

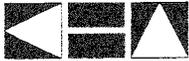
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***APPENDIX C***  
***CONGESTION MANAGEMENT PLAN ANALYSIS***

***Congestion Management  
Program (CMP) Analysis***

**Naval Training Center**

*Prepared for:*  
City of San Diego  
November 2, 1999



Kimley-Horn  
and Associates, Inc.

■  
Suite 301  
517 Fourth Avenue  
San Diego, California  
92101

November 2, 1999

Ms. Maureen Ostrye  
City of San Diego Redevelopment Agency  
202 C Street, 3<sup>rd</sup> Floor, MS 3A  
San Diego, CA 92101-3863

KHA 095244000.1

Re: Congestion Management Program Analysis, Naval Training Center  
Project

Dear Maureen:

In accordance with your authorization, we have conducted Congestion Management Program (CMP) analysis for the redevelopment of the Naval Training Center (NTC), a former military installation located adjacent to the Peninsula and Midway community planning areas in the City of San Diego. This analysis was deferred at the time of the NTC Disposal and Reuse Environmental Impact Statement/Environmental Impact Report (EIS/EIR), and has now been completed to satisfy the requirements of the CMP. Also, since the completion of the EIS/EIR, new standard methods were developed to analyze intersection capacity. This study includes the findings of intersection capacity analysis for all locations using up-to-date methods. This study addresses the following issues:

- The traffic generation, distribution and assignment of Naval Training Center and Military Family Housing projects
- Apportionment of trip generation credit for the former Naval Training Center use
- Analysis of Regionally Significant Arterials within the study limits
- Analysis of previously analyzed intersections using the current methodology
- Evaluation of freeway segments for portions of I-8, I-5 and SR-94
- Multi-lane highway analysis of a Pacific Highway from Transit Center to Sassafras Street

## I. PROJECT BACKGROUND

The Naval Training Center is a 510-acre former US Navy facility generally bounded by Rosecrans Street to the west, Lytton Street/Barnett Avenue to the north, Lindbergh Field to the east and North Harbor Drive to the south. **Figure 1** shows the location of the project in a regional context. The bulk of the project's acreage is situated between Rosecrans Street and a north/south boat channel located west of

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Lindbergh Field. This part of the project would take access via Rosecrans Street, Lytton Street, and North Harbor Drive. A smaller portion of the project, referred to as Camp Nimitz, is located east of the boat channel, and would take access exclusively via North Harbor Drive.

During the course of reuse planning for the overall site, the NTC was subdivided into the following components:

- ***Military Family Housing (MFH)***: a 68.5-acre area located on the southern portion of the NTC. The MFH would provide 500 multi-family military housing units and an 83,000 square foot medical/dental clinic. The MFH would generate 7,191 daily trips, including 491 in the morning peak hour and 300 in the afternoon peak hour. Within the MFH project, an elementary school would be sited to serve the residential uses in the MFH and NTC sites.
- ***Existing Uses to Remain***: a convenience store/gas station/auto repair use located on three acres at the northwest corner of the Rosecrans Street/Nimitz Boulevard intersection. These military uses are not a part of the NTC Reuse or MFH component will continue in their current operations.
- ***NTC Reuse***: the remaining 438.5 acres (i.e., 510 minus 68.5 for MFH minus 3 for Existing Uses to Remain) of NTC, including Camp Nimitz. For the purposes of this analysis, the NTC Reuse is assumed to be developed with a mixture of residential, educational, retail, recreational and other uses in accordance with the Local Redevelopment Authority (LRA) land use plan. The NTC Reuse would have a daily traffic generation of 53,227, including 4,495 in the morning peak hour and 5,296 in the afternoon peak hour.

A number of traffic analyses have been completed to document the traffic-related impacts of the MFH and NTC Reuse. The Phase II Traffic Report of the Disposal and Reuse EIS/EIR (Feb., 1997) evaluated numerous land use alternatives for the NTC Reuse, while the Traffic Impact Analysis for the Naval Training Center Military Housing Project (Nov., 1997), analyzed impacts associated with the MFH. Both studies are referred to throughout this letter, and pertinent excerpts are attached in the appendices.

#### CMP Requirements

During the development of the traffic impact analysis conducted for the Naval Training Center project, City of San Diego staff recommended deferment of the Congestion Management Program (CMP) portion of the traffic impact study requirements until a specific reuse plan had been selected. The Congestion Management Program was enacted statewide following voter approval of Proposition 111 in June, 1990. Implementation of the CMP in San Diego County was completed in Oct., 1993.

The Countywide implementation requires enhanced capacity analysis for all facilities comprising the CMP and Regionally Significant Arterial (RSA) network which are impacted by large projects. A large project is defined as generating at least 2,400 daily trips or 200 peak hour trips. CMP and RSA arterials are potentially



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impacted, and enhanced capacity analysis is triggered, when the project adds 50 directional peak hour trips to street segments and intersections and/or 150 directional peak hour trips to freeway mainlines. The combined MFH/NTC Reuse traffic generation exceeds the CMP "large project" threshold, even incorporating a credit for reuse of a formerly active site.

#### Study Area and Reuse Credit

RSAs in the project vicinity include Rosecrans Street/Canon Street/Catalina Boulevard (SR-209), Nimitz Boulevard, North Harbor Drive/Hawthorn Street/Grape Street, and Pacific Highway. The study area was defined in accordance with CMP requirements based on the *total* traffic generation of the combined MFH/NTC Reuse projects, assigned in accordance with the distribution pattern contained in the Feb., 1997 traffic report. This distribution was determined by conducting a project specific travel forecast using SANDAG's regional traffic model. **Figure 2** depicts the existing and future intersections comprising the RSA study area.

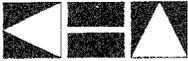
It should be noted, however, that impacts associated with the combined project components was determined based on the *incremental* additional traffic as compared to the traffic associated with the former use of the site. This approach credits redevelopment for the past traffic generation of the site, because traffic from the proposed uses *replaces* traffic formerly generated by the site, rather than *adding* new trips to the transportation network. The previous use of the site generated 45,000 ADT for the 507 acres to be redeveloped. The resulting reuse credit is approximately 89 trips per acre. Refer to Section II for more detail regarding the calculation and application of the reuse credit.

#### Previously Identified Mitigation

The Feb., 1997 traffic study for the NTC Reuse identified transportation improvements to mitigate the project's traffic impacts. **Figure 3** is an excerpt from the Feb., 1997 study, and depicts the transportation improvements required to mitigate the project's traffic impacts. These improvements focus on restoring peak hour intersection capacity which should, in theory, assure adequate peak hour arterial capacity (i.e., CMP analysis). This is because the CMP required analysis results are based on the capacity of the signalized intersections comprising the RSA. This study tests the adequacy of recommended improvements in the context of CMP required analysis.

## II. FUTURE TRAFFIC CONDITIONS

As shown in Figure 2, this report analyzes 39 signalized intersections, including 20 that were previously analyzed in the Feb., 1997 report. Peak hour intersection turning movements at these locations were taken directly from the Feb., 1997 report for the LRA alternative. Turning movement volumes at the remaining 19 locations were estimated manually, based on existing peak hour counts and ADT change on the intersection legs. The following procedure was used to estimate future turning movements:



1. Existing ADTs on both major and minor street approaches were compared to corresponding buildout volumes from the forecast conducted for the Feb., 1997 study. Composite factors were developed for the north/south and east/west directions of travel.
2. The growth factors were applied to the appropriate volumes, subject to the following considerations:
  - Where buildout volumes from the Feb., 1997 were available for an adjacent intersection, through volumes on the major street were balanced with this intersection, if there were no intervening streets/driveways likely to siphon off traffic
  - Where the minor street approach serves a fairly stable, developed area and is not a through route, a growth factor of 10 percent was assumed, if the calculated factor was higher than 10 percent
3. Peak hour volumes at new locations were rounded to the nearest.

Buildout volumes on freeways were obtained from Caltrans District 11 staff.

#### Lane Geometry and Traffic Control

Intersection lane geometry, traffic control, and signal phasing was observed in the field in June, 1999. Figure 4 depicts existing lanes, plus the project mitigation shown in Figure 3. Also, three locations (i.e., intersections 8, 9 and 18) are future intersections that were previously analyzed; the lanes assumed at these locations is consistent with the Feb., 1997 report, and include recommended project geometric changes.

#### Project Traffic Generation and Reuse Credit

Excerpts from the February and November, 1997 studies summarizing traffic generation are attached to this letter in Appendix A. The combined projects (i.e., the MFH project and the NTC Reuse LRA land uses) would have a total daily traffic generation of over 60,000, including nearly 5,000 in the morning peak hour and approximately 5,600 in the afternoon peak hour. This is the total traffic generation, and does not include the credit for redevelopment of the site.

As discussed in the introduction, of the 510 acres comprising the former NTC site, three acres on the southeast corner of Rosecrans Street and Nimitz Boulevard will retain its existing use (i.e., gas station, convenience store, and auto repair). Based on 1988 gate crossing traffic counts, the remaining 507 acres generated about 45,000 ADT during peak base operations. Given the high internal interaction of the former uses, the most equitable way to allocate the credit for redevelopment is to apportion it on a per acre basis. In terms of ADT, the resulting reuse credit would be *88.8 trips per acre*. The MFH and NTC Reuse projects both used this apportionment method.

For the purposes of this traffic study, the project is divided into two components,



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one being the Military Family Housing (MFH) located on the southern part of the site, and the other being the remainder of the former NTC, including Camp Nimitz.

The MFH project comprises 68.5 acres, or 13.5% of the total site. The MFH project's credit would be 6,080 ADT (or 68.5 acres \* 88.8 trips per acres); the remaining NTC would have a credit of 38,920 (or 45,000 - 6,080). The peak hour inbound/outbound volumes associated with each component of the project were adjusted to reflect the ADT-based adjustment. For example, the credit for the MFH use is 84.6% of the project's total daily traffic generation of 7,191 (i.e., 6,080 ÷ 7,191). Peak hour trips were adjusted to reflect this credit allocation. While this approach does not account for the differing inbound/outbound orientation of the former military use of the site, it does provide a means for estimating the credit on a peak hour basis.

**Table 1** presents the traffic generation and redevelopment credit calculations for both components of the project on a daily and peak hour basis. As shown in Table 1, the two redevelopment proposals would have a combined net traffic generation increase of over 15,000 daily trips, including 1,285 in the morning peak hour and 1,472 in the afternoon peak hour. Taken individually, only the NTC Reuse proposal has an incremental traffic generation warranting CMP analysis. The MFH proposal maximum incremental peak hour traffic generation is 39 directional trips. This volume is below the threshold triggering enhanced CMP analysis.

#### Project Traffic Distribution and Assignment

The incremental additional project trips summarized in Table 1 were assigned to the study area intersections and street segments in accordance with the distribution pattern contained in the Feb., 1997 report. **Figure 5** illustrates this percent distribution. It should be noted that this is a composite distribution pattern, reflecting both the bulk of NTC (i.e., west of the boat channel), and Camp Nimitz, both of which have separate different access points. **Figure 6** depicts the incremental additional traffic generated by the NTC Reuse project, while **Figure 7** shows the incremental traffic associated with the MFH project.

#### Buildout Traffic Volumes

The incremental project traffic volumes shown in Figures 4 and 5 were subtracted from corresponding Buildout with Combined Projects volumes in order to isolate the project's traffic impact. **Figure 8** depicts Buildout without Project peak hour intersection turning movements, while **Figure 9** presents Buildout with Project volumes.

### III. ANALYSIS

Peak hour capacity analysis was conducted for RSAs and freeway segments to which the project's total (rather than incremental) traffic generation exceeds the CMP threshold of 50 peak hour directional trips on RSAs and 150 peak hour directional trips on freeways. The regional implementation of the CMP requires



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peak hour arterial analysis on RSA's using Highway Capacity Manual (HCM) Chapter 11 procedures. However, the Pacific Highway segment between the Transit Center signalized access and Sassafras Street is an expressway type design with grade separated interchanges. Accordingly, the Multilane Highway (HCM Chapter 7) procedures were used for this segment. This method uses vehicle density per mile per lane as the performance indicator. It should be noted that the Multilane Highway method does not support analysis for segments having more than three lanes in each direction. Since a portion of Pacific Highway provides four lanes in each direction, Buildout volumes were reduced by 25 percent to simulate three lanes in each direction for that segment. Also, since the City of San Diego does not have a published significance criterion for vehicle density, significance of project traffic impact is not reported for this facility.

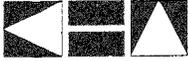
Intersection capacity was evaluated in accordance with HCM Chapter 9 procedures. Freeway segment analysis was conducted using Caltrans procedures, based on the volumes, peak hour concentration, directional split, and heavy vehicle factors supplied by District 11 staff. The following paragraphs summarize the findings of the CMP required analysis.

#### Buildout without Projects

The Buildout without Projects condition assumes existing intersection lane geometry and Community Plan improvements only; transportation improvements associated with NTC mitigation are not assumed under this condition. **Table 2** lists the findings of peak hour intersection capacity analysis, **Table 3** presents the results of CMP arterial analysis, **Table 4** summarizes the findings of multilane highway analysis, and **Table 5** shows the results of freeway segment analysis for the Buildout without Projects condition. As summarized in Table 2, ten of the 39 intersections analyzed will experience congested LOS E or F conditions during one or both peak hours. As shown in Table 3, all CMP arterial segments analyzed will be characterized by adequate LOS D or better conditions during both peak hours in both directions of travel, except for Rosecrans Street/Camino del Rio West from North Harbor Drive to Hancock Street, which will experience congested LOS E conditions in the southbound direction during the afternoon peak only. Multilane highway analysis of Pacific Highway indicates good LOS C or better conditions during both peak hours in both directions of travel. Freeway segment analysis indicates congested LOS F conditions in the peak hour/peak direction for all 32 segments analyzed.

#### Buildout with Projects

Buildout with Projects traffic volumes on CMP arterials were evaluated both with and without the NTC specific mitigation identified in the Feb., 1997 traffic study. **Table 6** lists the findings of intersection capacity analysis, **Table 7** shows CMP arterial analysis results, **Table 8** summarizes the findings for multilane highways, and **Table 9** lists the results for freeway analysis. As shown in Table 6, 11 of the 39 intersections analyzed will experience congested peak hour conditions during one or both peak hours. The additional congested intersection (as compared to the



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no project scenario, is Lytton Street/Barnett Avenue, NTC Gate 1, which will decline from LOS D to LOS E with the addition of project traffic. As shown in Table 7, the addition of traffic from the two redevelopment proposals *without NTC improvements* would worsen the congestion on Rosecrans Street identified under the without Projects condition. All other segments analyzed would continue to have acceptable LOS D or better conditions with the addition of NTC Reuse and MFH project traffic. Assuming the implementation of the transportation improvements identified in the Feb., 1997 study, LOS on Rosecrans Street would be restored to adequate LOS D or better conditions during both peak hours in both directions of travel. On the multilane highway, the addition of project traffic will not cause any segment of Pacific Highway to decline from an acceptable LOS to a congested LOS.

On the freeway segments, the addition of project traffic will cause further deterioration of without projects congestion in the peak hour/peak direction of travel. However, while the projects add incrementally to the congestion, they do not cause it.

#### Significance of Project Traffic Impacts

**Table 10** presents the significance of project traffic impacts on intersections, **Table 11** summarizes the significance of the projects' traffic impacts on CMP arterial segments, **Table 12** provides a comparison of passenger car densities on Pacific Highway with and without the projects, and **Table 13** summarizes significance of the projects' impacts on freeway segments. As shown in Table 10, the project will generate significant peak hour impacts during one or both peak hours at the following locations:

- Nimitz Boulevard/Rosecrans Street (LOS F, both peak hours)
- Rosecrans Street/North Harbor Drive (LOS F, PM peak hour)
- Rosecrans Street/Lytton Street (LOS F, both peak hours)
- Rosecrans Street/Sports Arena Boulevard (LOS F, PM peak hour)
- Rosecrans Street/Midway Drive (LOS F, both peak hours)
- Rosecrans Street/Bainbridge Court/Russell Street (LOS F, PM peak hour only)
- Rosecrans Street/Roosevelt Road (LOS F, both peak hours)
- Lytton Street/Barnett Avenue/Gate 1 (LOS E, PM peak hour only)
- Rosecrans Street/N. Evergreen Street (adequate LOS, both peak hours)
- Laning Road/North Harbor Drive (adequate LOS, both peak hours)
- Pacific Highway/Laurel Street (adequate LOS, both peak hours)

As shown in Table 11, the project would have a significant unmitigated impact on Rosecrans Street if the transportation improvements identified in the Feb., 1997 traffic study were not implemented. Assuming implementation of these improvements, the projects will have mitigated their impacts. The projects will have a significant impact on the following freeway segments:



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1. I-5 (Pacific Highway to Olive)
2. I-5 (Olive to Hawthorn)
3. I-5 (Hawthorn to Grape)
4. I-5 (Grape to 1<sup>st</sup>)
5. I-5 (1<sup>st</sup> to SR-163)
6. I-5 (SR-163 to SR-94)
7. I-8 (Taylor to Hotel Circle)

Also, while there is not significance criteria for multilane highway analysis, the project does not cause Pacific Highway to decline from an acceptable LOS to a congested LOS.

