7. COMPLETE STREETS & CONNECTED COMMUNITIES

Complete Streets are streets that are safe, comfortable, and convenient for everyone who uses them – people walking, bicycling, driving, or taking public transportation, whether they are children, teens, older adults, and people of all abilities, genders, races, and income levels.

– Safe Routes Partnership

The Complete Streets Act of 2008 requires California cities and counties to plan for, in adopting the circulation element of the general plan,

> a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways, defined to include motorists, pedestrians, bicyclists, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation, in a manner that is suitable to the rural, suburban, or urban context of the general plan. (AB 1358)

The Act sets complete streets policies because

> Providing complete streets increases travel options which, in-turn, reduces congestion, increases system efficiency, and enables environmentally sustainable alternatives to single driver automotive trips. Implementing complete streets and other multi-modal concepts supports the California Complete Streets Act of 2008 (AB 1358), as well as the California Global Warming Solutions Act of 2006 (AB 32) and Senate Bill 375, which outline the State's goals of reducing greenhouse gas emissions.[1]

The Act calls on RTPAs to integrate Complete Streets policies into their RTPs and identify the financial resources necessary to accommodate such policies. The Complete Streets Act tells RTPAs to consider accelerating programming for projects that retrofit existing roads to provide safe and convenient travel by all users.

Caltrans adopted a "Complete Streets" directive, which states that:

[1] "Complete Streets Implementation Action Plan 2.0," California Department of Transportation, 2014.

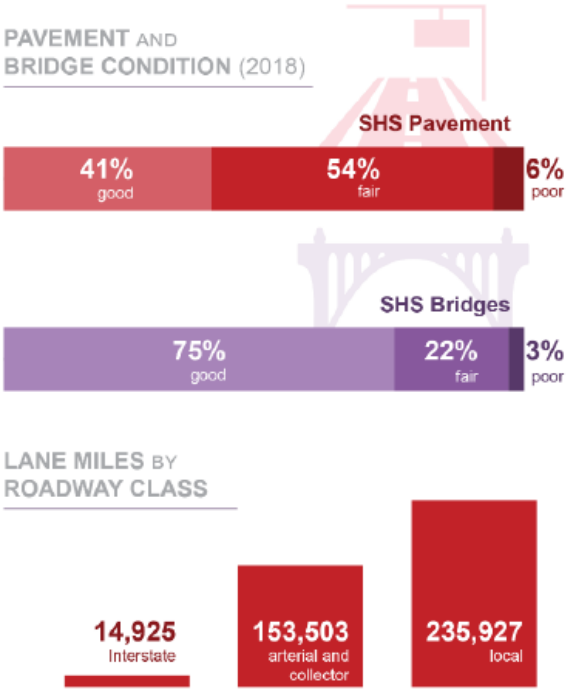
> …Addressing safety and mobility needs of bicyclists, pedestrians, and transit users in all projects, regardless of funding, is implicit in these objectives. Bicycle, pedestrian, and transit travel is facilitated by creating "complete streets" beginning early in system planning and continuing through project delivery and maintenance and operations. (Caltrans Deputy Directive 64-R2, 2014)

HCAOG explicitly and consistently upholds Complete Streets policies in *VROOM*, foremost in the Complete Streets Element, and also in the Commuter Trails, Public Transportation, Global Climate Crisis, and Land Use–Transportation Elements. HCAOG has consistent policies also in the *Humboldt Regional Bicycle Plan* (2017), the *Humboldt County Regional Pedestrian Plan* (2008), and the *Regional Trails Master Plan*. These plans are incorporated into *VROOM* by reference.

The VROOM 2021 update incorporates Safe & Sustainable Transportation Targets, which include greenhouse gas emission-reduction objectives and corresponding regional targets. The policies and projects in the "Complete Streets & Connected Communities Element" have a major role to play for the region to make progress towards performance targets. As we highlighted in the "Renewing Our Communities," chapter, when we enhance our communities with complete streets, we benefit not only from less greenhouse gas emissions; we also benefit from streets that are safer for more people, and from communities that have more options for reaching important destinations.

Counties and cities maintain 81% of the maintained miles within the State of California and carry 45% of the total annual miles of vehicle travel.
– RTP Guidelines

EXISTING ROADWAY SYSTEM



Source: California Transportation Plan 2050, Caltrans 2020

Figure *Steets*-1 **CA State Highway & Local Roads 2018**

The broad use of the term "roadway" includes highways, streets, paved and unpaved roads, and bridges. The most basic function of roadways is to allow people to travel and transport goods. *How* the roadways accommodate travel affects what modes people will use to travel along them. The goal of "complete streets" design is to include all the characteristics feasible to provide safe, convenient travel for the most types of modes.

ROADWAYS: THE BUILDING BLOCKS OF CITIES

Nearly one-third of roadways in the U.S. are one mile or shorter (2009 National Household Travel Survey, California Add-On). Local roads are used most for short trips, and these trips are most conducive for alternative transportation modes (biking, walking, transit) where motorists, transit, bicyclists, and pedestrians most commonly share space. Thus, it is

where "complete streets" are the most opportune and have the highest potential/realized multi-modal use.

In Humboldt County, we have approximately 1,400 miles of county roads and city streets, 165 county bridges, and 378 miles of state highways and roadways on federal lands. Proportionately, HCAOG's members (the County and seven cities) have to maintain 79% of the road miles in Humboldt. The local system is mostly public right-of-way. Roads on private property must be maintained by the property owner, unless a public agency agrees to maintain them. State highways in Humboldt County are under the jurisdiction of the California Department of Transportation (Caltrans) District 1. Federal and/or State agencies have jurisdiction over roads within public resource lands such as parks and forests. The agencies responsible for maintaining those non-local roadways include, but are not limited to, Caltrans District 1, U.S. Forest Service, National and State Park Service, Bureau of Land Management, and Bureau of Indian Affairs. Roads owned by Native American tribal governments are maintained by them; some roads on tribal land are in the local city, County, or Caltrans District 1 jurisdiction and are maintained by the respective entity.

Different Classes of Streets/Roads

In older towns and neighborhoods in the United States (i.e., pre-automotive 19th century), streets were laid out in grid patterns, with short blocks and frequent intersections. Shops and services were interwoven with residential, sometimes industrial, and other uses. The layout was, in turns, the cause or the effect of denser development, which accommodated people to walk and bicycle to most of their errands and activities. This urban layout is commonly called European city design and traditional downtowns. In Humboldt, two examples of traditional downtowns are Old Town Eureka and the Arcata Plaza.

> In order to reduce VMT, people need viable alternatives that are safe, convenient and affordable. Investments in mobility options other than single-occupancy vehicle use should be prioritized.
>
> *– Transportation For America, 2019*

Another older design, generally built in smaller and more rural communities, is "Main Street," which is the commercial spine that serves as "downtown." Examples of "Main Street" downtowns in Humboldt include Main Street in Ferndale, Main Street in Fortuna, and Redwood Street in Garberville. Main Streets often also are the major transportation corridor through town. In younger rural towns, it is not uncommon for "Main Street" to be a highway, such as in Rio Dell and Orick (State Route 101), and Willow Creek (State Route 299).

As the population grew in the 20th century and private automobile ownership exploded on the scene, cities began to expand out. Since households became more mobile with their personal car, newer neighborhoods were built less dense and farther out. City grids gave way to suburban sprawl. By mid-century, city planners and traffic engineers were designing roadway networks to primarily accommodate longer, faster trips by car. The Federal Highway Administration (FHWA) invented the Functional Classification Systems, which defines a "hierarchy" of road classes, and is used to this day down to the local level. The three main road classes are local, collector, and arterial:

- Arterials are major through-roads that are expected to carry large volumes of traffic, with the primary objective of allowing the greatest speed for the longest uninterrupted distance. To increase flow, the number of intersecting streets is reduced. The "Main Street as Highway" roadway described above is usually a principal (or major) arterial. Examples of rural principal arterials are Old Arcata Road/Bayside Road, and Fieldbrook Road.
- Collectors are expected to carry lower volumes of traffic than arterial streets and presumably are used for trips of shorter distances. Speeds are lower than arterials.

- Local roads carry relatively low volumes of traffic and have the lowest speed limit of the three classifications. They are expected to be accessed for the start and destination of a trip; they are not intended for through movement. In the FHWA classification, local streets and roads are at the bottom of the hierarchy.

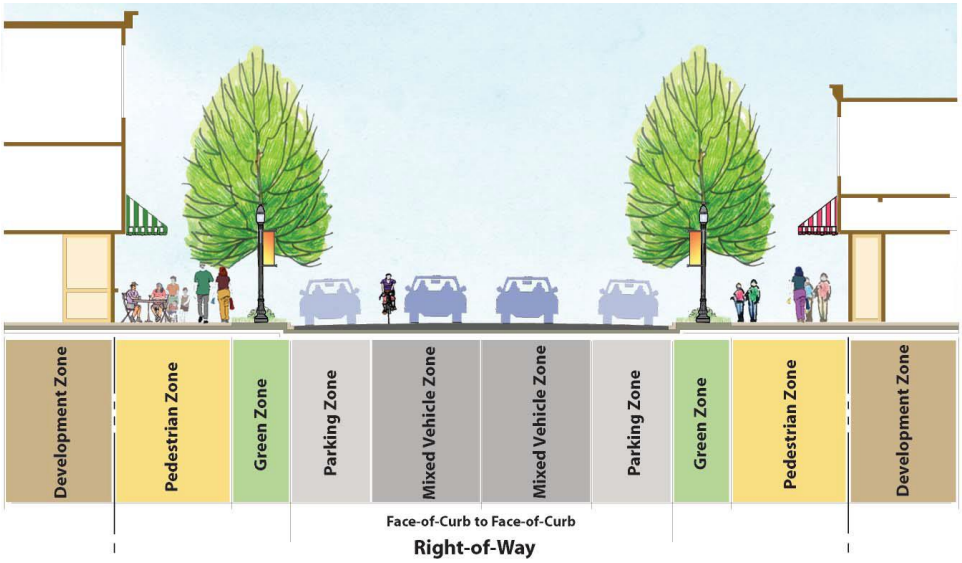
This road network concept presumes that a local road links to a collector road, which will link to an arterial road, and an arterial road will directly access a highway. The two major highways in Humboldt County are U.S. Highway 101 (north-south) and State Route 299 (east-west). They carry the highest volumes of passenger cars and commercial trucks. Overall, they provide adequate facilities and levels of service. Due to Humboldt's geography, geomorphology, and wet weather patterns, landslides occur seasonally along certain segments of roads and highways.

