



## Introduction

A county is both defined and constrained by the network of highways, streets, sidewalks, trails, and transit services that move its residents and goods throughout the county. The Transportation and Circulation Element establishes the goals, policies, and implementation programs covering the following topic areas:

- Roads and Highways (Section 6.1),
- Public Transportation (Section 6.2),
- Aviation (Section 6.3),
- Bicycle and Trails (Section 6.4),
- Transmission Lines and Pipelines (Section 6.5),
- Boating (Section 6.6), and
- Implementation Measures (Section 6.7).

## Key Terms

**Level of Service (LOS).** A qualitative measurement of operational characteristics of traffic flow on a roadway or at the intersection of roadways, based on traffic volumes and facility type. Levels range from “A” to “F”, with “A” representing the highest level of service.

**Local Roads.** Local streets and roads serve as land access facilities providing direct access to adjacent development.

**Major Collectors.** Major collectors are intraregional travel providing access to major neighborhood retail and service facilities, community centers, major recreational facilities, employment centers, and other intensive land uses.

**Minor Arterial.** Minor arterials are intended to serve through-traffic with longer trip lengths, but also provide connectivity between communities and the region.

**Minor Collectors.** Minor collectors are community travel and collection of traffic from local roads providing access to higher density residential areas, local commercial facilities, neighborhood parks, and schools.

**Mode.** Refers to a means of transportation: automobile, bus, train, airplane, pedestrian, or bicycle. Different modes of travel may require minimum facilities to meet their unique needs. In addition, there is a significant amount of overlap in facilities required for surface transportation modes.

## 6.1 Roads and Highways

<b>Goal T-1</b>	To provide and plan for a unified, coordinated, and cost-efficient countywide road and highway system that ensures safety, maintains adequate levels of service, and the efficient movement of people and goods.
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**Policy T-1.1**

**Provision of Adequate Road Network**

The County shall establish a road network (see Figure 6-1) to accommodate projected growth in traffic volume resulting from residential development, commercial and tourism expansion, and geothermal activity and other industrial development.

The County’s mobility network shall consist of the following classifications of facilities:

- **Principal or Minor Arterials** – In California, Arterials primarily link cities and towns both within and outside the state.

**Figure 6-1. Circulation Diagram**

Figure 6-1, BACK

- **Rural Minor or Rural Minor Collectors** – Collector roads provide access between Local streets and Arterials. Rural Minor Collectors link smaller urban areas and other places of interest that are not served by the Arterial system. As their name implies, Rural Minor Collectors collect traffic from the Local Streets and distribute it to the Arterial system or to the smaller urban areas that they directly serve. Rural Major Collectors provide circulation between neighborhoods.
- **Local Roads and Streets** – Local roads and streets primarily provide traffic movement within communities and are generally low speed, low volume roads. Traffic movement is of secondary importance on the Local system.

Traffic movement should be provided in increasing levels of efficiency. Arterials should be the most efficient at moving traffic and Local Roads should be the least efficient in order to provide safe property access.

**Policy T-1.2 Compliance with County Road Standards**

Roads should be improved and constructed to the design standards recommended by the County Department of Public Works, as shown in Table 6-1, Lake County Road Design and Construction Standards. Road design standards shall be based on the American Association of State Highway and Transportation Officials (AASHTO) standards, and supplemented by California Department of Transportation (Caltrans) and County standards.

**Table 6-1. Lake County Road Standards**

	Minor Arterial	Major Collector	Minor Collector	Local
Design Speed	60 mph	50 mph	40 mph	30 mph
Number of Lanes	2-4	2-4	2	2
Lane Width	12	12 ft	11ft	11 ft
Right-of-Way Width	60	50 ft (min)	50 ft	50 ft
Maximum Grade	12%	12%	12%	16%

**Policy T-1.3 Interagency Transportation Coordination**

The County shall continue to work with the California Department of Transportation (Caltrans) and other transportation related agencies to maintain a current Regional Transportation Plan, identify funding priorities, and develop an expenditure plan for available transportation funds in accordance with federal, state, and regional transportation planning and programming procedures.

**Policy T-1.4 Conformance with Regional Transportation Plan**

The County should continue to upgrade the road system to reduce traffic accidents, improve circulation, and maintain its physical condition, in conformance with the priorities and recommendations established in the Regional Transportation Plan.

