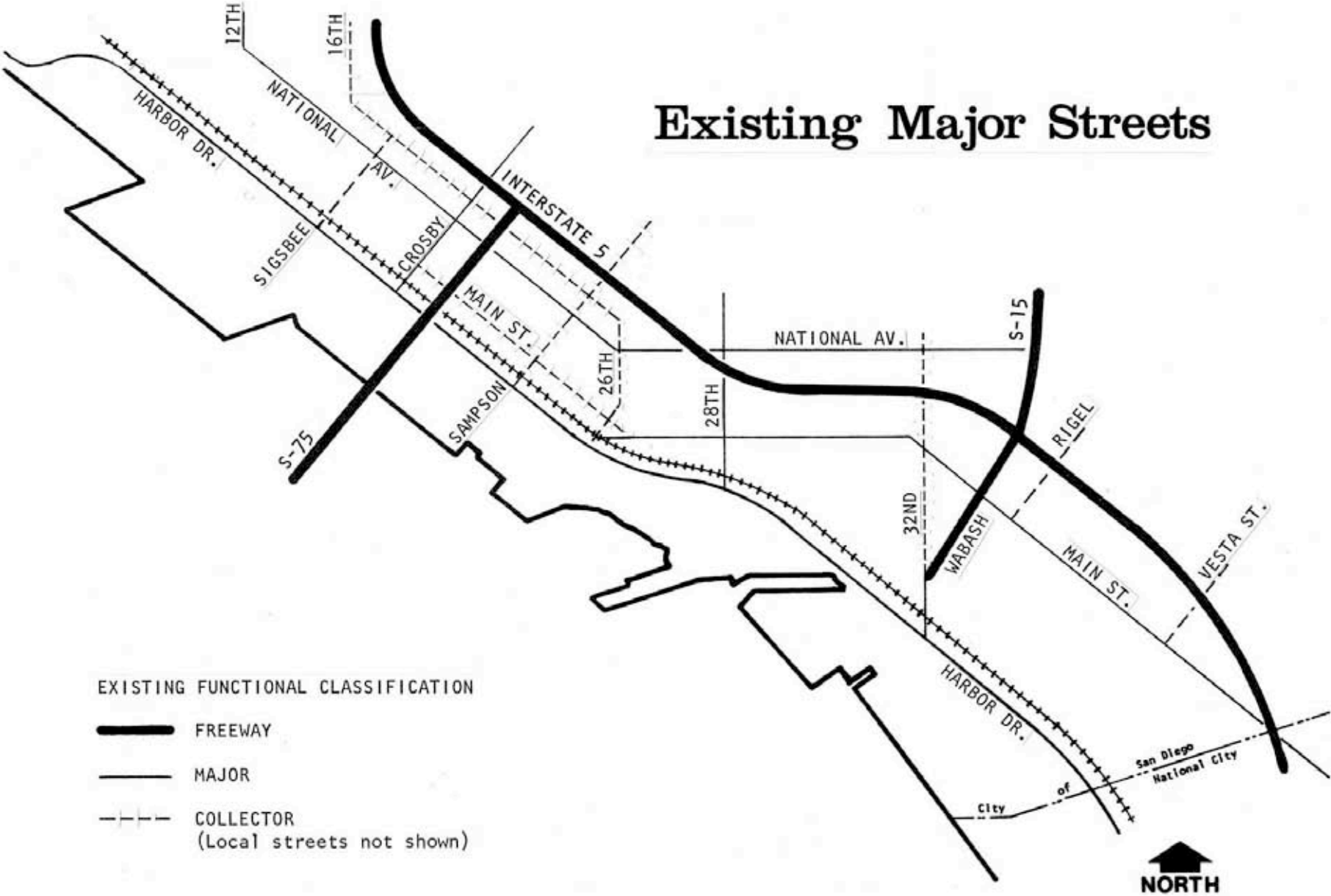

TRANSPORTATION ELEMENT

Because of the community's geographical location on the San Diego waterfront, proximity to downtown San Diego, and its older urban and mixed-use characteristics that have been mentioned at length, transportation plays a major role in the community's development. Practically all known forms of transportation have an important role in the community and its future development. Transportation modes for the Barrio Logan/Harbor 101 community fall into the following categories: Automobile Transportation (freeways, major streets, collector streets, local streets), Public Transportation in the form of rail (MTDB) and Bus Transportation, Industry-related Transportation (rail, trucking and shipping) and Pedestrian/Bicycle Open Space-Related Transportation (recreational transit, bicycle and pedestrian). Generally, because of the many existing transportation modes in the community, major circulation conflicts exist.

Existing Major Streets



Barrio Logan
Harbor 101

AUTOMOBILE TRANSPORTATION

EXISTING CONDITIONS

Automobile transportation plays a critical role in the Barrio Logan area, as evidenced by the fact that there are three existing freeways in this community, I-5, State Route 75 (SR-75) and State Route 15 (SR-15). In addition, the area includes several major streets that serve the region, including National Avenue, Harbor Drive and Main Street. Although Barrio Logan is one of the smallest community planning areas, it has a large amount of land area devoted to transportation. Of particular significance are the limited number of access and exit ramps to I-5 and SR-75, and the 45-degree rotation of the grid street pattern, which create unique traffic operation problems. This entire area was bisected in the 1960s when I-5 was constructed and, despite several vehicular and pedestrian overpasses, is heavily influenced by this physical and psychic barrier and this means of mobility.

Street Systems

The street system in the Barrio Logan community has been classified according to the standards of continuity, volume and purposes, and divided into five categories: freeways, prime arterials, major streets, collector streets and local streets. The existing functional classification of streets is shown in the figure and is defined as follows:

- A freeway, usually under the jurisdiction of the State of California Department of Transportation (Caltrans), is designed to carry high volumes of traffic at higher speeds over longer distances, and is usually a divided highway with four to eight more lanes. A freeway has full access control and grade separation at all intersections. Examples of freeways in Barrio Logan are I-5 and SR-15.
- A prime arterial is intended to carry large volumes of through traffic and is usually a divided highway of four to six lanes. There are no prime arterials now in this community.
- A major street, which may be divided, is usually four to six lanes with all street crossings at grade. It is designed primarily for through traffic but may provide access to adjacent property as necessary. State Route 15 (Coronado Bridge), National Avenue, Harbor Drive, 28th Street, Main Street (between 26th and Division), Crosby and 32nd Streets are all major streets.
- A collector street functions as a feeder of traffic to the major street and provides continuity with local streets. It is also designed to provide access to abutting property and is typically two to four lanes wide. In the Barrio Logan community, Sigsbee, Sampson, Logan, Rigel, Vesta and Main (between Sigsbee and 26th) are existing collector streets.
- A local street primarily serves abutting property, with the movement of traffic given a secondary role. It may be a two-lane minor street or a one-lane alley.

**TABLE 1
CITY OF SAN DIEGO
STREET DESIGN STANDARDS (1977)**

Appendix I (to Council Policy 600-4)

Functional Street Classification	Number Of Lanes	Approximate Max. ADT	R.O.W. Widths	Curb (or other width)	Median Width	Shoulder Width	Minimum Radius of Curve	Maximum Grade
Primary Arterial	6	47,000	122' (1)	102'	14'	8'	1,000'	6%
	4	28,000	98' (1)	78'	14'	8-10' (4)	1,000'	6%
Major Street	6 (2)	32,000	122' (3)	102'	14'	8-10' (4)	1,000'	7%
	4	25,000	98' (3)	102'	14'	8-10' (4)	1,000'	7%
	4	18,000	88-98' (5)	68-78'	4'	8-10' (4)	1,000'	7%
Collector Street	4	10,000	84-98' (5)	64-78'	0-14'	8-10' (4)	500'	12% (6)
	2	5,000	60-70' (7)	40-50' (7)	0'	8-13'	300'	12% (6)
Local Street								
Industrial	2	5,000	70'	50'	0'	13'	200'	8%
Commercial	4	10,000	84'	64'	0'	8'	200'	8%
	2	5,000	60'	40'	0'	8'	200'	8%
Residential	2	5,000	60'	40'	0'	8'	100'	15%
	2	1,500	56'	36'	0'	8'	100'	15%
	2	700	52' (9)	32' (9)	0'	8'	100'	15%
	2	200	50' (9)	30' (9)	0'	8'	100'	15%
Bikeways					0'			
Separated Facility	2	-	12'	8-10' (10)	0'	-	15'	7%
Within Street R/W (11)	2	-	10-16' (12)	10' (13)	0'	-	15'	Grade of Street
Within Roadway	2	-	-	5-8'	0'	-	15'	Grade of Street
Alley	2	-	20'	20'	0'	-	100'	7%
Sidewalk	2 (15)	-	-	4-5' (16)	0'	-	-	Grade of Street

