CITY OF MANHATTAN BEACH

DEPARTMENT OF COMMUNITY DEVELOPMENT

TO: Parking and Public Improvements Commission

FROM: Richard Thompson, Director of Community Development
Esteban Danna, Assistant Planner
Erik Zandvliet, Traffic Engineer
Ruth Smith, Traffic Consultant

DATE: January 22, 2009

SUBJECT: **North Manhattan Beach (El Porto) Neighborhood Traffic Management Program (NTMP) Initial Recommendations**

RECOMMENDATION:

Staff recommends that the optional measures listed below be submitted to the North Manhattan Beach residents for their comments, and that a comprehensive plan considering these comments be developed and presented to the Parking and Public Improvements Commission (PPIC) for approval.

The optional measures listed below are based on a re-examination of the neighborhood traffic issues as a whole and comprise a variety of possible actions that could be implemented. Some of the measures would be in addition to the current NTMP and others would replace the current NTMP. Some of the measures are mutually exclusive. The residents' comments on these measures will provide staff direction in developing a comprehensive North Manhattan Beach NTMP for future consideration.

1. Replace all speed limit signs on Ocean Drive with high-reflectivity signs.
2. Replace the barricades at Ocean Drive and 40th Street with a permanent diverter that would force eastbound traffic on 40th Street exiting the beach parking lot to turn right onto southbound Ocean Drive, and force southbound traffic on Ocean Drive to turn left onto eastbound 40th Street, as it currently does from 3-8 pm on weekdays. Traffic would be diverted at all times.
3. Make Ocean Drive one-way northbound from Rosecrans Avenue to 45th Street. Allow limited additional parking on one side of the street where not in front of garages.
4. Construct a second exit for the beach parking lot at Rosecrans Avenue.
5. Relocate the only exit for the beach parking lot from 40th Street to Rosecrans Avenue (subject to Item 4, above).

6. Reconstruct the existing speed hump on Ocean Drive north of 42nd Street to current specifications.

7. Remove the existing speed hump on Ocean Drive between 38th Street and 38th Place.

8. Paint a Keep Clear legend and post related signs on Highland Avenue at 40th Street for the southbound lanes.

9. Install stop signs on the eastbound legs of 38th Street, 39th Street, 41st Street, 42nd Street, 43rd Street, 44th Street, and Rosecrans Avenue at Ocean Drive to provide four-way stops instead of the current three-way stops at these full intersections.

10. Install stop signs on Ocean Drive at 39 Street and 44 Street to create a 4-way stops.

11. Paint white edge lines on 38th Street, 39th Street, 40th Street, 41st Street, 42nd Street and 43rd Street, like the ones on 44th Street, to delineate allowable parking zones. Repaint the edge lines on 44th Street and initiate a program to repaint the lines every year.

12. Work with the appropriate agencies to allow overnight resident parking in the County's beach parking lot, including replacing the existing locked gate with a gate that is activated by pavement loops located in advance of the gate, to allow residents to exit when the parking lot is closed to the general public.

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

BACKGROUND:

City-Wide Neighborhood Traffic Management Program (NTMP)

On November 19, 2002, the City Council approved the City-Wide Neighborhood Traffic Management Program (NTMP). The NTMP flowchart is attached to this report (Exhibit A). 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

Although the NTMP was not established when the existing traffic calming measures were implemented for the North Manhattan Beach area, the NTMP process is currently being

followed. The North Manhattan Beach NTMP is presently at Step 3. The recommended actions include Steps 3 and 4.

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 (Exhibit B).

Traffic Calming History

Through a series of actions taken by the PPIC and the City Council from 1983 through 2000, neighborhood traffic calming measures were installed in the area formerly referred to as El Porto and now designated North Manhattan Beach. The North Manhattan Beach Neighborhood is roughly bounded by the County beach (El Porto) to the west, 45th Street to the north, Crest Drive to the east, and Rosecrans Avenue to the south. Several features of this neighborhood are unique to the City, as well as sources of non-resident intrusion. The neighborhood was built in a grid network that runs parallel to Highland Avenue, allowing non-resident intrusion on local residential streets. In particular, traffic intrusion was noted to occur on Ocean Drive during the PM peak hour, primarily in the southbound direction, as motorists avoided the congestion on southbound Highland Avenue due to the lane reduction (from two to one) and the traffic signal at Rosecrans Avenue. Access to the El Porto parking lot for the County beach is through neighborhood streets. The entrance is at the west end of 45th Street and the exit is at the west end of 40th Street.

Highland Avenue is classified as a Collector street between 45th Street and Rosecrans Avenue. Rosecrans Avenue is classified as a Major Local street between Highland Avenue and Manhattan Avenue and as a local residential street between Manhattan Avenue and The Strand. All other internal streets are local residential streets.

The City has implemented localized traffic calming measures in the neighborhood in the past, all prior to the establishment of the City-Wide Neighborhood Traffic Management Program (NTMP) by the City Council in 2002. The primary purpose of the traffic calming measures was to reduce traffic volumes and speeding on Ocean Drive without unduly impacting other neighborhood streets, particularly 40th Street west of Highland Avenue.

The traffic calming measures currently in place are illustrated on Exhibit C and include the following:

- Two speed humps on Ocean Drive, one between 38th Street and 38th Place and one between 42nd Street and Sea View Street (May 1988).
- Signs on northbound Ocean Drive at Rosecrans Avenue and on northbound Manhattan Avenue at Rosecrans Avenue that state "Right Turn Only 5 to 10 AM Monday - Friday" (January 1998).
- Signs on southbound Ocean Drive at 40th Street that state "Left Turn Required 3 to 8 PM Monday - Friday" (September 1998). To encourage compliance, the Police Department also

places a temporary removable barricade in the southbound lane of Ocean Drive at 40th Street each weekday from 3:00 PM to 8:00 PM (August 2000).

- Signs on eastbound 40th Street at Ocean Drive (at the exit from the Manhattan County Beach parking lot) that state "Left Turn Required 3 to 8 PM, Monday - Friday" (September 1998) To encourage compliance, the Police Department also places a temporary removable barricade in the eastbound lane of 40th Street at Ocean Drive each weekday from 3:00 PM to 8:00 PM (August 2000).
- Stop signs (creating all-way stops) on Ocean Drive at 38th Street, 43rd Street (September 1998) and 41st Street (April 1999).
- A right turn lane on southbound Highland Avenue at Rosecrans Avenue with "No Parking Monday – Friday 4 - 7 PM" signs on the west side of Highland Avenue from 38th Street to Rosecrans Avenue to increase the capacity of the Highland/Rosecrans intersection, thereby encouraging drivers to use Highland Avenue instead using of Ocean Avenue as a commuter route (June 1999).
- Two speed bumps in the El Porto beach parking lot (August 2000).
- Modification of the signal timing at three traffic signals along Highland Avenue in the North Manhattan Beach area, at Rosecrans, 40th Street and 45th Street, to increase the amount of time that the light is green for Highland Avenue and decrease the amount of green time for the cross streets (October 2000).

A detailed summary of the actions taken by the City from 1983 through 2008 is attached to this report (Exhibit D).

DISCUSSION:

Public Workshop

On October 23, 2008, the City held a public workshop for the North Manhattan Beach 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 25 residents attended the workshop facilitated by the Traffic Engineer and Traffic Consultant.

The residents' concerns fell into these primary categories:

1. Speeding and stop sign violations – Need more police enforcement, more speed humps and more stop signs on Ocean Drive (Note: additional speed humps are not currently an option).
2. Beach parking lot access – Motorists enter the beach parking lot using the exit at 40th Street; spikes at the exit should be used again; and the exit should be moved from 40th Street to Rosecrans Avenue.

3. Barricades at Ocean Street and 40th Street – Motorists defeat the barricades by turning right from Highland Avenue onto El Porto and 39th Streets and turning left to get back onto Ocean Street going south, and the barricades are being knocked down.
4. Traffic diversion – Traffic is being diverted onto Kelp Street and other streets north of 40th Street by the restrictions at Ocean Drive and 40th Street.
5. Neighborhood access/traffic flow on Highland Avenue – Residents are unable to make a left turn onto 40th Street from Highland Avenue due to traffic backed up on Highland Avenue; left-turning vehicles on Highland Avenue block the through traffic (there are no designated left turn lanes on Highland Avenue between 45th Street and Rosecrans Place); No Left Turn signs should be installed on Highland Avenue at every neighborhood street; and access to driveways on 40th Street is blocked by beach and neighborhood traffic backed up from Highland Avenue.
6. Directional signage –Signs should be added to southbound Vista Del Mar in advance of 45th Street to alert motorists regarding traffic restrictions on Ocean Drive; signs should be added to discourage the use of the neighborhood "side streets". Also, an arrow sign on northbound Ocean Drive at Kelp Street directs traffic to Highland Avenue by pointing them to 45th Street. This is one of several signs on a single post and could be misinterpreted as directing traffic to turn onto Kelp instead. The sign should be removed since it does not appear to clearly serve its intended purpose and its relocation might have the same result at another street.
7. Parking – All on-street parking should be prohibited and residents should be allowed to use the beach parking lot in the evening. Conversely, others said that additional on-street angled parking spaces should be created to provide more on-street parking.

Some of the other comments by residents included the beach parking lot exit having a confusing design; that people exiting the beach lot do not always stop; and that a traffic officer should be posted at the intersection of Highland Avenue and Rosecrans Avenue during the peak hours. The Fire Department has also recently raised concerns about parked cars blocking travel lanes.

Traffic Data Collection

In response to a resident's concern regarding daily traffic counts on Kelp Street, staff re-counted the location using a different traffic counting firm. It was anticipated that traffic counts made in November would be lower than those made in August. Therefore, the new counts included re-counts at certain additional locations to allow comparisons to the August 2008 counts and provide a means of adjusting the November counts to be comparable to the August counts. Daily and peak hour turning movement counts were also collected at additional locations in response to comments that 39th Street was also being used to circumvent the barricades at Ocean Drive and 40th Street. The following new traffic counts were collected:

- Daily traffic counts on November 6-8, 2008 (Thursday – Saturday) at eight locations.
- AM and PM peak hour intersection counts on Thursday, November 6, 2008, and Saturday, November 8, 2008, at seven intersections.

The weekday AM and PM peak hour intersection traffic volumes are illustrated on Exhibits E and F, respectively, and the weekend AM and PM peak hour volumes are shown on Exhibits G and H, respectively. These exhibits include both the November and August 2008 traffic volumes. The weekday PM peak hour volumes also reflect the 3 pm to 8 pm turn restrictions at Ocean Drive and 40th Street, with the peak hour being from 3-4pm. The current traffic controls, other than the traffic calming measures, are also indicated on Exhibit E.

The average weekday and weekend daily traffic volumes are shown on Exhibits I and J, respectively. The weekday volumes are the average of the Thursday and Friday counts. These exhibits include both the November and August 2008 traffic volumes. Daily traffic counts are usually recorded directionally, however, some of the neighborhood streets are too narrow to conduct two-way counts and the traffic volumes shown are the total of both directions (indicated by two-headed arrows).

Traffic Analysis

In response to concerns expressed by a resident of Kelp Street, the daily traffic on Kelp Street was re-counted in November 2008. The new traffic count showed a weekday average of 130 vehicles per day (vpd) and 88 vpd on Saturday. The August 2008 counts showed 196 weekday vehicles per day and 171 vpd on Saturday. To estimate the daily traffic volumes on Kelp Street in August based on the November counts, we also re-counted 41st and 40th Streets, the two streets adjacent to Kelp Street. The table below shows the change in daily traffic volumes from August 2008 to November 2008 for Kelp Street, 41st Street and 40th Street.

LOCATION	DAILY TRAFFIC VOLUME (VEHICLES PER DAY)					
	Average Weekday			Saturday		
	Aug 2008	Nov 2008	% Change	Aug 2008	Nov 2008	% Change
KELP STREET WEST OF HIGHLAND	196	130	-33.7%	171	88	-48.5%
41ST STREET WEST OF HIGHLAND	251	225	-10.4%	246	214	-13.0%
40TH STREET WEST OF HIGHLAND	1,757	1,302	-25.9%	1,936	1,592	-17.8%

As shown in the above table, the greatest changes to both average weekday and Saturday daily traffic volumes between August 2008 and November 2008 occurred on Kelp Street. If the smaller percentage changes on 41st Street or 40th Street were applied to the November 2008 Kelp Street daily traffic volumes, the result would be lower, not higher, estimated traffic volumes on Kelp Street in August 2008. Therefore, it would appear that if the August 2008 daily traffic counts on Kelp Street were in error, they were too high, not too low.