**Policy T-1.5 Roadways in Residential Areas**

The following standards should be applied to the development of roads within residential areas:

- Avoid locating facilities providing through-traffic access in residential areas.
- Access to subdivisions proposing more than four lots should be via a paved road constructed to county standards.
- Access to projects proposing four or fewer parcels at densities less than one dwelling unit per five acres should at a minimum be via a road improved with processed gravel consistent with county standards.
- Roadways shall not be located on naturally occurring asbestos when feasible alternative locations exist, or shall be adequately constructed and surfaced with non-asbestos materials in compliance with local and state requirements.
- Adequate right-of-way to contain road improvements should be offered for dedication.
- Parcels reconfigured through the lot line adjustment process shall contain adequate, safe, all-weather access. In cases where existing road access is not in conformance with current County standards prior to the adjustment, the level of conformity with those standards shall not be further reduced once the lot line adjustment is recorded. Lot line adjustments determined to increase development potential, including potential for future subdivision may be conditioned to require public right-of-way dedication if inadequate access exists or would force future access to a different street.

**Policy T-1.6 Coordinate Transportation Planning with Local Agencies**

The County shall coordinate with incorporated cities in the County as they update their general plans to promote support for the goals of the Lake County Regional Transportation Plan.

**Policy T-1.7 Impact of New Development on Roadways**

Facilities constructed or utilized for new development shall comply with County standards in order to minimize initial and subsequent maintenance costs.



See also the policies in the Geothermal Resources Element, Section 10.

- Policy T-1.8**      **Level of Service**  
 County maintained roadways should be improved and maintained to provide an adequate peak period Level of Service (LOS) of “C” or better for existing and anticipated traffic volumes if roadway upgrades are feasible, such as roadway widening, addition of lanes via re-striping, and other safety and operational improvements. The County shall allow a limited number of County roadway segments to operate at a level of service of “E” or better where improving the segment to LOS C are deemed infeasible due to cost, negative community and/or environmental impacts, and constructability issues. This “E” level of service for certain roadways shall not include any State Highway unless approved by Caltrans.
- Policy T-1.9**      **Truck Routes**  
 To reduce heavy truck traffic in residential areas and near noise sensitive land uses, the County shall ensure truck routes are designated in a manner such that traffic noise impacts are minimized.
- Policy T-1.10**    **Construction Methods**  
 The County shall utilize road construction methods that seek to reduce air, water, and noise pollution associated with road and highway development.
- Policy T-1.11**    **Protection of Scenic Corridors**  
 Develop and maintain roads and highways in a manner that protects natural and scenic resources.
- Policy T-1.12**    **Funding For Road Improvements**  
 The County shall consider developing and implementing a traffic mitigation fee that would apply to new subdivisions, for maintenance of existing County roads.

**6.2 Public Transportation**

<b>Goal T-2</b>	To support the development of a safe and efficient public transportation system in order to reduce congestion, provide a convenient alternative to the private automobile and to meet the needs of residents and visitors.
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- Policy T-2.1**      **Transportation Programs**  
 The County shall support the continuation and coordination of transportation programs provided by social service agencies, particularly those serving elderly and handicapped.
- Policy T-2.2**      **Determine Transit Needs**  
 The County should cooperate with the Lake County/City Area Planning Council, Lake Transit Authority and other related agencies in studying transit needs and developing an implementation program for public transportation services in the County.

**Policy T-2.3**     ***Support Transit within the Regional Transportation Plan***  
 The County should support the list of priorities for development of transit services outlined in the Regional Transportation Plan and Transit Development Plan. Efforts should be directed first towards:

- encouraging new and improving existing transportation services for the elderly and disabled;
- serving the high density areas of Lakeport and Clearlake;
- providing intercommunity services around Clear Lake; and
- supporting efforts to expand intercity transit carriers, particularly to Ukiah and the Central Valley.

**Policy T-2.4**     ***Land Use Pattern that Supports Public Transit***  
 The County should encourage potential transit destinations, including employment centers, schools, personal services, administrative and professional offices, and social/recreational centers, to be clustered within a convenient walking distance of one another and to a transit stop.

### 6.3 Aviation

<b>Goal T-3</b>	To enhance airports in the County to meet the County’s changing needs and demands while minimizing adverse airport-related environmental impacts and safety hazards.
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**Policy T-3.1**     ***Establish Air Carrier Services in the County***  
 The County should continue to actively encourage establishment of scheduled air carrier services to Lake County.

**Policy T-3.2**     ***Land Use Compatibility***  
 The County shall promote compatible land use planning in areas surrounding airports. Land uses involving the concentration of people and/or hazardous materials should not be developed in the approach pattern. Federal and state regulations governing operations and land use restrictions related to airports shall be supported by the County.

**Policy T-3.3**     ***Air Transportation Improvements***  
 The County should continue the current policy of improving and modernizing County air transportation activities and services.