## VI. CONCLUSIONS

- The 510 acre former Naval Training Center site, located adjacent to the Peninsula and Midway communities of San Diego, California, is to be redeveloped with a mixture of residential, education, retail, institutional, and other uses. There are two separate redevelopment proposals. The NTC Reuse proposal, encompassing 438.5 acres (including Camp Nimitz), would generate more than 53,000 total (rather than incremental) daily trips. The NTC Military Family Housing redevelopment proposal would generate more than 7,000 daily trips. (The remaining three acres are occupied by existing uses to remain.)
- At the time of the traffic impact analysis for the NTC Reuse portion of the site (i.e., Feb., 1997), City of San Diego staff recommended deferment of the Congestion Management Program (CMP) portion of the traffic impact study requirements until a specific reuse plan had been selected. The Local Reuse Authority (LRA) land use alternative was subsequently selected, and enhanced analysis is now being conducted to satisfy the requirements of the CMP. In addition to complying with the CMP, this study also tests the adequacy of previously identified mitigation in the context of peak hour arterial analysis.
- While the scope of the analysis was determined based on the total traffic generation of the reuse proposals, the specification of the projects' traffic impacts was determined based on their incremental traffic generation. This approach acknowledges the traffic related benefits associated with redevelopment of a former use, as compared to new development on a previously vacant site. Whereas new development adds new traffic to the transportation network, redevelopment replaces the traffic associated with the former use of the site with the traffic generated by the redevelopment uses. The true traffic impact of a redeveloped property, then, is the incremental additional traffic generated by the site, as compared to that of previous uses. The two redevelopment proposals would have a combined net traffic generation increase of over 15,000 daily trips, including 1,285 in the morning peak hour and 1,472 in the afternoon peak hour. These trips were distributed and assigned to the transportation network in accordance with the Feb., 1997 traffic study



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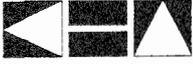
distribution.

- The project will generate significant impacts at 11 intersections, eight of which are characterized by congested LOS. In accordance with the project mitigation package established in the EIS/EIR, the project will provide full funding of intersection improvements at the following locations:
  - Rosecrans Street/Nimitz Boulevard
  - Rosecrans Street/Bainbridge Court/Russell Street
  - Rosecrans Street/Roosevelt Road
  - Rosecrans Street/Lytton Street

The project's funding of these improvements will restore LOS at the four above described locations to acceptable LOS during both peak hours.

- Peak hour arterial segment (HCM Chapter 11), multilane highway segment (Chapter 11) and freeway segment (Caltrans procedures) analysis was conducted for Buildout with and without Project traffic conditions. Without projects analysis of Rosecrans Street did not assume the NTC specific mitigation identified in the Feb., 1997 study. The CMP arterial analysis found that project traffic would worsen Buildout without Project congestion on Rosecrans Street, assuming that the NTC improvements are not implemented. However, provision of these improvements will restore LOS on this segment to acceptable levels.
- Multilane highway analysis of Pacific Highway found acceptable LOS under both the with and without projects scenarios.
- The projects will add incrementally to Buildout without Project congestion on freeway segments, and will generate significant impacts on seven segments. The project's freeway impacts are considered significant and unmitigable. g.
- Based on the findings of the capacity analysis summarized above, the mitigation measures identified in the Feb., 1997 study will alleviate peak hour arterial segment congestion under Buildout with Projects conditions. Accordingly, no supplemental mitigation is warranted, and none is recommended.

Please call me if you have any questions or comments.



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and Associates, Inc.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.

A handwritten signature in black ink, appearing to read "David K. Sorenson".

David K. Sorenson, P.E.  
Associate

Attachments:

- ✓ Figures 1-9
- ✓ Tables 1-13
- ✓ Excerpts from Previous Studies
- ✓ SYNCHRO worksheets (Chapter 11)
- ✓ HCS worksheets (Chapter 7)
- ✓ SYNCHRO worksheets (Chapter 9)

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TABLE 1  
SUMMARY OF PROJECT TRAFFIC GENERATION  
AND REDEVELOPMENT CREDITS

Traffic Generation Component	Daily	AM		PM	
		In	Out	In	Out
MFH Traffic Generation (a)	7,191	249	242	210	90
MFH Credit	6,080	210	205	176	76
MFH Incremental	1,111	39	37	34	14
Remaining NTC (b)	53,227	3,538	958	1,877	3,420
Remaining NTC credit	38,920	2,587	700	1,372	2,501
<b>NET TRAFFIC GENERATION:</b>	<b>14,307</b>	<b>951</b>	<b>258</b>	<b>505</b>	<b>919</b>

(a) Traffic Impact Analysis for the NTC, MFH, KHA (11/97)

(b) Traffic Impact Analysis for the Naval Training Center (2/97)

**TABLE 2  
SUMMARY OF PEAK HOUR INTERSECTION CAPACITY ANALYSIS  
BUILDOUT WITHOUT PROJECT**

<b>SIGNALIZED INTERSECTIONS</b>				
<b>INTERSECTION</b>	<b>AM PEAK HOUR</b>		<b>PM PEAK HOUR</b>	
	<b>DELAY (a)</b>	<b>LOS (b)</b>	<b>DELAY (a)</b>	<b>LOS (b)</b>
1. Nimitz Blvd./W. Point Loma Blvd.	23.9	C	63.4	F
2. Nimitz Blvd./Tennyson St.	3.2	A	3.7	A
3. Nimitz Blvd./Chatsworth Blvd.	9.9	B	20.1	C
4. Nimitz Blvd./Lowell St.	20.1	C	8.8	B
5. Nimitz Blvd./Rosecrans St.	33.1	D	*	F
6. Nimitz Blvd./N. Harbor Dr.	13.6	B	18.2	C
7. Rosecrans St./N. Harbor Dr.	24.5	C	*	F
8. Rosecrans St./ Bainbridge Ct./Russell St.	13.9	B	*	F
9. Rosecrans St./Farragut Rd.	(c)	(c)	(c)	(c)
10. Rosecrans St./Roosevelt Rd	*	F	*	F
11. Rosecrans St./Lytton St.	*	F	*	F
12. Rosecrans St./N.Evergreen St.	7.0	B	24.3	C
13. Rosecrans St./Midway Dr.	25.1	D	*	F
14. Rosecrans St./Sports Arena Blvd.	31.4	D	*	F
15. Cmo del Rio W./Kurtz St.	5.5	B	15.8	C
16. Cmo del Rio W./Hancock St.	8.6	B	11.0	B
17. Laning Rd./N. Harbor Dr.	7.3	B	17.0	C
18. McCain Rd./N. Harbor Dr.	(c)	(c)	(c)	(c)
19. Spanish Landing/Terminal 2/N. Harbor Dr.	7.1	B	15.9	C
20. Harbor Island Dr./N. Harbor Dr.	22.8	C	38.0	D
21. Winship Lane/N. Harbor Dr.	5.3	B	8.3	B
22. Rental Car Access/N. Harbor Dr.	7.0	B	6.2	B
23. Teledyne Ryan Access/N. Harbor Dr.	2.7	A	4.5	A
24. Laurel St./N. Harbor Dr.	8.8	B	17.1	C
25. N. Harbor Dr./ Hawthorn St.	12.1	B	16.8	C
26. N. Harbor Dr./ Grape St.	6.8	B	16.7	C
27. Pacific Hwy./ Taylor St./ Rosecrans	31.2	D	27.6	D
28. Pacific Hwy./ Transit Center Access	15.9	C	17.5	C
29. Pacific Hwy./ Sassafra St.	28.6	D	14.2	B
30. Pacific Hwy./Palm St.	4.1	A	9.4	B
31. Pacific Hwy./Laurel St.	25.7	D	36.9	D
32. Pacific Hwy./Hawthorn St.	14.6	B	22.6	C
33. Pacific Hwy./Grape St.	37.1	D	29.4	D
34. Sunset Cliffs Bl./Nimitz Bl. (sb)	*	F	*	F
35. Sunset Cliffs Bl./Nimitz Bl. (nb)	11.8	B	12.2	B
36. Sunset Cliffs Bl./I-8 wb off ramp	37.6	D	*	F
37. Lytton St./Barnett Av./NTC Gate 1	29.7	D	32.2	D
38. Barnett Av./Midway Dr.	4.5	A	6.6	B
39. Midway Dr./W. Point Loma Dr./Sports Arena Bl.	22.2	C	29.9	D

(a) Average stopped delay per vehicle, in seconds  
(b) Level of service determined using Highway Capacity Manual, Chapter 9 & 10 procedures  
(c) Future site access driveway; there would be no intersection without the project  
\*: Critical V/C exceeds 1/PHF or 1.2; calculation of delay not feasible

TABLE 3  
SUMMARY OF CMP PEAK HOUR ARTERIAL SEGMENT ANALYSIS  
BUILDOUT WITHOUT PROJECTS

STREET SEGMENT	DIRECTION	BUILDOUT WITHOUT PROJECTS CONDITIONS			
		AM PEAK HOUR		PM PEAK HOUR	
		SPEED (a)	LOS	SPEED (a)	LOS
NORTH HARBOR DRIVE	Eastbound	28.1	B	16.9	D
	Westbound	27.2	B	16.2	D
ROSECRANS STREET	Northbound	15.4	D	15.0	D
	Southbound	15.8	D	13.2	E
NIMITZ BOULEVARD	Northbound	24.8	B	20.7	C
	Southbound	25.8	B	23.1	C
PACIFIC HIGHWAY	Northbound	34.7	A	39.0	A
	Southbound	12.5	D	10.5	D
TAYLOR STREET - TRANSIT CENTER	Northbound	14.9	D	16.7	D
	Southbound	24.5	B	30.3	A

(a) Average vehicle speed, in mph

TABLE 4  
 SUMMARY OF MULTI-LANE HIGHWAY PEAK HOUR SEGMENT ANALYSIS  
 BUILDOUT WITHOUT PROJECTS

HIGHWAY	SEGMENT	DIRECTION	BUILDOUT WITHOUT PROJECTS CONDITIONS			
			AM PEAK HOUR		PM PEAK HOUR	
			DENSITY (a)	LOS	DENSITY (a)	LOS
PACIFIC HIGHWAY	TRANSIT CENTER - BARNETT AVENUE	Northbound	7.8	A	11.3	A
		Southbound	6.4	A	7.5	A
	BARNETT AVENUE - WASHINGTON STREET	Northbound*	18.6	B	26.2	C
		Southbound	12.9	B	24.8	C
	WASHINGTON STREET - SASSAFRAS STREET	Northbound	5.1	A	9.1	A
		Southbound	9.3	A	9.4	A

\* Note: Multi-lane highway analysis allows for three lanes per direction. Volumes were adjusted to reflect this condition  
 (a) Density, in passenger cars per mile per lane

TABLE 5  
SUMMARY OF FREEWAY SEGMENT VOLUMES AND LEVELS OF SERVICE  
BUILDOUT WITHOUT PROJECTS

ROUTE	LIMITS	# LANES	HOV LANE	CAPACITY	PROJECT ADT	ADT	PEAK HOUR %	DIRECTION SPLIT	TRUCK FACTOR	PEAK HOUR VOLUME	V/C	LEVEL OF SERVICE	
Interstate 5	SR-52 - Mission Bay Dr.	4	Y	8,600	1,327	241,173	8.6%	53.0%	0.985	10,491	1.22	F(0)	
	Mission Bay Dr. - Gannet Ave	4	Y	8,600	1,357	276,843	8.6%	52.0%	0.975	11,162	1.30	F(1)	
	Gannet Ave - Grand Ave	4	Y	8,600	1,387	276,813	8.4%	52.0%	0.975	11,161	1.30	F(1)	
	Grand Ave - Clairemont Dr.	4	Y	8,600	1,403	276,797	8.4%	52.0%	0.975	11,160	1.30	F(1)	
	Clairemont Dr. - Seaworld Dr.	4	Y	8,600	1,504	278,696	8.4%	52.0%	0.975	11,237	1.31	F(1)	
	Seaworld Dr. - I-8	4	Y	8,600	1,429	253,771	8.7%	52.0%	0.975	10,587	1.23	F(0)	
	I-8 - Old Town Ave	4	Y	8,600	0	246,600	8.7%	52.0%	0.965	11,561	1.34	F(1)	
	Old Town Ave - Washington St.	4	Y	8,600	101	234,959	8.6%	52.0%	0.965	11,139	1.30	F(1)	
	Washington St. - Pacific Hwy	4	Y	8,600	101	188,959	9.4%	55.0%	0.965	9,049	1.13	F(0)	
	Pacific Hwy - Olive St.	4	Y	8,600	2,076	237,524	8.8%	55.0%	0.965	11,913	1.39	F(2)	
	Olive St. - Hawthorn St.	4	Y	8,600	2,162	237,438	8.8%	55.0%	0.965	11,909	1.38	F(2)	
	Hawthorn St. - Grapes St.	4	Y	8,600	2,633	249,867	8.7%	55.0%	0.985	12,390	1.44	F(2)	
	Grapes St. - 1st Ave	4	Y	8,600	2,343	250,157	8.7%	55.0%	0.985	12,404	1.44	F(2)	
	1st Ave - SR-163	5	Y	10,000	2,364	262,536	8.6%	55.0%	0.985	12,866	1.29	F(1)	
	SR-163 - SR-94	5	Y	10,600	2,204	262,696	8.6%	54.0%	0.985	12,642	1.19	F(0)	
	SR-94 - Imperial Ave	4	Y	8,600	1,239	217,361	9.0%	53.0%	0.985	10,744	1.25	F(0)	
	Imperial Ave - Hwy 75 (Coronado)	4	Y	8,600	1,073	209,327	9.1%	53.0%	0.965	10,462	1.22	F(0)	
	Hwy 75 - 28th St	4	Y	9,200	1,018	209,862	9.1%	57.0%	0.985	11,271	1.23	F(0)	
	28th St - I-15	4	Y	8,600	987	205,013	9.1%	60.0%	0.965	11,600	1.45	F(2)	
	Interstate 8	Sunset Cliffs Blvd. - Mission Bay Dr./Midway Dr.	5	Y	10,600	0	220,200	9.0%	57.0%	0.990	11,410	1.08	F(0)
I-5 - Taylor St		5	Y	10,600	0	220,200	9.0%	57.0%	0.990	11,410	1.08	F(0)	
Taylor St - Hotel Circle		5	Y	10,600	2,153	227,347	8.9%	57.0%	0.990	11,650	1.10	F(0)	
Hotel Circle - SR-163		5	Y	10,600	2,033	239,507	8.8%	57.0%	0.990	12,138	1.15	F(0)	
SR-163 - Mission Center RD		4	Y	9,200	1,170	228,430	8.9%	57.0%	0.985	11,765	1.28	F(1)	
Mission Center RD - Texas St		5	Y	10,600	1,119	228,481	8.9%	57.0%	0.985	11,767	1.11	F(0)	
Texas St - I-805		4	Y	8,600	1,051	247,049	8.7%	57.0%	0.985	12,438	1.45	F(2)	
State Route 94		I-5 - 25th St	4	Y	8,600	814	162,086	9.5%	71.0%	0.985	9,889	1.25	F(0)
		25th St - 28th St	4	Y	8,600	814	162,086	9.5%	71.0%	0.985	9,889	1.25	F(0)
		28th St - Broadway	4	Y	8,600	814	177,566	9.4%	71.0%	0.985	10,829	1.35	F(1)
	Broadway - I-15	4	Y	8,600	754	196,246	9.2%	71.0%	0.955	12,081	1.51	F(3)	
	I-15 - Home Ave	4	Y	8,600	486	180,314	9.3%	71.0%	0.985	12,087	1.51	F(3)	
	Home Ave - I-805	4	Y	8,600	486	151,614	9.6%	71.0%	0.985	10,491	1.31	F(1)	

# Lanes - Number of lanes in one direction; HOV - High Occupancy Lanes= assumes a 10% reduction in peak hour volume  
Capacity - Capacity in one direction  
ADT - Average Daily Traffic  
Peak Hour % - Percentage of average daily traffic occurring during the peak hour  
Direction Split - Percentage of peak hour traffic travelling in peak direction  
Truck Factor - Truck/train factor to represent influence of heavy vehicles and/or grades  
Peak Hour Volume - Peak hour traffic in peak direction of travel / For facilities with HOV lanes, ten percent is assumed to use HOV lanes.  
V/C - Volume to Capacity ratio  
LOS - Caltrans District 11 procedure was used to estimate the freeway level of service. Designations vary from A to F, with four levels of LOS F from F(0) to F(3).

