CHAPTER III - CIRCULATION ELEMENT

STATUTORY REQUIREMENTS:

Government Code Section 65302(b) requires a circulation element in all city and county general plans, as follows:

A circulation element consisting of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals and facilities, all correlated with the land use element of the plan.

As discussed in the State Office of Planning and Research "General Plan Guidelines (1998)," the circulation element is an infrastructure plan addressing the circulation of people, goods, and utility systems. The circulation element must directly correlate with the land use element. Mandatory circulation issues are: major thoroughfares, transportation routes, terminals and other local public utilities and facilities. This circulation element contains the following:

- Identification and analysis of circulation needs and issues;
- A statement of goals, objectives and policies based on the total circulation needs of the community;
- A diagram, map or other graphic representation showing the proposed circulation system;
- A description of the proposed circulation system and the interrelationships among system parts;
- Standards and criteria for the location, design, operation and levels of service of circulation facilities; and
- A guide to the implementation of the circulation system.

Several travel modes comprise the Bakersfield transportation system. Persons travel by autos, buses, trains, airplanes, bicycles and on foot. Freight transportation modes include trucks, trains, and airplanes. Other facilities include canals to move water and pipelines and power lines to transport energy.

Among these many systems, the street system is the most visible and most important to Bakersfield residents. Over 90% of all travel in the city is by automobiles and trucks. General plan development, therefore, has been focused largely on the street system. However, policies are included for all modes of travel in recognition of the roles they play in serving the diverse needs of Bakersfield residents. The following sections discuss the background and important issues of each mode. Policies are listed for each mode to guide future development.
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CHAPTER III - CIRCULATION ELEMENT

A. STREETS

OVERVIEW OF EXISTING CONDITIONS

The street system has been, and will continue to be, the most important element of the transportation system. Streets have been developed in a grid pattern with arterials spaced at one-mile intervals, except in the central area where spacing is closer. Typically, collector streets are spaced at half-mile intervals between arterials, also in a grid pattern. Motorists use these collectors for through travel to some extent, avoiding parallel arterials. In some cases, collectors in newer areas are aligned in irregular patterns to discourage through traffic. Discontinuity and disruption of the grid system can and has overburdened portions of the system.

Overlaid on the basic network of arterials and collectors is a limited freeway system. Route 99, with four to six travel lanes, is the only existing north-south freeway. As the major Central Valley connector in California, Route 99 carries large numbers of through vehicles in addition to local Bakersfield traffic. Route 58 is an east-west freeway linking Route 99 with cities east of Bakersfield. It carries much less traffic than Route 99. The other freeways in the metro area are the portion of Route 204 between Route 99 and Route 58 and the portion of Route 178 between M Street and Fairfax Road. Because of its location in a highly traveled corridor, Route 178 carries large traffic volumes despite its lack of continuity.

The City of Bakersfield, Kern County, and Caltrans all count daily traffic volume on a regular basis. Figure III-1 shows recent selected counts on the freeways and arterials. The City of Bakersfield counts are from 2000, and the Kern County and Caltrans counts are from 1999.

Traffic volume on most streets in the metro area is relatively light, although some segments become busy at times. Streets with relatively heavy volume (greater than 30,000 vehicles per day) include the following:

<table>
<thead>
<tr>
<th>STREET</th>
<th>AADT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freeway 99, California to S.R. 178</td>
<td>109,000</td>
</tr>
<tr>
<td>Freeway 58, from 99 to Union Avenue</td>
<td>72,000</td>
</tr>
<tr>
<td>Highway 178, from 99 to M Street</td>
<td>41,500</td>
</tr>
<tr>
<td>California Avenue, from Real Road to 99</td>
<td>35,000</td>
</tr>
<tr>
<td>Rosedale Highway, from Fruitvale Avenue to 99</td>
<td>41,000</td>
</tr>
<tr>
<td>Ming Avenue, from Stine Road to Castro Lane</td>
<td>37,000</td>
</tr>
<tr>
<td>Union Avenue, from Brundage Lane to 58</td>
<td>38,500</td>
</tr>
<tr>
<td>Olive Drive, Knudsen to Freeway 99</td>
<td>32,600</td>
</tr>
<tr>
<td>Freeway 99, Ming Avenue to White Lane</td>
<td>86,000</td>
</tr>
<tr>
<td>Freeway 178, M Street to Union Avenue</td>
<td>58,000</td>
</tr>
</tbody>
</table>

In general, the existing street system operates smoothly. Points of congestion appear, however, as a result of two phenomena. The city is increasing in population and geographical area, thereby placing greater demands on the street system. Secondly, physical barriers have
disrupted the grid of arterial streets and the freeway system, leading to discontinuities. Physical barriers include the Kern River, canals, railroad tracks, and (in the case of freeways) established residential neighborhoods.

The city and county both have standard design specifications for arterial, collector, and local streets, although the standards are somewhat different. Standard arterials are 90 feet wide in 110 feet of right-of-way. In this 90 feet, the city design calls for six lanes, and the county has four lanes. Both have a raised median; the county allows parking and the city does not. Standard collector streets (both city and county) have four lanes, 68 feet of pavement width in 90 feet of right-of-way, with parking and no median. Standard local streets are 36 to 44 feet wide. Many arterial and collector streets, however, are smaller than the standard designs because they were built before the standards became effective. These sub-standard streets also contribute to congestion. As properties fronting the sub-standard streets develop or redevelop, the full width is required, resulting in streets with alternating wide and narrow stretches. Eventually the street will be full width, but the process takes several years.

To determine how well the street system is presently operating, traffic volume can be compared to roadway capacity. The table below shows street capacities, using standard traffic engineering assumptions.

