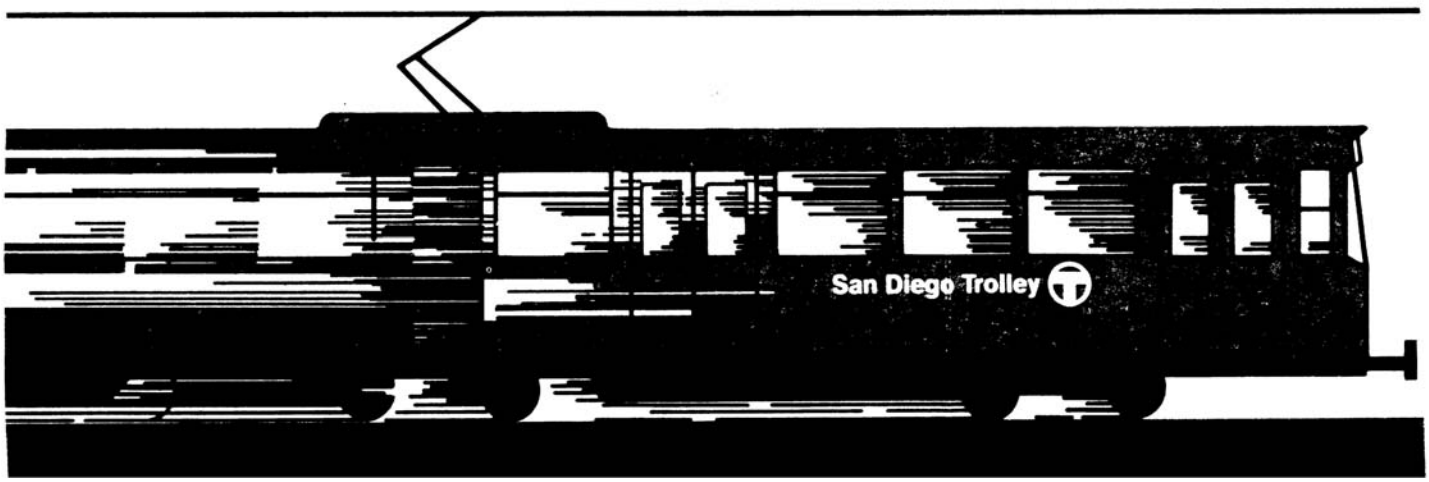
Transportation


San Diego Trolley

TRANSPORTATION

Mission Valley is experiencing, to a varying degree, all the classical problems associated with communities located adjacent to the urban core of most major U.S. cities. These problems include physical separation of various community elements by new freeway and transportation corridors, non-development of forms of transportation other than private automobile, and the continual upgrading of the supporting local surface street system. In any community the movement of people and goods is one of the most important considerations in the planning process and vital to the survival and continued prosperity of the individual community. Ideally, transportation systems should be well balanced between the individual needs of the various users and the necessary support of public transit convenience that will offer a wide choice of options to the traveling public within that particular community. The transportation system must offer residents and/or employees the maximum opportunity of transportation choices to fulfill their individual needs and provide a dynamic system for the growth of the community.

A major goal of the community plan is the provision of a surface street system, carefully coordinated with the regional freeway system, which is adequate to meet the total future needs of Mission Valley. A major problem facing the existing transportation system is its lack of any uniformity. Many streets are under designed and route an excessive number of cars on streets that were never intended for such volumes. In addition, there seems to be an inordinate amount of out of direction travel. The streets in the community vary in width, sometimes from block to block. The chief reason for this varying design in street standards and sometimes what appears to be confused routing of traffic is more a result of the manner in which Mission Valley developed than any oversight by responsible parties. Today communities are usually developed by an individual firm or a group of developers working together using an overall plan for the area. Under these circumstances careful attention is given to insure all requirements are fulfilled by the public and private sector.

In the past there has been no overall development plan for the public and private sectors to follow in Mission Valley. Several of the largest parcels are currently in uses such as sand and gravel extraction. Other major parcels in areas along the San Diego River cannot be redeveloped at the present time, Development intensities and land uses together with the accompanying public improvements necessary for development could not be fully ascertained prior to the current community planning program. Therefore, the transportation system for Mission Valley falls far short of the ideal in several aspects. This element will examine the existing street system, parking problems, proposed public transit expansion in the Valley, bicycle routes, pedestrian walkways and will end with a discussion of the extension of the light rail transit line through the Valley.

STREET SYSTEM

The street system in the Mission Valley community is characterized by five functional classifications: freeways; primary arterials; major streets; collector streets and local streets. Freeways may have four or more lanes with full controlled access and grade separation at interchanges. Their primary function is to carry high volumes of traffic at high speeds between different communities and cities. Primary arterials within The City of San Diego are usually four

to six lanes wide with severely limited access. They are designed for through traffic generally linking several communities and usually have signals at major intersections. Major streets are also four to six lanes wide, and although they are designed primarily for through traffic, again linking communities, they generally provide some access to abutting property; much more than would be provided by a primary arterial. The collector streets are typically two to four lanes wide. Their function is to collect trips from the various adjacent properties and bring them to either major or primary arterial streets for longer trip purposes. They provide for continuity with local streets. The last category is the local street system whose primary function is to serve adjacent properties and provide links to collector streets.

It is very difficult to do an evaluation of the existing surface street system in the Mission Valley community. The primary arterial in the Valley (portions of Friars Road) functions smoothly most of the time because there are few intersections and minimal driveway access. On hand, the major streets in the area are not built to major street standards at this time and are experiencing congestion, especially during the peak hour periods. This congestion is both a function of incomplete or undersigned major streets, and the congestion on the freeways during peak hours causing backup onto the surface street system.