**TABLE 6**  
**SUMMARY OF PEAK HOUR INTERSECTION CAPACITY ANALYSIS**  
**BUILDOUT WITH PROJECT**

<b>SIGNALIZED INTERSECTIONS</b>				
INTERSECTION	AM PEAK HOUR		PM PEAK HOUR	
	DELAY (a)	LOS (b)	DELAY (a)	LOS (b)
1. Nimitz Blvd./W. Point Loma Blvd.	24.0	C	64.9	F
2. Nimitz Blvd./Tennyson St.	3.5	A	4.0	A
3. Nimitz Blvd./Chatsworth Blvd.	11.4	B	20.2	C
4. Nimitz Blvd./Lowell St.	20.2	C	9.0	B
5. Nimitz Blvd./Rosecrans St.	*	F	*	F
6. Nimitz Blvd./N. Harbor Dr.	13.9	B	19.0	C
7. Rosecrans St./N. Harbor Dr.	24.9	C	*	F
8. Rosecrans St./ Bainbridge Ct./Russell St.	15.4	C	*	F
9. Rosecrans St./Farragut Rd.	38.6	D	23.3	C
10. Rosecrans St./Roosevelt Rd	*	F	*	F
11. Rosecrans St./Lytton St.	*	F	*	F
12. Rosecrans St./N.Evergreen St.	7.7	B	28.6	D
13. Rosecrans St./Midway Dr.	*	F	*	F
14. Rosecrans St./Sports Arena Blvd.	32.3	D	*	F
15. Cmo del Rio W./Kurtz St.	8.8	B	16.8	C
16. Cmo del Rio W./Hancock St.	9.1	B	11.2	B
17. Laning Rd./N. Harbor Dr.	8.3	B	21.6	C
18. McCain Rd./N. Harbor Dr.	4.9	A	13.5	B
19. Spanish Landing/Terminal 2/N. Harbor Dr.	10.7	B	16.5	C
20. Harbor Island Dr./N. Harbor Dr.	23.0	C	39.5	D
21. Winship Lane/N. Harbor Dr.	5.3	B	8.7	B
22. Rental Car Access/N. Harbor Dr.	7.8	B	7.1	B
23. Teledyne Ryan Access/N. Harbor Dr.	3.2	A	5.3	B
24. Laurel St./N. Harbor Dr.	9.2	B	18.6	C
25. N. Harbor Dr./ Hawthorn St.	12.3	B	17.5	C
26. N. Harbor Dr./ Grape St.	6.9	B	16.8	C
27. Pacific Hwy./ Taylor St./ Rosecrans	31.4	D	27.9	D
28. Pacific Hwy./ Transit Center Access	16.9	C	18.6	C
29. Pacific Hwy./ Sassafra St.	28.8	D	14.7	B
30. Pacific Hwy./Palm St.	5.6	B	10.1	B
31. Pacific Hwy./Laurel St.	31.0	D	39.1	D
32. Pacific Hwy./Hawthorn St.	15.1	C	21.9	C
33. Pacific Hwy./Grape St.	37.7	D	29.8	D
34. Sunset Cliffs Bl./Nimitz Bl. (sb)	*	F	*	F
35. Sunset Cliffs Bl./Nimitz Bl. (nb)	12.5	B	13.4	B
36. Sunset Cliffs Bl/I-8 wb off ramp	37.8	D	*	F
37. Lytton St./Barnett Av./NTC Gate 1	34.3	D	45.3	E
38. Barnett Av./Midway Dr.	5.6	B	7.0	B
39. Midway Dr./W. Point Loma Dr./Sports Arena Bl.	22.7	C	31.2	D

(a) Average stopped delay per vehicle, in seconds  
(b) Level of service determined using Highway Capacity Manual, Chapter 9 & 10 procedures

\*: Critical V/C exceeds 1/PHF or 1.2; calculation of delay not feasible

TABLE 7  
SUMMARY OF CMP PEAK HOUR ARTERIAL SEGMENT ANALYSIS  
BUILDOUT WITH PROJECTS

STREET SEGMENT	DIRECTION	BUILDOUT WITH PROJECTS					
		AM PEAK HOUR			PM PEAK HOUR		
		SPEED (a)	LOS	LOS	SPEED (a)	LOS	LOS
NORTH HARBOR DRIVE	Eastbound	28.0	B		16.7	D	D
	Westbound	26.8	B		15.9	D	D
ROSECRANS STREET	Northbound	12.7	E		9.4	F	F
	Southbound	12.9	E		11.9	E	E
ROSECRANS STREET WITH NTC IMPROVEMENTS	Northbound	15.3	D		15.1	D	D
	Southbound	21.9	C		21.9	C	C
NIMITZ BOULEVARD	Northbound	24.8	B		20.5	C	C
	Southbound	25.6	B		23.1	C	C
PACIFIC HIGHWAY TAYLOR STREET - TRANSIT CENTER	Northbound	34.7	A		38.2	A	A
	Southbound	12.5	D		10.5	D	D
PACIFIC HIGHWAY SASSAFRAS STREET - GRAPE STREET	Northbound	14.8	D		16.4	D	D
	Southbound	24.1	B		29.9	B	B

(a) Average vehicle speed, in mph

TABLE 8  
SUMMARY OF MULTILANE HIGHWAY PEAK HOUR SEGMENT ANALYSIS  
BUILDOUT WITH PROJECTS

HIGHWAY	SEGMENT	DIRECTION	BUILDOUT WITH PROJECTS CONDITIONS			
			AM PEAK HOUR		PM PEAK HOUR	
			DENSITY (a)	LOS	DENSITY (a)	LOS
PACIFIC HIGHWAY	TRANSIT CENTER - BARNETT AVENUE	Northbound	8.0	A	11.4	A
	BARNETT AVENUE - WASHINGTON STREET	Southbound	6.5	A	7.7	A
		Northbound*	20.7	C	28.6	D
WASHINGTON STREET - SASSAFRAS STREET		Southbound	16.0	B	27.6	C
		Northbound	5.2	A	9.5	A
		Southbound	9.4	A	9.8	A

\* Note: Multi-lane highway analysis allows for a maximum of three lanes per direction. This segment & direction of Pacific Highway has four travel lanes. Volumes were adjusted to reflect this condition.

(a) Density, in passenger cars per mile per lane

TABLE 9  
SUMMARY OF FREEWAY SEGMENT VOLUMES AND LEVELS OF SERVICE  
BUILDOUT WITH PROJECTS

ROUTE	LIMITS	# LANES	HOV LANE	CAPACITY	ADT	PEAK HOUR %	DIRECTION SPLIT	TRUCK FACTOR	PEAK HOUR VOLUME	V/C	LEVEL OF SERVICE
Interstate 5	SR-52 - Mission Bay Dr.	4	Y	8,600	242,500	8.8%	53.0%	0.965	10,548	1.23	F(0)
	Mission Bay Dr. - Garnet Ave	4	Y	8,600	278,200	8.4%	52.0%	0.975	11,217	1.30	F(1)
	Garnet Ave - Grand Ave	4	Y	8,600	278,200	8.4%	52.0%	0.975	11,217	1.30	F(1)
	Grand Ave - Clairmont Dr.	4	Y	8,600	280,200	8.4%	52.0%	0.975	11,298	1.31	F(1)
	Clairmont Dr. - Seaworld Dr.	4	Y	8,600	255,200	8.7%	52.0%	0.975	10,657	1.24	F(0)
	Seaworld Dr. - I-8	4	Y	8,600	246,600	8.7%	52.0%	0.965	11,561	1.34	F(1)
	I-8 - Old Town Ave	4		8,600	235,000	8.8%	52.0%	0.965	11,144	1.30	F(1)
	Old Town Ave - Washington St.	4		8,000	169,000	9.4%	55.0%	0.965	9,054	1.13	F(0)
	Washington St. - Pacific Hwy	4		8,600	239,600	8.8%	55.0%	0.965	12,017	1.40	F(2)
	Pacific Hwy - Olive St.	4		8,600	239,600	8.8%	55.0%	0.965	12,017	1.40	F(2)
	Olive St. - Hawthorn St.	4		8,600	252,500	8.7%	55.0%	0.965	12,520	1.46	F(2)
	Hawthorn St. - Grape St.	4		8,600	252,500	8.7%	55.0%	0.965	12,520	1.46	F(2)
	Grape St. - 1st Ave	4		10,000	264,900	8.6%	54.0%	0.965	12,984	1.30	F(1)
	1st Ave - SR-163	5		10,600	284,900	8.6%	54.0%	0.965	12,748	1.20	F(0)
	SR-163 - SR-94	5		8,600	218,600	9.0%	53.0%	0.965	10,805	1.26	F(0)
SR 94 - Imperial Ave	4		8,600	210,400	9.1%	53.0%	0.965	10,516	1.22	F(0)	
Imperial Ave - Hwy-75 (Coronado)	4		9,200	210,700	9.1%	57.0%	0.965	11,325	1.23	F(0)	
Hwy-75 - 28th St	4		8,000	206,000	9.1%	60.0%	0.965	11,656	1.46	F(2)	
28th St - I-15	4		10,000	220,200	9.0%	57.0%	0.990	11,410	1.08	F(0)	
Sunset Cliffs Blvd. - Mission Bay Dr./Midway Dr.	5		10,600	220,200	9.0%	57.0%	0.990	11,410	1.08	F(0)	
I-5 - Taylor St	5		10,600	229,500	8.9%	57.0%	0.990	11,760	1.11	F(0)	
Taylor St - Hotel Circle	5		10,600	241,600	8.8%	57.0%	0.990	12,241	1.15	F(0)	
Hotel Circle - SR-163	5		9,200	229,600	8.9%	57.0%	0.985	11,825	1.29	F(1)	
SR-163 - Mission Center RD	4		10,600	229,600	8.9%	57.0%	0.985	11,825	1.12	F(0)	
Mission Center RD - Texas St	5		8,600	248,100	8.7%	57.0%	0.985	12,491	1.45	F(2)	
Texas St - I-805	4		8,000	162,900	9.5%	71.0%	0.985	10,039	1.25	F(0)	
I-5 - 28th St	4	Y	8,000	162,900	9.5%	71.0%	0.985	10,039	1.25	F(0)	
28th St - Broadway	4	Y	8,000	178,400	9.4%	71.0%	0.985	10,879	1.36	F(1)	
28th St - Broadway	4	Y	8,000	178,400	9.4%	71.0%	0.985	10,879	1.36	F(1)	
Broadway - I-15	4	Y	8,000	197,000	9.2%	71.0%	0.955	12,127	1.52	F(3)	
I-15 - Home Ave	4		8,000	180,800	9.3%	71.0%	0.985	12,120	1.52	F(3)	
I-15 - Home Ave	4		8,000	180,800	9.3%	71.0%	0.985	12,120	1.52	F(3)	
Home Ave - I-805	4		8,000	152,100	9.6%	71.0%	0.985	10,525	1.32	F(1)	

# Lanes - Number of lanes in one direction; HOV - High Occupancy Lanes= assumes a 10% reduction in peak hour volume

Capacity - Capacity in one direction

ADT - Average Daily Traffic

Peak Hour % - Percentage of average daily traffic occurring during the peak hour

Direction Split - Percentage of peak hour traffic travelling in peak direction

Truck Factor - Truck/terrain factor to represent influence of heavy vehicles and/or grades

Peak Hour Volume - Peak hour traffic in peak direction of travel / For facilities with HOV lanes, ten percent is assumed to use HOV lanes.

V/C - Volume to Capacity ratio

LOS - Caltrans District 11 procedure was used to estimate the freeway level of service. Designations vary from A to F, with four levels of LOS F from F(0) to F(3).

TABLE 12  
COMPARISON OF MULTILANE HIGHWAY PEAK HOUR SEGMENT ANALYSIS

HIGHWAY	SEGMENT	DIRECTION	BUILDOUT WITHOUT PROJECTS CONDITIONS				BUILDOUT WITH PROJECTS					
			AM PEAK HOUR		PM PEAK HOUR		AM PEAK HOUR		PM PEAK HOUR			
			DENSITY (a)	LOS	DENSITY (a)	LOS	DENSITY (a)	LOS	DENSITY (a)	LOS	CHANGE (a)	
PACIFIC HIGHWAY	TRANSIT CENTER - BARNETT AVENUE	Northbound	7.8	A	11.3	A	8.0	A	0.20	11.4	A	0.10
		Southbound	6.4	A	7.5	A	6.5	A	0.10	7.7	A	0.20
	BARNETT AVENUE - WASHINGTON STREET	Northbound	18.6	B	26.2	C	20.7	C	2.10	28.6	D	2.40
		Southbound	12.9	B	24.8	C	16.0	B	3.10	27.6	C	2.80
	WASHINGTON STREET - SASSAFRAS STREET	Northbound	5.1	A	9.1	A	5.2	A	0.10	9.5	A	0.40
		Southbound	9.3	A	9.4	A	9.4	A	0.10	9.8	A	0.40

(a) Density, in passenger cars per mile per lane

TABLE 13  
SIGNIFICANCE OF IMPACTS ON FREEWAY SEGMENTS

ROUTE	LIMITS	# LANES	FUTURE WITHOUT PROJECT		FUTURE WITH COMBINED PROJECTS		DIFFERENCE IN V/C RATIO	SIGNIFICANT IMPACT? (YES/NO)
			V/C RATIO	LOS	V/C RATIO	LOS		
Interstate 5	SR-52 - Mission Bay Dr.	4	1.22	F(0)	1.23	F(0)	0.007	NO
	Mission Bay Dr. - Garnet Ave	4	1.30	F(1)	1.30	F(1)	0.006	NO
	Garnet Ave - Grand Ave	4	1.30	F(1)	1.30	F(1)	0.007	NO
	Grand Ave - Clairemont Dr.	4	1.30	F(1)	1.30	F(1)	0.007	NO
	Clairemont Dr. - Seaworld Dr.	4	1.31	F(1)	1.31	F(1)	0.007	NO
	Seaworld Dr. - I-8	4	1.23	F(0)	1.24	F(0)	0.007	NO
	I-8 - Old Town Ave	4	1.34	F(1)	1.34	F(1)	0.000	NO
	Old Town Ave - Washington St.	4	1.30	F(1)	1.30	F(1)	0.001	NO
	Washington St. - Pacific Hwy	4	1.13	F(0)	1.13	F(0)	0.001	NO
	Pacific Hwy - Olive St.	4	1.39	F(2)	1.40	F(2)	0.012	YES
	Olive St. - Hawthorn St.	4	1.38	F(2)	1.40	F(2)	0.013	YES
	Hawthorn St. - Grape St.	4	1.44	F(2)	1.46	F(2)	0.015	YES
	Grape St. - 1st Ave	4	1.44	F(2)	1.46	F(2)	0.014	YES
	1st Ave - SR-163	5	1.29	F(1)	1.30	F(1)	0.012	YES
	SR-163 - SR-94	5	1.19	F(0)	1.20	F(0)	0.010	YES
	SR 94 - Imperial Ave	4	1.25	F(0)	1.26	F(0)	0.007	NO
	Imperial Ave - Hwy-75 (Coronado)	4	1.22	F(0)	1.22	F(0)	0.006	NO
	Hwy-75 - 28th St	4	1.23	F(0)	1.23	F(0)	0.006	NO
	28th St - I-15	4	1.45	F(2)	1.46	F(2)	0.007	NO
	Interstate 8	Sunset Cliffs Blvd. - Mission Bay Dr./Midway Dr.	5	1.08	F(0)	1.08	F(0)	0.000
I-5 - Taylor St		5	1.08	F(0)	1.08	F(0)	0.000	NO
Taylor St - Hotel Circle		5	1.10	F(0)	1.11	F(0)	0.010	YES
Hotel Circle - SR-163		5	1.15	F(0)	1.15	F(0)	0.010	NO
SR-163 - Mission Center RD		4	1.28	F(1)	1.29	F(1)	0.007	NO
Mission Center RD - Texas St		5	1.11	F(0)	1.12	F(0)	0.005	NO
Texas St - I-805		4	1.45	F(2)	1.45	F(2)	0.006	NO
I-5 - 25th St		4	1.25	F(0)	1.25	F(0)	0.006	NO
25th St - 28th St		4	1.25	F(0)	1.25	F(0)	0.006	NO
28th St - Broadway		4	1.35	F(1)	1.36	F(1)	0.006	NO
State Route 94	Broadway - I-15	4	1.51	F(3)	1.52	F(3)	0.006	NO
	I-15 - Home Ave	4	1.51	F(3)	1.52	F(3)	0.004	NO
	Home Ave - I-805	4	1.31	F(1)	1.32	F(1)	0.004	NO
		4	1.31	F(1)	1.32	F(1)	0.004	NO