### ROADWAY CAPACITIES

<table>
<thead>
<tr>
<th>ROADWAY TYPE</th>
<th>DAILY TRAFFIC CAPACITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-lane freeway</td>
<td>150,000 vehicles</td>
</tr>
<tr>
<td>6-lane freeway</td>
<td>112,500 vehicles</td>
</tr>
<tr>
<td>4-lane freeway</td>
<td>75,000 vehicles</td>
</tr>
<tr>
<td>6-lane arterial</td>
<td>60,000 vehicles</td>
</tr>
<tr>
<td>4-lane arterial</td>
<td>40,000 vehicles</td>
</tr>
<tr>
<td>4-lane collector</td>
<td>30,000 vehicles</td>
</tr>
<tr>
<td>2-lane collector</td>
<td>15,000 vehicles</td>
</tr>
</tbody>
</table>


Any street segment with a volume-to-capacity ratio greater than .80 will experience some degree of congestion. Figure III-2 shows street segments with less than 20 percent of capacity remaining and shows other parts of the street system with circulation problems.

Congestion occurs on numerous streets where they cross Highway 99, including Olive Drive, Rosedale Highway, California Avenue, Stockdale Highway, Ming Avenue, Planz Road, and White Lane. Freeway interchanges with congestion or other problems include Golden State/99/Airport Drive, 178/Mt. Vernon, 178/Oswell, 99/Rosedale, 99/California, 99/White and 58/Union Avenue. Other parts of the circulation system where volume is approaching capacity include the following:

1. Rosedale Highway near Highway 99
2. Highway 178 from Highway 99 to M Street
3. Oak Street from California Avenue to 24th Street
4. Highway 99 between Rosedale Highway and California Avenue
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5. Stockdale Highway near California Avenue
6. Ming Avenue from New Stine Road to Valley Plaza
7. California Avenue around Highway 99
8. Real Road between California Avenue and Ming Avenue
9. Coffee Road across the Kern River
10. Roberts Lane just east of Airport Drive

Signalized intersections are the primary constraints to capacity on the arterials. Figure III-2 also shows the sixteen busiest intersections in the metro area. The busiest is the Stockdale Highway/California Avenue intersection, which handles a volume of 63,400 vehicles per day. Other busy intersections are concentrated along Ming Avenue, Oak Street, Chester Avenue, and Union Avenue. Many of these intersections are congested during peak hours. Others have sufficient turn lanes so that traffic doesn't back up, but cycle lengths are long and most vehicles experience delay. In either case, these intersections represent bottle-necks.

The land use plan, when built out, will add significantly to the area's population and employment base. Existing areas of the city will increase in land use intensity, and to a larger extent, geographic expansion of the city will occur. Major expansion areas include the southwest, northwest, and northeast. This will lead to an accompanying increase in travel. Specifically, the plan calls for an increase of 154,000 households and 244,000 jobs. These increases will cause traffic volume to more than double. Daily vehicle trips will increase by 1.6 million to a total of 2.6 million.

STREET CIRCULATION ISSUES

A detailed analysis of existing traffic conditions and projected development indicates that the circulation plan must address the following specific issues:

High and increasing demand in the travel corridors connecting the northeast and the southwest, the northwest and the southwest, and the northwest and the northeast.

- Need for more high-speed freeways.
- Assessing the traffic impacts caused by new development.
- Congestion on Route 99 and parallel streets.
- Congestion on California Avenue between Stockdale Highway and Oak Street, on Rosedale Highway near Route 99, and on Ming Avenue near Route 99.
- Deficient right – of- way widths on many arterials and collectors.
- Methods to secure funding for the circulation system, including high-speed facilities.
- Difference between city and county street standards.
- Lack of signal synchronization along arterials.
• A proliferation of driveways and traffic signals on arterials.
• Through traffic in residential neighborhoods.
• Unattractive streets which lack adequate landscaping.

OVERVIEW OF CIRCULATION PLAN

A Circulation Element has been devised to avoid the congestion that would result from buildout of the General Plan. Upgrades and extensions are planned for the freeway and arterial systems as described below. Figure III-3 shows the ultimate street system for metropolitan Bakersfield. Right-of-way should be reserved whenever possible for the ultimate freeway system.

FREEWAYS

Seven new freeways are planned; the Crosstown Freeway, the Westside Parkway, the West Beltway, the South Beltway, the East Beltway, as well as a new alignment for State Route 58. These future freeway corridors are shown conceptually in Figure III-3. Specific Plan Lines must be adopted for the corridors which have not been adopted, to assist in right-of-way preservation. If permanent structures could be avoided within these corridors, future freeway construction would be simpler and less expensive.

The Crosstown Freeway (also called the Centennial Corridor) would extend from State Route 178 near Baker Street, around the south side of downtown Bakersfield, to State Route 99. The State Route 178 Corridor Study, prepared jointly by KernCOG, the City of Bakersfield, and Caltrans, recommended this freeway alignment. This alignment was also recommended in the Bakersfield Systems Study conducted jointly by KernCOG, the City of Bakersfield, Kern County, and Caltrans.

The Westside Parkway is a continuation of the Crosstown Freeway extending westerly across State Route 99 from State Route 178 near Baker Street, around the south side of downtown Bakersfield, to State Route 99. The alignment was also recommended in the Bakersfield Systems Study conducted jointly by KernCOG, the City of Bakersfield, Kern County, and Caltrans.

The West Beltway would link State Route 99 from north Bakersfield with Interstate 5 at the South Beltway, passing through the western portion of metropolitan Bakersfield. The County has adopted portions of the alignment for the West Beltway as a Specific Plan Line. This freeway would provide a bypass and thus relief to State Route 99 and provide an important link across the Kern River from southwest Bakersfield to the Westside Parkway.