State highways in Humboldt County are as follows (mileage for portion within county):

SR 36	46 miles	Alton (U.S.101) to Bridgeville/Blocksburg
SR 96	45 miles	Willow Creek to Siskiyou County line (Highway 5)
U.S. 101	137 miles	Del Norte to Mendocino County lines
SR 169	20 miles	Wautec to Weitchpec at the junction of SR 96
SR 200	3 miles	McKinleyville (U.S. 101) to SR 299 (near Blue Lake)
SR 211	5 miles	Ferndale (Ocean Ave.) to Fernbridge (U.S. 101)
SR 254	32 miles	(Avenue of the Giants) Phillipsville (U.S. 101) to Stafford (U.S. 101)
SR 255	9 miles	Eureka (Myrtle Ave.) to Arcata (Samoa Blvd.)
SR 271	< 1 mile	Cooks Valley
SR 283	< 1 mile	Scotia (U.S. 101) to Rio Dell
SR 299	51 miles	Arcata (U.S. 101) to Trinity County line

What Makes a Complete Street?

How do you make a "complete street"? How does a roadway accommodate all users of all ages and abilities? When planning and building the roadway system, we need to consider the needs of people who will be traveling or transporting goods via truck, automobile and motorcycle, emergency vehicle, bus, bicycle, and by



Source: "Urban Street Design Guidelines," City of Charlotte, 2007

Figure *Streets*-2 **A Conceptual Road Design for a "Main Street"**

foot or wheelchair. The physical and the functional will define what "complete" can mean for a roadway. The physical space available will limit how much can safely fit in the roadway. Different types of roadways will actually be "complete" at different levels. Depending on space (within the right-of-way), topography, and intended uses, a roadway will include some or all of the following characteristics: travel lane(s) for motorized vehicles, median, shoulder, bikeways, sidewalk, landscaping, on-street parking spaces (for automobiles, motorcycles, bicycles, and/or scooters), parklettes, and gutters, bioswales, or ditches.

> The local system will become ever more important in supporting the goals of climate change and building sustainable communities, as local streets and roads serve as the right-of-way for transit, bicycle and pedestrian travel.
> *– RTP Guidelines*

Sidewalks and Crosswalks

(VROOM 2022-2042 includes, by reference, the Humboldt County Regional Pedestrian Plan, 2008).

Sidewalks and crosswalks are the basic transportation facilities for pedestrians, which include people in wheelchairs and strollers. Besides sidewalks, a few examples of walkways designed primarily for pedestrian travel (not solely recreation) are the Boardwalk and PALCO Marsh path in Eureka; the Hammond Trail in McKinleyville; and Shay Park path (along Foster Avenue and railroad tracks) in Arcata. In the last five to ten years, several sidewalk gaps have been filled thanks to Safe Routes to School projects, Active Transportation Program grants, and other funding.

Where the dedicated walkway is substandard or non-existent, it creates conditions that impede pedestrian travel. Barriers for pedestrians include roads without a dedicated walkway (where pedestrians must walk in the roadway shoulder or in the travel lane); gaps in the sidewalk; uncontrolled intersections (i.e., no signal or stop sign to mediate motorized and non-motorized travelers); and substandard slopes on driveways or curb cuts. Sidewalks and crosswalks must meet ADA (Americans with Disabilities Act) standards for wheelchair users, and mobility-impaired pedestrians.

Bikeways & Bike Parking

Bike facilities include public infrastructure and private amenities that support bicycle travel. The most standard bicycle facility is a bikeway on the public right-of-way, sometimes on the sidewalk.

Humboldt's bikeways are classified according to Caltrans' definitions for Class I, II, III, and IV bikeways (see Table Streets-1). Class I is the most exclusive for bicyclists (or non-motorized modes), and Class III is the least exclusive (bicyclists share the travel lane with motorized vehicles). In 1997, the State increased the minimum width for bike lanes from four feet to five feet; consequently, many bike lanes constructed in Humboldt County before 1997 do not meet current State width standards.

Figure *Streets*-3 **Converting a right-of-way to be more effectively multi-modal**

In Humboldt County, most bikeways, of any class, are located in urbanized areas (excluding solely

In order to reduce VMT, people need viable alternatives that are safe, convenient and affordable. Investments in mobility options other than single-occupancy vehicle use should be prioritized.

– Transportation For America, 2019

recreational trails). For example, there are several bike lanes and bike routes in Eureka, Arcata, and Fortuna, and in some urbanized unincorporated areas of the County. In District 1, bicyclists are allowed on all State highways, including freeways (*District System Management Plan,* 2012). However, most highways are not built to safely carry bicycle and motorized traffic in the same right-of-way.

The popular Hammond Coastal Trail is a multi-modal trail and the county's longest bike path so far. (When completed and connected, the Humboldt Bay Trail could be longer.). The Hikshari' Trail is a 1.5-mile multi-use trial in the City of Eureka's Elk River Access Area. The Hikshari' Trail is a segment of the contiguous Eureka Waterfront Trail. Humboldt's most prominent bicycle touring route is the Pacific Coast Bike Route, which traverses the county north to south and is part of the California Coastal Trail. Figures 7.1 Class 1 Bikeways and Figure 7.2 Class III Bikeways (see Maps Tab), show existing and proposed Class III bicycle routes, bicycle shops, and bicycle parking in the County. (Trails are discussed further in the "Commuter Trails Element.")

Table *Streets-1.* **Bikeway Classifications and Local Examples**

Bikeway Class[1]	**Design Requirements***	**Existing in Humboldt**
Class I "Bike Path" (or multi-use path or shared path)	A separated, surfaced right-of-way designated exclusively for non-motorized use (can be solely for bicyclists, or can be shared with pedestrians and/or equestrians). The minimum width for each direction is 8 feet (2.4 meters), with a 5-foot (1.5 meter) minimum width for a bi-directional path.	Hammond Coastal Trail in McKinleyville (from Clam Beach to the Mad River). Eureka: Hikshari' Trail along the Elk River (Herrick/101 park-n-ride to Truesdale Avenue), Waterfront Trail (Truesdale Ave. to C St.), Waterfront Boardwalk. Arcata: 18th St. bridge-101 overpass; 7th St.-D St. connector; City Trail (along Foster Ave; Alliance Road to Samoa/SR 255) and Bay Trail North (Arcata Marsh to Bracut on 101).
Class II "Bike Lane"	Within the roadway, a lane for preferential bicycle use, at least 4 feet wide or 5 feet when next to a gutter or parking. Established by a white stripe (on roadway) and "Bike Lane" signs. Adjacent vehicle parking and motorist crossflow is allowed. On a two-way road, a bike lane is required on both sides.	Exist in Cities of Arcata, Eureka, and Fortuna, and in unincorporated McKinleyville and Orleans (Red Cap Road).
Class III "Bike Route"	A roadway that does not have a Class I or II bikeway, where bicyclists share a travel lane with motorists. Sometimes created to connect other bikeways. Can be established by a "Bike Route" sign, but not required.	Designated Bike Routes exist in Cities of Arcata, Eureka, and Fortuna, and unincorporated areas of Old Arcata Road, McKinleyville, and Myrtletown. Pacific Coast Bike Route begins on Hwy 101 at the California/ Oregon State line. In Humboldt County, it travels through Prairie Creek Redwoods State Park, Eureka City streets, and Highway 101.
Class IV "Separated Bikeway"	A bikeway to be used exclusively by bicyclists, separated from the motorized-travel lane with a physical barrier. The barrier may include flexible or inflexible posts, or parked cars.	Proposed from Herrick Avenue to Truesdale Street in south Eureka.
Unclassified bikeway	Streets, roadways, and highways without features to qualify as Class I, II, or III.	All streets, roadways, and highways in Humboldt County are open to bicycle use.

[1]Bikeway classification definitions and design requirements from Caltrans' *Highway Design Manual.*

REGIONALLY SIGNIFICANT ROADWAYS

HCAOG has not independently defined criteria for determining which roadways are "regionally significant." HCAOG generally follows the federal definition which describes a regionally significant facility as one that serves regional transportation needs. "At a minimum, this includes all principal arterial highways and all fixed guideway transit facilities that offer a significant alternative to regional highway travel" (23 CFR 450.140). Regional transportation needs include access to and from:

- the area outside the region;
- major activity centers in the region;
- major planned developments (commercial, recreation, and employment); and
- transportation terminals.

Table *Streets-2* lists regionally significant roadways identified by City and County staff.

