



Agenda Item #: _____

Staff Report

City of Manhattan Beach

TO: Honorable Mayor Fahey and Members of the City Council

THROUGH: Geoff Dolan, City Manager

FROM: Richard Thompson, Director of Community Development
Rob Osborne, Management Analyst

DATE: July 19, 2005

SUBJECT: Presentation of Follow-Up Review of the Southeast Area Neighborhood Traffic Management Program

RECOMMENDATION:

Staff recommends that the City Council pass a motion to approve the Parking and Public Improvements Commission recommendation to permanently approve the following comprehensive neighborhood traffic management plan in the Southeast Area NTMP study area:

- Continue additional speeding enforcement in the Southeast Area Neighborhood at school arrival and dismissal times.
- Continue regular deployment of the speed display trailer on major local streets within the neighborhood.
- Paint all traffic striping and markings on an annual basis to improve driver compliance and improve safety.
- Maintain the previously installed four-way stop signs at Rowell Avenue and 9th Street
- Maintain the previously installed four-way stop signs at Nelson Avenue and Herrin Street.
- Continue to implement citywide traffic signal coordination on Manhattan Beach Boulevard, Artesia Boulevard and Aviation Boulevard as part of the LA County and South Bay Transportation Programs.

It is also recommended that the Council pass a motion to approve the Parking and Public Improvements Commission recommendation to:

- Install “NO STOPPING 7-9AM, 2-4PM SCHOOL DAYS ONLY” parking restrictions on both sides of Redondo Avenue between Manhattan Beach Boulevard and 11th Street.
- Post Bike Route signs on 2nd Street between Sepulveda Boulevard and Peck Avenue and on Peck Avenue between 2nd Street and Artesia Boulevard
- Consider parking restrictions on 10th Street between Aviation Boulevard and Harkness Street to discourage non-resident parking, pending submittal of a petition by residents in favor of restrictions.

- Eliminate the existing peak hour left turn restrictions on northbound Aviation Boulevard at 10th Street.

FISCAL IMPLICATION:

The recommended signage modifications would cost approximately \$600 and could be accomplished through existing programs and budgets.

BACKGROUND:

The Southeast Area NTMP gradually evolved from several smaller traffic studies dating back to 2001. Staff first began monitoring traffic issues in this area after a mixed-use development was proposed for the triangular property at the northeast corner of Aviation Boulevard and 2nd Street in January 2001. The initial study was expanded to the general area east of the Mira Costa when residents on Nelson Avenue requested relief from school-related traffic impacts in June 2002. With the approval of the City-Wide Neighborhood Traffic Management Program in November 2002 and subsequent establishment of priority study areas, the Mira Costa East Study was eventually expanded into the Southeast Area NTMP. A subsequent study involving parking impacts related to Mira Costa High School is being addressed separately from the traffic study.

NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM

On November 19, 2002, the City Council approved the City-Wide Neighborhood Traffic Management Program (NTMP). The program established a set of procedures to evaluate neighborhoods in an effort to improve livability of neighborhood streets. The process includes the following seven steps:

- Step 1** Identify Candidate Streets/Neighborhoods
- Step 2** Preliminary Screening and Evaluation
- Step 3** Engineering Analysis/Preliminary Recommendations
- Step 4** Neighborhood Meetings and Survey/Petitions
- Step 5** Develop, Install, and Evaluate Test projects
- Step 6** Determination of Permanent Project
- Step 7** Monitoring

The NTMP contains a toolbox of possible traffic calming measures that can be considered when preparing a comprehensive solution to the identified traffic impacts within a neighborhood.

MIRA COSTA EAST NTMP

On December 12, 2002 and April 24, 2003, the Parking and Public Improvements Commission (PPIC) reviewed traffic conditions in the Mira Costa East Neighborhood which was roughly bounded by Peck Avenue to the west, Eighth Street to the north, Aviation Boulevard to the east, and Artesia Boulevard to the south. At the second meeting the Commission recommended implementation of six traffic control measures on a trial basis. On May 20, 2003, the City Council supported the Commission's recommendation of the following measures:

- Request additional speeding enforcement in the Mira Costa East Neighborhood at school arrival and dismissal times with periodic reports to the PPIC.

- Maintain the existing westbound through restriction on 2nd Street at Aviation Boulevard.
- Direct staff to work closely with Los Angeles County and other agencies to implement efficient traffic signal coordination on Aviation Boulevard.
- Prohibit eastbound and westbound through movements on Nelson Avenue at Peck Avenue.
- Install stop signs at Peck Avenue and Nelson Avenue.
- Request the School District to construct a new driveway on Artesia Boulevard to the lower high school parking lot.

This neighborhood plan was implemented with the exception of the last item. The School District indicated that constructing a driveway on Artesia Boulevard was not feasible. The Mira Costa study was then merged with the new Southeast Area NTMP study.

SOUTHEAST AREA STUDY

The Southeast Study area is bounded by Sepulveda Boulevard to the West, Manhattan Beach Boulevard to the north, Aviation Boulevard to the east, and Artesia Boulevard to the south. On February 26, 2004, initial study recommendations were presented to the Parking and Public Improvements Commission. The PPIC recommended implementation of the following traffic management plan on a six-month trial basis:

- Additional speeding enforcement during school drop-off and pick-up times
- Deploy the radar speed display trailer on major local streets
- Prohibit northbound Aviation Boulevard to westbound 10th Street left turns during peak hours (7-9am, 3-6pm)
- Paint all traffic striping and markings on an annual basis to improve driver compliance and improve safety
- Install four-way stop signs at Rowell Avenue and 9th Street
- Install four-way stop signs at Nelson Avenue and Herrin Street.
- Implement citywide traffic signal coordination on Manhattan Beach Boulevard, Artesia Boulevard and Aviation Boulevard as part of the LA County and South Bay Transportation Programs.
- Permanently approve the temporary measures implemented as part of the Mira Costa East study

The Council approved the trial plan on July 6, 2004. Staff monitored the effectiveness of the implemented measures and presented a follow-up analysis to the PPIC on March 24, 2005. The Commission recommended permanent approval of the trial plan, with the exception of the left turn restrictions at Aviation Boulevard and 10th Street. The Commission reviewed the restrictions at their meeting on May 26, 2005, and concluded that they have not proven effective in reducing cut-through traffic on 10th Street. In addition the restrictions have adversely impacted businesses in the area by limiting access for customers. The Commission also recommended the following measures to address some newly-presented issues:

1. Install “NO STOPPING 7-9AM, 2-4PM SCHOOL DAYS ONLY” parking restrictions on Redondo Avenue between Manhattan Beach Boulevard and 11th Street to help alleviate periodic congestion in the area.

2. Post Bike Route signs on 2nd Street between Sepulveda Boulevard and Peck Avenue and on Peck Avenue between 2nd Street and Artesia Boulevard to encourage bicycle access to and from the high school. This is consistent with the conceptual bikeways plan approved by Council in February, 2005.
3. Consider implementing parking restrictions on 10th Street between Aviation Boulevard and Harkness Street to address spillover parking impacts, pending submittal of a petition from residents.

DISCUSSION/CONCLUSION:

Staff and the PPIC believe the Neighborhood Traffic Management Plan has been beneficial to the neighborhood and has not adversely impacted traffic circulation. Resident satisfaction with the study process and implemented measures has been high. This review represents Step 6 in the NTMP process - Determination of Permanent Project. If the Council agrees with the current recommendations of the PPIC the study will be largely concluded. Staff will continue to monitor the area per Step 7 and address any remaining issues as needed.

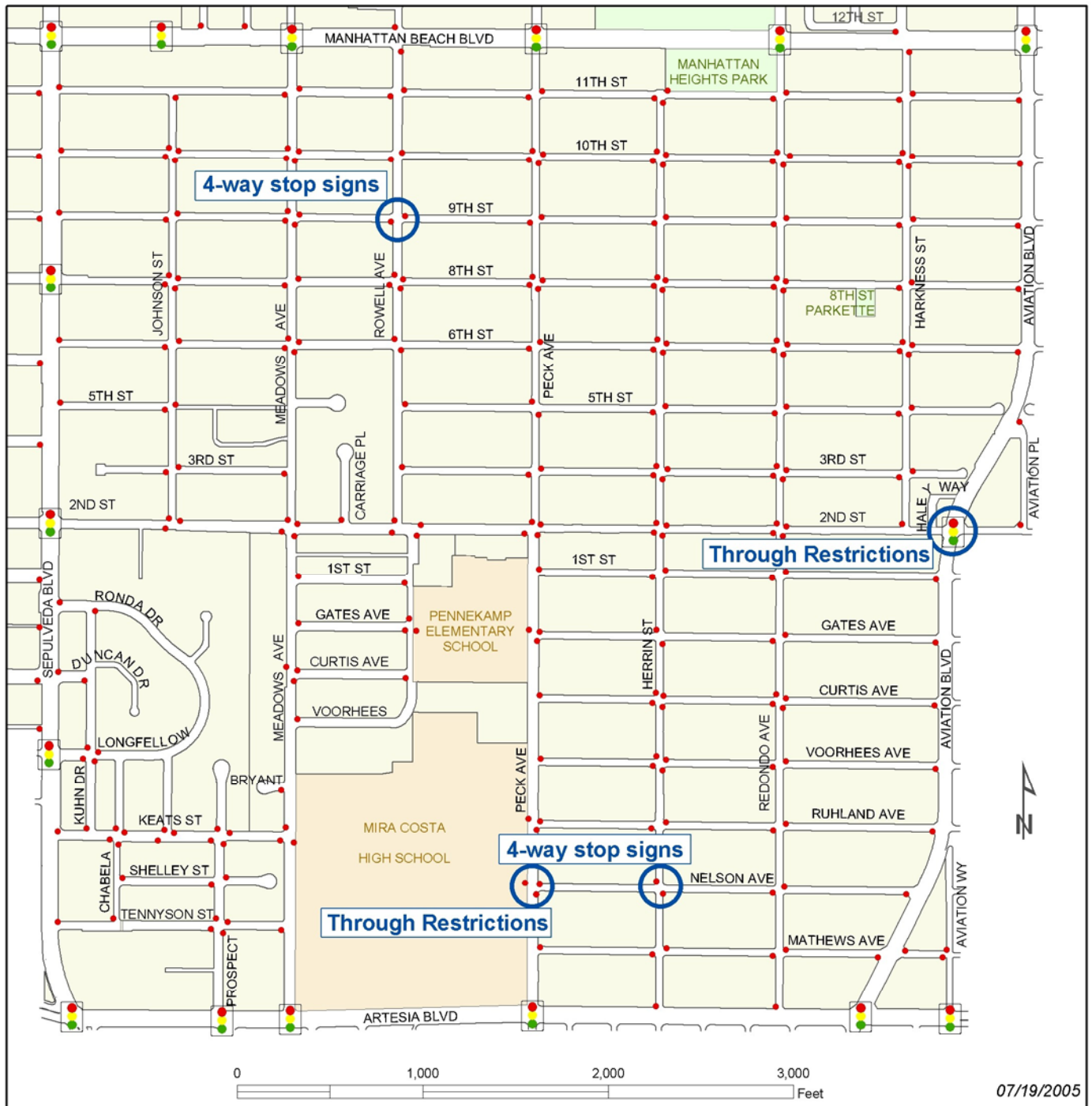
Attached are maps showing the previously implemented measures and the new measures suggested by the PPIC. The analyses conducted and various public input received during the study are described in greater detail in the attached reports and minutes.

Notification postcards were sent to all properties in the study area.

