
Chapter II

Circulation Plan



City Council Public Hearing/Adoption
May 25, 2004

Planning Commission Public Hearing
December 16, 2008

City Council Public Hearing/Amended
January 27, 2009

Section I

VISION

In the year 2020, the City of Twentynine Palms will have a transportation network which provides for the safe and efficient movement of people and goods through and within the Community.

Safety, efficiency, energy conservation and community aesthetics will be priorities in the development and implementation of circulation systems. Safety considerations will be of the highest priority in all decisions. Efficiency, energy conservation and community aesthetics will be accomplished through the City's long-range planning and the consistent application of established standards.

Section II

PURPOSE

The purpose of the Circulation Plan is to establish a standard for the development and improvement of the transportation network and a long-range plan which ensures the community vision. Goals, policies, and programs established in the Plan are to be implemented to ensure the orderly development of effective circulation systems in the twenty year period from adoption through the year 2020.

The plan is intended to be responsive to the objectives of the City in planning for its future growth, while at the same time addressing existing problems. The Circulation Plan provides general policy which will serve to guide the development and improvement of the circulation system. Transportation decisions which affect other agencies, such as the Marine Corps Air Ground Combat Center (MCAGCC), Joshua Tree National Park, the State of California Department of Transportation (Caltrans) and the County of San Bernardino, will be coordinated to ensure compatibility of development.

Section III EXISTING CONDITIONS

A. Twentynine Palms Highway

Twentynine Palms Highway (State Route 62) serves as the transportation backbone of the City and the entire Morongo Basin, linking metropolitan Southern California with the Colorado River area and Parker, Arizona. Twentynine Palms Highway carries significant volumes of truck and recreational traffic as well as military convoys. In addition to the residential population of the City, visitors to the Joshua Tree National Park, the Marine Corps Air Ground Combat Center (MCAGCC), and the Colorado River, generate substantial traffic on Twentynine Palms Highway. It is classified as an Expressway from the westerly City limits to Larrea Avenue and east of Utah Trail. Between Larrea Avenue and Utah Trail, its classification is Arterial. Section V below provides specific detail on the classifications.

Maintenance of Twentynine Palms Highway—the only state highway in the City—is provided by Caltrans. The federal functional classification for Twentynine Palms Highway, from the junction with I-10 to the junction with State Route 247 in Yucca Valley, is *PIM*, or *Extension of Rural Minor Arterial into Urban Areas*. From State Route 247 to the Arizona state line, including throughout the City of Twentynine Palms, the federal functional classification is *Minor Arterial*. Twentynine Palms Highway is included in the Federal Surface Transportation Assistance Act (STAA) national network for oversize trucks, designated as a State Highway Terminal Access Route.

Twentynine Palms Highway is classified in the Interregional Road System (IRRS) as an *Other Priority Route*. Because of this classification, it is designated by Caltrans as a “maintain only” route for its entire length. This designation results in operational and safety improvements only, and Caltrans’ funding for major facility improvements is not considered imminent.

The only operational improvement planned by Caltrans is the signalization of Twentynine Palms Highway at Larrea Avenue. Caltrans planning has this project programmed for spring of 2003. The City is working with Caltrans on a project to widen Twentynine Palms Highway, to create a continuous turn lane, between Sunrise Road and Canyon Road.

From Interstate 10 to Lear Avenue, Twentynine Palms Highway is designated as part of the National Highway System. As such, it is included in the Strategic Highway Corridor Network (STRAHNET) as a *Connector*, and serves as a vital route in the national defense network serving the Marine Corps Air Ground Combat Center.

B. East/West Movement

Key east/west routes within the City are:

- Twentynine Palms Highway
- Two Mile Road
- Amboy Road
- National Park Drive
- Indian Trail

With the world's largest Marine Corps base to the north of the City, and the Joshua Tree National Park along the City's southern border, ease of east/west vehicular movement is vital. The presence of these two entities, and the resulting absence of vehicular movement beyond the City's northerly and southerly limits, causes east/west traffic to compress within the City.

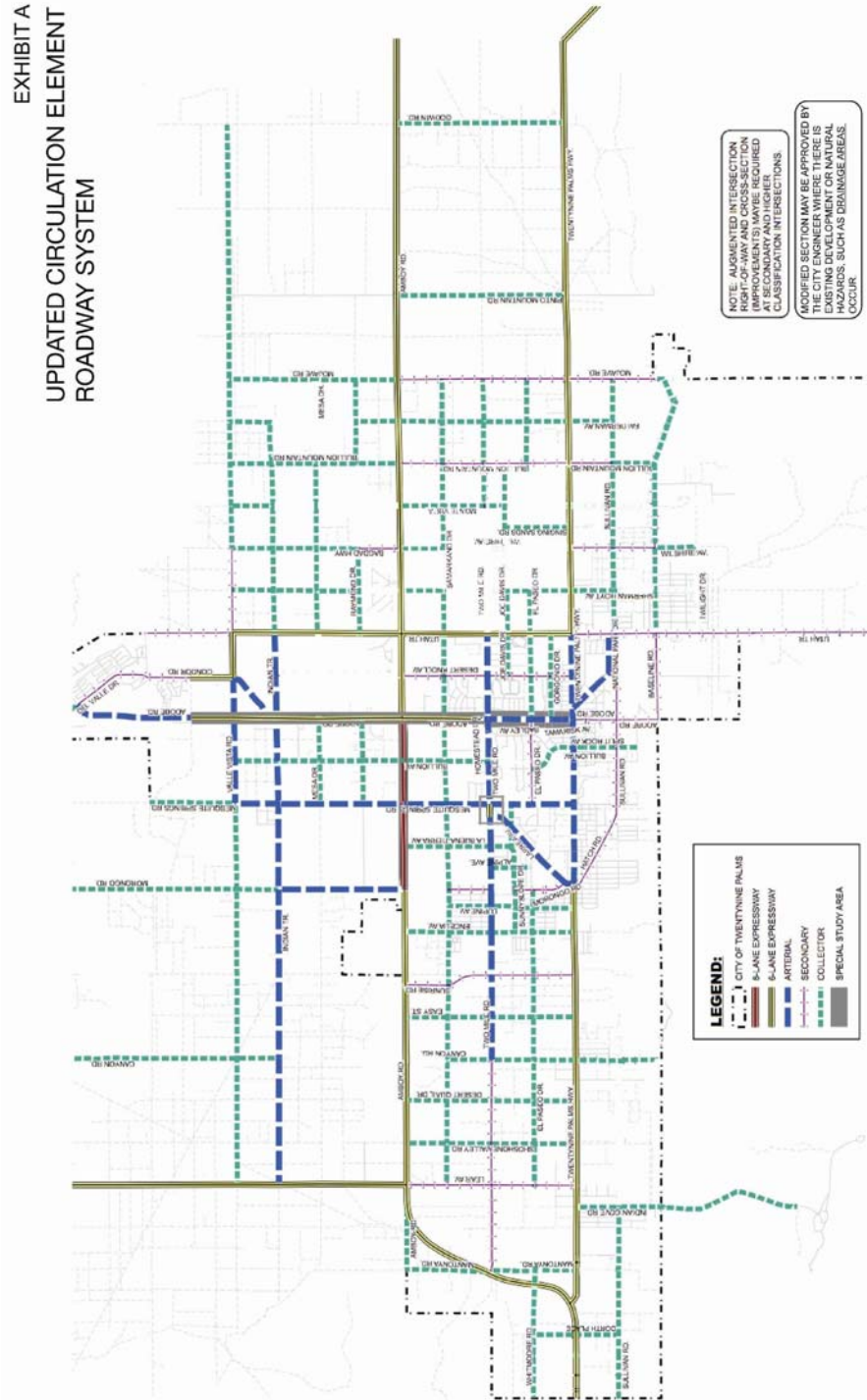
The development of alternative east/west routes is critical in the City's long term development potential. Such routes will separate local from regional traffic on Twentynine Palms Highway, alleviate congestion and provide efficiency in circulation to accommodate anticipated growth.

Caltrans considers development of the Amboy Road Bypass good planning and has identified acquisition of right-of-way for the parallel corridor as a matter of extreme importance. Development of the Amboy Road Bypass, depicted in Exhibit A, relies on new construction commencing in the vicinity of Mantonya Road, in a northeasterly direction from Twentynine Palms Highway connecting to Amboy Road. To meet Caltrans criteria as a (future) state highway, the roadway will be constructed to the Bypass standard shown in Exhibit C of the Circulation Plan. Access would only be at half-mile intervals, and structures would be oriented toward side streets and parallel routes as shown in Exhibit A. The bypass route would reconnect to Twentynine Palms Highway, east of the City. The precise alignment/location of the bypass is not identified, this effort will be coordinated with Caltrans and the County of San Bernardino.

Additional east/west efficiency can be accomplished through upgrading existing parallel routes; this is especially critical in the downtown area where east/west movement is, at times, inhibited by congestion. In this regard, enhancement of Joshua Drive and Cactus Drive can result in benefits to the downtown area.

Expansion and development of additional east/west routes, beyond downtown, is also essential. Increased utilization of Hatch/Sullivan Road and Larrea Avenue, will provide relief of congestion on Twentynine Palms Highway. Additionally, Two Mile Road as an alternative east-west route is identified as a high priority and its extension west of Sunrise Road to Lear Avenue is planned.

Exhibit A
Circulation Plan – Roadway System



C. North/South Movement

Achieving efficiency in north/south movement is generally less challenging within the City. Most movement is via:

- Lear Avenue
- Mesquite Springs Road
- Adobe Road
- Utah Trail

D. Other Essential Transportation Routes

Lear Avenue/Indian Trail provides a type of beltway for traveling to and from MCAGCC, typically to and from westerly destinations. Indian Trail provides for access to the Base; the back gate via Morongo Road and the main gate via Adobe Road. Portions of these roadways are in the City, portions are in the City's Sphere of Influence and other portions are beyond the Sphere of Influence. The connection between Twentynine Palms Highway and the Base via Lear Avenue/Indian Trail is depicted in Exhibit A.