Table *Streets-2*. **Regionally Significant Roadways**

Jurisdiction	Paved Road Miles[1]	Regionally Significant Roadways
Arcata	68.5	11th Street, Bayside Road/Old Arcata Road, Foster Avenue/Sunset Avenue, Giuntoli Lane, Janes Road/Spear Avenue, K Street/Alliance Road, L K Wood Boulevard, West End Road, U.S. 101, State Route 255, State Route 299
Blue Lake	8.4	Greenwood Avenue, Hatchery Road, Railroad Avenue, State Route 299
Eureka	114.2	6th, 7th, and 14th Streets, Buhne Street, Campton Road, Fairway Drive, H Street, Harris Street, Harrison Avenue, Henderson Street (I to Broadway), I Street (Harris to Waterfront Drive), Myrtle Avenue, S Street, V Street, Wabash, West Avenue, Waterfront Drive, U.S. 101, State Route 255
Ferndale	7.4	Arlington Avenue, Bluff Street, Centerville Road, Fifth Avenue, Main Street, Ocean Avenue, Van Ness Avenue
Fortuna	45.2	Main Street, Rohnerville Road, U.S. 101
Rio Dell	14.2	Belleview Avenue, Blue Slide Road, Monument Road, Wildwood Avenue, U.S. 101
Trinidad	3.3	Edwards Street, Main Street, Patrick's Point Drive, Scenic Drive, Stagecoach Road, Trinity Street, Westhaven Drive, U.S. 101
Humboldt County	932.0	Alderpoint Road, Bald Hills Road, Bair Road, Blue Lake Boulevard/Glendale Drive, Blue Slide/Grizzly Bluff Road, Briceland-Thorne Road, Campton Road, Central Avenue (McKinleyville), Elk River Road, Fieldbrook Road, Freshwater/Kneeland Road, Humboldt Hill Road, Maple Creek Road, Mattole Road, Old Arcata Road/Myrtle Avenue, Redwood Drive (Garberville), Rohnerville Road, Shelter Cove Road, Sprowel Creek Road, Wilder Ridge Road, New Navy Base Road, Walnut Drive, Herrick Road, Murray Road, U.S. 101, State Routes 36, 96, 169, 255, and 299
Hoopa Valley Reservation	15.3	State Route 96
Karuk Tribe	1.0	

GOAL, OBJECTIVES, & POLICIES

HCAOG shall carry out transportation planning for the regional roadway system with this goal:

GOAL: Throughout Humboldt County, the streets, roads, and highway system meet the transportation and safety needs of all users, including pedestrians, transit users, bicyclists, motorists, the elderly, youth, and the disabled. The region's jurisdictions have the resources to preserve, enhance, and maintain the roadway network to support complete streets and connected communities

OBJECTIVES: The policies listed in the Complete Streets & Connected Communities Element will help meet the RTP's main objectives (listed in alphabetical order). (Chapter 1, Introduction, fully describes the six main objectives). The policies below are grouped according to the RTP's main objectives

The tree symbol indicates objectives that are Safe & Sustainable Transportation objectives (see Chapter 3 for all SST objectives and targets.)

MAIN OBJECTIVES	COMPLETE STREETS & CONNECTED COMMUNITIES SUB-OBJECTIVES & POLICIES
Active Transportation Mode Share/ Complete Streets	◆ Maximize multi-modal access to the roadway system and eliminate barriers to non-motorized transportation. ◆ Expand and maintain a regional network of inter-connected pedestrian and bicycle facilities. Create safe and effective walking and bicycling facilities that create neighborhood connectivity and continuity. ◆ Support and implement projects and policies that increase biking and walking, especially for short trips, first/last mile transit trips, and school trips. ◆ Increase percentage of all trips, combined, made by walking, biking, micro-mobility/matched rides, and transit. ◆ Reduce VMT per capita ◆ Increase regional discretionary funding set aside for permanent infrastructure, pop-ups, pilots, or other projects for active transportation. ◆ Secure new funding sources at the regional level and/or the city/county level to benefit active transportation and transit.
	POLICY STREETS-1 Multi-modal safety & functionality: HCAOG shall encourage and facilitate local jurisdictions, local Native American Tribes, Caltrans, and non-profits to individually and collaboratively plan, design, install, and maintain roads in Humboldt County to build a transportation system that emphasizes safety over speed, and emphasizes multi-modal functionality over convenience for single-occupancy automobiles. **POLICY STREETS-2 Humboldt Bay Trail:** HCAOG recognizes the Humboldt Bay Trail, and planned connections and envisioned extensions, as a regional priority multi-use trail, and supports multi-jurisdictional, public, and private efforts to develop and maintain it. **POLICY STREETS-3** HCAOG shall include Complete Streets improvements in regionally-funded transportation system projects to the extent feasible, as consistent with California Complete Streets Act of 2008 (AB 1358) and Caltrans Deputy Directive 64-R1.
Economic Vitality	◆ Increase data collection necessary to assess how well the transportation system connects people to economic opportunity.

	POLICY STREETS-4 Sharing Economy: HCAOG shall pursue efforts to increase shared mobility options in the region, such as car share and bike share programs. HCAOG shall work to make shared mobility programs equitably available to people with low-incomes and other transportation disadvantages.
Efficient & Viable Transportation System	◆ Maintain the roadway system in a condition that maximizes resources and uses, and minimizes disruptions and costs. Increase data collection and assessments for active transportation connectivity, quality, and quantity in the region.
	POLICY STREETS-5 Stable funding: HCAOG shall pursue local options for developing a funding program(s) to help maintain and preserve the regional roadway system, and fund non-infrastructure programs and planning for active transportation projects. HCAOG shall help secure the financial resources necessary to accommodate HCAOG's policies adopted in the *Regional Bicycle Plan*, *Regional Transportation Plan (VROOM)*, *Regional Master Trails Plan*, and *Regional Pedestrian Plan*. **POLICY STREETS-6 Fix it first for safety:** HCAOG will accelerate programming for regional projects that retrofit existing roads to provide safe and convenient travel by all users. HCAOG supports a "fix it first" priority of protecting and preserving existing roadways and other transportation assets, with priority for communities that have been underinvested in or have borne disproportionate levels of harm from transportation infrastructure. *Also applicable:* **Bike Plan Policy 4.3–BLOS/BQOS:** HCAOG shall use the Bicycle Level of Service and Quality of Service (BLOS/BQOS) and the Bicycle Compatibility Index as tools for assessing bicycle facility needs and prioritizing projects, along with equity criteria.
Environmental Stewardship & Climate Protection	◆ Promote "Complete Streets" policies and projects to reduce CO_2 emissions and the adverse environmental impacts of motorized transportation on land, sea, and air.
	POLICY STREETS-7 Global Warming Solutions: HCAOG shall carry out policies and program funding for projects that will help achieve the goals of the Global Warming Solutions Act (California Assembly Bill 32 (2006) and Senate Bill 32 (2016)). This shall include supporting efforts to reduce non-renewable consumption and air pollution, such as projects that increase access to alternative transportation and renewable fuels, reduce congestion, reduce single-occupancy (motorized) vehicle trips, and shorten vehicle trip length, and reduce greenhouse gas emissions.
Equitable & Sustainable Use of Resources	◆ Increase the percentage of attainable housing units located in places with safe, comfortable, and convenient access to employment, shopping, and recreation by walking, biking, rolling, or transit. ◆ Increase the equitable distribution of county residents who live in homes/ apartments/dorms where they can safely, comfortably, and conveniently travel to everyday destinations by walking, biking, rolling, or transit/micro-transit.
	POLICY STREETS-8 HCAOG shall pursue a multi-modal transportation system that follows a less exhaustive, less polluting, and more sustainable use of natural resources than the land-intensive car-centered transportation system. **POLICY STREETS-9** HCAOG shall promote equity, cost effectiveness, safety and active transportation in programming and allocating funds to regionally significant roadway and trail projects.

Safety & Health	◆ Improve overall safety for motorists, bicyclists, pedestrians, and transit users on all county, city, and state highways and streets. ◆ Prioritize programming resources for projects designed to reduce deaths and serious injuries on our roadways, and for approaches that prioritize lowering speeds on local and arterial roads. ◆ Increase the number of active transportation users and drivers who receive educational messaging about roadway safety. ◆ Decrease to and maintain zero pedestrian and bicyclist fatalities per year regionwide. ◆ Decrease, regionwide, the number of people seriously injured in bicycle and pedestrian collisions. ◆ Expand the reach and occurrences of safe active transportation infrastructure to improve public health and safety.
	POLICY STREETS-10 Safe routes to school and transit: To advance Safe Routes to School and Safe Routes to Transit initiatives, HCAOG shall support jurisdictions to establish and maintain safe pedestrian paths and designated bikeways within one mile of all public schools and public transit connections. **POLICY STREETS -11 Vision Zero:** HCAOG adopts the Vision Zero commitment to support policy, strategies, and roadway design standards that have been shown to be most effective in improving safety, with the goal of eliminating all traffic fatalities and severe injuries in Humboldt, while increasing safe, healthy, equitable mobility for all users. **POLICY STREETS-12 Traffic data:** HCAOG shall assist regional and local efforts to expand the means to collect relevant and meaningful data on traffic statistics, including use by mode and rates of traffic-related accidents, injuries, and fatalities. **POLICY STREETS-13 Active transportation education:** HCAOG shall program, support, and collaborate in campaigns to educate active transportation users and drivers about using the roadways safely, and about other transportation-related public health goals and outcomes.

NEEDS ASSESSMENT

ROADS NEEDS ASSESSMENT

To assess how a roadway is performing, key factors are safety, capacity, physical condition, and direct and indirect environmental impacts. How a roadway performs will tell what its needs are. The combined needs of the roads in the network will tell how the broader roadway system is functioning.

- *Safety* – The roadway system must not subject people (or property) to hazardous conditions that risk their safety.
- *Capacity* – The roadway system's capacity must be able to safely and functionally accommodate all road users. For the past few generations, the dominant transportation planning paradigm has been that roadway capacity had to increase to keep up with population growth and increased vehicle volumes. The practice has been to add lanes to reduce congestion. Decades of outcomes have proven that this tactic does not add capacity. Today the field is shifting the paradigm to address

capacity issues with multi-modal options and better land use planning to avoid, rather than prioritize, high-speed, long-distance car travel.

- *Environmental impacts* – Transportation planning must address greenhouse gas emissions and the fuel and energy consumed for building, using, and maintaining roadways and other infrastructure for motorized transportation. Impacts to land, water, and air resources must be assessed, and minimized to the extent feasible.
- *Maintenance & rehabilitation* – Humboldt County's pavement condition index (PCI, a 100-point weighted average) rated 56 for 2010, and 64 for 2012. Roads rated between 50 and 70 are considered "at risk" (per "California Statewide Local Streets and Roads Needs Assessment," January 2013). Humboldt roads are being assessed again in 2021-2022.