The South Beltway extends from State Route 58 around southeast Bakersfield to Interstate 5, near State Route 119 (Taft Highway). This corridor would aid local circulation, as well as provide a bypass of State Route 58 through the City for regional and interstate trips. A
recommended corridor has been adopted by the City of Bakersfield and is shown in Figure III-3. The County of Kern is studying this corridor, as well as alternatives at this time. One such alternative is also shown in Figure III-3.

The East Beltway is shown in Figure III-3 in the area of Comanche Drive and connecting State Route 178 to State Route 58 (connecting to the South Beltway). This corridor has not been studied and may need to be lengthened to extend to an alternate South Beltway.

A new alignment of State Route 58 has been recommended in the Bakersfield Systems Study and is shown in Figure III-3. This corridor would extend northerly from existing State Route 58 near Washington Avenue, to the Union Pacific Railroad tracks, then northwesterly to State Route 99. It would then parallel State Route 99 to north of Seventh Standard Road, then turn westerly to Interstate 5.

This corridor would provide congestion relief to State Route 99 in central Bakersfield, as well as provide a continuous State Route 58 freeway corridor to Interstate 5. Caltrans has not adopted this corridor at this time.

A new alignment for State Route 178 is proposed from near future Vineland Road northeasterly to Rancheria Road. This corridor would provide a new route to the Lake Isabella area which would be more direct and wider than the existing road through the Kern River Canyon.

Upgrading existing freeways would also be necessary. This would include the widening of State Route 178 from Fairfax Road to Alfred Harrell Highway and widening the existing State Route 58 freeway from State Route 99 to Cottonwood Road. These improvements would eliminate areas of spot congestion.

**ARTERIALS**

Several new arterials and arterial extensions are planned. Generally, the plan calls for widening of existing substandard arterials to the full 110 feet where possible with six travel lanes (four in unincorporated areas) and the extension of the arterial system into the new growth areas. In some areas, the newly-extended arterials would not need to have all four or six travel lanes constructed. The full right-of-way width should be reserved, however, to allow for future expansion. New arterial crossings of the Kern River are called for at Allen Road, Oak Street, Mohawk Road, and Fairfax Road (to China Grade Loop). Arterials are generally spaced at one-mile intervals on section lines throughout the developed area except where topography or other unique features warrant a different pattern.

**COLLECTORS**

In accordance with existing street patterns in Bakersfield, the plan calls for collector streets (four travel lanes in 90 feet of right-of-way) in a grid pattern on mid-section lines. This pattern is deviated from where physical constraints are present, where collectors are not needed, or where existing development precludes the grid pattern of collector streets.

The objective of the planned street system is to accommodate planned land development without traffic congestion. All new streets and freeways are projected to operate at Level of Service C or better. On streets where the existing level of service is below "C", special
CHAPTER III - CIRCULATION ELEMENT - STREETS

consideration to identify mitigation measures to prevent and/or delay degradation of the existing
level of service would be required.

GOALS AND POLICIES:

The following presents the goals and policies for streets in the planning area. Implementing
programs are contained in the following sub-section. At the end of each policy is listed in
parenthesis a code beginning with the letter "I" followed by a number. This code refers to the
pertinent implementing program.

GOALS

1. Provide a safe and efficient street system that links all parts of the area for
   movement of people and goods.

2. Provide for safe and efficient motorized, non-motorized, and pedestrian traffic
   movement.

3. Minimize the impact of truck traffic on circulation, and on noise sensitive land
   uses.

4. Provide a street system that creates a positive image of Bakersfield and
   contributes to residents' quality of life.

5. Provide a system of freeways which maintains adequate travel times in and
   around the metropolitan area.

6. Provide a local street network that contributes to the quality and safety of
   residential neighborhoods and commercial districts.

7. Develop and maintain a circulation system that supports the land use plan shown
   in the general plan.

POLICIES

Goals will be achieved through the following policies which set more specific directions and
guide actions. For ease of implementation, policies have been arranged with respect to
circulation topics they influence. Those which cannot be categorized by specific topic have been
placed in a "General" category.

DESIGN

1. Classify streets in the following manner (I-1):

   **freeways** provide service to through traffic exclusively with no access to
   abutting property and no at-grade intersections.

   **expressways** are arterial highways with at least partial control of access which
   may or may not be divided or have grade separations at intersections and may
   be an interim facility for an ultimate freeway.
**arterials** are used primarily by through traffic, with a minimal function to provide access to abutting property.