In addition, Mission Valley has several unique traffic generators that tend to overburden the surface street system during certain periods of the day or year. These include San Diego Jack Murphy Stadium (overloads Friars Road) and Mission Valley and Fashion Valley Shopping Centers (to put excessive amounts of traffic onto the adjacent surface street system during peak shopping periods). The San Diego Jack Murphy Stadium is expected to generate even more traffic in the future as a result of seating capacity increases and as more events are scheduled and the attendance; at events increases. In addition, the traffic on Friars Road is expected to increase from the present 33,000 to 75,000 vehicles daily if and when full development adjacent to the stadium occurs. A separate special study of stadium access and egress will be necessary, including the possibility of additional grade separated facilities, to accommodate future traffic. As the Valley continues to grow, the existing substandard surface street system will be continually called upon to handle greater and greater traffic demands. The existing street volumes (1983) are indicated on the Traffic Flow Map (Figure 11).

Although Mission Valley is readily accessible by freeway, travel to specific points within the community by means of the surface street system can be extremely difficult during the peak hours. Several factors contribute to the traffic congestion problem in Mission Valley. These factors include:

1. RAPID GROWTH OF COMMERCIAL DEVELOPMENT. The freeway has greatly influenced commercial development in Mission Valley. The five freeways that serve the Valley are Interstates 5, 8, and 15 together with SR-163. Construction of these freeways has dramatically increased accessibility to the Valley from all parts of the San Diego region.

2. INCREASED FREEWAY ACCESS. Better freeway access to the Valley coupled with the rapid growth of attractors within Mission Valley has far exceeded the expansion of the supporting surface street system. This lack of an up-to-date surface street system has caused congestion during peak hours in the Valley. In the morning and noon peak hours, the

congestion occurs on the freeways as workers living in other communities commute to jobs in the Valley, while in the evening the surface street system backs up. The evening congestion is due to the back up of cars waiting to get on the freeways, plus motorists coming into the Valley to frequent the restaurants, bars, shops, and theaters after work.

3. GAPS IN THE SURFACE STREET SYSTEM. These gaps exist for a variety of reasons. In some cases they exist because off-site improvements were not required from existing development. In addition, major sections of the Valley, as pointed out earlier, are undeveloped or are in extractive uses and therefore, normal road improvements have not been required. Gaps result in out of directional travel.

   These problems, together with the reduction of public funding at the federal and state level, have resulted in an undue proportion of region-wide traffic passing through Mission Valley. Completion of SR-52 and SR-125 should help redirect some of this regional through-traffic.

4. FLOODED STREETS. These are a potential seasonal problem. The streets usually affected during heavy storms include Fashion Valley Road, Mission Center Road, Stadium Way, Camino de la Reina, San Diego Mission Road and the private Avenida Del Rio.

Accidents:

The City of San Diego maintains current accident rates for all primary arterial, major, and collector streets within the City as well as high accident intersections. These rates are generally based on accidents per million vehicle miles including intersections. This rate is determined using the number of accidents that occur on any given street, the volume of traffic that particular street carries, and the distance between intersections. Only one street segment in Mission Valley has had an accident rate that exceeded the citywide accident rate by more than 100 percent; that was Friars Road between Ulric Street and Mission Center Road. Only two intersections in Mission Valley are ranked in the top 50 on the citywide list of problem intersections. The sixth ranked intersection is 40th Street (future Interstate 15) at Camino del Rio South while Camino del Rio South at Texas ranked 38th. Both of these intersections are currently being rebuilt by CALTRANS as part of a freeway improvement program. Even with the proposed improvements some facilities will experience congestion during peak periods. In many cases this is because existing development precludes improving existing streets as much as would be desirable. At other locations, topography or interchange spacing limits what can be done to improve capacity.

Congestion is anticipated on Friars Road, (Fashion Valley Road to Mission Center Road, and Mission Village Drive to Mission Gorge Road), Hotel Circle North (near Fashion Valley Road), Hotel Circle South (east of the Hotel Circle ramps), Camino del Rio South (west of Mission Center Road and near the I-15 interchange), and Mission Center Road (south of Camino de la Reina).

Transportation Design Criteria and Environmental Criteria:

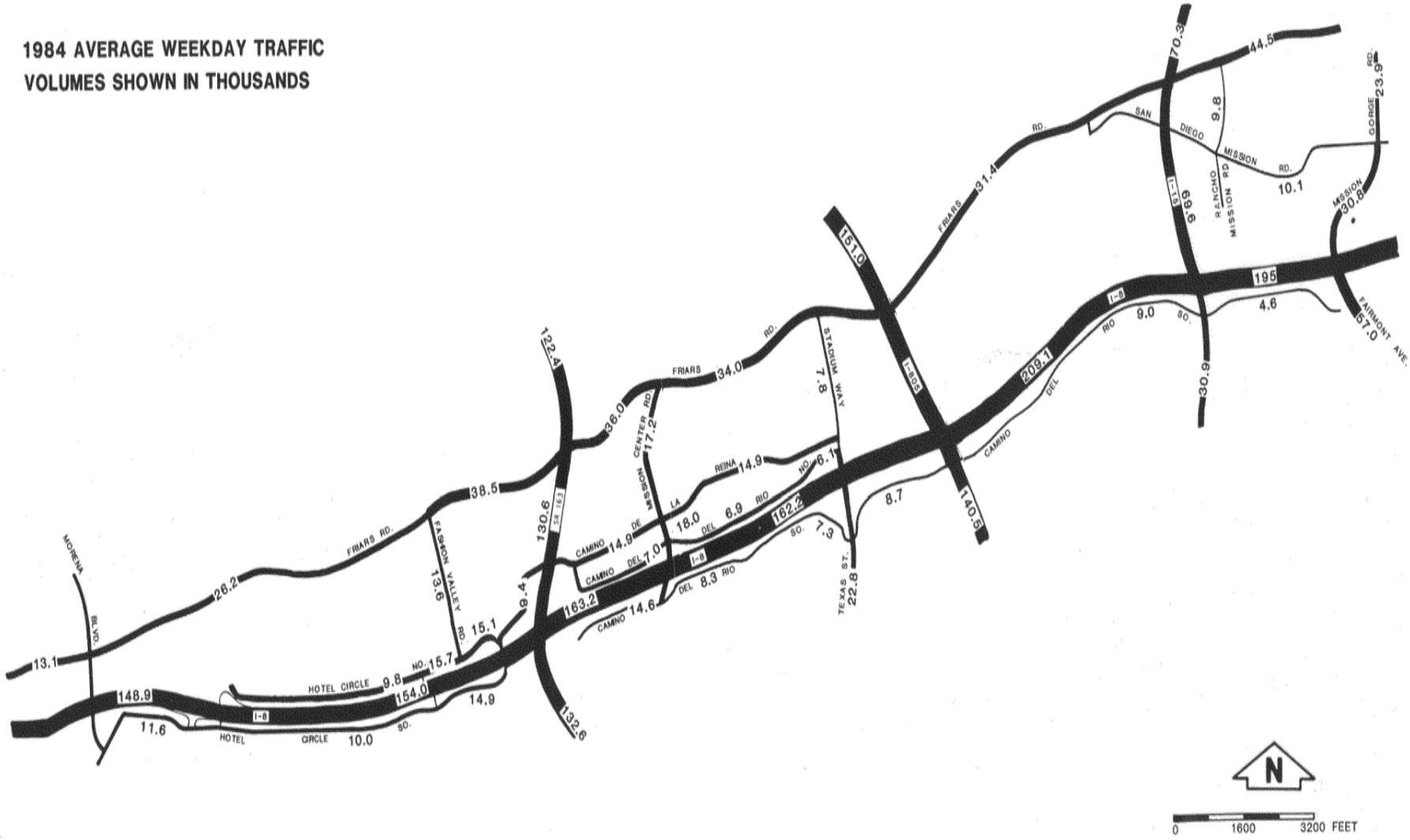
The design of a balanced transportation system, which implements the planning principles underlying the development of Mission Valley, requires re-evaluating present transportation practices. The assumption is that better control over land use, along with implementation and provision of economic and social balance within the community, make new approaches possible to traditional problems of trip generation, distribution and route assignment. This allows better integration of the transportation facility design with other land use elements of the community.

The design of the transportation system is conceptualized in two ways: first, as a flow of people and goods linking specific centers of activity; and second, as a physical structure-occupying horizontal and vertical space. In dealing with the flow of people and goods between centers of activity, analysis of basic trip behavior and travel motivation is required. Preliminary analysis of the Mission Valley Community therefore, begins by examining travel behavior at the household and workplace level. The distribution of trips was considered over all subsystem networks simultaneously. This was accomplished by estimating the trip distribution, trip length, travel time, and distribution patterns, and were developed to reflect expected home base travel behavior within the Mission Valley community.

Non-home based or workplace trips were distributed based on activity center characteristics, service areas, and urban goods (products and services) flow requirements. In addition, special attention was given to the assignment of trips with the unique trip generators of Mission Valley such as the regional retail centers and the stadium.

The physical shape of transportation facilities should complement the adjoining communities. The use of standardized rigid physical design concepts should be avoided short of demonstrable safety or hazard problems.

In an attempt to create a balance between development intensities, the vehicular traffic they generate and the capacity of the street network within Mission Valley, two land use plans were used to forecast future vehicle trips. They differ only in the assumed development of several parcels of city-owned land adjacent to San Diego Jack Murphy Stadium. Portions of the stadium were analyzed for potential future vehicle trips. They differ only in the assumed development of several parcels of city-owned land adjacent to San Diego Jack Murphy Stadium. Portions of the stadium were analyzed for potential future development as commercial-office and retail uses.



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EXISTING TRAFFIC FLOW

MISSION VALLEY COMMUNITY PLAN

FIGURE 11

The traffic forecast for the horizon year (build-out) development in Mission Valley was based on several regional land use and network assumptions. SANDAG (San Diego Association of Governments) Series V, Year 2000 Land Use projections were assumed for the area outside of Mission Valley. In the regional street and highway network it was assumed that SR-52 would be completed east to SR-67. Construction of I-15 would be finished north of I-8, as would SR-15 between I-8 and I-5, and SR-125 between I-8 and SR-56 in Poway. In addition, an access road from University Hospital to Hotel Circle South was assumed in Bachman Canyon. Testing the stadium development did not change any of the recommendations for street classifications shown on the proposed future street system. New streets and improved facilities are indicated on the Recommended Street Classification Map (Figure 13). Despite these improvements some areas of the Valley will experience congestion during peak periods. The projected level of congestion is considered acceptable near freeway interchanges in partially built communities like Mission Valley.

Some roadways north of Friars Road will need to be developed as part of the Mission Valley transportation system. These roads will be located in those areas between SR-163 and Interstate 15, which are currently involved in sand and gravel extraction. The roads will be implemented at the time of each individual area's proposed change of land use from sand and gravel extraction to urban development, once resource depletion has occurred.