Daily traffic counts were also collected in November 2008 for El Porto Street and 39th Street (see Exhibits I and J) due to reports that these streets are being used to circumvent the barricades at Ocean Drive and 40th Street. Their daily traffic volumes are similar to those on Kelp Street and 41st Street, which are immediately north of 40th Street. PM peak traffic counts at the intersection of Ocean Drive and 39th Street (see Exhibits E - H) do not support this claim. The amount of traffic making a right turn onto Ocean Drive from 39th Street is the same as or greater than that making a left turn (to continue south on Ocean Drive), whether or not the barricades are in place.

Findings

The following findings, based on the new analysis, are in addition to the findings presented in the October 23, 2008 staff report to the Parking and Public Improvements Commission:

1. The daily traffic counts on Kelp Street taken in August 2008 appear to be reasonable since they are greater than, not less than, the new traffic counts conducted in November 2008 (re-counts at control points show the November traffic volumes are less than the August volumes).

2. The additional AM and PM peak hour turning movement counts conducted in November 2008 do not support the claims of cut-through traffic on 39th Street.

3. There are 11 speed limit signs (15 mph) on Ocean Drive between Rosecrans Avenue and 45th Street, with five for northbound traffic and six for southbound traffic. Many of the speed limit signs, however, appear to be worn and have diminished reflectivity, and should be replaced.

4. The eastbound legs of the intersections of Ocean Drive and 38th Street, 39th Street, 41st Street, 42nd Street, 43rd Street, 44th Street, and Rosecrans Avenue do not have stop signs to match those on the westbound legs. Stop signs should be installed for safety and consistency.

5. Stop signs are justified on Ocean Drive at 39th Street and on Ocean Drive at 44th Street, to create four-way stops (See Exhibit K for the Stop Sign Warrant Worksheets). These locations would benefit from the additional traffic controls due to limited sight distance.

6. The existing speed hump on Ocean Drive north of 42nd Street should be reconstructed to current specifications so that it is more effective. The existing speed hump on Ocean Drive north of 38th Street should be removed since it is located near the stop sign at 38th Street and is not effective, and, therefore, no longer needed.

7. Southbound vehicles on Highland Avenue back up from Rosecrans Avenue, blocking the intersection of 40th Street during the PM peak period. A Keep Clear legend and signs on Highland Avenue at 40th Street for the southbound lanes would encourage compliance and assist enforcement of the law prohibiting the blocking of intersections.

8. Parking restrictions in the neighborhood are inconsistent and many vehicles are parked such that they block traffic or make it very difficult to navigate down a street. This is of particular concern for emergency vehicle access. Painting edge lines on 44th Street has proven effective in clearly delineating where parking is allowed, which has increased compliance and assisted in enforcement. Other east-west streets (not alleys) would also benefit from the edge lines. Edge lines should also be painted on the other wider east-west streets in the neighborhood. The existing edge lines on 44th Street are badly faded and should be repainted.

9. The County beach parking lot is currently closed at night, however, it could provide more convenient overnight parking for neighborhood residents. Currently, residential permits are available for parking in the lot, but the closed gate prevents exiting the lot after hours. The locked gate at the exit could be replaced with a gate activated by loops in the pavement to allow residents to exit before the lot opens in the morning. This arrangement would need to be approved by the appropriate County and State authorities.

NTMP TOOLBOX

Each of the NTMP toolbox measures was evaluated for appropriateness and its ability to address the identified concerns and findings. Those possible measures and an evaluation of their appropriateness are listed below:

Level One Tools

A. Enhanced Police Enforcement – This measure would not be very effective in addressing speeding in the neighborhood since speeding is not concentrated around certain time periods.

B. Speed Monitoring Trailer – This measure might be effective on Ocean Drive, however, the narrow street would make it difficult to find a place to park it.

C. Neighborhood Watch Program – This measure would not be very effective since the program is better for enforcing other types of neighborhood violations.

D. Higher Visibility Crosswalk – No locations have been identified for this measure at this time due to an absence of sidewalks in the neighborhood.

E. Pedestrian Crossing Sign – See Tool D.

F. Electronic or Larger Speed Limit Signs - Ocean Drive is posted 15 mph, with speed limit signs typically posted every 2 to 4 blocks on both sides of the street. The signs are of regulation size, and the next larger available size would stick out into the street. Many signs, however, show signs of wear and diminished reflectivity and should be replaced. All other streets within this neighborhood are clearly residential in nature and are, therefore, prima facie 25 mph (streets) or 15 mph (alleys).

Level Two Tools

G. Traffic Signal Timing – This measure was previously implemented on Highland Avenue between 45th Street and Rosecrans Avenue.

H. Turn Restrictions via Signage – This measure was previously implemented as part of earlier neighborhood plans to reduce traffic on Ocean Avenue at several locations. At the intersection of Ocean Drive and 40th Street, southbound and eastbound traffic must turn left, from 3-8 pm, Monday through Friday. At the intersection of Ocean Drive and Rosecrans Avenue, northbound traffic is restricted to a right turn only from 5-10 am, Monday through Friday. At the intersection of Ocean Drive and 45th Street, northbound traffic must turn right at all times. These restrictions have proven effective in reducing cut-through traffic on Ocean Drive.

The turn restriction measure was also considered for Highland Avenue, in which signs would be installed to restrict northbound left turns from northbound Highland Avenue onto all westbound neighborhood streets during peak periods. It is not recommended at this time due to an absence of evidence of cut-through traffic from Highland Avenue onto east-west streets.

I. Rumble Strips / Dots – These measures are not recommended due to an increase in road noise when vehicles travel over such devices within close proximity to homes at any possible location.

J. Crosswalk Warning System – See Tool D.

K. Raised Median Island – There are no locations identified within the neighborhood that would be a candidate for this measure due to the relative narrowness of most streets.

L. Neighborhood Entry Island – Due to the narrow rights-of-way on the major entry points to the neighborhood, no locations would be appropriate for this measure.

M. Mid-block Narrowing – Due to the narrow rights-of-way on the major entry points to the neighborhood, no locations would be appropriate for this measure.

N. Chokers at Intersections – No specific neighborhood locations were identified with a collision history or resident concern for implementation of this measure. Existing stop signs are installed at most internal neighborhood intersections.

O. Lane Reduction/Narrowing/Restriping - This measure often reduces speeding and discourages some cut-through traffic by limiting the lane width available for drivers. The streets within the neighborhood are already quite narrow and would not benefit from this measure.

P. Stop Sign as Neighborhood Traffic Control Measure – While stop signs should be installed in accordance with established guidelines, special conditions in a neighborhood may justify stop signs in certain directions to discourage non-resident traffic and speeding by virtue of its location. Two intersections are candidates for multi-way stop signs due to limited sight distance: Ocean Drive and 39th Street and Ocean Drive and 44th Street. The intersections meet the guidelines for stop signs in all directions due to physical obstructions and vertical that reduce sight distance. Stop signs at this intersection would also complement the existing stop signs and speed

humps on Ocean Drive by providing a stop sign or speed hump every two blocks or less, and further reduce speeding on this street.

Q. Parking Restrictions – Although there is non-resident parking in the neighborhood, most on-street parking appears to be residential. There is a concern, however, regarding the inconsistency of parking restrictions and parked vehicles that jut out into the street and block traffic. This is of particular concern regarding access by emergency vehicles. Painting edge lines on 44th Street has proven effective in clearly delineating where parking is allowed, which has increased compliance and assisted in enforcement. Edge lines should also be painted on 38th Street, 39th Street, 40th Street, 41st Street, 42nd Street and 43rd Street.

Level Three Tools

R. Raised Crosswalk – See Tool D.

S. Raised Intersection – This tool is not being considered at this time since Level Two tools are currently being evaluated to address speeding concerns.

T. Traffic Circle – There are no locations identified within the neighborhood that would be a candidate for this measure due to the narrowness of the streets.

U. Restricted Movement Barrier-Half Closure – A modified version of this measure has been proposed for the intersection of Ocean Drive and 40th Street to permanently replace the temporary barricades (see Exhibit K). The barrier would block southbound and eastbound traffic from going straight through the intersection. It would also force eastbound traffic on 40th Street exiting the beach parking lot to turn right onto southbound Ocean Drive, and force southbound traffic on Ocean Drive to turn left onto eastbound 40th Street, as it currently does. Traffic would be diverted at all times, not just from 3-8 pm on weekdays, and the barrier would virtually eliminate non-compliance with the turn restrictions.

The proposed diverter would also change the current traffic patterns by sending beach traffic south on Ocean Drive to Rosecrans Avenue instead of north to 45th Street. The result would be a reduction in northbound traffic north of 40th Street, an increase in southbound traffic south of 40th Street (somewhat greater than the reduction in northbound traffic due to increased compliance), and perhaps a minor reduction in eastbound traffic on 40th Street east of Ocean Drive (due to increased compliance). Since 40th Street is closer to Rosecrans Avenue than to 45th Street, this measure would reduce the number of neighborhood homes on Ocean Drive that traffic would pass. It would also eliminate the diversion of beach traffic onto the side streets north of 40th Street. While it would reduce the traffic on 45th Street, it would increase traffic on Rosecrans Avenue by a similar or greater amount. The proposed diverter would also change the traffic patterns and traffic flow through the intersections of Highland Avenue at 45th Street and at Rosecrans Avenue, resulting in a need to review the signal timing.

V. Diagonal Diverter – This measure was considered as a permanent replacement for the barricades for the turn restrictions at the intersection of Ocean Drive and 40th Street,

but was rejected since the narrowness of the two streets would not accommodate it. It would also send either northbound or southbound Ocean Drive traffic to/from the beach parking lot via 40th Street, which would not be acceptable.

Other Possible Measures

W. One-Way Traffic – Another way to reduce cut-through traffic from Highland Avenue that uses southbound Ocean Drive as an alternate route would be to convert Ocean Drive between Rosecrans Avenue and 45th Street to one-way northbound. This measure would basically eliminate the cut-through traffic on Ocean Drive and noticeably reduce overall traffic on Ocean Drive. There might be slight increases on east-west streets by neighbors west of Ocean Drive who normally access Highland Avenue by going south on Ocean Drive to 40th Street or Rosecrans Avenue. For this same reason, there might be an increase in traffic on 45th Street if these residents instead go north on Ocean Drive to 45th Street to reach Highland Avenue. Should a motorist mistakenly turn onto westbound 45th Street from Highland Avenue, expecting to go south on Ocean Drive, they would have to travel through the beach parking lot to get back to Highland Avenue. When the entrance gate to be beach lot is closed, there would be enough room for these motorists to turn around at the gate and proceed back to Highland Avenue. This one-way option would require additional signage at each cross street with Ocean Drive and directional signage on Highland Avenue. A benefit of this measure would be the addition of parking on one side of Ocean Avenue since there would be only one lane of traffic instead of two. The parking would be limited, however, to areas where it would not be in front of garages.

Another advantage of the one-way street would the elimination of the need for the turn restrictions at Ocean Drive and 40th Street since there would be no southbound traffic to divert over to Highland Avenue. An analysis of the current traffic volumes and patterns indicates that if the beach traffic going east on 40th Street was allowed to continue straight to Highland Avenue, the resulting traffic east of Ocean Drive would be similar to or slightly greater than the traffic currently being diverted from southbound Ocean Drive. Although the traffic volumes on 40th Street might be lower during the off-season, the PM peak period would be longer during the summer. If the residents want to continue to divert the beach traffic from 40th Street onto Ocean Drive, the proposed diverter (Measure U) would need to be modified as shown in Exhibit M, to force beach traffic to continue to turn left from eastbound 40th Street onto northbound Ocean Drive.