**Policy T-3.4**     ***Clear Zone Restrictions***  
 Lake County shall designate those areas identified as clear zones in the Airport Master Plan with an overlay zone restricting height and density or occupancy loads of uses within that area.

**Policy T-3.5**     ***New Airport Location***  
 Lake County shall evaluate locations for a new airport for aviation opportunities in the southern portion of the County including, but not limited to, the Butts Canyon area.

**Policy T-3.6**     ***Lampson Field Commercial Development***  
 The area along the north side of Lampson Field has been designated Industrial on the Land Use Map may be considered for airport-related or airport dependant industrial/manufacturing development provided the following criteria are met:

- Proposals include a rezone from “A” to “PDC”, along with general and Specific Plans of development.
- Development of sites includes construction of a north taxiway, which is offered for dedication to the County.
- Proposed structures and land uses are compatible with the Airport Land Use Compatibility Plan.

## 6.4 Bicycles and Trails

<b>Goal T-4</b>	To encourage the development of a safe, continuous, and easily accessible trails system that facilitates the use of viable transportation alternatives in a safe and financially feasible manner.
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**Policy T-4.1**     ***Consider Non-Motorized Transportation Modes in Planning and Development***  
 The County should consider incorporating facilities for non-motorized users, such as bike routes and pedestrian improvements, when constructing or improving transportation facilities and when reviewing new development proposals. For subdivisions with a density of one or more dwelling units per acre, these facilities will be required.

**Policy T-4.2**     ***Provisions for Bicycle Use***  
 Where feasible, the County shall require local government agencies and businesses to include bicycle access and provisions for safe bicycle parking facilities at office buildings, schools, shopping centers, and parks.

**Policy T-4.3**     ***Design Standards for Bicycle Routes***  
 Design standards for the development, maintenance and improvement of bicycle routes should follow the standards adopted by Caltrans, and shall avoid naturally occurring asbestos or be adequately surfaced and maintained with non-asbestos material.

**Policy T-4.4**     ***Hiking and Equestrian Trails***  
 The County should establish multi-use trails (such as hiking, equestrian, and mountain biking) in open space areas, along power line transmission corridors and easements, and utility easements in coordination with the County trails Plan.

**Policy T-4.5**     ***Minimize Conflict***  
 The County shall construct and maintain bicycle routes and trails in a manner that minimizes conflicts between bicyclists, pedestrians, and equestrian users with automobiles and private property rights.

## 6.5 Transmission Lines and Pipelines

<b>Goal T-5</b>	To ensure that the location, distribution, and size of transmission lines and pipelines are consistent with the land use development pattern and are sited to reduce environmental impacts.
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**Policy T-5.1**     ***Coordination of Service Providers with County***  
 Service providers of water, sewage treatment, and power should coordinate their programs with the County's existing and proposed development patterns, for the provision of more efficient services.

**Policy T-5.2**     ***Extension of Services Across Agricultural Lands***  
 The County should avoid extending local serving services, such as sewer, water, and transmission lines across lands designated for agricultural use. In cases where such extensions must cross agricultural lands, they should be located in the public right-of-way or along lot lines whenever possible. These service lines must be consistent with the development intensity reflected on the Land Use Plan.

**Policy T-5.3**     ***Avoid Obstruction of Scenic Views***  
 The siting of transmission lines should avoid interfering with scenic views to the greatest extent possible, taking into account the design and size of the transmission towers, the nature of the landscape, and the placement of the transmission towers on the landscape. Transmission lines should follow property lines and avoid ridgetops.

**Policy T-5.4**     ***Avoid Disturbance of Natural Habitat***  
 Power transmission lines should be located to avoid disturbing special status vegetation and wildlife habitats. In particular, special attention should be paid to the location of migratory corridors.

**Policy T-5.5**     ***Usage of Existing Right-of-Way Corridors***  
 The County shall encourage the joint use of existing right-of-way corridors and utility easements, especially for transmission lines from the generating plants in the Geysers-Calistoga Known Geothermal Resource Area.

## 6.6 Boating

<b>Goal T-6</b>	To ensure the safe and convenient enjoyment of the water bodies within Lake County.
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- Policy T-6.1***      ***Boat Launch Facilities***  
The County will continue to maintain and expand County launch facilities to ensure adequate and convenient access to Clear Lake.
- Policy T-6.2***      ***Short-Term Tiedowns***  
Where the County maintains dock facilities, the County should consider establishing temporary tie downs for boats used in commuting across Clear Lake.
- Policy T-6.3***      ***Clear Waterways***  
The County will work with state and federal agencies to obtain funding to maintain a safe boating environment on the County’s waterways.