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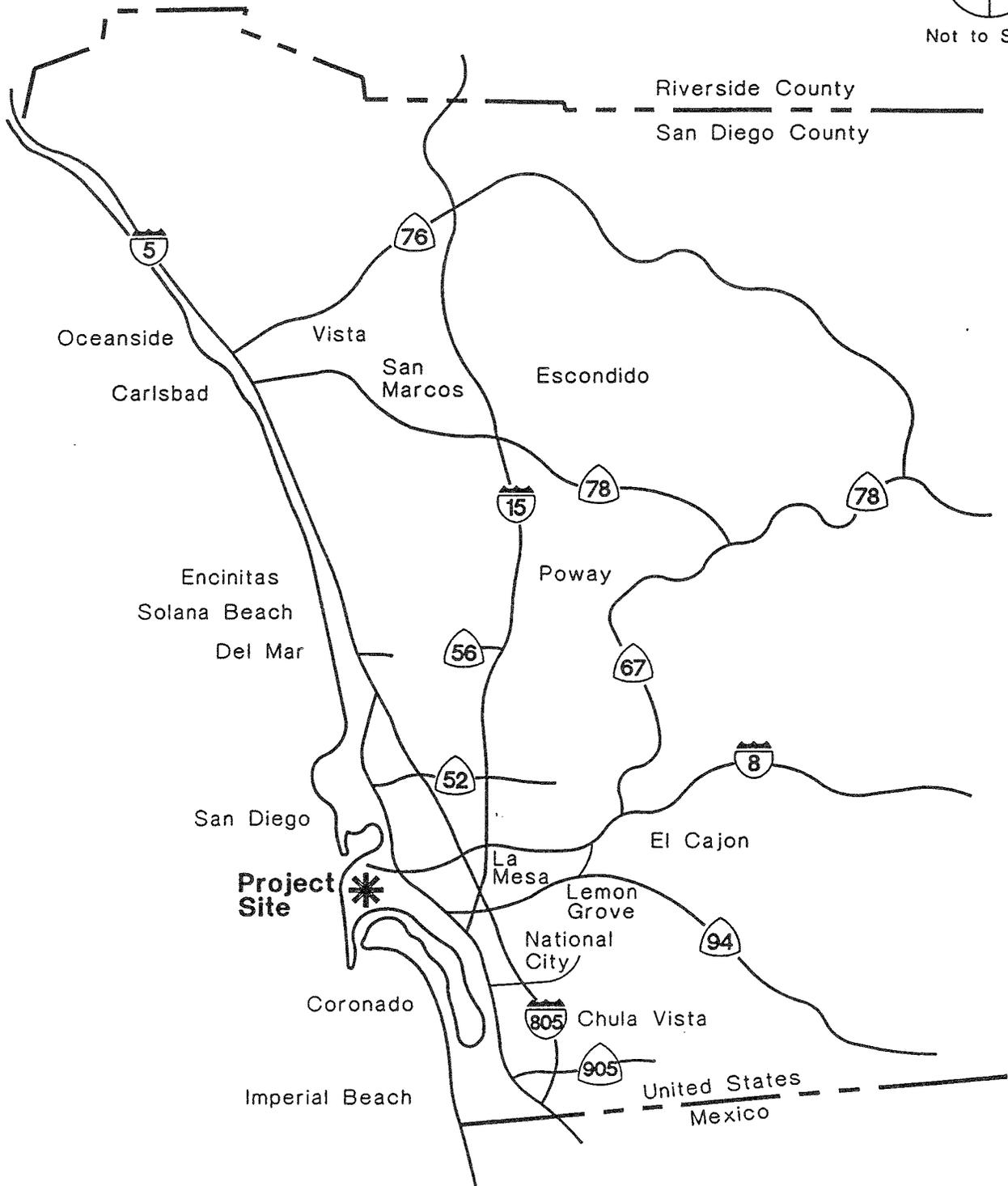


Figure 1  
Project Vicinity Map  
Naval Training Center



KIMLEY-HORN and ASSOCIATES

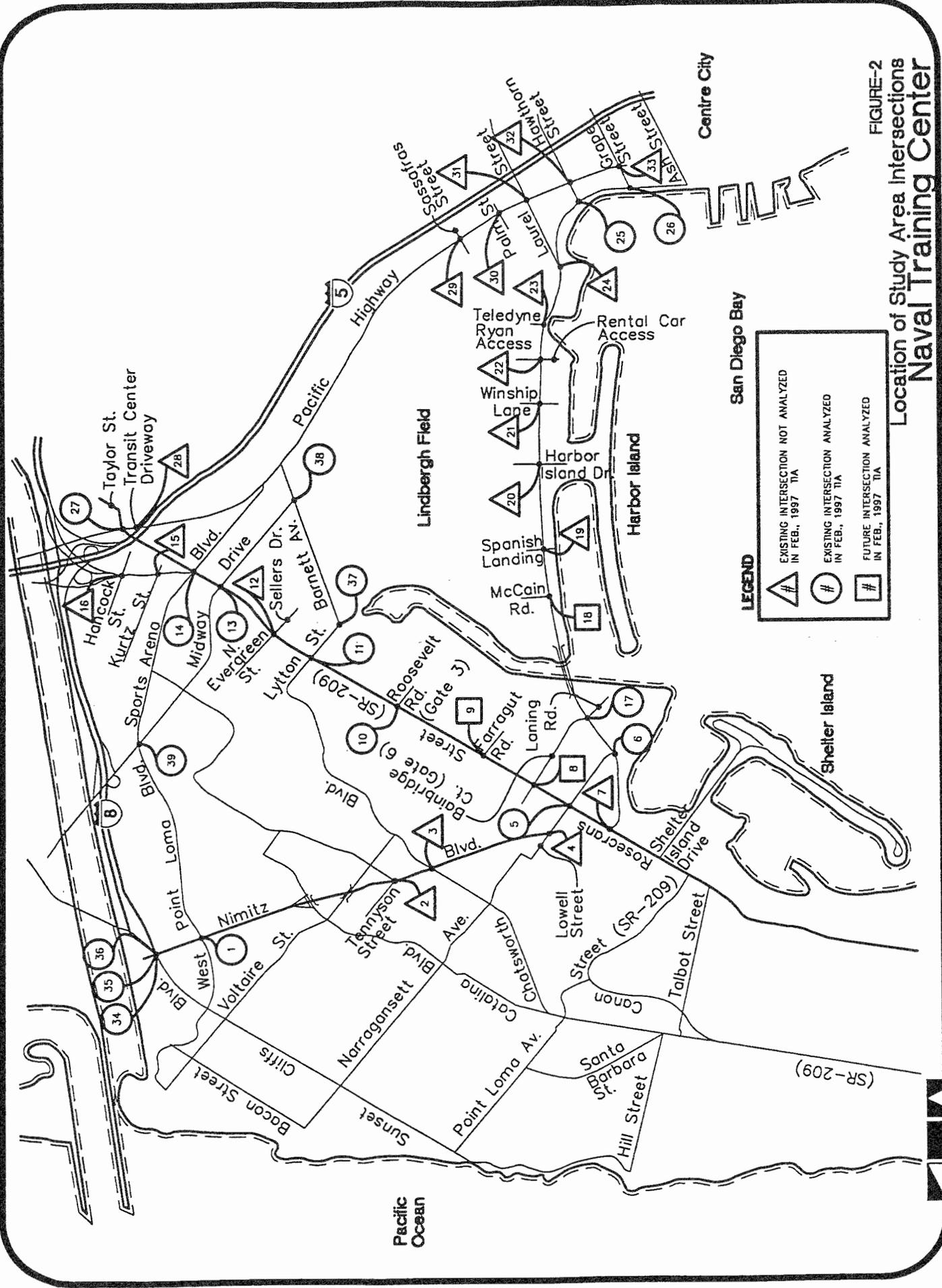


FIGURE-2  
Location of Study Area Intersections  
Naval Training Center

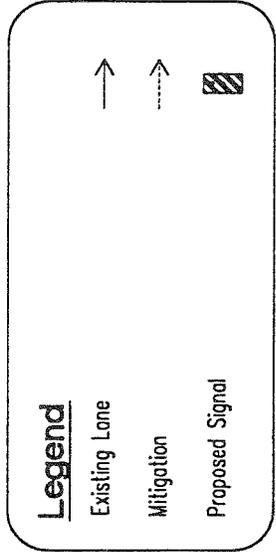
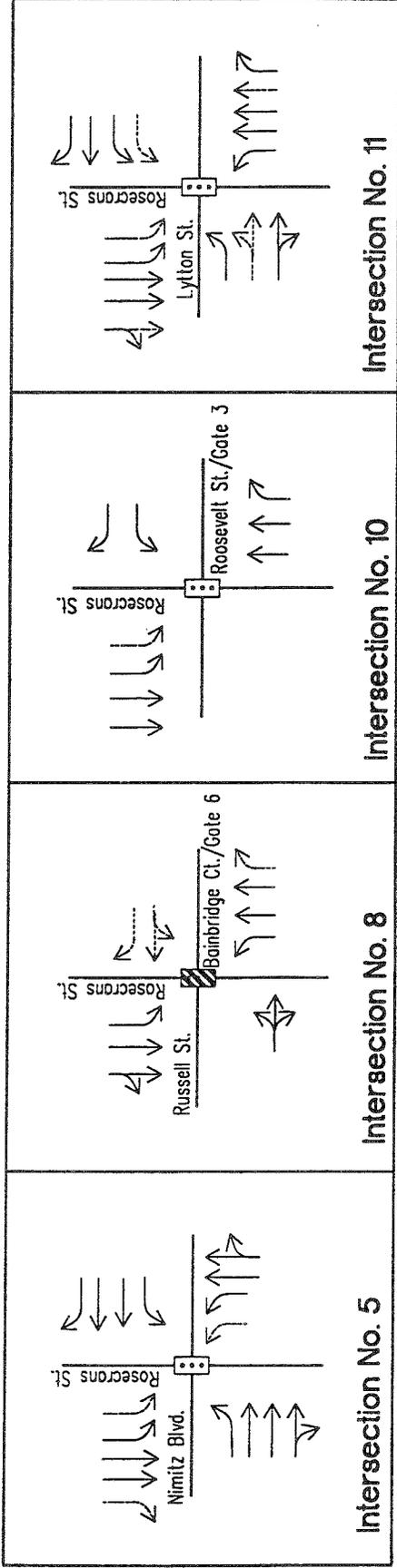


