Transportation Concept Report

State Route 136

District 9

September 2014

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California Department of Transportation

Provide a safe, sustainable, integrated, and efficient transportation system to enhance California's economy and livability

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State Route 136
Transportation Concept Report

Prepared
by
Caltrans District 9
Division of System Planning

September 2014

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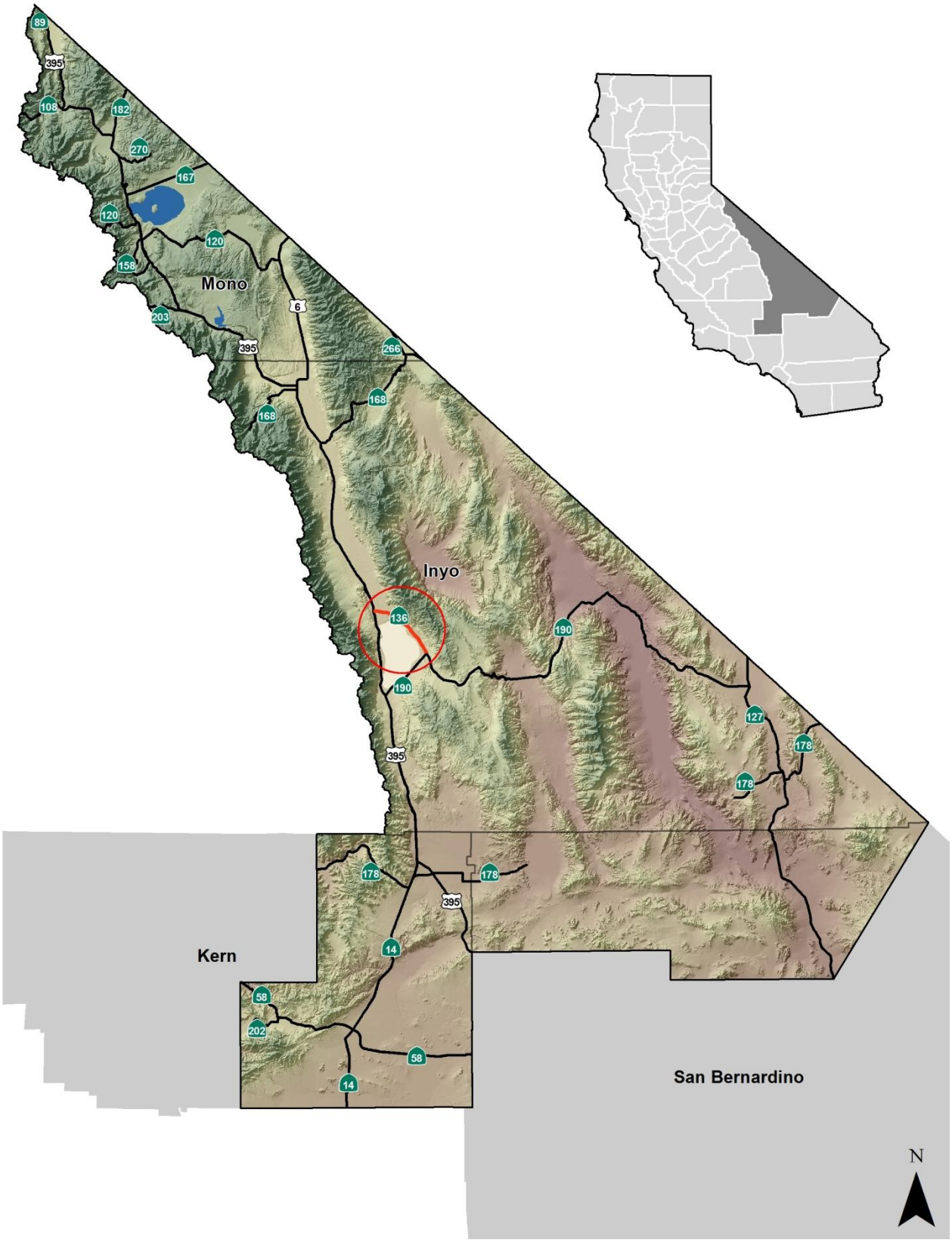
Caltrans District 9



ABOUT THE TRANSPORTATION CONCEPT REPORT

System Planning is the long-range transportation planning process for the California Department of Transportation (Caltrans). The System Planning process fulfills Caltrans' statutory responsibility as owner/operator of the State Highway System (SHS) (Gov. Code §65086) by evaluating conditions and proposing enhancements to the SHS. Through System Planning, Caltrans focuses on developing an integrated multimodal transportation system that meets Caltrans' goals of safety, mobility, delivery, stewardship, and service.

The System Planning process is primarily composed of four parts: the District System Management Plan (DSMP), the Transportation Concept Report (TCR), the Corridor System Management Plan (CSMP), and the DSMP Project List. The district-wide **DSMP** is strategic policy and planning document that focuses on maintaining, operating, managing, and developing the transportation system. The **TCR** is a planning document that identifies the existing and future route conditions as well as the needs for each route on the SHS. The **CSMP** is a complex, multi-jurisdictional planning document that identifies the needs within corridors experiencing or expected to experience high levels of congestion. The CSMP serves as a TCR for segments covered by the CSMP. The **DSMP Project List** is a list of planned and partially programmed transportation projects used to recommend projects for funding. These System Planning products are also intended as resources for stakeholders, the public, and partner, regional, and local agencies.

TCR Purpose

California's State Highway System requires long range planning documents to guide the logical development of transportation systems as required by CA Gov. Code §65086 and as necessitated by the public, stakeholders, and system users. The purpose of the TCR is to evaluate current and projected conditions along the route and communicate the vision for the development of each route in each Caltrans District during a 20-25 year planning horizon. The TCR is developed with the goals of increasing safety, improving mobility, providing excellent stewardship, and meeting community and environmental needs along the corridor through integrated management of the transportation network, including the highway, transit, pedestrian, bicycle, freight, operational improvements and travel demand management components of the corridor.

STAKEHOLDER PARTICIPATION

Internal and external stakeholder participation was sought throughout the development of the State Route (SR) 136 TCR. As information for the TCR was gathered, some of the stakeholders were contacted for input related to their particular specializations, verification of the data sources used, and the data's accuracy. Prior to document finalization, primary stakeholders were asked to review the document for consistency with existing plans, policies, and procedures. The process of including and working closely with stakeholders adds value to the TCR, allows for external input and ideas to be reflected in the document, increases credibility, and helps strengthen public support and trust.