X. Modifications to Beach Access – Two possible measures are being proposed regarding beach access. One would construct a second exit to the beach parking lot at Rosecrans Avenue and the other would relocate the current access from 40th Street to Rosecrans Avenue. The second exit would reduce the amount of traffic on 40th Street and Ocean Drive, but the relocated exit would almost eliminate the beach traffic within the North Manhattan Beach neighborhood. The relocated exit would also substantially increase traffic on Rosecrans Avenue. Depending on the back-up of traffic on Rosecrans Avenue at Highland Avenue, some of the beach traffic might still use Ocean Drive instead of Highland Avenue to go north to either 40th Street or 45th Street. A beach

exit at Rosecrans Avenue would result in a net gain of approximately 50 parking spaces since the circulation would be one-way the entire length, allowing angled parking on both sides. Both options would be expensive, require the cooperation of several agencies and take 5-10 years to implement.

Y. Resident Parking in Beach Lot – Residential permits are currently available for parking in the beach parking lot after hours, however, the closed gate at 40th Street prevents exiting when the lot is closed. To provide more convenient parking, the locked gate could be replaced with a gate activated by loops in the pavement to allow residents to exit before the lot opens in the morning. This arrangement would need to be approved by the appropriate County and State authorities.

Z. Keep Clear Legend and Signs – Southbound traffic on Highland Avenue frequently backs up from Rosecrans Avenue during the PM peak hours, blocking left-turn access to 40th Street. A Keep Clear legend and signs on southbound Highland Avenue at 40th Street would assist in compliance and enforcement of the law prohibiting blocking intersections.

Both the Fire and Police Departments have been involved in the preparation of the North Manhattan Beach NTMP and have no preliminary objections to the recommended actions. By way of mailed notices, all residents and affected parties in the North Manhattan Beach Neighborhood have been invited to the PPIC meeting today. Upon the PPIC's recommendation of possible toolbox measures, staff will prepare a survey to ascertain whether or not the residents agree that such measures should be installed. The purpose of the survey is to establish the level of support among affected persons before proceeding with the development of a specific NTMP.

An NTMP will be developed based on the results of this preliminary survey to be presented to the PPIC. Upon the PPIC's recommendation of the refined list of potential toolbox measures, staff will prepare another survey to ascertain whether or not the residents agree that the refined list of measures should be installed. The results of the survey will then be forwarded to the City Council, where any Level Two or Level Three measures will be approved as part of the North Manhattan Beach NTMP. Upon approval, the NTMP will then follow the remaining steps as identified in the city-wide NTMP procedures.

RECOMMENDATION:

It is recommended that the Commission direct staff to compile a list of possible traffic calming measures in a survey to the residents and return to the PPIC with recommendations, based on the survey results, to implement additional traffic calming measures.

ATTACHMENTS:

Exhibit A:	City-Wide NTMP Flowchart
Exhibit B:	NTMP Toolbox (Nov. 19, 2002)
Exhibit C:	Neighborhood Vicinity Map Showing Existing Traffic Calming Measures
Exhibit D:	Previous Actions and Requests Summary
Exhibits E-J:	Traffic Volumes-November 2008
Exhibit K:	Stop Sign Warrant Worksheets

Exhibit L-M: Concept Plans for Proposed Diverter
Exhibit N: Copy of Notice
Exhibit O: North Manhattan Beach NTMP Notification Area
Exhibit P: Related Correspondence

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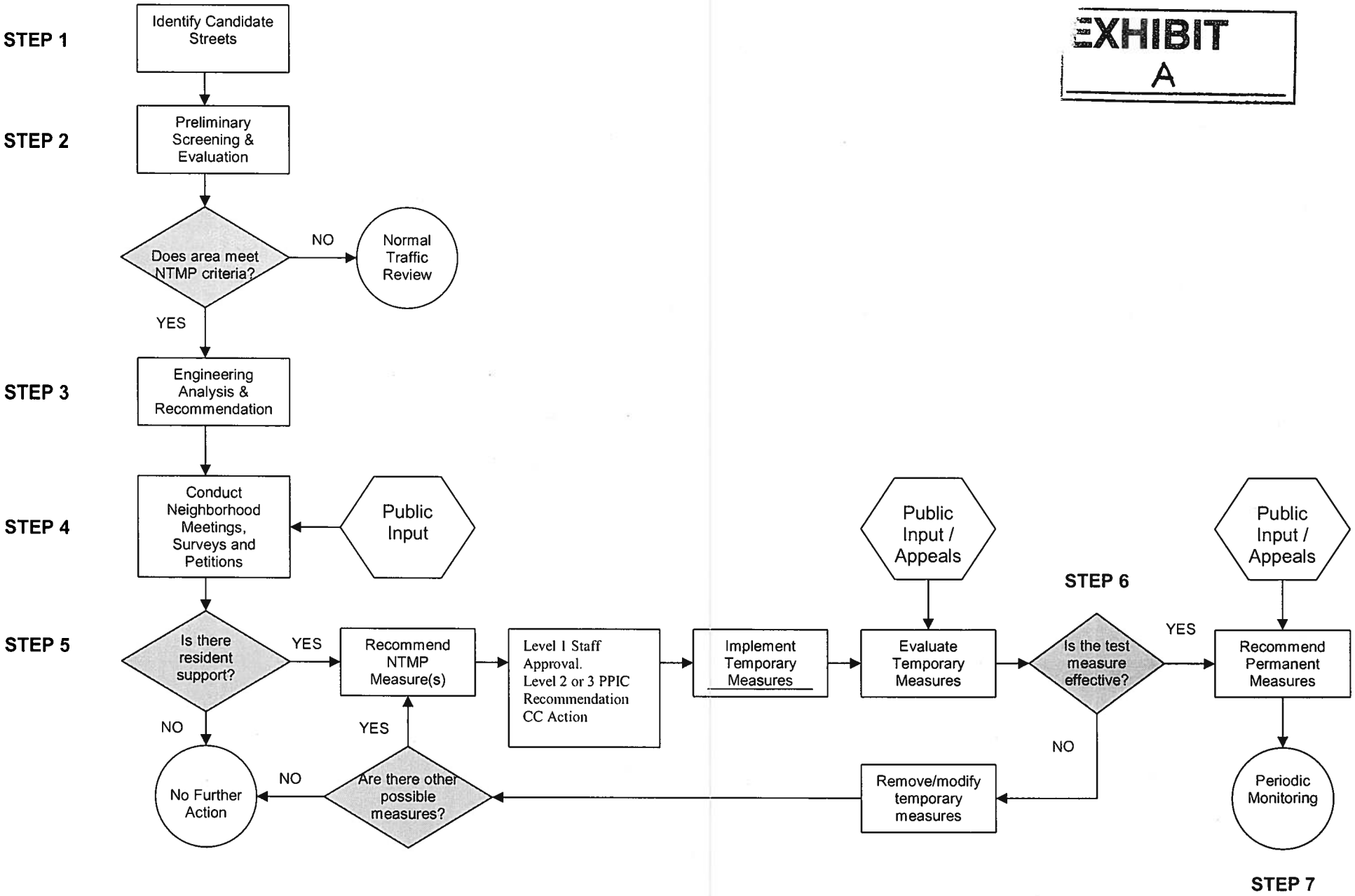
CITY OF MANHATTAN BEACH
NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM PROCESS

EXHIBIT A



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 - Running Stop Signs	All	>500 ADT	(3)	None expected	N/A	- At current crosswalk location - Near pedestrian generating use
Pedestrian Crossing Signs	- Moving Vehicle Violations - Running Stop Signs	All	>500 ADT	(3)	None expected	N/A	- At current crosswalk location - Near pedestrian generating use

EXHIBIT
B

TRAFFIC MANAGEMENT MEASURE	PROBLEMS TARGETED	STREET TYPE (1)	MINIMUM CRITERIA				
			VOLUME	SPEED	DIVERSION TO ADJACENT STREETS	GRADE	OTHER CRITERIA
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, 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	- 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	- 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%	- 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%	- 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 du to loss of parking

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
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 2000 total ADT on the street)	(3)	Must meet diversion chart criteria	N/A	- Requires review by City Traffic Engineer and City Council approval

TRAFFIC MANAGEMENT MEASURE	PROBLEMS TARGETED	STREET TYPE (1)	MINIMUM CRITERIA				
			VOLUME	SPEED	DIVERSION TO ADJACENT STREETS	GRADE	OTHER CRITERIA
Parking Restrictions	- Non-Residential - Parking Intrusion	All	N/A	N/A	Review impacts to surrounding Streets	N/A	- Parking Study
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%	- 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%	- 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%	- Intersecting roadways must be of sufficient width - Loss of parking must be

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
							assessed
Restricted Movement Barrier	- 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 meet drainage requirements - Must not significantly impede emergency vehicle access
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	- If full diverter, cannot be truck or transit route - Must not significantly impede emergency vehicle access

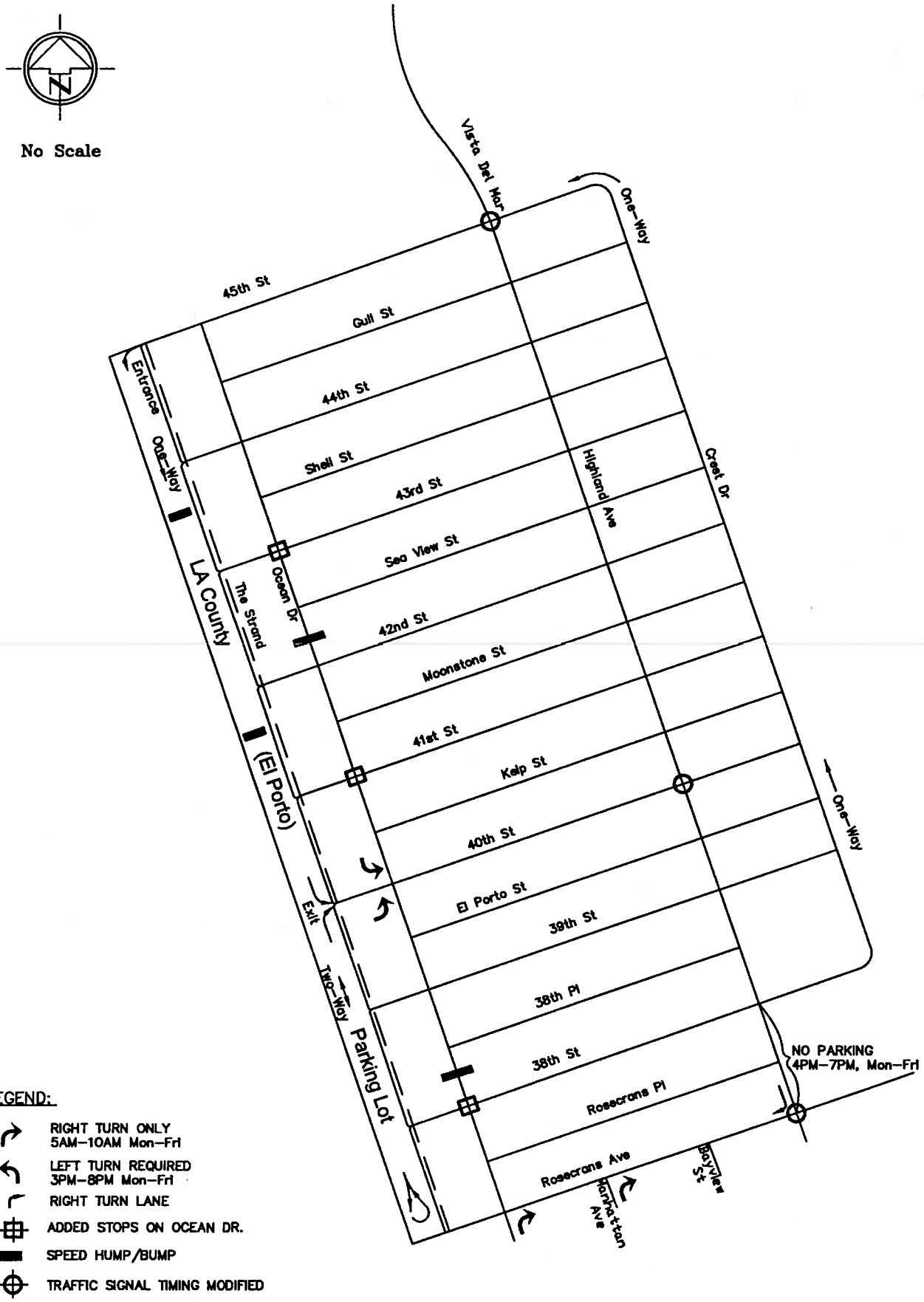
Notes:

