09 - Mno - 395 - 50.6/55.7
09-37430 – 0918000015 – 2645
20.10.201.361
May/2019

Draft Project Initiation Report

To

Request Programming in the 2020 SHOPP

On Route 395 in Mono County

Between 0.2 mile south of North Junction Route 120

And Cemetery Road

APPROVAL RECOMMENDED:

Brian Mc Elwain, *PROJECT MANAGER*

APPROVAL RECOMMENDED:

Ryan Dermody, *PLANNING DEPUTY DIRECTOR*

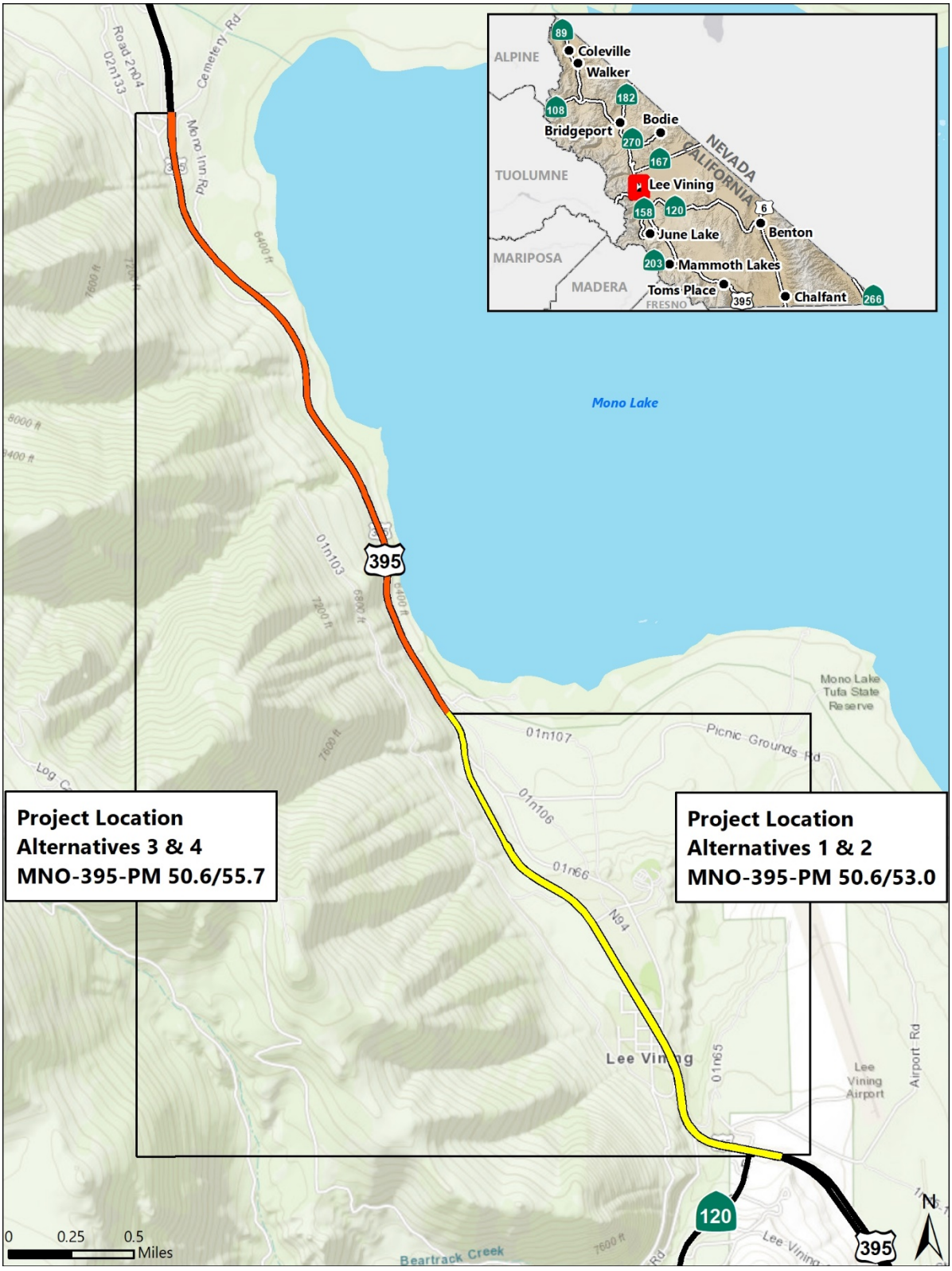
APPROVED:

Brent L. Green, *DISTRICT DIRECTOR*

06-13-19

DATE

Vicinity Map



This report has been prepared under the direction of the following registered civil engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.

05/30/19

REGISTERED CIVIL ENGINEER *DATE*

PDT MEMBERS

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Jim Hibbert	Landscape Architect	Design	(760) 872-0783

2. Table of Contents

1. INTRODUCTION, WORK DESCRIPTION, AND SUMMARY TABLE

Project Description:
The project meets the purpose and need by replacing all ADA facilities to current standards, incorporating complete street concepts, repairing pavement, and replacing and adding drainage system elements.

