral.

Yvonne Jackson, Escondido, expressed her concern with the subject program possibly causing landlords to raise rents as well as creating impacts to the Police Department having to respond to parking issues. She felt there was no solution for the parking in the area.

Commissioner Thornburgh questioned whether it was correct that the nearby apartment complex sold their parking permits for \$100 a month and the proposed pilot program parking space would be \$40 a year. Mr. Namdari replied in the affirmative.

Sergeant Valdivia noted that the goal was to be revenue neutral. Mr. Shahzad noted that the Traffic Department would be putting in all of the signs.

ACTION:

Moved by Commissioner Thornburgh, seconded by Chairman Durney, to approve staff's recommendation. The motion included revising the guest-parking fee to \$100 per year. Motion carried. Ayes: Simonson, Durney, Spoonemore, McManus, and Thornburgh. Noes: Blackstock. (5-1)

2. Downtown Parking – Survey for 3 hour and 15 minutes limited time parking in Municipal Lots

Homi Namdari, Assistant City Engineer, referenced the staff report and noted staff recommended the Commission recommend to the Downtown Parking Sub-Committee that the 2-hour parking time limits on Grand Avenue be extended to 3 hours between Centre City Parkway and Valley Boulevard based on the result of the survey of downtown businesses.

Chairman Durney noted that the 3-hour parking proposal was well received by the downtown business owners.

ACTION:

Moved by Chairman Durney, seconded by Commissioner Blackstock, to approve staff's recommendation. Motion carried unanimously.

3. Missing Link Project – Amend Bicycle Master Plan to include Class IV Cycle Track (30% Conceptual Design and Public Outreach Workshop #1)

Miriam Jim, Associate Engineer, referenced the staff report and noted staff recommended the following amendment to the existing 2012 Bicycle Master Plan: Amend the 2012 Bicycle Master Plan to include Class IV Bikeway (Cycle Tracks) as the proposed bicycle facility along N. Broadway and Valley Parkway for the Missing Link project.

Chairman Durney and staff discussed the proposed impacts to parking for the subject plan and the proposed library in Grape Day Park. Mr. Namdari noted that there would be very little impact on Broadway. Ms. Miriam stated staff was working with SANDAG to create new volume forecasts.

Chairman Durney and staff discussed the potential impacts to Valley Parkway and Centre City Parkway.

Commissioner Blackstock and staff discussed proposed design for the bridge on Broadway.

Commissioner Simonson and staff discussed the proposed barriers and breaks for the Class 4 paths.

Commissioner Thornburgh asked if the City of San Diego had any Class 4 paths. Mr. Shahzad noted that the City of San Diego had one under construction.

Mr. Namdari and Ms. Jim referenced the groups who were involved in providing input for the subject amendment.

Commissioner Thornburgh questioned whether the City and pedestrians would be better served with a Class 1 system with added landscaping, feeling a Class 4 fell short for pedestrians. Mr. Namdari stated that the various discussion groups involved were in favor of Class 4 which is designated bicycle-use only and not mixed with pedestrians.

Chairman Durney was in favor of staff's recommendation.

Commissioner Blackstock was in favor of the proposed plan, feeling it accommodated everyone.

Commissioner Thornburgh suggested considering a Class 1 for the subject in the area of Broadway.

ACTION:

Moved by Chairman Durney, seconded by Commissioner Simonson, to approve staff's recommendation. Motion carried. Ayes: Simonson, Blackstock, Durney, Spoonemore, and McManus. Noes: None. Abstained: Thornburgh. (5-0-1)

4. All-Way Stop at N. Escondido Boulevard and W. Lincoln Avenue

Virpi Kuukka-Ruotsalainen, Department Specialist, referenced the staff report and noted that staff recommended approval of the proposed installation of 2 new Stop signs to create an All-Way Stop-controlled intersection at North Escondido Boulevard and West Lincoln Avenue.

Commissioner Spoonemore asked if this would be an interim measure. Ms. Kuukka-Ruotsalainen replied in the affirmative.

Discussion ensued regarding potential traffic from the future proposed project on the old Toyota of Escondido site.

Commissioner Thornburgh and staff discussed the proposed sidewalk for the subject intersection.

Commissioner Simonson asked if the subject intersection had crossing guards. Mr. Namdari replied in the negative.

Chairman Durney asked when the traffic signal would be installed at the subject intersection. Mr. Namdari estimated one year for installation.

ACTION:

Moved by Commissioner McManus, seconded by Commissioner Thornburgh, to approve staff's recommendation. Motion carried unanimously.