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



LEGEND:

- RIGHT TURN ONLY 5AM-10AM Mon-Fri
- LEFT TURN REQUIRED 3PM-8PM Mon-Fri
- RIGHT TURN LANE
- ADDED STOPS ON OCEAN DR.
- SPEED HUMP/BUMP
- TRAFFIC SIGNAL TIMING MODIFIED

16242/3004/01-480

WILLDAN Engineering

2401 E. KATELLA AVE., SUITE 450
ANAHEIM, CA 92806-6073

CITY OF MANHATTAN BEACH
NORTH MANHATTAN BEACH NTMP
EXISTING TRAFFIC CALMING MEASURES
EXHIBIT C

Previous Actions and Requests:

According to City records, the City first evaluated the traffic concerns of residents in the North Manhattan Beach (formerly called El Porto) area since 1983. To address these concerns, the City conducted several studies and implemented a series of traffic calming measures in the neighborhood between 1983 and 2000. The following is a chronology of the City's actions:

October 1983	The Department of Public Works completed a report on parking and traffic conditions in the El Porto area in response to concerns expressed by residents. Several hearings were held by the Public Works Commission regarding requests by the public to abandon the 40th Street exit to the El Porto beach parking lot and relocate it to Rosecrans Avenue. A concept plan was prepared, with the construction costs estimated at $300,000 (1983 costs). Staff contacted the California Department of Parks and Recreation and the Los Angeles County Department of Beaches and Harbors to assist in the funding. They were generally supportive of the plan, but did not have the funds. No further progress was made.
November 1987	The "El Porto Traffic and Circulation and Parking Lot Ramp Study" was prepared by the Department of Public Works and Police Department in response to renewed public requests to move the El Porto parking lot exit ramp from 40th Street to Rosecrans Avenue (residents of Rosecrans were opposed to this plan). The study concluded that the benefits might not justify the cost (up to $515,000 in 1987 dollars), and the traffic would only be shifted from one place to another. The study also noted that the PM peak hour traffic volumes on 45th Street and on Ocean Avenue were higher than would be expected due to commuter traffic, and recommended that two speed humps be installed on Ocean Drive for a one-year demonstration period.
May 1988	Speed humps were installed on Ocean Drive between Sea View Street and 42nd Street and between 38th Place and 38th Street. The speed humps remain in place today.
December 11, 1997	The Parking and Public Improvements Commission (PPIC) held a public hearing in response to a petition from residents to address commuter traffic on Ocean Drive between Rosecrans Avenue and 45th Street. The PPIC voted to approve the installation of a barricade on southbound Ocean Drive at 40th Street and the installation of signs stating "right-turn only between the hours of 5:00 and 10:00 am on weekdays" on northbound Manhattan Avenue at Rosecrans Avenue and on northbound Ocean Drive at Rosecrans Avenue.
January 6, 1998	The City Council approved the following:

EXHIBIT D

- The placement of "Right Turn Only" signs on Rosecrans Avenue at both Ocean Drive and Manhattan Avenue on a six-month trial basis
- The replacement of a previously existing semi-diverter on the south leg of Ocean Drive at Rosecrans Avenue
- Traffic counts at 40th Street and Ocean Drive, forwarding this information to the PPIC for further study

"Right Turn Only M-F 5:00 am – 10 am" signs were installed in January 1998 and the partial diverter on Ocean Drive at Rosecrans Avenue was reconstructed in February 1998.

July 23, 1998

The PPIC reviewed the results of the traffic study conducted at the end of the six-month trial period and recommended the following to the City Council for approval:

- Placing a sign stating "Left Turn Only Between 3:00 and 7:00 pm" southbound on Ocean Drive at 40th Street
- Installing Stop signs on Ocean Drive at 38th and 43rd Streets (making them 4-way stops)
- Placing a sign stating "Right or Left Turn Only Between 3:00 and 7:00 pm" at the exit to the beach parking lot (40th at Ocean)
- Lengthening the cycle of the signal at 40th Street and Highland Avenue during the same hours
- Above actions to be reviewed by the PPIC in 3 months

The PPIC also directed staff to study the possibility of establishing a Right Turn Only lane for the evening hours on southbound Highland Avenue before Rosecrans Avenue. Also requested the City Council to consider whether the exit from the beach parking lot should be moved to Rosecrans Avenue, and consider placing speed bumps in the beach parking lot. Also recommended that "Beach Access" signs on Rosecrans Avenue be considered.

August 18, 1998

City Council approved the PPIC's July 23, 1998 recommended actions. The signs were installed in September 1998.

January 5, 1999

City Council reviewed the results of the follow-up traffic study for the 3-month trial period for the turn restrictions at Ocean Drive and 40th Street and the new stop signs on Ocean Avenue at 38th and 43rd Streets. The Council voted to do the following:

- Authorize the PPIC to review the request for additional stop signs on Ocean Drive.

- Direct staff to conduct additional traffic counts utilizing the police speed trailer on the days/times similar to the days/times of previous counts taken using the police trailer.
- Approve the diversion measures to remain in place for an additional three months.
- Direct the PPIC to review the effectiveness of the traffic diversion measures in three months.

February 25, 1999 — PPIC reviewed the Traffic Engineer's analysis and report and recommended that City Council approve the following:

- Installation of additional stop signs on Ocean Drive and 41st Street (for a 4-way stop)
- Installation of a right turn lane on southbound Highland Avenue at Rosecrans Avenue.

The PPIC also recommended that the implementation of the stop signs and right turn lane be staggered so their effects could be analyzed separately.

March 16, 1999 — City Council approved PPIC's recommendations described above. The stop signs were installed in April 1999 and the right turn lane was installed in June 1999.

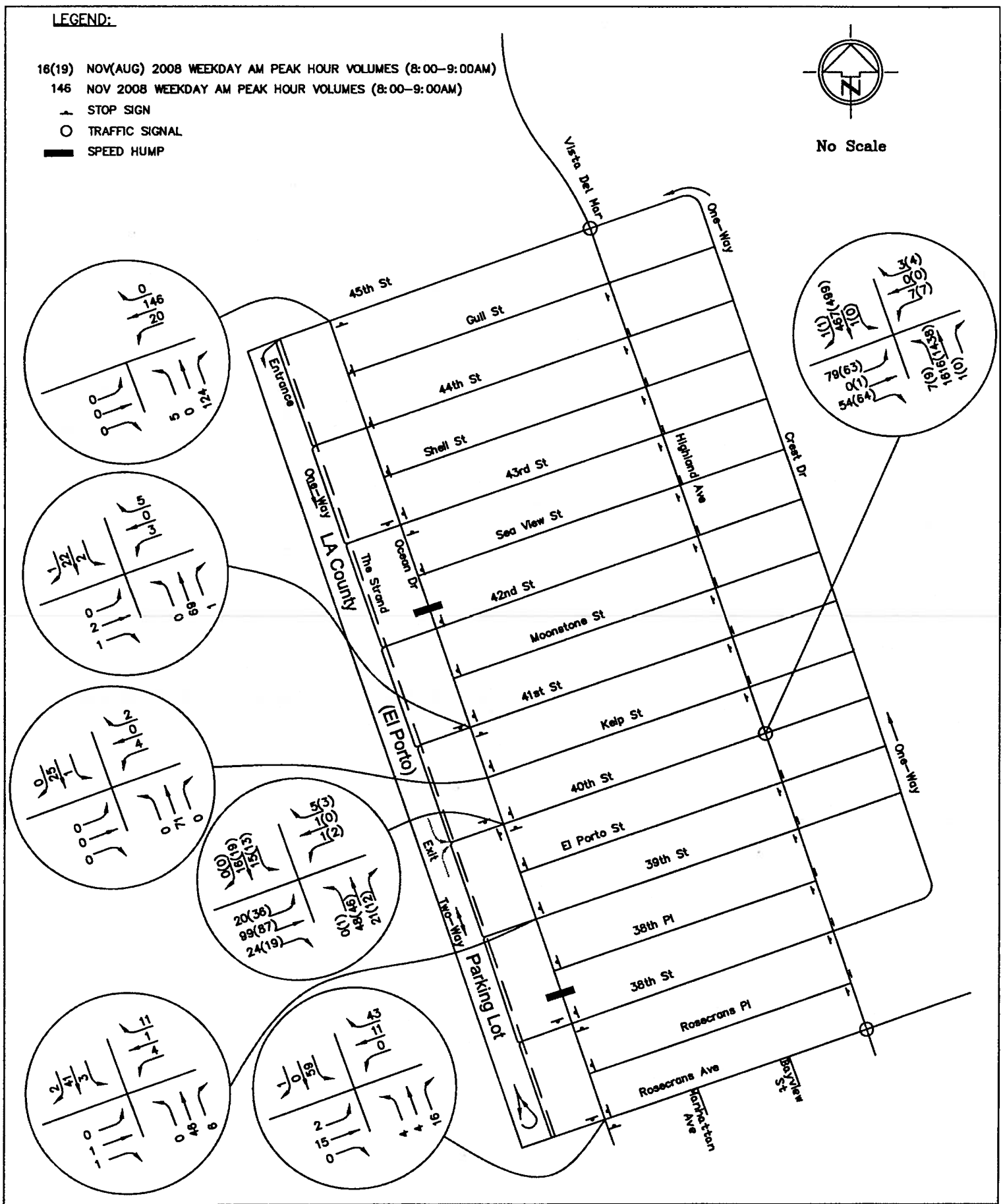
September 7, 1999 — City Council reviewed the traffic diversion measures on Ocean Drive and voted to:

- Authorize staff to continue the signs at the intersection of Ocean Drive and 40th Street
- Direct staff to report back to Council in six months regarding signage alternatives, installation of speed bumps in the El Porto beach parking lot, and the possible relocation of the exit to the beach parking lot.

June 20, 2000 — City Council re-evaluated the traffic diversion measures and voted to direct staff to do the following:

- Conduct a traffic study to obtain current counts prior to implementation of additional measures
- Install temporary barricades from 3:00 – 7:00 pm at 40th Street and Ocean (to reinforce the existing signage)
- Install speed bumps in the El Porto parking lot
- Coordinate traffic signals southbound on Highland Avenue
- Report back after 3-month trial period to review effectiveness of measures