Hatch Road/Sullivan Road, essentially an east/west route, affords alternative movement between Twentynine Palms Highway and either Adobe Road or Utah Trail via Baseline Road.

E. Downtown

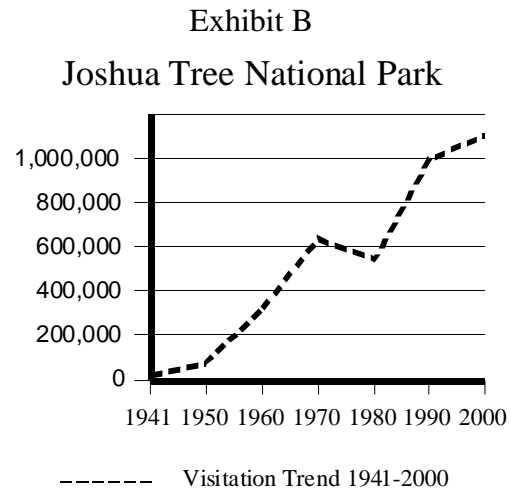
The City’s downtown is a unique business district, offering goods and services to local citizens and visitors. An emphasis on the continued development of a “sense of place” is important to the long-range vision of the downtown. Pedestrian friendly amenities are necessary as is the need for traffic calming, to allow opportunities for travelers to enjoy this unique area and to provide for safe pedestrian circulation.

F. Other Commercial Areas

Generally, commercial areas within the City are located along Twentynine Palms Highway and Adobe Road. These commercial areas are served by major roads, either along Expressways or along Arterials connecting to Expressways. Small pockets, generally Tourist Commercial facilities, are located in other areas.

G. Joshua Tree National Park

Visitation to the Joshua Tree National Park (JTNP) results in appreciable amounts of traffic. Park visitation has increased throughout the years, from less than 100,000 visitors in 1950 to over one million annual visitors in 1990. Current annual visitation is consistently in excess of one million; visitation in 2000 was 1,238,258. The upward trend in visitation is shown in Exhibit B.



Current JTNP estimates are 2.7 persons per vehicle. Based on this, the Park generates about 450,000 vehicle trips per year.

However, not all Park visitors enter the Park through the City of Twentynine Palms. There are three primary entries to the Park which are staffed with Park personnel, and one of them (Utah Trail) is located in the City. There are several secondary entry points to the Park, two of which are located in the City; Fortynine Palms Canyon via Canyon Road, and Indian Cove Road leading to Indian Cove Campground. The Joshua Tree National Park Headquarters is located in the City at the southwest corner of Utah Trail and National Park Drive. According to the 1991 Visitor Services Project, 42% of all Park visitors come to the visitor’s center at the Park Headquarters.

Based on available information, approximately 189,000 (42% of 450,000) vehicle trips are generated annually by the Park Headquarters.

The bulk of traffic on Canyon Road, south of Twentynine Palms Highway, is a result of visitation to Fortynine Palms Canyon. For this reason, the National Park Service has provided some maintenance of Canyon Road south of Cottonwood Drive. It is the City’s policy to encourage continuation of the National Park’s participation in the maintenance and enhancement of this section of roadway.

H. Tourism

Visitors come to the City from all over the world, for a variety of reasons. In addition to the Joshua Tree National Park and the Marine Corps Air Ground Combat Center, the City's clean air and mild winter weather have historically attracted a diverse selection of guests. Art displays, and the Action Council for 29 Palms' Mural Project enhance the City's vision as a tourist destination.

Accommodating and encouraging tourism growth can result from development of "visitor friendly" circulation systems. Sidewalks, bicycle paths, tourist-oriented directional signage, and available public transit can all provide service to visitors, encouraging them to stay, or stay longer.

Continued growth in tourism will result in increased traffic. And, given the importance of tourism to the local economy, all circulation systems should be designed to anticipate this expansion.

I. Marine Corps Air Ground Combat Center

Adjacent to the City, is the world's largest Marine Corps Base, the Marine Corps Air Ground Combat Center (MCAGCC). The Mainside portion of MCAGCC is within the City. As a result of an agreement between the City and MCAGCC, street construction and maintenance on the Base, including that portion within the City, is the responsibility of MCAGCC. Standards for construction of roadways aboard MCAGCC are developed and implemented by the Base Command, and are, therefore, beyond the City's scope of responsibility.

Considerable volumes of traffic in the City are generated by MCAGCC. Because circulation between MCAGCC and the City is critical to the development of functional transportation systems, the City's transportation planning will include consideration of impacts resulting from traffic generated by MCAGCC.

Military convoys route traffic along Lear Avenue and Indian Trail, causing impacts to the roadways. The City will seek assistance where possible from MCAGCC to offset degradation of Lear Avenue and Indian Trail caused by military convoys.

J. Emergency Response

Fire protection is provided by the Twentynine Palms Fire Department, a division of the Twentynine Palms Water District. The Department operates two stations, one within the City just south of Twentynine Palms Highway on the west side of Adobe Road, and the other located near the intersection of Lear Avenue and Indian Trail. Both facilities have immediate access to the Expressway/Arterial grid.

Police services are provided through contract with the San Bernardino County Sheriff's Department. Service is provided from the Morongo Basin station in Joshua Tree and Sheriff's Department personnel are provided a satellite office at Twentynine Palms City Hall on Adobe Road.

Emergency medical response is provided by the Morongo Basin Ambulance, a non-profit

organization licensed through the County of San Bernardino as an ambulance provider. MBA is the provider for medical aid and ambulance service in the City for response to 911 calls. Service is dispatched from Joshua Tree, but MBA has a satellite station on Adobe Road, south of Twentynine Palms Highway.

K. Industrial Areas

Two areas within the City are zoned for industrial use. They are the Baseline Industrial Area and the Mojave Industrial Area.

Baseline Industrial Area is located along the north and south side of Baseline Road, east of Wilshire Avenue. It is served by Baseline Road which connects to two Secondary Roads, Utah Trail and Wilshire Avenue, linking the industrial area to Twentynine Palms Highway.

The Mojave Industrial Area is south of Twentynine Palms Highway at Mojave Road. Access is either directly to Twentynine Palms Highway or via Mojave Road.

Twentynine Palms Highway is part of the City's designated Truck Routes, as are those portions of Baseline Road and Wilshire Avenue which serve the industrial areas.

Section IV REGIONAL ISSUES

A. Regional Coordination

Local circulation decisions impact regional transportation and vice versa. While the City does not directly cause improvements to or development of regional expressways outside the City, it can, nonetheless, coordinate local planning with the San Bernardino Associated Governments (SANBAG), the Town of Yucca Valley, County of San Bernardino, and Caltrans. In coordinating planning efforts, the City and other jurisdictions can develop a common vision of the regional needs of the Morongo Basin.

Development of alternate east/west routes, as discussed above, is an important component in the long range growth of a functional circulation system. Additionally, from a regional perspective, an east/west route, linking the northern portion of the City with State Route 247, will provide great benefits to the City. Such a route could provide a more direct access between the City and destinations to the north and west, and thus reduce traffic on Twentynine Palms Highway. One potential route, from east to west, is Indian Trail to Lear Avenue, north to Winters Road, west to Border Avenue, north to Reche Road, connecting to State Route 247 in Landers. Development of this, or other such routes, are considered long-term in nature but decisions affecting regional transportation can be made with this goal in mind.

Regional coordination is essential to the successful implementation of the Circulation Plan. Successful development of roadway system improvements to adequately accommodate build-out traffic flows, includes development of roadways outside the City's jurisdiction. The City will cooperate in the coordination of alternative routes and provide input in their development.

B. Caltrans

Caltrans carries out transportation planning efforts for all State highways. They plan improvements and maintain Twentynine Palms Highway through the City. Caltrans' continued development of Twentynine Palms Highway is critical to the City's circulation system. However, as noted previously, Twentynine Palms Highway is designated by Caltrans as a "maintain only" route and major facility improvements are not planned at this time.

C. Morongo Basin Transit Authority

The Morongo Basin Transit Authority (MBTA) is the provider of public transit service for the Morongo Basin, including the City of Twentynine Palms. MBTA is created by a joint powers agreement entered into by the City of Twentynine Palms, the Town of Yucca Valley, and the County of San Bernardino. The MBTA's mission is to provide coordinated transportation services to the people of the Morongo Basin.

Service is available to all citizens within the City, either through Neighborhood Routes, the intercommunity Highway Route, or the Ready Ride curb-to-curb service (available primarily for seniors and disabled).

MBTA is developing new ways to improve its service. Planned improvements include additional bus shelters and rider amenities and continued focus on alternative fuels to maintain the pristine desert air.

D. San Bernardino County Associated Governments

The San Bernardino County Associated Governments (SANBAG) is responsible for county-wide transportation planning. Acting as the San Bernardino Transportation Agency, SANBAG distributes funding from the State of California for highway improvements. SANBAG also acts as the Congestion Management Agency which administers the local and regional Congestion Management Program as required under Proposition 111.