1. Full control of access from abutting property.
2. Used only where property owners elect and are authorized to construct additional lanes to convert a four-lane primary arterial to a major street in order to gain access.
3. Access and parking control at critical locations. Additional width required for double left-turn lanes.
4. 10' where state or federal design standards apply.
5. 98' required where left turn lanes are needed.
6. 8% in commercial areas.
7. 70' R.O.W. and 50' curb width in industrial areas.
8. Frontage roads or other single loaded streets: R.O.W. and curb widths may be reduced in residential areas to provide streets of 47/32' (5,000 ADT), 43/28' (1,500 ADT) and 41/26' (700 & 200 ADT). R.O.W. may be reduced to 5' in commercial or industrial areas with no decrease in curb width.
9. Where no parking will be allowed, curb-to-curb width may be reduced to 24' with right-of-way width of 44' (R.O.W. 34' where sidewalks are provided separately from streets.)
10. 10' facility where substantial amount of traffic volume is anticipated (e.g., near schools).
11. Located in curb to property line area.
12. 16' provides for 6' landscaped separation between bikeway and roadway along major/primary arterials.
13. Street lights, hydrants, etc., accommodated within 10' paved area.
14. One-way traffic on each shoulder, no parking. Separation from traffic lane varies from 6' white line to 2' island.
15. Sidewalk on each side except single loaded streets.
16. Minimum clear unobstructed width – 4' residential areas, 5' in commercial and industrial areas (excludes curb top width, fire hydrants, light poles, transformers, etc.

*NOTE: These are standards applicable primarily to newly developing areas without unusual terrain problems. In difficult terrain and in older developed areas where flexibility is lost, they may represent only desirable goals that the designer attempts to achieve.

Street Capacity

The City of San Diego (in Council Policy 600-4) has established guidelines for street widths in newly developed areas as a function of anticipated traffic volumes. These standards (**Table 1**) list the maximum desirable average daily traffic (ADT) for different street curb and right-of-way widths. A comparison of existing traffic volumes with the City street standards reveals a number of streets that are carrying more than the standard recommendations.

Thirty-second Street, between Wabash and I-5, is a two-lane roadway that exceeds the desirable ADT by 100 percent. Crosby Street, between National Avenue and I-5, is presently carrying 60 percent more than the desirable ADT, while the segment of Crosby, between Harbor and National, is carrying ten percent over the desirable ADT. Main Street, between 32nd Street and Division, has an ADT that exceeds the desirable amount by 30 percent. Other streets exceeding desirable ADT by ten percent are National Avenue between Sampson and 28th Street between Main Street and National Avenue.

There are several unique traffic generators that cause congestion for short periods of time. National Steel and Ship Building Company causes congestion on 28th Street immediately after the end of work shifts and the U.S. Naval Station overloads 32nd Street and Wabash Boulevard at certain times of the day as well. Major problem spots are usually concentrated around entrances to exits from the freeway which pass through Barrio Logan, illustrating well the major role freeways play in the transportation system of the community and the critical nature of adequate means of access and egress from these roadways.

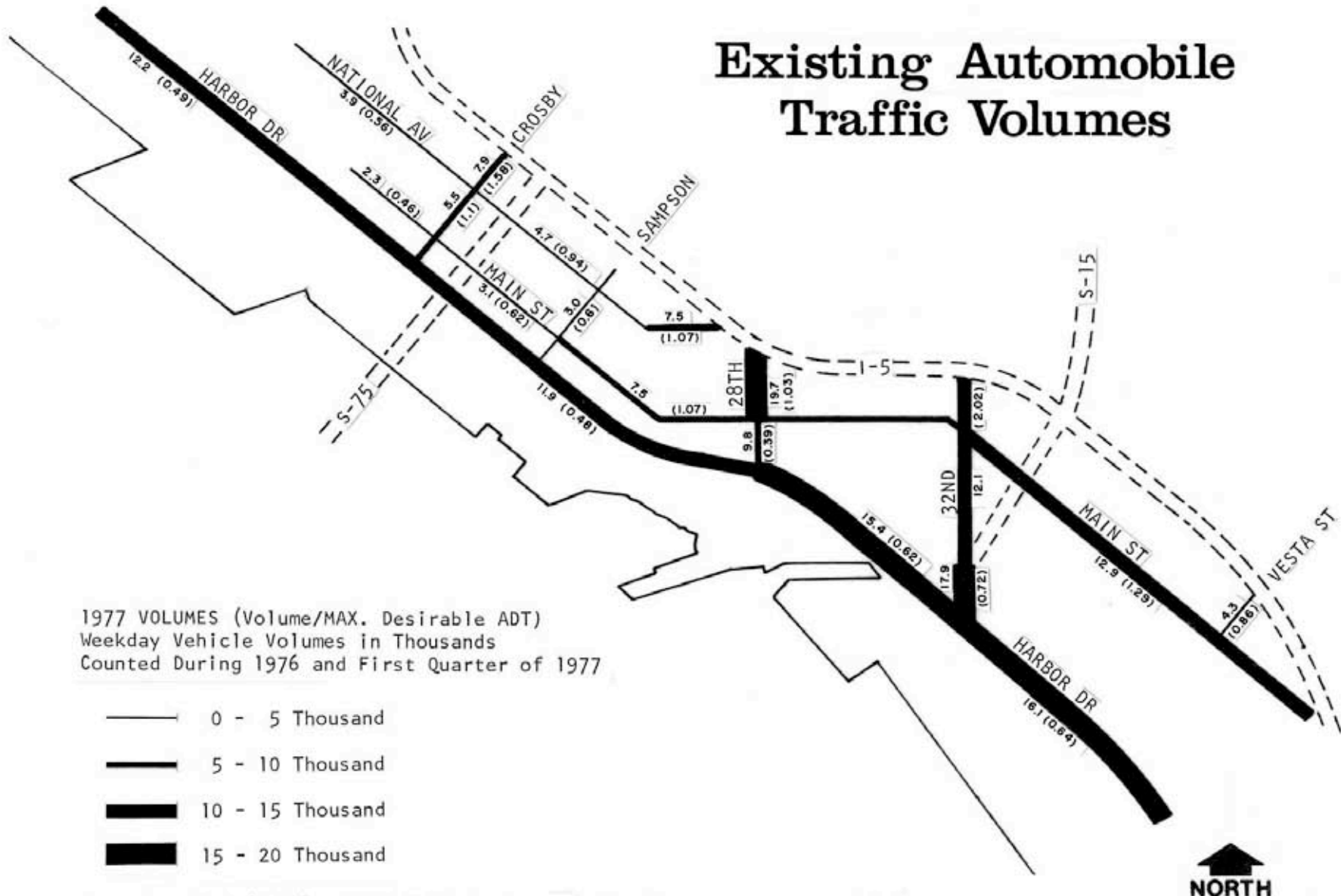
Traffic Volume Trends

Viewing the entire area as a corridor, it is clear that traffic has been diverted from Harbor Drive and Main Street onto I-5, and that all streets which provide direct access to this and other freeways have become more important and more heavily traveled.

Accident Rates

All of the streets with ADT which exceed the desirable volume are also experiencing accidents at a rate which far exceeds the average accident rate for streets of that classification, which is not unusual in view of the congestion and friction common in over-capacity roadways. The accident rate on National Avenue significantly exceeds the average rate on its entire length within Barrio Logan, even on the portions with traffic volumes below the desirable ADT, which suggests that street design and/or traffic control improvements are needed. Some of the accident problems may be traced to the fact that National Avenue, only 52 feet wide, has four through lanes and two parking lanes in the section from Imperial Avenue to Crosby, which normally requires 64 to 68 feet of curb width. In addition, Sampson Street exceeds the critical accident rate between Harbor Drive and Kearny. There are three high volume intersections in the Barrio Logan that are ranked among the City's top 51 intersections based on the 1977 accident rate. Thirty-second and Wabash has had 1.7 to 1.8

Existing Automobile Traffic Volumes



Barrio Logan
Harbor 101

accidents per million vehicles entering the intersection in each of the past three years, ranking number 38 in 1977; and the intersection of Crosby and Harbor has had 1.6 to 2.5 accidents per million vehicles in 1975 to 1977, ranking number 51 in 1977.

Traffic Control

There are 15 signalized intersections in Barrio Logan, all of which are traffic actuated and therefore able to detect and respond to varying intersection traffic volumes. The two signals at 32nd and Wabash and 32nd and Harbor are interconnected and operate a system to optimize traffic flow through both intersections. In addition, eight of the traffic signals have protected left-turn phases for one or more directions. All but five of the intersections in the Barrio Logan area have some form of existing traffic control, either a traffic signal, stop signs or yield signs. Three of those intersections have four-way stops presently in operation: Beardsley and National; Crosby and National; and Logan and Sampson.

The intersections of Beardsley and National, Beardsley and Logan, Main and Sampson and Crosby and National have been studied to see how they rank compared to other intersections awaiting possible signalization. Crosby and National has 180 intersections ahead of it on the priority specified traffic characteristics and criteria, and the other three have over 210 intersections ahead of them on the priority list. The City, however, is only able to install about five to ten signals per year because of financial limitations.