5. Bear Valley Parkway from Glenridge Road to East Valley Parkway – Signal Coordination Project – Before and After Travel Time with new signal timing

Ali Shahzad, Associate Engineer/Traffic Division, referenced the staff report and requested input.

6. Municipal Code revision for Sec. 28-142. Parking, stopping and standing prohibited in specified places

Ali Shahzad, Associate Engineer/Traffic Division, referenced the staff report and noted staff recommended approval to amend Escondido Municipal Code (EMC) Section 28-142, parking, stopping, and standing prohibited in specified places.

Discussion ensued regarding potential impacts to the Police Department for citations.

ACTION:

Moved by Commissioner Simonson, seconded by Commissioner Blackstock, to approve staff's recommendation. Motion carried unanimously.

OLD BUSINESS:

1. An overview of various projects involving the City – Received.

SCHOOL AREA SAFETY: None.

COUNCIL ACTION: None.

ORAL COMMUNICATIONS: None.

TRANSPORTATION COMMISSIONERS:

Chairman Durney asked if it would be appropriate to put the Safari Highlands Development on the next agenda. Staff noted they would provide an update at the next meeting.

Chairman Durney referenced a temporary pedestrian walkway on South Escondido Boulevard at 3rd Avenue.

Commissioner Thornburgh and staff discussed the status of the proposed TIA at Westfield Mall.

ADJOURNMENT:

Chair Durney adjourned the meeting at 5:07 p.m. The next meeting of the Commission would be held October 13, 2016, at 3:00 p.m. in City Council Chambers, 201 North Broadway, Escondido.



Ali Shahzad, Associate Engineer

Ty Paulson, Minutes Clerk



CITY OF ESCONDIDO

TRANSPORTATION and COMMUNITY SAFETY COMMISSION

Commission Report of: October 13th, 2016

Item No.: F1

Location: Centre City Parkway from Citracado Pkwy. to El Norte Parkway – Signal Coordination Project – Before and After Travel Time with new signal timing plans

Initiated By: City Staff.

**Subject: Centre City Parkway from Citracado Pkwy. to El Norte Parkway
SIGNAL COORDINATION - Travel Time Runs Before & After.**

Data:

A consulting firm was hired to coordinate the existing traffic signal systems along Centre City Parkway from Citracado Pkwy. to El Norte Parkway. An inventory of geometric and signalization conditions was conducted for each study intersection. This included assessment of intersection configuration, peak hour traffic conditions, existing signal timing and phasing, intersection spacing and other traffic data. Turning movement counts were collected at each study intersection for the following time periods: AM Peak (7 am-9 am), Midday (11 am to 1pm) and PM Peak (4 pm-6 pm).

Background:

Centre City Parkway (CCP) signals that are to be coordinated along the corridor are a part of the Inter-Corridor Management (ICM) I-15 project. Parallel streets like Quince St. and Escondido Blvd. were also adjusted for coordination. 9th Avenue was also a corridor that is coordinated, but is awaiting Caltrans signal timing plan for the I-15 on/off ramps, before final implementation and travel time runs.

The ICM project is to provide Centre City Parkway as the detour route for the I-15, should there be a complete closure due to an incident on the freeway. The twenty-four (24) signals on the CCP corridor that were coordinated are:

1. Centre City Pkwy and Citracado Pkwy.
2. Centre City Pkwy and Towne Centre Dwy.
3. Centre City Pkwy and Felicita Ave.
4. Centre City Pkwy and 13th Ave.
5. Centre City Pkwy and 9th Ave.

6. Centre City Pkwy and 5th Ave
7. Centre City Pkwy and 2nd Ave
8. Quince St and 2nd Ave.
9. Orange St and 2nd Ave.
10. Escondido Blvd and 2nd Ave.
11. Centre City Pkwy and Grand Ave.
12. Centre City Pkwy and Valley Pkwy.
13. Quince St and Valley Pkwy.
14. Orange St and Valley Pkwy.
15. Escondido Blvd and Valley Pkwy
16. Centre City Pkwy and Washington Ave
17. Quince St and Washington Ave
18. Escondido Blvd and Washington Ave
19. Centre City Pkwy and Mission Ave
20. Quince St and Mission Ave
21. Escondido Blvd and Mission Ave
22. Centre City Pkwy and Decatur Way
23. Centre City Pkwy and El Norte Pkwy
24. Broadway and El Norte Pkwy

Travel-time (travel delay) studies determine the amount of time required to travel from one point to another on a given route. Information may also be collected on the locations, durations, and causes of delays.