Figure-3  
Project Mitigation Measures  
Naval Training Center

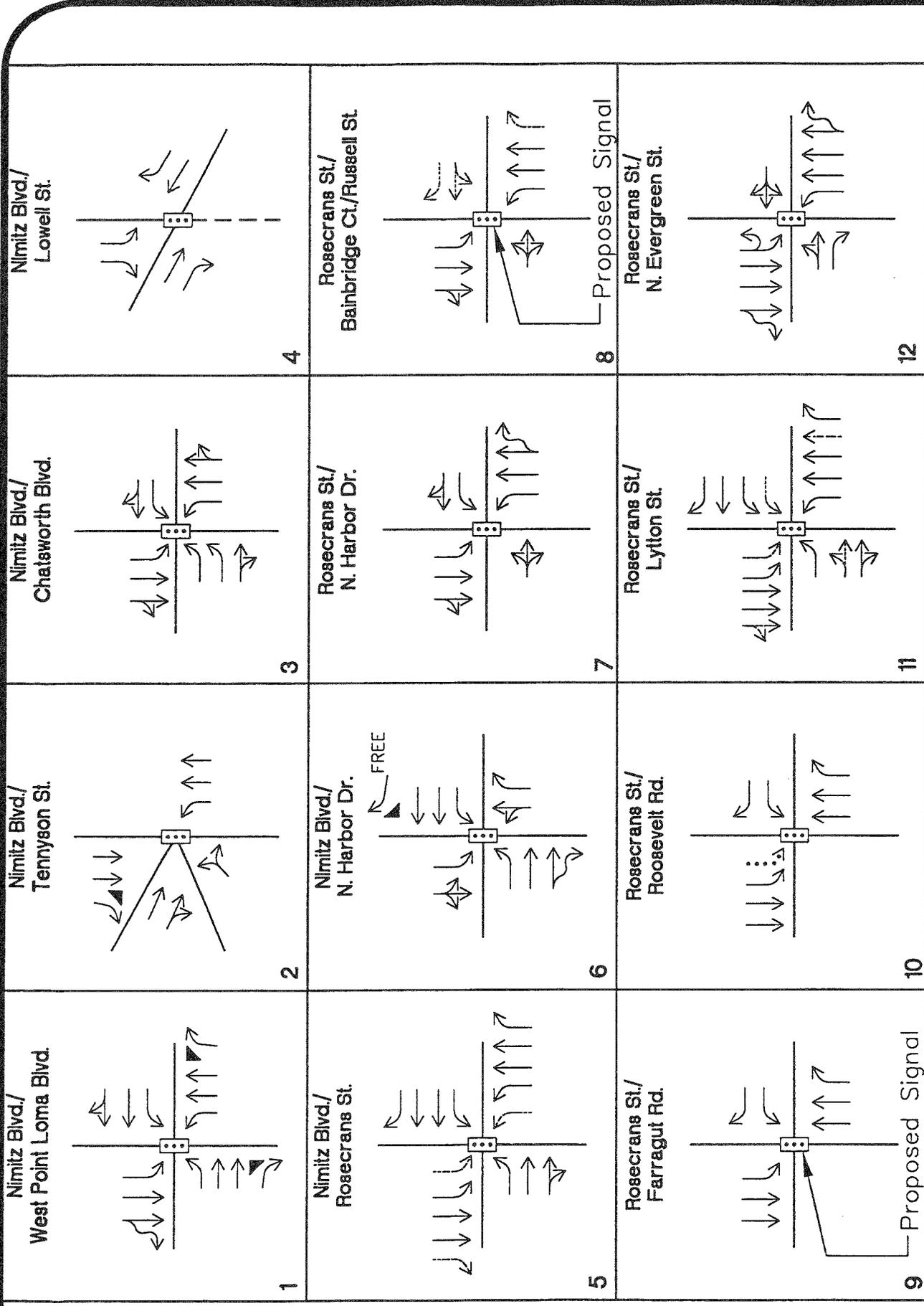


Figure 4-A  
Buildout Intersection Lane Configurations  
Naval Training Center

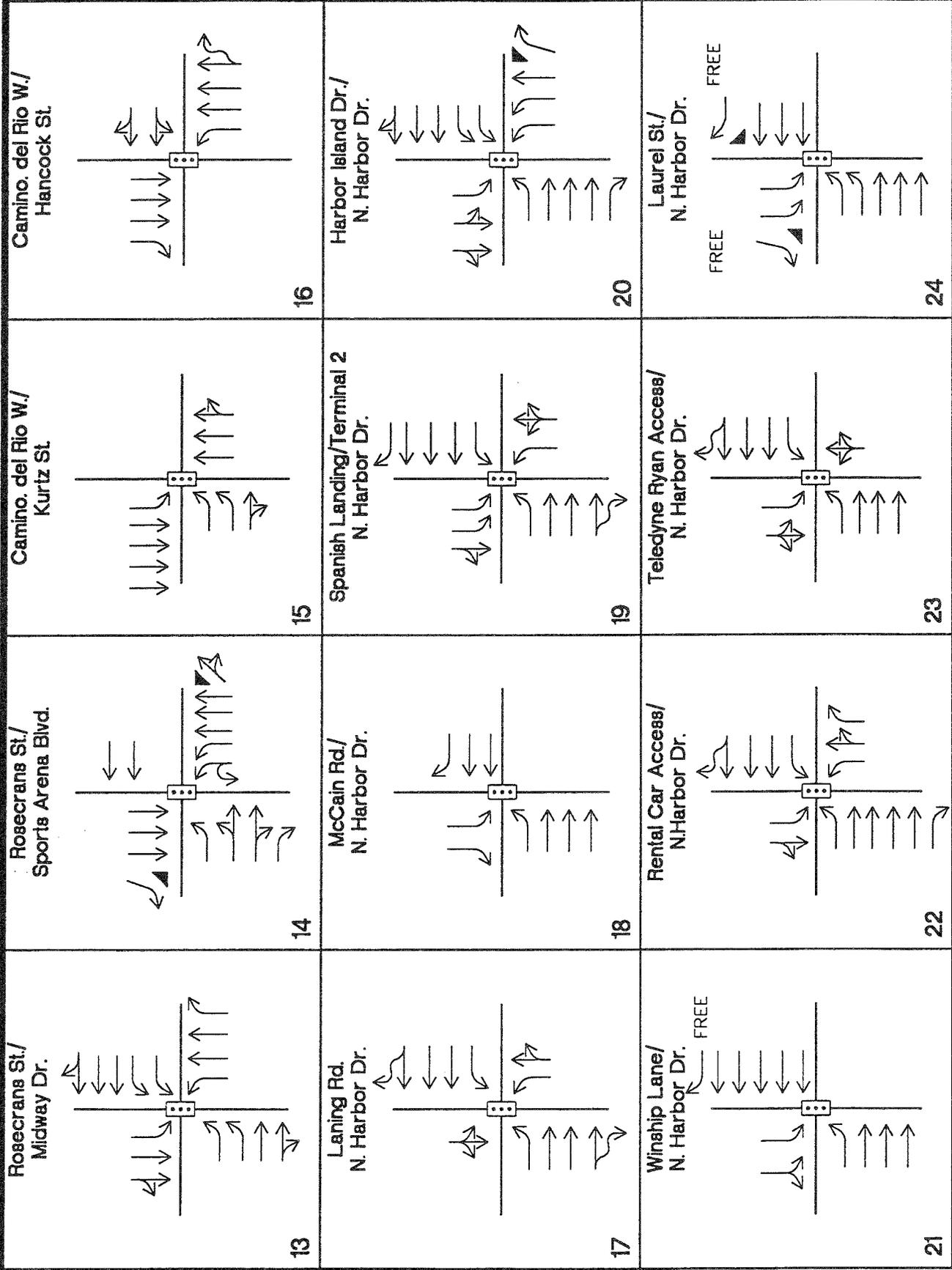


Figure 4-B  
Buildout Intersection Lane Configurations  
**Naval Training Center**

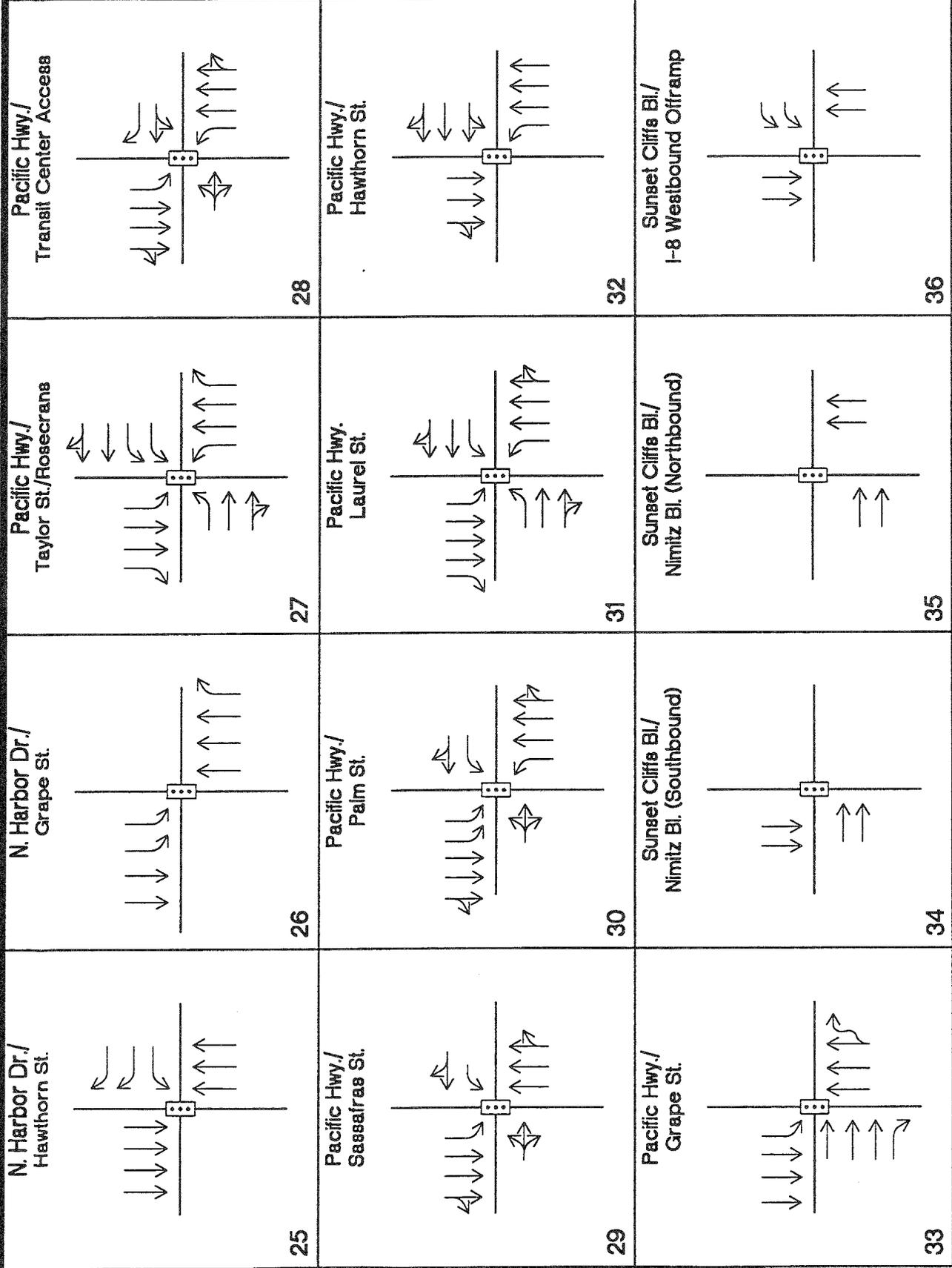


Figure 4-C  
Buildout Intersection Lane Configurations  
**Naval Training Center**

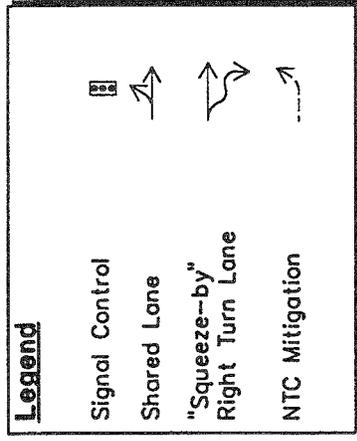
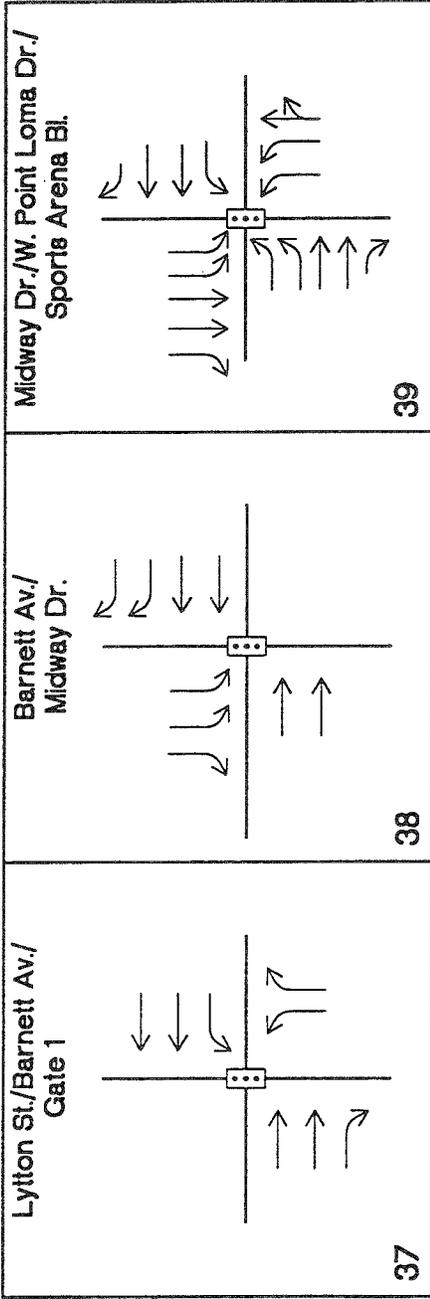