Project Limits	09-Mno-395		
	50.6/55.7		
Number of Alternatives	4		
Programmable Project Alternative	20.10.201.361		
Funding Source*	ADA Access Improvement Program		
Funding Year	2024		
Type of Facility	2-lane (2C) and 4-lane (4C) conventional highway		
Number of Structures	0		
SHOPP Project Output	Lane Miles: 8.8 Lane Miles ADA: 26 Curb Ramps, 1100 LF Driveways, 5430 LF Sidewalk		
Anticipated Environmental Determination or Document	CEQA: IS (MND) NEPA: CE		
Legal Description	In Mono County at and near Lee Vining from 0.2 mile south of north junction Route 120 West to Picnic Grounds Road.		
Project Development Category	4B		
PIR Level	Level 2		
Capital Outlay Project Cost		**Current Cost[1] Estimate including Risk:($1000)**	**Escalated Cost[2] Estimate:($1000)**
Support			
PA&ED		2,364	2,512
PS&E		2,044	2,304
R/W (Right-of-Way)		1,449	1,658
CONS (Construction)		2,288	2,692
Capital			
R/W		290	337
CONS		11,541	14,132

Notes:

2. PURPOSE AND NEED

Purpose:

Bring pedestrian facilities and crossings up to current standards required by the American Disabilities Act (ADA). Pavement work is required to modify the geometry and cross slope of the roadway to make facilities ADA compliant. Restore the facility to a state of good repair so that the roadway will require minimal maintenance resources and bring fewer disruptions to the public over the life cycle of the pavement. Address and replace drainage systems. Provide a safe and efficient transportation system for interregional traffic that also addresses the local needs of the Lee Vining Community.

Need:

The roadway has reached the end of its life cycle as it exhibits major pavement distress. The local community desires complete streets facilities to accommodate multimodal transportation use. This will also allow for the upgrade of ADA facilities that were constructed to previous standards. Additionally, current drainage facilities need to be upgraded and expanded to accommodate improvements.

3. RECOMMENDATION

It is recommended that this report be approved, and the project programmed using the estimate and schedule for the Programmable Project Alternative. This report was prepared to documentation Level 2.

4. RISK SUMMARY

A risk register identifying risks is attached. High impact risks include utility relocation, contaminated soils, biology study schedule, sensitive status plant and animal species, state or federally listed species, riparian vegetation mitigation, and permitting agency turnover.

<u>Responses</u>

Utility Relocation

Utilities will be scoped to be moved during PS&E or drainage systems will be re-designed to avoid them.

Contaminated Soils

Use existing contaminated soil contract to remove soils if found.

Biology Study Schedule

Communicate early with the project and engineer and the Professional Development Team (PDT) about the importance of submitting requests prior to survey season.

Sensitive Status Plan and Animal Species

Set aside contingency funds if found for consultation and mitigation.

State or Federally Listed Species
Set aside contingency funds if found for consultation and mitigation.

Riparian Vegetation Mitigation
Set aside contingency funds if design changes impact additional riparian vegetation not previously mitigated for.

Permitting Agency Turnover
Apply for permits as soon as possible during PS&E.

5. BACKGROUND

In 2015, District 9 approved a Project Initiation Document (PID) to upgrade sidewalks, curb ramps, and driveways to current ADA standards from PM 51.0 to PM 51.7. The passage of the Road Repair and Accountability Act of 2017 (SB 1) allowed the department to upgrade the original ADA project to a comprehensive rehab project of the corridor during the Project Approval and Environmental Document (PA&ED) phase. The upgrade was triggered by the high pavement distress of the corridor. Support efforts expended thus far for the PA&ED phase of the ADA project include a survey of the sidewalk segment from PM 51.0 to PM 51.7, support cost estimates, traffic analysis, right-of-way data report, and environmental CE. All efforts expended in the ADA project have been useful in the development of this PIR.

Coordination with the community, local, and regional agencies has been thorough with a consultant contract and is further described under corridor and system coordination of this report.

The rehab strategy for each segment of the project has been determined from the PaveM PCR Report, Highway H-chart, and as-builts. The project has been split up into the following 4 segments of varied pavement distress:

PM 50.6 to PM 51.0
In 2003 this segment was 4 laned with 0.54' of asphalt concrete (AC) over 0.64' of aggregate base (AB). In 2008 the segment was overlayed with 0.08' rubberized HMA (open graded high binder). Due to the new structural section completed in 2003, this segment exhibits minimal pavement distress and the rubberized HMA is performing well. The segment has an average of 12.4% alligator A, 6.5% alligator B cracking, and an average IRI of 72. The predicted condition in 2023 is 27.5% alligator A, 23.6% alligator B, and an IRI of 92. The minimum strategy for this section has therefore been determined to be a 0.20' cold plane with a 0.20' AC overlay.

PM 51.0 to PM 51.7
This segment of highway was 4 laned in 1964 with 0.25' of class 3 aggregate base and 0.25' of road mixed asphalt surfacing. In 1983 an overlay project placed 0.12' AC through this segment. A rehab through the section was completed in 2000 which cold planed 0.26' of asphalt concrete pavement and placed back 0.26' of asphalt concrete pavement. In 2008 the segment was overlayed with 0.08' rubberized HMA (open graded high binder). The

rubberized overlay has not performed well as it is exhibiting an average of 24% alligator A cracking and 19.1% alligator B cracking. The average IRI for this segment is 77. The predicted condition in 2023 is 30.7% alligator A, 34.6% alligator B, and an IRI of 95. This section will be pulverized into a new structural section due to the pavement distress and sidewalk cross slope deficiencies.