- Attachments:
- A. Existing measures map
 - B. Proposed measures map
 - C. Minutes of 5/26/05 PPIC meeting
 - D. PPIC staff report, 5/26/05
 - E. Minutes of 3/24/05 PPIC meeting
 - F. PPIC staff report, 3/24/05
 - G. NTMP toolbox
 - H. NTMP flowchart
 - I. Additional correspondence
 - J. Meeting notice postcard

Southeast Area Neighborhood

~ Previously Implemented Measures ~



Area-wide Measures

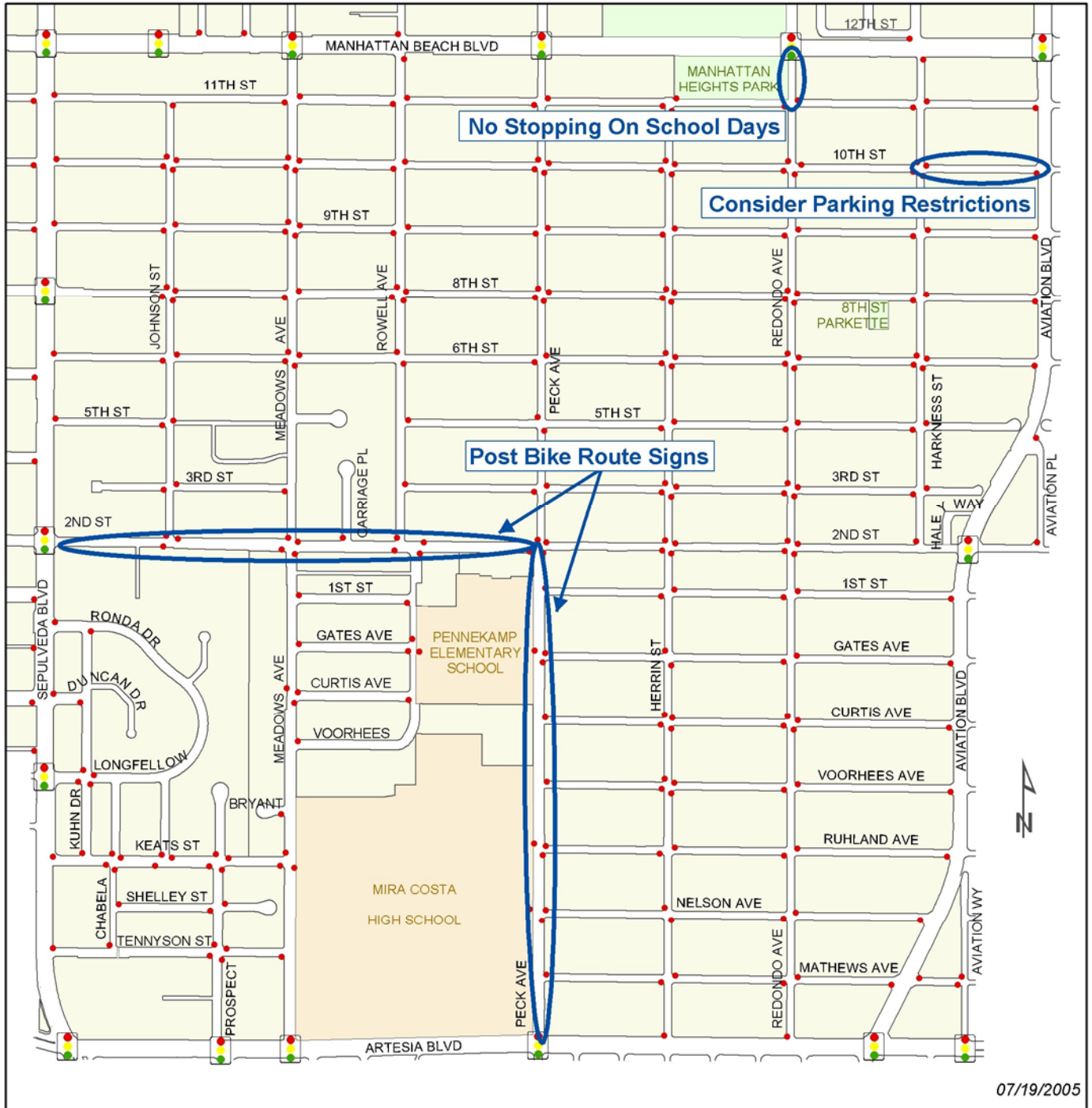
- Additional speeding enforcement at school arrival & dismissal times
- Deployment of speed display trailer on major local streets
- Annual painting of traffic striping and markings
- Traffic signal coordination with L.A. County & South Bay Transportation Programs



07/19/2005

Southeast Area Neighborhood

~ PPIC Recommendations ~



07/19/2005

**CITY OF MANHATTAN BEACH
PARKING AND PUBLIC IMPROVEMENTS COMMISSION
MINUTES OF REGULAR MEETING
MAY 26, 2005**

2. Southeast Area Neighborhood Traffic Management Program (NTMP) - Aviation Boulevard at 10th Street Evaluation

Traffic Engineer Zandvliet presented the staff report, explaining that on March 24, 2005 the PPIC recommended permanent approval of various measures implemented under the NTMP with the exception of the no left turn restriction for northbound Aviation Boulevard to westbound 10th Street. The Commission directed staff to further study the effectiveness of the left turn restrictions and investigate other possible traffic calming measures on 10th Street.

Traffic Engineer Zandvliet reviewed staff's analysis and findings on the impact and effectiveness of this measure, stating that staff is recommending that the Commission consider the elimination of the "NO LEFT TURN 7-9AM, 3-6PM restriction for northbound Aviation Boulevard to westbound 10th Street, and replace the existing "Pedestrian" warning signs with "School" warning signs, and paint a "Pedestrian Zone" area on the north side of 10th Street adjacent to the Der Kinder Garden Pre-School at 1834 10th Street.

Audience Participation

Sharing that he went to war to protect our freedom and that freedom is giving him the opportunity to speak tonight, **Edward Fuller, 1700 Block of 5th Street**, asked that the Commission remove the no left turn restriction on 10th Street. He stated that he has spoken with the owners of Speedy Mart and that their establishment, which does crucial business during the restricted turn times, has lost almost 15% of its business. Mr. Fuller asked that the City consider the small businesses affected by this turn restriction and remove sign, adding that he believes a stop sign would work well at this location.

Brenda Demarco, 300 Block of Aviation Boulevard, commented that she drives her son to the middle school every day and that this turn restriction makes it almost impossible for her to get to the school. She talked of the inconvenience it poses for motorists and the negative impact it has on businesses. Ms. Demarco also talked of the poor visibility of the turn restriction sign, stating she never saw the sign and was issued a ticket. She stated that some type of warning period should have been instituted prior to issuing tickets.

Bryant Rolfe, 1900 Block of Ruhland, Redondo Beach, shared that he too was issued a ticket and never saw the turn restriction sign. He stated that the turn restriction actually makes the area less safe and is superfluous.

Steve Selsky, 1800 Block of 10th Street, voiced concern with the traffic flow pattern on Aviation Boulevard and the “over blending” and close proximity of residential homes to businesses. He talked of the problems the turn restriction is causing for the businesses and the homeowners. Mr. Selsky stated that the City is exposing itself to liability as they are being made aware of the situation on 10th Street and not doing anything about it.

Rene Sandera, 1700 Block of 10th Street, noted that this turn restriction was initially installed as a measure to discourage cut through traffic onto 10th Street. He stated that the original petition submitted to the City asked for measures to reduce the 1400 plus vehicles that travel 10th Street daily - a street that has more than 20 children under the age of 14. Mr. Sandera commented that it was never the intent to hurt businesses and he would like to see the City, the residents and the businesses work together on measures to improve the situation for everyone.

Judy Giss, 1700 Block of 10th Street, voiced her support of removing the turn restriction and suggested speed bumps be considered on 10th Streets. She also clarified the measures being proposed adjacent to the Der Kinder Garden Pre School.

Zeeshan Merchant, Speedy Mart, Aviation Boulevard, submitted a petition in support of removing the turn restriction. Sharing that his family has operated their businesses in Manhattan Beach for many years, he talked of the negative impact this sign has had to Speedy Mart’s business and the inconvenience it poses to his customers and residents.

Kenneth Giss, 1700 Block of Aviation Boulevard, also voiced his support for removing the turn restriction. He commented that a safe left turn is possible at this location and the restriction actually confuses drivers and makes the area less safe. Mr. Giss talked of the benefits and burdens schools, churches and businesses place on residential neighborhoods. He stated that the problems with cut through traffic began when School District did not provide adequate pick up and drop off locations when the Middle School was constructed.

Discussion

Commissioner Ackland stated that this issue has been discussed at the Commission level twice before and she remembers the focus of those discussions being on ways to reduce speed and cut through traffic on 10th Street. It was not realized or intended that this measure would negatively impact businesses and the impact of this measure reaffirms the NTMP macro versus micro approach. Commissioner Ackland voiced her support of removing the turn restriction, stating that enforcement is what is needed. She further stated she believes speed humps might be appropriate on this street and would help slow down the traffic. She then encouraged residents to speak up at the City Council level and ask that the Council reconsider their policy against the use of speed humps and consider their use as a measure to address the safety issues on 10th Street.

Commissioner Lang acknowledged the valuable input and history Commissioner Ackland has brought forth to the Commission and how much he has appreciated her support on the Commission. He stated that the left turn restriction was ill conceived and although the measure had good intentions, it had little impact to 10th Street and adversely impacted the businesses. The no left turn restriction sign was poorly marked, causing many residents unaware of its existence to receive infractions, which he believes should be rescinded. Commissioner Lang further stated that the issue is speed which needs to be handled by police enforcement, and questioned why police officers are ticketing motorists for making the prohibited left turn, when their focus should be on the motorists speeding on 10th Street. He concluded by stating that he is not in favor of speed bumps as he believes this issue is best addressed through police enforcement and that there is no reason a City of this affluence couldn't provide those resources.

Commissioner Lesser commented that it is clear to him that the left turn restriction sign needs to come down. It has negatively impacted businesses; motorists are not aware of the turn restriction and/or are not complying with it; and there are many residents on 10th Street who don't want the sign. He shared his support of the NTMP's macro approach and stated that he would like to see other measures considered to address the issues on 10th Street.

Commissioner Osterhout voiced his support of removing the left turn restriction, stating that it did not solve any problems and that speeding is the real issue. He shared that he is neutral on the use of speed humps and believes there are streets that can accommodate their use. Commissioner Osterhout agreed with the proposed measures adjacent to Der Kinder Pre-School, stating that any measure to make drivers more aware and cautious around the school is a good thing, noting the importance of the signage being clearly marked and at the appropriate height limit. He also encouraged the pre-school to be a good neighbor to the residents and do their best to keep the traffic flow moving.

Chairman Saunders stated his support of staff recommendations, sharing that this is not an easy problem to solve and will take the joint efforts of the City, residents and businesses. Referencing the use of "gentler" speed humps in Beverly Hills, he suggested further discussion be held regarding their possible use in the City.

Action

A motion was MADE and SECONDED (Lesser/Ackland) to approve staff's recommendation to eliminate the "NO LEFT TURN 7-9AM, 3-6PM restriction for northbound Aviation Boulevard to westbound 10th Street; replace the existing "Pedestrian" warning signs with "School" warning signs and paint a "Pedestrian Zone" area on the north side of 10th Street adjacent to the Der Kinder Pre-School at 1834 10th Street. Staff is also directed to work with residents and businesses to explore other traffic calming measures to address issues of traffic volume and speed on 10th Street

AYES: Ackland, Lang, Lesser, Osterhout, Chairman Saunders

NOES: None
ABSENT: None
ABSTAIN: None

**CITY OF MANHATTAN BEACH
DEPARTMENT OF COMMUNITY DEVELOPMENT**

TO: Parking and Public Improvements Commission

FROM: Richard Thompson, Director of Community Development
Robert D. Osborne, Management Analyst

BY: Erik Zandvliet, Traffic Engineer

DATE: May 26, 2005

**SUBJECT: Southeast Area Neighborhood Traffic Management Program (NTMP)
Aviation Boulevard at 10th Street Evaluation**

RECOMMENDATION:

It is recommended that the PPIC:

- Consider recommending elimination of the “NO LEFT TURN 7-9AM, 3-6PM” restriction for northbound Aviation Boulevard to westbound 10th Street.
- Recommend replacing existing “Pedestrian” warning signs with “SCHOOL” warning signs and painting a “Pedestrian Zone” area on the north side of 10th Street adjacent to the Der Kinder Garden Pre-School at 1834 10th Street.

BACKGROUND:

On July 6, 2004, the City Council approved implementation of the Southeast Area Neighborhood Traffic Management Plan for a six-month trial period. One of the temporary measures included a “No Left Turn 7-9am, 3-6pm Mon-Fri” restriction for northbound Aviation Boulevard to westbound 10th Street. Follow-up studies were conducted throughout the area at the end of the trial period and the results were presented to the Parking and Public Improvements Commission at a public hearing to consider approval of final recommendations.

On March 24, 2005, the Parking and Public Improvements Commission heard public testimony and discussed the follow-up study. At the meeting, the Commission recommended permanent approval of the following initial traffic management measures except Measure 3:

1. Additional speeding enforcement school times.
2. Deploy speed display trailer on major local streets.
3. Prohibit northbound Aviation Boulevard to westbound 10th Street left turns during peak hours (7-9am, 3-6pm)
4. Paint all traffic striping and markings on an annual basis to improve driver compliance and improve safety.
5. Install four-way stop signs at Rowell Avenue and 9th Street.