Figure 4-D  
Buildout Intersection Lane Configurations  
Naval Training Center



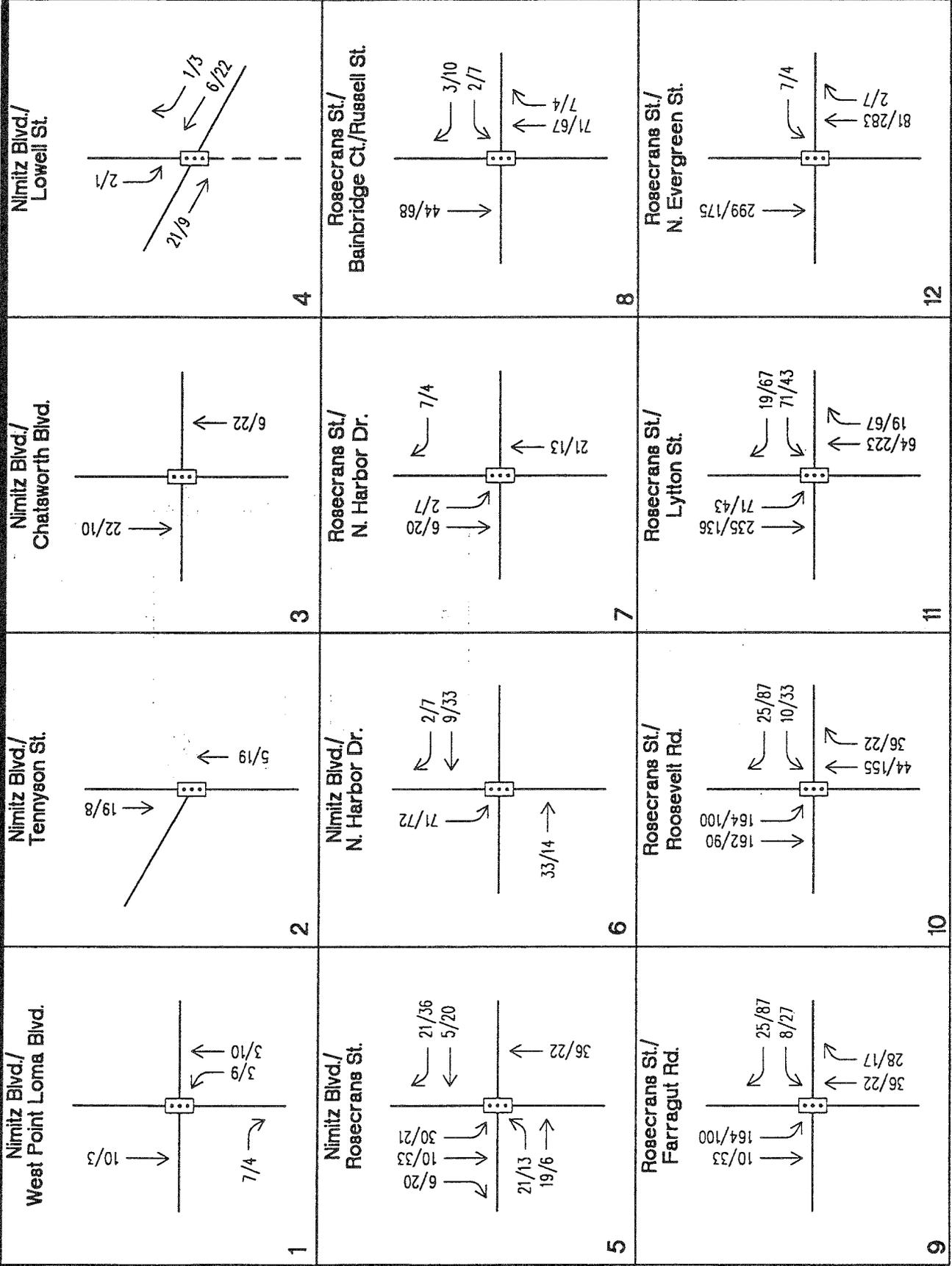


Figure 6-A  
Assignment of NTC Reuse Traffic  
Naval Training Center

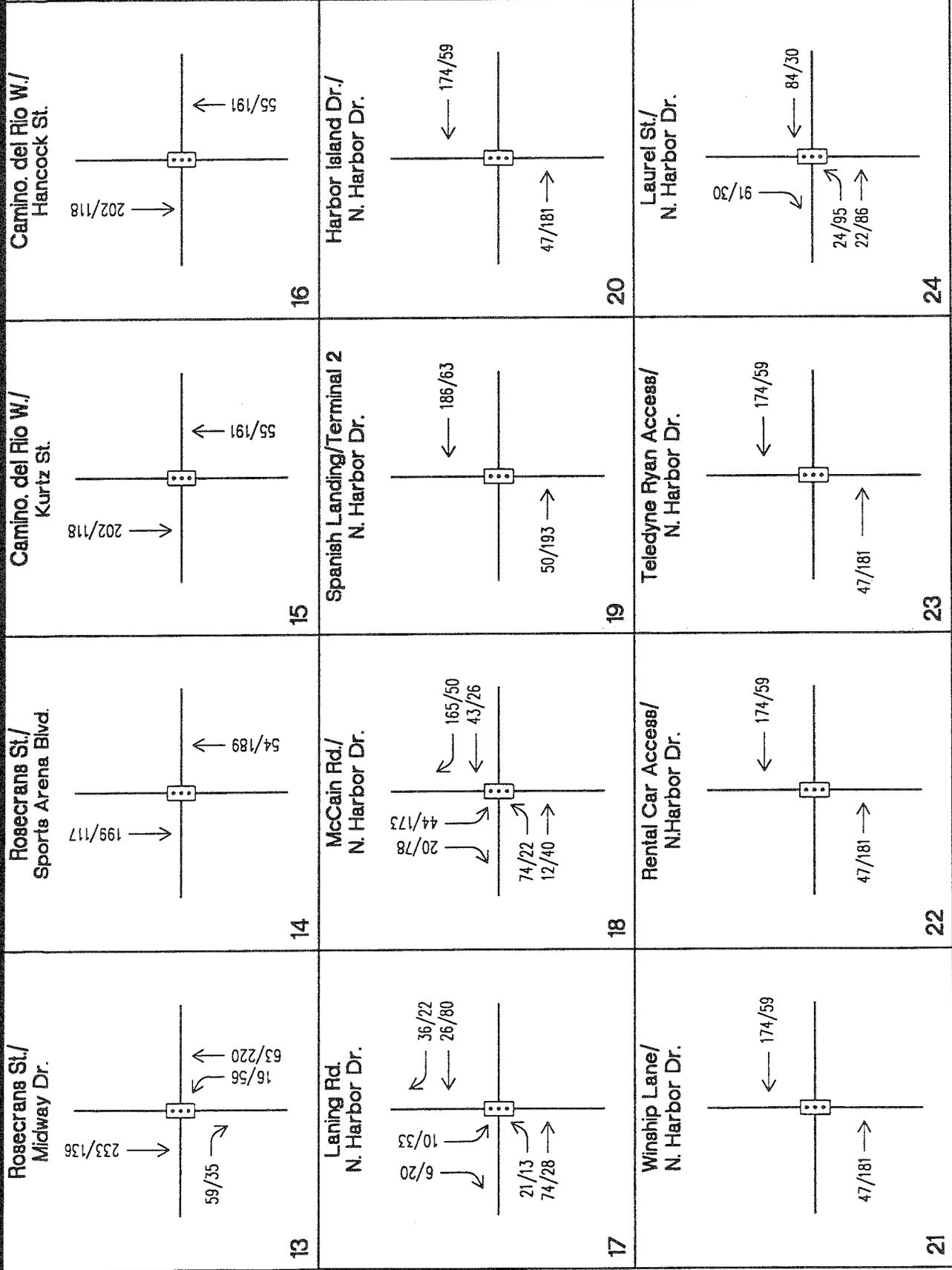


Figure 6-B  
Assignment of NTC Reuse Traffic  
Naval Training Center

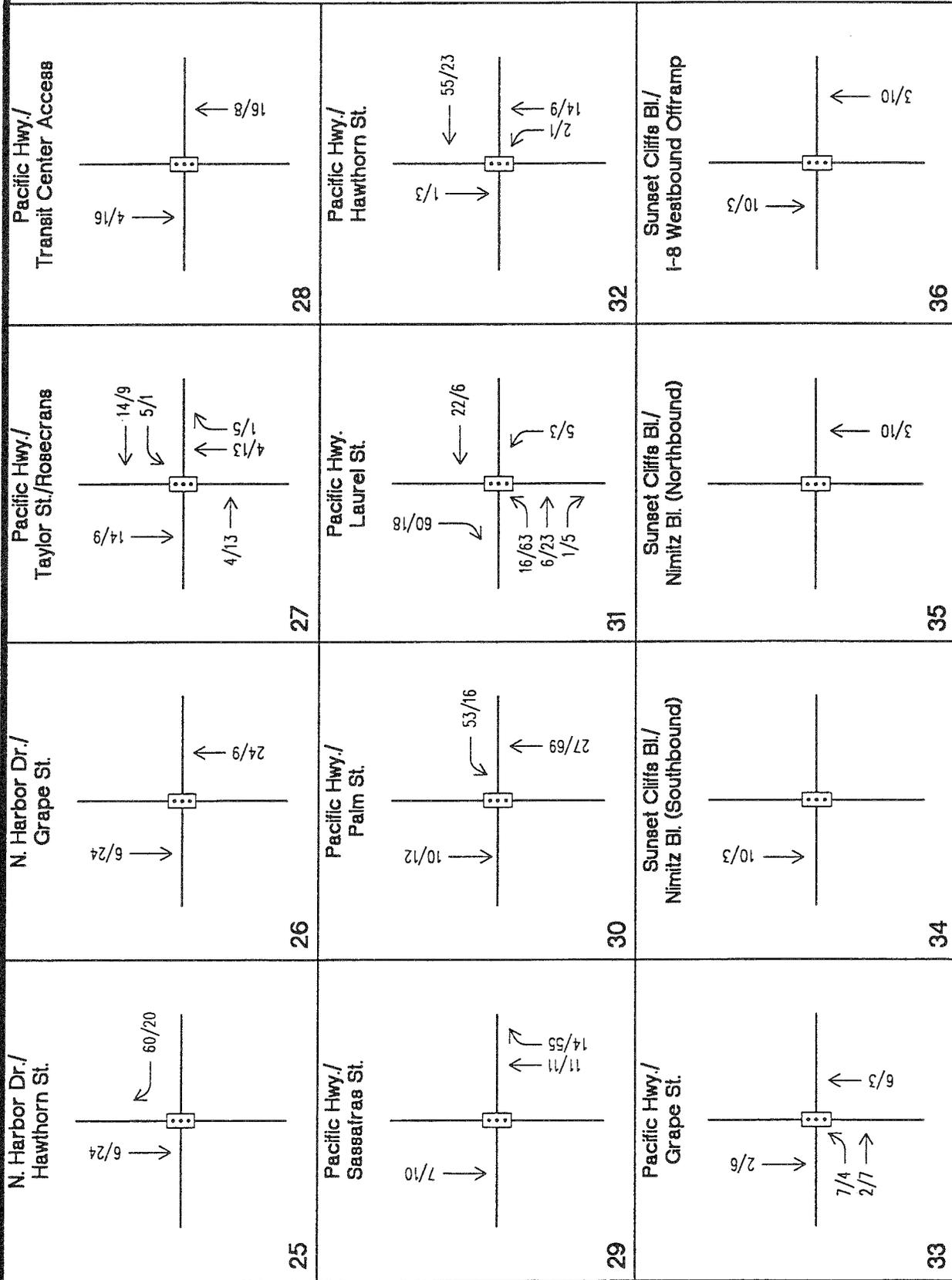


Figure 6-C  
Assignment of NTC Reuse Traffic  
Naval Training Center

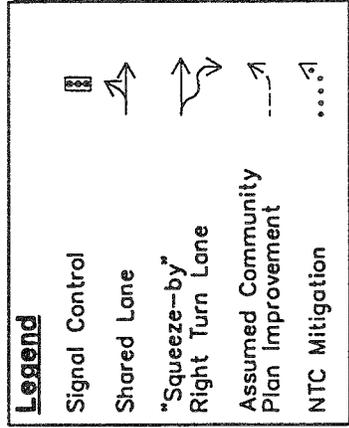
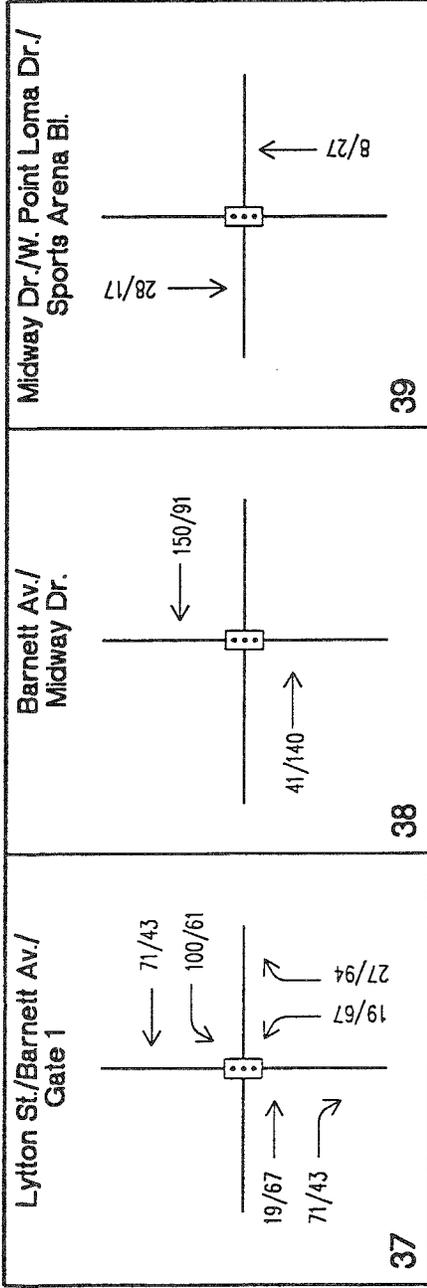