OBJECTIVE

- To facilitate transportation into, throughout and out of the Valley while seeking to establish and maintain a balanced transportation system.

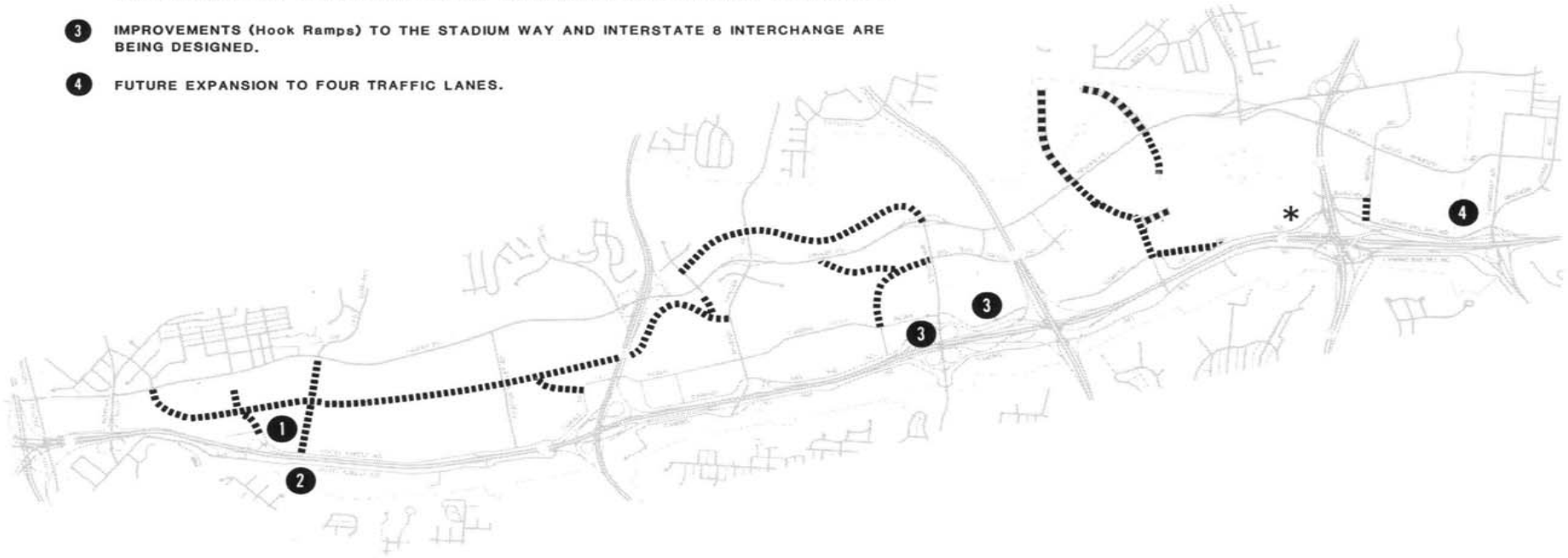
PROPOSALS

- Close gaps and correct other deficiencies in the surface street system.
- Reduce the effects of floods on the transportation network.
- Encourage the use of the surface street system for intra-Valley trips.
- Provide adequate access to developable and redevelopable parcels.
- Encourage the rapid completion of the total freeway system for which will provide relief to the Mission Valley circulation system.
- Reduce conflicts between vehicles, bicycles and pedestrians.
- Improve traffic control techniques used during events at San Diego Jack Murphy Stadium.
- Establish alternative methods of transporting capacity stadium crowds, especially now that the seating capacity of San Diego Jack Murphy Stadium has been expanded.

PROPOSED ROADS (ALIGNMENTS APPROXIMATE)

* STREET NAMES SUBJECT TO CHANGE (See Text)

1. COLUSA STREET BETWEEN CAMINO DE LA REINA AND HOTEL CIRCLE NORTH WILL BE CONSTRUCTED IF TRAFFIC STUDIES INDICATE THAT IT IS NECESSARY.
2. STUDIES TO DETERMINE THE EXACT LOCATION AND FEASIBILITY OF CONSTRUCTING AN INTERCHANGE AT VIA LAS CUMBRES AND INTERSTATE 8 ARE CURRENTLY IN PROGRESS.
3. IMPROVEMENTS (Hook Ramps) TO THE STADIUM WAY AND INTERSTATE 8 INTERCHANGE ARE BEING DESIGNED.
4. FUTURE EXPANSION TO FOUR TRAFFIC LANES.



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PROPOSED ROADS
MISSION VALLEY COMMUNITY PLAN

FIGURE 12

DEVELOPMENT GUIDELINES

Regional Highways:

- Complete SR-52 and SR-125 to provide an alternate route from East San Diego County to North San Diego County, and from Southeast San Diego County to Downtown San Diego (relieving SR- 94), and to points north (relieving Interstate 8).

- Expedite construction of Interstate 15 from Friars Road to SR-52 and its interchange with SR-163.

Primary Arterials:

- Any intersections with access to Friars Road from SR-163 to Mission Gorge Road should be restricted to right turn in and out only. The intersection at Frazee Road, at Santo Road, and at Dos Pueblos Drive may require prohibition of left turn ingress and egress when volumes exceed City Street Design Standards on Friars Road. Milly Way should be a four-lane primary arterial between Rio San Diego Drive and Camino del Rio North (future Camino de la Reina). Ultimately, Friars Road between the northbound ramps of SR-163 and Mission Center Road must be widened to eight lanes.

Major Streets:

- Camino de la Reina Camino del Rio North should be a four-lane major street over its entirety from Napa Street/Friars Road on the west to Fairmount Avenue on the east. Existing sections west of Mission Center Road, west of Stadium Way, and east of Milly Way should be improved to major street standards.