Stakeholders in the SR 136 planning area are community members and agencies, including, but not limited to:

- Bureau of Land Management (BLM), Bishop Field Office
- Caltrans Functional Units: Environmental, Maintenance Engineering, Systems Planning and Traffic Ops
- Community of Keeler
- Community of Lone Pine
- Great Basin Unified Air Pollution Control District (GBUAPCD)
- Los Angeles Department of Water and Power (LADWP)
- Inyo County
- Inyo County Local Transportation Commission (LTC)
- Lone Pine Paiute-Shoshone Native American Tribe

EXECUTIVE SUMMARY

SR 136 travels along the corridor formed between the northeastern shore of Owens Lake and the western base of the Inyo Mountains. This 18-mile-stretch of highway connects US 395, from approximately one mile south of the community of Lone Pine, with SR 190, approximately 18 miles west of Death Valley National Park. The SR 136 corridor is rich with remnants from prehistoric and historic Owens Valley activity including the Paiute-Shoshone Native American tribe and the late nineteenth- and early twentieth-century miners who settled on the western shore of Owens Lake in pursuit of the salt and precious metal lodes within Saline Valley and the Cerro Gordo mines.

SR 136 is an undivided, two-lane conventional (2C) highway which connects Owens Valley with Death Valley. The highway accesses the Eastern Sierra Interagency Visitor Center (IAVC) at the US 395 junction, the Community of Keeler, and the ghost towns of Dolomite and Swansea. SR 136 is surrounded by high desert scrubland, open cattle range, riparian wetlands following the lower Owens River, and sand dunes spread across the periphery of the Owens Dry Lakebed. Recent traffic data is analyzed throughout this document using 2012 as a base year (BY) and 2032 as a horizon year (HY) for projecting operational conditions.

Concept Summary

Segment	Segment Description	Existing Facility	20-Year Capital Facility Concept	20-Year Facility Concept
1	Junction with US 395, 1 mile south of Lone Pine, to junction with SR 190.	2C	2C	Widen Shoulders, Maintenance

Concept Rationale

No significant growth or development is anticipated in the SR 136 corridor within the TCR's 20-year scope of concern. The highway receives relatively low traffic volume and any increase in capacity is not foreseen in the near future. For these reasons, the highway is expected to remain a two-lane, conventional highway.

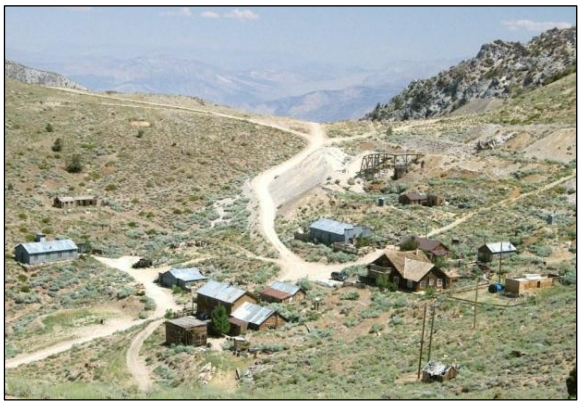
Proposed Projects and Strategies

Future route improvements will focus on maintenance in addition to basic operational and safety enhancements such as shoulder widening. At the time of the TCR's 2014 update, all of the culverts within the SR 136 corridor have been either repaired or replaced and are in good working condition. The bridge at PM 2.63 is in good working order but needs to be retrofitted with the latest standard Type WB guardrail connections.