Figure 6-D  
Assignment of NTC Reuse Traffic  
Naval Training Center

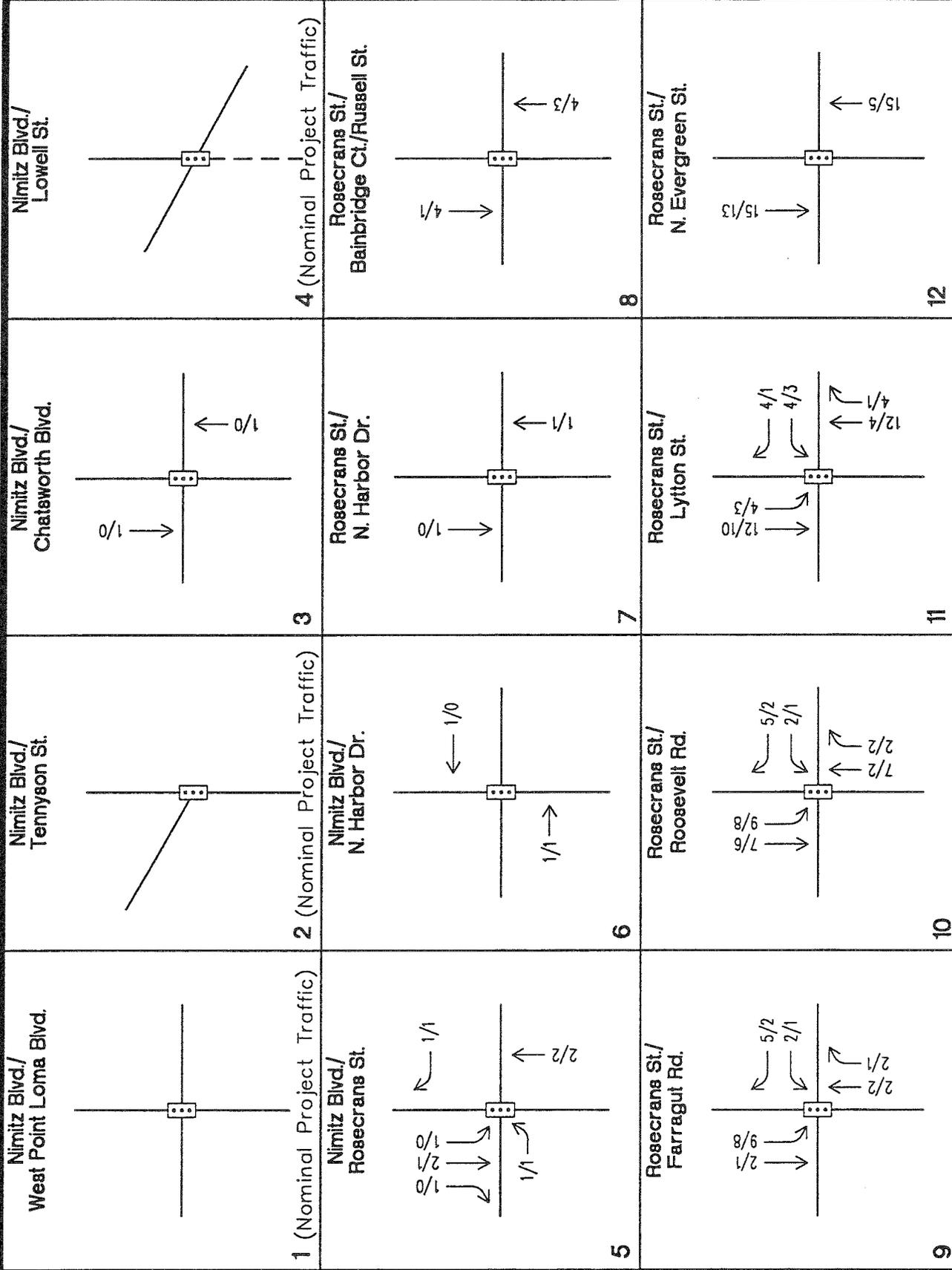


Figure 7-A  
Assignment of NTC-MFH Traffic  
Naval Training Center



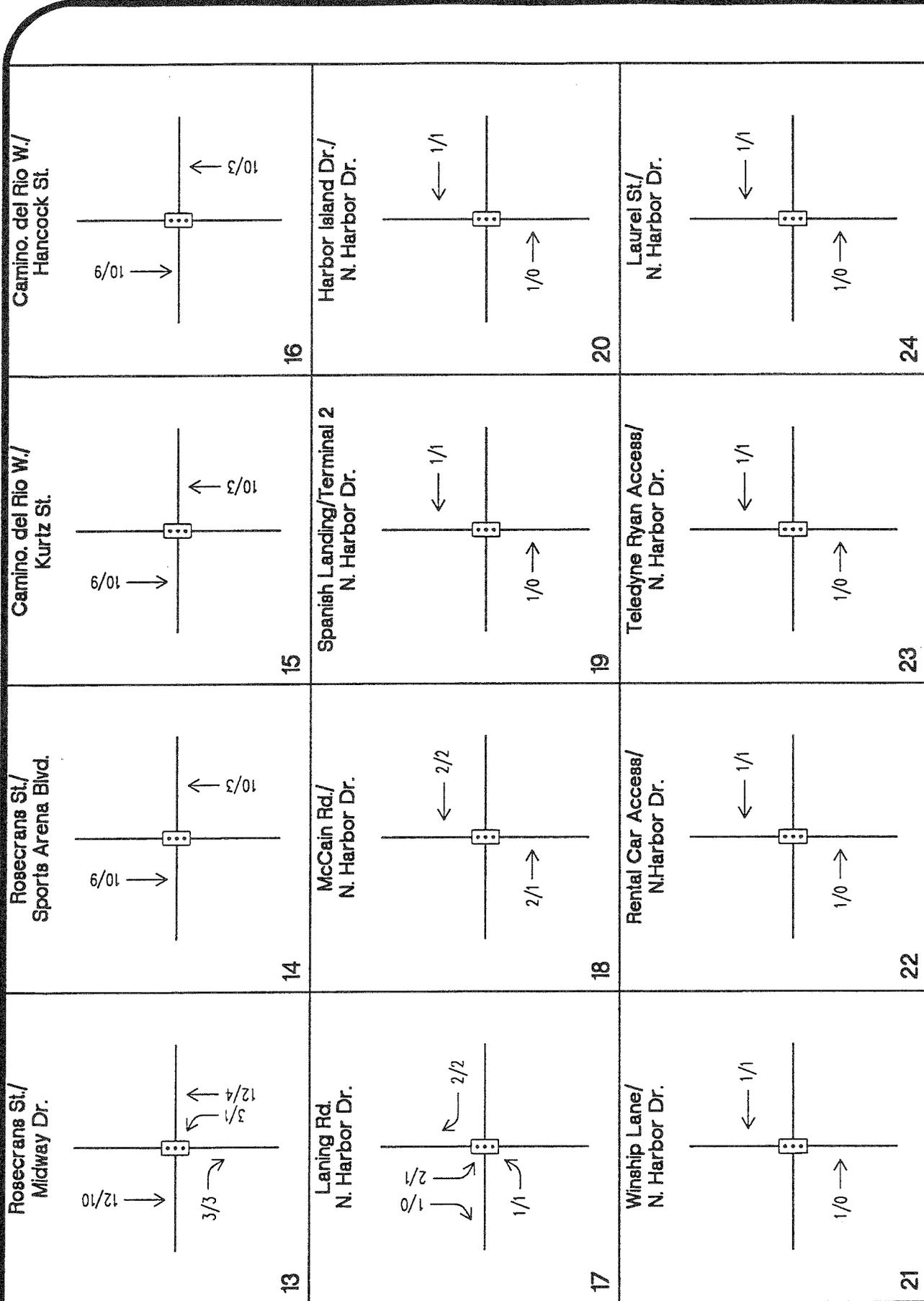


Figure 7-B  
Assignment of NTC-MFH Traffic  
Naval Training Center



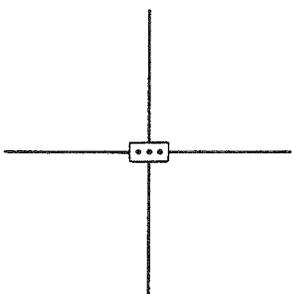
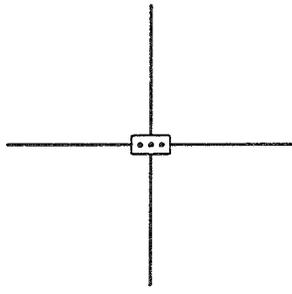
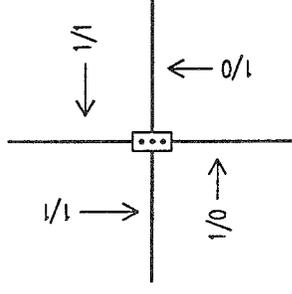
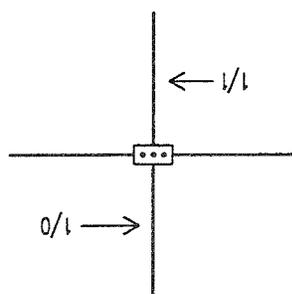
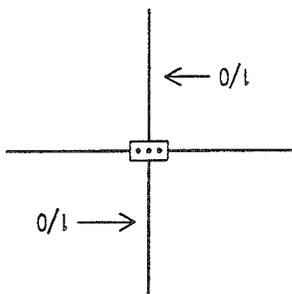
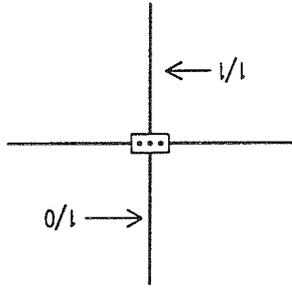
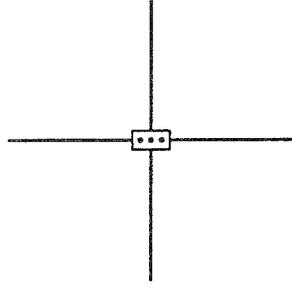
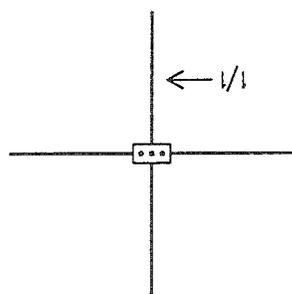
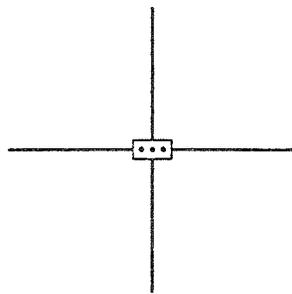
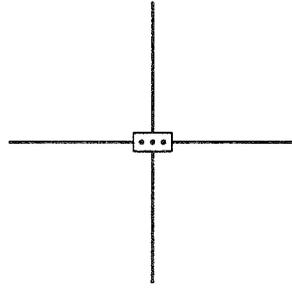
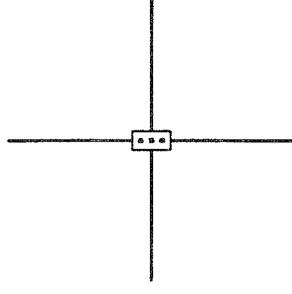
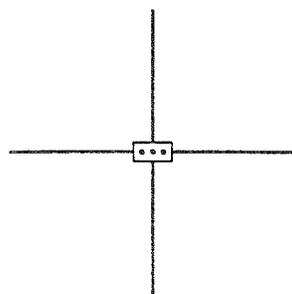
<p>N. Harbor Dr./ Hawthorn St.</p> 	<p>N. Harbor Dr./ Grape St.</p> 	<p>Pacific Hwy./ Taylor St./Rosecrans</p> 	<p>Pacific Hwy./ Transit Center Access</p> 
<p>25 (Nominal Project Traffic)</p> <p>Pacific Hwy./ Sassafras St.</p> 	<p>26 (Nominal Project Traffic)</p> <p>Pacific Hwy./ Palm St.</p> 	<p>27</p> <p>Pacific Hwy./ Laurel St.</p> 	<p>28</p> <p>Pacific Hwy./ Hawthorn St.</p> 
<p>29</p> <p>Pacific Hwy./ Grape St.</p> 	<p>30</p> <p>Sunset Cliffs Bl./ Nimitz Bl. (Southbound)</p> 	<p>31 (Nominal Project Traffic)</p> <p>Sunset Cliffs Bl./ Nimitz Bl. (Northbound)</p> 	<p>32</p> <p>Sunset Cliffs Bl./ I-8 Westbound Offramp</p> 
<p>33 (Nominal Project Traffic)</p>	<p>34 (Nominal Project Traffic)</p>	<p>35 (Nominal Project Traffic)</p>	<p>36 (Nominal Project Traffic)</p>

Figure 7-C  
Assignment of NTC-MFH Traffic  
Naval Training Center



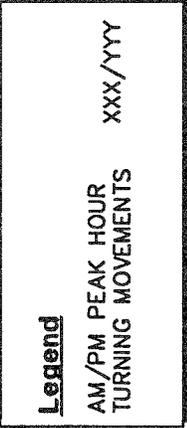
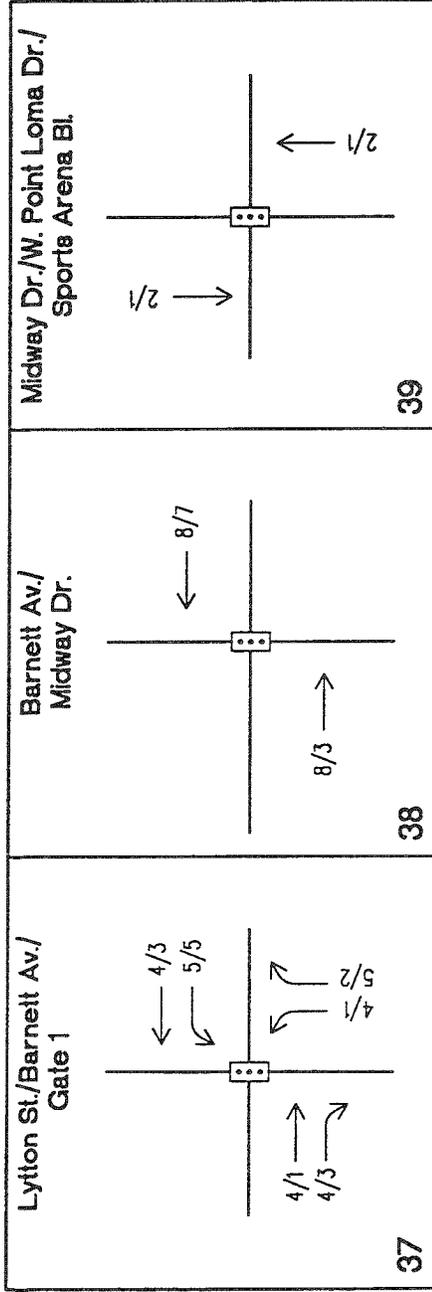


Figure 7-D  
Assignment of NTC-MFH Traffic  
Naval Training Center

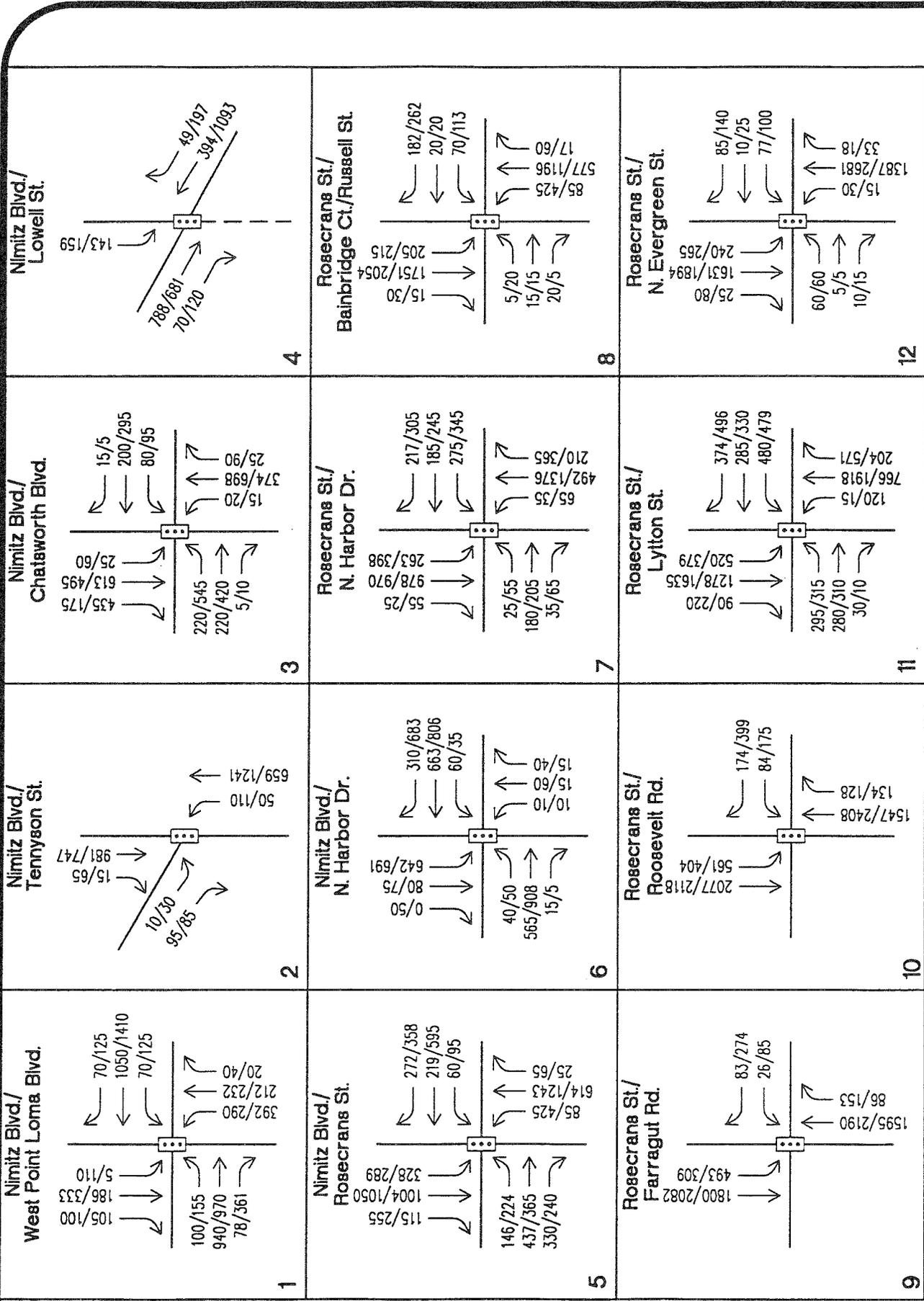


Figure 8-A  
Buildout Without Project Intersection Turning Movements  
Naval Training Center

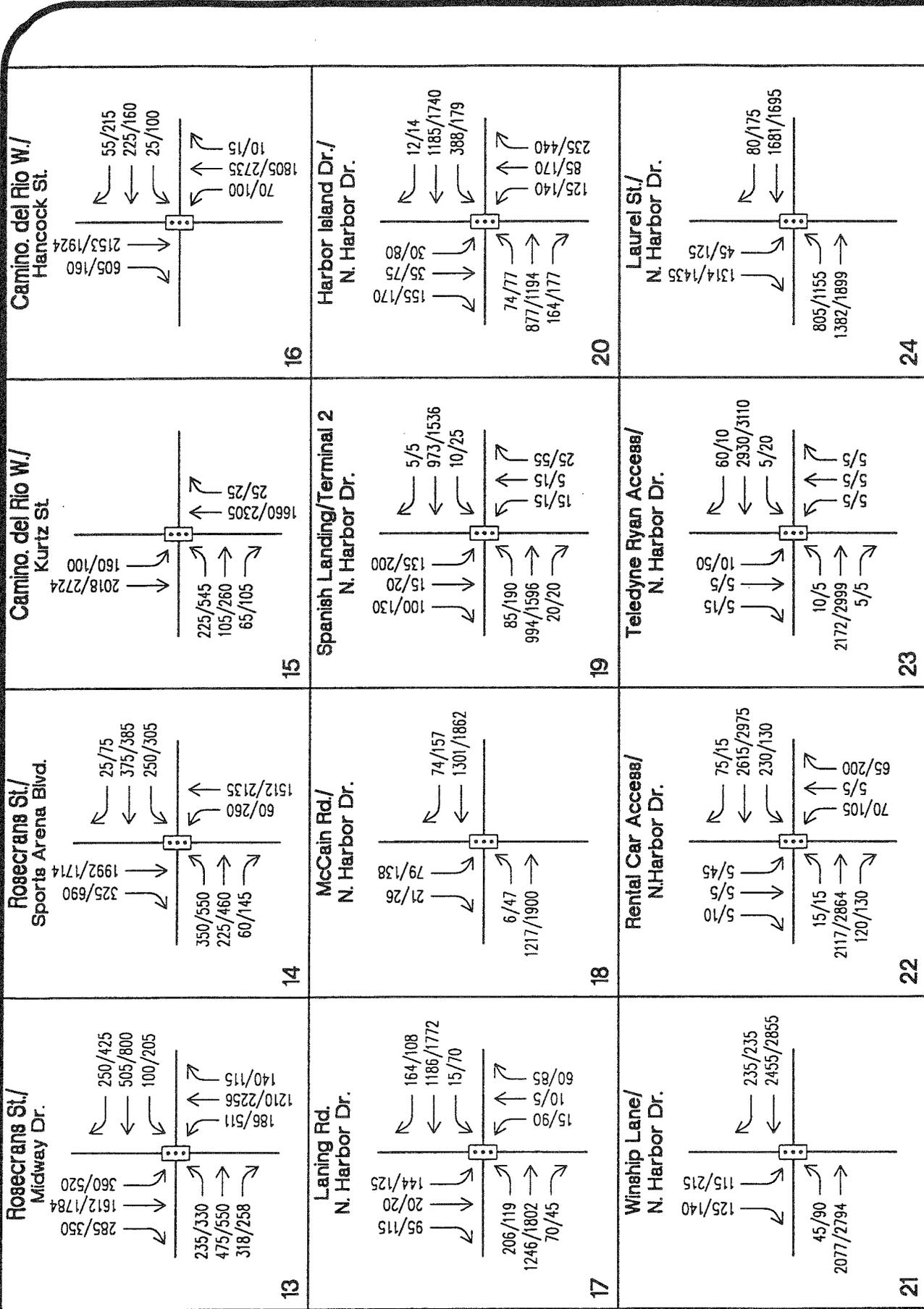


Figure 8-B  
Buildout Without Project Intersection Turning Movements  
Naval Training Center

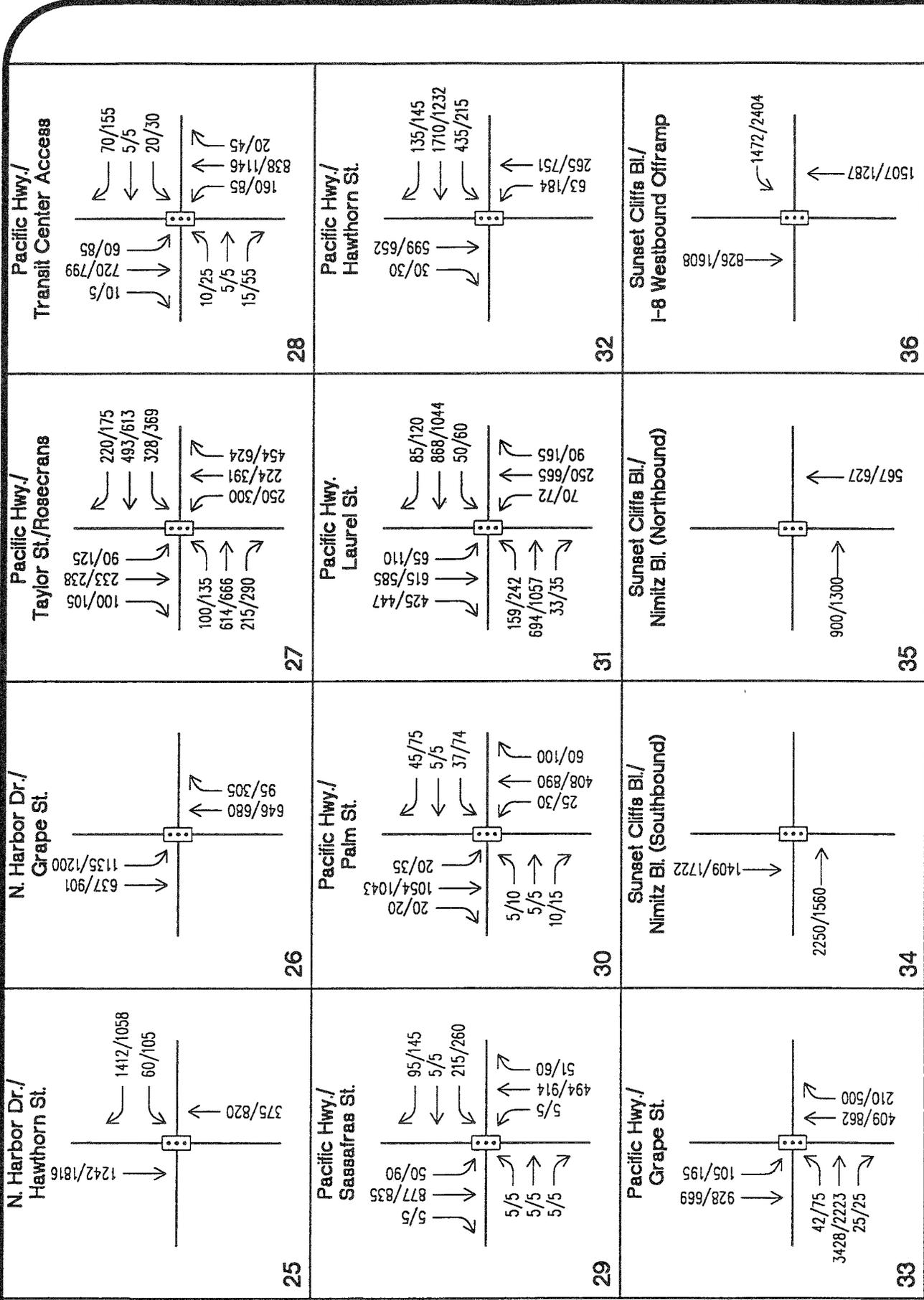


Figure 8-C  
Buildout Without Project Intersection Turning Movements  
Naval Training Center