Parking

There is a serious parking shortage directly related to some of the major industrial employers, particularly National Steel and Ship Building Company, where most employees park on City streets and walk a number of blocks to their place of employment. There is, in fact, a high demand for on-street parking in most of Barrio Logan. There are no parking meters or parking restrictions on the street in this area and on-street parking spaces have a high occupancy rate. Recent studies made by NASSCO and the U. S. Navy specifically point out the need to develop a comprehensive parking program for this area.

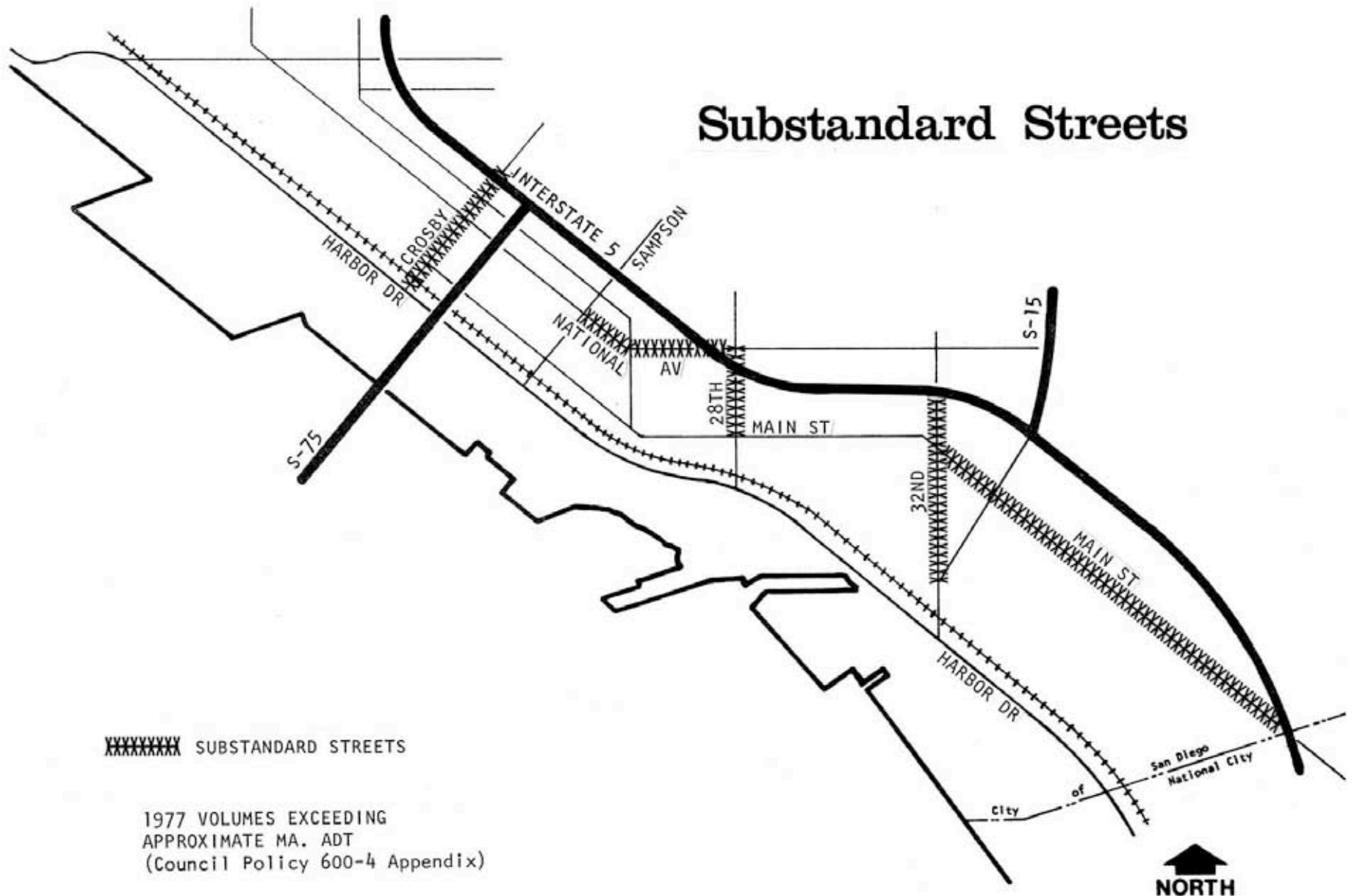
RECOMMENDATIONS

The 1995 forecast of traffic volumes for the Barrio Logan community, based on the proposed community plan, show an increase on almost every street in Barrio Logan/Harbor 101 community. This increase over the 1977 volumes can be as little as ten percent or, on some major streets, over 100 percent. Specific recommendations for streets and intersections based on these forecast volumes follow.

Careful freeway management techniques should be established to increase the freeway capacity and minimize the impacts of projected increases in traffic.

There will be significant increase in traffic on Freeway I-5, particularly in the portion south of SR-15, where 175,000 vehicles per day are expected. This will necessitate careful freeway management techniques on the part of Caltrans to minimize congestion and traffic

Substandard Streets



XXXXXXXXXX SUBSTANDARD STREETS

1977 VOLUMES EXCEEDING
APPROXIMATE MA. ADT
(Council Policy 600-4 Appendix)


NORTH

Barrio Logan
Harbor 101

stoppages, including the possibility of ramp metering, additional travel lanes or other measures. It will also be necessary that parallel major streets, such as Main Street and Harbor Drive, be monitored carefully by the City to enhance the capacity and safety of this entire traffic corridor. The anticipated operation by the Metropolitan Transit Development Board (MTDB) of a light rail transit system in this corridor will be an additional asset and should further enhance mobility.

Harbor Drive should be redesigned and reconstructed to accommodate more efficiently the expected traffic, as well as other modes of transportation that will be utilizing the alignment under the proposals of this Plan.

Harbor Drive, a vital link with downtown San Diego, will be at capacity by 1995, carrying 25 to 28 thousand vehicles as congestion increases on I-5. To carry these anticipated volumes, it is imperative that any modifications or improvements to Harbor Drive, including bikeway and truck routes, either preserve or increase the number of through lanes. The redesign of on-street parking and the planned development of parking reservoir areas, as well as minimizing driveways and intersections with other streets as part of the Plan effort, are two strategies that may be necessary under this Plan's timeframe.

Measures to increase street capacity should avoid costly street widenings and land purchases. Actions for primary consideration should include on-street parking limitations during peak traffic hours, striping turn lanes, and interconnecting traffic signals.

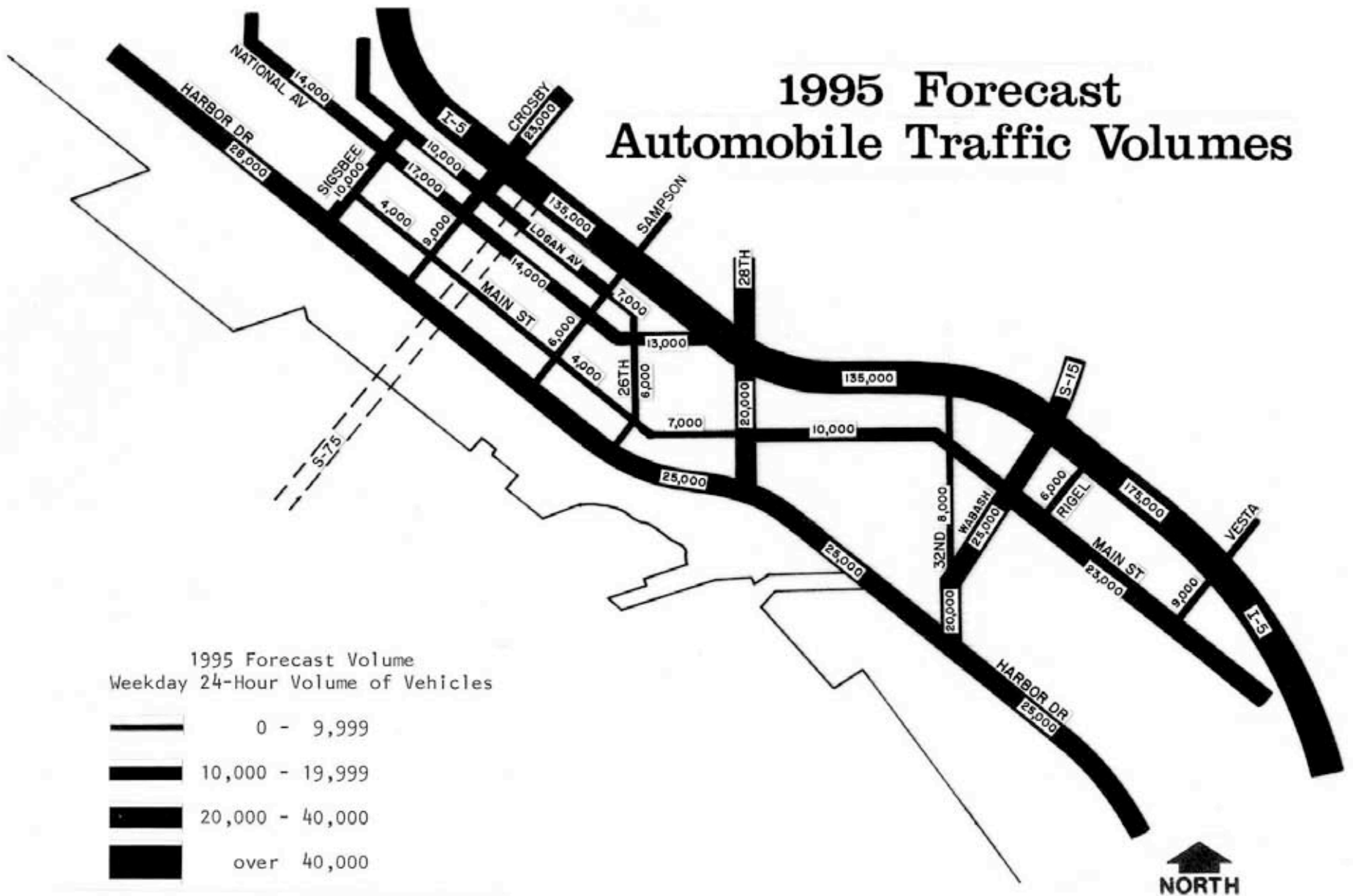
Main Street, between 32nd Street and Division