With vehicle miles traveled increasing every year, we'll never achieve ambitious climate targets if we don't reduce driving.

– Transportation For America, 2019

Throughout California, counties are having trouble keeping up with the costs of consistently maintaining and rehabilitating their roadways. The system suffers from "chronic road maintenance funding shortfalls." The challenge is greater in rural counties because their low population densities mean there are more miles of roadway with less people to pay for them. Rural areas generate fewer funds per road mile. Like other California counties, Humboldt has had a backlog of road maintenance needs for decades. The current backlog, estimated as of September 2021, is $ TBD/pending million (see Table *Streets-3*)

All California counties receive more transportation funding from new accounts and programs created by the passage of California Senate Bill 1 (April 2017). The new funds include $1.5 billion annually for repairing, rehabilitating, and maintaining local streets and roads statewide. These particular funds are appropriated by formula, not by competitive grants, which allow jurisdictions to plan on continuous, stable funding for road maintenance. (See chapter 9, Financial Element, for more information on SB1.)

Level of Service & Vehicle Miles Traveled (VMT)

It has been standard practice for transportation planning agencies and departments in the U.S. to assess and project existing and future road traffic conditions using the "level of service" (LOS) concept, which forecasts how congested or free-flowing a traffic lane or intersection will be during peak traffic hours. The LOS is represented by a "grade" from A to F. LOS A generally indicates no traffic congestion, and F indicates heavy congestion. The LOS concept has been primarily applied to driving conditions, but with more attention paid recently to multi-modal travel, people have been devising bicycle LOS and pedestrian LOS models as well, as discussed below.

Table *Streets*-3. **Roadway Maintenance & Rehabilitation Backlog** (September 2021)
updates pending

Jurisdiction	**Total**
Arcata	
Blue Lake	
Eureka	
Ferndale	
Fortuna	
Rio Dell	
Trinidad	$ 600,000
County of Humboldt	
Hoopa Valley Tribe	
TOTAL	

Data provided by jurisdictions.

Network and Gap Analysis

FHWA defines networks as interconnected pedestrian and bicyclist transportation facilities that allow people of all ages and abilities to safely and conveniently get where they want to go. The following network principles can be used to evaluate the condition of a network and the value added by proposed projects:

- **Cohesion:** How connected and linked together is the network?
- **Directness:** Does the network provide access to destinations along a convenient path?
- **Alternatives:** Is only one transportation option available or does the network enable a range of mode and/or route choices?
- **Safety and Security:** Does the network provide real and/or perceived freedom from risk of injury, danger, or loss of property?
- **Comfort:** Is the network appealing to a broad range of age and ability levels and is consideration given to user amenities?

– Statewide Pedestrian and Bicycle Planning Handbook, FHWA

In project planning, LOS has been used as a threshold for traffic impacts. Many jurisdictions nationwide, including in Humboldt County, have policies making LOS C the lowest acceptable grade, and/or LOS D under certain circumstances. Projects that would cause traffic conditions to fall below the established minimum LOS grade are then deemed a significant impact. However, a new law regarding the California Environmental Quality Act (CEQA), has mandated an alternative approach.

Senate Bill 743 (Steinberg, 2013) ushered in a new approach to addressing and mitigating environmental impacts of traffic through the California Environmental Quality Act. The legislative intent is to "more appropriately balance the needs of congestion management with statewide goals related to infill development," active transportation, and GHG emissions. SB 743 aims to reduce GHG emissions by removing barriers to infill development, and multiplying projects that increase walking and biking and public transportation infrastructure and facilities. To that end, the State amended CEQA Guidelines to replace LOS with vehicle miles traveled (VMT) as the most appropriate measure of project transportation impacts.

Lead agencies may no longer deem automobile delay a significant impact under CEQA. The amended Guidelines also advise that projects for roadway rehabilitation, transit, bicycle and pedestrian infrastructure, or that propose development near transit, should be considered to have a less than significant transportation impact (CEQA Statute, Public Resources Code §15064.3). The new regulations became mandatory statewide on July 1, 2020.

BICYCLE & PEDESTRIAN NEEDS ASSESSMENT

To completely integrate pedestrian and bicycle modes into the transportation system, HCAOG must help meet the principal needs of existing pedestrian and bicycle facilities:

- Access & Choice – While commuting by foot or by bicycle is a choice for some, many others use these modes out of necessity. Children, high school and college students, seniors, and people with low incomes often do not have access to other transportation modes. The streets and roadway network must meet minimum ADA standards to be accessible to wheelchair users, vision-impaired and other pedestrians.
- Connectivity & Links – Pedestrians and bicyclists frequently utilize roads in Humboldt County that lack sidewalks and/or bicycle lanes or bike routes. A number of communities are bisected by busy state routes, or county roads with no (or limited) crossing facilities.
- Safety – The *Humboldt County Pedestrian Needs Assessment Study* (HCAOG, 2003) concluded that better pedestrian access and improved safety conditions are required to ensure that our communities are walkable, safe, vibrant places to live. Improved safety also hinges on better rider/driver education, awareness, and road etiquette.

- Maintenance/Upkeep – When roads lack timely maintenance, deteriorated conditions such as potholes and debris can pose safety concerns for bicyclists and other users.

Bicycle and pedestrian needs were assessed, in part, from information in the *Humboldt Regional Bicycle Plan* (HCAOG,2017) and the *Humboldt County Pedestrian Needs Assessment Study* (HCAOG, 2003).

Bicycle Level of Service Modeling

Bicycle level of service (BLOS) modeling helps predict how a given bicycle facility will function for cyclists., For example, the BLOS will estimate the speed and density a cyclist would experience while riding in an existing or proposed bike lane. The bicycle LOS can be expressed on a scale of A to F. For a full discussion of Bicycle LOS, refer to the *Humboldt Regional Bicycle Plan* (2012) (available at www.hcaog.net/projects).

Bicycle LOS modeling can also help predict how cyclists perceive the safety or hazard level of a facility. Generally, cyclists feel safer riding where there is more room and less traffic. Perceived hazards include proximity to motor vehicles, deteriorated pavement, roadway debris, high speeds, and intersections without traffic controls (e.g. stop signs). Bicycle LOS can evaluate these conditions. Other factors of perceived safety/hazards are the cyclist's skill level and riding experience, which LOS does not measure.

Generally, cyclists choose their routes, or whether to ride at all, based on how they perceive hazardous conditions (for some local perspectives, see *Humboldt Bay Area Bicycle Use Study*, RCAA 1999). Therefore, one strategy for increasing bicycle ridership is to prioritize projects that will eliminate or minimize perceived hazards to bicyclists.

ACTION PLAN: PROPOSED PROJECTS

Table *Streets-4*, below, shows the top priority short-term (0-10 years) and long-term (11-20 years) roadway improvements for Humboldt County's regional "complete streets" system. Members of HCAOG's Technical Advisory Committee (TAC) self-reported which of the RTP's main objectives applied to their respective proposed projects. (The main objectives are: balanced mode share/complete streets; economic vitality; efficient and viable transportation system; environmental stewardship; equitable and sustainable use of resources; and safety. See Chapter 1 for definitions.) Projects that will meet the most objectives are the top priorities.

For a more detailed, comprehensive description of each jurisdiction's bikeway facility improvements (constrained and unconstrained), refer to the *Humboldt Regional Bicycle Plan* (HCAOG 2017), and the respective bikeway master plans for the City of Arcata, City of Eureka, and County of Humboldt.[2]

[2] Available at the HCAOG office and online at www.hcaog.net. To view a city's bike plan, contact its Public Works Department.

Table *Streets*-4, below, compiles project lists from the seven incorporated cities, the unincorporated County, Tribes, and Caltrans. Project priorities are illustrated by which objectives a proposed project will help achieve, based on the objectives and targets from the RTP's Safe & Sustainable Transportation Targets (Mode Shift, Lowers VMT, EV Charging, Access, Vision Zero). (See Chapter 3, Global Climate Crisis, for full SST Targets table.)

Table *Streets*-4 **Complete Streets Projects –Short-Term & Long-Term**

PROJECT AGENCY AND LOCATION	Short/ Long Term	Mode Shift Lowers VMT	Access	Vision Zero	PROJECT DESCRIPTIONS	Funding Source	Implementation Year(s)	Project Cost ($000)
HCAOG								
Low-traffic-stress and connectivity analysis of bike and ped network	ST	III			Analyze network in the Greater Humboldt Bay Area by FY 2023/24, and countywide by 2026	RPA, LTF	2023-2026	$250
							HCAOG ST Subtotal = $250	
CITY OF ARCATA								
Old Arcata Road; Buttermilk to Jacoby Creek Road	ST	I		I	I	Rehabilitation, pedestrian-bicycle and calming improvements, gateway at Jacoby Creek Road	STIP, Measure G, ATP	2018-24	$4,124
Residential streets citywide	ST			I		Annual residential streets improvement program (see City's PMP)	Measure G	2022-31	$2,500 $3.000
Hwy 255 at Hwy 101 – Roundabouts	ST	I		I		Convert cloverleaf intersection to 2 roundabouts, pedestrian-bicycle access across bridge (non-existent), add transit park-and-ride, remove 1 mile paved roadway (mitigation)	Not funded	2022-31	$3,000 $8,000
Hwy 101 at Sunset and L.K Wood Boulevard – Roundabout	ST	I		I	I	Convert 5-way intersection to roundabout and create safer segregated bicycle/pedestrian facilities	Not funded; City match	2022-31	$1,000 $3,500
Guintoli Lane-Hwy 299 intersections, Valley West and Valley East to West End Road	ST			I		Rehab, restripe and improve level of service (roundabouts or channelization). Potential bus park-and-ride at Wymore Road	Measure G, apply for grant funds*	2022-31	$2,200
Annual Roadway Improvements Project (based on city PMP)	ST			I		Principally on city bus routes; arterial and collectors (refer to City PMP)	Measure G, apply for grant funds*	2014-24	$8,000 $10,000
South G street Beautification Project (South of Samoa 255 to Arcata wastewater treatment plant)	ST	I		I		Rehabilitation, pedestrian-bicycle and traffic calming improvements	Measure G, apply for grant funds*	2022-2031	$3,000
Samoa Gateway Improvements Project (From L street to V street)	LT	I		I	I	Rehabilitation, pedestrian-bicycle, traffic calming improvements and gateway to Arcata	Measure G, apply for grant funds*	2022-2031	$3,000
West End Road Improvements (Giuntoli Lane to City Limits)	ST	I		I	I	Rehabilitation, pedestrian-bicycle, traffic calming improvements and gateway to Arcata	Measure G, apply for grant funds*	2022-2031	$2,000
8th and 9th Street Improvements	ST	I		I		Bicycle and Pedestrian Enhancements and Street Beautification	Infrastructure Improvements Grant	2022-2031	$1,500
					Arcata ST Subtotal = $20,824 **Arcata LT Subtotal = 0** **Subtotal = $20,824**			