SYNCHRO 8.0 software as a tool for development of signal timing plans was used. The model was used to prepare optimized timing plans to minimize overall system delay and stops along the

Centre City Parkway corridor. Arterial speed for CCP was set at 50 MPH, while the side streets were set as 30 or 35 MPH as posted.

The optimized timing plans were fine-tuned using the time space diagram editing procedures to insure smooth traffic flow. In addition field observations and minor modifications were incorporated.

Discussion & Purpose:

The goal of coordination is to get the greatest number of vehicles through the system with the fewest stops in a comfortable manner. It would be ideal if every vehicle entering the system could proceed through the system without stopping. This is not possible, even in well-spaced, well-designed systems. Therefore, in traffic signal coordination, the busiest traffic movements are given priority over the smaller traffic movements.

The purpose of this report is to present the Before and After results of the Centre City Parkway Signal Coordination Project. A synopsis of the Northbound and Southbound AM and PM results are provided below.

SYNOPSIS

Project purpose

- Update traffic signal timings to be consistent with the standards (CA-MUTCD)
- Provide peak-period progression coordination in the heavy direction

Update signal timing to standards

- Minimum green times adjusted to account for bike clearance
- Minimum yellow times adjusted (no speed limit on CCP, table provided and reference on next page per MUTCD Table 4D-102 (CA) no posted speed)
- Minimum pedestrian times adjusted (4 ft/s to 3.5 ft/s)
 - Impact: More time for pedestrians, bicycles, and yellow times will eat more time throughout the cycles. (i.e. minor street pedestrian phase would force major street movement to wait longer).
 - Standard walk times were increased to 7 seconds (from ~4 sec. typ.)

Provide peak-period progression

- Cycle lengths along CCP were based on groupings of intersections with similar timings (range from 100 sec to 165 sec (El Norte))
- Morning: Heavy southbound.
 - Southbound travel time reduced 65 seconds, northbound increased 29 seconds.
- Mid-day: Even split. Volumes not heavy
 - Travel times increased, further discussed later.
- Evening: Heavy northbound
 - Southbound travel time stayed the same (~1 second increase), Northbound reduced 127 seconds.
- Show travel time chart

Specific issues

- Provide additional left-turn time

- Minimum green times for protected left-turns were increased from ~6 sec (typ) to 9-20 seconds based on collected traffic counts
- Reduce east-west street wait times
 - For mid-day when volumes are not as heavy, CCP from 13th Ave to Valley has a 100 second cycle
 - Reduces wait times for side streets
 - Reduces green time for CCP
- Improve southbound flow from Felicita through Town Center Drive
 - Try to minimize southbound stops at Town Center Drive after clearing Felicita through signal timing offsets

Next steps

- Implement 9th Avenue signal timing in coordination with Caltrans I-15 ramps
- Consultant noticed variability in signal controller timers
 - Investigate issue to improve coordination
- On-going signal timing tweaking

The table following include the total distance traveled and additional charts to show some of the goals we were trying to attain.

**CITY OF ESCONDIDO
 CENTRE CITY PARKWAY TRAVEL TIME SUMMARY**

$535/662 = 0.80815 - 1 (100) = 19\%$

<i>Northbound Direction</i>						
	AM Peak		Midday		PM Peak	
	Before	After	Before	After	Before	After
Average Travel Time (sec)	510	539	561	595	662	535
Average Delay (sec)	175	198	174	242	286	215
Average Stops (#)	3.0	2.3	3.3	2.9	2.7	1.0
Average Speed (mph)	26.1	24.7	23.8	22.4	20.1	24.9
Average Free Flow Speed (mph)	39.7	39.1	34.4	37.7	36.4	41.6
Total Runs Conducted:	5	6	5	5	4	5
Date Runs Conducted:	12/3/2015 Thursday	7/13/2016 Wednesday	12/3/2015 Thursday	7/13/2016 Wednesday	12/3/2015 Thursday	7/12/2016 Tuesday

<i>Southbound Direction</i>						
	AM Peak		Midday		PM Peak	
	Before	After	Before	After	Before	After
Average Travel Time (sec)	523	458	471	537	557	558
Average Delay (sec)	179	164	112	175	191	215
Average Stops (#)	2.9	2.0	2.9	2.0	3.0	1.7
Average Speed (mph)	25.4	29.1	28.3	24.8	23.9	23.9
Average Free Flow Speed (mph)	38.6	45.3	37.1	36.8	36.4	38.9
Total Runs Conducted:	5	6	6	6	4	5
Date Runs Conducted:	12/3/2015 Thursday	7/13/2016 Wednesday	12/3/2015 Thursday	7/13/2016 Wednesday	12/3/2015 Thursday	7/12/2016 Tuesday