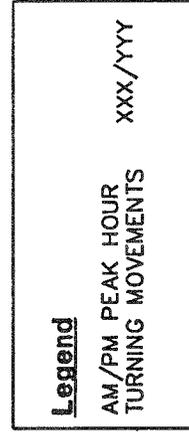
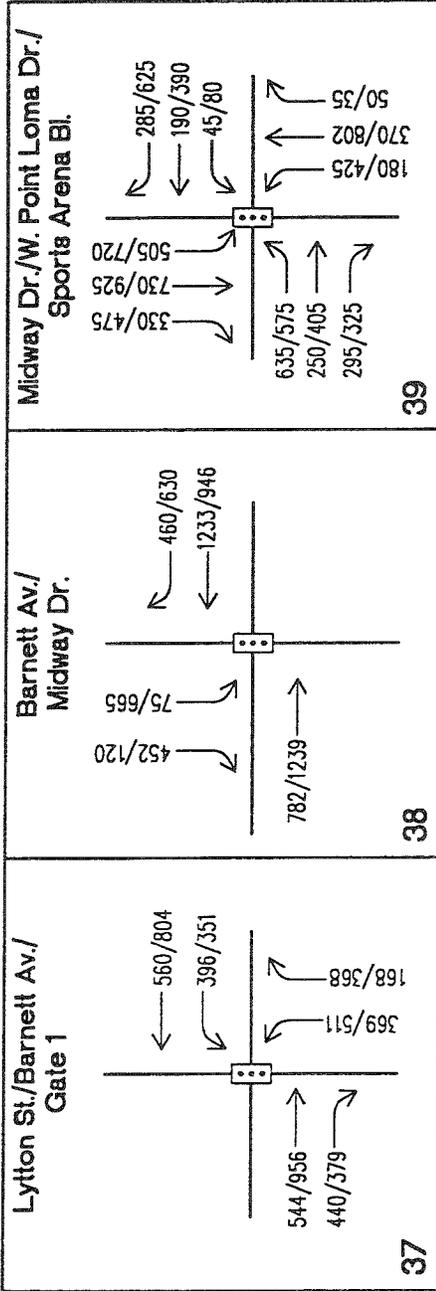


Figure 8-D  
Buildout Without Project Intersection Turning Movements  
Naval Training Center

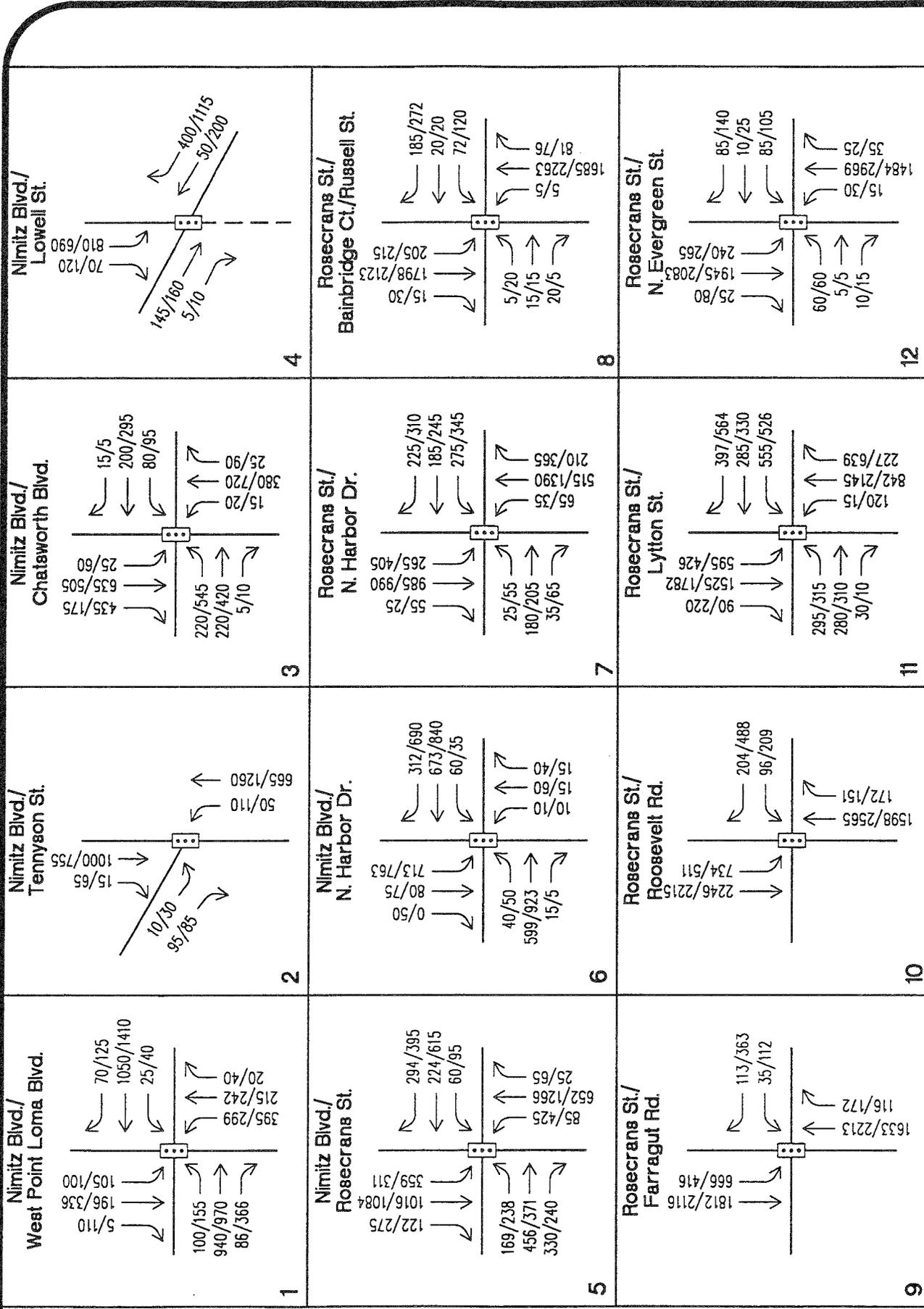


Figure 9-A  
Buildout With Project Intersection Turning Movements  
Naval Training Center

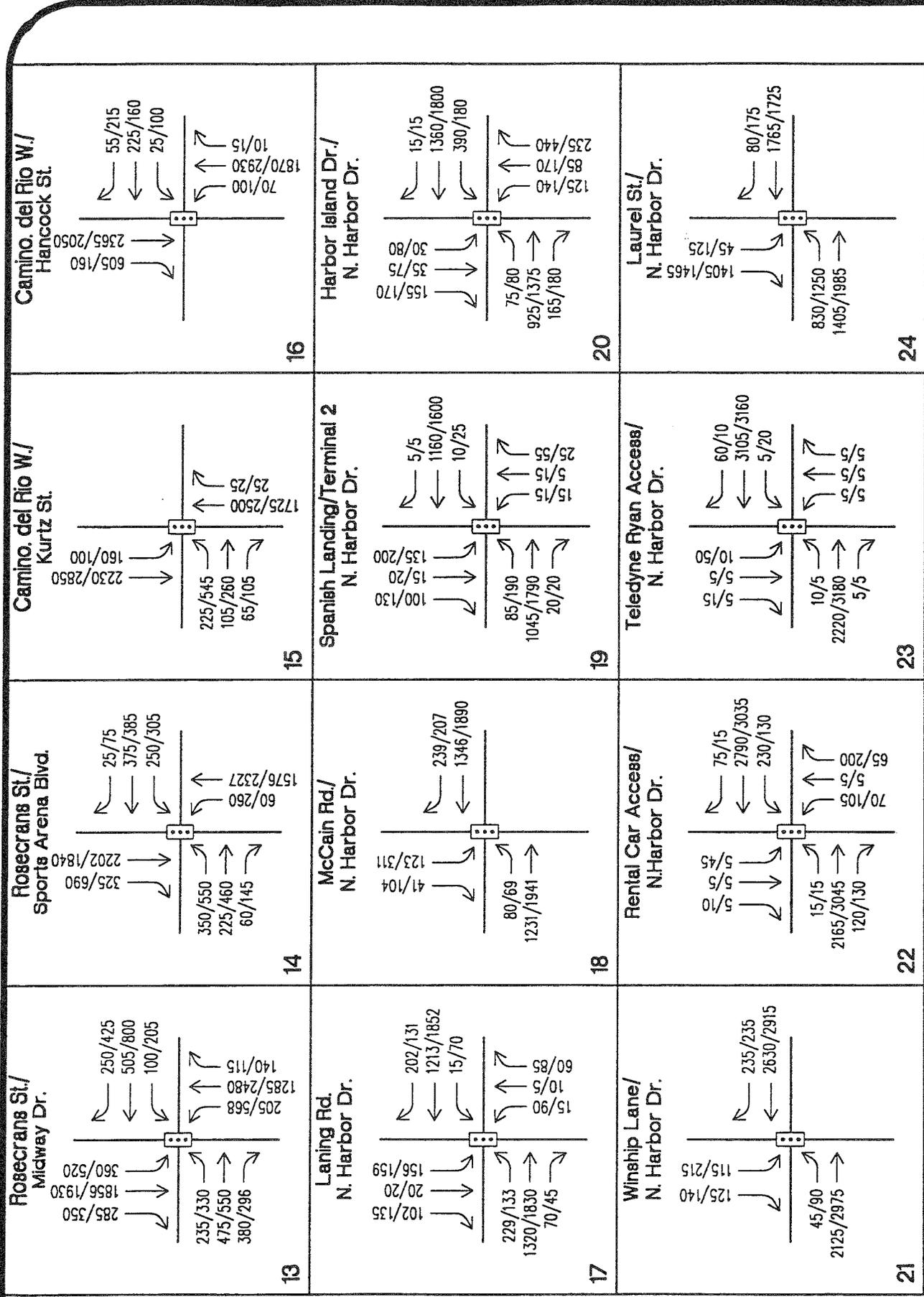


Figure 9-B  
Buildout With Project Intersection Turning Movements  
Naval Training Center

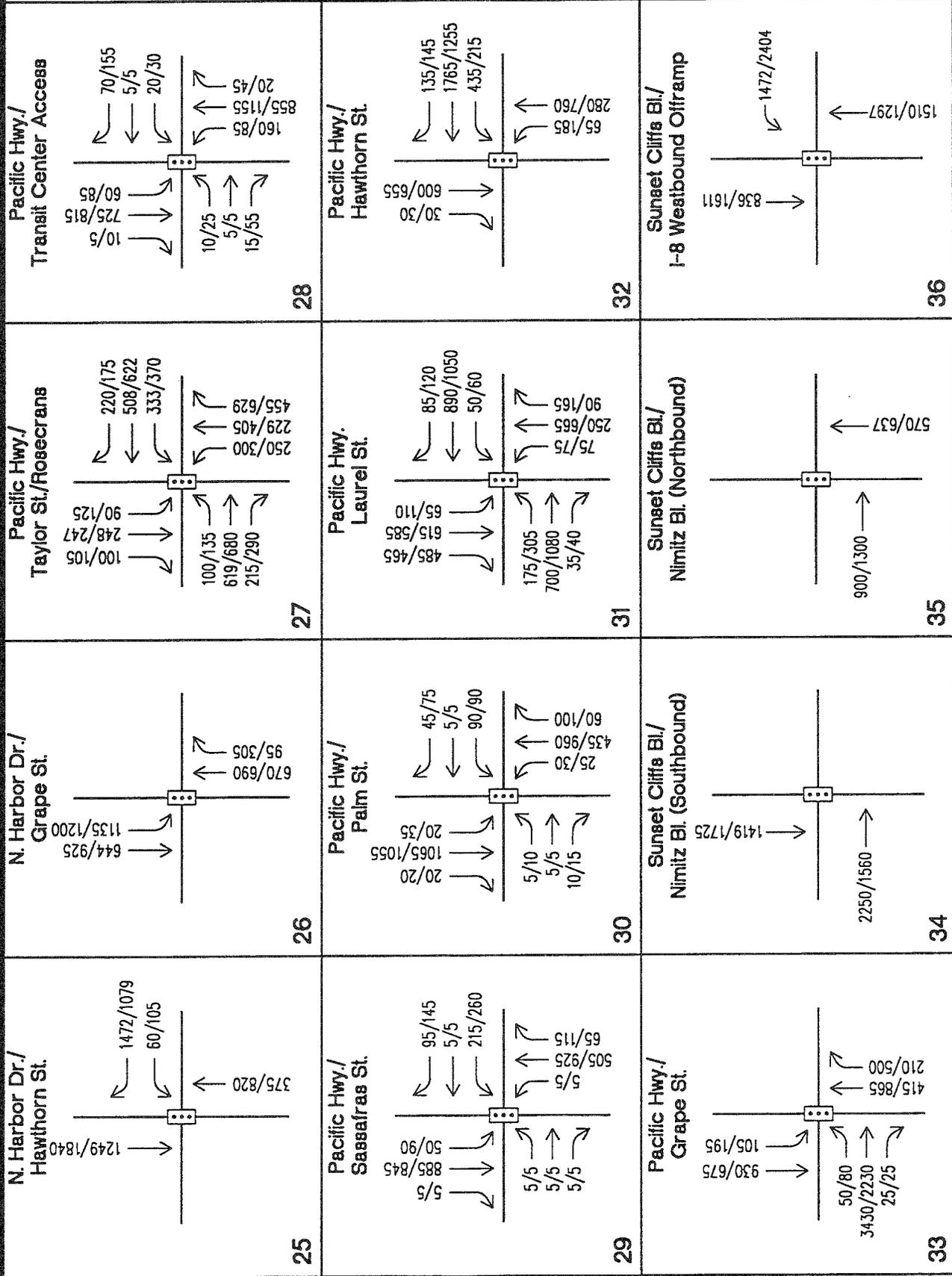


Figure 9-C  
 Buildout With Project Intersection Turning Movements  
 Naval Training Center



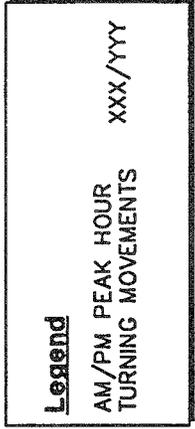
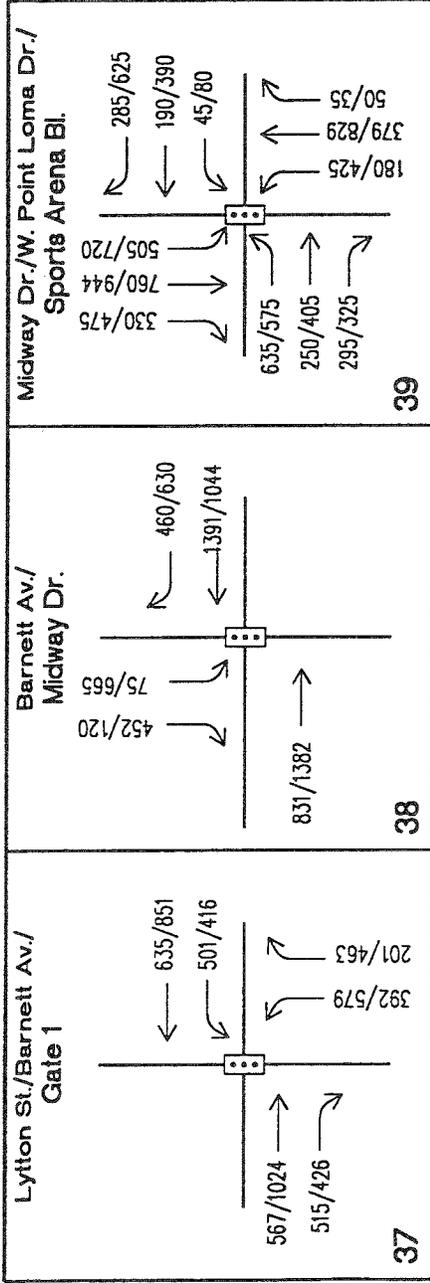


Figure 9-D  
 Buildout With Project Intersection Turning Movements  
 Naval Training Center