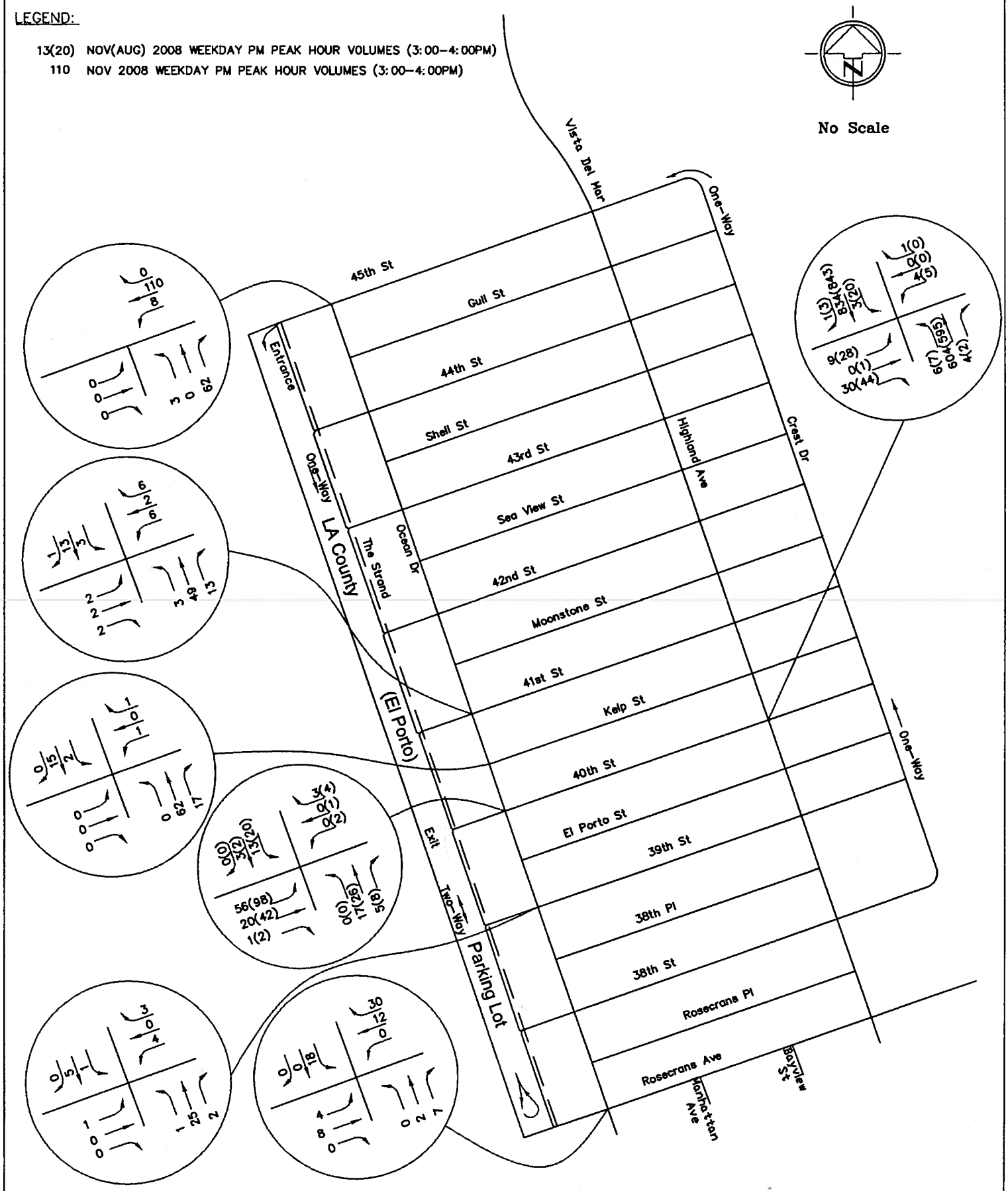
	Use of the barricades at Ocean Drive and 40th Street began in August 2000. Speed bumps were installed in the El Porto parking lot in August 2000 and the traffic signals were modified in October 2000.
December 19, 2000	City Council reviewed the effectiveness of the traffic diversion measures and voted as follows: • Continue the use of the signs at Ocean Drive and 40th Street and keep the temporary barricades, but extend the hours until 8:00 pm. The signs were changed in December 2000.
February 2005	Kelp Street residents submitted a petition to the City requesting that the restrictions at Ocean Drive and 40th Street be removed.
September 4, 2007	City Council approved the El Porto area's ranking as second on the list of new Neighborhood Traffic Management Plan areas.
May 13, 2008	Mr. Ed Skebe, resident of Kelp Street, requested that the City initiate the NTMP study for the El Porto area.
July 2008	The City initiated the current North Manhattan Beach area NTMP.



16242/3004/01-460

WILLDAN Engineering
2401 E. KATELLA AVE., SUITE 450
ANAHEIM, CA 92806-6073

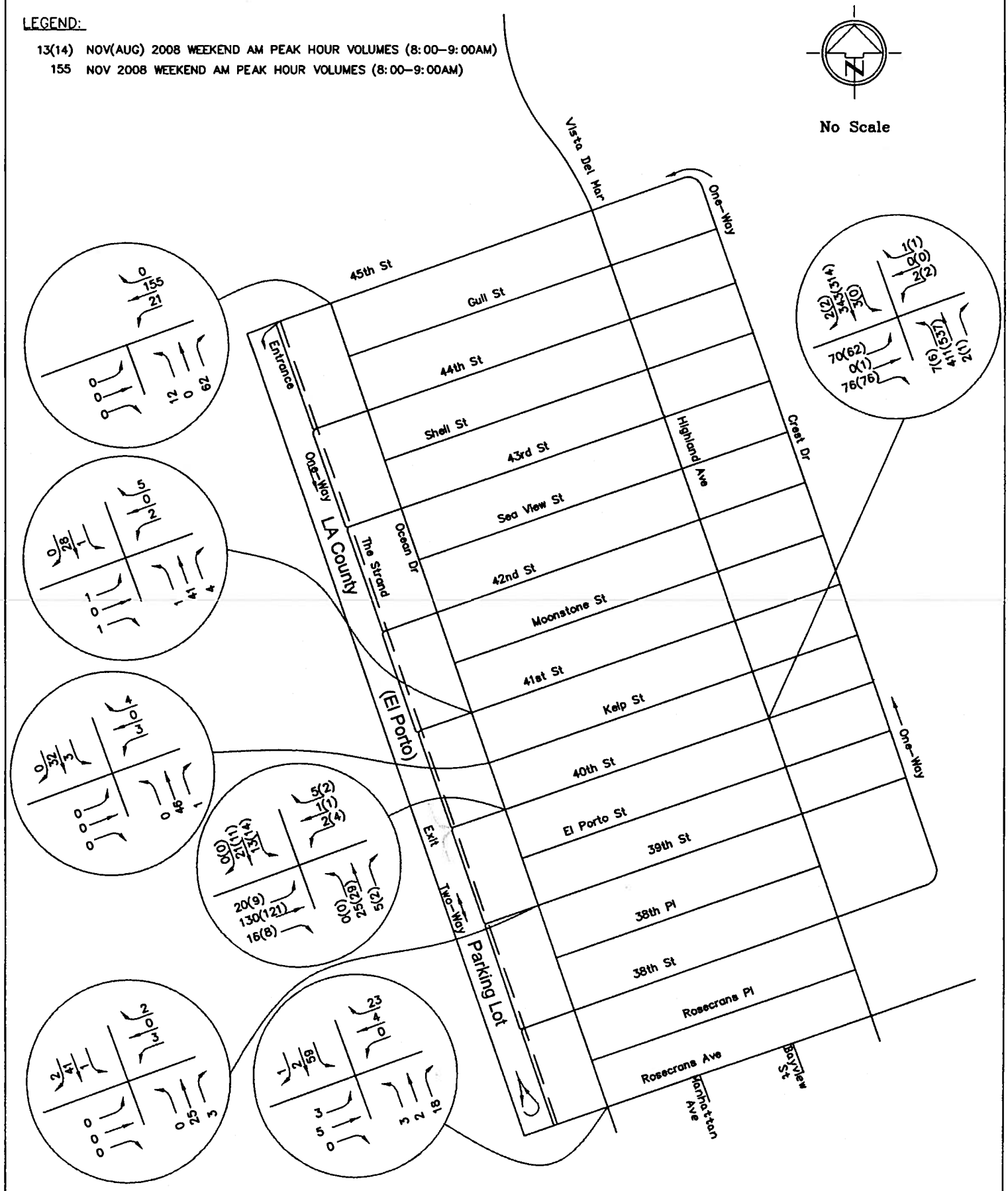
CITY OF MANHATTAN BEACH
NORTH MANHATTAN BEACH NTMP
WEEKDAY AM PEAK HOUR VOLUMES
EXHIBIT E



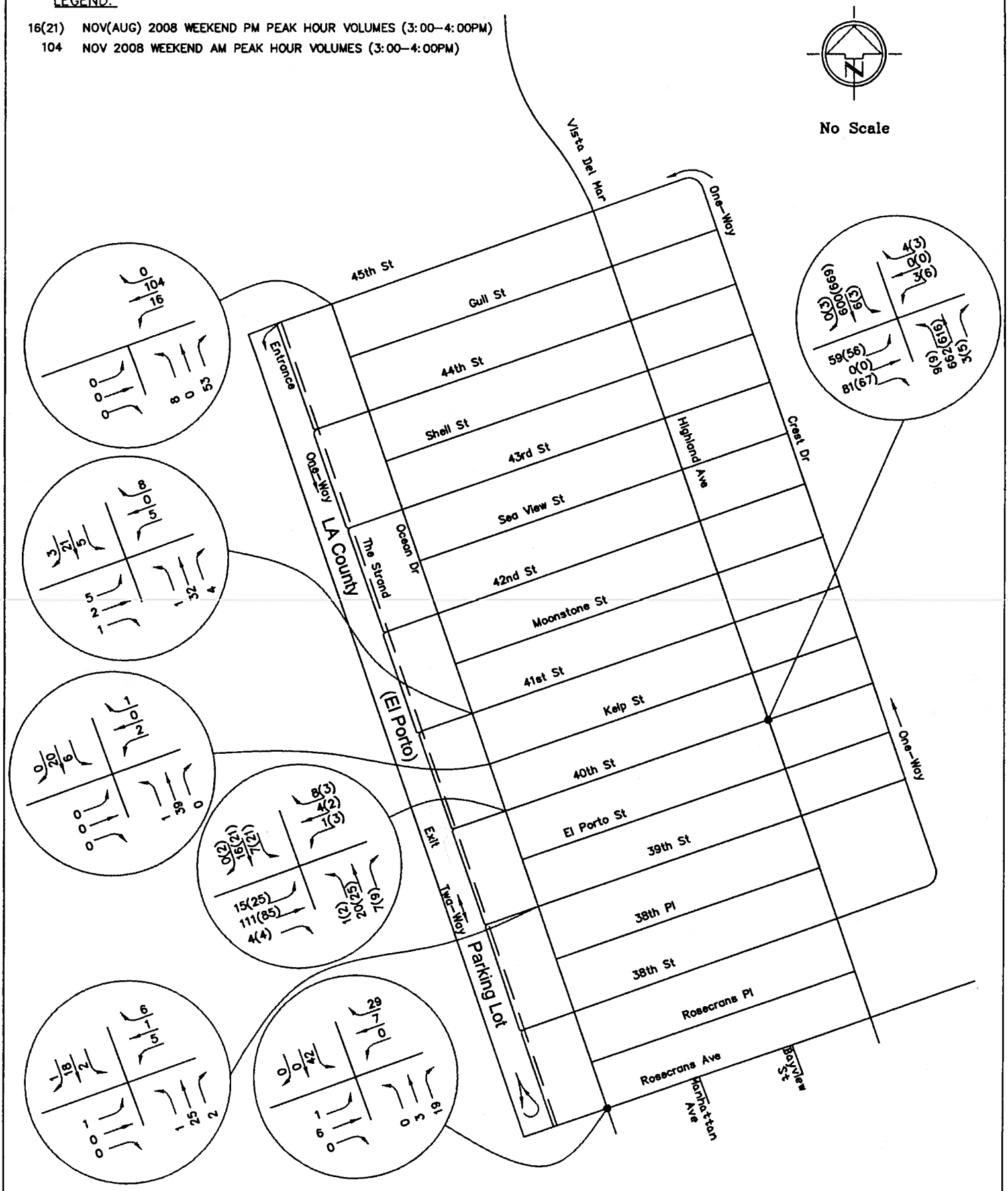
16242/3004/01-460

WILLDAN Engineering
2401 E. KATELLA AVE., SUITE 450
ANAHEIM, CA 92806-6073

CITY OF MANHATTAN BEACH
NORTH MANHATTAN BEACH NTMP
WEEKDAY PM PEAK HOUR VOLUMES
EXHIBIT F



16242/3004/01-460 WILLDAN Engineering 2401 E. KATELLA AVE., SUITE 450 ANAHEIM, CA 92806-6073		CITY OF MANHATTAN BEACH NORTH MANHATTAN BEACH NTMP WEEKEND AM PEAK HOUR VOLUMES EXHIBIT G