$458/523 = 0.875717 - 1 (100) = 12\%$

Notes:
 AM Peak (7-9am), Midday Peak (11-1pm), PM Peak (4-6pm)
 Centre City Parkway between Citricado and El Norte (Distance = 19,530' (3.7 miles))

The reason mid-day travel times increased is because we reduced the mid-day cycle lengths. One goal was to reduce east-west street wait times, and to accomplish this effort, we reduced cycle

length by 30 seconds at many intersections. So that side streets would no longer have to go through the entire 130 second cycle anymore before they get their green indication.

**CITY OF ESCONDIDO
 CENTRE CITY PARKWAY - BEFORE/AFTER CYCLE LENGTHS**

Traffic Signal Cycle Lengths						
	AM Peak		Midday		PM Peak	
	Before	After	Before	After	Before	After
Centre City Pkwy/ Citracado Pkwy	Free	Free	Free	Free	Free	Free
Centre City Pkwy/ Town Center Dwy (18th Ave)	100	135	Free	135	100	120
Centre City Pkwy/ Felcita Ave	100	135	Free	135	100	120
Centre City Pkwy/ 13th Ave	115	120	130	100	125	125
Centre City Pkwy/ Ninth Ave	115	120	130	100	125	125
Centre City Pkwy/ Fifth Ave	115	120	100	100	125	125
Centre City Pkwy/ Second Ave	115	120	130	100	125	125
Centre City Pkwy/ Grand Ave	115	120	130	100	125	125
Centre City Pkwy/ Valley Pkwy	115	120	130	100	125	125
Centre City Pkwy/ Washington Ave	130	120	130	120	140	135
Centre City Pkwy/ Mission Ave	130	120	130	120	140	135
Centre City Pkwy/ Decatur Pkwy	180	165	180	Free	180	135
Centre City Pkwy/ El Norte Pkwy	180	165	140	Free	120	165

Notes:
 AM Peak (7-9am), Midday Peak (11-1pm), PM Peak (4-6pm)

CITY OF ESCONDIDO

Delay at Town Center Driveway/18th Ave traveling southbound on Centre City Parkway						
	AM Peak		Midday		PM Peak	
	Before	After	Before	After	Before	After
Delay (seconds)	0.4	3.3	1.0	0.0	23.0	0.0

Notes:
 AM Peak (7-9am), Midday Peak (11-1pm), PM Peak (4-6pm)

Some additional key considerations that were fine-tuned were also to:

- Reduce overall cycle lengths by reducing pedestrian timing intervals
- Improve southbound coordination between El Norte and 2nd Ave
- Increase time for left-turns at 9th Ave and 13th Ave

Recommendation:

The success of the project is demonstrated by Travel Time Savings:

- Morning peak-hour travel time reduced by 12% for the heavier peak-hour direction (southbound)
- Afternoon peak-hour travel time reduced by 19% for the heavier peak-hour direction (northbound)
- Yellow and pedestrian walk times increased to latest CA-MUTCD standards
- Minimum green times for left-turns increased to provide improved left-turn storage lane clearance
- Mid-day cycle lengths reduced up to 30 seconds to minimize side-street wait times outside of morning/afternoon peak-periods.

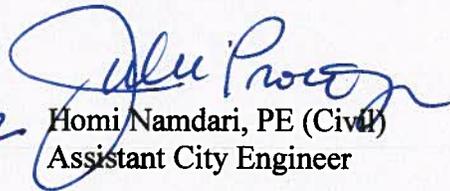
Necessary Council Action: Note and File report.

Prepared by:



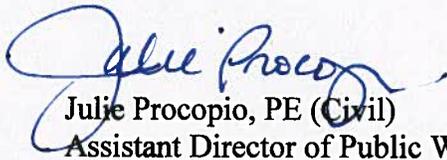
Ali M. Shahzad, PE (Traffic)
Associate Engineer/Traffic Division

Reviewed by:

FOR 

Homi Namdari, PE (Civil)
Assistant City Engineer

Approved by:



Julie Procopio, PE (Civil)
Assistant Director of Public Works



CITY OF ESCONDIDO

**TRANSPORTATION and
COMMUNITY SAFETY COMMISSION**

Commission Report of: October 13th, 2016

Item No.: F2

Location: Various locations Citywide

Initiated By: City Staff

Request: Recommend approval to the City Council of updated Engineering & Traffic Surveys (E&TS) for posted speeds on various street segments Citywide.