## 6.7 Implementation Measures

Table 6-2, Transportation and Circulation Implementation Measures, identifies the implementation measures the County should take to implement the goals and policies of this element. The table lists each specific implementation measure, a reference to which General Plan policy it is implementing, who is responsible to implement the program, and the timeframe for implementation.

**Table 6-2. Transportation and Circulation Implementation Measures**

	Implementation Measure	Policy	Who is Responsible	Timeframe				
				2008-2012	2013-2017	2018-2022	2022-2028	On-going
1.0	Work with the California Department of Transportation (Caltrans) to develop maintenance and rehabilitation strategies for County roads.	T-1.1 T-1.3	Public Works Department, Planning Commission, Board of Supervisors					■
2.0	Review development projects to ensure transportation and circulation elements are consistent with established land use policies and ordinances.	T-1.1 T-1.2 T-1.4 T-1.5 T-1.7 T-1.11 T-2.4 T-3.2 T-4.1 T-4.2 T-4.3 T-5.2 T-5.3 T-5.4 T-5.5	Public Works Department, Planning Commission, Community Development Department, Board of Supervisors					■
3.0	Review and revise as necessary the County Road Standards and the Capital Improvements Plan to ensure consistency with the goals, policies, and programs of the General Plan. Consider development of an ordinance that requires new development to contribute to the cost of maintenance of existing road network.	T-1.1 T-1.2 T-1.5 T-1.7 T-1.8 T-1.9 T-2.4 T-3.2 T-4.1 T-4.2 T-4.3 T-4.4 T-5.2 T-5.3 T-5.4 T-5.5	Public Works Department, Community Development Department, Planning Commission, Board of Supervisors	■				
4.0	Maintain working relationship with various transportation related agencies to insure coordination of road improvements, data exchange on projected traffic impacts, and participate in regional transportation planning.	T-1.3 T-1.6 T-2.1 T-5.1	Incorporated Cities, Public Works Department, Board of Supervisors Planning Commission					■
5.0	Maximize federal and state funding for roadway construction, transit services, alternative modes, and capital improvements at County airports. As growth occurs, investigate the use of alternatives for funding roadway improvements, maintenance, and the development of alternative modes.	T-1.3 T-1.4	Public Works Department Board of Supervisors					■

	Implementation Measure	Policy	Who is Responsible	Timeframe				
				2008-2012	2013-2017	2018-2022	2022-2028	On-going
6.0	Develop and implement a public outreach process in order increase community participation in the transportation planning process.	T-1.4 T-1.6	Public Works Department, Community Development Department, Planning Commission, Board of Supervisors	■				
7.0	Incorporate provisions into the zoning, subdivision, and other related policy documents requiring the location of transportation facilities in a manner protective of the County’s natural and scenic resources. These measures should include: <ul style="list-style-type: none"> <li>▪ Use of existing roads for development</li> <li>▪ Locate roads so topography and vegetation provide effective screening</li> <li>▪ Minimize cut and fill activities for road construction</li> <li>▪ Minimize stream/water body crossings.</li> </ul>	T-1.11	Community Development Department, Planning Commission, Public Works Department, Board of Supervisors	■				
8.0	Work with appropriate agencies to support the designation of scenic highways and byways in the County.	T-1.11	Community Development Department, Planning Commission, Board of Supervisors, Public Works Department					■
9.0	Evaluate locations for a new airport in southern Lake County as part of any Airport Land Use Compatibility Plan update.	T-3.5	Community Development Department, Public Works Department					■
10.0	Incorporate facilities for non-motorized users (e.g., bicycles, pedestrians) into the County’s overall circulation plan and new development projects.	T-4.1 T-4.2 T-4.3 T-4.4	Public Works Department, Planning Commission, Board of Supervisors, Community Development Department					■
11.0	The County will prepare a bicycle master plan in conformance with the requirements of Caltrans, and in coordination with the Lake County/City Area Council.	T-4.1 T-4.2 T-4.3	Public Works Department	■				

Implementation Measure		Policy	Who is Responsible	Timeframe				
				2008-2012	2013-2017	2018-2022	2022-2028	On-going
12.0	Conduct a transmission corridor study to determine overall plan for location of transmission lines.	T-5.1 T-5.2 T-5.3 T-5.4 T-5.5	Public Works Department, Community Development Department, Planning Commission, Board of Supervisors, Service Providers					■
13.0	Coordinate with utility and pipeline companies and districts to ensure contingency plans for potentially hazardous situations are development and maintained.	T-5.1	Public Works Department, Community Development Department, Special Districts					■