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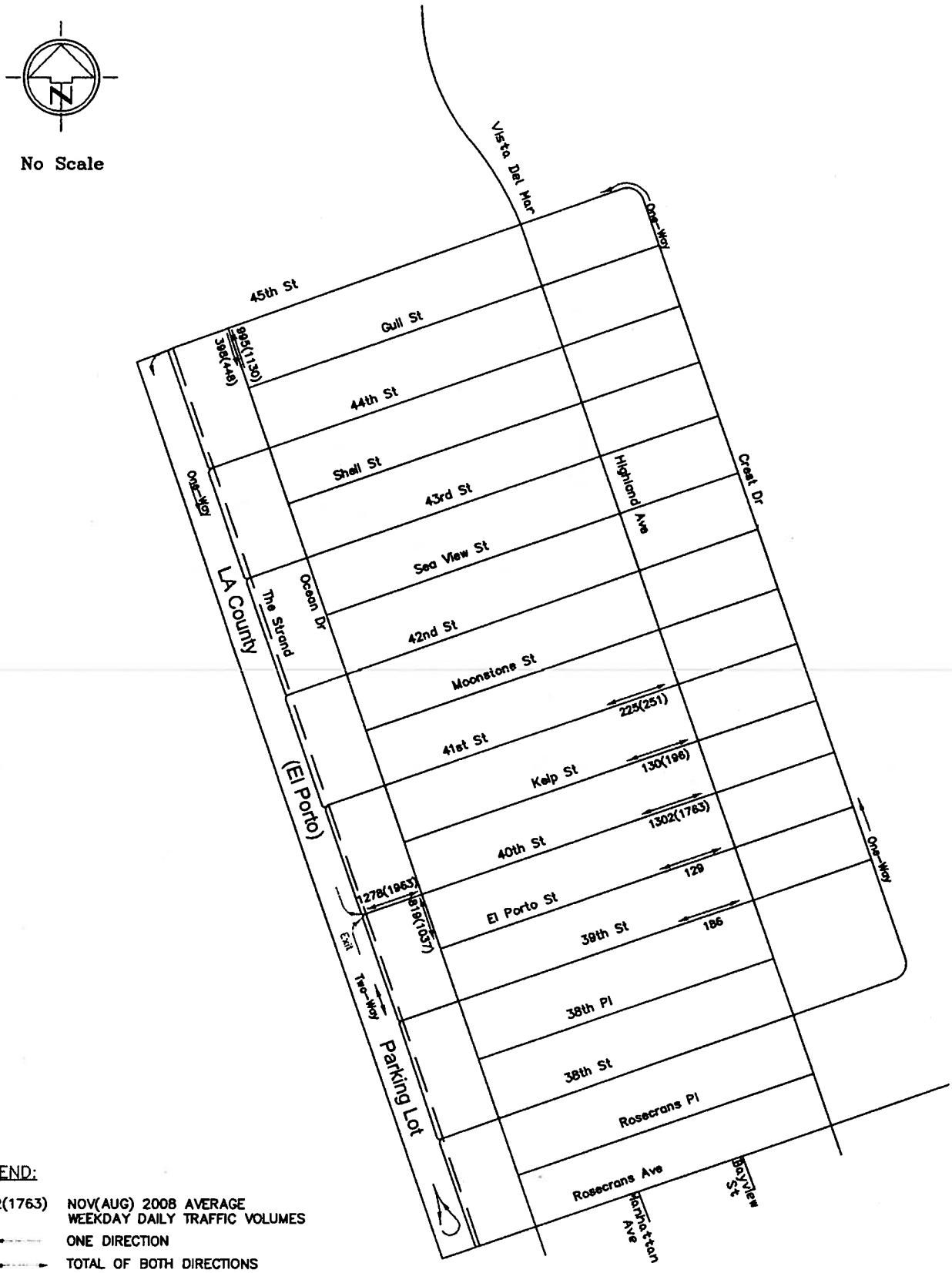
2401 E. KATELLA AVE., SUITE 450
ANAHEIM, CA 92806-6073

CITY OF MANHATTAN BEACH
NORTH MANHATTAN BEACH NTMP
WEEKEND PM PEAK HOUR VOLUMES
EXHIBIT H



LEGEND:

1302(1763) NOV(AUG) 2008 AVERAGE WEEKDAY DAILY TRAFFIC VOLUMES

ONE DIRECTION

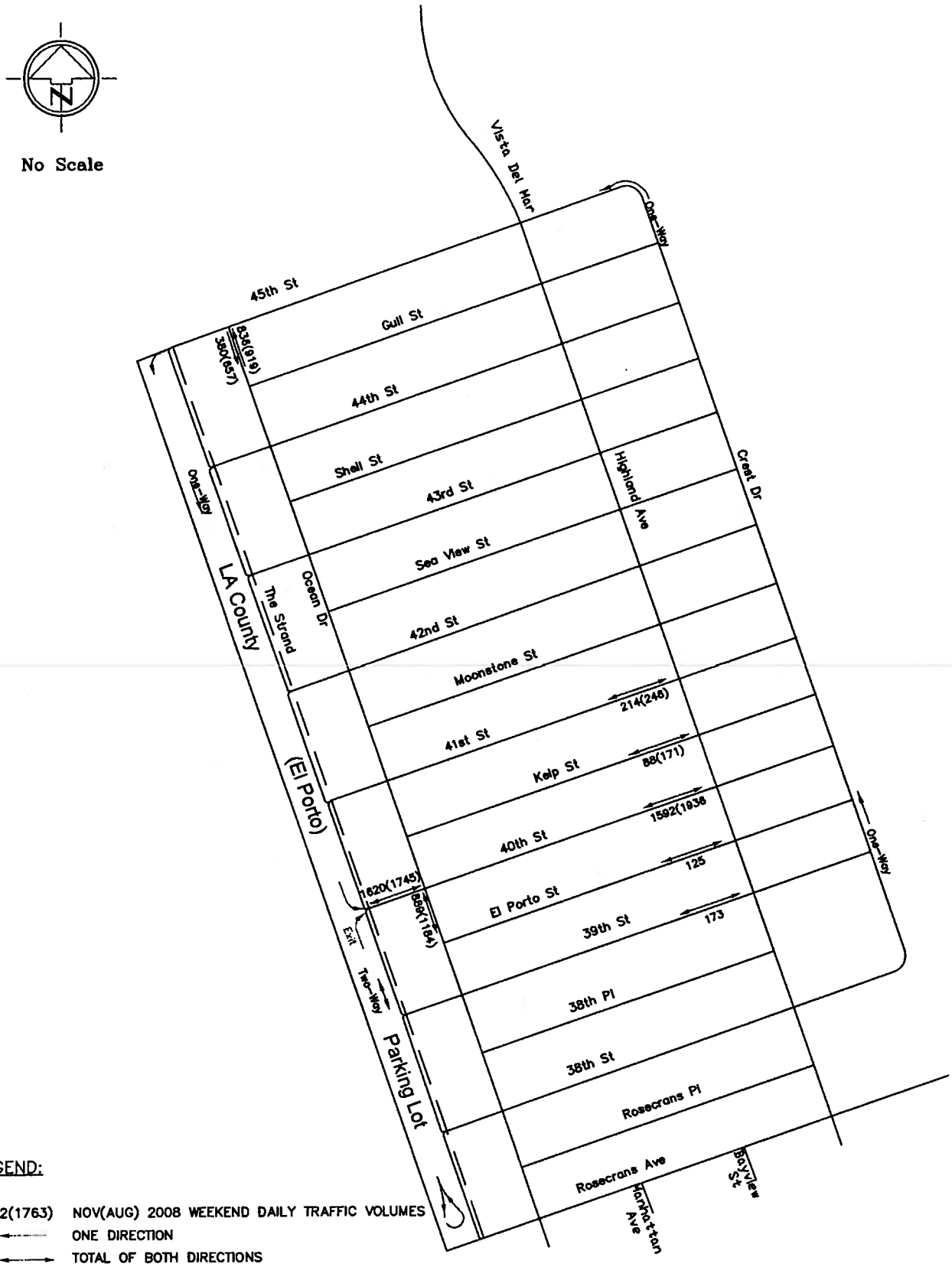
TOTAL OF BOTH DIRECTIONS

*NOTE:
WEEKDAY = AVERAGE OF THURSDAY, NOVEMBER 06 AND FRIDAY, NOVEMBER 07, 2008 (AVERAGE OF THURSDAY, AUGUST 14 AND FRIDAY, AUGUST 15, 2008)

16242/3004/01-480

WILLDAN Engineering
2401 E. KATELLA AVE., SUITE 450
ANAHEIM, CA 92806-6073

CITY OF MANHATTAN BEACH
NORTH MANHATTAN BEACH NTMP
AVERAGE WEEKDAY DAILY TRAFFIC VOLUMES
EXHIBIT I



LEGEND:

1302(1763) NOV(AUG) 2008 WEEKEND DAILY TRAFFIC VOLUMES

ONE DIRECTION

TOTAL OF BOTH DIRECTIONS

*NOTE:
WEEKEND = SATURDAY, NOVEMBER 08, 2008
(SATURDAY, AUGUST 16, 2008)

16242/3004/01-460

WILLDAN Engineering
2401 E. KATELLA AVE., SUITE 450
ANAHEIM, CA 92806-6073

CITY OF MANHATTAN BEACH
NORTH MANHATTAN BEACH NTMP
WEEKEND DAILY TRAFFIC VOLUMES
EXHIBIT J

EXHIBIT K

STOP SIGN WARRANT CHECKLIST

MAJOR STREET: Ocean Dr. (NS) MINOR STREET: 39th St. (EW)

REQUESTED BY: City TE DATE: 12/31/2008

REVIEWED BY: Ruth Smith

Warranted?

SINGLE STREET STOP SIGN WARRANTS

☐ On a less important road where the normal right-of-way rules would not be expected to provide reasonable compliance with the law.

☐ On a street entering a legally established through highway or street.

☐ At an unsignalized intersection in a signalized area.

☐ At other intersections where high speeds, restricted view, or crash record indicates a need for control by a stop sign.

MULTI-WAY STOP SIGN WARRANTS

☐ Where traffic signals are warranted, and stop signs are used as an interim measure to control traffic while the signal is installed.

☐ Where a crash problem exists, as indicated by five or more reported accidents within a 12 month period of a type correctable by a multi-way stop sign.

☐ Where the total vehicular volume entering from the major street approaches <u>average</u> at least 300 vehicles per hour for any 8 hours, and

the combined vehicular, bicycle and pedestrian volume from the minor street approaches <u>average</u> at least 200 units per hour for the same 8 hours, with an average delay to the minor street traffic is at least 30 seconds per vehicle during the highest hour, and

if the 85th percentile approach speed of the major street traffic exceeds 40 MPH, the minimum vehicular volume warrant is 70 percent of the above requirements.

☐ Where there four or more reported accidents within a 12 month period of a type correctable by a multi-way stop sign, and

the average major and minor street volumes are at least 80% of the minimum values.

☒ Other locations where multi-way stop signs are justified based on an engineering study.

MULTI-WAY STOP SIGN WORKSHEET

MAJOR STREET: Ocean Dr. (NS) 85TH SPEED - 19 MPH

MINOR STREET: 39th St. (EW) DATE: 12-31-2008

TRAFFIC VOLUMES — WARRANTED YES (NO)

If the 85th percentile speed of the major street exceeds 40 MPH, use 70% volume.

Street	Min Volume	70%	80%	Ave.	Hour / Volume							
					8-9A	9-10A	12-1P	6-7P	10-11A	2-3PM	11-12A	7-8A
Major	300	210	240	76	106	81	71	70	70	70	70	66
Minor	200	140	160	4	7	3	6	4	4	3	3	3

And, does the minor street have an average delay of at least 30 seconds in the peak hour?

Peak Average Delay	

COLLISION RECORD — WARRANTED YES (NO)

Are there five or more reported collisions within a 12 month period of a type correctable by a multi-way stop sign?

DATE	TIME	DIRECTION	TYPE	CAUSE

80% COMBINATION — WARRANTED YES (NO)

Are there four or more reported accidents within a 12 month period of a type correctable by a multi-way stop sign, and

Average major and minor street volumes are at least 80% of the minimum values?

OTHER MULTI-WAY STOP CONDITIONS — WARRANTED

		YES	NO
A.	Need to control left turn conflicts	YES	(NO)
B.	Need to control vehicle/pedestrian conflicts at high ped locations	YES	(NO)
C.	Visibility obstruction after stopping on minor street approach	(YES)	NO
D.	Two similar neighborhood collector streets that would improve operation	YES	(NO)

STOP SIGN WARRANT CHECKLIST

MAJOR STREET: Ocean Dr. (NS) MINOR STREET: 44th St. (EW)

REQUESTED BY: City TE DATE: 12/31/2008

REVIEWED BY: Ruth Smith

Warranted?