Background & Survey Methodology:

To satisfy the requirements of Section 40802(b) of the California Vehicle Code (CVC), Engineering and Traffic Surveys are required by the State of California to establish speed limits and to enforce those limits using radar or other speed measuring devices. These surveys must be updated periodically (every 5, 7 or 10 years, depending upon specific criteria) to ensure the speed limits reflect current conditions as dictated by the 2016 California Vehicle Code (CVC). The surveys must be conducted in accordance with applicable provisions of Section 627 "Engineering and Traffic Survey" of the California Vehicle Code (CVC), following procedures outlined in the California Manual on Uniform Traffic Control Devices (CA-MUTCD) dated November 7, 2014.

A brief description of the procedure is presented below:

1. Measurement of Actual Prevailing Speeds

The actual speed of 100 vehicles on each street segment was measured using a calibrated radar meter. Both directions of travel were surveyed. From this data, the prevailing or 85th percentile speed (speed at or below which 85 percent of the vehicles sampled were traveling), ten miles per hour pace speed (increment of ten miles per hour containing the greatest number of measurements) and percent of vehicles in the pace were determined.

2. Accident Records

From the accident reports, the number of accidents for each segment was used to calculate the accident rate, which is defined as the number of accidents per million vehicle miles (acc/mvm) of travel on that segment. The accident rate for each segment was then compared to the most recent statewide average for similar type roads. This information is shown on the survey summary sheets.

3. Traffic and Roadside Conditions

Each route was driven and notation made of its features, especially those not readily apparent to reasonable drivers, as well as those that might be combined with other factors to justify downward or upward speed zoning. These features are listed in the survey summary sheets for each segment.

4. Residential Density

A comprehensive review of the residential density was not done, but information regarding the adjacent land use to the roadway segments was noted and included in the survey summary sheets.

5. Pedestrian and Bicyclist Safety

The accident records were used to evaluate the pedestrian and bicyclist safety aspects of the roadway segments.

6. School Zones

Proximity to schools was taken into account to evaluate the speeds through the roadway segments.

The standard used followed procedures outlined in the California Manual on Uniform Traffic Control Devices (CA-MUTCD) Section 2B.13, dated November 7, 2014, Rev.1:

“Standard:

When a speed limit is to be posted, it shall be established at the nearest 5 mph increment of the 85th-percentile speed of free-flowing traffic, except as shown in the two Options below.

Option:

1. The posted speed may be reduced by 5 mph from the nearest 5 mph increment of the 85th-percentile speed, in compliance with CVC Sections 627 and 22358.5. See Standard below for documentation requirements.

2. For cases in which the nearest 5 mph increment of the 85th-percentile speed would require a rounding up, then the speed limit may be rounded down to the nearest 5 mph increment below the 85th percentile speed, if no further reduction is used. Refer to CVC Section 21400(b).

Standard:

If the speed limit to be posted has had the 5 mph reduction applied, then an E&TS shall document in writing the conditions and justification for the lower speed limit and be approved by a registered Civil or Traffic Engineer. The reasons for the lower speed limit shall be in compliance with CVC Sections 627 and 22358.5.

Support:

The following examples are provided to explain the application of these speed limit criteria:

Example 1. *Using Option 1 above and first step is to round down: If the 85th percentile speed in a speed survey for a location was 37 mph, then the speed limit would be established at 35 mph since it is the closest 5 mph increment to the 37 mph speed. As indicated by the option, this 35 mph established speed limit could be reduced by 5 mph to 30 mph if the conditions and justification for using this lower speed limit are documented in the E&TS and approved by a registered Civil or Traffic Engineer.*

Example 2. *Using Option 1 above and first step is to round up: If the 85th percentile speed in a speed survey for a location was 33 mph, then the speed limit would be established at 35 mph since it is the closest 5 mph increment to the 33 mph speed. As indicated by the option, this 35 mph speed limit could be reduced by 5 mph to 30 mph if the conditions and justification for using this lower speed limit are documented in the E&TS and approved by a registered Civil or Traffic Engineer.*

Example 3. *Using Option 2 above and first step is to round up: If the 85th percentile speed in a speed survey for a location was 33 mph, instead of rounding up to 35mph, the speed limit can be established at 30mph, but no further reductions can be applied (which is allowed in the two examples above).*

Standard:

Examples 1 and 2 for establishing posted speed limits shall apply to engineering and traffic surveys (E&TS) performed on or after July 1, 2009 in accordance with the Department's Traffic Operations Policy Directive Number 09-04 dated June 29, 2009.