CORRIDOR OVERVIEW

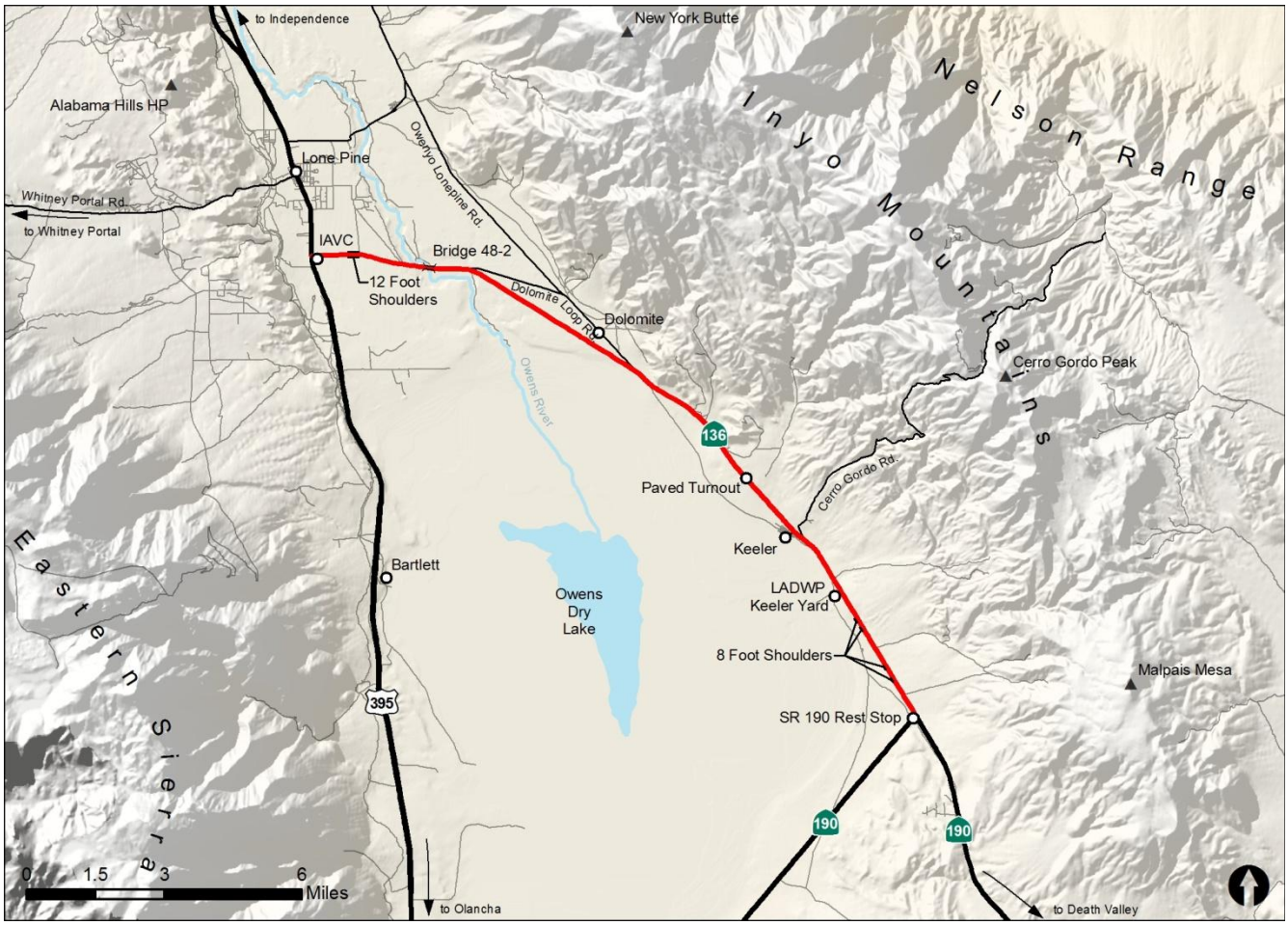
ROUTE SEGMENTATION

Seg #	Location Description	County_Route_Beg. PM	County_Route_End PM
1	Junction with US 395, 1 mile south of Lone Pine, to junction with SR 190.	INY_136_0.00	INY_136_17.73



Cerro Gordo Ghost Town

Owens Dry Lake



SR 136 Segment Map

ROUTE DESCRIPTION

Route Location:

SR 136 originates at its junction with US 395 one mile south of the Lone Pine. It travels over 17 miles in a southeasterly direction through the corridor formed between the Inyo Mountains and Owens Lake. In conjunction with SR 190 and US 395, SR 136 encloses a perimeter around Owens Lake.

Owens River Bridge (#48-2) – PM 2.63

Route Purpose:

SR 136 is used primarily as a connecter between Lone Pine and Death Valley via SR 190. It also provides Eastern Sierra residents and visitors access to various historical and recreational activities within the Inyo Mountains. In its *Owens Lake Master Project* Plan, LADWP plans on increasing public tourism to Owens Lake with the development of parking areas, walking trails, shelters, educational signs, and kiosks. These improvements would complement the vast dust control efforts which have been undertaken since 2001. The proposed recreational development may increase traffic on SR 136.

Paved Turnout and Historical Marker –PM 11.30

Major Route Features:

An information kiosk is located on the south side of the highway just in front of the Eastern Sierra Interagency Visitor Center at the US 395/136 junction. It provides historical information for Death Valley and Mount Whitney. There are 12-foot-wide, 340-foot-long shoulders located on both sides of the highway from PM 0.89/0.96. Bridge #48-2 crosses over the lower Owens River at PM 2.63. The bridge is in good condition but needs the latest standard Type WB guardrail connections. A paved turnout measuring 145 feet in length and 42 feet in depth accesses the highway at PM 11.30. The turnout overlooks the Keeler Dunes and is posted with a historic placard explaining the history of Owens Lake and LADWP's current Dust Mitigation Program for the lakebed. Two other historical markers are located at PM 2.80 and 13.13. There is a historic route pullout located 0.1 mile south of the SR 136/190 Junction off of SR 190. A significant portion of SR 136 abuts up against a series of alluvial fans that emanate out of canyons from the base of the Inyo Mountains. During heavy storm events, these fans will discharge debris flows over portions of the highway from PM 8.00/17.00. A series of cross sloped dykes have been constructed in order to channel surface runoff into controlled crossing locations over the highway. These dykes are maintained and repaired after heavy storm events typically every 2 to 3 years.

Route Designations and Characteristics

Freeway & Expressway	National Highway System	Strategic Highway Network	Scenic Highway	Interregional Road System	High Emphasis	Focus Route	Federal Functional Classification	Goods Movement Route	Truck Designation	Rural/Urban/ Urbanized	Regional Transportation Planning Agency	Local Agency	Tribes	Air District	Terrain
No	No	No	No	No	No	No	Minor Arterial	No	CA Legal Network Rte	Rural	Inyo Local Trans. Commission	Inyo County	None	Great Basin Unified Air Pollution Control District	Flat

COMMUNITY CHARACTERISTICS

There are two census-designated places within the SR 136 corridor. The community of Lone Pine is located approximately 1 mile north of the SR 136/US 395 junction. It functions as the gateway to Mount Whitney, the highest summit in the contiguous United States. The resident population is 2,173 with White (82%) and Native American (12%) being the primary demographic constituents. The economy is centered on servicing the large number of visitors stopping for food, gasoline, and lodging. Keeler is an even smaller community with 125 residents. There are no commercial properties and amenities such as food, gasoline, and lodging are not present.

LAND USE

The land adjacent to SR 136 from PM 0.00/3.60 is designated primarily for Natural Resource (NR) land use and is owned by LADWP. The remaining land use from PM 3.60/17.73 is designated as State and Federal Lands (SFL) and is managed by the Bureau of Land Management. Daily traffic on this highway is a mixture of auto and light truck. Major trip attractors along SR 136 include an LADWP yard facility off of Sulfate Road, an active Dolomite mine off of Dolomite Loop Road, and the Eastern Sierra IAVC. The IAVC is operated by federal, state, and local government agencies including the US Forest Service and the Bureau of Land Management. At this facility, Eastern Sierra travelers are provided with regional information along with passes and permits for some of the activities programmed on the surrounding federal lands.

Eastern Sierra Interagency Visitor Center

Place Type
Natural Resource (NR) & State and Federal Lands (SFL)

SYSTEM CHARACTERISTICS

SR 136 is an undivided, two-lane conventional highway for its entire length. It is classified as a Minor Arterial highway. Additionally, the highway is a California Legal Network Route for trucks and permits motor coaches and motor homes up to 45 feet long. The Right of Way varies between 50 and 400 feet and is held in dedicated fee title and by easement. With the exceptions of shoulder widening and general maintenance, SR 136 is a completed highway with no plans for increased capacity. The pavement is in excellent condition according to the Caltrans Pavement Condition Survey.