E. Southern California Association of Governments

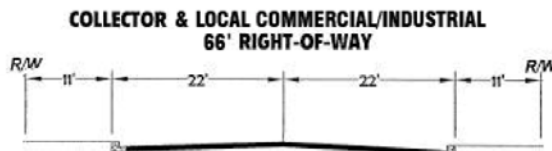
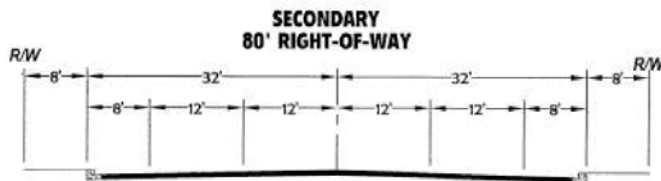
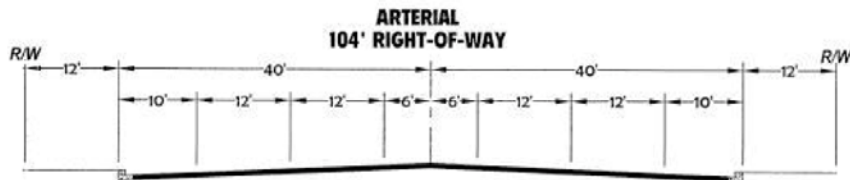
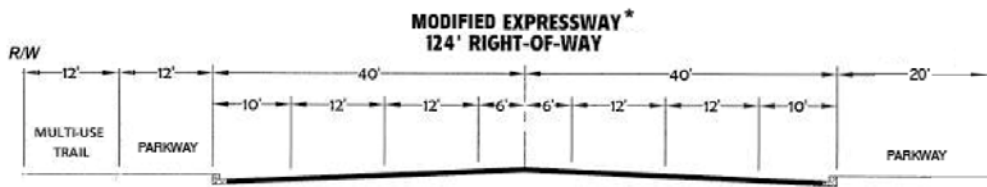
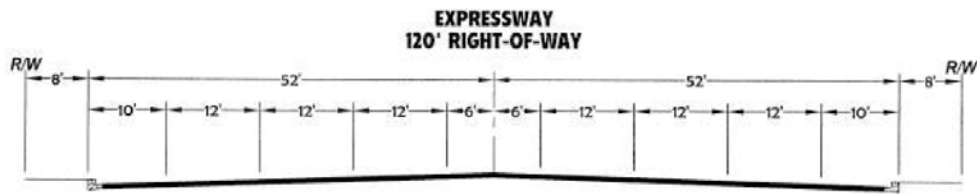
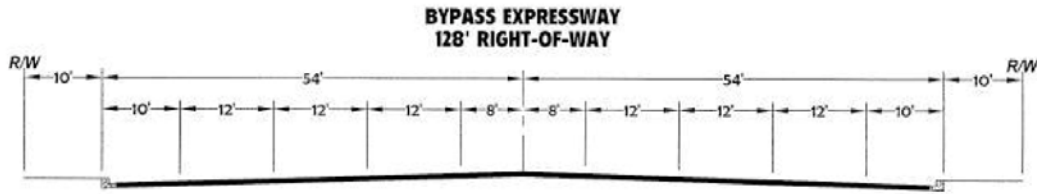
The Southern California Association of Governments (SCAG) is responsible for preparing regional air quality management and mobility plans for Southern California which includes San Bernardino County. These plans have far reaching effects on the transportation practices and habits of all Southern Californians, as well as local and regional governments.

Section V
STREET CLASSIFICATION SYSTEM**A. Purpose**

The classification of a roadway is intended to establish its function or role in the overall circulation system. It establishes standards for streets based on their purpose, in relation to movement of through traffic versus provision of access to adjacent land uses. Roadway classifications range from Expressways with control of access, high speed/high volume traffic and emphasis on longer-distance travel, to local streets with access to fronting properties, low speed/low volume traffic.

Construction standard cross-sections are depicted in Exhibit C. As development occurs, or as residential subdivisions are proposed, construction of roadways to the standards specified in the General Plan will be required where necessary to adequately protect the public health, safety and welfare.

**EXHIBIT C
Right-of-Way Standards**



* For Adobe Road along Multi-Use Trail Sections.

- Additional standards will be included and maintained by the Engineering Department Book of Standards.

B. Expressway

The function of an Expressway is to transport large volumes of intra-city traffic or to distribute traffic to the Arterial network. These streets are either State Highways, which are owned and maintained by the California Department of Transportation (Caltrans), or are developed by the City with the intent that Caltrans will adopt them as State Highways in the future as demand warrants.

Expressway Standards.

1. A 120-foot right-of-way consisting of a minimum of six traffic lanes, two 10-foot parking lanes and a 12-foot wide continuous left turn lane and/or median strip.
2. Traffic signals are located at major intersections meeting specified warrants.
3. Parking restrictions generally apply within 100 feet of intersections.
4. Curb, gutters and sidewalks are required along all Expressways.
5. Limited Access, preferably intersections on Section Lines as the ideal limitation; intersections on half-sections as generally acceptable; and intersections on quarter-sections or three quarter-sections as minimally tolerable. Individual lot access is to be prohibited where legally possible.
6. Modified sections may be approved by the City Engineer where there is existing development or natural hazards, such as drainage areas.

C. Arterial

Arterials transport large volumes of intra-city traffic. An Arterial provides circulation within a defined geographic area, providing access and connections between other Arterials and/or Expressways. These streets distribute traffic to Collectors within the City and provide efficient access to nearby destinations. Some vehicles may use Arterials as through routes, but the primary function of an Arterial is to route local traffic from Expressways to their destination and vice versa.

Arterial Standards:

1. A 104-foot wide right-of-way consisting of a minimum of four traffic lanes, two parking lanes and 12-foot wide continuous left turn lane and/or median strip.
2. Traffic signals may be located at major intersections.
3. Parking restrictions may be applied within 100 feet of intersections.
4. Curbs, gutters and sidewalks are required along all Arterials.
5. Access to be limited to quarter section, half-section, three-quarter-section and section line

road intersections, individual lot access to be restricted where possible and reasonable. Commercial driveways should be combined, limited, and adequately spaced.

6. Modified sections may be approved by the City Engineer where there is existing development or natural hazards, such as drainage areas.

D. Secondary

Secondaries provide connection between higher classification of streets and local roads. Because anticipated vehicle count is higher than local roads, the standard is higher.

Secondary Standards:

1. The width standard is eighty (80) feet to accommodate two travel lanes each way or one lane each way with a continuous left turn pocket.
2. Joint use of access driveways encouraged.
3. Curbs, gutters and sidewalks are required along all Secondaries.
4. On-street parking may be permitted if the lanes are not needed for traffic movement.
5. Modified sections may be approved by the City Engineer where there is existing development or natural hazards, such as drainage areas.

E. Collector & Local Commercial/Industrial Streets

Collectors and Local Commercial/Industrial provide connections between higher classification of streets and local roads.

Collector & Local Commercial/Industrial Standards:

1. The width standard is sixty-six (66) feet to accommodate one travel lane each way.
2. Joint use of access driveways encouraged.
3. Curbs, gutters and sidewalks are required along all Collector & Local Commercial/Industrial Roads.
4. On-street parking may be permitted if the lanes are not needed for traffic movement.
5. Local Commercial/Industrial Streets will not be identified in the text nor shown on the Circulation Plan Map; however, they will be required when the adjacent land use is either Commercial or Industrial.
6. Modified sections may be approved by the City Engineer where there is existing development or natural hazards, such as drainage areas.

F. Local Streets

A Local Street provides direct access to abutting properties and transports traffic from these properties to higher volume, higher speed roadways. Local Streets are not designed nor intended to carry through traffic. Streets not designated as Expressways, Arterials, Secondaries, Collectors or Local Commercial/Industrial are Local Streets or Rural Local Streets.

Local Street Standards:

1. A 60-foot right-of-way with two traffic lanes and two parking lanes, curbs and gutters.
2. The Local Street standard is applicable to all streets not classified as Expressways, Arterials, Secondaries, Collectors or Local Commercial/Industrial. Curbs, gutters and sidewalks are required along all Local Streets in commercial zones. In residential zones, curbs and gutters are required along all Local Streets if the zoning density exceeds one dwelling unit per acre. Additionally, sidewalks are required along all Local Streets in residential zones where zoning density exceeds three dwelling units per acre.
3. On street parking may be allowed.
4. Local Streets will not be identified in the text nor shown on the Circulation Plan Map.

G. Cul-de-sac or Dead-end Streets

The purpose of these streets is to provide individual lot access to a public or private street for small clusters of lots. These streets shall be constructed to the Local Street Standard. By definition, these streets have access to other streets from one end only. Typically, Cul-de-sac and Dead-end Streets connect to Local Streets, rather than Expressways, Arterials, Secondaries or Collectors. The street should not serve more than sixteen parcels.

Cul-de-sac or Dead-end Street Standards:

1. Construction is to the Local Street or Rural Local Street standard.
2. On street parking may be allowed, depending on the size and quantity of lots served.
3. Adequate vehicle turn-around space shall be provided.
4. These streets shall not be identified in the text or shown on the Circulation Plan map.

H. Alleys

The purpose of Alleys is to provide alternative lot access for deliveries, refuse pick-up, and circulation between an individual lot and a roadway.

Alley Standards:

1. Construction is to the Rural Local Street standard.

2. On street parking may not be allowed.
3. These streets shall not be identified in the text or shown on the Circulation Plan map.

**Section VI
STREET MAINTENANCE****A. Maintenance System**

Upon incorporation, the City inherited a maintenance system from the County in which some roads were maintained and others were not. Roads that were built to the County's standard were in the maintained system, but the maintained system assumed from the County also included unpaved, substandard roads. Repair and maintenance of these roads by the City has continued.

Substandard roads in the City are a continuing source of problems. Problems range from inconveniences caused by potholes and wash boarding of roadway surfaces to emergency access difficulties resulting from flash flooding. Airborne dust particles are also generated by unpaved surfaces, leading to increased air pollution.

For new streets to be added to the maintenance system, the City requires that they be constructed to the City's standards where possible. In the event road construction would require removal or relocation of existing facilities, the City Engineer may recommend modified standards. When new projects are proposed, the City requires new road construction of adjacent roadways; and construction must be to the City's standards. With consistent application of this policy, new roads will be constructed and segments of existing roadways will be reconstructed.