PROJECT AGENCY AND LOCATION	Short/ Long Term	Mode Shift	Lowers VMT	Access	Vision Zero	PROJECT DESCRIPTIONS	Funding Source	Implementation Year(s)	Project Cost ($000)
City of Blue Lake									
South Railroad Avenue from Chartin Way to Broderick Lane	ST					Repave, rehab and reconstruction	Not funded	2025/26	$1,000 $1,150
Greenwood Road/Railroad Ave/G Street/ Hatchery Road, from Blue Lake Boulevard to Mad River Bridge	ST					Rehab and reconstruction with pedestrian improvements, bike land striping, signage, and traffic calming	Not funded	2022/23 2019/2020	$3,185 $3,380
Hartman Lane/G Street, from Blue Lake Boulevard to Railroad Avenue	ST					Rehab and reconstruct with pedestrian improvements	Not funded	2020/21	$1,400
I Street, from Blue Lake Boulevard to First Avenue	ST					Rehab and reconstruct with pedestrian improvements	Not funded	2023/24	$1,200
First Ave from Greenwood Ave to I Street	ST					Rehabilitation and reconstruction with pedestrian improvements	Not funded	2024/25	$1,500
Acacia Dr from Blue Lake Blvd to Railroad Ave	ST					Rehabilitation and reconstruction with pedestrian improvements	Not funded	2027/28	$2,480
Rymar Ave from Blue Lake Blvd to Railroad Ave	ST					Rehabilitation and reconstruction with pedestrian improvements	Not funded	2028/29	$1,720
Railroad Ave from H St to Blue Lake Blvd	ST					Rehabilitation and reconstruction with pedestrian improvements	Not funded	2029-30	$3,630
						Blue Lake ST Subtotal = $6,568 **Blue Lake LT Subtotal = $2,700** **Subtotal = $9,268**			
City of Eureka									
Broadway Multimodal Corridor – Northern Section (Hawthorn to 4th)	LT					Street reconfiguration, Class IV bike facil, pedestrian crossings, transit improvements	Not Funded	2032	$72,000
Broadway Multimodal Corridor – Middle Section (Truesdale to Hawthorn)	LT					Street reconfiguration, Class IV bike facil, pedestrian crossings, transit improvements	Not Funded	2032	$98,000
North Gateway of Eureka	LT					Beautification, bike/ped facilities, traffic calming	Not funded	2032	$2,350
South Gateway of Eureka	ST					Beautification, bike/ped facilities, traffic calming	Partially: Caltrans SHOPP	2020/21 2023/24	$1,900 $2,015
Harrison Ave from Harris St to Myrtle Ave	ST					Two-way left-turn lane, bike lanes, bus pullouts	Not funded	2023/24	$2,390
Harris Street from H Street to J Street	ST					Signalization and signalization modifications	Not funded	2023/24	$835
Henderson Street from I Street to Fairfield Street	ST					Road rehabilitation, ADA, bicycle lanes, bus pullouts, storm drains	Not funded RMRA	2018/19 2021/22	$750 $796

PROJECT AGENCY AND LOCATION	Short/ Long Term	Mode Shift	Lowers VMT	Access	Vision Zero	PROJECT DESCRIPTIONS	Funding Source	Implementation Year(s)	Project Cost ($000)
Myrtle Ave from 5th St. to Harrison Ave	ST					Street configuration improvements, ADA, bicycle facility	Not funded	2023/2024	$600
C Street Bike Boulevard	ST					Bike Boulevard and pedestrian improvements	Not funded	2023/2024	$1,250
M Street Bike Boulevard	ST					Bike Boulevard and pedestrian improvements	Not funded	2023/2024	$520
Eureka East/West Bike Boulevard	ST					Bike Boulevard and pedestrian improvements	Not funded	2024/2025	$1,275
Bay to Zoo Trail	ST					Class I & III trail, pedestrian crossing improvements	Not funded	2023/2024	$7,800
Cooper Gulch Trail (first slough)	ST					Class I & III trail, pedestrian crossing improvements	Not funded	2023/2024	$1,560
Eureka Loop Trail	ST					Class I & III trail, pedestrian crossing improvements	Not funded	2024/2025	$10,800
Wabash Ave Improvements	ST					Road rehabilitation, ADA, pedestrian improvements, bicycle facility	Not funded	2023/24	$650
Hawthorn Street from Broadway to Felt, Felt St. from Hawthorn to Del Norte, and 14th St. from Broadway to West Avenue	ST					Road rehabilitation, ADA, bicycle facility	STIP	2021/22	$650
Highland Avenue from Broadway to Utah Street and Koster Street from Del Norte to Washington Street	ST					Road rehabilitation, ADA	STIP	2021/22	$650
6th and 7th Streets from-Myrtle Avenue to Broadway	ST					Road rehabilitation, ADA, bike lanes, bus pullouts	HSIP	2021/22	$1,058
H & I Street Corridors	ST					Road rehab, ADA, bicycle facility and bus pullouts	HSIP	2022/23	$2,110
Citywide	ST					Improve transit stop pullouts	Not funded	2024/25	$610
Walnut Drive at Hemlock Street	ST					Traffic signalization	Not funded	2023/24	$360
Citywide	ST					Bicycle facilities per *Humboldt Regional Bicycle Plan 2012*	Not funded	2023/24	$3,870
Citywide	ST					Ped improvements per *Humboldt Regional Pedestrian Plan 2008*, and other reports	Not funded	2023/24	$1,000
						Eureka ST Subtotal = $14,457 **Eureka LT Subtotal = $8,025** **Total = $**			
City of Ferndale									
Rose Avenue/Herbert Street – East City limits to Main Street	ST	I	I	I		Class II bike path	Not funded	2024	$26
5th Street: Van Ness Ave to Ocean Ave	ST	I	I	I		Class II bike path	Not funded	2024	$16
Arlington Avenue - 5th Street to Main St	ST	I	I	I		Class II bike path	Not funded	2024	$22

PROJECT AGENCY AND LOCATION	Short/ Long Term	Mode Shift	Lowers VMT	Access	Vision Zero	PROJECT DESCRIPTIONS	Funding Source	Implementation Year(s)	Project Cost ($000)
Ocean Ave - West City limits to East City limits	ST	I	I	I		Class II bike path	Not funded	2024	$25
Wildcat Road - Ocean Avenue to south City limits	ST	I	I	I		Class III bike path	Not funded	TBD	$1
Main Street: Ocean Avenue to north City limits	ST	I	I	I		Class III bike path	Not funded	TBD	$38
Van Ness Avenue: 5th Street to Main St	ST	I	I	I		Class III bike path	Not funded	TBD	$1
Shaw Avenue: Ocean Avenue to Berding	ST	I	I	I		Class III bike path	Not funded	TBD	$37
Ocean Avenue: Strawberry Lane heading east towards trailhead	ST	I	I	I		Multipurpose trail (Class 1 bike path)	Not funded	TBD	$36
5th Street: Van Ness to Ocean Avenue	ST	I	I	I		Multipurpose trail (Class 1 bike path)	Not funded	TBD	$174
Lincoln Street - Grant Avenue to East City limits	ST	I	I	I		Multipurpose trail (Class 1 bike path)	Not funded	TBD	$12
Ocean Avenue - Craig Street to Russ Park trailhead	ST	I	I			New sidewalk	Not funded	TBD	$98
5th Street - Arlington Avenue to Fairview North and piece on Arlington Avenue	ST	I	I	I		Curb and gutter and new sidewalk	Not funded	TBD	$54
Berding Street-Rose Avenue to Lewis St	ST			I		New sidewalk (Ped 2)	STIP	TBD	$50
Rose Avenue - Berding to Herbert Street	ST			I		New sidewalk (Ped 2)	STIP	TBD	$147
Main Street - North City limits to Arlington Avenue; citywide	ST			I		Misc. ADA improvements	Not funded	TBD	$150
Main Street - Arlington Avenue to Ocean Avenue (Caltrans)	ST			I		Misc. ADA improvements		TBD	$600
Francis Street - Ocean Avenue to Ferndale Public Works Building	ST					Roadway rehabilitation	Not funded	TBD	$80
Berding Street - Herbert Street to Eugene	ST					Roadway rehabilitation	Not funded	TBD	$1,400
						Ferndale ST Subtotal = $2,967			
						Ferndale LT Subtotal = 0 **Subtotal = $2,967**			
City of Fortuna									
Rohnerville Road: Newell St. to Redwood Way	ST					Reconstruct w/ sidewalk and bike lanes	Not funded	2022/2023	$4,500