6. Install four-way stop signs at Nelson Avenue and Herrin Street.
7. Implement citywide traffic signal coordination on Manhattan Beach Boulevard, Artesia Boulevard and Aviation Boulevard as part of the LA County and South Bay Transportation Programs.
8. Permanently approve all of the currently implemented temporary measures within the Mira Costa East Neighborhood Area.

In addition to the initial measures, the Commission recommended approval of the following new measures:

- A. Install “NO STOPPING 7-9AM, 2-4PM SCHOOL DAYS ONLY” parking restrictions on both sides of Redondo Avenue between Manhattan Beach Boulevard and 11th Street except for existing passenger loading zone.
- B. Post Bike Route signs on 2nd Street between Sepulveda Boulevard and Peck Avenue and on Peck Avenue between 2nd Street and Artesia Boulevard
- C. Consider parking restrictions on 10th Street between Aviation Boulevard and Harkness Street to discourage non-resident parking, pending submittal of a petition by residents in favor of restrictions.

At the meeting, the Commission directed staff to further study the effectiveness of the left turn restrictions on Aviation Boulevard and investigate other possible traffic calming measures on 10th Street.

DISCUSSION:

Elevated traffic volumes are evident on 10th Street west of Aviation Boulevard both before and after implementation of the temporary measures, especially in the westbound direction as indicated on the following table.

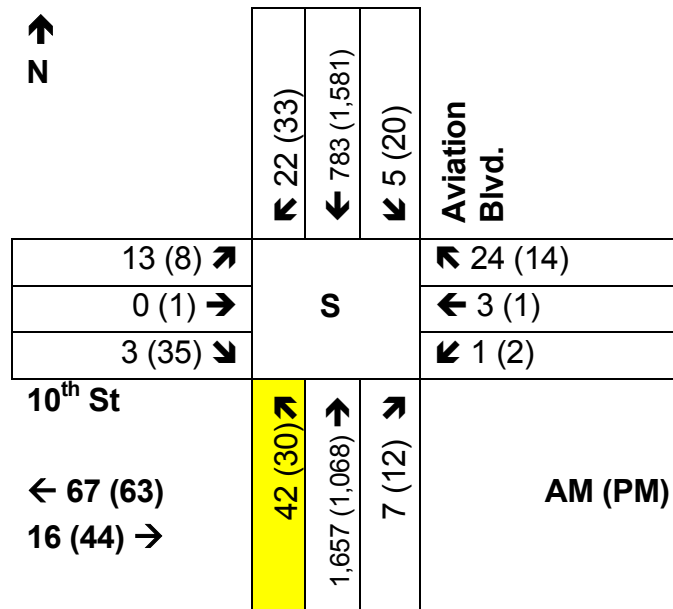
STREET	LOCATION	BEFORE			AFTER		
		EB	WB	TOTAL	EB	WB	TOTAL
11 th Street	E/O Sepulveda Bl	380	308	688	154	561	715
10 th Street	E/O Sepulveda Bl	464	885	1,349	743	698	1,441
9 th Street	E/O Sepulveda Bl	154	418	572	256	101	357*
8 th Street	E/O Sepulveda Bl	842	929	1,771	846	1,171	2,017*
6 th Street	E/O Sepulveda Bl	311	308	619	304	384	688*
5 th Street	E/O Sepulveda Bl	431	309	740	341	129	470*
2 nd Street	E/O Sepulveda Bl	1,460	1,790	3,250	1,478	1,749	3,227
11 th Street	W/O Aviation Bl.	430	287	717	278	252	530
10th Street	W/O Aviation Bl.	419	973	1,392	389	934	1,323
9 th Street	W/O Aviation Bl.	207	295	502	203	322	525
8 th Street	W/O Aviation Bl.	230	419	649	147	388	535
6 th Street	W/O Aviation Bl.	442	300	742	260	322	582
2 nd Street	W/O Aviation Bl.	1,929	1,482	3,411	1,691	1,137	2,828
2 nd Street	E/O Aviation Bl.	148	1,213	1,361	295	1,297	1,592
1 st Street	W/O Aviation Bl.	213	249	462	137	216	353
10 th Street	E/O Rowell Ave.	276	396	672	131	515	646

		NB	SB	TOTAL	NB	SB	TOTAL
Meadows Ave.	S/O M. Beach Bl.	2,298	2,651	4,949	2,291	2,683	4,974
Rowell Ave.	S/O M. Beach Bl.	363	445	808	662	308	970
Peck Ave.	S/O M. Beach Bl.	1,259	1,267	2,526	1,195	1,219	2,414
Redondo Ave.	S/O M. Beach Bl.	2,633	2,098	4,731	3,051	2,531	5,582
Harkness Ave.	S/O M. Beach Bl.	844	917	1,761	1,159	932	2,091

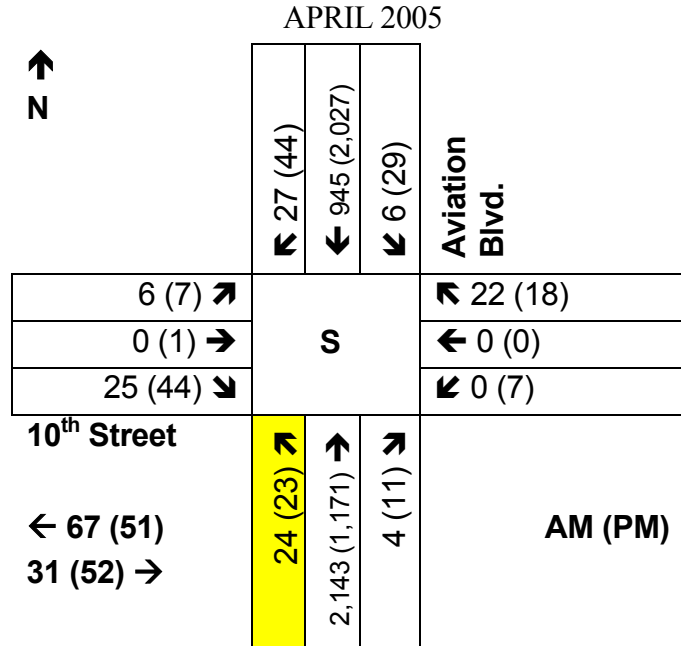
* - Before/after counts different due to slightly different locations

Turning movement counts were conducted in November 2004 and April 2005 after one and two “NO LEFT TURN” signs were posted respectively. Police enforcement began after the second sign was posted in February 2005.

AVIATION BLVD. AT 10TH STREET
NOVEMBER 2004



AVIATION BLVD. AT 10TH STREET



Before and after radar speed studies were conducted on 10th Street between Redondo Avenue and Harkness Street. A statistical summary of the recorded speeds is shown below:

STREET	LOCATION	AVERAGE SPEED (MPH)		85 TH PERCENTILE (MPH)		10 MPH PACE (MPH)	
		2003	2004	2003	2004	2003	2004
10 th Street	Redondo to Harness	27	23	32	26	23 to 32	17 to 26

These studies confirm that 10th Street has typical prevailing speeds for a residential street, and it experienced a 4 mph drop in both average and prevailing speeds.

A review of the collision history at Aviation Boulevard and 10th street was conducted for the period between January 1, 2002 and September 20, 2004. The review reveals that there have been no reported collisions or collision patterns at the intersection in this two and ¾ year period.

10th Street continues to experience high traffic volumes, primarily in the westbound direction. Westbound traffic is evenly split between southbound right turns and northbound left turns at Aviation Boulevard. The elevated traffic volumes can be attributed to several sources: local residents that use 10th street to reach their homes on 11th Street (44 homes), kindergarten pick-up/drop off activities, middle school pick-up/drop-off, Manhattan Heights Park and Community Center visitors, and local trips to the adjacent businesses along Aviation Boulevard.

Since hourly traffic volumes are consistently higher all day long, it is evident that local traffic generates a significant amount of traffic on 10th Street. This is primarily caused by the “No Left Turn” barrier from northbound Aviation Boulevard to 11th Street. The heaviest non-resident user of the 1800 block of 10th Street appears to be the der Kinder Garden Pre-school at 1843 10th

Street, which generates approximately four (4) trips per student, (in/out in AM, in/out in PM) or 200 additional trips on 10th Street daily for every 50 students. The minimum expected daily volume on 10th Street between Harkness Street and Aviation Boulevard is estimated at about 900 vehicles, based on 600 vehicles for local homes on 10th Street (similar to other adjacent streets), 200 vehicles for the kindergarten, and 100 vehicles for local homes on 11th Street that take access from Aviation Boulevard. The remaining 400 vehicles per day could be attributed to the other sources previously named.

It should be noted that elevated volumes on 10th Street are also evident east of Sepulveda Boulevard, however, the mid-block volumes are only slightly above expected volumes. This lower mid-block volume indicates that non-resident cut-through traffic is not a significant percentage of total traffic on 10th Street east of Rowell Avenue.

In an effort to reduce a portion of the non-residential traffic, one “No Left Turn” sign was posted on the northwest corner of Aviation Boulevard and 10th Street in Summer 2004. When a turning movement count was conducted on November 4, 2004, the study found that a large number of drivers were not complying with the left turn restriction. A larger sign was posted on the northwest corner and a new sign installed on the southeast corner in February 2005. Heavy police enforcement followed this action and several upset drivers were cited when attempting to reach the kindergarten facility located on 10th Street. The owners of the kindergarten feel the restriction is hurting their business and submitted the attached letter objecting to it. Other objections came from the convenience store owner and a merchandise delivery driver who have had difficulty reaching their businesses. The April traffic counts indicate only partial obedience to the turn restrictions.

The existing peak hour left turn restriction is posted between 7-9am and 3-6pm. Full compliance of this restriction would reduce traffic on 10th Street by approximately 150 vehicles per day. While this amount does not significantly reduce daily volumes, it could reduce the hourly volumes by up to 38% during restricted hours. The difficulty in enforcing the posted turn restrictions combined with the low number of existing turns makes this traffic calming measure less effective than was first expected. This temporary measure also adversely impacts several other users of 10th Street, namely the kindergarten and shopping center on the southwest corner of Aviation Boulevard and 10th Street. Therefore, a city survey should be distributed to residents on the 1700 and 1800 blocks of 10th Street to determine the level of support to continue or rescind the turn restriction.

Other Traffic Calming Measures

An all-day left turn restriction was considered, but a significant increase in traffic would be anticipated on 9th Street, one street to the south. The initial neighborhood survey showed that residents on 9th Street were not in support of similar turn restrictions to prevent traffic diversion from other streets. An all-day turn restriction would be expected to reduce the daily traffic volume on 10th Street by 470 vehicles per day from 1,332 to 862 vehicles per day and probably increase volume on 9th Street by a similar amount or more due to the kindergarten loading activity. A street closure would divert all of the existing traffic on 10th Street to adjacent parallel

streets, including 11th Street and 9th Street, a move that would increase travel distances and relocate residential traffic to other streets.

Turn restrictions at 10th Street and Harkness Street were considered and rejected due to the high potential to divert the existing local traffic to other local streets without proper protection of those streets.

The kindergarten at 1843 10th Street is not well marked and drop-off/pick-up movements are constrained due to the narrow street. In addition, these movements tend to congest the easterly end of 10th Street during peak periods. The existing pedestrian signs should be replaced with school warning signs. Pedestrian safety would also be improved by striping a “PEDESTRIAN ZONE” that would denote the area of loading activity on the north side of the street. This would give drivers a positive indication to watch for school age pedestrians.

Level Three Tools such as raised crosswalks, raised intersections, traffic circles and restricted movement barriers, half street closures and diagonal diverters were considered but were found not to be beneficial to the surrounding neighborhood due to high potential for forced traffic diversion to other residential streets without adequate protection of nearby streets. Since most of the traffic is residentially oriented or generated by the kindergarten, the existing traffic on 10th Street would have to find alternate and longer routes on adjacent streets within the neighborhood, including the residents living on 10th Street. It is not the intent of neighborhood traffic management plans to increase traffic on other local streets.

Meeting notices were sent to all properties and businesses on 9th Street, 10th Street and 11th Street between Herrin Street and Aviation Boulevard.

RECOMMENDATION:

Based on the above findings, it is recommended that the PPIC:

- Consider recommending elimination of the “NO LEFT TURN 7-9AM, 3-6PM” restriction for northbound Aviation Boulevard to westbound 10th Street.
- Recommend replacing existing “Pedestrian” warning signs with “SCHOOL” warning signs and painting a “Pedestrian Zone” area on the north side of 10th Street adjacent to the Der Kinder Garden Pre-School at 1834 10th Street.