Option:

After January 1, 2012, Example 3 may be used to establish speed limits. Refer to CVC 21400(b).

Support:

Any existing E&TS that was performed before July 1, 2009 in accordance with previous traffic control device standards is not required to comply with the new criteria until it is due for reevaluation per the 5, 7 or 10 year criteria."

Discussion & Purpose:

Per California Vehicle Code Section 22354, in order for a posted speed limit to be legally enforceable by the Police Department radar detection, it must be all of the following:

- 1) Between 25 mph and 65 mph,
- 2) Supported by an engineering speed survey, and
- 3) Ratified by City Council by resolution or ordinance.

The guidelines for preparing an engineering speed survey are found within the California Manual on Uniform Traffic Control Devices (CA-MUTCD) 2014 edition, a document published by the Federal Highway Administration and modified by CALTRANS for use in California. The 85th percentile speed (the speed at which 85% of drivers drive at or below) is often referred to as the critical speed; it is the primary speed that determines what drivers believe to be safe and reasonable. When determining speed limits, the California MUTCD gives guidance that states, *"The speed limit should be established at the nearest 5 mph increment of the 85th-percentile speed of free-flowing traffic."*

Additional guidance from the MUTCD California states, *"The establishment of a speed limit of more than 5 mph below the 85th percentile speed should be done with great care as studies have shown that establishing a speed limit at less than the 85th percentile generally results in an increase in collision rates; in addition, this may make violators of a disproportionate number of reasonable majority of drivers."*

Although conditions on the roadway such as width, curvature, surface conditions and any other readily apparent features do not provide a basis for downward speed zoning, the CA-MUTCD states that local authorities may consider residential density, as well as pedestrian and bicycle safety.

Recommendation:

As part of the City of Escondido's speed survey program, staff has performed speed surveys at 4 segment locations, with data being collected for each segment.

Based on the above guidelines, all of the surveyed segments were evaluated and speed limits recommended. The overview of the Speed Surveys is presented in Table 1; the last column shows the recommended speed limits on all study segments.

For speed survey 1, the recommended speed limit reflects a reduction of 5mph from the 85th-percentile speed based on **Option 2** in the MUTCD standard, as delineated above. In this case, then, the posted speed limit will not change.

For speed survey 2, the recommended speed limit is changing (decrease by 5mph) based on the 85th-percentile speed of the new speed survey.

For speed survey 3, the recommended speed limit is set based on the 85th-percentile speed of the new speed survey.

For speed survey 4, the recommended speed limit reflects a reduction of 5mph from the 85th-percentile speed based on Option 2 in the MUTCD standard, as delineated above. In this case, then, the posted speed limit will be decreased by 5 mph.

Table 1 - Overview of Speed Surveys

Segment No.	Street Name	Segment		Previous Speed Survey	Posted Speed Limit (MPH)	Classification	85 th Percentile (MPH)	Recommended Speed Limit (MPH)	Speed Limit to be posted, per Traffic Engineer
		From	To			Design Speed			
1**	Mountain View Drive	Glenridge Rd	City Limits	05/15/08	35	LC 35	38	40	35
2	Idaho Avenue	Juniper	Pedregal / City Limits	04/21/09	40	LC 35	37	35	35 ↓
3*	Citracado Pkwy	W Valley Pkwy	Scenic Trail Way	N/A	None (25WC AP)	M 50	37	35 (25WCA P)	35 (25WCAP)
4	Broadway	Rincon	Leslie Ln	04/06/2012	45	C 40	44	45	40 ↓

* Indicates new established speed survey which requires City Council approval.

** Indicates round down the speed limit to the lower five miles per hour increment, per CVC 21400 (b), or higher than average collision rate.

↓ Indicates speed going down.

↑ Indicates speed going up.

Necessary Council Action: One new segment (Citracado), others are recertifications.

Respectfully submitted,

Prepared by:



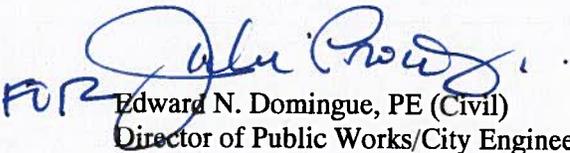
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