**collectors** function to connect local streets with arterials and to provide access to abutting property.

**locals** are exclusively for property access and through traffic is discouraged.

2. Establish the following standards for the street system (I-2)

<table>
<thead>
<tr>
<th>FACILITY TYPE</th>
<th>LANES</th>
<th>RIGHT-OF-WAY WIDTH</th>
<th>PAVEMENT WIDTH</th>
<th>CURB PARKING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freeway/Expressway</td>
<td>210’ - 300’ minimum *</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Arterials on State Hwy</td>
<td>6</td>
<td>110’ - 130’</td>
<td>90’ plus</td>
<td>No</td>
</tr>
<tr>
<td>Arterial w/bike lanes</td>
<td>6</td>
<td>110’</td>
<td>96’</td>
<td>No</td>
</tr>
<tr>
<td>** Arterial w/ bike lanes**</td>
<td>4</td>
<td>110’</td>
<td>96’</td>
<td>Yes</td>
</tr>
<tr>
<td>Arterial w/o bike lanes</td>
<td>6</td>
<td>110’</td>
<td>90’</td>
<td>No</td>
</tr>
<tr>
<td>** Arterial w/o bike lanes**</td>
<td>4</td>
<td>110’</td>
<td>90’</td>
<td>Yes</td>
</tr>
<tr>
<td>Collector w/ bike lane w/ 2-way left turn</td>
<td>4</td>
<td>90’</td>
<td>74’</td>
<td>No</td>
</tr>
<tr>
<td>Collector w/ bike lane</td>
<td>4</td>
<td>90’</td>
<td>74’</td>
<td>Yes</td>
</tr>
<tr>
<td>Collector w/o bike lane w/ 2-way left turn</td>
<td>4</td>
<td>90’</td>
<td>68’</td>
<td>No</td>
</tr>
<tr>
<td>Collector w/o bike lane</td>
<td>4</td>
<td>90’</td>
<td>68’</td>
<td>Yes</td>
</tr>
<tr>
<td>LOCAL STREET Commercial/Industrial</td>
<td>2</td>
<td>60’</td>
<td>44’</td>
<td>***</td>
</tr>
<tr>
<td>LOCAL STREET Residential Collector ****</td>
<td>2</td>
<td>60’</td>
<td>44’</td>
<td>Yes</td>
</tr>
<tr>
<td>LOCAL STREET Residential</td>
<td>2</td>
<td>60’</td>
<td>40’</td>
<td>Yes</td>
</tr>
</tbody>
</table>

* Precise geometrics will be established through specific engineering studies.

** In incorporated areas, no parking is allowed along arterials within new development. In unincorporated areas, no parking zones will be determined by the traffic engineer.

*** No parking zones will be determined by the traffic engineer.

**** This local residential collector standard applies to local street where vehicular traffic is expected to exceed 750 vehicles per day or where its length exceeds one-half mile.
3. Provide additional right-of-way and pavement width to accommodate turn lanes at intersections (I-2).

4. Provide additional right-of-way and pavement width at other locations for turn lanes, bus lanes, etc., as needed, based on engineering study (I-3).

5. Place traffic signals to minimize vehicular delay (I-6).

6. Design and locate site access driveways to minimize traffic disruption where possible considering items such as topography, past parcelization and other factors (I-7).

7. Minimize direct and uncontrolled property access from arterials (I-8).

8. Limit full access median breaks on arterials to a maximum of three per mile and include left-turn lanes at each (I-10, I-11).

9. Consider the construction of grade separations for intersections unable to meet minimum level of service standards (I-11).

10. Design local streets to conform to topography. Allow for deviation from "grid" system on local streets when they do not interfere with other traffic policies and traffic flows (I-34).

11. Design local collector street systems to minimize through traffic movements and include short block lengths to discourage excessive speeds (I-34).

12. Maintain the integrity of the circulation system (I-12).

13. Continue designation and signage of specific streets as official truck routes, within incorporated areas (I-13).

14. Provide continuous truck routes within incorporated areas that provide access to designated industrial areas (I-13).

15. Prohibit trucks from non-truck routes within incorporated areas except as necessary for direct property access for pick-up and delivery (I-13).

16. Require that truck access to commercial and industrial properties be designed to minimize impacts on adjacent residential parcels (I-14).

17. Require buildings expected to be serviced by delivery trucks to provide off-street facilities for access and parking (I-14).

18. Provide and maintain landscaping on both sides and in the median of arterial streets within incorporated areas. In unincorporated areas, landscaping within
road right-of-way may be allowed and shall be limited to low shrubs; blank irrigation conduit only will be provided within the median of arterial streets (I-15).

19. Provide and maintain landscaping on both sides of collector streets. In unincorporated areas, landscaping within road right-of-way may be allowed and shall be limited to low shrubs (I-16).

20. Prohibit parking on new arterials in incorporated areas. In unincorporated areas, prohibit parking when traffic studies warrant elimination. Allow parking on collectors and on residential streets (I-17).

21. Route traffic around, rather than through, pedestrian-oriented areas (I-18).

22. Design transportation improvements to minimize noise impacts on adjacent uses (I-19).

**FREEWAYS**

23. Provide freeways in a manner similar to that shown on the Circulation Plan Map. Actual alignments to be determined by specific corridor studies (I-20).

24. Identify route alignments and right-of-way needs (I-21).

25. Identify interchange locations and preliminary designs (I-5, I-21).


27. Work with Caltrans to have the freeways constructed (I-23).

28. If no specific line has been adopted, future road reservations or other accommodations may be required to preserve freeway/expressway alignments as shown on the circulation map (I-21, I-22).

29. Upon the adoption of a specific plan line for a freeway/expressway alignment, developers will be required to make reservations of right-of-way preserving the alignment on any subdivision map.

In addition, development restrictions on general plan amendments, zone changes and the issuance of building permits will also be required (I-24).

30. The need for a north/south freeway/expressway and an east-west freeway (178) are conceptually shown on the circulation map. Alternative alignments are under study and upon completion of corridor studies the actual alignment will be adopted and dedications or reservations of right-of-way may be required (I-22, I-24).
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GENERAL

31. Where existing street right-of-way is greater than necessary for desired purposes, dispose of surplus right-of-way in a manner consistent with state and local laws (I-4).

32. Reserve or acquire right-of-way for all future transportation facilities in conformance with the Circulation Plan Map (I-24).

33. Provide new transportation facilities as needed based on existing usage and future demand (I-25, I-26, I-27).

34. Minimize the impacts of land use development on the circulation system. Review all development plans, rezoning applications, and proposed general plan amendments with respect to their impact on the transportation system, and require revisions as necessary (I-26).

35. Require new development and expansion of existing development in incorporated areas to fully provide for on-site transportation facilities including streets, curbs, traffic control devices, etc. Within unincorporated areas street improvements will be determined by County Ordinance (I-27, I-29).