Alternately, the PPIC may determine after discussion that other measures may be appropriate and should modify the recommendations as appropriate. One alternative is to direct staff to distribute a survey to residents on the 1700 and 1800 blocks of 9th and 10th Street to determine the level of support for the temporary “NO LEFT TURN” restrictions. A recommendation to retain or remove the No Left Turn signs could be forwarded to City Council based on the survey results.

Attachments



Aviation Boulevard at 10th Street Looking Northbound (Sign on East Side)



Aviation Boulevard at 10th Street Looking Northbound (Sign on West Side)



Aviation Boulevard at 10th Street Turn Pocket Looking at Sign

NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM TOOLBOX APPLICATION CRITERIA –NOVEMBER 19, 2002

TRAFFIC MANAGEMENT MEASURE	PROBLEMS TARGETED	STREET TYPE (1)	MINIMUM CRITERIA				
			VOLUME	SPEED	DIVERSION TO ADJACENT STREETS	GRADE	OTHER CRITERIA
LEVEL ONE TOOLS							
Enhanced Police Enforcement	Moving Vehicle Violations Running Stop Signs	All	(2)	(3)	None expected	N/A	None
Speed Monitoring Trailer	High Speeds	All	(2)	(3)	None expected	N/A	None
Neighborhood Traffic Watch Program	Moving Vehicle Violations Running Stop Signs	All	(2)	(3)	None expected	N/A	Requires willing participants/volunteers
Higher Visibility Crosswalk	Moving Vehicle Violations Pedestrian Safety Running Stop Signs	All	>500 ADT	(3)	None expected	N/A	- At current crosswalk location - Near pedestrian generating land use
Pedestrian Crossing Signs	Moving Vehicle Violations Pedestrian Safety Running Stop Signs	All	> 500 ADT	(3)	None expected	N/A	- At current crosswalk location - Near pedestrian generating land use
Electronic Speed Limit Signs/Larger Static Speed Limit Signs	High Speeds	All	> 500 ADT	Critical speed is > 7 mph over posted limit	None expected	N/A	Conditions not readily apparent to driver such as topography,

NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM TOOLBOX APPLICATION CRITERIA –NOVEMBER 19, 2002

TRAFFIC MANAGEMENT MEASURE	PROBLEMS TARGETED	STREET TYPE (1)	MINIMUM CRITERIA				
			VOLUME	SPEED	DIVERSION TO ADJACENT STREETS	GRADE	OTHER CRITERIA
							vegetation, etc.
LEVEL TWO TOOLS							
Traffic Signal Adjustments to Discourage Cut-Through Traffic	Cut-Through Traffic	All	>15% of peak hour volume is cut-through traffic	(3)	Must meet diversion chart criteria	N/A	<ul style="list-style-type: none"> - Must have identified cut-through traffic - Must have traffic signal adjacent to residential neighborhood
Turn Restrictions Via Signage	Cut-Through Traffic	All	> 15% of peak hour volume is cut-through traffic	(3)	Must meet diversion chart guidelines	N/A	<ul style="list-style-type: none"> - Must have identified cut-through traffic
Rumble Strips/Dots	High Speeds	All	(2)	(3)	None expected	Less than 5 %	None
Crosswalk Warning System	High Speeds, Pedestrian Safety	All	> 500 ADT	Critical speed is > 7 mph over posted speed	None expected	N/A	None
Raised Median Island	High Speeds, Cut Through Traffic	All	> 15% of peak hour volume is cut-through traffic	Critical speed is > 7 mph over posted speed	None expected	less than 10%	<ul style="list-style-type: none"> - Must not significantly impede emergency vehicle access - Must meet drainage requirements

NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM TOOLBOX APPLICATION CRITERIA –NOVEMBER 19, 2002

TRAFFIC MANAGEMENT MEASURE	PROBLEMS TARGETED	STREET TYPE (1)	MINIMUM CRITERIA				
			VOLUME	SPEED	DIVERSION TO ADJACENT STREETS	GRADE	OTHER CRITERIA
Entry Island (Neighborhood Identification Island)	High Speeds, Cut Through Traffic	All	> 15% of peak hour volume is cut-through traffic	Critical speed is > 7 mph over posted speed	None expected	less than 10%	<ul style="list-style-type: none"> - Must not significantly impede emergency vehicle access - Must meet drainage requirements
Mid-Block Narrowing	High Speeds, Cut-through Traffic	All	> 15% of peak hour volume is cut-through traffic (between 500 and 2,000 total ADT on the street)	Critical speed is > 7 mph over posted speed	None expected	less than 10%	- Must not significantly impede emergency vehicle access
Chokers at Intersections	High Speeds, Cut-through Traffic	L, ML, RC (ALL IF NO RC)	> 15% of peak hour volume is cut-through traffic (between 500 and 2,000 total ADT on the street)	Critical speed is > 7 mph over posted speed	None expected	less than 10%	- Must not significantly impede emergency vehicle access
Lane Reduction/Lane Narrowing/ Restriping	High Speeds, Cut-through Traffic	All	> 15% of peak hour volume is cut-through traffic (between 500 and 2,000 total ADT on the street)	Critical speed is > 7 mph over posted speed	Must meet diversion chart criteria	N/A	- Must not create significant parking impact due to loss of parking
Stop Sign as Neighborhood Traffic Control Measure	High Speeds, Cut-through Traffic	L, ML, RC (ALL IF NO RC)	> 15% of peak hour volume is cut-through traffic (between 500 and 2,000 total ADT on the street)	(3)	Must meet diversion chart criteria	N/A	Requires review by City Traffic Engineer and City Council approval
Parking Restrictions	Non-Residential Parking Intrusion	All	N/A	N/A	Review impacts to Surrounding Streets	N/A	Parking Study

NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM TOOLBOX APPLICATION CRITERIA –NOVEMBER 19, 2002

TRAFFIC MANAGEMENT MEASURE	PROBLEMS TARGETED	STREET TYPE (1)	MINIMUM CRITERIA				
			VOLUME	SPEED	DIVERSION TO ADJACENT STREETS	GRADE	OTHER CRITERIA
LEVEL THREE TOOLS							
Raised Crosswalk	High Speeds, Pedestrian Safety	L, ML, RC (ALL IF NO RC)	(2)	Critical speed > 7 mph over posted speed	None expected	less than 10%	<ul style="list-style-type: none"> - Must meet drainage requirements - Must not significantly impede emergency vehicle access > 25 pedestrians during peak hour, near pedestrian generator
Raised Intersection	High Speeds, Pedestrian Safety,	L, ML, RC (ALL IF NO RC)	(2)	Critical speed > 7 mph over posted speed	Must meet diversion chart criteria	less than 10%	<ul style="list-style-type: none"> - Must meet drainage requirements - Must not significantly impede emergency vehicle access > 25 pedestrians during peak hour, near pedestrian generator
Traffic Circle	High Speeds, Accident History, Vehicle Conflicts	L, ML, RC (ALL IF NO RC)	from 500 to 5,000 ADT	Critical speed > 7 mph over posted speed	Must meet diversion chart criteria	less than 10%	<ul style="list-style-type: none"> - Intersecting roadways must be of sufficient width - Loss of parking must be assessed
Restricted Movement Barrier	Cut-trough traffic, Vehicle conflicts	L, ML	> 15% of peak hour volume is cut-through traffic	(3)	Must meet diversion chart criteria	N/A	<ul style="list-style-type: none"> - Must meet drainage requirements - Must not significantly impede emergency vehicle access

NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM TOOLBOX APPLICATION CRITERIA –NOVEMBER 19, 2002

TRAFFIC MANAGEMENT MEASURE	PROBLEMS TARGETED	STREET TYPE (1)	MINIMUM CRITERIA				
			VOLUME	SPEED	DIVERSION TO ADJACENT STREETS	GRADE	OTHER CRITERIA
Entrance Barrier-Half Closure	Cut-through Traffic, Vehicle Conflicts	L, ML	> 15% of peak hour volume is cut-through traffic	(3)	Must meet diversion chart criteria	N/A	Must not significantly impede emergency vehicle access
Diagonal Diverter	Cut-through Traffic, Vehicle Conflicts	L, ML	> 15% of peak hour volume is cut-through traffic	(3)	Must meet diversion chart criteria	N/A	<ul style="list-style-type: none"> - If full diverter, cannot be truck or transit route, - Must not significantly impede emergency vehicle access

Notes:

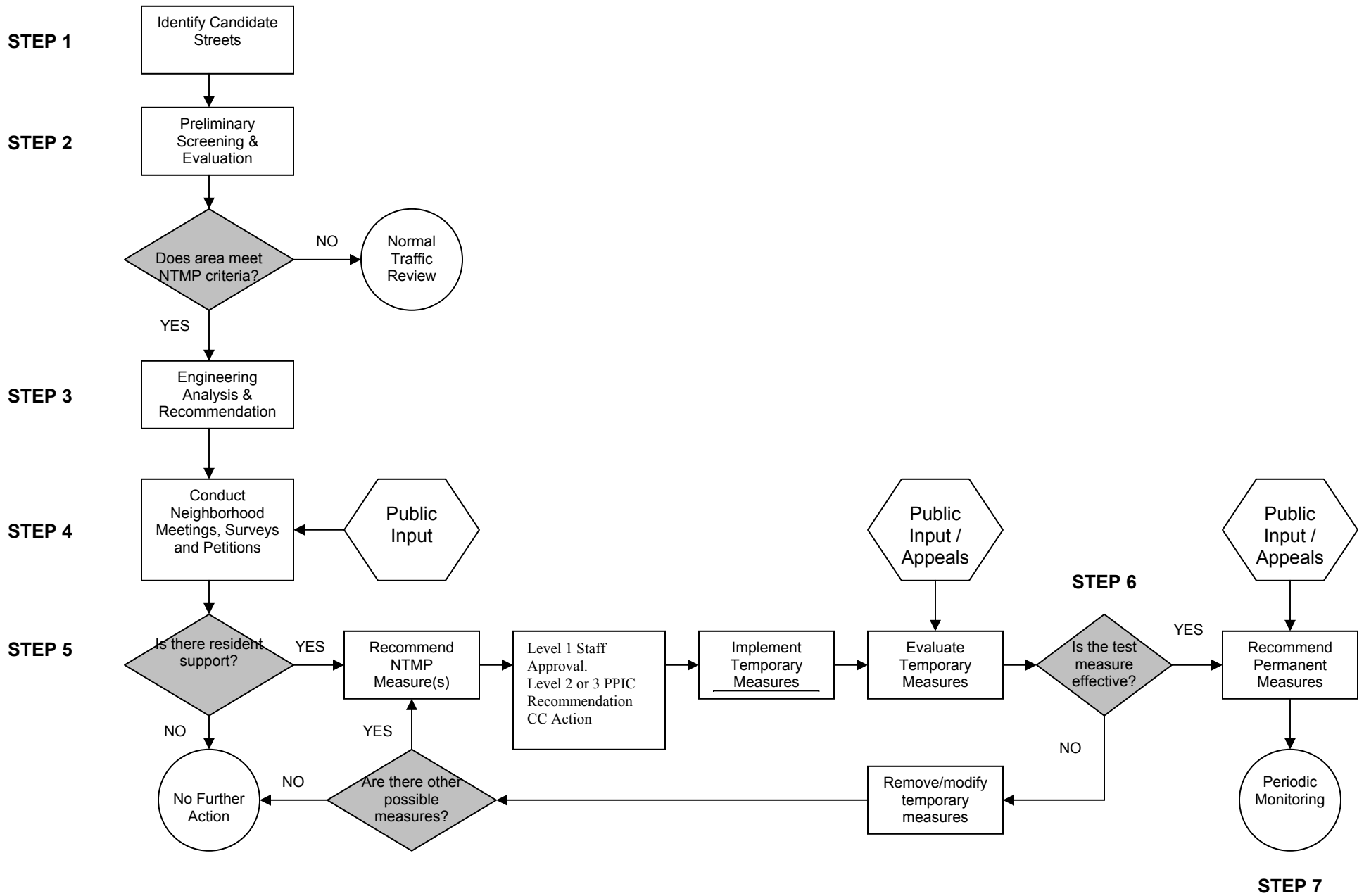
- 1) Street Type key: L – Local, ML – Major Local, RC – Residential Collector, C- Collector, All – All Residential Streets, excludes arterials
- 2) Specific volume (ADT) criteria may not be appropriate for this tool, it may be applied over a range of volume
- 3) Specific speed criteria may not be appropriate for this tool, it may be applied over a range of observed speeds at the discretion of the City Traffic Engineer or the Police Department

General Notes:

- final determination of certain control application based on review by City staff
- subject to modification by City Council on a case-by-case basis

H:\General Plan\Toolbox Criteria Table to CC 11-19-02.doc

**CITY OF MANHATTAN BEACH
NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM PROCESS
EXHIBIT B**



**CITY OF MANHATTAN BEACH
PARKING AND PUBLIC IMPROVEMENTS COMMISSION
MINUTES OF REGULAR MEETING
MARCH 24, 2005**

3. Southeast Area Neighborhood Traffic Management Program (NTMP) - Follow-Up Review

Traffic Engineer Zandvliet presented the staff report on the Southeast Area Neighborhood Traffic Management Program (NTMP). He explained that tonight's presentation is to provide an evaluation of the initial measures implemented in this area and consider whether permanent approval should be granted.