- Frazee Road needs to be four lanes south of Friars.

- Friars Road needs to be restriped as a six-lane major street from Colusa Street to Fashion Valley Road to accommodate the forecasted horizon year volume.

- Milly Way should be constructed as a six-lane major street north of Rio San Diego Drive.

- Rio San Diego Drive should be constructed as a four-lane major street from Rio Vista Avenue to Rio Bonito Way.

- Stadium Way will need to be six lanes south of Friars Road and four lanes when extended north of Friars Road. Public streets of adequate capacity to connect Stadium Way and Mission Center Road with Interstate 805 at Phyllis Place will be needed when urban development occurs north of Friars Road between Mission Center Road and Interstate 805. Provision of these streets will not be considered until the sand and gravel operation has ceased, and resource depletion has occurred. Additionally, the exact alignment will be determined, by detailed engineering studies, by agreement between the City and the property owner at the time urban development takes place on these parcels.

- Mission Center Road will need to be a six-lane major street from Camino del Rio North to Friars Road.

- Depending upon the intensity of current and future development projects and upon the results of traffic studies pertaining to those projects, it may become necessary to extend Colusa Street as either a four-lane collector street or four-lane major street from Camino de la Reina to Hotel Circle North.

- Via las Cumbres should be constructed as a four-lane major street between Friars Road and a new Interstate 8 interchange with Hotel Circle North and South to the east of the existing Hotel Circle North and South to the east of the existing Hotel Circle North overpass at Interstate 8.

- A four-lane street will be needed north of the San Diego River connecting Mission Center road to either Fashion Valley Road or Camino de la Reina (south of Fashion Valley Shopping Center). It should be a major street between Mission Center Road and Frazee Road.

Collector Streets:

- Hotel Circle South and the under crossing to Hotel Circle North should be widened to a four-lane collector street between Camino de la Reina and the eastbound I-8 ramps and between the hotel Circle North overpass and the Taylor Street/Interstate 8 interchange eastbound ramps. The section of Hotel Circle South between these two segments should be three lanes with a transition to a fourth lane at intersections. Parking should be prohibited on both sides of the street.

- Hotel Circle North should be three lanes west of the westbound I-8 ramps and four lanes to the east. All three lane segments should transition to four lanes at intersections. Parking should be prohibited on both sides of the street.

- The existing sections of Camino de la Reina (to be renamed) between Hotel Circle North and the private street, Avenida del Rio, should be widened to a four-lane major facility.

- Rio Bonito Way will need four lanes between Friars Road and Rio San Diego. Only right turns in and out will be allowed at the "T" intersection with Friars Road.

- Camino del Rio South should be widened to four lanes with a minimum of 58 curb-to-curb between Mission Center and Fairmont Avenue.

- Rio San Diego Drive should be a four-lane collector from Rio Bonito Way to Milly Way, and from Rio Vista Avenue to "A" in the Rio Vista West development.

- Camino del Este should be a four-lane collector street between Rio San Diego Drive and Camino de la Reina.

- Street "A", located in the Rio Vista West development, should provide a connection between Friars Road and Rio San Diego Drive. It should be a two-lane collector along its entire length.

- The north-south line on Rio Vista Avenue should be a two-lane collector providing vehicular access between Rio San Diego Drive and the Trolley Plaza within the Rio Vista West Development.

- Colusa Street should be constructed as a four-lane collector street between Friars Road and Camino de la Reina. Depending upon the intensity of current and future development projects and upon results of traffic studies pertaining to these projects, it may be necessary to construct Colusa Street as a four-lane major street between Friars Road and Camino de la Reina.

- Rancho Mission Road should be extended as a four-lane collector south across the San Diego River to Camino de la Reina. Although forecast for more than 10,000 ADT, present development limits widening the street to major street standards.

- A four-lane collector street will be needed north of the river between Frazee Road and either Fashion Valley Road or Camino de la Reina.

- A collector street will be needed between Rio San Diego Drive and the existing Friars Road underpass (located between Mission Center Road and Stadium Way).

- An access road to the stadium parking lot from Milly Way should be constructed to alleviate congestion during Stadium events and from future development on city-owned land.

Interchanges:

- The SR-163 and Friars Road interchange will need a new southbound to westbound ramp to remove these turns from the traffic signal at Friars Road and Ulric Street. The existing signal for the eastbound to the northbound movement will have to be moved eastward to create more left turn storage space or else be replaced by either a loop-ramp in the southeast quadrant or a fly-over. The median on the Friars Road bridge over SR-163 needs to be narrowed to allow striping for three westbound through lanes and a westbound auxiliary lane between the ramps in the northwest and northeast quadrants. The SR-163 northbound off-ramp to eastbound Friars Road needs to be improved by widening to allow an additional eastbound lane and possible signalization to prevent weaving problems. The ramp should also continue to allow free movement into a separate eastbound lane.

- Hotel Circle and the I-8 interchange will need to be improved where the ramps intersect Hotel Circle North and Hotel Circle South which will require additional right-of-way along the north side of Hotel Circle North, east of the ramps.

- Texas Street/Stadium Way and Interstate 8 interchange: Provide new westbound on- and off-ramps at Camino del Rio North, east of Stadium Way; and new on- and off-ramps of Camino

de la Reina west of Stadium Way. Eliminate the existing signalized intersection and off-ramp directly north of the Stadium overpass.

- Construct a new interchange at Hotel Circle North and South and the southerly extension of via las Cumbres, which will require the realignment of Hotel Circle North and Hotel Circle South.