B. Street Improvement Assessment Districts

For areas already developed with non-standard, non-maintained roads, citizens may form a Street Improvement Assessment District for construction of roads. Roads in a Street Improvement Assessment District are constructed and the cost assessed to the property owners within the District. The cost is divided among the property owners by evaluating the benefits to each property. Payments are made along with the owners' property tax and may be spread out over many years. Financing is generally provided by the issuance of municipal bonds.

Alternatively, citizens may form neighborhood groups for the purpose of providing routine maintenance.

**Section VII
SECURING RIGHT-OF-WAY**

The inconsistent securing of adequate right-of-way prior to development can result in irregular paved road widths, reduction in roadway capacities, and limitations of the long-term viability of road segments. As the City plans for future growth, securing adequate right-of-way is a priority. For all new development and intensifications of existing development, right-of-way needs and solutions shall be pursued in accordance with the Circulation Plan.

**Section VIII
SCENIC HIGHWAYS**

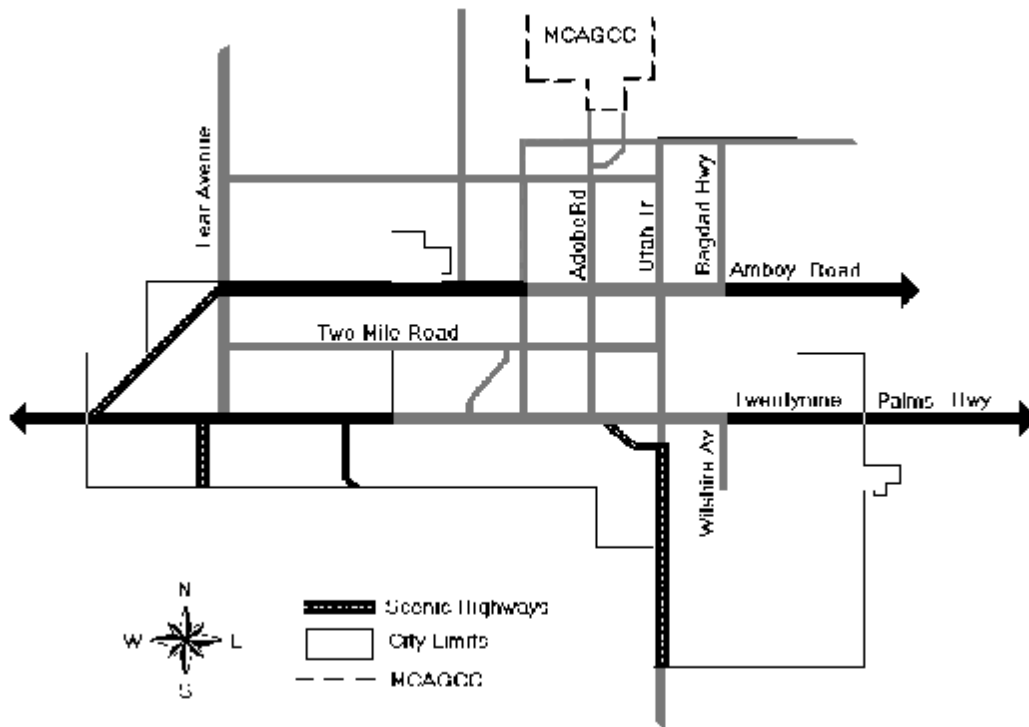
Scenic Highways are those roadways that have unusual exposure to unique and attractive natural views that deserve protection and enjoyment.

In cases where building heights exceed one story, building setbacks will be increased along streets designated as Scenic Highways. Outdoor advertising signs and off-site directional signs shall be prohibited.

Roadways designated as Scenic Highways are shown on Exhibit D as follows:

- Twentynine Palms Highway from Wilshire Avenue east to the City's Sphere of Influence
- Twentynine Palms Highway from Sunrise Drive west to the City limits
- Amboy Road from Bagdad Highway east to the City's Sphere of Influence
- Amboy Road from Mesquite Springs Drive west to the City limits
- Indian Cove Road from Twentynine Palms Highway to the Joshua Tree National Park
- Canyon Road from Twentynine Palms Highway to the Joshua Tree National Park
- National Park Drive from Twentynine Palms Highway to Utah Trail
- Utah Trail from National Park Drive south to the Joshua Tree National Park

Exhibit D
Scenic Highways



Section IX
MILITARY CONVOY/TRUCK ROUTES

Military Convoy/Truck Routes are necessary to avoid conflicts between automobile trips and the movement of large trucks and/or military convoys through the City. Military Convoy/Truck Routes are also useful in diverting truck traffic away from busy areas not requiring delivery.

The City's Truck Routes are depicted in Exhibit E and the City's Military Convoy Routes are depicted in Exhibit F.

Exhibit E
Truck Routes

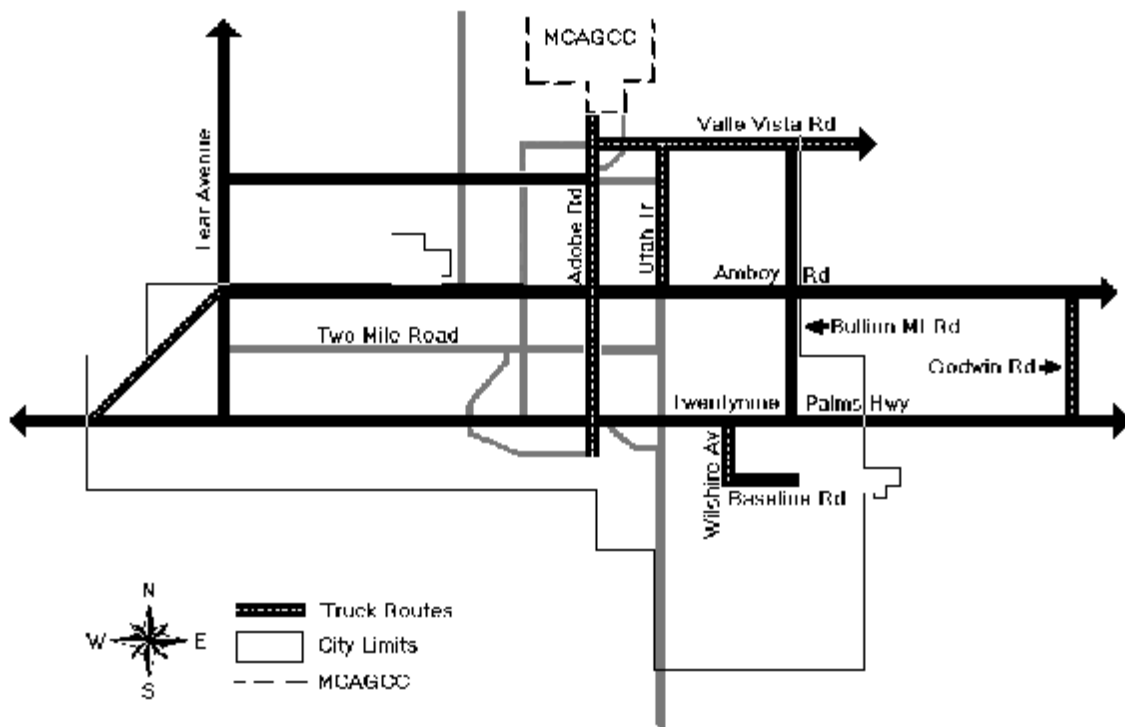
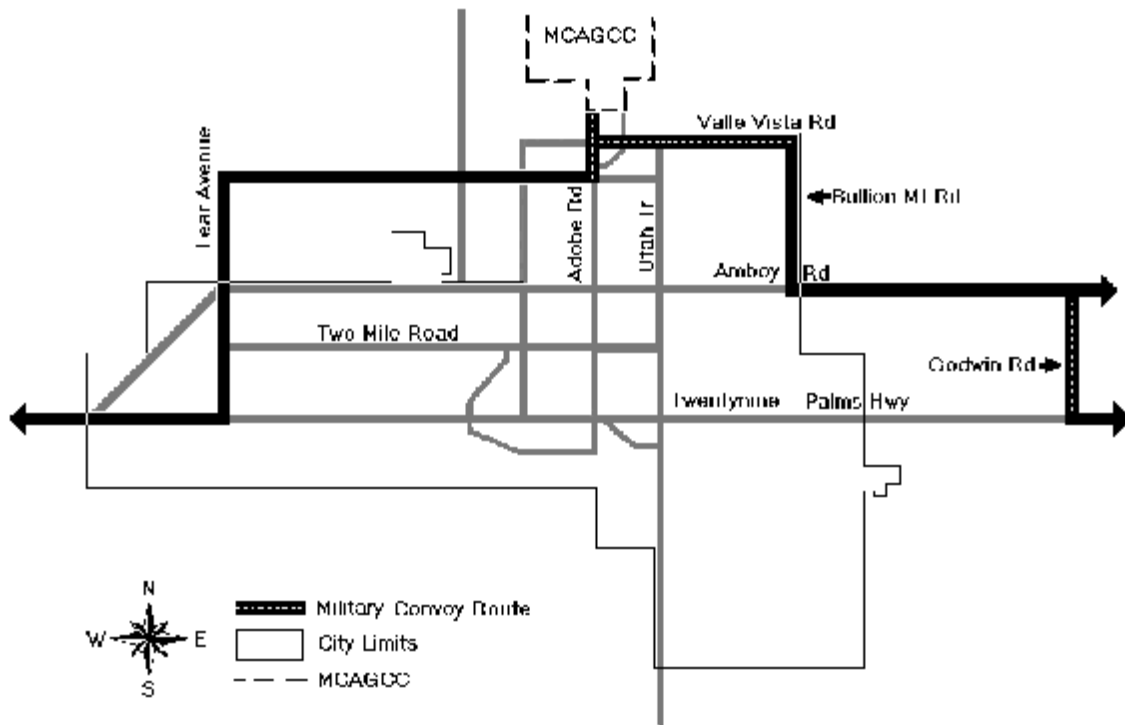


Exhibit F
Military Convoy Routes



Section X LEVEL OF SERVICE (LOS)

A. Minimum Standards

With development comes additional requirements for roadway capacity. It is critical that the City anticipate increased traffic which will result from growth and require development of roads which will adequately serve anticipated needs. LOS is a measure of efficiency in traffic movement. LOS is calculated by comparing a street's traffic volume to its existing capacity during the peak hour. LOS-A is considered good while at LOS-F a roadway's capacity is being exceeded. LOS-D or better is to be maintained for all street segments within the City and all streets will be designed to accomplish and maintain this Level of Service.