He then reviewed staff's analysis and findings on the effectiveness of the following measures.

1. Additional speeding enforcement during school times
2. Deploy speed display trailer on major local streets
3. Prohibit northbound Aviation Boulevard to westbound 10th Street left turns during peak hours (7-9am, 3-6pm)
4. Paint all traffic striping and marking on an annual basis to improve driver compliance and improve safety.
5. Install four-way stop signs at Rowell Avenue and 9th Street
6. Install fourth-way stop signs at Nelson Avenue and Herrin Street
7. Implement citywide traffic signal coordination on Manhattan Beach Boulevard, Artesia Boulevard and Aviation Boulevard as part of the LA County and South Bay Transportation Programs
8. Permanently approve all of the current implemented temporary measures within the Mira Costa East Neighborhood Area.

Traffic Engineer Zandvliet stated that based on the findings, staff is recommending permanent approval of these measures within the Southeast Area Neighborhood. Further, staff is recommending the approval of the following new measures to address other neighborhood concerns:

- A. Non-Resident Parking on 10th Street between Harkness Street and Aviation Boulevard
- B. 2nd Street Bike Routes
- C. Traffic Congestion on Redondo Avenue south of Manhattan Beach Boulevard
- D. Stop Sign Request at Meadows Avenue and 8th Street in all directions

Audience Participation

William Hassoldt, 10th Street, owner of Der Kindergarden Preschool, voiced his concerns with measure #3 - prohibiting left turns onto 10th Street, stating he was never informed that this measure was being considered. Mr. Hassoldt talked of the poor visibility of the sign and that

traffic officers immediately began issuing tickets without any warning period. Many parents, picking up and dropping off children, were issued tickets and never even saw the turn restriction sign. He shared that the issue is speed and the turn restriction just diverts traffic to other residential streets. Mr. Hassoldt suggested the installation of a speed cushion (as used in Palos Verdes) and limiting speeding front of the school to 15mph.

Aamir Bhamani, Aviation Boulevard, stated that the 10th Street sign restriction is negatively impacting businesses on Aviation Boulevard. He shared that he too was never informed of the proposed measure and questions its need.

John Goucher, Torrance, shared that he did not see the turn restriction sign and was issued a ticket for making a left turn onto 10th Street. He talked of the problems caused by this restriction and asked that the Commission reconsider the measure.

In response to an inquiry from Commissioner Lang, Traffic Engineer Zandvliet stated that the turn restriction was installed to address traffic volume and speed concerns of the 10th Street residents.

Bob Brigham, Bryant Place, talked of the parking problem generated by Mira Costa School. Residents in this area have cars continually parked in front of their homes and prohibit guests, servicemen, etc. from parking anywhere near one's residence. Noting the location of the school parking lots, he shared that students are parking on the street rather than in the lots because the street parking spots are closer in distance to the school. Mr. Brigham stated that this problem will not be solved until some form of parking restriction is instituted.

Commissioner Ackland shared that there are residents in this area who are opposed to parking restrictions, because the residents themselves will also be impacted by such restrictions.

Mr. Brigham responded that if the school ensured adequate parking on their property and parking restrictions were implemented on neighborhood streets, students would have to park in the school lots.

Management Analyst Osborne informed the Commission that a formal proposal concerning restricted parking will be moving forward to the Commission shortly.

Ester Besbris, 2nd Street, thanked staff for their excellent work on this issue and voiced her disappointment in the lack of resident attendance at the meeting. Unfortunately this issue has been ongoing for such a long time, and residents are cynical to any possible improvement. She talked of the speeding and truck cut through traffic that continually occurs on 2nd Street and the need for adequate police enforcement. Mr. Besbris added that the measure of installing bike routes on 2nd Street should not be considered due to the dangerous speeding situation.

Joyce Levy, 11th Street, shared her concerns with the traffic congestion generated by Trader Joe's on Manhattan Beach Boulevard. She asked that a no left turn into the lot be considered.

Traffic Engineer Zandvliet explained that this area will be addressed under the Northeast Area

Traffic Study.

Nasheen Mershent, no address provided, asked that the Commission reconsider the no left turn restriction on 10th Street. The restriction does not make sense and just re-routes traffic to other residential streets. She stated that motorists don't see the sign as they are focused on making the turn and crossing over Aviation Boulevard traffic.

Noting they were unable to attend tonight's meeting, Management Analyst Osborne, read into the record a letter received from **Judy and Ken Giss, 10th Street**, requesting the removal of the 10th Street left turn restriction.

Discussion

Commissioner Lang stated that he is sensitive to the concerns of business owners impacted by the turn restriction and questions its effectiveness as it appears the diverted motorists are just traveling other residential streets to get back to 10th Street. He further stated that many residents were not aware of the turn restriction and a warning period should have been instituted prior to the issuance of tickets. Commissioner Lang concluded by stating that he does not have a specific recommendation to address the parking problems at Mira Costa High School and that the issue needs to be addressed and resolved by the School District. He added that students should not have to pay a fee to park in a school lot.

Commissioner Osterhout stated that he would support the recommended measures, with the exception of the no left turn restriction on 10th Street. The traffic count data does not provide an accurate comparison due to the poor visibility of the turn restriction sign and more analysis on the impact to business owners is needed.

Commissioner Ackland agreed that the traffic count data is not providing an accurate analysis, as it is not comparing "apples to apples." She remembers 10th Street residents asking for these measures to combat the excessive speeds and cut-through traffic. However, due to the effect this restriction is having on the businesses located at this corner, new traffic counts should be conducted to evaluate the effectiveness of this measure and the impact to businesses. Commissioner Ackland suggested that a no right turn restriction for vehicles exiting the businesses might be considered.

Commissioner Lesser voiced concern with moving forward on the permanent approval of these measures without more review and analysis.

Traffic Engineer Zandvliet explained that tangible evidence cannot be provided on some of these measures and that the Commission's role is to be a "sounding board" of sorts on whether these measures are working. He noted that meeting notices were sent to area residents and believes the lack of attendance indicates that the residents are not opposed to the measures.

Action

A motion was MADE and SECONDED (Osterhout/Lang) to recommend permanent approval

of initial measures #1, 2 and 4 through 8; and that measure #3 (10th Street turn restriction) be reconsidered by staff and returned to the Commission as soon as possible.

AYES: Ackland, Lesser, Lang, Osterhout, Chairman Saunders
NOES: None
ABSENT: None
ABSTAIN: None

Chairman Saunders then reviewed the new measures being proposed by staff to address other neighborhood traffic concerns.

A motion was MADE and SECONDED (Lang/Osterhout) to recommend permanent approval of measures A, B, C, and D.

AYES: Ackland, Lesser, Lang, Osterhout, Chairman Saunders
NOES: None
ABSENT: None
ABSTAIN: None

The Commissioner held further discussion with staff regarding additional issues and concerns brought forth at the meeting. Traffic Engineer Zandvliet clarified that a reduced speed limit to 15 mph in front of the kindergarten is not legal; the School District is working on the parking issue surrounding Mira Costa School; restricted parking is being reviewed; speed cushions carry similar concerns to speed bumps; and that the circulation and access of Trader Joes's will be evaluated under the Northeast Area Traffic Study.

CITY OF MANHATTAN BEACH

DEPARTMENT OF COMMUNITY DEVELOPMENT

TO: Parking and Public Improvements Commission

FROM: Richard Thompson, Director of Community Development
Robert D. Osborne, Management Analyst

BY: Erik Zandvliet, Traffic Engineer

DATE: March 24, 2005

**SUBJECT: Southeast Area Neighborhood Traffic Management Program (NTMP)
Follow-Up Review**

BACKGROUND:

On November 19, 2002, the City Council approved the City-Wide Neighborhood Traffic Management Program (NTMP). The NTMP flowchart is attached to this report. This Program established a set of procedures to evaluate neighborhoods in an effort to improve livability of neighborhood streets. The NTMP created a consistent way for the City to evaluate traffic requests, so that a comprehensive plan can be implemented that will minimize adverse impacts both before and after implementation of traffic calming measures.

The process includes the following seven steps:

- Step 1-** Identify Candidate Streets/Neighborhoods
- Step 2-** Preliminary Screening and Evaluation
- Step 3-** Engineering Analysis/Preliminary Recommendations
- Step 4-** Neighborhood Meetings and Survey/Petitions
- Step 5-** Develop, Install, and Evaluate Test projects
- Step 6-** Determination of Permanent Project
- Step 7-** Monitoring

The NTMP also contains a toolbox of possible traffic calming measures that could be considered when preparing a comprehensive solution to the identified traffic impacts within a neighborhood. The toolbox is included as an attachment. This Program has been followed in developing possible traffic calming measures for the Southeast Area neighborhood. The follow-up report is the "Evaluation" portion of part of Step 5 as well as Step 6-Determination of Permanent Project.

DISCUSSION:

The Southeast Area NTMP has gradually evolved from several smaller traffic studies dating back to 2001. Staff first began monitoring traffic issues in this area after a mixed-use development was proposed for the triangular property at the northeast corner of Aviation Boulevard and 2nd Street in January 2001. This initial study was expanded to the general area east of the Mira Costa High School when residents on Nelson Avenue requested relief from school-related traffic impacts in June 2002. With the approval of the City-Wide Neighborhood Traffic Management Program in November 2002 and subsequent establishment of priority study areas, the Mira Costa East Study was expanded into the Southeast Area NTMP. A petition requesting the implementation of a resident permit parking system adjacent to Mira Costa High School and the subsequent study of school-related parking impacts is being addressed separately from the traffic study.

MIRA COSTA EAST NTMP

On December 12, 2002 and April 24, 2003, the Parking and Public Improvements Commission (PPIC) reviewed a Neighborhood Traffic Management Program (NTMP) in the Mira Costa East Neighborhood which is roughly bounded by Peck Avenue to the west, Eighth Street to the north, Aviation Boulevard to the east, and Artesia Boulevard to the south. At the second meeting, the Commission recommended implementation of six traffic control measures on a trial basis. On May 20, 2003, the City Council supported the Commission's recommendation of the following measures:

1. Request additional speeding enforcement in the Mira Costa East Neighborhood at school arrival and dismissal times with periodic reports to the PPIC.
2. Maintain the existing westbound through restriction on 2nd Street at Aviation Boulevard.
3. Direct staff to work closely with Los Angeles County and other agencies to implement efficient traffic signal coordination on Aviation Boulevard.
4. Prohibit eastbound and westbound through movements on Nelson Avenue at Peck Avenue.
5. Install stop signs at Peck Avenue and Nelson Avenue.
6. Request the School District to construct a new driveway on Artesia Boulevard to the lower high school parking lot (right turn in-right turn out).

This neighborhood plan has been implemented with the exception of Item 6. Since this area is entirely within the Southeast Area and many traffic issues are inter-related, the six-month review of the temporary measures for the Mira Costa East NTMP was incorporated into the evaluation of the Southeast Area NTMP.

HIGH SCHOOL PARKING

On January 26, 2004, the City and School District Ad Hoc Committee held a public meeting to discuss the recent increased demand for student and staff parking in and around Mira Costa High School. Subsequent to this meeting, City and School staff met to evaluate numerous possibilities that would reduce parking demand or increase supply. Several of these measures were

implemented during the spring break, while others are expected to be implemented before school resumes in Fall 2005, which will significantly improve parking conditions in the neighborhood.

In April 2004, City staff constructed 30 additional spaces in the student parking lot and striped 25 additional spaces in the staff parking lot. Parking stalls were also painted along Artesia Boulevard to encourage more utilization of street parking. The High School also opened a new parking lot with 70 spaces in front of the Student Center, relieving overflow staff parking in the Student lot. These actions have increased the overall parking supply by 125 off-street spaces.