36. Prevent streets and intersections from degrading below Level of Service "C" where possible due to physical constraints (as defined in a Level of Service Standard) or when the existing Level of Service is below "C" prevent where possible further degradation due to new development or expansion of existing development with a three part mitigation program: adjacent right-of-way dedication, access improvements and/or an area-wide impact fee. The area-wide impact fee would be used where the physical changes for mitigation are not possible due to existing development and/or the mitigation measure is part of a larger project, such as freeways, which will be built at a later date (I-28, I-29).

37. Require new development and expansion of existing development to pay for necessary access improvements, such as street extensions, widenings, turn lanes, signals, etc., as identified in the transportation impact report as may be required for a project (I-30, I-31, I-32).

38. Exempt the downtown Bakersfield redevelopment area and small infill projects from the Level of Service Standard to facilitate infill projects and downtown redevelopment and in recognition of the higher traffic levels inherent to a vital central core (I-31).

39. Require new development and expansion of existing development to pay or participate in its pro rata share of the costs of expansions in area-wide transportation facilities and services which it necessitates (I-32, I-33).

40. Provide new local street systems that are logical and comprehensible and systems of street names and addresses that are simple, consistent, and understandable (I-34, I-35).
41. Plan alignments for local streets to permit economical and practical patterns, shapes, and sizes of development parcels (I-34).

IMPLEMENTATION

The following are programs to be carried out by the City of Bakersfield and County of Kern to implement the goals and policies of the Circulation Element affecting streets. This listing is not to limit the scope of implementation of this plan. Federal, state and area wide agencies will also be involved. State law requires that planning agencies recommend various methods of implementation of the general plan as part of their on-going duties.

1. Periodic review and if needed, revision of adopted ordinances establishing a street classification system for the city and county in conformance with the Circulation Element.

2. Revise city and county street standards as necessary to conform with standards set forth under the Circulation Element. Endorse, adopt or incorporate as appropriate standards from special studies, such as the westside corridor study for design of freeways, highways and expressways.

3. Evaluate need for additional right-of-way at certain locations at time of establishment of plan lines and/or street design through an engineering study. Consult with local transit authority to determine need for bus lanes.

4. Evaluate and respond to requests for removal of public streets in conjunction with development proposals.

5. Continue use of current Caltrans manuals as the basic standard for engineering design.

6. Continue use of interconnection and progressive timing when installing new signals. Periodically examine operation of existing signals for possible improvement.

7. Review all site plans for compliance with adopted drive approach design standards.

8. Review site plans, rezonings, and subdivision requests, with respect to access from arterials. Consider conditions of approval to minimize uncontrolled property access.

9. Periodic review and if needed, revision of adopted city and county subdivision ordinances to control access on arterials.

10. Periodic review and if needed, revision of adopted standard for median breaks and apply during the development review process.
11. Monitor traffic volumes and establish specific plan lines and preliminary designs as need becomes apparent. Conform to design standards for median breaks on major arterial streets and work with Separation of Grade District to establish list of grade separation projects.

12. Continue the pavement monitoring system in the planning area for preventive maintenance, resurfacing, and reconstruction.

13. Revise the city's existing truck route ordinance, as needed.

14. Amend the city and county zoning ordinances as needed to regulate truck access on properties adjacent to residential areas.

15. Amend city and county zoning ordinances as needed to require new development to landscape and maintain arterial street frontage. Within incorporated areas, program median landscaping in Capital Improvement Program and maintenance in annual City Community Services Department budget. Adhere to adopted minimum landscaping standards.

16. Amend city and county zoning ordinances as needed to require new development to landscape and maintain street frontages. Establish minimum landscaping standards, which encourage the use of trees and flowers, lighting, street furniture, art signage and flags. Promote use of surface materials that enrich paving options on streets, sidewalks and curbing.

17. Maintain city and county street standards to conform with parking requirements set forth in the Circulation Element. Remove parking from existing arterials, and major collectors when traffic studies indicate removal is warranted to improve safety or increase capacity.

18. Consider pedestrian sensitive areas when planning circulation systems.

19. Assess potential noise impacts in street design, and to the extent feasible, route streets to minimize impacts.

20. Construct designated freeways as warranted by travel demand. Seek alternative funding sources, in addition to traditional funding methods.

21. Participate in city and county route alignment, travel demand studies, and interchange studies in conjunction with Caltrans and Kern COG.

22. Establish specific plan lines for all freeway alignments and keep the rights-of-way clear of structures. Work with Caltrans to have the routes officially adopted.

23. Seek and utilize funding for freeway right-of-way acquisition and construction. Work with developers and land owners for right-of-way acquisition dedication.

24. Delineate and adopt specific plan lines for all streets shown on the Circulation Plan Map as need becomes apparent.
25. Maintain records of existing traffic volume and cumulative projections of traffic from new development to schedule projects for the Capital Improvement Program.

26. Establish guidelines for project design review based on traffic engineering standards (e.g., driveway design, on-site circulation) and the Level of Service Ordinance (see below).

27. Require development to provide all on-site transportation facilities as determined by city ordinance. In unincorporated areas, improvements for all streets will be determined by county ordinance.

28. Periodic review and if needed, revision of adopted ordinances that includes a Level of Service standard for the city and county to include a definition of Level of Service "C", procedures for how it is measured, and mitigation measures to keep from exceeding the standard.

29. Periodic review and, if needed, revision of adopted guidelines for preparation of transportation impact reports, definition of undesirable impacts, and identification of mitigation procedures.