This section of Main Street is forecast to have a significant increase in traffic volumes with 23,000 average daily trips expected by 1995. The existing street width, which is generally 52 feet, with parking allowed on both sides of the street, will prove inadequate to handle these volumes without serious congestion and delay. Measures to increase the capacity including some widening of the street on the west side which is owned by the U.S. Navy, traffic management techniques and the striping of left turn lanes and/or additional through lanes should be investigated by the City's traffic operations section.

Main Street, Sigsbee to Sampson

This portion of Main Street, a collector street with a 52-foot curb-to-curb width, is only forecast to carry 4,000 average daily trips, a minimal increase over existing volumes. The street is not a through street in that it terminates in a T-intersection at Sigsbee. The development of the Plan's proposed Educational/Cultural Center in the area of Newton, Harbor Drive, Sigsbee and Beardsley, may necessitate the closing of that portion of Main Street between Sigsbee and Beardsley. The closing of this portion of Main Street would divert 3,000-4,000 trips onto parallel streets, mainly Harbor Drive, National Avenue and to a lesser degree, Newton Avenue.

1995 Forecast Automobile Traffic Volumes



Barrio Logan
Harbor 101

National Avenue

National Avenue is forecast to have 14,000 vehicles per day, which is almost twice the existing volume. The 52-foot curb-to-curb street width on National Avenue can probably accommodate this volume if it is managed and operated so as to maximize capacity. An investigation of measures to increase capacity should be conducted by the City's Traffic Operations Section examining alternatives for restriping the portion of National Avenue that is only striped for two through lanes and the select prohibition of parking at peak periods and in certain locations on one or both sides as necessary.

The following intersections are recommended for investigation for traffic operations based on the travel forecast:

Crosby and Logan

Because both Crosby and Logan Avenues are forecast to experience increases in volume and in view of the existing congestion at this intersection, an investigation should be conducted to determine how intersection capacity and efficiency should be increased. A modification of the phasing, the addition of through lanes, or the construction of right turn slots and temporary parking prohibition, are possibilities that warrant consideration.

Crosby and National

Because of the same reasons as listed above and the anticipated increase in National's traffic volumes, this intersection, presently a four-way stop, will need to be improved with regard to capacity during this Plan's time-span.

28th and Harbor

Because both Harbor Drive and 28th Street will have higher volumes than they do presently, and because of the congestion that exists now during certain times of the day, an investigation into the efficiency of this traffic signal should be conducted. Considerations of transportation management tools such as those previously mentioned should be considered.

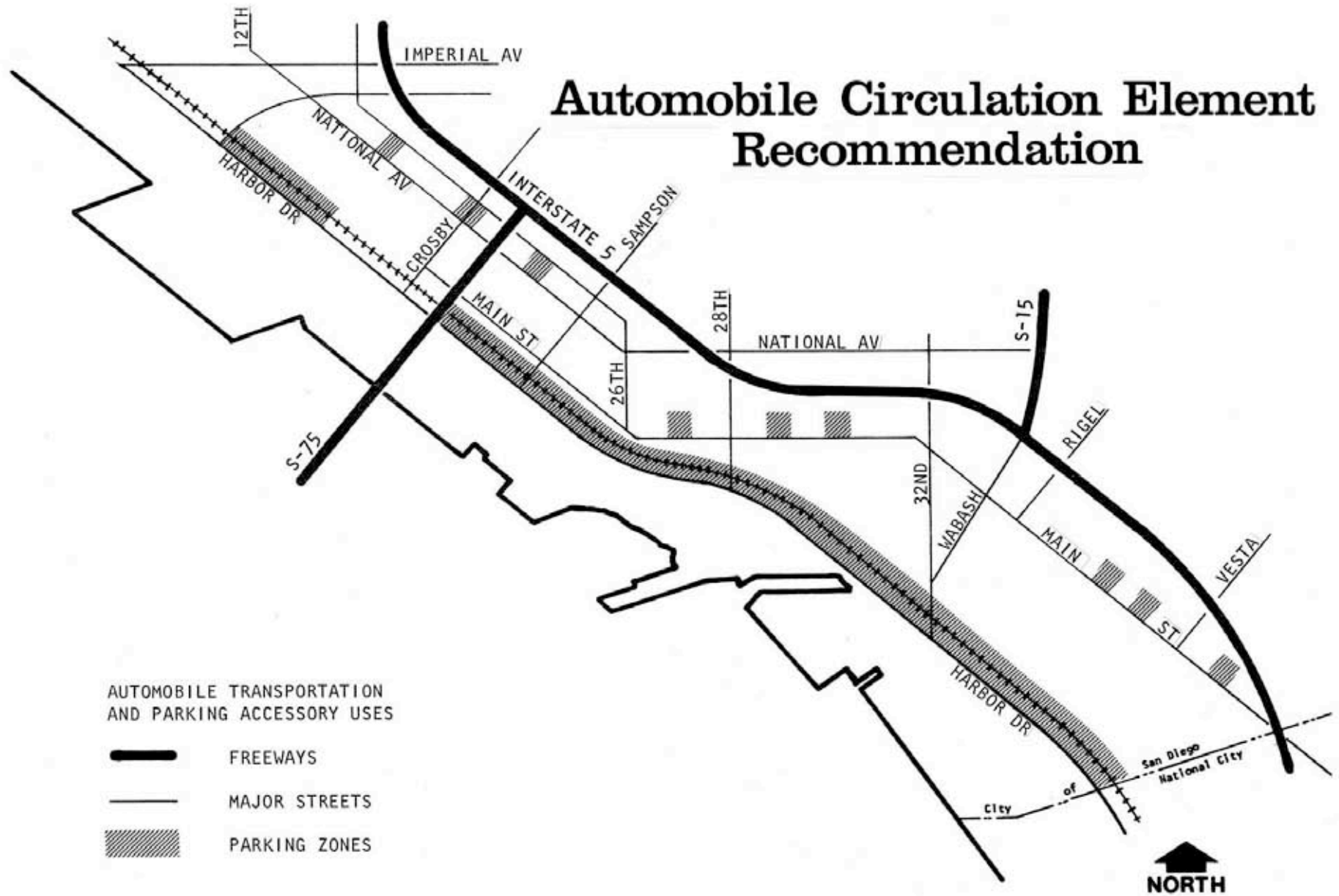
Reinforce and enhance linkages to surrounding communities.

Beautify the major access points into the Barrio Logan/Harbor 101 community, particularly the regional access points, the freeways and the street links Harbor Drive, National Avenue, Imperial Avenue, Commercial, Crosby, 28th, 32nd, Rigel, Vesta and Main Street.

Provide ways and means to make efficient use of the scarce land area by proper utilization of circulation routes.

Provide parking areas where automobile storage, parking and related uses can be concentrated. By doing this, some land presently used for parking can be reused for expanded industrial, residential and other activities as may be found necessary without need

Automobile Circulation Element Recommendation



**Barrio Logan
Harbor 101**

to undertake major improvements and land clearing. By organizing major access routes and establishing parking areas, parking conflicts on residential streets may be reduced. The railroad right-of-way should be consolidated and excess lands put to other use in those areas not needed by the MTDB transit system for trackage and stations.