PM 51.7 to PM 53.0
This segment was built in 1934 with 0.25' (Compacted) Bituminous Treated Selected Material Surfacing and 0.5' 'Type B' Imported Borrow. In 1983 an overlay project placed 0.25' AC through this section. In 1987 a 4-lane widening project placed a leveling course over the existing surface that is a minimum of 0.15' and maximum 1.35' AC surfacing. The widened areas are 0.45' AC over 0.50' AB. In 1989 a chip seal was placed. A rehab through the section was completed in 2000 which cold planed 0.26' of asphalt concrete pavement and placed back 0.26' of asphalt concrete pavement. In 2006 an Asphalt Rubber (AR) chip seal was placed. In 2008 the section was overlayed with 0.08' rubberized HMA (open graded high binder). The rubberized overlay has not performed well as it is exhibiting an average of 19.3% alligator A cracking and 12.8% alligator B cracking. The average IRI for this section is 70. The predicted condition in 2023 is 28.5% alligator A, 27.1% alligator B, and an IRI of 90. The minimum strategy for this segment is a 0.40' cold plane with a 0.40' AC overlay.

PM 53.0 to PM 55.7
This section was built in 1933 with 0.25' of (Compacted) Bituminous Treated Selected Material Surfacing over profile grade. In 1983 an overlay project placed 0.25' AC to PM 55.0. In 1989 a chip seal was completed. In 2000 a project overlayed the section with 0.10' of AC (Type B, PBA-6B). In 2006 an AR chip seal was placed. The overlay and chip seal are performing well. The pavement surface has been damaged from a rockfall project but is otherwise in good condition with an average of 9.6% alligator A and 8.9% alligator B cracking. The average IRI is 77. The predicted condition for this segment is 21.0% alligator A, 19.6% alligator B, and an IRI of 92. The recommended minimum strategy for this segment is a 0.20' cold plane with a 0.20' AC overlay to fix damage from rockfall project, improve IRI, and extend the life of the segment.

6. ASSET MANAGEMENT

This project has 14 activity details identified in the SHOPP Tool shown in Attachment I. The details are shown for PM 50.6 to 53.0 which covers the programmable and minimum project alternatives.

Alternatives 1 and 2 will achieve the Pavement Class I objective by rehabilitating the pavement. Alternative 1 performs a Full Depth Reclamation (FDR) with Pulverization from PM 50.6 to 53.0. Alternative 2 performs a Full Depth Reclamation (FDR) Pulverization through the community of Lee Vining, PM 51.2 to 51.7, and a mill-and-fill for from PM 50.6 to 51.2 and 51.7 to 53.0.

The project will achieve the Drainage System Restoration objective through the replacement of all deficient culverts that have reached the end of their life cycle and those who need to be

replaced to accommodate cross slope adjustments. Out of 20 existing culverts, 2 will be abandoned and 13 will be replaced.

The project will achieve the Transportation Management Systems objective by replacing the census station at PM 51.93. There are also 2 radar speed signs, 2 school flashing beacons, and one Model 500 Changeable Message Sign (CMS) on the project. Additional hybrid pedestrian crosswalks are being considered for the project.

The project will achieve the ADA Pedestrian Infrastructure performance objective through replacing all ADA facilities in the project including driveways, sidewalk, crosswalks, and curb ramps.

The project will achieve Roadside Safety Improvements objective through replacing all striping, markings, signs to current retroreflectivity standards, and metal beam guardrail to midwest guardrail.

Other performance objectives that will be achieved which do not have an objective in the State Highway System Management Plan (SHSMP) will include the installation of a Class II bike lane through the community, curb extensions/bulb outs at curb ramps, and improving bicycle and pedestrian accessibility through the corridor.

7. CORRIDOR AND SYSTEM COORDINATION

The US 395 corridor through the project area is a four-lane expressway south of Lee Vining; within Lee Vining it's a four-lane conventional roadway, and north of Lee Vining it's a two-lane conventional roadway with passing lanes. US 395 within the project limits is designated as part of the National Highway System, the National Truck Network, a Scenic Highway, and as a Priority Interregional Route. The highway is also a designated Class 3 bicycle facility between Postmiles 50.05 and 53.018 within the project limits; however, bicycle use is permitted on the entirety of US 395. Sidewalks exist between PM 51.05 and 51.69 within the community but require upgrades to meet current Americans with Disabilities Act (ADA) standards.

The project is located 12 miles from the east entrance of Yosemite National Park. The unincorporated town of Lee Vining within the project serves as a gateway community to the park. Route 120 West, the road which serves as the east entrance to the park, is typically closed from November through April. In 2016, the park received 5,028,868 visitors, 75% of which visited in May through October. The peak month traffic volume in 2016 for the east entrance (near project) was 4350, while the peak month traffic volume for the west entrance was 7400.

The project supports performance targets set forth by SB 1 to bring 98% of pavement in good/fair condition and 90% of drainage/culverts in good/fair condition over the next 10 years. The project also employs the State-wide "fix-it-first" methodology of asset management to reduce long-running repair and maintenance costs. This methodology is in line with goals outlined in previous District 9 planning documents and activities.