30. Implement adopted requirements for access improvements.

31. Periodic review and, if needed, revision of adopted ordinances that establish a minimum size standard for projects under the Level of Service standard. Also, include the downtown redevelopment project area boundaries for certain exemptions in the ordinance.

32. Implement city and county subdivision ordinances for development to pay for or do street widenings. In cases where fees are paid but widening is not yet necessary, the fees should be held in a separate account dedicated to future widening of the specific street in question. In those cases developer may be allowed to construct facilities in lieu of paying fees.

33. Periodic review and, if needed, revision of adopted Transportation Impact Fee Ordinance for the city and county, which specifies the area wide impact fee schedule and how the fees will be used.

34. Periodic review and, if needed, revision of adopted city and county subdivision ordinances to maintain standards for comprehensible street systems and street names.

35. Periodic review and, if needed, improvement of the planning area's house numbering system.
B. TRANSIT

OVERVIEW OF EXISTING CONDITIONS

Public transportation in Bakersfield includes local buses, intercity buses, AMTRAK, and paratransit service. For the purpose of the general plan, the rail freight system is also included in this category.

The largest system is GET (Golden Empire Transit), which is the local bus operator. GET operates eighteen routes throughout the metro area and carries 23,000 passengers per day. This amounts to one percent of total travel in the area.

Intercity bus operators include Greyhound, Orange Belt Stages, Airport Bus of Bakersfield, and Kern County. Kern County provides service between Bakersfield and rural communities, such as Lamont and the Kern River Valley, while the private carriers serve other major cities.

AMTRAK provides rail service to and from Bakersfield and the Central Valley cities to the north. The AMTRAK station is located at Truxtun Avenue and S Street. Paratransit providers include the taxi system and various social service agencies providing specialized transportation to their clients.

Two major railroads provide freight service to Bakersfield: Burlington Northern-Santa Fe and Southern Pacific. The Burlington Northern-Santa Fe yard is located downtown between Truxtun and California Avenues, and the Southern Pacific yard is located in East Bakersfield between Kentucky and Sumner Streets.

TRANSIT ISSUES

The transit issues relevant to the General Plan are as follows:

- Buses are being run on local residential streets.
- Buses find it difficult to serve the new closed-block design subdivisions.
- New development is lacking in design to accommodate bus stops.
- The city would like to have an intermodal transportation terminal downtown.
- Routing of potential high-speed (San Francisco to Los Angeles) rail system and location of future terminals.

GOALS AND POLICIES

The following presents the goals and policies for transit in the planning area. Implementing programs are contained in the following sub-section. At the end of each
policy is listed in parenthesis a code beginning with the letter "I" followed by a number. This code refers to the pertinent implementing program.

GOALS

1. Provide planning area residents with a choice of travel modes.
2. Provide a street system and land development policies that support public transportation.
3. Provide cost effective public transportation services.
4. Reduce traffic congestion and parking requirements and improve air quality through improved transportation services.
5. Enhance rail service capacities and usage in the planning area.

POLICIES

Goals will be achieved through the following policies which set more specific directions and guide actions.

1. Consider transit service issues in the design of the arterial and collector street system (I-1).
2. Consider for bus turnouts along arterials and collectors where appropriate (I-1).
3. Consider transit service issues in the site plan review process (I-2).
4. Coordinate with GET and Kern Transit to locate bus stops as close as possible to the facilities they serve (I-3).
5. Work with GET and Kern Transit to provide scheduled public transit to serve metro area residents (I-3).
6. Work with the Consolidated Transportation Service Agency (CTSA) to provide social services transportation to metro area residents (I-4).
7. Encourage the development of a multi-modal public transportation terminal (I-5).
8. Encourage businesses and government to use flexible or staggered work hours so that travel demand is spread more evenly throughout the day (I-6).
9. Support efforts to promote ridesharing (I-7).
10. Work with AMTRAK to maintain and improve rail passenger service and facilities in Bakersfield (I-8).

11. Work to provide grade separations at all arterial/railroad crossings (I-10).

12. Support efforts to develop high-speed rail facilities to service the plan area (I-11).

IMPLEMENTATION

The following are programs to be carried out by the City of Bakersfield and County of Kern to implement the goals and policies of the Circulation Element affecting transit. This listing is not to limit the scope of implementation of this plan. State law requires that planning agencies recommend various methods of implementation of the general plan as part of their on-going duties.

1. Continue consultation with GET and Kern Transit in the design of new arterial and collector streets and in the review of subdivision plans and site plan review for large development projects.

2. Require bus stops as conditions of development in compliance with and based upon metro-adopted state-mandated public transit master plans.

3. Participate (city and county) in GET route and schedule planning activities.

4. Participate (city and county) with the Consolidated Transportation Services Agency in schedule planning activities.

5. Adopt the conclusions and provisions of the intermodal terminal study, and encourage prompt development of the terminal.

6. Coordinate (city and county) with Kern COG in publicizing the merits of flexible work hours.

7. Work with Kern COG to establish and maintain park-and-ride lots and to publicize the ridesharing matching service.

8. Participate with Kern COG (city and county) in AMTRAK service and delivery planning.

9. Continue to work with the Railroad Grade Separation District to establish priority locations and to build the necessary facilities.
10. Local agencies should cooperate in studies to pursue the establishment of high-speed rail service for the plan area, including consensus on potential routes and terminal locations.
C. BIKEWAYS

OVERVIEW OF EXISTING CONDITIONS

Bicycling accounts for a small proportion of total miles traveled in Bakersfield (less than 2 percent). Nevertheless, the relatively flat terrain and fair weather are conducive to bicycling for transportation to work, recreation, and school. It is estimated that one-third the population utilizes bicycling in one form or another.