Existing Facility										
Facility Type	General Purpose Lanes	Lane Miles	Centerline Miles	Shoulder Width	Median Width	Lane Width	Passing Lanes	Truck Climbing Lanes	Distressed Pavement	Current ROW
C	2	35.46	17.73	0-1 ft	0 ft	12 ft	0%	0%	0%	50 – 400 ft

Concept Facility								
Facility Type	General Purpose Lanes	Lane Miles	Centerline Miles	Shoulder Width	Median Width	Lane Width	Passing Lanes	Truck Climbing Lanes
C	2	35.46	17.73	4 ft	0 ft	12 ft	0%	0%

BICYCLE FACILITY

Bicyclists are permitted to ride along the entire length of SR 136. With the exception of several spot locations mentioned in the Major Route Features section, the shoulder width varies from 0 to 1 foot.

Post Mile	Location Description	Bike Access Prohibited	Facility Type	Outside Paved Shoulder Width	Facility Description	Posted Speed Limit
0.00/17.73	Junction with US 395, 1.5 miles south of Lone Pine, to junction with SR 190.	No	None	0-1 ft	Narrow Shoulder	65 mph.

PEDESTRIAN FACILITY

Pedestrians are permitted to travel along the shoulders for the entire length of SR 136. However, pedestrian traffic is minimal.

Post mile	Location Description	Pedestrian Access Prohibited	Sidewalk Present
0.00/ 17.73	Junction with US 395, 1.5 miles south of Lone Pine, to junction with SR 190.	No	No

ENVIRONMENTAL CONSIDERATIONS

The purpose of this environmental scan is to identify environmental factors that may need future analysis in the project development process. This information does not represent all possible environmental considerations that may exist within the area surrounding the route. Any SR 136 project being considered for programming would require environmental clearance in compliance with all federal, state, and local environmental laws and regulations. The environmental factors identified are scaled (high=red, medium=yellow, or low=green) by district staff based on the probability of encountering such issues.

The following environmental factors were identified:

- **Farmland/Timberland:** SR 136 crosses through open cattle range for the majority of the route. Grazing is also permitted in the Alabama Hills grazing allotment west of the US 395/SR 136 junction subject to prescriptions in the BLM's Bishop Resource Management Plan.

- **Air Quality:** Inyo County is designated as an unclassified/attainment area for Ozone, Particulate Matter 2.5, and Carbon Monoxide. However, the Owens Valley, in which SR 136 is located, is designated as a nonattainment area for Particulate Matter 10 (PM_{10}) due to the fine-grained sand that is exposed along the periphery of the Owens Dry Lakebed. Under court order, LADWP has been implementing dust control measures since 2001 which include shallow flooding, laying a gravel cover, and stabilizing the soil with Saltgrass (*Distichlis spicata*). Inyo County is in the Great Basin Valleys Air Basin under the management of the Great Basin Unified Air Pollution Control District.

- **Community Impacts/Environmental Justice:** SR 136 is the only paved access from US 395 into the community of Keeler. Access should be maintained during future highway projects. The Keeler Dunes area is a major source for dust pollution for neighboring Keeler averaging 6 violations per year in the National Ambient Air Quality Standards for PM 10 emissions. The GBUAPCD is currently in the process of controlling this source pollutant with native plant and straw bale cover.

(Environmental Considerations continued)

- **Visual Aesthetics:** SR 136 passes by several landmarks which commemorate important events within the history of Owens Lake. The most prominent landmark is the LADWP placard located at the paved turnout at PM 11.30 which also provides a panoramic view of the lakebed.

- **Cultural Resources:** Owens Lake is rich in Native American and mining-era artifacts that represent centuries of Owens Valley settlement. As such, the SR 136 corridor is a highly culturally-sensitive area. Several artifacts within the valley have received federal and state recognition:

  U.S. Department of the Interior, National Park Service
  National Register of Historic Places (Landmark Number)
  - Saline Valley Salt Tram Historic Structure (#74000514)

  California Department of Parks and Recreation, Office of Historic Preservation
  California Historic Resources – Points of Interest (Plaque Number)
  - Cerro Gordo (P587)
  - Furnace of the Owens Lake Silver-Lead Company (752)
  - Keeler, End of the Line (P444)
  - Saline Valley Salt Tram Historic Structure (N322)

- **Floodplain:** The Federal Emergency Management Agency has approximated that the Owens Dry Lakebed, along with the riparian zone centered along the lower Owens River, are within a 100-year flood zone. SR 136 crosses over this Special Flood Hazard Area from PM 2.44/2.72.

- **Geology/Soils/Seismic/Topography:** The highway travels through the 1872 rupture section of the California Geological Survey's Owens Valley fault zone from PM 0.00/3.40. Under the National Earthquake Hazards Reduction Program, it falls within Seismic Design Categories D1 and D2 which indicate areas that are susceptible to strong shaking. SR 136 rises 107 feet over its entire length. The route is generally flat from the US 395/136 junction to Keeler after which it traverses over major dips.

- **Waters and Wetlands:** SR 136 travels along the northeastern side of Owens Lake and crosses over its major tributary, the Owens River, at PM 2.63. Both of these water bodies have been dry for nearly a century due in large part to the 1913 diversion of the upper Owens River into the LA Aqueduct near the community of Aberdeen. This has resulted in a loss of riparian habitat along the 62 mile stretch of riverbed from south of the diversion dam as well as what has become a major source of dust pollution for arsenic, cadmium, nickel, and sulfates within the dry lakebed. However, due to a 1997 Water Agreement between Inyo County and LADWP, water has been released back into the lower Owens River and portions of the lakebed have been shallowly flooded as part of a Memorandum of Agreement between LADWP and GBUAPCD. As the lakebed has been restored, more migratory birds have been using Owens Lake as a stopover along the Pacific Flyway. In April of 2013, the Eastern Sierra Audubon Society counted 115,000 individual birds within 68 different species on their annual Spring Big Day Bird Survey. For this reason, Owens Lake has been designated an Important Bird Area for the purpose of minimizing habitat loss and degradation through conservations strategies.

- **Habitat Connectivity:** The California Essential Habitat Connectivity Project, a joint report conducted between Caltrans, the CA Department of Fish and Wildlife, and the Federal Highway Administration, identifies SR 136 as a "Road Mitigation Stick" separating the Inyo Mountains Landscape area from the Silver Mountain Landscape area. Direct effects that a road can have on wildlife habitat include: road mortality, habitat fragmentation and loss, and reduced connectivity. The *Wildlife Crossing Guidance Manual* provides detailed guidance for mitigating these impacts.