PROJECT AGENCY AND LOCATION	Short/ Long Term	Mode Shift Lowers VMT	Access	Vision Zero	PROJECT DESCRIPTIONS	Funding Source	Implementation Year(s)	Project Cost ($000)
Fortuna Boulevard: Redwood Way to Kenmar Road	ST				Overlay w/ bike lane improvements	Not funded	2021/2022	$2,000
U.S. 101/12th Street northern interchange onramps, Dinsmore Drive	ST				Reconfigure interchange to include roundabout and bike/pedestrian facilities	Not funded	2022/2023	$14,000
U.S. 101/Riverwalk Drive southern interchange Improvements	ST				Reconfigure interchange to include roundabout and bike/pedestrian facilities	Not funded	2022/2023	$12,000
U.S. 101/Kenmar Road Interchange Improvements	ST				Reconfigure interchange to add two roundabouts and bicycle/pedestrian facilities	STIP	2022/2023	$6,500
South Fortuna Boulevard/Ross Hill Road/Kenmar Road	ST				Pedestrian improvements including adding sidewalk, bike lane and retaining wall	Not Funded	2024/2025	$600
Thelma and Ross Hill Road	ST				Install roundabout	Not Funded	2025/2026	$660
Various locations: Riverwalk Drive, Fortuna Boulevard, Rohnerville Road	ST				Strongs Creek Trail Phase 1–Class I bike lane through Fortuna and Class II bike lanes on city streets	Not Funded	2026/2027	$4,600
					Fortuna ST Subtotal = $44,860			
					Fortuna LT Subtotal = $0 **Subtotal = $44,860**			
City of Rio Dell								
Wildwood Avenue from Eagle Prairie Bridge to Davis Street	ST				Transportation enhancement project adding raised center median and striped bike lanes	State Transp. Enhancement	TBD	$589
The Avenues Area, from Elko Street to Atlanta Street	ST				Full roadway rehabilitation to improve pedestrian safety and accommodate emergency response vehicles	Not funded	TBD	$500
2nd Avenue., Davis Street to Columbus Street	ST				Maintenance paving project including 2" overlay and striping	Not funded	TBD	$106
Ogle Avenue, Spring Street to Creek Street	ST				Road reconstruction and drainage improvements	Not funded	2021	$1,000
Monument Road, Dinsmore Ranch Road to Redwood Lane	ST				Drainage improvements including new inlets, valley gutter, ditch and storm piping	Not funded	TBD	$149
Riverside Drive, Eagle Prairie Road to Fern Street	ST				Maintenance paving project including 2" overlay, with drainage improvements, and striping	Not funded	2022/2023	$357
Northwestern Ave, north entrance to south entrance, Humboldt Rio Dell Business Park	ST				Centerline and edge striping, centerline monument, drainage, road elevation repair	Not funded	TBD	$300
Ireland Ave., Davis St. to Painter Street and Dixie Street, 4th Avenue to Davis	ST				Maintenance paving (2" overlay), striping, and bikeway signage	Not funded	2021	$100

PROJECT AGENCY AND LOCATION	Short/ Long Term	Mode Shift	Lowers VMT	Access	Vision Zero	PROJECT DESCRIPTIONS	Funding Source	Implementation Year(s)	Project Cost ($000)
Monument Road at Dinsmore Ranch Road	ST					Replacement of a failing timber post retaining wall	FEMA	2022	$1,000
Belleview Avenue, Spring Street to 300 ft east and 750 ft east of Creek Street to 100 ft west of Creek Street	ST					Maintenance paving project, including 2" overlay and striping.	Not funded	2019/20	$112
Elm Street–Pacific to Wildwood Ave; Orchard Place–Cherry Ln to Orchard St; Cedar Street–Pacific to Wildwood Ave; View Street–Douglas St to Kelly St	ST					Maintenance paving project, including 2" overlay and striping.	Not funded	TBD	$109
Blue Slide Road – City limits to Creek Street	ST					Drainage work, and chip seal	Not funded	TBD	$100
Wildwood Avenue, Center to Eagle Prairie Bridge	ST					Slurry Seal and striping	Not funded	TBD	$250
Sequoia Avenue at Dean Creek Bridge	ST					Bridge inspection and engineering report	Not funded	TBD	$50
W. Painter Street–Pacific Ave–Butcher Street—Rio Dell Ave–W. Center St–Townsend St	ST					Maintenance paving project, including 2" overlay and striping	Not funded	2021	$95
Davis Street, Gunnerson Lane to Edwards Drive and Edwards Drive from Water Treatment Plant to Davis Street	ST	I	I	I	I/II	Sidewalk, Class III bikeway and Class I bike and pedestrian path along Eel River gravel bar, including two trailheads.	Not funded	TBD	$1,800
Eel River bar, Davis Street to Eeloa Avenue	LT	I	I	I	I/II	Class I bike and pedestrian path along Eel River bar, including two trailheads	Not funded ATP/Prop 68	2025/26	$947
Railroad ROW, Eagle Prairie Bridge to Northwestern Avenue	LT	I	I	I	I/II	Class I bike and pedestrian path next to railroad tracks	Not funded	2027/28	$2,394
						Rio Dell ST Subtotal = $6,505			
						Rio Dell LT Subtotal = $3,341			
						Subtotal = $6,505 – double check			
City of Trinidad									
Downtown Trinidad: Patrick's Point Drive (Main St to Janis Ct), Scenic Drive (Main St to Saunders Shopping Center driveway), Trinity Street (Edwards St to Main St)	ST	I			I	Pedestrian & connectivity improvements: sidewalks, driveways & curb ramps, crosswalks, signage, striping, and pavement repair (ADA). (1,200 feet ped/bike facilities)	RTIP	2020/2021	$580
Edwards St, Main St	ST	I			I	Crossing Enhancements	HSIP	2021/22	$250
Stagecoach Rd, Frontage Rd, Westhaven Dr	ST					Edgeline and Centerline Striping	HSIP	2021/22	$133
Scenic Dr, Patrick's Point Dr	ST					Guardrail Upgrades	HSIP	2021/22	$417
Patrick's Point Drive	ST					Overlay/maintenance paving	Not funded	2025/26	$161

PROJECT AGENCY AND LOCATION	Short/ Long Term	Mode Shift	Lowers VMT	Access	Vision Zero	PROJECT DESCRIPTIONS	Funding Source	Implementation Year(s)	Project Cost ($000)
Main Street (south side of road)	ST	I			I	Sidewalks, driveways & curb ramps	Not funded	2026/27	$452
Main St, Trinity St, Westhaven Dr	ST					Overlay/ maintenance paving	Not funded	2026/27	$732
Edwards Street	ST					Overlay/ maintenance paving	Not funded	2028/29	$575
Frontage Road	ST					Overlay/ maintenance paving	Not funded	2030/31	$475
Parker Creek Drive	LT					Reconstruction	Not funded	2031/32	$241
Edwards Street to Ewing Street	LT	I			I	Sidewalks, driveways & curb ramps	Not funded	2032/33	$801
Edwards Street	LT					Retaining wall	Not funded	TBD	$1,500
						Trinidad ST Subtotal = $1,541 **Trinidad LT Subtotal =** $4,776 **Subtotal = $6,617**			
County of Humboldt									
Honeydew Bridge	ST					Replace existing bridge	HBP	2017 TBD	$6,600
Central Avenue	ST					Shoulder widening & overlay	Not funded	TBD	$900
Harris & Hall	ST					Safety improvements	Not funded	TBD	$500
McKinleyville Avenue Extension	ST					Connect to School Road	Not funded	TBD	$1,500
Garberville downtown	ST					Vehicle, pedestrian and bicycle improvements	Not funded	TBD	$8,000
Hoopa Downtown Corridor Project	ST					Context sensitive modifications (County portion only)	Not funded	TBD	$500
Manila Hwy 255 from Dean St/Pacific Ave intersection to Carlson Ave intersection	ST					Construct Class I multi-use path, intersection ped and bike improvements, new street lighting	ATP	2019/20	$1,360
Humboldt Bay Trail South (Eureka to Bracut segment)	ST					Rail with Trail Class I multi-use trail	ATP, SHOPP, Coastal Conservancy	2022/23	$16,400 (CON only)
Myrtle Ave. at Freshwater Road	ST					Intersection improvement	Not funded	TBD	$1,900
Central Avenue, McKinleyville	ST					Shoulder widening	Not funded	TBD	$800
Central Avenue, McKinleyville	ST					Synchronize traffic signals	Not funded	TBD	$1,800
Annie & Mary Trail: Blue Lake to Glendale (Chartin Road to Glendale Drive)	ST					Construct Class I multi-use trail	Not funded	TBD	$8,794
Hammond Trail Bridge–Mad River	ST					Replace existing bridge	Not funded	TBD	$8,000
Hammond Trail: Clam Beach to Scenic Drive	LT					Class I, II, and III (0.3 miles). (Interagency coordination with City of Trinidad)	Not funded	2027/28	$2,200
Annie & Mary Trail: Glendale Bridge	LT					Rehabilitate or replace railroad bridge to establish Class I trail	Not funded	TBD	$5,000