The project purpose and need are consistent with the November 2014 Transportation Concept Report (TCR) for US 395 and the March 2015 District System Management Plan (DSMP). Per the TCR, US 395 provides a consistent high level of service and lifeline accessibility for rural communities and for interregional and interstate movement of people, goods, and recreational travel along the eastern slope of the Sierra Nevada Mountains. However, pavement conditions have reached the end of their functional lifespan and need to be replaced. US 395 in the Mono Basin is recommended for pavement treatment by both the DSMP and TCR. Additionally, pavement preservation is in line with the 2015 Mono County RTP goal #10, which states that streets, roads, and highways should be maintained in good condition. Although the projected growth for the local areas is minimal, recreational traffic and goods movement will continue to be major sources of traffic on the corridor and should be accommodated.

The TCR identifies that where a highway also serves as Main Street within communities, improvements should accommodate all modes of transportation; also, the DSMP states that many opportunities exist to improve commuting and general bicycle circulation within communities. Within the policies set by the DSMP this project meets policies 1A, 2A, 3A, 3B, 3C, 4A, 4B, and 5B through the following:

- Considering needs of all traveler modes through incorporating complete street concepts;
- Adhering to the "fix it first" concept by repairing drainage systems, pavement and sidewalk
- Preserving and enhancing the natural environment of the community by making Lee Vining a more desirable place to visit;
- Increasing and strengthening the collaborative partnership with Mono County and improving the external perception of Caltrans by educating RPAC and the LTC about the project development process.

This project will accomplish these goals/policies by incorporating complete street design features within the community of Lee Vining based off input from local agencies.

The local traffic management agency for the project is the Mono County Local Transportation Commission (LTC). Within the project area, the Mono Basin Regional Advisory Committee (RPAC) is an advisory committee to the Mono County Board of Supervisors and Planning Commission on the development, review, implementation, and upkeep of the Mono County General Plan and associated Area / Community Plans. In developing this project, the purpose and need were reviewed for consistency with the 2015 Mono County Regional Transportation Plan and subsequent local area plans. Furthermore, the residents of Mono Basin and Mono County are involved communities whose residents express the desire to be involved in the Caltrans project development process. Subsequently, the Mono Basin RPAC and Mono County LTC will be consulted through the project development phases to ensure community needs are met.

In conjunction with the 2015-2016 Caltrans Rehab Project, Mono County (in coordination with the RPAC) submitted a Caltrans Sustainable community grant application to update the 2012 Mono Basin Community Plan. The 2012 community plan outlined goals and policies

for the direction of the Mono Basin, including community recommendations for US 395. The grant application was ultimately not selected for funding. However, the process demonstrated the desire for community involvement in the development of the rehab process and the need for Caltrans to provide active outreach in the community. As part of an effort to begin early outreach and community consultation, a consultant was hired by Caltrans to conduct pre-Project Initiation Report (PIR) public outreach and to produce a public engagement summary report; this report was used to scope the project.

Pre-PIR public outreach was conducted in the community Lee Vining between May 2017 and September 2018 with the stated goal of the outreach effort to collect input on possible bicycle and pedestrian improvements in the community of Lee Vining, as well as allow the community a forum to voice project related concerns. Caltrans and the consultant employed a diverse arrangement of mediums and engagement activities to give community members adequate means and time to provide their input. Participants were asked to provide input on certain areas of the corridor as well as specific design features. However, these activities were not meant to make any design decisions, nor create a community consensus on any design features; rather, it was meant to collect community opinion to inform later phases of project development. Overall, the community expressed a strong desire for traffic calming, crossing improvements, bicycle improvements (both in town and along Mono Lake), additional parking, shoulder widening, and a lane reduction in town. There was mixed opinion from the public on lane reductions and roundabouts.

North of Lee Vining the project has two alternatives to widen shoulders to greater than 4' to fully achieve a two-lane conventional roadway concept. Widening shoulders along Mono lake is consistent with the Mono County RTP, Mono Basin Community Plan, and the community input collected during the public outreach process. During the public workshops many of the participants stated that they generally felt uncomfortable when cycling north of Lee Vining due to the narrow shoulders of US 395; additionally, other participants stated they were discouraged/avoided riding along Mono lake entirely. The community survey also asked respondents to select their “Top three vehicle improvements” for US 395 with the top answer being “Widen shoulders north of town along Mono Lake” with 51.9% of participants selecting the answer. The survey also queried respondents to select their “Top three bicycle improvements” for US 395 with the top answer being ‘improve bike lanes/markings along Mono Lake’ with 68.9% of participants selecting the answer. Both the Mono County RTP (Mono Basin - Action 22.B.1.d) and the Mono Basin Community Plan (Circulation Policy 1 and 2) support the construction of shoulders in the Mono Basin. A four foot or wider shoulder along Mono Lake would be considered acceptable by Caltrans Standards for bike use and provide a greater level of comfort for bicyclists on the route.

During the public outreach activities, the community provided input on potential design features through the community of Lee Vining that included a reallocation of space with a lane reduction, class I and class III bike lanes, and pedestrian improvements such as curb ramp bulb outs. Those involved in the public outreach process were receptive to complete streets elements and one major theme derived in the report is that residents generally feel uncomfortable crossing the highway and that the pedestrian network generally felt incomplete. There was a strong desire expressed from the community for “traffic calming”

features that would benefit pedestrians and bicyclists through town. The community survey asked respondents to select their "top three bicycle improvements" on US 395 with the third most selected response 'improve bicycle markings through town" with 53.6%. Additionally, the three highest answers received for the "top three pedestrian improvements" on US 395 were:

- "Add/Make crosswalks more visible" (63%),
- "Improve sidewalks to make it safer and easier to walk along the corridor" (46.6%),
- "Install pedestrian Hybrid Beacons" (38.6%).