(Environmental Considerations continued)

- **Species Considerations:** The California Natural Diversity Database identifies three special status species within a 2,000-foot-wide corridor centered along SR 136:
    - Desert tortoise, *Gopherus agassizii,*
        - Endangered Species Act: Threatened
        - California Endangered Species Act: Threatened
    - Mojave ground squirrel, *Xerospermophilus mohavensis*
        - California Endangered Species Act: Threatened
    - Owens tui chub, *Siphateles bicolor snyderi*,
        - Endangered Species Act: Endangered
        - California Endangered Species Act: Endangered
    - Western snowy plover, *Charadrius alexandrines nivosus*,
        - Endangered Species Act: Threatened
        - California Department of Fish and Wildlife: Species of Special Concern
    - Bald daisy, *Erigeron calvus*
        - California Native Plant Society Rare Plant Program: 1B.1

Seg	Farmland/ Timberland	Air Quality				Community Impacts/ Environmental Justice	Visual Aesthetics	Cultural Resources	Floodplain	Geology/Soils/ Seismic/Topography	Waters and Wetlands	Habitat Connectivity	Special Status Species
		Ozone	PM 2.5	PM 10	CO								
1	*Low*	*Unclassified/ Attainment*	*Unclassified/ Attainment*	*Non-Attainment*	*Unclassified/ Attainment*	*Med*	*Med*	*High*	*Low*	*Med*	*Med*	*Low*	*Med*

CORRIDOR PERFORMANCE

SR 136 operates above the Concept Level of Service (LOS) for both the base year and the horizon year outlook. This is due primarily to the low traffic volumes in addition to high passing opportunity and very few access points along the route.

Basic System Operations	
AADT (BY)	495
AADT (HY)	671
AADT: Growth Rate/Year	1.53%
LOS Method	Highway Capacity Manual
LOS (BY)	A
LOS (HY)	A
LOS Concept	C
VMT (BY)	8,776
VMT (HY)	11,897

Truck Traffic	
Total Average Annual Daily Truck Traffic (AADTT) (BY)	12
Total Average Annual Daily Truck Traffic (AADTT) (HY)	14
Total Trucks (% of AADT) (BY)	2.42%
Total Trucks (% of AADT) (HY)	2.09%
5+ Axle Average Annual Daily Truck Traffic (AADTT) (BY)	2
5+ Axle Average Annual Daily Truck Traffic (AADTT) (HY)	1
5+ Axle Trucks (as % of AADT) (BY)	0.30%
5+ Axle Trucks (as % of AADT) (HY)	0.15%
Peak Hour Traffic Data	
Peak Hour Direction	West
Peak Hour Time of Day	PM
Peak Hour Directional Split (BY)	68/32
Peak Hour VMT (BY)	1,613
Peak Hour VMT (HY)	2,188

KEY CORRIDOR ISSUES

Highway standards have changed since the original construction of SR 136 and, as a result, the paved shoulder width is less than the current standard. The Owens River bridge (#48-0002) located at PM 2.63 has a W-beam guardrail transition which needs to be brought up to standard. Many of the traffic collisions which have occurred were preceded by vehicles running off the road. The highway is subject to drainage issues, especially from PM 8.00/17.00 where it is prone to flash flooding. Sand from the dry periphery of the lakebed will at times get blown onto the highway creating sand dunes around PM 10.50. Caltrans' Independence maintenance station sends out large motor graders and plow trucks to blade the sand off of the highway. District 9 has executed several projects which have worked to prevent sand from building up on the highway.

CORRIDOR CONCEPT

CONCEPT RATIONALE

No significant growth or development is anticipated in the SR 136 corridor within the TCR's 20-year scope of concern. The highway receives relatively low traffic volume and any increase in capacity is not foreseen in the near future. For these reasons, the highway is expected to remain a two-lane, conventional highway.

PLANNED AND PROGRAMMED PROJECTS AND STRATEGIES

Currently, there are no planned or programmed projects for SR 136.

PROJECTS AND STRATEGIES TO ACHIEVE CONCEPT

Seg.	Description	Location	Source	Purpose	Implementation Phase
1	Widen Shoulders	0.00/11.73	Caltrans D-9	Maintenance & Operations	Long Term
1	Install Rumble Strips	0.00/11.73	Caltrans D-9	Maintenance & Operations	Long Term
1	Bring the W-beam guardrail transition up to current standard	2.63	Caltrans D-9	Operations	Long Term
1	Repair existing drainage dikes where necessary	Various	Caltrans D-9	Maintenance	Long Term

APPENDICES

APPENDIX A
GLOSSARY OF TERMS AND ACRONYMS

Acronyms

2C – Two-Lane Conventional Highway
AADT – Annual Average Daily Traffic
AADTT – Annual Average Daily Truck Traffic
AUM – Animal Unit Month
BLM – Bureau of Land Management
BY – Base Year
Caltrans – California Department of Transportation
CDCA – California Desert Conservation Area Plan
CDP – Census-Designated Place
CESA – California Endangered Species Act
CNPS – California Native Plant Society
CNDDB – California Natural Diversity Database
CO – Carbon Monoxide
DFW – Department of Fish and Wildlife
ESA – Endangered Species Act
ESTA – Eastern Sierra Transit Authority
FEMA – Federal Emergency Management Agency
FHWA – Federal Highway Administration
GBUAPCD – Great Basin Unified Air Pollution Control District
HCM – Highway Capacity Manual
HY – Horizon Year
IAVC – Interagency Visitor Center
KPRA – Kingpin-to-rear-axle distance
LADWP – Los Angeles Department of Water and Power
LOS – Level of Service
LTC – Local Transportation Commission
MPH – Miles per Hour
N/A – Not Applicable
NB – Northbound
NEHRP – National Earthquake Hazards Reduction Program
PM – Post Mile or Particulate Matter
R – (prefix to Post Mile) Realigned
R/W or ROW – Right of Way
RTP – Regional Transportation Plan
SB – Southbound
SFHA – Special Flood Hazard Area
SR – State Route
SSC – Species of Special Concern
STAA – Surface Transportation Assistance Act
TCR – Transportation Concept Report
US – United States Highway
USFS – United States Forest Service
USFWS – United States Fish & Wildlife Service
VMT – Vehicle Miles Traveled

Definitions

Annual Average Daily Traffic (AADT) – The total volume for the year divided by 365 days. The traffic count year is from October 1st through September 30th. Traffic counting is generally performed by electronic counting instruments moved from location to location throughout the state in a program of continuous traffic count sampling. The resulting counts are adjusted to an estimate of annual average daily traffic by compensating for seasonal influence, weekly variation and other variables which may be present. AADT is necessary for presenting a statewide picture of traffic flow, evaluating traffic trends, computing accident rates, planning and designing highways and other purposes.