B. Definitions

Operational conditions within a traffic stream are considered in determining LOS for a particular roadway, generally in terms of speed and travel time, freedom to maneuver, traffic interruptions, comfort, convenience, and safety.

The criteria used to evaluate LOS conditions vary based on the type of roadway and whether the traffic flow is considered interrupted or uninterrupted.

The definitions of Level of Service for uninterrupted flow (flow unrestrained by the existence of traffic control devices) can be summarized as follows:

- LOS-A represents free flow. Individual users are virtually unaffected by the presence of others in the traffic stream.
- LOS-B is in the range of stable flow, but the presence of other users in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver.
- LOS-C is in the range of stable flow, but marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream.
- LOS-D represents high-density but stable flow. Speed and freedom to maneuver are severely restricted, and the driver experiences a generally poor level of comfort and convenience.
- LOS-E represents operating conditions at or near the capacity level. All speeds are reduced to a low, but relatively uniform value. Small increases in flow will cause breakdowns in traffic movement.
- LOS-F is used to define forced or breakdown flow. This condition exists wherever the amount of traffic approaching a point exceeds the amount which can traverse the point. Queues form behind such locations.

The definitions of Level of Service for interrupted traffic flow (flow restrained by the existence of traffic signals and other traffic control devices) differ slightly depending on the specific element of the roadway being considered, e.g., signalized intersections versus arterial segments. The Level of Service criteria for signalized intersections are:

- LOS-A describes operations with average intersection stopped delay (how long a driver must wait at a signal before the vehicle can begin moving again) of five seconds or less.
- LOS-B, average stopped delay between 5.1 and 15.0 seconds per vehicle.
- LOS-C, average stopped delay between 15.1 and 25.0 seconds per vehicle.
- LOS-D, average stopped delay between 25.1 and 40 seconds per vehicle.
- LOS-E, average stopped delay between 40.1 and 60.0 seconds per vehicle.
- LOS-F, average stopped delay greater than 60.0 seconds per vehicle.

At intersection, LOS criteria for arterial segments with free flow speeds (typical traffic speed between intersections) of 40 miles per hour are:

- LOS-A, arterial speeds (including intersection delay) greater than 35 mph.
- LOS-B, arterial speeds 28.0 to 34.9 mph.
- LOS-C, arterial speeds 22.0 to 27.9 mph.
- LOS-D, arterial speeds 17.0 to 21.9 mph.
- LOS-E, arterial speeds 13.0 to 16.9 mph.
- LOS-F, arterial speeds less than 13.0 mph.

**Section XI
FUNDING**

For the City to receive Measure I sales tax revenues, it is required to adopt a “Transportation Management Plan.” The Plan is to include a five-year and a twenty-year improvement plan, financing mechanisms, and must integrate regional plans and requirements for growth, job/housing balance, and air quality goals.

State law requires the adoption of a Congestion Management Plan to identify needed arterial improvements in order to obtain State gas tax revenues. Both require the identification of a system of arterial roadways within the City for funding.

The City’s five-year and twenty-year funding plans should be reviewed regularly to ensure that they address current and anticipated needs.

**Section XII
HAZARDS****A. Master Plan of Drainage**

In January 1997, NBS/Lowery Engineers and Planners of San Bernardino prepared a Master Plan of Drainage (MPD) for the San Bernardino County Flood Control District. The MPD included portions of the City and the surrounding drainage areas which contribute to the runoff. Flooding hazards and remedies are discussed in the MPD. The following is a brief summary:

Precipitation in this area is usually the result of intense but short thunderstorms. Runoff is also intense, of short duration and heavily laden with sediment and mainly the cause of flood damage.

Twentynine Palms has experienced growth in recent years and expects the growth rate to continue. This development has created the need for a Master Plan of Drainage that will lessen existing flooding problems, assist in planning for future development and establish a guide for providing future facilities. The Plan is to be used as a guideline for design of future flood facilities including channels, pipes, culverts, debris basins, detention basins and non-structural solutions.

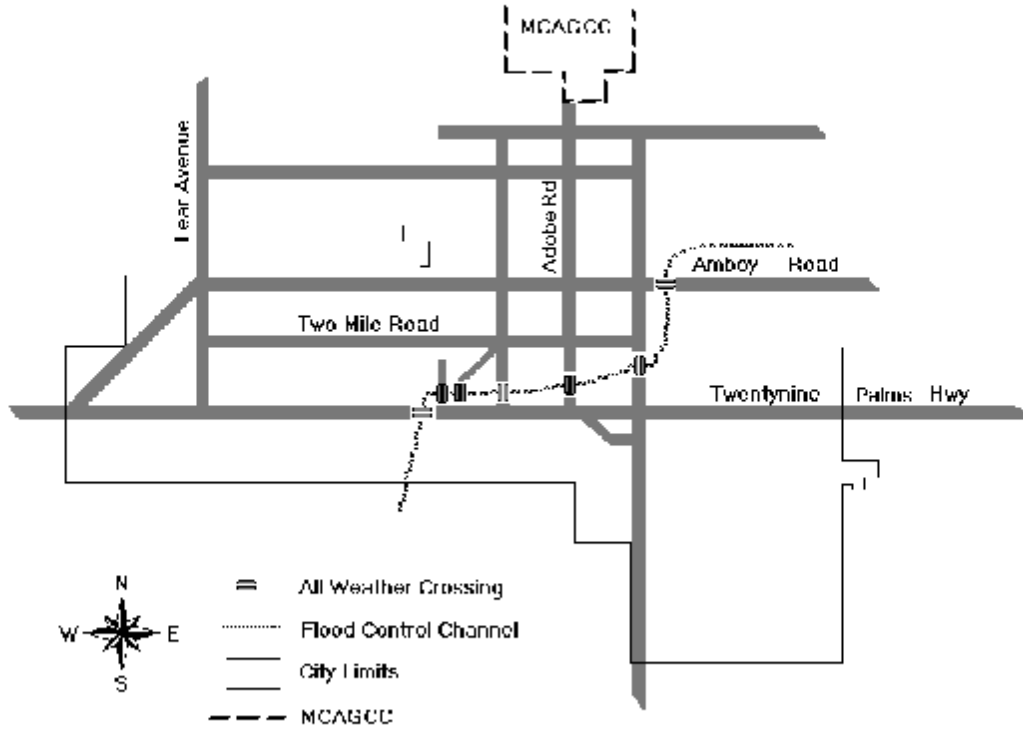
B. All Weather Crossings

All weather crossings are shown on Exhibit G and are located at the following locations:

1. Twentynine Palms Highway, just east of Lupine Avenue.
2. Mariposa Avenue, between Twentynine Palms Highway and Joshua Drive.
3. Larrea Avenue, just north of Twentynine Palms Highway.
4. Mesquite Springs, just north of Twentynine Palms Highway.

- 5. Adobe Road, between Buena Vista Drive and Civic Center Drive.
- 6. Utah Trail, south of Joe Davis Drive.
- 7. Amboy Road, east of Utah Trail.

Exhibit G
All Weather Crossings



C. Flooding

Flash flooding can result in sheet flow in many portions of the City. These areas are identified on the Flood Insurance Rate Map prepared by the Federal Emergency Management Agency (FEMA) dated March 18, 1996. Flood hazard areas in the City are identified as either Zone A, Zone AE, or Zone AO.

Zone A

Areas designated Zone A are subject to inundation but specific flood elevations are not identified. Only small, generally undeveloped areas within the City are designated Zone A.

Zone AE

The Zone AE designation is for areas in which a Base Flood Elevation has been determined. Relatively few areas are so designated, generally following the San Bernardino County Floodway throughout the City. The AE Zone transects Twentynine Palms Highway, Adobe Road, Utah Trail, and Amboy Road, with Base Flood Elevations of 2,121, 1,983, 1,891, and 1,806 feet respectively. All weather crossings are constructed at each of these points; flooding hazards are possible but infrequent.

Utah Trail, north of El Paseo Drive and continuing to the northerly limit of the study area north of Raymond Drive, is in the AE zone. This key transportation route could be subject to inundation.

Zone AO

AO Zones are areas in which FEMA has identified potential flood depths, generally one to three feet. However, in the City, all AO Zones have an identified flood depth of one foot. AO Zones are predominant among areas identified on the Flood Insurance Rate Map. Several key transportation routes are located in such Zones, including:

1. Twentynine Palms Highway from Lupine Avenue to Mesquite Springs Road.
2. Twentynine Palms Highway, approximately one third mile west of Utah Trail to approximately one third mile east of Wilshire Avenue.
3. Utah Trail from the Joshua Tree National Park entrance to approximately El Paseo Drive (Utah Trail is in an AE Zone north of El Paseo Drive, as identified above).
4. Hatch Road/Sullivan Road, intermittently, between Twentynine Palms Highway and Bullion Avenue.
5. National Park Drive, intermittently, between Cactus Drive and Utah Trail.