PROJECT AGENCY AND LOCATION	Short/ Long Term	Mode Shift Lowers VMT	Access	Vision Zero	PROJECT DESCRIPTIONS	Funding Source	Implementation Year(s)	Project Cost ($000)
Little River Trail: Moonstone Beach to Clam Beach	LT				Construct Class I multi-use trail	Not funded	TBD	$9,900
Humboldt Bay Trail: Elk River to King Salmon	LT				Construct Class I multi-use trail	Not funded	TBD	$2,400
Humboldt Bay Trail: King Salmon to Fields Landing	LT				Construct Class I multi-use trail	Not funded	TBD	$1,800
Humboldt Bay Trail: Fields Landing to Humboldt Bay Nat'l Wildlife Refuge/College of the Redwoods	LT				Construct Class I multi-use trail	Not funded	TBD	$2,800
Humboldt Hill to Thompkins Hill	LT				Connector road	Not funded	TBD	$2,000
Harris to Fern Street, Cutten	LT				Connector road	Not funded	TBD	$2,000
Alderpoint/Mattole/Maple Creek	LT				Reconstruct rural routes	Not funded	TBD	$100,000
Bell Springs Road	LT				Improve with Mendocino County	Not funded	TBD	$10,000
Briceland/Shelter Cove Roads	LT				Reconstruction/safety improvements	Not funded	TBD	$10,000
Fern Street, Cutten	LT				Complete connection	Not funded	TBD	$1,000
Bald Hills Road	LT				Pave Surface	Not funded	TBD	$6,000
New Navy Base Road, SR 255 to Humboldt Bay	LT				Reconstruct roadway from SR 255 to Humboldt Bay	Not funded	TBD	$1,500
Herrick & Elk River Intersection	LT				Signalize	Not funded	TBD	$1,500
Fairfield, Meyer, Eureka	LT				Route improvement	Not funded	TBD	$1,000
Ridgewood Drive/Avalon Drive	LT				Pedestrian improvements	Not funded	TBD	$1,000
Willow Creek Sidewalks	LT				Pedestrian improvements	Not funded	TBD	$1,000
Hatchery Road	LT				Shoulders	Not funded	TBD	$750
Central Avenue/Bella Vista	LT				Intersection improvements–widen shoulder, striping	Not funded	TBD	$300
Myrtle Avenue, Freshwater Rd to Pigeon Point Rd	LT				Shoulder widening	Not funded	TBD	$2,000
Myrtle Avenue, Ryan Slough to Freshwater Rd.	LT				Reconstruction	Not funded	TBD	$5,000
Rohnerville Airport to Hwy 36	LT				New road	Not funded	TBD	$5,000
Redwood Drive	LT				Pedestrian improvements	Not funded	TBD	$2,500
Airport Road at Redwood Coast/Arcata-Eureka Airport	LT				Install sidewalk	Not funded	TBD	$380

PROJECT AGENCY AND LOCATION	Short/ Long Term	Mode Shift	Lowers VMT	Access	Vision Zero	PROJECT DESCRIPTIONS	Funding Source	Implementation Year(s)	Project Cost ($000)
Scenic Drive	LT					?	Not funded	TBD	$15,000
Patrick's Point Drive	LT					?	Not funded	TBD	$10,000
						Humboldt County ST Subtotal = $56,454 **Humboldt County LT Subtotal = $202,030** **Subtotal = $258,484**			
Hoopa Valley Tribe									
SR 96	ST					Downtown traffic calming & safety enhancements	Partially funded	2017-18	$4,400
SR 96	ST					Reservation-wide safety enhancements; SR2S & pedestrian walkways	Not funded	2014-20	$12,500
SR96, Trinity River Bridge	ST					Safety enhancement; cantilevered walkway	Not funded	2015-25	$12,500
Bair Ranch Road, Humboldt County Road	ST					Reconstruction of roadway for emergency access	Not funded	2015-20	$750
On SR96 at Blue Slide	LT					New bridge crossing the Trinity River to K'ima:w Medical Center	Not funded	2020-35	$45,000
Tish Tang Road from SR 96 to Medical Center & Hoopa Airport	LT					Reconstruct Tish-tang (county road)	Not funded	2020-35	$6,500
						Hoopa ST Subtotal = $30,150 **Hoopa LT Subtotal = $51,500** **Subtotal = $81,650**			
Karuk Tribe									
Karuk Tribe/Caltrans: SR 96, Orleans	ST					Streetscapes/Dip Improvement Project: roadway rehab, ped-bike- transit improvements, landscaping	FHWA TTP Safety funds/ATP grant (not funded)	2024-25	$1,100 $1,167
Karuk Tribe/Caltrans: Tishawniik Hill, Camp Creek Rd to Asip Rd	ST					Class I trail (detour project) and Class II bikeway	FHWA TTP Safety funds/ATP grant (not funded)	2026-27	$1,400 $1,545
						Karuk Tribe ST Subtotal = $2,712 **Karuk Tribe LT Subtotal = 0** **Subtotal = 2,712**			
Trinidad Rancheria									
US 101-Trinidad Area Access Improvements Project, HUM 101-98.4/100.7 and Cherae Lane	LT	I	I	I		New interchange with local connections to Scenic Drive and Westhaven Drive, with pedestrian access	FHWA TTP funds, STIP, grants (not funded)	2025-2035	$32,500
						Trinidad Rancheria ST Subtotal = $0 **Trinidad Rancheria LT Subtotal = $32,500**			

PROJECT AGENCY AND LOCATION	Short/ Long Term	Mode Shift	Lowers VMT	Access	Vision Zero	PROJECT DESCRIPTIONS	Funding Source	Implementation Year(s)	Project Cost ($000)
						Subtotal = 32,500			

Caltrans

PROJECT LOCATION	ACTIVITY	Short / Long Term	Mode Shift	Lowers	Access	Vision Zero	PROJECT DESCRIPTION	Funding Source	Implementation Year(s)	Project Cost ($000)
101-Rio Dell , at Eel River Bridge Np.04-0016R	Bridge						Seismic Retrofit (Long Lead Project).	SHOPP	2024/25	$42,251
101-R11.5 to R11.5	Facilities						Primary work on facilities	SHOPP	2025/26	TBD
101- Rio Dell north of Painter St overcrossing to 0.6 mile north of Wildwood Ave	Emergency Opening						Repair failed drainage system, backfill sink hole.	SHOPP	2019/20	$790
101-Near Trinidad, 1.3 mile south of School Road to 0.4 north of Big Lagoon Bridge.	Pavement						Pavement rehabilitation.	SHOPP	2020/21	$45,573
101-R102.3	Pavement						Replace failed culvert, repair damaged pavement.	SHOPP	2020-21	$1230
101- T0.0 R10.3	Pavement						Address 24.1 lane miles of pavement.	SHOPP	2026/27	TBD
200-Near Arcata Route 200/299 Separation No.04-0184	Bridge						Establish standard vertical clearance.	SHOPP	2019/20	$6,630
211- R77.5 - 78.7 Bridge	Bridge						Address 1 bridge, and 1 element.	SHOPP	2028/29	TBD
299-Near Blue Lake,1 mile east of route 200	Major Restoration						Repair and stabilize slopes by constructing retaining walls at two locations.	SHOPP	2021/22	$37,552
299-R8.00 - R8.84	Pavement						1.6 miles of pavement, and 8 drainage system(s).	SHOPP	2024/25	TBD
299-R11.0 R22.5	Pavement						Rehabilitate roadway and upgrade guardrail and Transportation Management System elements.	SHOPP	2022/23	$22,280
299- R14.65 R15.65 Near Blue Lake	Safety Improvements						Widen shoulders, install rumble strips, and guard railing.	SHOPP	2019/20	$3,430
299- R16.1 R26.6 near Blue Lake	Sustainability						Install erosion control Storm Water Mitigation measures at three locations.	SHOPP	2019/20	$4,609

299 R16.1 R26.6 Near Blue Lake	Sustainability					Mitigation plant establishment for project EA 0E030.	SHOPP	2021/22	$460
36- 0.1 1.65 Near Fortuna, from Route101 to River Bar Road.	Safety-Collision Reduction					Widen shoulder .	SHOPP	2021/22	$16,504
254 4.5 5.75-Near Miranda 0.4 mile to 0.2 mile south of Maple Hills RD.	Major Damage Restoration					Stabilize slope with retaining wall and improving drainage.	SHOPP	2022/23	$18,115
254 4.18 4.18- Near Phillipsville 0.7 miles South of Maple Hills Road	Sustainability					Replace existing Fish Creek concrete box.	SHOPP	2021/22	$17,299
299- 0 R5.708 From Route 101 to east of Blue Lake Boulevard	Pavement					Rehabilitate pavement and upgrade guardrail, lighting, and Transportation Management Systems.	SHOPP	2020/21	$18,216
36- 10.46 10.81 Near Carlotta from 0.1 mile east of Riverside Park Road	Safety Improvements					Curve correction.	SHOPP	2020/21	$6,063
36-11.4 34.52 Near Bridgeville at Hely Creek Bridge No04-0092	Bridge					Upgrade rails, widen at one bridge, and replace two bridges.	SHOPP	2022/23	$27,014
36-Near Fortuna-from 2.0 miles east of Redwood House Road	Pavement					Rehabilitate pavement and upgrade guardrail and Transportation Management System elements.	SHOPP	2022/23	$38,437
36-17.9 R23.91 Near Bridgeville, at Van Duzen Bridge No 04-0293	Bridge					Apply polyester concrete overlay or methacrylate treatment to bridge decks.	SHOPP	2021/22	$3,564
36 21.5 23.5-Near Bridgeville, at 0.2 miles east of Golden Gate Drive	Sustainability					Construct erosion control Best Management Practices.	SHOPP	2021/22	$4,065
36-25.4 26 -Near Bridgeville, from Caltrans Maintenance Station	Major Damage Restoration					Construct soldier pile ground anchor wall to address the slide below roadway.	SHOPP	2024/25	$17,097
96- 28.07 29.92-Near Weitchpec and Orleans	Bridge					Upgrade rails at five locations and strengthen for truck permit load capacity at two locations.	SHOPP	2021/22	$16,293
101- 27.7 27.7-South Fork Eel River Bridge No.01-0123	Bridge					Seismic Retrofit.	SHOPP	2020/21	$23,795
101- In and Near Fortuna	Roadside					Remove vegetated strips in median area to improve highway worker safety.	SHOPP	2021/22	$11,318
101- 60.4 Eureka District 1 Material Laboratory (alt. site)	Facilities					Replace District 1 Materials Laboratory for health, safety, and operational deficiencies.	SHOPP	2020/21	$18,100
101- In and Near Eureka from 0.8 miles south of Fields Landing	Pavement					Roadway Rehabilitation.	SHOPP	2019/20	$30,548