On May 25, 2004, the School District notified the City that it had approved the removal of the existing portable classrooms from two areas on the west side of campus to clear the way for conversion to a new parking lot this summer. On June 15, 2004, the City Council appropriated necessary funds and approved the modification of these two areas into a parking lot that will hold up to 72 additional cars. Upon completion, the total parking supply will be increased by 197 spaces, which is close to the overflow campus parking demand of 200-250 vehicles observed at the beginning of the school year. Follow-up studies will be conducted at that point to survey both on-street and off-street parking usage and assess whether additional measures should be implemented to discourage student parking in the adjacent neighborhood.

SOUTHEAST AREA STUDY

The Southeast Area neighborhood is a recently designated section of the City roughly bounded by Sepulveda Boulevard to the west, Manhattan Beach Boulevard to the north, Aviation Boulevard to the east, and Artesia Boulevard to the south. Several features of this neighborhood are unique to the City as well as sources of non-resident intrusion. Mira Costa High School borders the neighborhood on the south. The high school generates significant morning and afternoon traffic on Peck Avenue, Meadows Avenue and several east-west streets in the neighborhood. Students regularly park on the residential streets, adversely impacting the neighborhood. The neighborhood was built in a grid network that runs parallel to Aviation Boulevard and Artesia Boulevard which allows non-resident intrusion on local residential streets.

Meadows Avenue, Peck Avenue and Redondo Avenue are classified as Major Local Streets in the north-south direction between Artesia and Manhattan Beach Boulevards. Second Street and Eight Street are Major Local Streets in an east-west direction between Sepulveda Boulevard and Aviation Boulevard. All other internal streets are local residential streets. It was observed that the street striping and markings in the neighborhood are faded and in need of repainting. All of the major streets bordering the neighborhood are congested in the AM and PM peak hours during the week which increases the potential for cut-through traffic. For the purposes of this study, school related traffic was not considered cut-through traffic since several schools are within the neighborhood and require access to local streets.

The City had implemented localized traffic calming measures in the neighborhood in the past, including through movement prohibition for westbound 2nd Street at Aviation Boulevard, street closures on 3rd Street and 5th Street at Aviation Boulevard, and half- and whole-street barricades on Shelley Street and Tennyson Street at Chabela Drive respectively. In addition, there are

limited time parking restrictions on several streets east and west of Mira Costa High School. Some measures were also implemented on a temporary basis and subsequently removed, including a street diverter on 2nd Street at Aviation Place, and painted chicanes on 2nd Street between Johnson Street and Meadows Avenue. A more detailed summary is attached to this report.

On February 26, 2004, the Parking and Public Improvements Commission recommended that the initial recommendations of the Southeast Area Neighborhood Traffic Management Plan be submitted to the affected residents in the form of a survey and subsequently forwarded to the City Council with the survey results for their approval. The results of the survey were tabulated and submitted to the City Council.

On July 6, 2004, the City Council approved implementation of the entire plan for a six-month trial period with the exception of parking edgelines along 2nd Street since this measure did not receive resident support. Follow-up studies were conducted at the end six-month trial period, and the results are presented in a public hearing at this meeting for consideration of final recommendations.

Public Workshop

On June 19, 2003, the City held a public workshop for the Southeast Area Neighborhood to discuss and listen to resident concerns on streets within their neighborhood. Notices were mailed to the entire neighborhood, as well as to those residents who had previously signed petitions or letters. Approximately 50 residents attended the workshop facilitated by the Traffic Engineer.

The residents' concerns fell into these primary categories:

1. Speeding on many streets in the neighborhood, in particular 1st, 2nd, 5th, 10th, and 11th Streets, Johnson Street, and Nelson Avenue.
2. Need for more Police enforcement of parking and moving violations.
3. High traffic volume and trucks on 2nd Street.
4. Cut through traffic to/from Aviation Boulevard through the neighborhood east of the high school.
5. Cut through traffic to/from Sepulveda Boulevard through the neighborhood west of the high school.
6. Cut through traffic on 10th Street between Redondo Avenue and Aviation Boulevard.
7. Stop sign requests at Rowell Avenue/9th Street and Nelson Avenue/Herrin Street.
8. High traffic volumes on Redondo Avenue and Peck Avenue.
9. Construction parking near Johnson Street, 5th Street and 6th Street.
10. Short-term school related congestion on Meadows Avenue and Peck Avenue.
11. Narrow streets.
12. Recent increase in school-related parking on residential streets. Inadequate off-street high school parking.

Some of the other suggestions that were received included additional speed enforcement, coordinating the signals along Aviation Boulevard, and implementing time-limit or permit parking on streets close to the high school.

Traffic Data Collection

Staff has conducted an extensive series of traffic studies in the neighborhood to gather factual evidence of existing traffic volumes and speeding. The following studies were completed:

- October 6-13, 2001 – Traffic volume study on 7 streets before barricade on 2nd Street
- November 6-28, 2001 – Traffic volume study on 7 streets after barricade was installed
- February 9-28, 2002 – Traffic volume study on 7 streets after barricade was installed
- August 27-31, 2002 – Traffic volume study on 13 streets and speed/truck counts on Nelson Avenue during summer recess
- September 25-28, 2002 – Traffic volume study on 15 streets and speed/truck counts on Nelson Avenue after school began
- November 18-20, 2003 – Traffic volume study on 30 street segments and nine key intersections
- November 13, 2003 – Radar speed study on 6 key street segments
- November 3-4, 2004 - Traffic volume study on 38 street segments and nine key intersections
- November 2-3, 2004 - Radar speed study on 5 key street segments

A summary of the latest series of traffic volumes is presented on the attached maps. The counts verified that most streets have volumes corresponding to their roadway classifications in the General Plan. However, 10th Street has elevated traffic volumes, and several streets near the high school have higher volumes due to school related traffic.

**DAILY TRAFFIC VOLUMES
SOUTHEAST AREA NEIGHBORHOOD**

STREET	LOCATION	BEFORE			AFTER		
		EB	WB	TOTAL	EB	WB	TOTAL
11 th Street	E/O Sepulveda Bl	380	308	688	154	561	715
10 th Street	E/O Sepulveda Bl	464	885	1,349	743	698	1,441
9 th Street	E/O Sepulveda Bl	154	418	572	256	101	357*
8 th Street	E/O Sepulveda Bl	842	929	1,771	846	1,171	2,017*
6 th Street	E/O Sepulveda Bl	311	308	619	304	384	688*
5 th Street	E/O Sepulveda Bl	431	309	740	341	129	470*
2 nd Street	E/O Sepulveda Bl	1,460	1,790	3,250	1,478	1,749	3,227
Longfellow Dr.	E/O Sepulveda Bl	901	773	1,674	677	662	1,339
Keats St.	E/O Sepulveda Bl	683	893	1,576	1,039	678	1,717
11 th Street	W/O Aviation Bl.	430	287	717	278	252	530
10 th Street	W/O Aviation Bl.	419	973	1,392	389	934	1,323
9 th Street	W/O Aviation Bl.	207	295	502	203	322	525
8 th Street	W/O Aviation Bl.	230	419	649	147	388	535
6 th Street	W/O Aviation Bl.	442	300	742	260	322	582
2 nd Street	W/O Aviation Bl.	1,929	1,482	3,411	1,691	1,137	2,828
2 nd Street	E/O Aviation Bl.	148	1,213	1,361	295	1,297	1,592
1 st Street	W/O Aviation Bl.	213	249	462	137	216	353
Gates Ave.	W/O Aviation Bl.	175	255	430	68	261	329
Curtis Ave.	W/O Aviation Bl.	383	302	685	216	218	434
Voorhees St.	W/O Aviation Bl.	228	154	382	269	199	468
Ruhland Ave.	W/O Aviation Bl.	255	215	470	97	273	370
Nelson Ave.	W/O Aviation Bl.	229	438	667	139	324	463
Nelson Ave.	E/O Peck Ave.	391	388	779	269	476	745
Nelson Ave.	Trucks	14	8	22	8	10	18
Matthews Ave.	W/O Aviation Bl.	157	241	398	225	125	350
		NB	SB	TOTAL	NB	SB	TOTAL
Meadows Ave.	S/O M. Beach Bl.	2,298	2,651	4,949	2,291	2,683	4,974
Rowell Ave.	S/O M. Beach Bl.	363	445	808	662	308	970
Peck Ave.	S/O M. Beach Bl.	1,259	1,267	2,526	1,195	1,219	2,414
Redondo Ave.	S/O M. Beach Bl.	2,633	2,098	4,731	3,051	2,531	5,582
Harkness Ave.	S/O M. Beach Bl.	844	917	1,761	1,159	932	2,091
Prospect Ave.	N/O Artesia Bl.	1,215	1,782	2,997	1,480	1,285	2,765
Meadows Ave.	N/O Artesia Bl.	1,088	2,078	3,166	2,447	1,798	4,245
Peck Ave.	N/O Artesia Bl.	2,127	2,611	4,738	2,200	2,397	4,597
Herrin St.	N/O Artesia Bl.	241	183	424	166	247	413
Redondo Ave.	N/O Artesia Bl.	655	722	1,377	874	723	1,597

* - Before/after counts different due to slightly different locations

The before and after traffic volume studies show that none of the streets have experienced any significant traffic diversion, however, north-south streets have shown an increase in traffic volumes. This may be due to road construction on Aviation Boulevard during the traffic counts. Daily fluctuations of 10 percent or more are common on residential streets, particularly those with lower volumes, due to local construction, private events and weather conditions.

A review of the collision history within the neighborhood was conducted for the period between January 1, 1996 and December 31, 2001. The review reveals that there are no locations with elevated collision rates or traffic collision patterns within the neighborhood. However, it was noted that two pedestrian collisions occurred at Peck Avenue and Nelson Avenue in the study period before the stop signs were installed. No collisions have been reported after the stop signs were installed.

Before and after radar speed studies were conducted on several streets as identified by residents at the public workshop. A statistical summary of the recorded speeds is shown below:

STREET	LOCATION	AVERAGE SPEED (MPH)		85 TH PERCENTILE (MPH)		10 MPH PACE (MPH)	
		2003	2004	2003	2004	2003	2004
11 th Street	Redondo to Harkness	24	24	30	28	21 to 30	19 to 28
10 th Street	Redondo to Harness	27	23	32	26	23 to 32	17 to 26
5 th Street	Sepulveda to Johnson	25	-	31	-	21 to 30	-
2 nd Street	Johnson to Meadows	30	29	34	33	25 to 34	25 to 34
Meadows	Vorhees to Bryant	-	26	-	30	-	21 to 30
Peck Ave.	Curtis to Gates	-	23	-	26	-	19 to 28

These studies confirm that all surveyed streets have typical prevailing speeds for residential streets, with the exception of 2nd Street between Johnson Street and Meadows Avenue which is slightly higher. No significant speed changes were identified except 10th Street, which experienced a 4 mph drop in both average and prevailing speeds.

Evaluation of Initial Traffic Calming Measures

1. Additional speeding enforcement school times

The Police Department has targeted the Southeast Area for speeding enforcement, especially during school arrival and dismissal times. Their regular presence deters speeding even if no citations are issued.

2. Deploy speed display trailer on major local streets.

The speed trailer has been deployed on 2nd Street, Meadows Avenue, Peck Avenue, and Redondo Avenue on a regular basis, and will continue to be deployed in a citywide rotating schedule. The trailer has an immediate and residual speed reduction effect within the neighborhood.

3. Prohibit northbound Aviation Boulevard to westbound 10th Street left turns during peak hours (7-9am, 3-6pm)

One “No Left Turn” sign was posted on the northwest corner of Aviation Boulevard and 10th Street in Summer 2004. When a turning movement count was conducted on November 4, 2004, the study found that a large number of drivers were not complying with the left turn restriction. A larger sign was posted on the northwest corner and a new sign installed on the southeast corner in February 2005. Heavy police enforcement followed this action and several upset drivers were cited when attempting to reach a kindergarten facility located on 10th Street. The owners of the kindergarten feel the restriction is hurting their business and submitted the attached letter objecting to it. No complaints or correspondence have been received from other businesses in the area.

10th Street continues to experience high traffic volumes, primarily in the westbound direction. Westbound traffic is evenly split between southbound right turns and northbound left turns. The elevated traffic volumes can be attributed to several sources: local residents that use 10th street to reach their homes on 11th Street (44 homes), middle school pick-up/drop-off, Manhattan Heights Park and Community Center visitors, and local trips to the adjacent businesses along Aviation Boulevard. Since hourly traffic volumes are consistently higher all day long, it is evident that local traffic generates a significant amount of traffic on 10th Street. This is primarily caused by the “No Left Turn” restriction from northbound Aviation Boulevard to 11th Street.