Streets that are not major or collector streets should be designed for access to the individual properties. Possibilities exist in these areas after further study for narrowing and cul-de-sacing. Those street areas not necessary for automobile use could be reused as small plazas, pocket parks, and even new building and development areas.

Parking activities should be envisioned as accessory uses to the automobile transportation system. This Plan recommends the delineation of parking areas along Harbor Drive primarily and other areas as necessary to accommodate other commercial and community facilities' parking needs.

The Plan recommends the development of a parking system delineating the most desirable locations for such a system. The size and number of cars to be accommodated in each area should be the subject of a subsequent survey and proposal resulting from specific redevelopment studies.

Industry employee-related parking should be developed in a linear fashion along Harbor Drive and the extension of Commercial Street into the proposed new industrial park. It is important to consider that the height and scale of the parking should not overshadow surrounding development. Parking structures should be preferably removable temporary parking structures that can be added onto or removed as demand warrants; or with permanent but reusable structures which can be converted to other building use. The ground floors could be used for employee-related commercial services, eating establishments, gasoline stations, auto repair shops and other service uses.

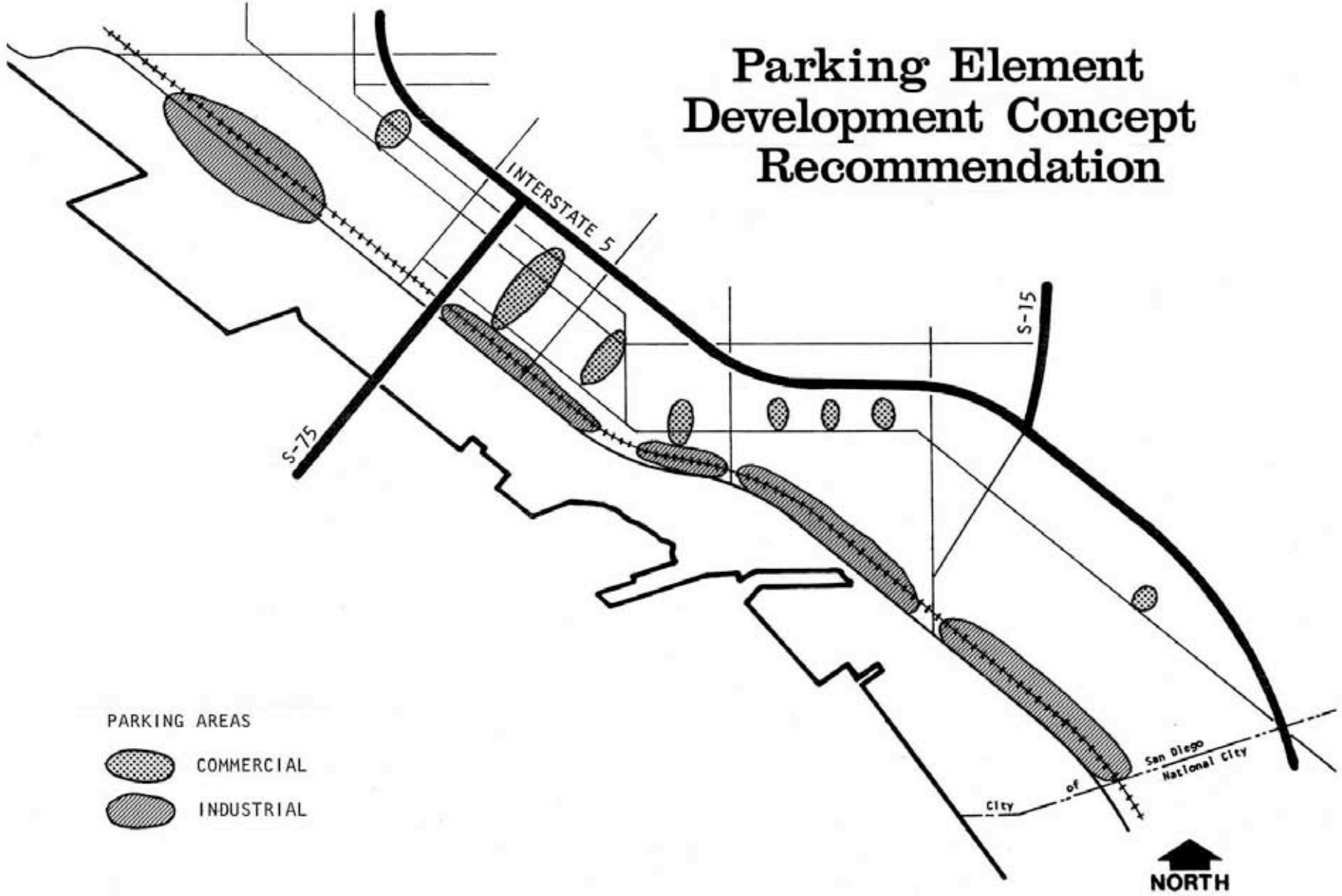
Commercial-related parking should be developed to serve the commercial uses particularly along the Logan and National Avenues and Main Street areas. Off-street parking could be developed in small parking lots off the main street and cross-streets that are not critical to the major circulation system in the community could be closed to through traffic and used as parking areas.

The Navy's commercial and industrial areas provide their own parking. The industry-related parking is already located along Harbor Drive, although its layout at present is very inefficient. The commercial area could accommodate its parking needs into the same Harbor Drive parking reservoir concept.

Consideration should be given to prohibit all-day parking in residential neighborhoods. This action should be coupled with the establishment of parking facilities for industrial workers in order to reduce disruption to the residential and business community.

Because the existing street system will be called upon to serve the increasing transportation needs of the region, including pedestrian, bicycle, transit and vehicular traffic, it will be both impractical and unsafe in the long-term to use all streets for the storage of parked vehicles.

Parking Element Development Concept Recommendation



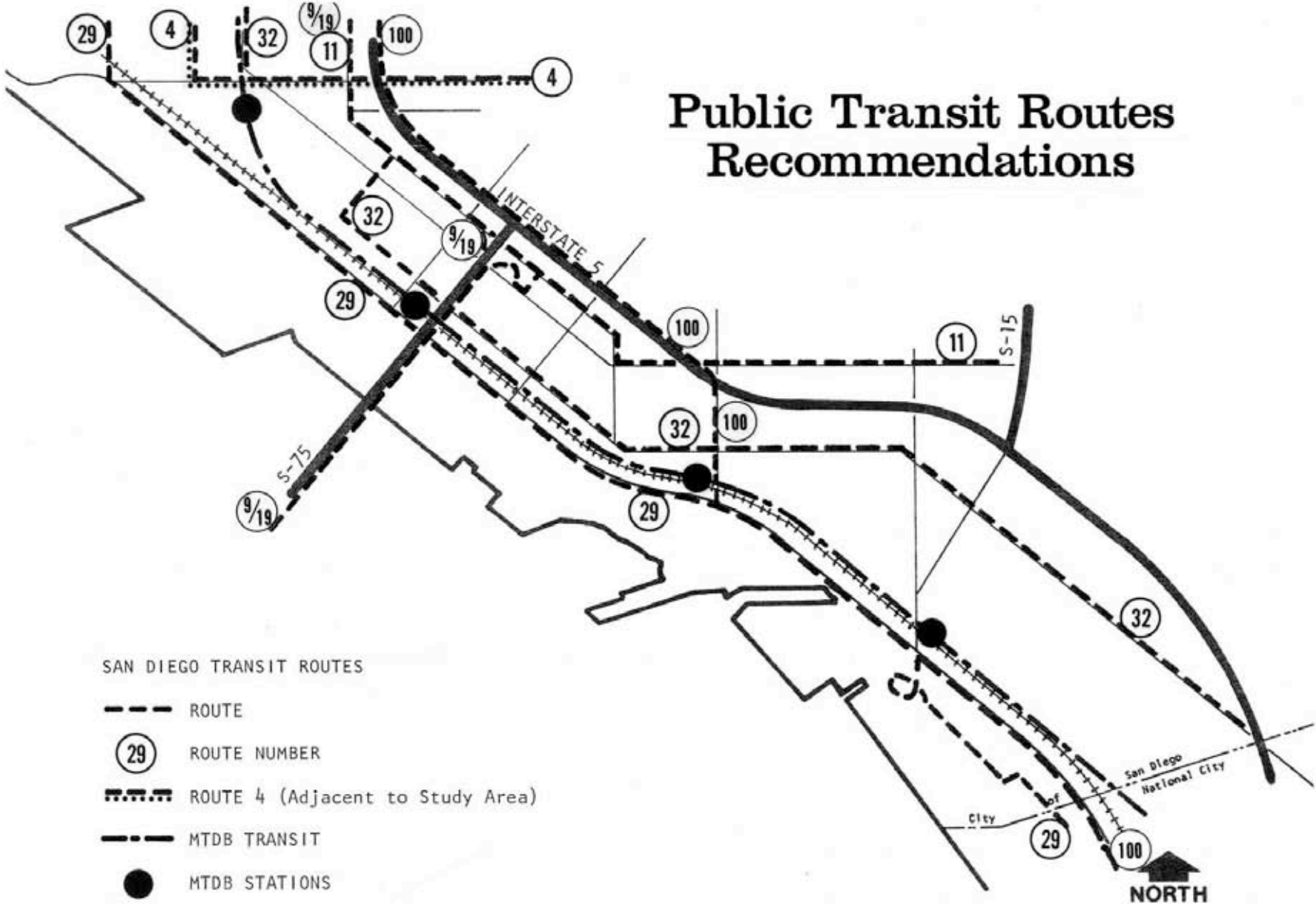
**Barrio Logan
Harbor 101**

Local employers, the Port District and its tenants should provide sufficient off-street parking for both employees and customers, so the streets can be better used for the safe and efficient movement of people.