Attainment/Unclassified – A status designation that the California Air Resources Board is required to apply to areas of the State which signifies either that pollutant concentrations do not violate the standard for that pollutant in that area or that data does not support either an attainment or nonattainment status.

Base Year (BY) – The year that the most current data is available to the districts.

California Department of Fish and Wildlife (DFW) Nongame Wildlife Program – A conservation program which categorizes sensitive bird, mammal, reptile and amphibian species for the purposes of resource assessment, research, conservation planning, recovery planning, permitting, and outreach activities.

Fully Protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the species

Species of Special Concern designates a species, subspecies, or distinct population of an animal native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria:

is extirpated from the state or, in the case of birds, in its primary seasonal or breeding role;

is listed as Federally-, but not State-, threatened or endangered; meets the state definition of threatened or endangered but has not formally been listed;

is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for state threatened or endangered status;

has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for state threatened or endangered status.

California Endangered Species Act (CESA) List – A list of species determined to be “rare”, “threatened” or “endangered” by the California Fish and Game Commission under the California Endangered Species Act. Listing is based on present or threatened modification or destruction of habitat, competition, predation, disease, overexploitation by collectors, or other natural occurrences or human-related activities.

Endangered In serious danger of becoming extinct throughout all, or a significant portion, of a species’ range due to one or more causes, including loss of habitat, over exploitation, competition, or disease.

Threatened Likely to become an endangered species in the foreseeable future in the absence of special protection and management efforts

Capacity – The maximum sustainable hourly flow rate at which persons or vehicles reasonably can be expected to traverse a point or a uniform section of a lane or roadway during a given time period under prevailing roadway, environmental, traffic, and control conditions.

Capital Facility Concept – The 20-25 year vision of future development on the route to the capital facility. The capital facility can include capacity increasing, state highway, bicycle/pedestrian/transit facility, grade separation, and new managed lanes.

Census-Designated Place – A concentration of population identified by the United States Census Bureau for statistical purposes. Census-designated places are delineated for decennial census as the statistical counterparts of incorporated places, such as cities, towns, and villages.

Concept LOS – The minimum acceptable LOS over the next 20-25 years.

Conventional Highway – A highway generally without controlled access. Grade separations at intersections or access control may be used at spot locations when justified.

Easement – An interest in real property that conveys use, but not ownership.

Facility Concept – Describes the facility and strategies that may be needed within 20-25 years. This can include capacity increasing, state highway, bicycle/pedestrian/transit facility, non-capacity increasing operational improvements, new managed lanes, conversion of existing managed lanes to another managed lane type or characteristic, TMS field elements, and transportation demand/incident management.

Facility Type – The facility type describes the state highway facility type. The facility could be freeway, expressway, conventional, or one-way city street.

Fee Simple Title – Absolute ownership unencumbered by any other interest or estate.

Functional Classification – Guided by federal legislation, refers to a process by which streets and highways are grouped into classes or systems according to the character of the service that is provided, i.e. Principal and Minor Arterial Roads, Collector Roads, and Local Roads.

> **Principal Arterial** A roadway that serves a large percentage of travel between cities and other activity centers, especially when minimizing travel time and distance is important. These roadways typically carry higher traffic volumes and are usually the route of choice for intercity buses and trucks.
>
> > **Interstate** A Principal Arterial roadway designed for mobility and long-distance travel. Characteristics include limited access, divided medians and emphasis on linking major urban areas of the United States.
> >
> > **Other Freeway or Expressway** A Principal Arterial roadway with its directional travel lanes typically separated by some type of physical barrier, access and egress points that are limited to on- and off-ramp locations, and a very limited number of at-grade intersections. Abutting land uses are not directly served by this road type.
> >
> > **Other Principal Arterial** A Principal Arterial roadway that serves major centers of metropolitan areas, provides a high degree of mobility and that can also provide mobility through rural areas. Abutting land uses can be directly served by this road type.

Minor Arterial A roadway that provides service for trips of moderate length, that serves geographic areas that are smaller than those served by the Principal Arterials, and that provides intra-community continuity and may carry local bus routes. In rural areas, Minor Arterials are typically designed to provide relatively high overall travel speeds, with minimum interference to through movement.

Collector A roadway which gathers traffic from Local Roads and funnels it to the Arterial Network. Primarily serves intra-county travel rather than statewide and constitutes those routes on which predominant travel distances are shorter than on Arterial Routes.

Major Collector A Collector that is longer in length, having a lower density of connecting driveways, higher speed limits and greater intervals of spacing than Minor Collectors. These roadways can serve a higher volume of traffic.

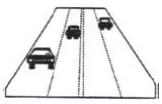
Minor Collector A Collector that is shorter in length, having a higher density of connecting driveways, lower speed limits and smaller intervals of spacing than Major Collectors. These roadways serve lower volumes of traffic.

Local Road A roadway not intended for long distance travel and that provides direct access to abutting land. This road type accounts for the largest percentage of all roadways in terms of mileage. Through traffic and Bus Routes are typically discouraged.

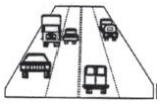
Horizon Year (HY) – The year that the future (20-25 years) data is based on.

Interregional Road System Route (IRRS) – A route that is a part of the IRRS system of highways and a subset of the Freeway and Expressway System that is outside of any urbanized area and provides access to, and links between, the State's economic centers, major recreation areas, and urban and rural regions.

Level of Service (LOS) – A qualitative measure describing operational conditions within a traffic stream and their perception by motorists. A LOS definition generally describes these conditions in terms of speed, travel time, freedom to maneuver, traffic interruption, comfort, and convenience. Six levels of LOS can generally be categorized as follows:



LOS A describes free-flowing conditions. The operation of vehicles is virtually unaffected by the presence of other vehicles, and operations are constrained only by the geometric features of the highway.