Kern County developed and adopted a bikeways plan in the mid 1970's following the energy crisis. The plan called for bike lanes on various streets and exclusive bike paths on canals, along railroad rights-of-way, and along the Kern River. In 1984, Kern COG sponsored a bikeway study for the metro area that called for more on-street bike lanes and fewer paths along canals and railroad rights-of-way. The bike path along the Kern River was retained as a major component of the plan.

Part of the planned bikeway system has been implemented. The bike path along the river is constructed between Stockdale Highway at the Kern River crossing and Gordon's Ferry, and over 30 miles of bike lanes exist along various streets including Stockdale Highway to Cal State Bakersfield and along part of Coffee Road, Calloway Drive, Ming Avenue, Panorama Drive, Chester Avenue, Old River Road, Wible Road and White Lane. The exiting Bikeway Master Plan is contained under Figure III-4.

BIKEWAY ISSUES

The following issues have been identified:

• Encouragement to use bicycles necessitates the provision of bike lanes and bike paths.

• The existing county bikeways plan is outdated in many locations.

GOALS AND POLICIES

The following presents the goals and policies for bikeways in the planning area. Implementing programs are contained in the following sub-section. At the end of each policy is listed in parenthesis a code beginning with the letter "I" followed by a number. This code refers to the pertinent implementing program.

GOALS

1. Provide a circulation system which recognizes and responds to the needs of bicycle travel.

2. Provide a circulation system that minimizes cyclist/motorist conflicts.
3. Provide a continuous easily-accessible bikeway system within the metro area.

4. Provide mechanisms to ensure the prompt implementation of the bikeway system.

POLICIES

Goals will be achieved through the following policies which set more specific directions and guide actions.

1. Require bicycle facilities to be designed in accordance with the State Bikeway Design Criteria (I-1).

2. Periodically review, and update if needed, street standards to accommodate bicycle lanes where indicated on the Bikeway Master Plan (I-2).

3. Design bridges, overpasses, underpasses, etc. to be compatible with bicycle travel (I-3).

4. Maintain bicycle facilities so they do not become hazardous (I-4).

5. Consider bicycle safety when implementing improvements for automobile traffic operations (I-3).

6. Coordinate the Metro Bakersfield Bikeway Master Plan with the regional bicycle system (I-5).

7. Provide bicycle parking facilities at activity centers such as shopping centers, employment sites, and public buildings (I-6).

8. Provide an information/education program to encourage use of the system and to promote safe riding (I-7).

9. Require new subdivisions to provide bike lanes on collector and arterial streets in accordance with the Bikeway Master Plan (Figure III-4), (I-2).

10. Encourage new subdivisions to provide internal bike paths where feasible and where natural features make bike paths desirable (I-2).

11. Construct bike lanes in conjunction with all street improvement projects that coincide with the Bikeway Master Plan (I-3, I-10).

12. Where feasible, stripe and sign existing streets to include bike lanes as shown on the Bikeway Master Plan (I-8).
13. Give priority to bikeway construction that will link existing sections of the system (I-9).

IMPLEMENTATION

The following are programs to be carried out by the City of Bakersfield and County of Kern to implement the goals and policies of the Circulation Element affecting bikeways. This listing is not to limit the scope of implementation of this plan. State law requires that planning agencies recommend various methods of implementation of the general plan as part of their on-going duties.

1. Update, as needed, the public works design specification sheets to conform with State Bikeway Design Criteria.

2. Revise city and county subdivision ordinances as necessary to incorporate bicycle lane requirements.

3. Review all street design plans, including those of Caltrans and the Greater Bakersfield Separation of Grade District, for compatibility with bicycle travel.

4. Include bicycle lanes and public paths on public property in the street maintenance program. Require publicly used bike paths on private property be maintained by a special maintenance district or other entity.

5. Maintain consistency between the policies of the Regional Bicycle Plan and the Metro Bakersfield Bikeway Master Plan.

6. Revise city and county zoning ordinances to address bicycle parking facilities as needed.

7. Produce and distribute to the public a descriptive pamphlet of the existing bikeway system. Ensure that safe riding techniques are taught in the elementary schools.

8. Continue inclusion of bike lane striping in the city's and county's annual Capital Improvement Program.

9. Prioritize bikeway linkages when including bikeway projects in the Capital Improvement Program.

10. Seek alternative methods of funding for the bikeways system.
D. PARKING

OVERVIEW OF EXISTING CONDITIONS

The city and county both wish to accommodate parking off-street. This is done through the zoning ordinances which specify the number of off-street parking spaces that must be provided by new development. Different types of development must provide different numbers of spaces based on their expected parking demand. The goal of the ordinances is to ensure that all cars can be accommodated in off-street parking areas or facilities.

Downtown Bakersfield is the one area that departs from the pattern of specific parking lots associated with each development. Many buildings in the downtown area rely on off-site parking. The city owns and operates several parking lots and one parking structure serving downtown businesses. Private parking structures and lots also exist in the downtown. Due to the existence of the city lots and the greater incidence of walking trips, downtown parking requirements in the zoning ordinance are reduced by 30% to 50%.

PARKING ISSUES

The following parking issues have been identified:

• Periodic review, and update if needed, of parking requirements to address changing parking needs for different types of land uses to ensure sufficient parking is provided.

• The city and county parking requirements are often not in agreement.

• Address downtown parking needs.

GOALS AND POLICIES

The following presents the goals and policies for parking in the planning area. Implementing programs are contained in the following sub-section. At the end of each policy is listed in parenthesis a code beginning with the letter "I" followed by a number. This code refers to the pertinent implementing program.

GOALS

1. Provide an efficient parking system to respond to the needs of motorists.

2. Satisfy parking requirements in all new developments (residential, commercial, industrial, etc.) through off-street facilities.