It is recommended that the extension of Commercial Street at Harbor Drive be studied as part of the industrial park development. A potential extension of Commercial Street in conjunction with the industrial park development proposal would provide additional needed access to the industrial development minimizing some effects on the remainder of the community's street system.

Off-street parking guidelines shall be established for all new development and incorporated into the implementation ordinances.

Public Transit Routes Recommendations



- SAN DIEGO TRANSIT ROUTES
- ROUTE
 - (29) ROUTE NUMBER
 - ROUTE 4 (Adjacent to Study Area)
 - MTDB TRANSIT
 - MTDB STATIONS

NORTH

Barrio Logan
Harbor 101

PUBLIC TRANSPORTATION

EXISTING CONDITIONS

The Barrio Logan area is quite well served by public transportation with five San Diego transit bus routes passing through the area. Three routes, Number 29, 32 and 100 connect with destinations to the south including Chula Vista, Imperial Beach and San Ysidro while Route Number 9/19 provides a link with Coronado via the Coronado Bay Bridge. Route 11 serves as a link with Southeast San Diego and Spring Valley. In addition, all five routes connect with downtown San Diego and other points in the City. Route 100 is an express route using I-5 for part of its route between downtown and Imperial Beach. Most major employers and Naval facilities in Barrio Logan are on or near a San Diego Transit route. Headways on all bus routes are usually 30 minutes or less but the peak ratio of passengers to number of seats (seated capacity) is quite high for Routes 9 and 32. Studies done by San Diego Transit Corporation show bus use to be very high in this community when compared to the rest of the City, making this a high transit-dependent community.

Negotiations are underway between the San Diego Arizona and Eastern railroad and the MTDB to purchase the railroad properties in order to develop a light rail transit link between downtown San Diego and the U.S./Mexican Border to the south. MTDB's proposals have been given approval by the City Council and the agency is proceeding to purchase and develop the property. The light rail transit plans envision a rail link generally along Harbor Drive and three stations within the Barrio Logan/Harbor 101 community planning area.

RECOMMENDATIONS

Establish a multi-modal transportation system throughout the community.

The multi-modal transportation system concept should be designed throughout the community not only to accommodate the automobile, but to accommodate public transportation, especially buses and light rail as proposed by MTDB with proper connections with related pedestrian and bicycle circulation networks.

Existing bus routes should be improved as much as possible to provide more service to the community's residential and working populations.

This Plan recommends the maintenance of existing routes and expansion of their service hours and headways as this becomes economically viable to provide greater and more dependable service to both residential and working communities. The concentration of industry in this generally small area is an underdeveloped public transit asset, as is the transit-oriented local resident population. Future emphasis on bus and rail transportation in this community could do much to help minimize transportation over-dependence on the automobile, particularly for inter-community transportation, easterly of the MTDB light rail transit. When this light rail system is completed, the bus routes should be modified to provide access to the transit stations from the surrounding community.

This Plan recommends the support of the proposed light rail transit alignment from downtown San Diego to the U.S./Mexican border.

The MTDB is in the process of purchasing the necessary railroad right-of-way from the Arizona and Eastern Railroad to implement a light rail transportation system, the first phase of which will include a link between downtown San Diego and San Ysidro. The Barrio Logan/Harbor 101 community is within that alignment. This Plan supports and encourages the implementation of that proposal. The Plan's land use decisions are designed to accommodate and reinforce that alignment by establishing the greatest density of industrial development and the community facility (Educational /Cultural Center) locations in close relationship to that proposed transit system's alignment. Therefore, the MTDB light rail proposal would serve the Plan's industrial use proposals and development (the new industrial park) the Bay Access and Industrial Development proposals, the Educational/Cultural Center proposal, and the Housing proposals.

This Plan recommends that the light rail transit station locations be located to serve the Plan's specific land use recommendations.

This Plan recommends that a transit terminal be developed within the proposed industrial park, as well as within the Chicano Park Area. This proposal would locate two stations. One station should be designed to directly serve the industrial park, estimated to generate approximately 2,000 jobs, and the 10th Avenue Marine Terminal, which by itself represents a source of transit-dependent population from the ships berthed at the docks. The other station should be located to serve the Plan's recommended Educational/Cultural Center that also links to Chicano Park and the Bay Access area, as well as adjacent rehabilitated major industry and also provides direct links to the heart of the community's residential areas.

INDUSTRY-RELATED TRANSPORTATION

EXISTING CONDITIONS

Due to the extensive industrial development in the community, transportation modes servicing the industrial uses are often in conflict with other community movement systems. A particular cause of conflict is the industrial trucks and their use of streets throughout the community that also serve the residents, employees and other smaller community business. In addition to the fact that the streets are not designed to accommodate the large trucks, too often, traffic signs are torn down by a moving truck. There are noise effects and pedestrian safety issues to consider.

The railroad also intersects the community and serves industrial activities and adjacent community areas, particularly to the south. Several railroad links cross the Barrio Logan/Harbor 101 area. Their main function is to transport industrial cargo. A large switchyard is also located in the northeastern portion of the community partially within Port District lands. Although somewhat reduced, due to the redevelopment of most industrial activities to residential uses in the Centre City community planning area, railroad cargo transportation will still play a part in the transportation system of the Barrio Logan/Harbor 101 community, particularly in relation to the Port District's interests in the 10th Avenue Marine Terminal and other major tidelands industrial users.

Shipping is another major industrial-oriented transportation system, which within this community plan, is controlled by the U.S. Navy and the San Diego Unified Port District. The shipping industry is critical to the well-being of the region's industry and its expansion in general. The further distribution of goods and services carried by this shipping industry require the interrelationship of other already mentioned transportation systems such as rail, trucking, public transportation and road access.

RECOMMENDATIONS

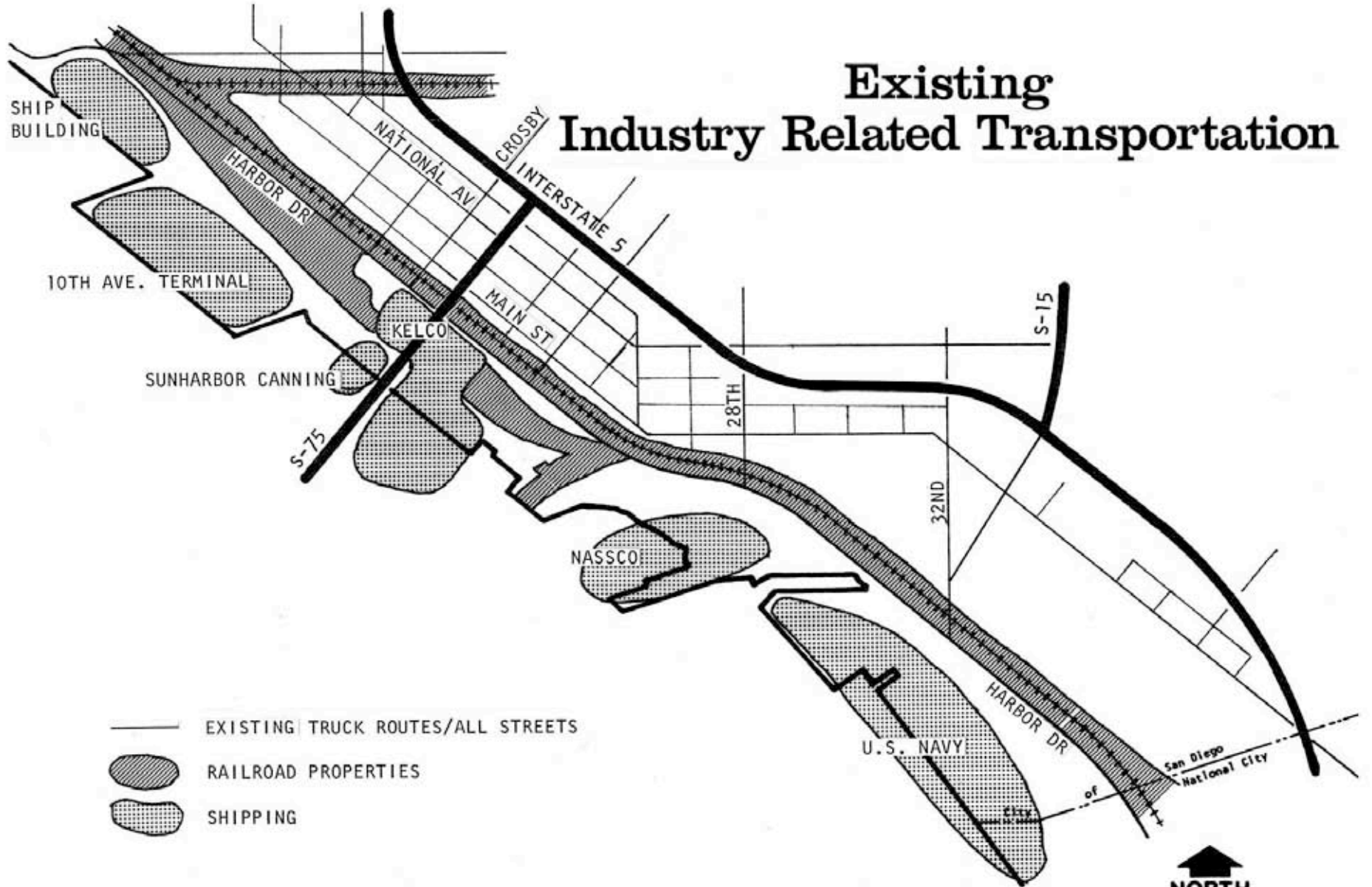
Discourage through traffic circulation and noise-producing vehicles from their use of local streets.