LOS B is also indicative of free-flow conditions. Average travel speeds are the same as in LOS A, but drivers have slightly less freedom to maneuver.

LOS C represents a range in which the influence of traffic density on operations becomes marked. The ability to maneuver with the traffic stream is now clearly affected by the presence of other vehicles.

LOS D demonstrates a range in which the ability to maneuver is severely restricted because of the traffic congestion. Travel speed begins to be reduced as traffic volume increases.

LOS E reflects operations at or near capacity and is quite unstable. Because the limits of the level of service are approached, service disruptions cannot be damped or readily dissipated.

LOS F a stop and go, low speed conditions with little or poor maneuverability. Speed and traffic flow may drop to zero and considerable delays occur. For intersections, LOS F describes

operations with delay in excess of 60 seconds per vehicle. This level, considered by most drivers unacceptable often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection.

Nonattainment – A designation that the California Air Resources Board is required to apply to areas of the State which signifies that a pollutant concentration violated the standard for that pollutant in that area at least once, excluding those occasions when a violation was caused by an exceptional event.

Peak Hour – The hour of the day in which the maximum volume occurs across a point on the highway.

Peak Hour Volume – The hourly volume during the highest hour traffic volume of the day traversing a point on a highway segment. It is generally between 6 percent and 10 percent of the Annual Daily Traffic (ADT). The lower values are generally found on roadways with low volumes.

Planned Project – A planned improvement or action is a project in a financially constrained section of a long term plan, such as an approved Regional Transportation Plan (RTP), Capital Improvement Plan, or bond measure program.

Post Mile (PM) – A post mile is an identified point on the State Highway System. Post mile values increase from the beginning of a route within a county to the next county line and start over again at each county line. Post mile values usually increase from south to north or west to east depending upon the general direction the route follows within the state. The post mile at a given location will remain the same year after year. When a section of road is relocated, new post miles (usually noted by an alphabetical prefix such as "R" or "M") are established. If relocation results in a length change, "post mile equations" are introduced at the end of each relocated portion so that post miles on the remainder of the route within the county remain unchanged.

Programmed Project – A programmed improvement or action is a project in a near term programming document identifying funding amounts by year, such as the State Transportation Improvement Program or the State Highway Operations and Protection Program.

Right of Way (ROW) – Any strip or area of land granted by deed or easement for ... a designated use.

Route Designation –A route's designation is adopted through legislation and identifies what system the route is associated with on the State Highway System. A designation denotes what design standards should apply during project development and design. Typical designations include, but are not limited to, National Highway System (NHS), Interregional Route System (IRRS), and Scenic Highway System.

Rumble Strip – The application of a series of equally-spaced grooves either mounted or applied inside the pavement of a road used to alert drivers that they are exiting the travel way through an audible rumbling.

Rural – According to the United States Census Bureau, rural consists of all territory, population, and housing units located outside Urbanized Areas (UAs) and Urbanized Clusters (UCs). UA and UC boundaries represent densely developed territory, encompassing residential, commercial, and other nonresidential urban land uses. A UA consists of densely developed territory that contains 50,000 or more people. A UC consists of densely developed territory that has at least 2,500 people but fewer than 50,000 people.

Scenic Highway – A highway that is located in an area of natural scenic beauty that is designated for special conservation treatment.

Segment – A portion of a facility between two points.

Seismic Design Category (SDC) – An earthquake hazard classification assigned to a structure based on its occupancy or use and on the level of expected soil modified seismic ground motion.

A denotes very small seismic vulnerability.

B denotes low to moderate seismic vulnerability.

C denotes moderate seismic vulnerability.

D denotes high seismic vulnerability.

E and **F** denote very high seismic vulnerability and near a major fault.

Special Flood Hazard Area (SFHA) – The land area covered by the floodwaters of the base flood on National Flood Insurance Program (NFIP) maps. These areas are subject to floodplain management regulations where the mandatory purchase of flood insurance applies.

100-Year Flood Zone – An area that will be inundated by a flood event having a 1-percent chance of being equaled or exceeded in any given year.

500-Year Flood Zone – An area that will be inundated by a flood event having a 0.2-percent chance of being equaled or exceeded in any given year.

Special Status Species – Any species which is listed or proposed for listing under ESA, CESA, or CDFW.

Surface Transportation Assistance Act (STAA) – A transportation funding and policy act which allows on a federally designated system of highways (National Network) and on Terminal Access Routes the use of semitrailers up to 48 feet in length with no KPRA restrictions and semitrailers up to 53 feet in length with certain KPRA restrictions.