D. Faultlines

There are two significant faults crossing the community: the Pinto Mountain Fault and the Mesquite Lake Fault. The Pinto Mountain Fault transects Utah Trail near National Park Drive and parallels Twentynine Palms Highway throughout most of the westerly portions of the City. The Mesquite Lake Fault transects three major transportation routes: Twentynine Palms Highway near Bullion Mountain Road, Amboy Road east of Utah Trail, and Adobe Road near the Main Gate of the Marine Corps Air Ground Combat Center.

Section XIII**PARKING**

While many of the newer commercial developments in the City have been able to provide adequate parking to serve their customers, many existing businesses do not provide sufficient off-street parking. This problem is particularly evident along Twentynine Palms Highway in the downtown commercial area. Many of these older, established businesses now depend upon on-street parking to provide for their patrons' needs. It is essential that new development be required to provide adequate on-site parking to meet the parking demand generated. Redevelopment funding, as available, can be utilized to assist in the provision of public parking.

In addition to the quantity of parking available, the design quality is also essential to minimize or avoid conflicts. Parking lot ingress and egress shall be thoughtfully controlled and consolidation encouraged to minimize disruption to traffic flow and preservation of capacity, while assuring safety.

Section XIV**BICYCLE CIRCULATION****A. Bicycle Systems**

A well-planned system of bikeways can accommodate bicycle travel within and through the City. Bikeways can connect residential areas to schools, parks, and recreational facilities, as well as provide bicycle safety and access for travelers passing through the region.

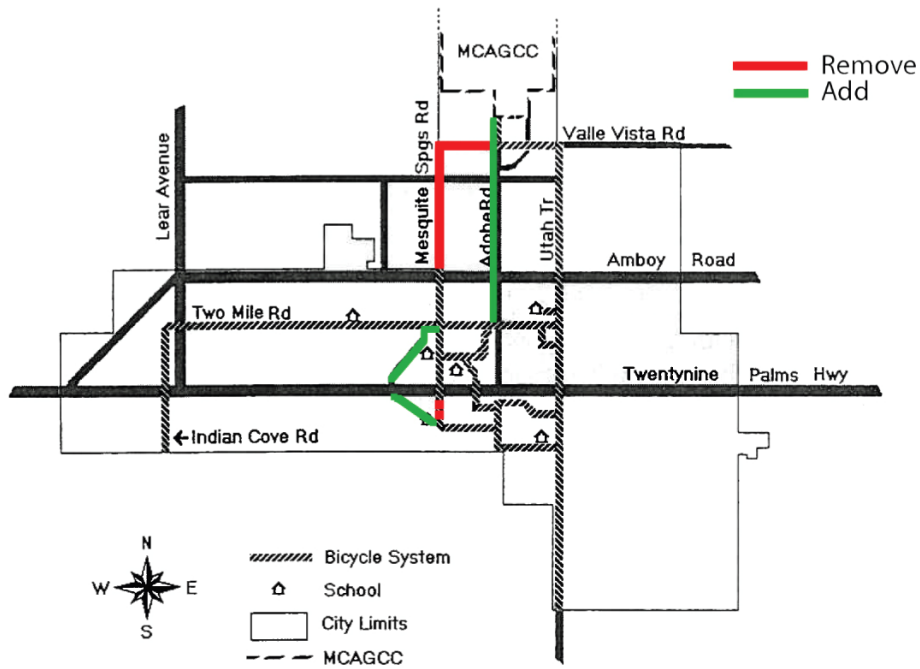
Exhibit H depicts the City's planned Bicycle System. It is intended to provide safe bicycling opportunities, decrease vehicular traffic and provide recreational opportunities. The following bikeway classifications describe the types and priorities of bikeways to be constructed as part of the City's Bicycle System.

B. Class I Bikeway (Bike Path)

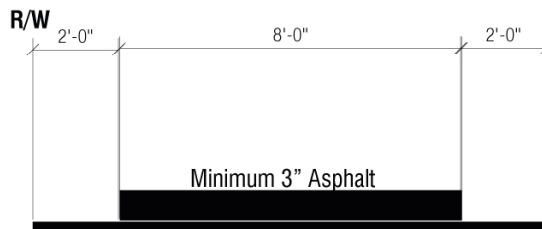
Bike Paths provide a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flow of motorists minimized. Generally, Bike Paths may be used to serve corridors not served by streets and highways or where wide right-of-way exists, permitting such facilities to be constructed away from the influence of parallel streets.

The Class I Bikeway is preferred over other types of bikeways and should be utilized where possible on the designated Bicycle System.

Exhibit H
Bicycle System*



Multi-Use Trail - 12'**



* All Bicycle Facilities shall be constructed on either the north or west side of the street based on path of travel. All facilities shall be constructed to the Class I Bikeway (Multi-Use Trail) standard shown above.

** Multi-Use Trail Facilities shall be constructed within the right-of-way. An additional 12' of right-of-way dedication shall be provided along the streets where trails are required per the Bicycle System Plan.

C. Class II Bikeway (Bike Lane)

Bike Lanes provide a striped lane for one-way bike travel on a street or highway. Bike Lanes are established along streets in corridors where there is significant bicycle demand. They are intended to delineate the right-of-way assigned to bicyclists and motorists and to provide for more predictable movements by each.

The Class II Bikeway may be used for areas in which sufficient right-of-way does not exist. Its use is preferred over use of a Class III Bikeway.

D. Class III Bikeway (Bike Route)

Bike Routes provide for shared use of bicyclists and motor vehicle traffic. A Bike Route is part of a street but does not include a separate travel lane for bicycles.

Use of the Class III Bikeway should be avoided in cases where Class I or II Bikeways can be constructed.

Section XV**PEDESTRIAN SYSTEMS**

Some areas of the City have sufficient pedestrian facilities. This is particularly true of the downtown area, and north of downtown along Adobe Road to the Historic Plaza. Most areas surrounding schools within the City have sidewalks available also. Generally, sidewalks in these areas are available and in good condition, curbcuts provide for handicap accessibility, and efficient movement of pedestrians is feasible.

In other areas, construction of sidewalks is sporadic. Problem areas exist along major thoroughfares such as Twentynine Palms Highway west of Donnell Hill and along Adobe Road north of the Historic Plaza.

Development of pedestrian friendly facilities throughout the City is an important component in the City's development of recreational opportunities and increased tourism.

Section XVI AIR TRANSPORTATION

A. Twentynine Palms Airport

Located within the City's Sphere of Influence, the Twentynine Palms Airport is two miles east of the City, south of Twentynine Palms Highway; elevation is 1,905. Owned and operated by the San Bernardino County Airports Department, the Twentynine Palms Airport is open to public use. It is classified by the Federal Aviation Administration as a Category B, Group 1 airport. Twenty-four hour communication is provided via Unicom 122.8.

There are two paved, lighted runways, the east/west runway is 75 feet wide and 5,531 feet long. The north/south runway is 50 feet wide and 3,800 feet long.

The Airport provides for the sport and recreation needs of citizens and visitors to the City. It is used for aerobatics, gliders and skydiving. With the great weather and spaciousness of the skies in the desert, there are many opportunities on the horizon for the Twentynine Palms Airport.

Development and improvement of the Airport can contribute to the City's efforts in attracting clean non-polluting industry and continued development of tourism. The Airport could also serve as a vital link to the Morongo Basin during an emergency.

B. Twentynine Palms Expeditionary Airfield (USMC)

Located aboard MCAGCC (outside the City limits), the Twentynine Palms Expeditionary Airfield is for military aviation only. The Airfield has one 8,000-foot, (aluminum matting) runway.

C. Public Use Airports

Two privately owned, public use airports are located in the Morongo Basin, Hi-Desert Airport near the community of Joshua Tree and Yucca Valley Airport in the Town of Yucca Valley.

Hi-Desert Airport

A *Category A, Group 1* type airport, is located on the west side of Sunfair Road, north of Twentynine Palms Highway, Joshua Tree. Elevation for the airport is 2,464 feet. The main runway is 2,493 feet long (2,650 feet long including turnaround area), and is paved and lighted. The crosswind runway is 2,800 feet long, 600 feet is paved; pavement of the full length is planned. Communications is via Unicom 122.8.

Yucca Valley Airport

Located north of Twentynine Palms Highway near State Route 247, Yucca Valley Airport is a municipal airport with limited residential airport access. It is classified as a *Category B, Group 1*, with one 4,363-foot paved and lighted runway. Airport altitude is 3220 feet. Communications is via Unicom 123.0.

D. Private Airports

There are several private landing strips or airports in the vicinity which provide for private aviation needs. These facilities could provide additional or alternate access to the area during an

emergency.

Cones Field

Cones Field is located within the City limits, east of Adobe Road, south of Amboy Road. There are three unpaved, unlighted runways (longest: 1,400 feet).

Crosswinds Airport

Located just outside the City's easterly limits, south of Amboy Road on the west side of Prairie Dog Avenue, Crosswinds Airport has two unpaved, unlighted runways (longest: 2,500 feet).

Dale Sky Ranch

Dale Sky Ranch is located along Bullion Mountain Road, north of Amboy Road. There are two graded runways (longest: 3,500 feet) with partial concrete surface. Communications is available via Unicom 122.8.

E. Palm Springs International Airport

Palm Springs Airport is served by several commercial airlines and provides service to many Twentynine Palms citizens and visitors. It is located 50 miles from the City and travel time is about one hour.

A \$50 million expansion of the Airport was completed in 1999. The expansion increased the parking area, expanded runways and added a terminal with capacity to serve seven new airlines. The annual passenger count has increased at Palm Springs International Airport from 913,029 in 1990 to 1,255,541 in 1998, a 38% increase.

F. Ontario International Airport

The needs of many Twentynine Palms citizens are satisfied by the Ontario International Airport which is located 95 miles west of the City in the Inland Empire. The Airport is served by several major airlines and provides service to international destinations.