The Plan recommends that truck access particularly, be established through prescribed streets properly designed to accommodate these vehicles and not affecting the residential and business sector of the community.

Develop commercial truck routes to eliminate the use of residential streets as through truck routes.

Develop traffic routes for inter- and intra-community truck traffic. Accessibility for trucks and industry service vehicles should be limited to those streets that directly serve the major industrial/commercial centers. There are two types of truck service, large trucks serving the industry which should limit their movement to K and Imperial streets which have specially

Existing Industry Related Transportation



- EXISTING TRUCK ROUTES/ALL STREETS
- RAILROAD PROPERTIES
- ▨ SHIPPING



Barrio Logan
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designed freeway truck access ramps, and Harbor Drive, Commercial Street and Wabash Boulevard. Smaller trucks serving commercial business should limit their movements to Logan Avenue, National, 26th Street, Main Street, Crosby, 28th, 32nd, and Vesta, as well as use the other mentioned truck routes that are to be considered the through truck routes. Further distributive service should be from these corridors. Consideration could also be given in the future to truck operational hours in order to avoid traffic conflicts with residential needs and commuter access.

Industrial rail access should be continued with an efficient use made of the existing right-of-way.

Rail access should be maintained to serve the major industrial areas along the waterfront and provide continued access to the industrial areas in the communities to the south of the Barrio Logan/Harbor 101 community.

Reinforce the shipping industry along the waterfront through careful coordination and interface with related transportation systems.

Given the fact that shipping transportation is located along the waterfront, the development of the Harbor Drive corridor is a critical element to the development of this industry. Therefore, the development and design of transportation systems along the Harbor Drive corridor is a key recommendation of this Plan. This development should include auto access, industrial rail access and trucking as a key distributive transportation systems critical to the development of shipping. In addition, the MTDB rail transit and the bus system become important in providing additional access possibilities to personnel of the shipping industry that often are transit-dependent.

Other related considerations are the location of industrial uses served by the shipping industry along this same corridor and the storage needs required by shipping. In this respect, the 10th Avenue Terminal becomes a major consideration not only as an origin and destination source, but also in terms of needs for warehousing in relation to the shipping industry's expansion needs. For that purpose, this Plan recommends that the industrial park development adjacent to the 10th Avenue Terminal consider this site as a potential expansion area for the 10th Avenue Terminal described in the **Industrial Element** of this Plan.

PEDESTRIAN/BICYCLE/OPEN SPACE-RELATED TRANSPORTATION

Non-motorized forms of transportation including bicycling have experienced an increase in popularity recently in response to concerns about both personal and environmental health. The result has been a boom in bicycling, walking, jogging and horseback riding. Even though bicycling is both for transportation and recreation, bikeways are nevertheless an important part of the circulation system. Bikeways are generally divided into three categories based on the degree of improvement and access control. These include bicycle paths, bicycle lanes and bicycle routes. The City of San Diego is involved in a program of establishing a citywide system of bikeways, the goal of which is to link all of the community bikeways with the citywide system.

Bicyclists are limited at present, to signed bicycle routes on narrow, heavily traveled streets with on-street parking. There are no bicycle paths or lanes at present. A major north-south bicycle route exists along Harbor Drive and other bicycle routes of community significance are along Main Street (between Sigsbee and Division), National Avenue (between Crosby and the edge of Barrio Logan), Crosby Street (between Main and I-5), 32nd Street (proceeding north from Wabash) and Vesta Street north of Main Street.

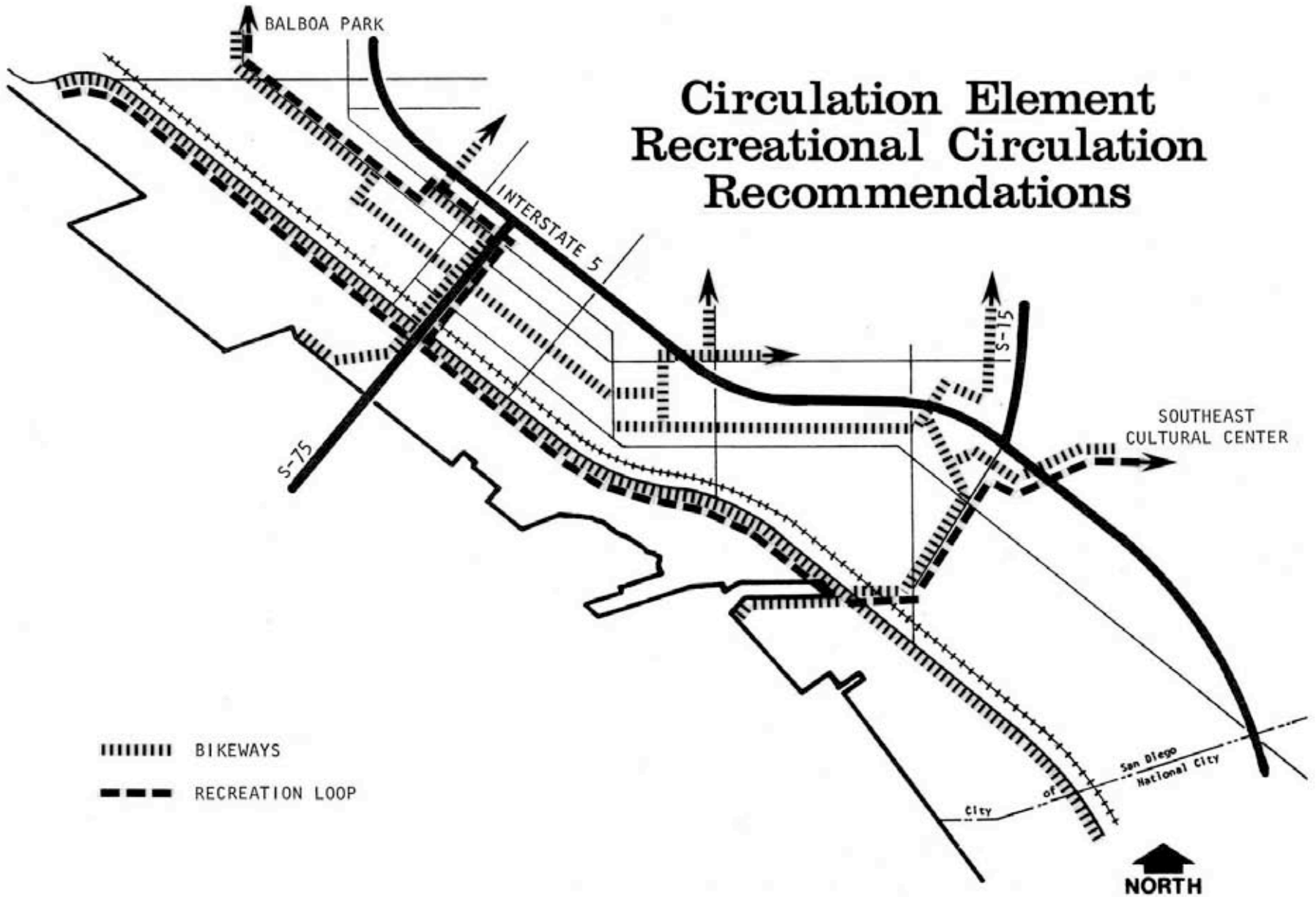
There are a number of freeway crossings only for non-motorized transportation allowing greater access and safety for pedestrians and bicyclists. These cross I-5 at Beardsley Street, Dewey Street and 30th Street, helping to unite areas bisected by the freeway.