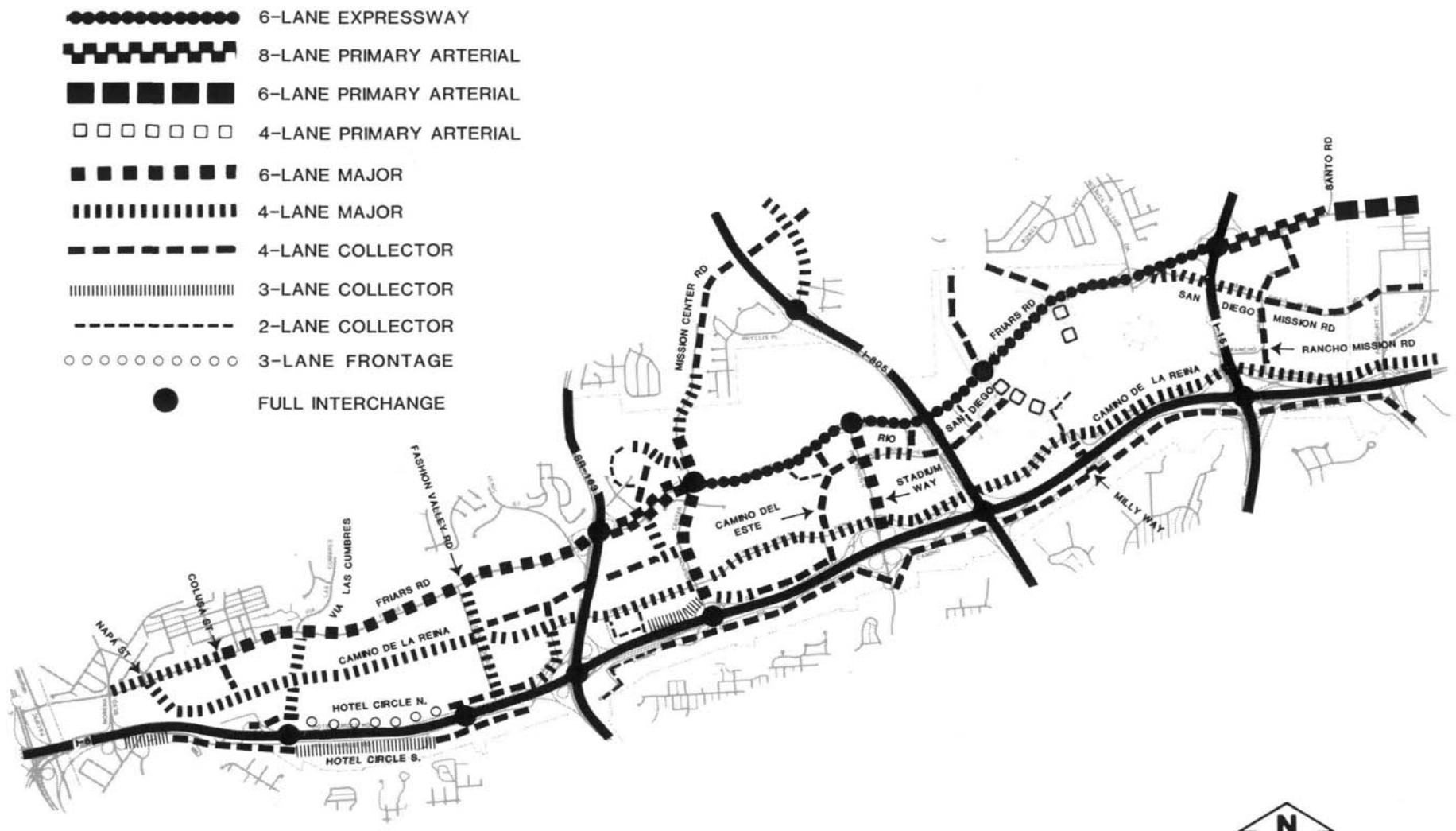
- The Presidio interchange at Interstate 8 should be modified by closing the eastbound off-ramp (Note: Depending upon the intensity of current and future development projects and upon the results of traffic studies pertaining to those projects, it may become necessary to modify the existing interchange through the widening of the bridge and other improvements).

- Modify the diamond-interchange at Friars Road and Stadium Way by widening to six lanes under the overpass and widening the Friars Road on- and off-ramps.

- A diamond interchange should be constructed at Friars Road and Milly Way.

- Improvements to the auxiliary lanes (by CALTRANS) will be needed to reduce the present weaving problems on eastbound and westbound I-8 between the existing Hotel Circle ramps and SR-163.

- Improvements to the auxiliary lanes (by CALTRANS) to the Interstate 8/SR-163 interchange involve the widening of the Interstate 8 eastbound off-ramp to northbound SR-163 and the widening of the auxiliary lanes on Northbound SR-163 north of Interstate 8.