This community preference is in line with both regional and local policies from the RTP (Mono basin - Policy 22.D.4) and Mono Basin Community Plan (Circulation Element Policy 1-4), which support the addition of complete streets features in this project.

8. EXISTING FACILITY CONDITION

Corridor Geometric Information and Condition

Right-of-Way

The right-of-way through the project is a minimum of 50' from centerline to each side for a total minimum width of 100'. The existing right-of-way abuts many private properties and public agencies including Forest Service, Mono County, LADWP, and California State Parks. The need for temporary and permanent right-of-way from many private properties and public agencies has been mitigated into the project cost in the Right-of-Way Data Sheet and Preliminary Environmental Assessment Report (PEAR). Achieving timely temporary construction easements and additional right-of-way has also been placed as a known risk in the Risk Register as it could delay the project's cost schedule.

Fences

Temporary rock slope fence was installed under an emergency project in 2015. The fence varies from 10' to 14' along the west side of the highway by Mono Lake from PM 53.31 to 53.64. It is unknown as to when this fence will be removed as it depends on annual slope assessments. Alternatives 3 and 4 which include the section have mitigated the cost into the estimate. Alternatives 1 and 2 omit this section from the project and therefore do not need to consider removal. There is no other fencing that is known to have an impact on the project.

Earth Retaining Systems

Guardrail from PM 52.81 to 52.83 is supported by 100' of guardrail retaining wall (backfilled guard railing). This retaining wall was installed in 2006 and is expected to remain in place during guardrail replacement. For Alternatives 3 and 4, the replacement of the wall during guardrail replacement above the wall has been placed as a known risk in the Risk Register as it could delay the project's cost and schedule during construction.

Utilities

There are many existing utilities that run through Lee Vining, including water, sewer, and electrical lines. The utilities through the community may conflict with proposed drainage

systems. Relocation of utilities will be avoided through drainage system design. This has been placed as a known risk in the Risk Register as it could delay schedule and add project cost.

For Alternatives 3 and 4, fiber optic line is present along the west side of the highway at Mono Lake and may conflict with the shoulder widening. For Alternatives 3 and 4, Two telephone poles at PM 55.3 are within the clear recovery zone and may have to be relocated. Cost of relocating the poles have been mitigated into the project as shown in the right-of-way data sheet in Attachment F.

Landscape

There are existing trees in the sidewalk through Lee Vining from PM 52.6 to PM 54.9. Some trees have been removed and will either need to be replaced or have their tree wells filled in with concrete. Some tree wells in the ADA path will need to be reduced to be moved out of the path. The tree work has been mitigated into the project cost and schedule.

The acid etched guardrail retaining wall from PM 52.81 to 52.83 is visible for up to 3.28 feet in height and has blended in well with the surrounding landscape.

Rock slope protection was added on the west side of the highway along Mono Lake at PM 52.4, 52.9, 53.1, 53.3, and 53.5. The protection project includes-a five year irrigated revegetation period beginning November 2016 and ending November 2021. This issue does not have a known impact on the project.

Landscape Irrigation Facilities

2" plastic pipe (PR 200) waterlines are under the sidewalk to water the existing trees. Caltrans installed the pipe under the sidewalk. Mono County installed and currently maintains the irrigation system. The replacement of this system will require a new maintenance agreement with the County and is known risk in the Risk Register for design and construction.

Hydraulic Facilities:

The following culverts are on this project:

PM	Type	Replace?
50.95	14' X 12' Box	No
50.99 (1)	3' X 2' CSP Arch	No
50.99 (2)	2' HDPE	No
51.23 (1)	2' Concrete	Yes
51.23 (2)	2' Concrete	Yes
51.23 (3)	1.5' Concrete	Yes
51.23 (4)	1' Plastic	Abandon
51.25	2' CSP	Abandon
51.36	2' CSP	Yes
51.5 (1)	2' CSP	Yes
51.5 (2)	2' CSP	Yes

PM	Type	Replace?
51.5 (3)	2' CSP	Yes
51.5 (4)	1.5' CSP	Yes
51.5 (5)	1.5' CSP	Yes
51.5 (6)	1.5' CSP	Yes
51.5 (7)	1.5' CSP	Yes
52.07	3' X 2' CSP	Yes
52.33	2' CSP	No
52.46	2' CSP	Yes
52.75	2' CSP	No
53.01	2' CSP	No
53.18	1.5' CSP	Yes
53.81	2' CSP	No
53.96 (1)	2' CSP	No, Need Drainage Easement
53.96 (2)	2' CSP	Unknown
54.05	3' CSP	Yes
54.40	1.5' CSP	No, Need Drainage Easement
54.50 (1)	3' CSP	Yes
54.50 (2)	1.5' CSP	Yes
54.97	1.5' Concrete	No
55.23	Unknown	Unknown
55.30	1.5' CSP	Yes
55.51	Unknown	Unknown
55.58	Unknown	Unknown

The cost of replacing culverts has been mitigated into the project. Unknown culvert conditions have been identified as a known risk and have been placed in the Risk Register.

The outlet of culvert at PM 51.50 currently exhibits erosion issues. The placement of an infiltration basin to correct the erosion has been mitigated into the project scope for right-of-way acquisition, support costs and scheduling.

Culvert at PM 51.25 flows under the foundation of a hotel. The proposed abandonment of this culvert has been mitigated into the project cost. Coordinating with land owner and its potential effect on schedule has been identified as a known risk and has been placed in the Risk Register.