3. Preserve and enhance residential neighborhoods through parking policy
CHAPTER III - CIRCULATION ELEMENT - PARKING

POLICIES

Goals will be achieved through the following policies which set more specific directions and guide actions.

1. Periodic review and, if needed, revision of adopted minimum parking requirements based on parking demand (I-1).

2. Periodic review and, if needed, revision of adopted stall and aisle widths that are convenient and efficient (I-2).

3. Ensure that adequate on-site parking supply and parking lot circulation is provided on all site plans in accordance with the adopted parking standards (I-3).

4. Discourage the intrusion of non-neighborhood parking in residential areas (I-4).

5. Remove abandoned vehicles promptly from city streets (I-5).

6. Regulate parking of vehicle, boats, trailers, etc. on city streets (I-6).

7. Identify off-site parking needs in activity centers and outline procedures to finance and provide the facilities (I-7)(I-10).

8. Give top priority to satisfying short-term parking needs, i.e., less than or equal to three hours, and second priority to long-term parking needs (I-8).

9. Locate short-term parking to be convenient to the businesses served (I-8).

10. Locate long-term parking on peripheral lands, accessible to arterial streets (I-8).

11. Discourage parking between the sidewalk and buildings in pedestrian sensitive areas (I-9).

IMPLEMENTATION

The following are programs to be carried out by the City of Bakersfield and County of Kern to implement the goals and policies of the Circulation Element affecting parking.

This listing is not to limit the scope of implementation of this plan. State law requires that planning agencies recommend various methods of implementation of the general plan as part of their on-going duties.
1. Research parking demand rates and establish a schedule of requirements in the city and county zoning ordinances such that too little or too much parking is avoided. Periodically update the requirements.

2. Research vehicle sizes and mix to establish parking layout and dimension standards to be incorporated into city and county zoning ordinances and periodically update.

3. Review all site plans for conformance with adopted parking standards.

4. Monitor citizen complaints regarding parking; conduct studies as needed, and institute control measures if necessary.

5. Tag vehicles parked longer than permitted and contract with towing companies to remove them under the provisions of local ordinances.

6. Develop and adopt a parking ordinance as needed for the planning area specifying where curb parking is allowed and disallowed and defining the vehicles, etc. to which the ordinance applies.

7. Develop area-specific parking plans for general plan designated activity centers.

8. Incorporate general plan policies related to parking into parking standards.

9. Amend the city and county zoning ordinances to address parking in pedestrian sensitive areas as needed, and incorporate into parking plans for such areas.

10. Provide free and accessible parking in the downtown area through strategically placed large parking structures, open 24 hours to provide overlapping uses; island parking; perimeter parking.
CHAPTER III – CIRCULATION ELEMENT – AIRPORTS

E. AIRPORTS

OVERVIEW OF EXISTING CONDITIONS

Two airports lie within the metro area. Meadows Field, the largest and busiest, is a county facility serving passenger and cargo needs. It handles commercial airlines and general aviation. Meadows Field comprises 1,400 acres, with the passenger terminal located on Airport Drive north of Norris Road. Bakersfield Municipal Airpark is a general aviation airport owned by the City of Bakersfield. It is located on Union Avenue north of Planz Road and comprises 93 acres.

Both airports have adopted master plans which call for runway expansion and improvements. In addition, Meadows Field plans to construct a new passenger terminal northwest of its existing location. The two airports will retain their current functions. Bakersfield Airpark will be a general aviation airport, and Meadows Field will be the commercial air carrier airport for Kern County.

AIRPORT ISSUES

The following airport issues have been identified:

- Land use types that are incompatible with airport noise are presently located within the impact zones at Meadows Field and Bakersfield Municipal Airpark.
- Meadows Field needs good regional access via freeways and arterials.

GOALS AND POLICIES

The following presents the goals and policies for airports in the planning area. Implementing programs are contained in the following sub-section. At the end of each policy is listed in parenthesis a code beginning with the letter "I" followed by a number. This code refers to the pertinent implementing program.

GOALS

1. Ensure air passenger and general aviation facilities and services are available to meet citizens' needs.

2. Develop, operate, and maintain Meadows Field and Bakersfield Municipal Airpark to meet aviation needs in the metro area.

POLICIES

Goals will be achieved through the following policies which set more specific directions and guide actions.

1. Maintain master plans for Meadows Field and Bakersfield Airpark (I-1)
2. Ensure compatibility between the general plan, airport master plans and airport land use compatibility plans (I-2).

3. Allow for the establishment of private airports and heliports/helipads (I-43).

4. Encourage and provide for the orderly development of public use airports within the planning area and prevent the creation of new noise and safety impacts (I-2, I-3, I-4).

5. Provide for periodic update (every five years) of the Airport Land Use Compatibility Plan, subject to the availability of funding, to ensure that airport vicinity planned land uses are in conformance with airport land use compatibility criteria (I-2)

IMPLEMENTATION

The following are programs to be carried out by the City of Bakersfield and County of Kern to implement the goals and policies of the Circulation Element affecting airports. This listing is not to limit the scope of implementation of this plan. State law requires that planning agencies recommend various methods of implementation of the general plan as part of their on-going duties.

1. Each airport should prepare and periodically update a plan discussing future expansion, improvements, and operations.

2. Review airport master plans for conformance with the Airport Land Use Compatibility Plan, General Plan, and amend as necessary to make them compatible. Amend Zoning Ordinances as necessary to implement approach/departure zoning.

3. Require Conditional Use Permits as necessary for the establishment of new airports, heliports and helipads.

4. Consider the use of aviation easements for discretionary projects to provide for orderly development and as a means of preventing new noise and safety impacts.