SINGLE STREET STOP SIGN WARRANTS

☐ On a less important road where the normal right-of-way rules would not be expected to provide reasonable compliance with the law.

☐ On a street entering a legally established through highway or street.

☐ At an unsignalized intersection in a signalized area.

☐ At other intersections where high speeds, restricted view, or crash record indicates a need for control by a stop sign.

MULTI-WAY STOP SIGN WARRANTS

☐ Where traffic signals are warranted, and stop signs are used as an interim measure to control traffic while the signal is installed.

☐ Where a crash problem exists, as indicated by five or more reported accidents within a 12 month period of a type correctable by a multi-way stop sign.

☐ Where the total vehicular volume entering from the major street approaches average at least 300 vehicles per hour for any 8 hours, and

the combined vehicular, bicycle and pedestrian volume from the minor street approaches average at least 200 units per hour for the same 8 hours, with an average delay to the minor street traffic is at least 30 seconds per vehicle during the highest hour, and

if the 85th percentile approach speed of the major street traffic exceeds 40 MPH, the minimum vehicular volume warrant is 70 percent of the above requirements.

☐ Where there four or more reported accidents within a 12 month period of a type correctable by a multi-way stop sign, and

the average major and minor street volumes are at least 80% of the minimum values.

☒ Other locations where multi-way stop signs are justified based on an engineering study.

MULTI-WAY STOP SIGN WORKSHEET

MAJOR STREET: Ocean Dr. (NS) 85TH SPEED - 19 MPH

MINOR STREET: 44th St. (EW) DATE: 12/31/2008

TRAFFIC VOLUMES — WARRANTED YES (NO)

If the 85th percentile speed of the major street exceeds 40 MPH, use 70% volume.

Street	Min Volume	70%	80%	Ave.	Hour / Volume							
					6-7A	8-9A	5-6P	4-5PM	1-2P	3-4P	9-10A	1-2P
Major	300	210	240	133	187	160	152	127	118	117	115	87
Minor(1)	200	140	160	13	11	4	18	16	18	18	9	7

(1) Used volumes from 41st St. to estimate volumes on 44th St.

And, does the minor street have an average delay of at least 30 seconds in the peak hour?

Peak Average Delay	

COLLISION RECORD — WARRANTED YES (NO)

Are there five or more reported collisions within a 12 month period of a type correctable by a multi-way stop sign?

DATE	TIME	DIRECTION	TYPE	CAUSE

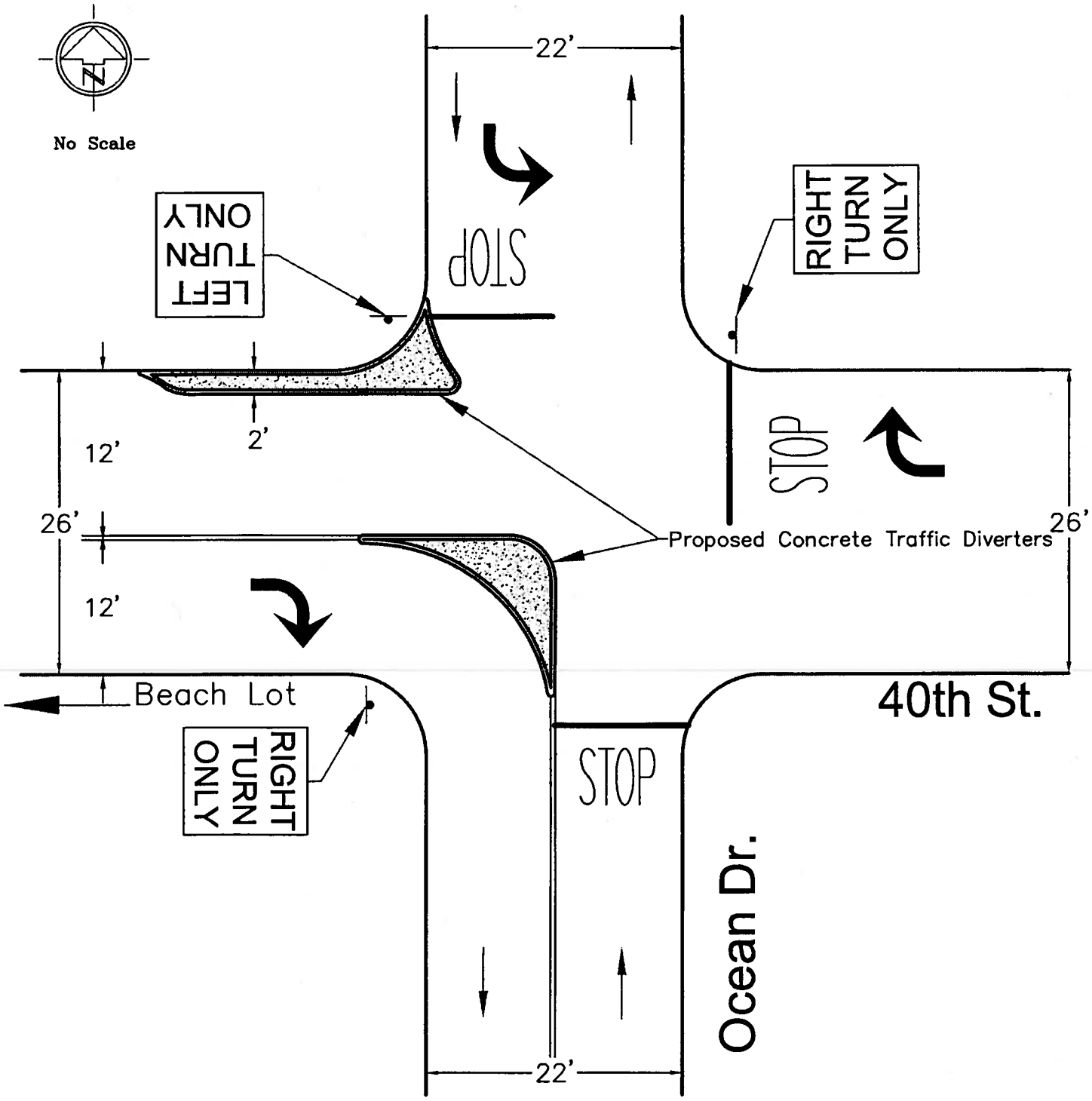
80% COMBINATION — WARRANTED YES (NO)

Are there four or more reported accidents within a 12 month period of a type correctable by a multi-way stop sign, and

Average major and minor street volumes are at least 80% of the minimum values?

OTHER MULTI-WAY STOP CONDITIONS — WARRANTED

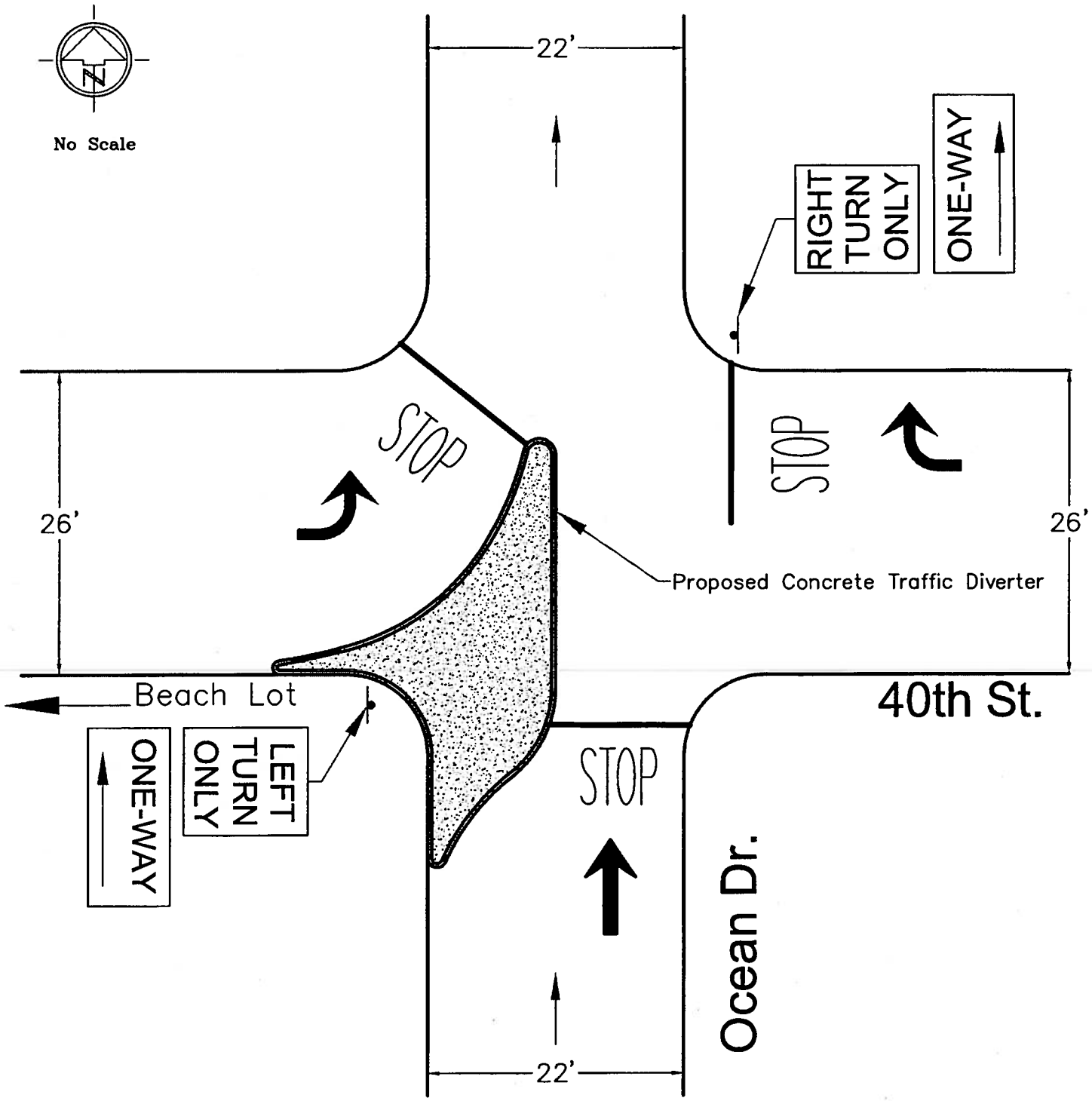
A.	Need to control left turn conflicts	(YES)	NO
B.	Need to control vehicle/pedestrian conflicts at high ped locations	YES	(NO)
C.	Visibility obstruction after stopping on minor street approach	(YES)	NO
D.	Two similar neighborhood collector streets that would improve operation	YES	(NO)



CONCEPT PLAN FOR TWO-WAY STREET

15242/3004/01-460
WILLDAN Engineering
2401 E. KATELLA AVE., SUITE 450
ANAHEIM, CA 92806-6073

CITY OF MANHATTAN BEACH
NORTH MANHATTAN BEACH NTMP
PROPOSED DIVERTER AT OCEAN AND 40TH
EXHIBIT L



CONCEPT PLAN FOR ONE-WAY STREET

WILLDAN Engineering 2401 E. KATELLA AVE., SUITE 450 ANAHEIM, CA 92806-6073	CITY OF MANHATTAN BEACH
	NORTH MANHATTAN BEACH NTMP
	PROPOSED DIVERTER AT OCEAN AND 40TH
	EXHIBIT M

NORTH MANHATTAN BEACH
NEIGHBORHOOD TRAFFIC MANAGEMENT PLAN

The North Manhattan Beach Neighborhood Traffic Management Plan provides a comprehensive analysis of parking conditions in the North Manhattan Beach area and develops strategies for optimizing usage of on-street parking spaces and public parking lots.

The Parking and Public Improvements Commission (PPIC) will conduct the continuation of the October 23, 2008 public hearing to the North Manhattan Beach Neighborhood Traffic Management Plan as directed by the City Council's 2008 Work Plan.