Traffic Management Systems

The following traffic management systems are within the project limits:

System Type	Location
Census Station	PM 51.927
2 Radar Speed Signs	PM 51.15 Rt - Facing Northbound Traffic PM 51.84 Lt - Facing Southbound Traffic
2 School Flashing Beacons	PM 51.57 Rt - Facing Northbound Traffic PM 51.65 Lt - Facing Southbound Traffic
Model 500 Changeable Message Sign (CMS)	PM 51.57 Rt - Facing Northbound Traffic

The radar speed signs and School Flashing Beacons are self-contained powered systems with no conduits. The Changeable Message Sign (CMS) has underground conduits that run to the Lee Vining Maintenance yard. These features have been mitigated into the project cost and schedule through the consideration of enhanced complete street design features.

Lights

There are 20 existing street lights on the project. They are not an issue for ADA compliance and do not have a known impact on the project.

Location (PM)	Type
50.73 Lt, 120 West Intersection	Street Light
50.76 Rt, 120 West Intersection	Street Light
51.23 Rt, Lake View Lodge	Street Light attached to Telephone Pole
51.27 Lt, Mono Market	Street Light
51.29 Rt, Bell's Sporting Goods	Street Light
51.32 Lt, 4th Street	Street Light
51.34 Rt, Yosemite Gateway Motel	Street Light
51.35 Lt, 3rd Street	Street Light
51.38 Rt, Shell Station	Street Light
51.39 Lt, Lee Vining Motel	Street Light
51.42 Rt, Mattly Avenue	Street Light
51.44 Lt, 2nd Street	Street Light
51.45 Rt, Fire Dept	Street Light
51.47 Lt, Murphy's	Street Light
51.48 Rt, Mono Cone	Street Light
51.50 Lt, 1st Street	Street Light
51.52 Rt, Caltrans	Street Light
51.58 Rt, County	Street Light
51.68 Rt, School	Street Light
55.59 Rt, Mono Inn	Parking Area Light Mono Inn

Signs

All road signs on the project will need to be upgraded to current retroreflective standard. See table below for a list of signs in the project limits. The cost of replacement has been figured into the project based off the alternatives.

PM	Description	Direction
50.61 RT	45 MPH	NB
50.62 LT	Speed Limit 55	SB
50.68 LT	Route Sign North Junction	SB
50.69 RT	Guide Sign 120 West	NB
50.70 LT	Yield Sign	SB
50.70 RT	Truck Route, Arrow, Airport, Rt Arrow, Airport Rd	NB
50.72 LT	Stop Sign	SB
50.72 LT	Guide Sign Lee Vining Mammoth Lakes	SB
50.74 RT	No outlet pumice rd	NB
50.74 RT	Stop sign	NB
50.76 RT	Welcome to lee Vining kiosk	NB
50.80 LT	route sign tioga pass, truck service, arrow, airplane,	SB
50.80 RT	Dogs on Leash	NB
50.82 RT	Utility Road	NB
50.85 RT	Deer Crossing	NB
50.87 LT	airport road	SB
50.93 LT	stop sign	SB
50.95 RT	Directional sign	NB
51.01 LT	Intersection warning right, utility road	SB
51.01 RT	Speed limit 55	NB
51.02 LT	swingable sign (3) signs	SB
51.05 LT	speed limit 45	SB
51.12 RT	Lee Vining Guide sign	NB
51.13 LT	swingable sign	SB
51.14 RT	speed limit 35, your speed, electronic speed measurement	NB
51.20 RT	pedestrian crossing, (2) yellow indicator lights on overhead pole	NB
51.23 LT	stop sign	SB
51.24 RT	Lee Vining Trail educational sign	NB
51.31 RT	pedestrian crossing, left diagonal arrow	NB
51.33 LT	tourist information chamber of commerce	SB
51.40 RT	firetruck	NB
51.41 LT	pedestrians crossing, left diagonal arrow	SB
51.42 RT	pedestrian crossing, left diagonal arrow	NB
51.44 RT	No Parking	NB
51.46 LT	fire station warning	SB
51.48 LT	speed limit 35	SB
51.48 RT	Hess Park Mono Basin Museum	NB
51.49 RT	Stop Sign	NB
51.50 LT	pedestrians crossing	SB
51.53 RT	Lee Vining Maintenance Station	NB
51.53 RT	Speed limit 35	NB
51.55 RT	Electronic Message Board suspended	NB
51.57 LT	stop sign	SB