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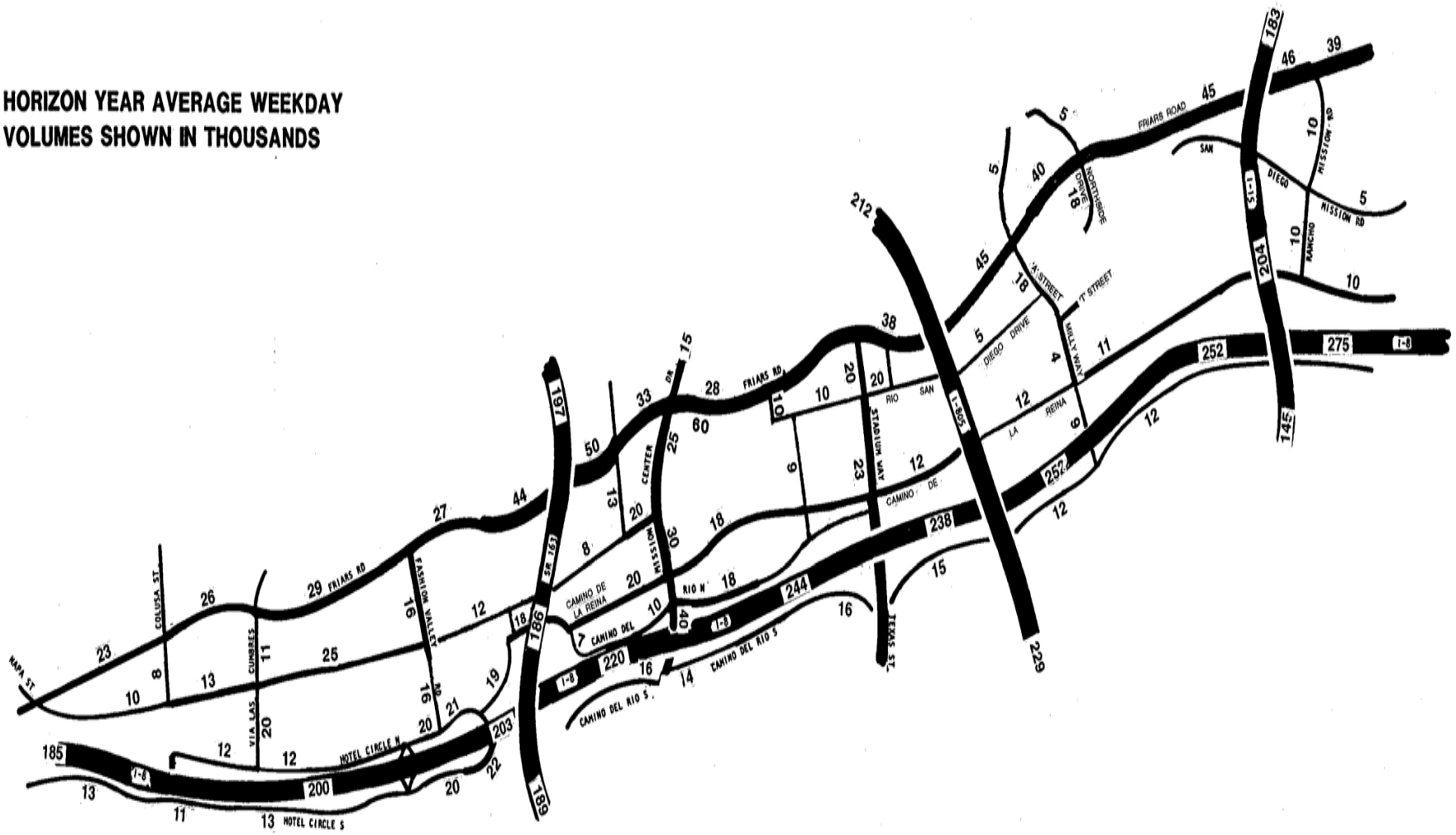
HORIZON YEAR RECOMMENDED STREET CLASSIFICATION

MISSION VALLEY COMMUNITY PLAN

FIGURE 13

HORIZON YEAR AVERAGE WEEKDAY
VOLUMES SHOWN IN THOUSANDS



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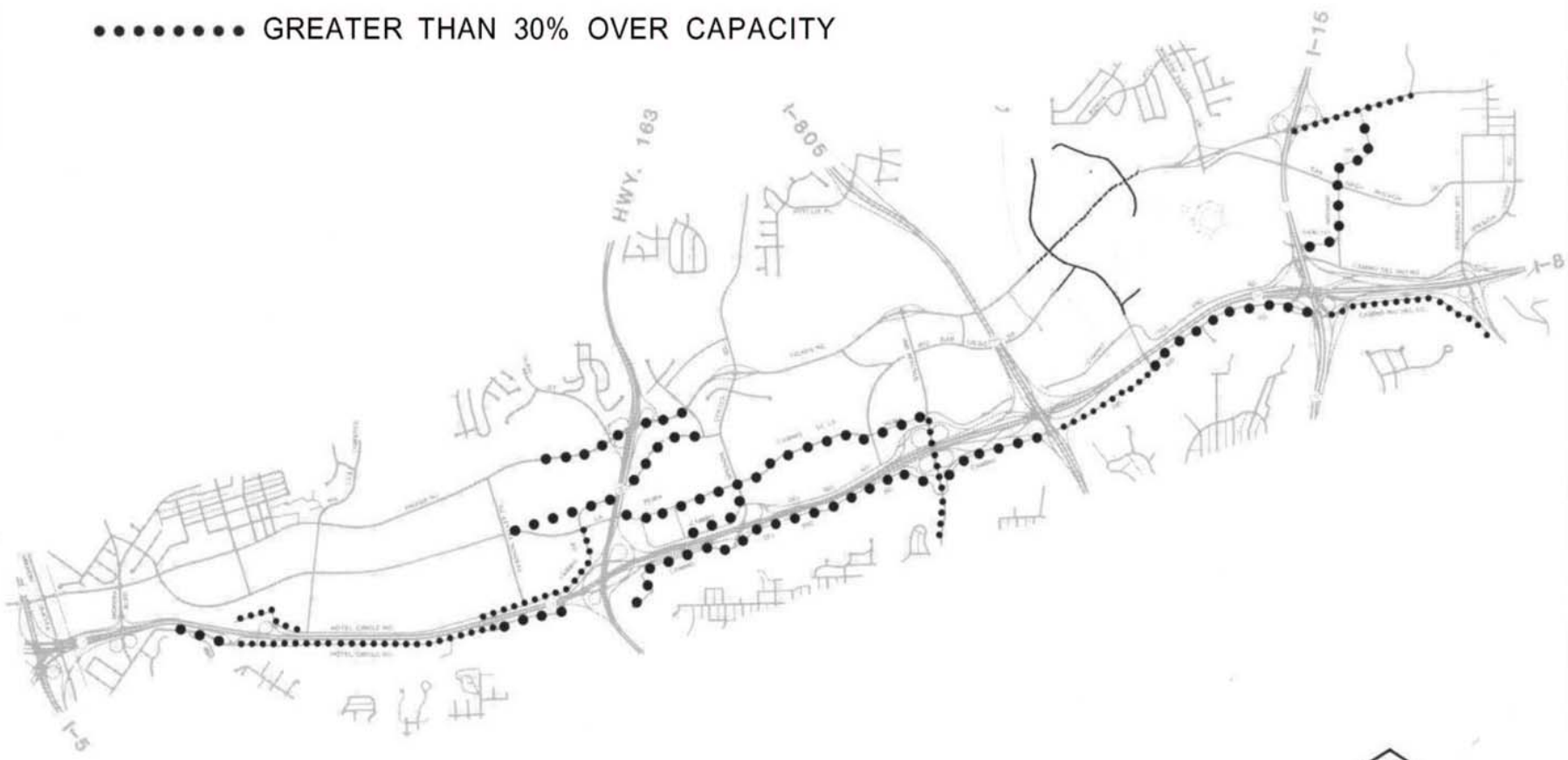
FUTURE TRAFFIC FLOW