The existing peak hour left turn restriction is posted between 7-9am and 4-6pm. Full compliance of this restriction would reduce traffic on 10th Street by approximately 150 vehicles per day. While this amount does not significantly reduce daily volumes, it would reduce the hourly volumes by about 38%.

An all-day left turn restriction was considered, but a significant increase in traffic would be anticipated on 9th Street, one street to the south. The neighborhood survey showed that residents on 9th Street were not in support of similar turn restrictions to prevent traffic diversion from other streets. An all-day turn restriction would be expected to reduce the daily traffic volume on 10th Street by 470 vehicles per day from 1,332 to 862 vehicles per day and probably increase volume on 8th Street by a similar amount. A street closure would divert all of the existing traffic on 10th Street to adjacent parallel streets, including 11th Street and 9th Street, a move that would increase travel distances and relocate resident traffic to other streets.

Mr. Rene Sandera, a resident on 10th Street, sent a letter reiterating his traffic concerns and noted the ineffectiveness of the turn restriction. (See attached correspondence.) He wishes some relief from the traffic conditions on his street.

4. Paint all traffic striping and markings on an annual basis to improve driver compliance and improve safety.

This measure is still pending, due to a recent shortage in Public Works resources. The manpower shortage has since been resolved and this work is expected to be completed in Spring 2005. This will result in better compliance of the traffic control devices such as stop signs and lane control.

5. Install four-way stop signs at Rowell Avenue and 9th Street.

This measure has been completed and has improved general traffic safety at this intersection.

6. Install four-way stop signs at Nelson Avenue and Herrin Street.

This measure has been completed and has improved general traffic safety at this intersection.

7. Implement citywide traffic signal coordination on Manhattan Beach Boulevard, Artesia Boulevard and Aviation Boulevard as part of the LA County and South Bay Transportation Programs.

Signal coordination on Manhattan Beach Boulevard, Artesia Boulevard and Aviation Boulevard is currently under design by LA County and is expected to be implemented in FY 2005-06.

8. Permanently approve all of the currently implemented temporary measures within the Mira Costa East Neighborhood Area.

The Mira Costa East Neighborhood measures have been implemented and/or incorporated into the Southeast Area Neighborhood Plan. One of the measures, a new driveway on Artesia Boulevard to the lower high school parking lot (right turn in-right turn out), was analyzed and found to be cost-prohibitive due to steep slope and retaining walls necessary to construct a two-way driveway. Additional parking improvements have been implemented by the School District, including lower student parking fees, and construction of a 70-space parking lot adjacent to the Student Center on Aviation Boulevard. The City also striped/constructed 25 additional spaces in the staff parking lot and 30 spaces in the student parking lot. These actions have increased the overall parking supply by 125 off-street spaces. A new parking lot on Meadows Avenue, also in progress, will add 72 spaces pending removal of portable buildings on the old basketball courts near Keats Street by the School District.

Other Neighborhood Traffic Concerns

- A. Non-Resident Parking on 10th Street between Harkness Street and Aviation Boulevard

Mr. Rene Sandera submitted a petition in 2003 which requested relief from many traffic concerns on 10th Street, including high traffic volumes and non-resident parking. Many of the issues centered around business related activities along Aviation Boulevard. Time limit parking or parking prohibitions can be helpful in reducing business related traffic and parking on 10th Street and could be posted if the majority of residents wish to restrict parking during a particular time. No Parking prohibitions would have the most impact on non-resident parking, but would also impact visitors and overflow parking by residents.

Limited time parking would have less residential impact, but might not discourage short-term customer parking.

B. 2nd Street Bike Lanes

Pursuant to the recently adopted Bikeway Plan, bike route signs could be posted on 2nd Street between Sepulveda Boulevard and Peck Avenue and on Peck Avenue between 2nd Street and Artesia Boulevard. This will help encourage bicycling to school and to other nearby facilities.

C. Traffic Congestion on Redondo Avenue south of Manhattan Beach Boulevard

In July 2004, the City received a letter from Mr. Donald Liebson discussing several traffic issues on Redondo Avenue near Manhattan Beach Boulevard. The letter identifies illegal crossing guard practices, traffic congestion and school related loading activities.

New left turn arrows were recently installed at the intersection of Manhattan Beach Boulevard and Redondo Avenue. While this improvement has improved traffic circulation through the intersection, field observations confirm that there is no change to the daily short-term congestion during school hours on Redondo Avenue to the south. This condition is caused by heavy school-related traffic oriented south of the middle school, and curb parking on both sides near the intersection. This section of Redondo Avenue is often used as a remote loading zone for those parents who do not want to enter the school grounds. An existing loading zone on the east side of Redondo Avenue serves the Pacific Villas private school on the southeast corner.

Removal of parking during these peak times will improve traffic circulation and relieve congestion at both Manhattan Beach Boulevard and at 11th Street. It will also prevent student loading and unloading along Redondo Avenue and improve visibility for drivers on 11th Street looking for vehicles approaching from the traffic signal.

Mr. Liebson's letter also requested stop signs on Redondo Avenue at 11th Street. This intersection has existing stop signs in the eastbound and westbound directions, therefore, driver right-of-way rules are established. Also, a stop sign immediately adjacent to a traffic signal would be unexpected to drivers, and therefore, increase the potential for rear-end and broadside collisions. Since there is no collision history, low side street volumes and adequate visibility, none of the criteria for 4-way stop signs would be met. Based on the above findings, stop signs are not recommended in all directions at the intersection of Redondo Avenue at 11th Street.

D. Stop Sign Request at Meadows Avenue and 8th Street in all directions

In June 2004, Ms. Gail Vranicar requested stop signs in all directions. This intersection has existing stop signs in the eastbound and westbound directions, therefore driver right-of-way rules are established. Since there is no collision history, low side street volumes and adequate visibility, none of the criteria for 4-way stop signs would be met. There are existing 4-way stop signs at all four intersections to the north, south, east and west. Based

on the above findings, stop signs are not recommended in all directions at the intersection of Meadows Avenue and 8th Street.

Level Three Tools such as raised crosswalks, raised intersections, traffic circles and restricted movement barriers, half street closures and diagonal diverters have not been considered at this time, due to high potential for traffic diversion to other residential streets, and higher implementation costs.

Overall, the Neighborhood Traffic Management Plan has been beneficial to the neighborhood and have not adversely impacted traffic circulation. Specifically, the new stop signs at Nelson Avenue/Peck Avenue, Rowell Avenue and 9th Street and Nelson Avenue and Herrin Street have helped improve pedestrian and vehicle safety, and the existing traffic laws are better enforced. The overwhelming resident concern regarding school related parking issues has generated an extensive review by both the City and School District to improve parking capacity and reducing residential impacts generated by the high school. It is recommended that all of the currently implemented temporary measures remain in place. By way of mailed notices, all residents and affected parties in the Southeast Area Neighborhood have been invited to the PPIC meeting today.

RECOMMENDATION:

Based on the above findings, it is recommended that PPIC recommend permanent approval of the initial measures within the Southeast Area Neighborhood. Further, the following new measures are recommended:

1. Install “NO STOPPING 7-9AM, 2-4PM SCHOOL DAYS ONLY” parking restrictions on both sides of Redondo Avenue between Manhattan Beach Boulevard and 11th Street except for existing passenger loading zone.
2. Post Bike Route signs on 2nd Street between Sepulveda Boulevard and Peck Avenue and on Peck Avenue between 2nd Street and Artesia Boulevard
3. Consider parking restrictions on 10th Street between Aviation Boulevard and Harkness Street to discourage non-resident parking, pending submittal of a petition by residents in favor of restrictions.

Alternately, the PPIC may determine after discussion that other measures may be appropriate and should modify the recommendations as appropriate.

ATTACHMENTS:

- Previous Actions and Requests Summary
- Neighborhood Vicinity Map
- Before and After Traffic Volumes
- City-Wide NTMP Flowchart
- NTMP Toolbox (Nov. 19, 2002)
- Meeting Notice

Related Correspondence

G:\Traffic Engineering\PPIC\PPIC-southeast area NTMP follow up.doc

Previous Actions and Requests:

Beginning with the proposed mixed-use development of the triangular property on the northeast corner of Aviation Boulevard and 2nd Street, the Council directed staff to conduct a series of studies of traffic conditions in and around the Southeast Area. The resulting analyses have involved numerous phases which have ultimately been expanded to include the area known as the Southeast Area Neighborhood. Following is a chronology of the study's landmark dates and actions:

- | | |
|-------------------|---|
| January 4, 2001 | Traffic Engineer presented original analysis at 2 nd Street and Aviation Boulevard to PPIC. PPIC recommended prohibiting westbound through traffic on 2 nd Street at Aviation Place. |
| February 6, 2001 | City Council directed staff to evaluate various traffic management measures to reduce traffic volumes on 2 nd Street. |
| April 3, 2001 | City Council approved installation of a diverter to require westbound traffic on 2 nd Street/Robinson Avenue to turn right onto Aviation Place on a trial basis. |
| June 19, 2001 | City Council reviewed changed traffic patterns, directed staff to remove the 2 nd Street diverter and explore the feasibility of implementing turn restrictions at 2 nd Street/ Aviation to prohibit westbound through movements. |
| July 10, 2001 | Staff met with the City of Redondo Beach traffic staff to review the possibility of modifying the traffic movements at the shared intersection. Proposed improvements were mutually agreed upon. |
| August 7, 2001 | City Council approved modification of 2 nd Street/Aviation Boulevard traffic signal to prohibit westbound movements by installing turn restriction signs and pavement markings. Installed October 2001. |
| June, 2002 | City received petition from residents on Nelson Avenue asking for relief from speeding, heavy school traffic and large vehicles by restricting turn movements and installing stop signs. |
| November 11, 2002 | Resident workshop conducted at Joslyn Center to solicit concerns and requests regarding traffic issues in Mira Costa East Neighborhood Area. Input received from approximately 40 residents. |
| November 19, 2002 | City Council approved the Neighborhood Traffic Management Program (NTMP), establishing a formal process and toolbox for addressing traffic intrusion and safety issues. |

November 19, 2002	City Council approved the installation of protected left turn arrows for eastbound and westbound left turn traffic on Artesia Boulevard to Peck Avenue.
December 12, 2002	PPIC reviewed preliminary evaluation of Mira Costa East neighborhood in accordance with NTMP guidelines. PPIC tentatively supported eight suggested mitigation measures and directed staff to distribute a survey to solicit resident opinion.
Jan/Feb, 2003	Staff conducted resident survey
April 24, 2003	PPIC reviewed survey results & recommended implementation of six traffic control measures on a trial basis.
May 20, 2003	City Council approved PPIC recommendation on an incremental basis.
June 2003	City received petition from residents on Nelson Avenue and Matthews Avenue asking for parking regulations including residential parking permits.
June 19, 2003	Resident workshop conducted at Joslyn Center to solicit concerns and requests regarding traffic issues in Southeast Area Neighborhood.
September 25, 2003	PPIC discussed petition for residential permit parking on Matthews Avenue and Nelson Avenue east of Peck Avenue. PPIC recommended enforcement of existing restrictions, prohibition of parking from 8-10:30am Weekdays except for two vehicles per property, to encourage the School District to improve on-site parking capacity and security, and add Permit Parking restrictions to the NTMP Toolbox.
October 21 ,2003	City Council tabled PPIC recommendation pending further review by School District/City Ad Hoc Committee
January 26, 2004	School District/City Ad Hoc Committee conducted a public meeting in the Mira Costa cafeteria, heard public comments and discussed possible parking solutions. Committee directed respective staffs to investigate possibilities.
February 2004	City and School District staff met at Mira Costa to identify possible improvements to on-campus parking and conducted campus review.
March 2004	Mira Costa Student Services Center becomes operational. The new parking lot provided 70 additional parking spaces.
	City and School District staff discussed specific parking enhancements and agreed that the City would implement several minor modifications in the school's easterly parking lots during the spring break.

- April 2004 City crews implemented modifications, creating 55 new parking spaces. City also painted parking stall markings on Artesia Boulevard.
- May 2004 School District approved removal of portable classrooms from two areas on east side of campus for future conversion into parking lots.
- June 15, 2004 City Council approved project to convert vacated areas on east side of campus to parking lot that will hold up to 72 additional off-street spaces.
- July 6, 2004 City Council approved Southeast Area NTMP on a six-month trial period.

NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM TOOLBOX APPLICATION CRITERIA –NOVEMBER 19, 2002

TRAFFIC MANAGEMENT MEASURE	PROBLEMS TARGETED	STREET TYPE (1)	MINIMUM CRITERIA				
			VOLUME	SPEED	DIVERSION TO ADJACENT STREETS	GRADE	OTHER CRITERIA
LEVEL ONE TOOLS							
Enhanced Police Enforcement	Moving Vehicle Violations Running Stop Signs	All	(2)	(3)	None expected	N/A	None
Speed Monitoring Trailer	High Speeds	All	(2)	(3)	None expected	N/A	None
Neighborhood Traffic Watch Program	Moving Vehicle Violations Running Stop Signs	All	(2)	(3)	None expected	N/A	Requires willing participants/volunteers
Higher Visibility Crosswalk	Moving Vehicle Violations Pedestrian Safety Running Stop Signs	All	>500 ADT	(3)	None expected	N/A	- At current crosswalk location - Near pedestrian generating land use
Pedestrian Crossing Signs	Moving Vehicle Violations Pedestrian Safety Running Stop Signs	All	> 500 ADT	(3)	None expected	N/A	- At current crosswalk location - Near pedestrian generating land use
Electronic Speed Limit Signs/Larger Static Speed Limit Signs	High Speeds	All	> 500 ADT	Critical speed is > 7 mph over posted limit	None expected	N/A	Conditions not readily apparent to driver such as topography,

NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM TOOLBOX APPLICATION CRITERIA –NOVEMBER 19, 2002

TRAFFIC MANAGEMENT MEASURE	PROBLEMS TARGETED	STREET TYPE (1)	MINIMUM CRITERIA				
			VOLUME	SPEED	DIVERSION TO ADJACENT STREETS	GRADE	OTHER CRITERIA
							vegetation, etc.
LEVEL TWO TOOLS							
Traffic Signal Adjustments to Discourage Cut-Through Traffic	Cut-Through Traffic	All	>15% of peak hour volume is cut-through traffic	(3)	Must meet diversion chart criteria	N/A	<ul style="list-style-type: none"> - Must have identified cut-through traffic - Must have traffic signal adjacent to residential neighborhood
Turn Restrictions Via Signage	Cut-Through Traffic	All	> 15% of peak hour volume is cut-through traffic	(3)	Must meet diversion chart guidelines	N/A	<ul style="list-style-type: none"> - Must have identified cut-through traffic
Rumble Strips/Dots	High Speeds	All	(2)	(3)	None expected	Less than 5 %	None
Crosswalk Warning System	High Speeds, Pedestrian Safety	All	> 500 ADT	Critical speed is > 7 mph over posted speed	None expected	N/A	None
Raised Median Island	High Speeds, Cut Through Traffic	All	> 15% of peak hour volume is cut-through traffic	Critical speed is > 7 mph over posted speed	None expected	less than 10%	<ul style="list-style-type: none"> - Must not significantly impede emergency vehicle access - Must meet drainage requirements

NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM TOOLBOX APPLICATION CRITERIA –NOVEMBER 19, 2002

TRAFFIC MANAGEMENT MEASURE	PROBLEMS TARGETED	STREET TYPE (1)	MINIMUM CRITERIA				
			VOLUME	SPEED	DIVERSION TO ADJACENT STREETS	GRADE	OTHER CRITERIA
Entry Island (Neighborhood Identification Island)	High Speeds, Cut Through Traffic	All	> 15% of peak hour volume is cut-through traffic	Critical speed is > 7 mph over posted speed	None expected	less than 10%	<ul style="list-style-type: none"> - Must not significantly impede emergency vehicle access - Must meet drainage requirements
Mid-Block Narrowing	High Speeds, Cut-through Traffic	All	> 15% of peak hour volume is cut-through traffic (between 500 and 2,000 total ADT on the street)	Critical speed is > 7 mph over posted speed	None expected	less than 10%	- Must not significantly impede emergency vehicle access
Chokers at Intersections	High Speeds, Cut-through Traffic	L, ML, RC (ALL IF NO RC)	> 15% of peak hour volume is cut-through traffic (between 500 and 2,000 total ADT on the street)	Critical speed is > 7 mph over posted speed	None expected	less than 10%	- Must not significantly impede emergency vehicle access
Lane Reduction/Lane Narrowing/ Restriping	High Speeds, Cut-through Traffic	All	> 15% of peak hour volume is cut-through traffic (between 500 and 2,000 total ADT on the street)	Critical speed is > 7 mph over posted speed	Must meet diversion chart criteria	N/A	- Must not create significant parking impact due to loss of parking
Stop Sign as Neighborhood Traffic Control Measure	High Speeds, Cut-through Traffic	L, ML, RC (ALL IF NO RC)	> 15% of peak hour volume is cut-through traffic (between 500 and 2,000 total ADT on the street)	(3)	Must meet diversion chart criteria	N/A	Requires review by City Traffic Engineer and City Council approval
Parking Restrictions	Non-Residential Parking Intrusion	All	N/A	N/A	Review impacts to Surrounding Streets	N/A	Parking Study

NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM TOOLBOX APPLICATION CRITERIA –NOVEMBER 19, 2002

TRAFFIC MANAGEMENT MEASURE	PROBLEMS TARGETED	STREET TYPE (1)	MINIMUM CRITERIA				
			VOLUME	SPEED	DIVERSION TO ADJACENT STREETS	GRADE	OTHER CRITERIA
LEVEL THREE TOOLS							
Raised Crosswalk	High Speeds, Pedestrian Safety	L, ML, RC (ALL IF NO RC)	(2)	Critical speed > 7 mph over posted speed	None expected	less than 10%	<ul style="list-style-type: none"> - Must meet drainage requirements - Must not significantly impede emergency vehicle access > 25 pedestrians during peak hour, near pedestrian generator
Raised Intersection	High Speeds, Pedestrian Safety,	L, ML, RC (ALL IF NO RC)	(2)	Critical speed > 7 mph over posted speed	Must meet diversion chart criteria	less than 10%	<ul style="list-style-type: none"> - Must meet drainage requirements - Must not significantly impede emergency vehicle access > 25 pedestrians during peak hour, near pedestrian generator
Traffic Circle	High Speeds, Accident History, Vehicle Conflicts	L, ML, RC (ALL IF NO RC)	from 500 to 5,000 ADT	Critical speed > 7 mph over posted speed	Must meet diversion chart criteria	less than 10%	<ul style="list-style-type: none"> - Intersecting roadways must be of sufficient width - Loss of parking must be assessed
Restricted Movement Barrier	Cut-trough traffic, Vehicle conflicts	L, ML	> 15% of peak hour volume is cut-through traffic	(3)	Must meet diversion chart criteria	N/A	<ul style="list-style-type: none"> - Must meet drainage requirements - Must not significantly impede emergency vehicle access

NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM TOOLBOX APPLICATION CRITERIA –NOVEMBER 19, 2002

TRAFFIC MANAGEMENT MEASURE	PROBLEMS TARGETED	STREET TYPE (1)	MINIMUM CRITERIA				
			VOLUME	SPEED	DIVERSION TO ADJACENT STREETS	GRADE	OTHER CRITERIA
Entrance Barrier-Half Closure	Cut-through Traffic, Vehicle Conflicts	L, ML	> 15% of peak hour volume is cut-through traffic	(3)	Must meet diversion chart criteria	N/A	Must not significantly impede emergency vehicle access
Diagonal Diverter	Cut-through Traffic, Vehicle Conflicts	L, ML	> 15% of peak hour volume is cut-through traffic	(3)	Must meet diversion chart criteria	N/A	<ul style="list-style-type: none"> - If full diverter, cannot be truck or transit route, - Must not significantly impede emergency vehicle access

Notes:

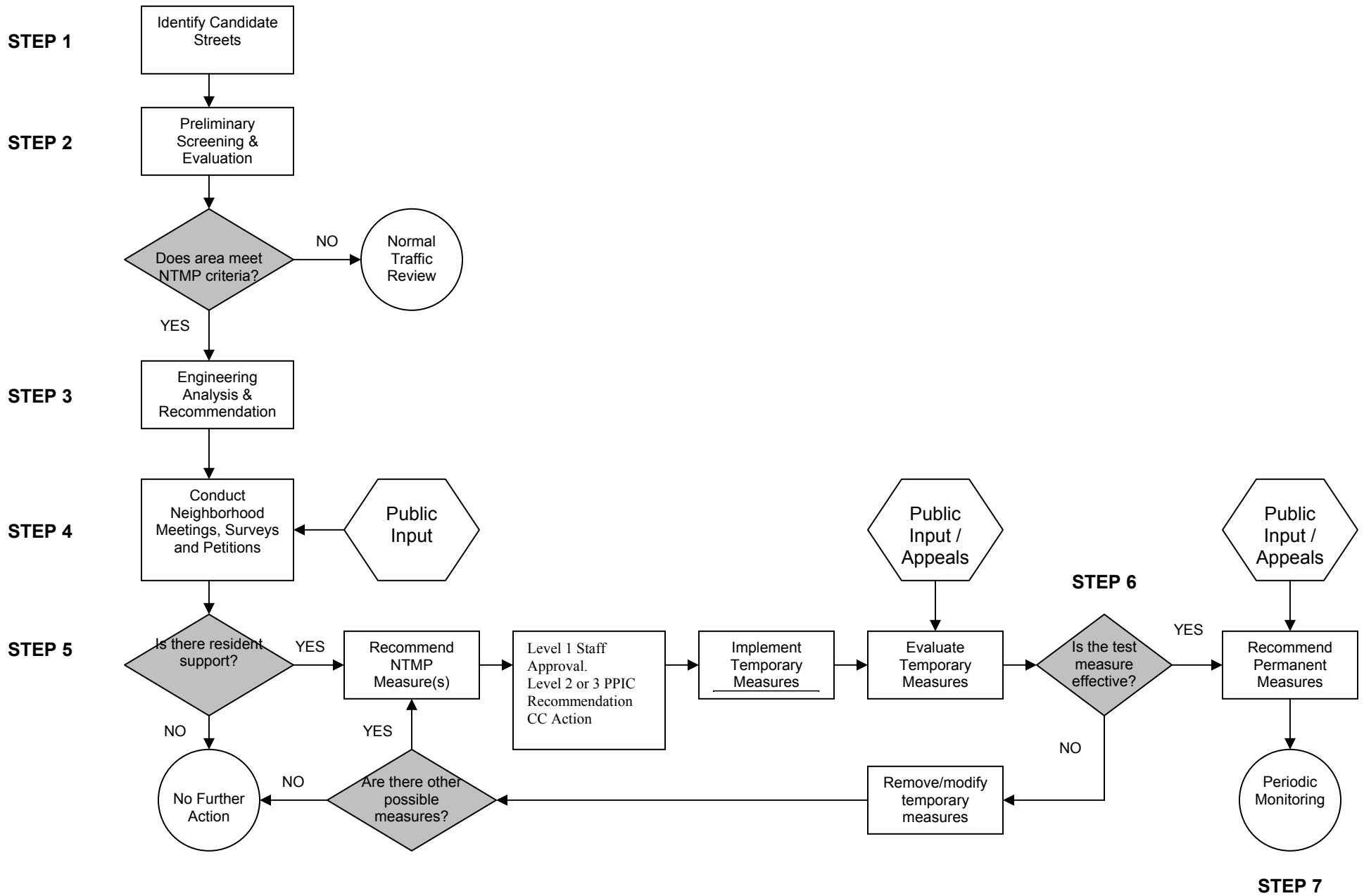
- 1) Street Type key: L – Local, ML – Major Local, RC – Residential Collector, C- Collector, All – All Residential Streets, excludes arterials
- 2) Specific volume (ADT) criteria may not be appropriate for this tool, it may be applied over a range of volume
- 3) Specific speed criteria may not be appropriate for this tool, it may be applied over a range of observed speeds at the discretion of the City Traffic Engineer or the Police Department

General Notes:

- final determination of certain control application based on review by City staff
- subject to modification by City Council on a case-by-case basis

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**CITY OF MANHATTAN BEACH
NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM PROCESS
EXHIBIT B**





In July 2004, the Manhattan Beach City Council approved a variety of traffic calming measures in the area bounded by Sepulveda Boulevard, Aviation Boulevard, Manhattan Beach, Boulevard and Artesia Boulevard. The effectiveness of these measures has been monitored and a follow-up analysis will be reviewed by the City Council at their meeting on Tuesday, July 19, 2005. The analysis will include a recommendation to eliminate the peak-hour left turn restriction on northbound Aviation Boulevard at 10th Street.

The meeting will be held in the City Council Chamber, 1400 Highland Avenue, and will begin at 6:30 p.m. Interested residents are encouraged to attend. For additional information, please call (310) 802-5540 or E-mail rosborne@citymb.info

City of Manhattan Beach
1400 Highland Ave.
Manhattan Beach
California 90266

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