PM	Description	Direction
51.58 RT	School, speedlimit 25, when children are present	NB
51.59 LT	Lee Vining population, Mono Lake access	SB
51.63 LT	Overhead pedestrians crossing (2) lights	SB
51.65 LT	speed sensor strip	SB
51.66 LT	Lee Vining library	SB
51.70 Rt	Slippery when wet	NB
51.76 LT	school, speed limit 25, when children are present	SB
51.79 RT	National Forest Visitors Center, Yosemite Information	NB
51.83 LT	speed limit 38	SB
51.83 LT	your speed, vehicle speed feedback unit	SB
51.83 RT	Speed Limit 45	NB
51.90 RT	Visitor Center closed sign	NB
51.91 RT	Mono Basin kiosk,	NB
51.91 RT	Stop sign	NB
51.93 RT	Swingable sign (3) signs	NB
51.98 RT	Swingable sign (1) sign	NB
52.05 RT	Bike Route	NB
52.01 LT	speed limit 45	SB
52.03 LT	all dogs must be kept on a leash	SB
52.05 RT	Guide sign Hawthorne, Bridgeport, Reno.	NB
52.14 RT	Rocks falling, next 2 miles	NB
52.20 RT	Lane ends merge left	NB
52.30 RT	Merge, Do not pass	NB
52.45 LT	Adopt a Highway, litter removal	SB
52.47 LT	Speed Limit 55	SB
52.50 RT	Speed Limit 60	NB
52.79 RT	Stop Sign	NB
52.83 RT	Mono Lake access 1/4 mi	NB
52.88 LT	slower traffic keep right	SB
52.91 RT	Intersection sign, picnic grounds road	NB
52.95 RT	Road narrows	NB
52.97 LT	swingable sign (1) sign	SB
53.00 LT	passing lane ahead	SB
53.01 RT	Bike Route, end	NB
53.03 LT	Bike Route begin	SB
53.05 RT	Stop Sign	NB
53.21 LT	swingable sign (3) signs	SB
53.22 LT	intersection sign left, picnic grounds road	SB
53.27 LT	Mono Lake access 1/4 mile	SB
53.35 LT	diagonal, rectangular sign masked	SB
53.38 RT	End road work	NB
53.85 LT	rock slide area next, 2 miles	SB
53.90 LT	passing lane 1 mile	SB
53.96 LT	swingable sign (1) sign	SB
53.97 RT	Slippery when wet	NB
54.23 RT	Horizontal align Right, 50 MPH	NB
54.45 LT	left turn warning, 50 mph	SB
54.74 LT	road info tune to 1610 am	SB
54.85 LT	swingable sign (1) sign	SB

PM	Description	Direction
55.01 LT	swingable sign (1) sign	SB
55.07 LT	stop sign	SB
55.18 LT	swingable sign (1) sign	SB
55.37 LT	swingable sign (1) sign	SB
55.40 RT	Adopt a highway, Litter removal	NB
55.47 RT	Point of historical interest	NB
55.57 RT	Exit only	NB
55.60 LT	deer crossing	SB
55.62 Rt	Intersection right, cemetery road	NB
55.62 Rt	in woods, 2 lane road	NB
55.66 RT	county park Mono Lake, (4) tourist interest signs	NB
55.69 LT	bi direction warning sign, boundary marker	SB
55.70 LT	point of historical interest	SB
55.70 RT	Cemetery Road	NB
55.71 RT	stop sign	NB
55.78 LT	county park Mono Lake access	SB
55.80 Rt	Slower traffic keep right	NB
55.85 LT	intersection warning left, Cemetery Road	SB
55.95 LT	swingable sign (1) sign	SB
55.96 RT	Slippery when wet	NB
56.16 LT	lane ends merge left	SB
56.20 LT	lanes merge, do not pass	SB
56.31 Rt	Intersection warning cross	NB
56.43 LT	stop sign	SB
56.46 RT	Thompson Road	NB
56.48 LT	Adopt a Highway, trash removal	SB
56.48 RT	Stop sign	NB
56.56 LT	intersection warning sign cross	SB
56.56 RT	Adopt a highway, Litter removal	NB
56.80 LT	speed limit 60	SB
57.04 LT	Mono basin National Forest kiosk	SB
57.42 RT	Deer Crossing	NB
57.63 LT	autos with trailers	SB
57.64 LT	end road work	SB
57.77 LT	speed limit 65	SB
57.80 LT	swingable sign (3) signs	SB
57.81 RT	Trucks prohibited	NB
57.85 LT	us 395 route, south, route sign leevining	SB
57.86 RT	Road narrows	NB
57.86 RT	Do not pass	NB
57.90 RT	subject to strong crosswind	NB
57.90 RT	Orange wind sock	NB
57.92 LT	slow traffic keep right	SB
57.96 RT	Guide sign 167 Hawthorne	NB
57.96 RT	CA route 167, right arrow	NB
58.03 LT	passing lane ahead	SB
58.09 RT	guide sign Lundy lake, Hawthorne, BLM fire station sign	NB
58.10 LT	US 385 south	SB
58.14 LT	stop sign	SB

PM	Description	Direction
58.14 RT	US 395, north, arrow, state route shield,right arrow	NB
58.16 LT	Route 167 shield, left turn arrow	SB
58.17 RT	guide sign north, hwy 395, scenic hwy	NB
58.24 LT	Guide sign Hawthorne, Lundy lake. BLM fire station	SB
58.29 LT	state route shield, jct	SB
58.33 RT	speed limit 65	NB
58.34 LT	guide sign Hawthorne 167	SB
58.38 RT	intersection left, mill creek pwr hse rd	NB
58.43 RT	Adopt a highway, Litter removal	NB
58.47 LT	stop sign	SB
58.49 RT	towing 55 max	NB
58.53 RT	Slippery when wet	NB
58.56 RT	End Road work	NB
58.62 LT	Intersection warning right, Dry Creek Pwr Hse Rd	SB
58.65 LT	Road work ahead	SB
58.88 RT	orange wind sock	NB
59.49 RT	swingable sign (3) signs	NB
59.83 LT	elevation 7000 ft	SB
59.83 RT	Intersection right, conway ranch road	NB
59.87 RT	Elevation 7000 ft	NB
59.91 RT	slower traffic keep right	NB
59.92 LT	Subject to strong crosswinds	SB
59.96 LT	lane merge do not pass	SB
59.96 RT	Stop sign	NB
60.06 LT	lane ends merge left	SB
60.11 LT	intersection warning left conway ranch	SB
60.20 LT	deer crossing	SB
60.46 LT	adopt a highway, litter removal	SB
60.89 RT	left alignment, 55 mph	NB
61.30 RT	Slippery when wet	NB
61.32 RT	Swingable sign (3) signs	NB
61.40 LT	Right turn warning	SB
61.40 LT	55 mph speed	SB
61.49 RT	Rock slide area	NB
62.00 LT	Delineator snow stake	SB