Because of the development patterns, Barrio Logan does not have a separate riding and hiking trail system. Pedestrian activities are confined to the existing sidewalk system, the condition of which ranges from poor to average. Most streets in the area have sidewalks, Harbor Drive being a significant exception. In addition to the three interstate pedestrian/bicycle overpasses mentioned earlier, there are three other pedestrian overpasses, one on Harbor Drive, at 32nd Street; one on Harbor Drive at 1200 feet south of 32nd Street; and one on 32nd Street at Harbor Drive which is connected to the bridge over Harbor Drive at this location.

Eight of the traffic signals in the Barrio Logan area have pedestrian phases which respond to pedestrians who use the push-button detector and which then provide sufficient time to safely cross the street. Those eight signals and all pedestrian overpasses are shown "Pedestrian-Oriented Traffic Control."

In summary, pedestrian circulation in Barrio Logan is hampered and less enjoyable because of the numerous pedestrian-vehicle conflicts encountered and the absence of pedestrian trails (other than sidewalks).

Circulation Element Recreational Circulation Recommendations



Barrio Logan
Harbor 101

RECOMMENDATIONS

This Plan recommends that bikeways be developed to follow routes that link to surrounding communities as well as to major open spaces.

The Plan recommends the completion of the proposed Harbor Drive bikeway link and the further development of other links through the community to the Southeast San Diego, Centre City and Balboa Park areas, as well as through Chollas Creek to the inland communities and canyons.

Pedestrian areas should be carefully designed to link the different community neighborhoods, community facilities and to interface all other transportation modes.

The pedestrian environment in the Barrio Logan/Harbor 101 community should be enhanced and reinforced. It is important that pedestrian paths be integrated both with the open space system, the neighborhoods, and the activity centers in the community including the transit stations and the parking reservoir areas. It should be remembered that a car/driver becomes a pedestrian once the vehicle reaches its destination. This recommendation particularly affects the public right-of-way areas in terms of beautification possibilities and general community enhancement.

This Plan recommends that a major beautification and landscaping effort be made along the major transportation corridors.

A beautification and tree planting campaign should be pursued along I-5 with landscaping and mounding wherever possible to mitigate the freeway's environmental impacts on the community. Caltrans has present plans for I-5 landscaping which this Plan supports and along Harbor Drive and the major streets that link the Barrio Logan/Harbor 101 community to surrounding communities. Plant materials should be drought-resistant. Much of this work would be undertaken by Caltrans, MTDB, the City, and Port District.

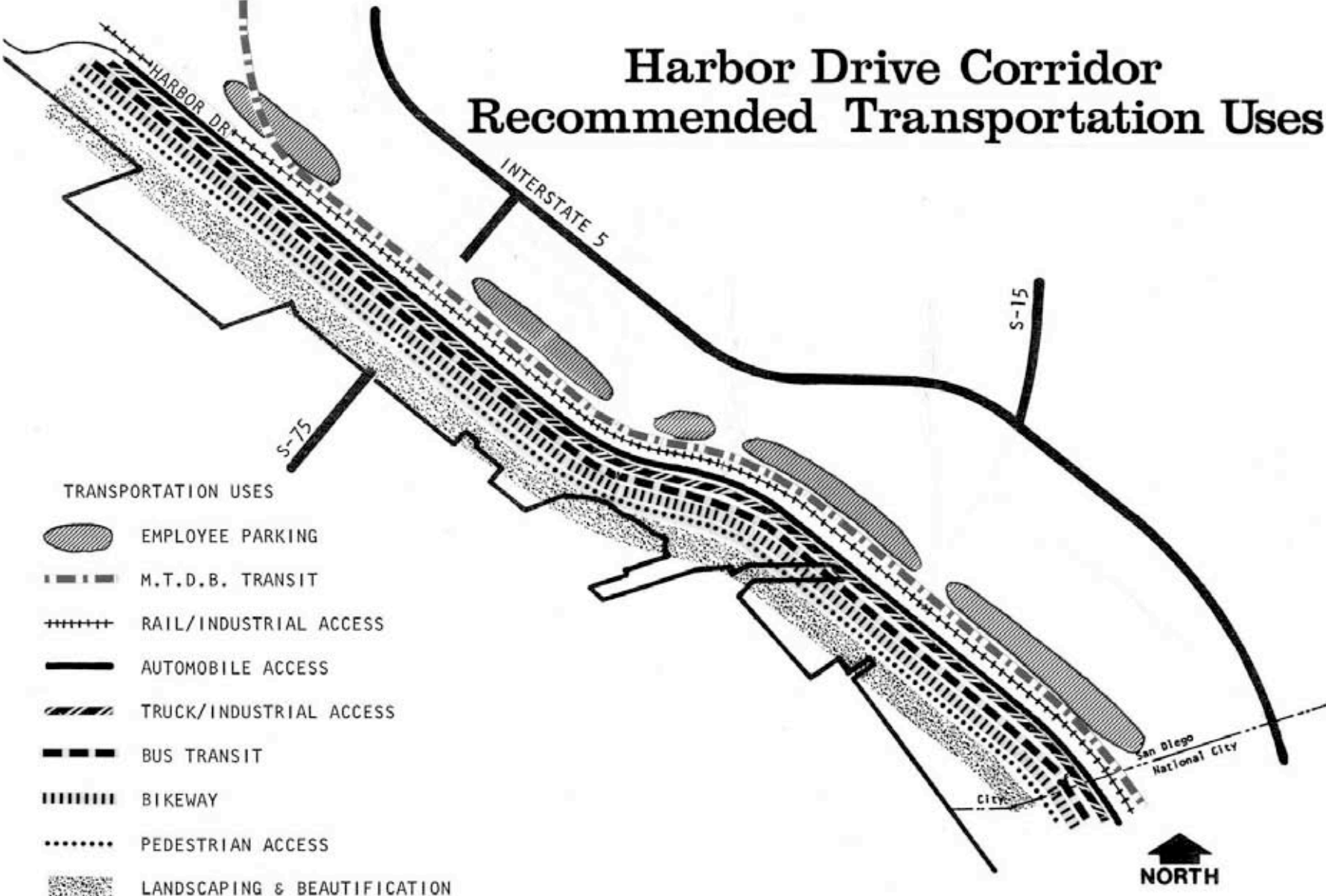
It is recommended that consideration be given to the extension of Center City's proposed recreational transit link into the Barrio Logan/Harbor 101 community.










This Plan recommends that the proposed Centre City system, if realized financially, be extended along Harbor Drive, and from the Fifth Avenue Gaslamp Quarter to Chicano Park and Logan Avenue to 12th Avenue and Balboa Park. A further and future extension of this link could include Chollas Creek and East San Diego under I-5 and SR-15 to the Southeast Education/Cultural Center and the inland open space and Canyon systems.

IMPLEMENTATION RECOMMENDATIONS

The most important transportation implementation recommendation includes the redesign and reconstruction of Harbor Drive. This corridor will be the one most affected by increased traffic volumes resulting from this Plan. It will also be the most affected from the fact that practically all transportation recommendations include this corridor in their proposals.

Harbor Drive Corridor Recommended Transportation Uses



- TRANSPORTATION USES
-  EMPLOYEE PARKING
 -  M.T.D.B. TRANSIT
 -  RAIL/INDUSTRIAL ACCESS
 -  AUTOMOBILE ACCESS
 -  TRUCK/INDUSTRIAL ACCESS
 -  BUS TRANSIT
 -  BIKEWAY
 -  PEDESTRIAN ACCESS
 -  LANDSCAPING & BEAUTIFICATION



**Barrio Logan
Harbor 101**

The corridor will include the design for accommodation of truck lanes, the integration of the MTDB light rail transit, maintenance of the industrial rail transit, inclusion of bus routes and stops, and the development of the industrial employee parking proposal, together with the incorporation of the regional bicycle route, and the necessary pedestrian links and crossings. Completion of this single project would implement the greatest portion of the transportation element, leaving other recommendations to administrative and management methods which are reasonably simple to implement and less costly. Implementation of this project will also involve the greatest number of agencies such as the City, Port District, MTDB, Caltrans, the U.S. Navy, and other related agencies such as the Bridge Authority, Coastal Commission, School District, Community Colleges, and private enterprises (in relation to the recommended parking district). The coordination of all of these agencies could be most efficiently realized through the redevelopment process so that all actions are planned and coordinated from a central point.

Assessment districts for parking should be coordinated by the redevelopment agency with the participation of other agencies and private enterprise as these are affected. The City of San Diego, through its redevelopment agency, should also coordinate the administrative and management actions recommended in this Plan with all affected parties.