Section XVII**RAILWAYS**

The City has never had either railways or light rail service; construction of such facilities within the City is not anticipated. Passenger rail service is available via Amtrak; the nearest passenger station is Palm Springs near the intersection of Interstate 10 and Indian Avenue, approximately 35 miles from the City.

Section XVIII UTILITY CORRIDORS

A. Utility Easements

Prudent land use planning requires communication and coordination with utility companies and other service providers to assure the systematic delivery of utilities. Coordination of effort ensures availability and provision of easements and rights of way for the extension utility services.

B. Underground Districts

A procedure by which the City may create an underground utility district has been established by the City. Underground utilities are required for new construction in commercial areas, and underground districts may be created by the City upon finding that it is in the public interest to do so.

C. Water Distribution

Water distribution throughout the City is provided by the Twentynine Palms Water District. Development and maintenance of the District's distribution system is based on their Master Plan which projects growth of approximately 2% per year. The Master Plan was completed in 1992 and the District is now in the preliminary stages of updating the Plan.

Additional water supplies are planned to meet the projected growth. The District's three million gallon per day water treatment facility— designed to remove fluoride— is projected to be in operation in the spring of 2001. Also scheduled are two additional water reservoirs, which will add three million gallons of water storage to the existing fifteen million gallons of storage.

D. Distribution of Electric Service

Electric service is provided by Southern California Edison Company. Three substations are located within the City, 1) Hi-Desert Substation north of Twentynine Palms Highway west of Mantonya Road, 2) Carodean Substation located on the south side of Two Mile Road, west of Easy Street and 3) Twentynine Palms Substation located at the northwest corner of Joshua Drive and Ocotillo Avenue. According to Southern California Edison Company, there are no plans for new substations in the City within the next ten years (2000-2010).

Two 115,000 volt transmission circuits provide power to the City. The circuits are routed parallel to Twentynine Palms Highway, one on the north side of the Highway and the other on the south side, entering the City from the west. One of the 115,000 volt circuits terminates at the Hi-Desert Substation and the other continues east to feed the Carodean Substation.

In addition to the two 115,000 volt transmission circuits, the City is served by four 33,000 volt sub-transmission circuits. The sub-transmission circuits feed the Twentynine Palms Substation and distribute to businesses and homes in areas where a distribution circuit is not available.

E. Distribution of Cable TV Service

Cable service is distributed within the City by Adelphia Communications via a 750 megahertz hybrid fiber-coaxial system. The system is comprised of five major components, 1) Headend, 2)

Hub, 3) Transmission Conduit, 4) Distribution System, and 5) Drop System.

The Headend, or signal receive site, is located at 6720 La Contenta Road in Yucca Valley. Signals are processed and then applied to the Hub, the Optical Transition Network, which is located at 4637 Adobe Road in Twentynine Palms. The Hub transforms the optic signal from light to radio frequency for outbound transmission to the Transmission Conduit. The Transmission transports service to the Distribution System through easements either overhead on SCE poles or underground in common trench. The Drop System connects the end user to the Distribution System.

F. Distribution of Telephone Service

Telephone service is provided by Verizon Communications. Distribution within the City is facilitated by a Base Unit Electronic Switch (Base Unit) located on the east side of Adobe Road, south of Twentynine Palms Highway. From the Base Unit, service is routed to two 1000-line Remote Switching Units; one is located on Morongo Road south of Two Mile Road and the other is located on Amboy Road east of Adobe Road. Service is distributed to the neighborhood level by Mini Switches, each of which can accommodate 100 to 200 lines. There are twelve Mini Switches throughout the City.

All lines linking the Base Unit, Remote Switching Units, and Mini Switches are located underground. Where practical, it is Verizon's preference to locate all lines underground.

There are currently no plans to add any additional switches. Planning for additional facilities within the City will be based on growth and increased demand for service.

G. Distribution of Natural Gas

The Gas Company provides natural gas for many portions of the City. Service is provided to approximately 3,000 properties.

One six-inch, high-pressure (400 psi) main feeds the community, entering the City (west to east) along the north side of Twentynine Palms Highway. The movement is then north along Lupine Avenue, east along Joshua Drive to Larrea Avenue, north along Larrea Avenue to Mesquite Springs Road and then north to MCAGCC.

Three regulator stations are included in the local distribution network, two in the City and one aboard MCAGCC. The six-inch main feeds into the regulator stations, the pressure is reduced to approximately 45 psi and natural gas is distributed to the customer. The South Regulator is located near the southwest corner of Joshua Drive and Mariposa Avenue and feeds service to most of the southerly portion of the City.

The North Regulator station located northeast of the intersection of Two Mile Road and Mesquite Springs Road. It provides service to the northerly portion of the City. From the North Regulator, the main goes north to MCAGCC providing service to the Base. A regulator station, from which service is distributed, is located at the main terminus aboard MCAGCC.

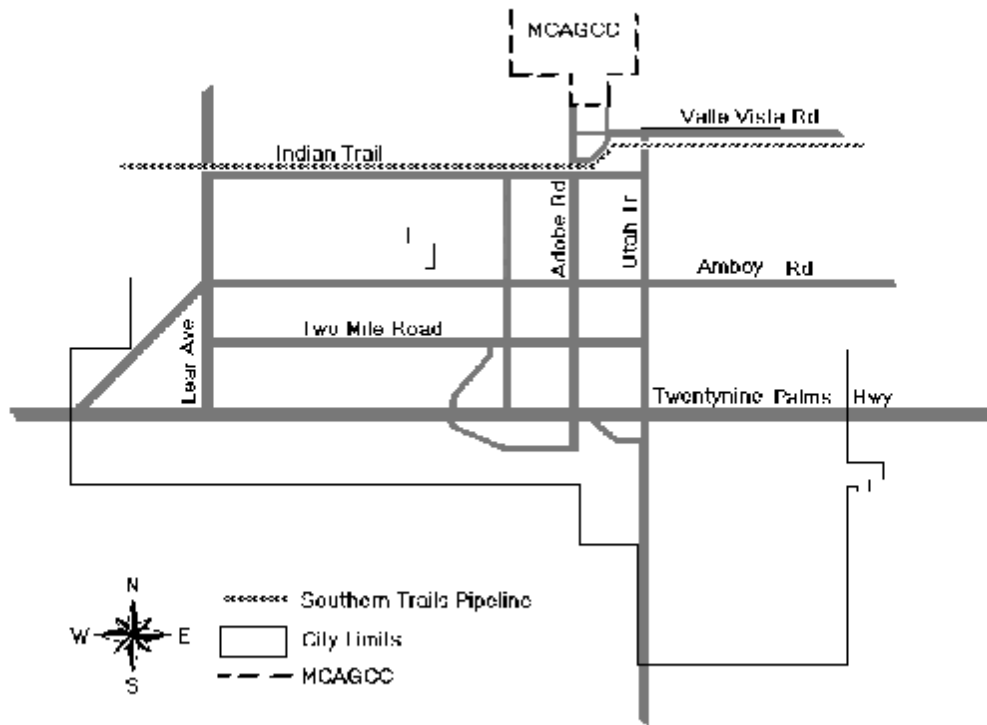
According to The Gas Company, there are no plans for expansion of major facilities within the City during the next ten years (2000-2010).

H. Natural Gas Pipeline

The Southern Trails Pipeline is a 16-inch (O.D.) natural gas pipeline which traverses the northerly portion of the City. The pipeline is at a depth of six feet, ten inches. Its capacity is approximately 120 million cubic feet per day (MMCF/D). Originating in Northwest New Mexico, the pipeline crosses Arizona and Southern California, terminating in Long Beach, California. Depending on consumer needs and interconnect locations, the gas flow on any given segment of the pipeline could be either direction. However, gas flow in the Twentynine Palms area will typically be east to west.

The pipeline route, depicted in Exhibit I, is parallel to Valle Vista Road, approximately 600 feet south of Valle Vista Road from the City's easterly limit to Condor Road. It follows the southerly edge of the (former) Condor Road alignment to Indian Trail, then west along the northerly edge of Indian Trail, to the City limits at Mesquite Springs Road. The pipeline does not deliver natural gas to the City.

Exhibit I
Southern Trails Pipeline



I. Septic/Sewer System

Currently, a sewer system is not in place in the City. Therefore, all developed properties are required to have septic systems.

The City anticipates the need for a sewer system within the planning period for the higher density areas of the City; for these areas, dry sewer connections shall be installed as development occurs, to minimize costs and environmental disruption when the sewer system is ultimately constructed.

Section XIX CONSISTENCY

A. Legal Requirements

State law requires consistency among all the Elements of the General Plan. The concept of internal consistency holds that no policy conflicts exist between the components of a General Plan. Five internal consistency requirements are specified:

1. **Equal Status among Elements**
All Elements of the General Plan have equal legal status. No Element is legally subordinate to another and the General Plan must resolve potential conflicts among the Elements through clear language and policy consistency.
2. **Consistency Between Elements**
All Elements of the General Plan must be consistent with one another. Text and diagrams contained in the Circulation Plan cannot be in conflict with text and diagrams contained in other Elements of the City's General Plan.
3. **Consistency Within an Element**
Diagrams, text, goals, policies, and programs must be consistent with and complement one another.
4. **Area Plan Consistency**
All aspects of a General Plan must be consistent with any adopted area plan or community plan.
5. **Text and Diagram Consistency**
Text of the Plan must be consistent with any diagrams contained in the Plan.

B. Land Use Element

The Circulation and Land Use Plans mutually affect one another. Design and location of circulation facilities are among the major factors in determining the form of human settlement and the extent and type of land use. Conversely, land uses create a demand for circulation facilities.

A primary focus in the development of the Circulation Plan is the City's Land Use Plan. In determining the required roadway designations, the City has considered the adjacent, as well as the destination, density potential.

The primary commercial areas depicted on the General Plan Land Use Map are located along Twentynine Palms Highway and Adobe Road, both designated as Expressways.