PARKING AND PUBLIC IMPROVEMENTS COMMISSION

NORTH MANHATTAN BEACH NEIGHBORHOOD TRAFFIC MANAGEMENT PLAN
- CONTINUED PUBLIC HEARING -

WHEN: January 22, 2008 at 6:30 pm
WHERE: Council Chambers, City Hall
1400 Highland Avenue, Manhattan Beach

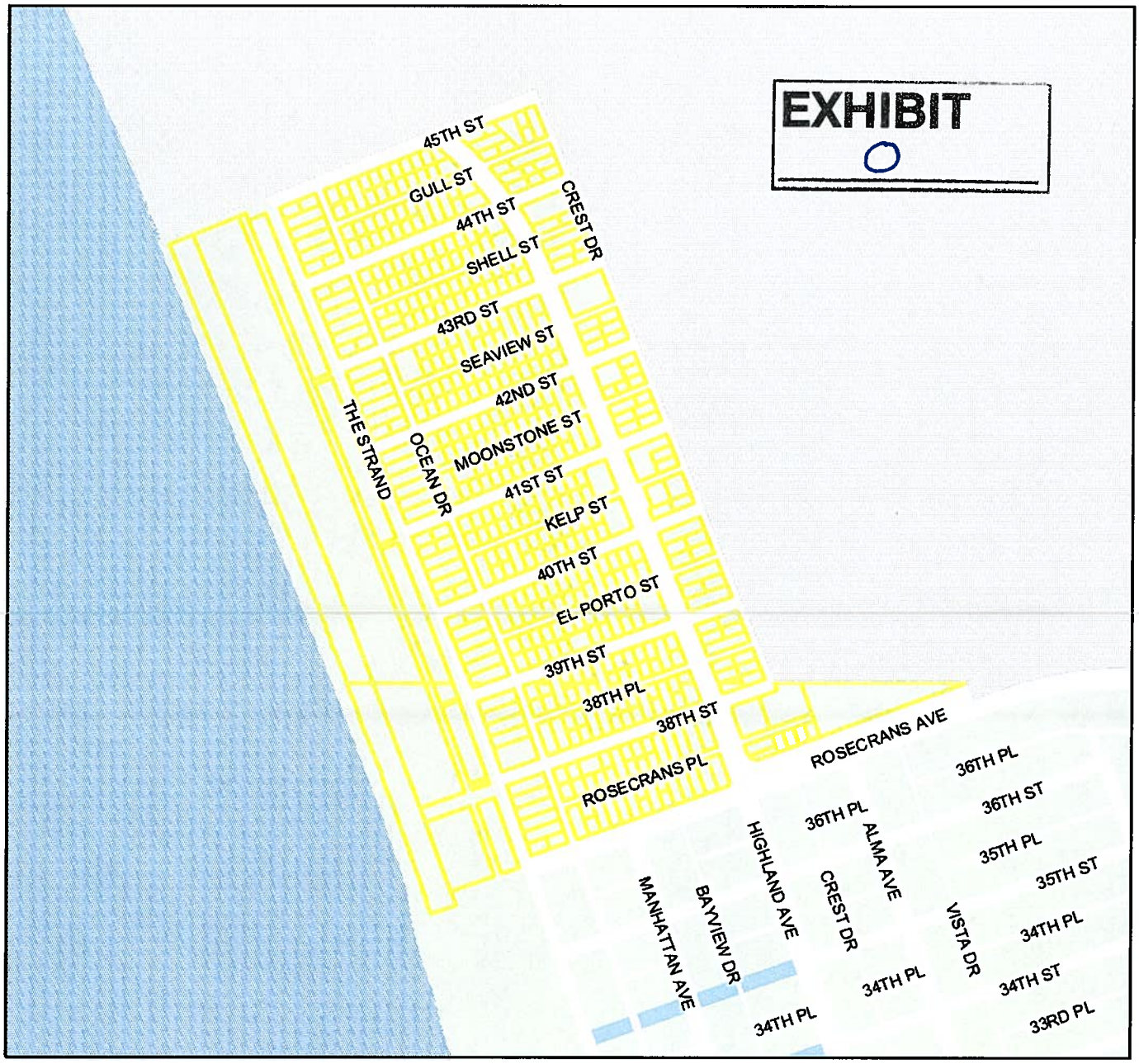
North Manhattan Beach residents and businesses are encouraged to attend and participate. The Staff Report will be available at www.citymb.info on January 16 after 5 pm.

For additional information, please call Esteban Danna at (310) 802-5514 or email at edanna@citymb.info

EXHIBIT
N

Manhattan Beach GIS

EXHIBIT
O



Legend

Scale: 1:5,149

- Parcels
- Basemap
- BEACH
- BLOCK
- DEADEND
- PARK (cont)
- PIER
- PRIVATE STREET
- SCHOOL
- STREET
- WALK STREET

0 300 600 ft.

N

January 8, 2009

Parking and Public Improvements Commission
City of Manhattan Beach
1400 Highland Avenue
Manhattan Beach, CA 90266

Dear Chairperson and Commissioners:

Thank you for providing your services and expertise to the citizens of Manhattan Beach.

At your October 23, 2008 meeting, your Commission discussed traffic issues specific to the El Porto section generally West of Highland Avenue and between Rosecrans and 45th Street. One linked parking issue, which was not addressed, is a restriction on the El Porto Lot (Lot 65C) which is curiously out of conformity with the similar beach Lot 65B to the South, and gives rise to a potential for significant health, safety, and other concerns.

Specifically, permitted vehicles may not exit the lot between 8:00pm and 6:00am the next day. There is no such restriction on Lot 65C. Further, though the single exit has an in-road device that allows for an exit and protects against entry, City staff lock each evening and open each morning a gate-like barrier, rendering that device useless.

Several concerns surface:

- Residents are denied egress during the above period, no matter what the personal or medical emergency. This is a concern that may have already created for some what can only be considered, at a minimum, undue and dangerous hardship.
- Residents who need to leave for work at irregular hours (read fire fighters, police, nurses, etc.) are effectively denied use of the Lot.
- City safety staff is using their precious time to daily lower and raise an unnecessary barrier. A barrier whose need is obviated by the in-road facility which the city purchased and installed long ago to avoid the above process.
- This restriction is out-of-conformity with that employed in the similar Lot 65B.

For whatever reason, known or unknown, the above non-conforming restriction and process has been employed, I would challenge its weight against the above.

Again, thank you for your service.

Sincerely

Gregory Cherep
200 Moonstone Street
Manhattan Beach, CA 90266
(310)545-6225

EXHIBIT
P

OVERALL RULES

When and Where Can I Use My Permit?

The Overnight Parking Permit is valid from **6:00 PM to 8:00 AM.**
It is valid all seven (7) days of the week.

Permit is only valid at the designated lot. **You cannot use your permit at any other lots or for on-street parking.**

The Permit does not guarantee a parking space. The spaces are on a first come first serve basis.

Where Do I Place My Permit?

The Overnight Parking Permit **MUST** be displayed on the rearview mirror of your car, when parked in the designated lot.

What Are the Costs?

It costs **$30.00** to renew the permit for three months. Only two (2) permits shall be issued per address.
Full price charged for **STOLEN OR LOST** permits.

City of Manhattan Beach
Finance Department
1400 Highland Avenue
Manhattan Beach, CA 90266

MANHATTAN BEAC

RESIDENTIAL OVERNIGHT

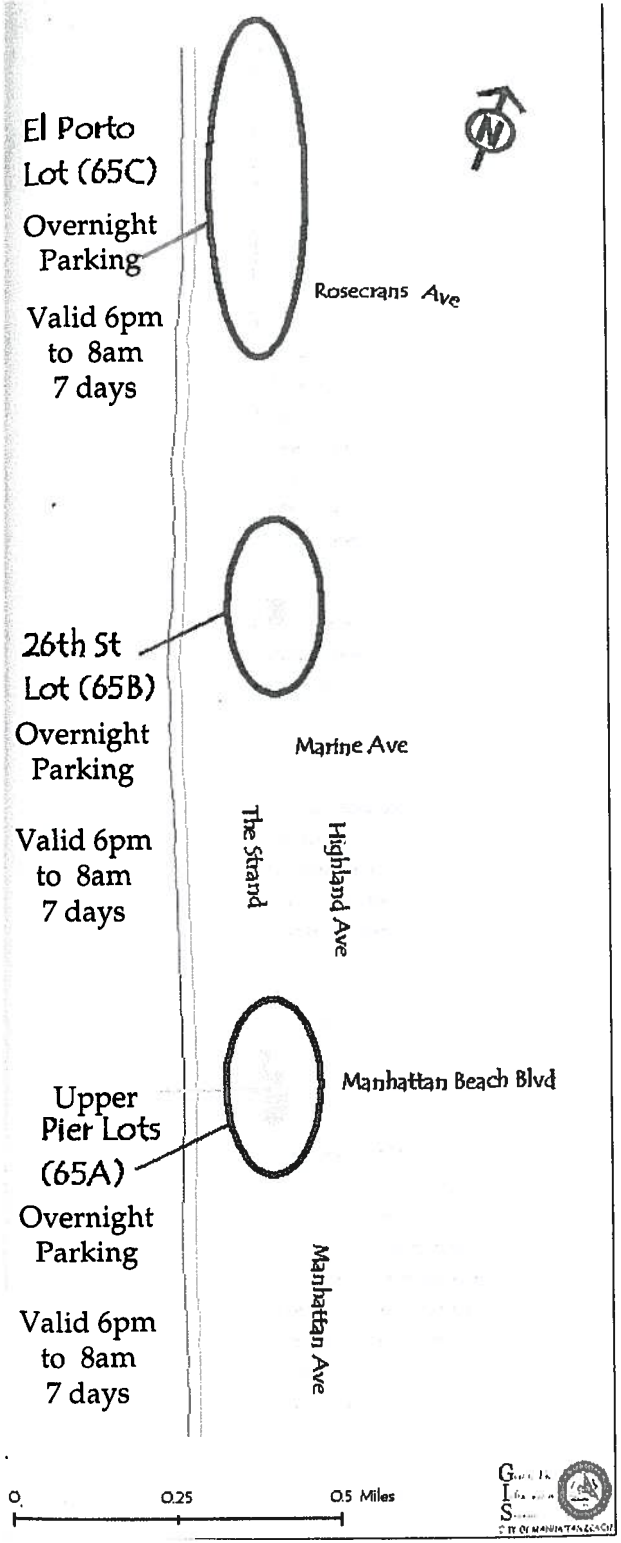
PARKING PERMIT

City of MANHATTAN BEAC

1400 Highland Avenue

Manhattan Beach, CA 90266

310 802-5561



Lot 65 A [Upper Pier Lots]

During the period from **OCTOBER 1st** through **APRIL 1st** the permit for **LOT 65A** will be valid twenty-four (24) hours on weekends and holidays, with the exception of the following weekends:

- Weekend Before Easter
- Easter Weekend
- Weekend After Easter

Valid 6PM to 8AM

Lot 65 B [26th Street Lots]

The entrance will be **LOCKED** at approximately **8:00PM** each evening and **OPENED** at approximately **6:00AM** each morning. You will **NOT** be able to **ENTER** the lot while it is locked, but you **WILL** be able to **EXIT**.

During the period from **SEPTEMBER 15th** through **JUNE 15th** the permit for **LOT 65B** will be valid twenty-four (24) hours on weekends and holidays with the exception of the following weekends:

- Weekend Before Easter
- Easter Weekend
- Weekend After Easter
- Memorial Day Weekend
- Memorial Day

Valid 6PM to 8AM

Lot 65 C [El Porto Lot]

The entrance and exit will be **LOCKED** at approximately **8:00PM** each evening and **OPENED** at approximately **6:00AM** each morning. You will **NOT** be able to **ENTER** or **EXIT** while the lot is locked.

During the period from **SEPTEMBER 15th** through **JUNE 15th** the permit for **LOT 65C** will be valid twenty-four (24) hours on weekends and holidays with the exception of the following weekends:

- Weekend Before Easter
- Weekend After Easter
- Easter Weekend
- Memorial Day
- Memorial Day Weekend

Valid 6PM to 8AM

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