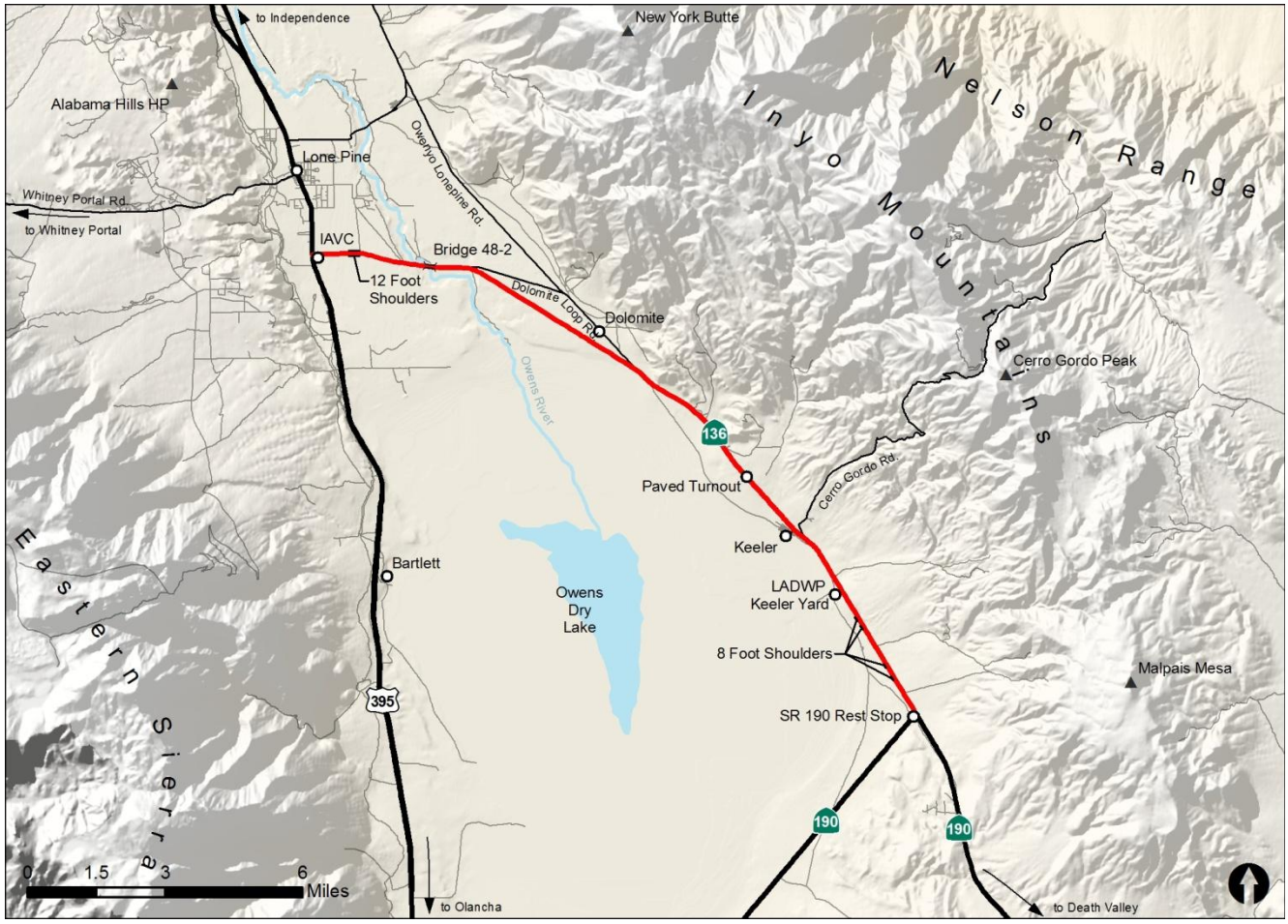
System Operations and Management Concept – Describes the system operations and management elements that may be needed within 20-25 years. This can include non-capacity increasing operational improvements (auxiliary lanes, channelizations, turnouts, etc.), conversion of existing managed lanes to another managed lane type or characteristic, TMS field elements, transportation demand management, and incident management.

Terminal Access Route – A route which provides STAA trucks access to truck terminals to unload freight.

Vehicle Miles Traveled (VMT) – The total number of miles traveled by motor vehicles on a road or highway.

APPENDIX B
FACTSHEETS

PM 0.00 – PM 17.73



SR 136 originates at its junction with US 395 approximately one mile south of the community of Lone Pine. It travels over 17 miles in a southeasterly direction through the corridor formed between the Inyo Mountains and Owens Lake. It passes through flat desert scrubland, crosses over the riparian wetlands of the lower Owens River, and travels by the Keeler sand dunes swept across the periphery of Owens Lake. This is an undivided, two-lane conventional highway with a Minor Arterial classification. It functions as a California Legal Network Route for trucks and permits motor homes up to 45 feet long. In addition to US 395 and SR 190, the highway has access to various private, county, and federal roads. Services such as food, lodging, and gasoline are not available along this highway.

Projects and Strategies to Achieve Concept				
Description	**Location**	**Source**	**Purpose**	**Implementation Phase**
Widen Shoulders	0.00/11.73	Caltrans D-9	Maintenance & Operations	Long Term
Install Rumble Strips	0.00/11.73	Caltrans D-9	Maintenance & Operations	Long Term
Bring the W-beam guardrail transition up to current standard	2.63	Caltrans D-9	Operations	Long Term
Repair existing drainage dikes where necessary	Various	Caltrans D-9	Maintenance	Long Term

(Factsheet continued)

Route Designations and Characteristics	
Freeway & Expressway	No
National Highway System	No
Strategic Highway Network	No
Scenic Highway	No
Interregional Road System	No
High Emphasis	No
Focus Route	No
Federal Functional Classification	Minor Arterial
Goods Movement Route	No
Truck Designation	CA Legal Network Route
Rural/Urban/Urbanized	Rural
Regional Transportation Planning Agency	Inyo LTC
Local Agency	Inyo County
Tribes	None
Air District	Great Basin Unified Air Pollution Control District
Terrain	Flat

Environmental Considerations			
Farmland/ Timberland			Low
Air Quality	Ozone		Unclassified/ Attainment
	PM	2.5	Unclassified/ Attainment
		10	Non-Attainment
	CO		Unclassified/ Attainment
Community Impacts			Med
Visual Aesthetics			Med
Cultural Resources			High
Floodplain			Low
Geology/Soils/Seismic			Med
Waters and Wetlands			Med
Habitat Connectivity			Low
Special Status Species			Med

Ped.	
Pedestrian Access Prohibited	No
Sidewalk Present	No

System Characteristics	
Facility Type	C
General Purpose Lanes	2
Lane Miles	35.46
Centerline Miles	17.73
Shoulder Width	0-1 ft
Median Width	0 ft
Lane Width	12 ft
Passing Lanes	0%
Truck Climbing Lanes	0%
Distressed Pavement	0%
Current ROW	100 - 400 ft; fee title, BLM Map, easement

Bicycle Facility	
Post Mile	0.000-17.730
Bicycle Access Prohibited	No
Facility Type	None
Outside Paved Shoulder Width	0-1 ft
Facility Description	Narrow shoulder - widening needed
Posted Speed Limit	65 mph

Corridor Performance			
Basic Systems Operations		AADT (BY)	495
		AADT: Growth Rate/Year	1.53%
		LOS Method	HCM
		LOS (BY)	A
		LOS Concept	C
		VMT (BY)	8,776
Truck Traffic		Total Average Annual Daily Truck Traffic (AADTT) (BY)	12
		Total Trucks (% AADT) (BY)	2.42%
		5+ Axle Average Annual Daily Truck Traffic (AADTT)(BY)	2
Peak Hour Traffic Data		Peak Period Length	1
		Peak Hour Direction	West
		Peak Hour Time of Day	PM
		Peak Hour Directional Split (BY)	68/32
		Peak Hour VMT (BY)	1,613

APPENDIX C
RESOURCES

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