Higher densities that will result from multi-family dwellings are either located along Expressways or Arterials or connect to the Expressway/Arterial grid via Collectors.

Industrial zones located in the southeast portion of the City are either in close proximity to

Twentynine Palms Highway, which is classified as an Expressway east of Utah Trail, or have access to Twentynine Palms Highway via Baseline Road (Collector) and Utah Trail (Secondary) or Wilshire Avenue (Secondary).

C. Housing Element

The Circulation Plan is critical to the development of housing in the City and consideration is given to potential density in the development of the Circulation Plan. In development of the proposed roadway system, the City's Housing Element and potential residential development has been considered.

D. Noise Element

Traffic by its very nature creates noise. The generation of increased traffic and the development of new, expanded, or improved roadways has the potential to generate traffic noise. Noise levels created by motor vehicles are required to stay within parameters specified in the Noise Element of the General Plan.

In designing road systems, consideration will be given to the potential for noise generation and noise levels will be minimized to, or below, specified standards.

E. Safety Element

The safe and efficient movement of people and goods through and within the community is established as a primary objective of the Circulation Plan. In formulating decisions with regard to circulation design, consideration will be given to and compliance will be ensured with the General Plan Safety Element.

F. Conservation, Open Space and Recreation Element

Energy conservation is identified as a priority in the development and implementation of circulation systems which will be accomplished through the City's long-range planning and the consistent application of established standards.

Preservation of Open Space results in vitality in the community. Visual access to these areas via the roadway system is a crucial factor in citizens' ability to enjoy and admire Open Spaces.

Roadway systems will be designed to accommodate and facilitate desired recreational opportunities. Consideration will be given to the efficient movement of visitors through the City to destinations such as the Joshua Tree National Park, City parks, and other recreational opportunities.

Section XX
GOALS AND POLICIES

A. Overview

The following goals are established for the Circulation Plan. The purpose of each goal is established in this section. To facilitate each goal, policies are established and each policy is executed by one or more programs.

B. Goal #1

A circulation network to safely move people and goods to and through the City.

Purpose

Goal #1 establishes the primary purpose of the Circulation Plan, the safety of all residents and visitors.

Policy #1.1

New roads will be designed and constructed for efficient traffic flow.

Program 1.1.1

All new roads will be designed and constructed to maintain a Level of Service D or better.

Program 1.1.2

The City will ensure develop of roadways which comply with the adopted Congestion Management Plan for San Bernardino County.

Policy #1.2

Quality standards will be applied to all new and reconstructed roadways as development occurs.

Program 1.2.1

Streets will be constructed per standards established in the Circulation Plan when new projects are constructed or existing uses are intensified.

Program 1.2.2

To ensure quality standards, City Encroachment Permits and inspections will be required on all infrastructure improvements or modifications to City owned rights-of-way.

Program 1.2.3

Caltrans Encroachment Permits and inspections are required on all infrastructure improvements to Twentynine Palms Highway and must be obtained from Caltrans prior to construction.

Policy #1.3

Alternate transportation routes will be developed and utilized where possible.

Program 1.3.1

Signage for Truck Routes and Military Convoy Routes will be posted to increase utilization and avoid conflicts between automobile trips and the movement of products.

Program 1.3.2

Two Mile Road will be developed and improved as an alternate east-west route.

Program 1.3.3

Design will be completed and right-of-way will be secured for the extension of Amboy Road, connecting to Twentynine Palms Highway, as a future bypass route.

Program 1.3.4

The services of traffic analysis experts shall be sought to identify alternate east/west routes to relieve congestion along Twentynine Palms Highway and ensure continued development of a tourist friendly downtown.

C. Goal #2

Development of improved or expanded Expressways, Arterials, Secondaries and Collectors to efficiently transport large volumes of traffic.

Purpose

The purpose of Goal #2 is to emphasize the importance of major roadways which will facilitate circulation, carrying the bulk of the traffic, within and through the City.

Policy 2.1

The City will be responsive to the objectives of other transportation agencies or jurisdictions with a stake in the development of efficient regional transportation.

Program 2.1.1

Right-of-way will be secured for Amboy Road per standards established by Caltrans, to facilitate development of the route as a future bypass.

Program 2.1.2

Development of Expressways and Arterials will be coordinated with the County of San Bernardino Department of Transportation and Flood Control.

Program 2.1.3

The Town of Yucca Valley will be afforded an opportunity to comment on the development of new or improved Expressways or Arterials which could potentially affect regional circulation.

Program 2.1.4

The City will maintain a liaison with Caltrans planning and engineering staff to

study and implement effective means of preserving and improving capacity along Twentynine Palms Highway and secure State and Federal funding sources for preservation and expansion of capacity on Twentynine Palms Highway.

Program 2.1.5

Consideration will be given to the future development of an alternate east/west route, linking the City with State Route 247, in the City's participation of regional transportation needs.

Policy 2.2

The City will participate in development of alternative east-west parallel routes to relieve traffic on Twentynine Palms Highway.

Program 2.2.1

Right-of-way will be secured for Amboy Road per standards established by Caltrans, to facilitate development of the route as a future bypass.

Program 2.2.2

In the review of new and intensified projects, the City will limit access along Twentynine Palms Highway in a manner which maximizes the use of existing and planned signalized intersections.

Policy 2.3

The City Will seek participation and cooperation from other agencies whose traffic results in impacts to City streets.

Program 2.3.1

The City's will encourage continuation of the National Park's participation in the maintenance and enhancement of Canyon Road, south of Cottonwood Drive, leading to Fortynine Palms Canyon.

Program 2.3.2

The City will seek assistance where possible from MCAGCC to offset degradation of Lear Avenue and Indian Trail caused by military convoys.

D. Goal #3

The circulation system will be designed to accommodate visitors and will enhance and promote recreational opportunities.

Purpose

The Purpose of Goal #3 is to underscore the importance of circulation facilities that are visitor-friendly and to develop circulation systems to cultivate the immense recreational opportunities of the area.

Policy 3.1

In developing and improving circulation facilities, consideration will be given to tourism, potential impacts and opportunities for enhancement.

Program 3.1.1

Scenic Highway corridors will be protected in accordance with standards established in the Circulation Plan.

Program 3.1.2

The City will develop and install directional signage to direct visitors to key facilities in the community.

Program 3.1.3

Pedestrian facilities will be constructed near school sites, along major transportation corridors, in the downtown area, and along open space corridors.

Program 3.1.4

Transportation corridors and community entry points will be enhanced to improve community image and identification.

Program 3.1.5

Bicycle systems will be developed to enhance tourism and recreation opportunities.

Policy 3.2

Development efforts will be coordinated with Morongo Basin Transit Authority.

Program 3.2.1

In reviewing development projects, comment will be sought from the Morongo Basin Transit Agency and facilities which support the use of mass transit will be developed.

Policy 3.3

The City will continue development of Bikeways throughout the City to encourage the use of alternate modes of transit.

Program 3.3.1

Bikeways will be developed with emphasis focused on routes connecting residential areas, schools, parks and other recreational areas.

Program 3.3.2

Bicycle parking facilities will be required for commercial and institutional facilities located along planned Bikeway routes.

E. Goal #4

Development of quality Local Streets to serve all citizens and visitors.

Purpose

The purpose of Goal #4 is to stress the importance of appropriate circulation providing access to individual parcels or neighborhoods.

Policy 4.1

Quality standards will be applied to development of Local Streets.

Program 4.1.1

The City will restrict cul-de-sac or dead-end streets only to those areas where minimal traffic is anticipated.

Program 4.1.2

Streets will be constructed per standards established in the Circulation Plan.

Program 4.1.3

The City will provide assistance to citizens seeking to form a Street Improvement Assessment District.

Program 4.1.4

The City will implement and apply an alternative reduced improvement standard for Local Streets in low-density residential areas.

Program 4.1.5

The City will require a Local Commercial/Industrial Street standard to provide the turning radius needed by trucks and other large vehicles serving such areas.

F. Goal #5

Parking facilities will be available for residents and visitors.

Purpose

The purpose of Goal #5 is to provide a nexus between the provision of parking facilities and efficient circulation.

Policy 5.1

The City will ensure that development does not increase deficiencies in available parking.

Program 5.1.1

The City will require on-site parking per established standards for new development and projects which intensify uses and/or increase traffic generation.

Policy 5.2

The City will ensure that the development and maintenance of parking facilities is continued.

Program 5.2.1

Through the City's Redevelopment Agency, funding programs will be available to assist in the development of public parking in conjunction with new or expanded projects.

G. Goal #6

The Circulation Plan will sustain mobility while fostering economic development, enhancing the environment, reducing energy consumption, promoting transportation-friendly development patterns, and encouraging fair and equitable access to all citizens.

Purpose

The purpose of Goal #6 is to provide a means of evaluating circulation systems in relation, and in support of, the core objectives contained in Southern California Associated Government's Regional Transportation Plan.

Policy 6.1

Transportation systems must meet the public need for improved access, and for safe, comfortable, convenient, fast and economical movements of people and goods.

Program 6.1.1

Systems shall be designed to ensure that they meet or exceed standards established in the Regional Transportation Plan, with regard to mobility, accessibility, environment, reliability, safety, equity/environmental justice and cost effectiveness.

H. Goal #7

Consideration shall be given to air quality issues in the preparation of environmental documents for circulation systems.

Purpose

The purpose of Goal #7 is to ensure that air quality is protected and that all circulation decisions are supportive of regional air quality policies.

Policy 7.1

The City will ensure that all circulation systems consider air quality, land use, transportation, and economic relationships to ensure consistency and minimize conflicts.

Program 7.1.1

An analysis of potential conflicts in air quality, land use, transportation, and economic viability shall be conducted as part of the review of environmental document prepared for all circulation systems.