101-Eureka-0.3 miles north of Herrick Ave.	Mobility/ADA					ADA Compliance curb ramps, sidewalks, and signals push buttons.	SHOPP	2019/20	$8,971
101-Eureka from Wabash Avenue to Commercial Street	Mobility/ADA					ADA Standards curb ramps, sidewalks, and signal pushbuttons.	SHOPP	2021/22	$8,797
101- Eureka Sixth Street to south of X Street	Safety Improvements					Improve curve and signs, construct bulb outs, upgrade ramps.	SHOPP	2021/22	$10,539
101- 78.0L Eureka 101 Broadway	Major Damage					Replace culvert, repair sidewalk, and pavement.	SHOPP	2020/21	$620
101-Eureka Slough Bridge No.04-0022L	Bridge					Seismic retrofit (Long Lead Project).	SHOPP	2026/27	$11,096
101-79.78 79.78 -Eureka Route 101	Bridge					Primary work on bridge.	SHOPP	2028/29	TBD
101-Humboldt, County Willow Creek Bridge and Camp Creek Bridge	Bridge					Seismic retrofit of three bridges.	SHOPP	2019/20	$11,235
101-Near Arcata ,from West End Road and School Road	Safety Improvements					Construct shoulder rumble strip, upgrade guardrail, construct guardrail slope retaining wall and HFST.	SHOPP	2019/20	$2,983
101-Arcata, from Saint Louis Road Overcrossing to0.7 mile north of Giuntoli Lane overcrossing.	Safety - Collision Reduction					Install guardrail, upgrade end treatments place longitudinal drainage system, place Class.	SHOPP	2021/22	$9,622
101- Arcata, at Route 299/101 Separation	Safety- Collision Reduction					Realign ramp curve.	SHOPP	2019/20	$7,117
101- Arcata, from north 299/Route 101 Connector to 0.2 south of Giuntoli	Operation Improvements					Construct auxiliary lane to improve merging movement.	SHOPP	2022/23	$9,724
299- 20.5 30.15-Near Blue Lake	Safety Impvts					Widen shoulders.	SHOPP	2019/20	$10,950
299-30.7 37.7 Near Willow Creek	Safety Impvts					Widen shoulders, place HFST, install rumble strips.	SHOPP	2019/20	$16,938
299- 30.7 37.7 from 0.1 mile east of Cedar Creek	Safety Impvts					Environmental mitigation.	SHOPP	2021/22	$340
299- 31.4 33.2 Near Willow Creek	Safety Impvts					Widen shoulders, improve curve at three locations.	SHOPP	2021/22	$39,764
299-from 0.1 mile west of Willow Way to Panther Road	Safety Impvts					ADA curb ramps, and install a bus turnout.	SHOPP	2019/20	$6,560
101-125.2 125.62 - 0.9-mile South of Prairie Creek Park undercrossing	Pavement					Improve curves, drainage, and widen shoulders.	SHOPP	2023/24	$13,453

101- 0.2 mile north of Airport Road to 0.2 mile south of Indianola cutoff	Emergency opening						Remove, prune and dispose of hazardous trees.	SHOPP	2019/20	$2,660
36- Near Carlotta , west of Fisher Road to west of Wilder Road	Safety Impvts						Widen shoulders, and install rumble strips.	SHOPP	2023/24	$29,357
96 27- Near Weitchpec 0.6 mile to 0.2 mile west of Bluff Creek Road	Major Damage Restoration						Restore roadway and construct retaining wall.	SHOPP	2021/22	$9,906
169 19 – Near Pecwan and Weitchpec 3.4 miles east of Cappel Creek Bridge to 0.8 miles west of 96	Major Damage Restoration						Reconstruct roadway, construct retaining wall.	SHOPP	2021/22	$10,270
101- Broadway	Complete Streets	ST					Broadway complete streets	SHOPP	TBD	N/A
101-DN to HUM	Pavement						DN to HUM-101 rehab	SHOPP	TBD	N/A
101- 0.00 – 10.30	Pavement						Garberville CAPM	SHOPP SB-1	TBD	N/A
101- 73.70 – 74.77	Reduce Collisions						Spruce Point Shld Widen/Br Widen	SHOPP	TBD	N/A
101- 19.10- 20.51	Reduce Collisions						Dimmick median barrier	SHOPP	TBD	N/A
36- East Carlotta	Reduce Collisions						East Carlotta shoulders	SHOPP	TBD	N/A
101-Weott	Reduce Collisions						Weott Widen northbound shoulder	SHOPP	TBD	N/A
101- 122.20 – 122.37 Bald Hills Road	NA						Bald Hills RD Lt	NA	TBD	NA
101/ SR 36	Interchange						Construct interchange near Alton on US 101 and SR 36	STIP/RIP		$33[os1]
101- Eureka-Arcata- near Eureka Slough Bridge to Bayside Cutoff	Eureka-Arcata 101 Corridor						Upgrade 4-lane facility	STIP/RIP	TBD	$8
101- In and Near Trinidad from Sixth Street OC #4-57 to Trinidad Road UC # 4-58	Trinidad Rancheria Access Project						Local-	STIP	TBD	$58[os2]
96- 12.00-7.60 Downtown Hoopa, from Trinity River Bridge to Hostler Housing	Downtown Hoopa Traffic Enhancement						Traffic calming improvements	STIP	TBD	$441
							Caltrans ST Subtotal = $148,980 **Caltrans LT Subtotal =** $5,400			

Complete Streets Short-Term	subtotal	*TBD*
Complete Streets Long-Term	subtotal	*TBD*
	TOTAL	**$569,982**

SYSTEM PERFORMANCE MEASURES

Transportation performance measures consist of a set of objectives and measurable criteria used to evaluate the effectiveness of the transportation system. Performance measures help set goals and outcomes, detect and correct deficiencies, and document accomplishments. Below are performance standards for measuring the "complete streets" system—highway and roadways, bicycle and pedestrian facilities.

Table *Streets-5.* **Performance Measures for the Regional Complete Streets System**

GOALS	INDICATORS	PERFORMANCE MEASURES	DATA SOURCES
Safety	Do collision rates exceed statewide averages? Have rates of crashes, fatalities, and injuries decreased? Has the number of miles of "safe routes to school" increased? Has the number of trips to school by bicycling and walking increased?	• Collisions per vehicle (or passenger) miles traveled. • Severity of collisions and injuries. • Number of safety improvement projects implemented. • Miles of safe routes (bike lane miles vs. motor lane miles). • Bicycle crashes per 1,000 cyclists. • Pedestrian collisions per 1,000 pedestrians.	Accident statistics collected by Caltrans District 1 Safety Division, CHP, local agencies.
Balanced Mode Shares (Complete Streets)	Have transportation projects increased multi-modal options in the region? Has congestion decreased? Has travel time decreased for passengers, freight/goods trips?	• Travel mode split (shares) for work trips. • Travel mode split (shares) for non-work trips. • Annual average delay per mile of roadway segment (per passenger, automobile, freight truck trips). • Peak hour congestion.	U.S. Census, American Community Survey.
	Are there more multi-modal connections within and between communities?	• Miles of improved connectivity for bicycle and pedestrian facilities.	Walk/trail/bikeway audits, Bicycle Plan Updates, Public Works Dept. information.
	Have walking and bicycle mode shares increased?	• Bicycle ridership (mode share). • Pedestrian travel (mode share).	Surveys, pedestrian and bicycle ridership counts.
	Has the level of service (LOS) increased for alternative modes?	• Pedestrian LOS/QOS. • Bicycle LOS/QOS. • Percentage of sidewalks, intersections, and bus shelters that comply with ADA requirements.	Local transit operators' data, LOS/QOS results.
Efficient and Viable Transportation System	Are roads better maintained? Do road facilities meet standards for state of good repair? Is rehabilitation backlog decreasing for road maintenance or bridge replacements?	• Pavement Condition Index (PCI) rating. • Maintenance/rehabilitation funding shortfalls.	Public Works Depts, Caltrans District 1, Harbor District, StreetSaver or other pavement management software (PMS).

GOALS	INDICATORS	PERFORMANCE MEASURES	DATA SOURCES
	Are investments in RTIP projects helping achieve RTP goals? Have investments improved system efficiency and/or productivity?	Per one thousand dollars invested: • Decreased collisions and fatalities. • Decrease in system-operating cost. • Improved access to jobs, school, commerce, and services. • Increase in trips by alternative modes.	Caltrans, Public Works Depts.
Environ-mental Stewardship & Climate Protection	Has fuel consumption decreased? Are people driving less (trips or miles)? Are fewer people driving alone to work and school?	• Fuel consumption gallons per capita. • motorized VMT per capita. • motorized VMT per employee. • Average vehicle occupancy rate.	Caltrans annual traffic counts, environmental and compliance reporting.
	Have air pollutant emissions decreased from on-road mobile sources?	• $PM_{2.5,}$ PM_{10} emissions. • Air quality levels.	CARB, local and state environmental and compliance reporting.
	Have transportation CO_2 emissions decreased per capita? Have car/light truck VMT decreased?	• Total transportation CO_2 per capita. • Passenger transportation CO_2 per capita. • Decrease in single vehicle occupancy travel. • Car and truck VMT per CO_2 emissions. • Average utilization rate of park-&-ride lots (% full).	CARB's EMissions FACtors model (EMFAC), environmental and compliance reporting.
Equitable & Sustainable Use of Resources	Has the proportion of transportation investment in environmental justice tracts increased?	• Percentage of RTP/RTIP expenditures in environmental justice tracts. • Average travel time per person trip (EJ/non-EJ). • Percentage of homes within half-mile of transit stop (EJ/non-EJ).	US Census, American Community Survey
	Is transportation planned for new land development (residential, work, commercial, services, recreation)?	• Ratio of jobs to housing. • Average distance to nearest transit stop and park-and-ride lot. • Percentage of jobs and population within 0.4 miles of transit.	General Plan updates.
Economic Vitality	Have transportation investments contributed to economic growth? Has access to jobs, markets, and/or services increased?	• Direct and indirect economic benefits from increased multi-modal options? • New residential/commercial development within ¼ mile of public transit.	