MISSION VALLEY COMMUNITY PLAN

FIGURE 14



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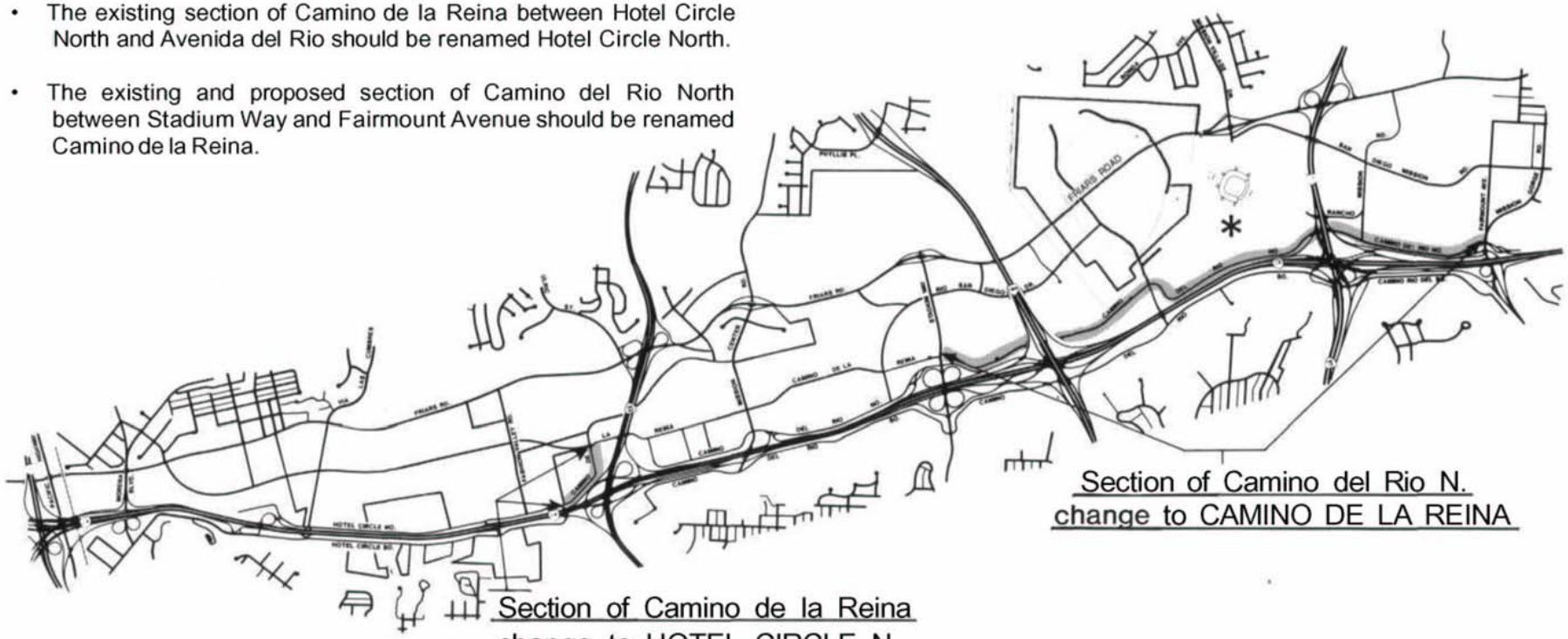
STREETS FORECASTED TO OPERATE
ABOVE DESIRABLE MAXIMUM ADT
MISSION VALLEY COMMUNITY PLAN

FIGURE
15

Street Name Changes:

- The existing section of Camino de la Reina between Hotel Circle North and Avenida del Rio should be renamed Hotel Circle North.
- The existing and proposed section of Camino del Rio North between Stadium Way and Fairmount Avenue should be renamed Camino de la Reina.



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PROPOSED STREET NAME CHANGES
MISSION VALLEY COMMUNITY PLAN

FIGURE 16