Guardrail

ST-10 Bridge Rail is at the back of sidewalk from PM 51.0 to 51.3 and was installed in 2011. The bridge railing meets current standards and does not have a known impact on the project. Cable railing is on top of retaining walls on the west and east side of the highway in the same post mile limits and does not have a known impact on the project. All existing Metal Beam Guardrail needs to be replaced with Midwest Guardrail System. Guardrail is at the following locations:

Location (PM)	Type	Meet Standards?
50.87 Lt - 50.91 Lt	Metal Beam Guardrail	No
50.91 Rt - 50.97 Rt	Metal Beam Guardrail	No
51.01 Rt - 51.24 Rt	ST -10 Bridge Railing	Yes

Location (PM)	Type	Meet Standards?
51.04 Rt, 51.06 Lt -51.23 Rt, 51.25 Lt	Cable Railing	Yes
52.09 Rt - 52.56 Rt	Metal Beam Guardrail	No
52.60 Rt - 52.81 Rt	Metal Beam Guardrail	No
52.89 Rt - 53.07 Rt	Metal Beam Guardrail	No
53.09 Rt - 54.03 Rt	Metal Beam Guardrail	No
54.10 Rt - 54.24 Rt	Metal Beam Guardrail	No
54.28 Rt - 54.47 Rt	Metal Beam Guardrail	No
54.54 Rt - 54.74 Rt	Metal Beam Guardrail	No

Traffic Volumes

See Attachment J for the Traffic Index Calculation and Design Designation. The 2016 AADT was 4650 and the construction year (2022) AADT is anticipated to be 4790. The twenty year TI is projected to be 10.5.

Eastern Sierra Transit runs a shuttle service through the area once a day, Monday to Friday. Northbound arrives at 8:50 am and southbound arrives at 4:25 pm at the shuttle stop at PM 51.55 Rt in front of the Caltrans Lee Vining Maintenance Station.

The community of Lee Vining experiences heavy pedestrian traffic during the summer months (typically June through September) when the pass to Yosemite National Park is opened, the weather is pleasant, and the mountains and lakes are more accessible. The pedestrian traffic is typically due to people parking in the community to use local commerce amenities or from those staying in hotels. During the winter months most pedestrian traffic is local. Children walk to school on the north end of town using a marked crosswalk.

Between 6/25/18 and 7/2/18, D9 Planning conducted bicycle counts at 3 locations around Lee Vining to determine the amount of bicycle traffic occurring on US 395. It should be noted that these counts occurred at the start of the Lions fire, which impacted air quality in the lower Owens Valley. The locations and study count totals are as follows: US 395/ Cemetery Rd – 7, US 395 /1st street – 26, and US 395/ SR 120 – 43. The low counts at US 395/Cemetery Rd could be explained by the perceived impediment of riders passing along Mono Lake discouraging riders from using this section of highway. 17 Bicycles at the intersection of SR 120 and US 395 made turn movements from 395 (NB or SB) on to SR 120.

Traffic Collisions

Refer to the Traffic Data Report in Attachment J for accident data. One accident was a hit bicyclist. Twenty one collisions were recorded during the three-year study period and there was one fatality and three injury collisions. Seventeen collisions were property damage only (PDO). One accident involved an injured bicyclist that was runoff the road into shoulder from an improper turn at PM 53.12 near Picnic Shortcut Road.

Collision Rates:

The three-year period from 09/01/2012 to 10/31/2015:

County-Route (post mile range)				Actual Rate (Acc/Million Vehicle Miles)			Average Rate (Acc/Million Vehicle Miles)		
				F[1]	F+I[2]	Total[3]	F[1]	F+I[2]	Total[3]
50.6 to 55.7				0.050	0.20	1.04	0.017	0.32	0.76

Notes:
1. Fatal accidents
2. Fatal accidents plus injury accidents
3. All reported accidents

Site distances

Known vertical curves from as-builts are shown below. 9 curves do not meet minimum sight distance criteria. Further analysis will be necessary when survey is complete. The vertical curves have been mitigated into the project cost either through design exceptions or correction depending on the alternative.

Vertical Curves

PM	Curve Length (ft)	Meet HDM Sight Distance?
50.35	1476	Yes
50.72	861	Yes
50.91	400	No
51.03	400	No
51.13	558	Yes
53.31	200	Yes
53.58	400	No
53.80	400	No
54.22	400	No
54.37	400	No
54.79	600	Yes
54.98	800	Yes
55.30	400	No
55.60	600	No
55.75	400	No

Existing horizontal sight distance at PM 55.10 does not meet standard due to an existing berm. Berm removal has been mitigated into the project cost through the earthwork estimate. It has been mitigated into schedule through environmental planning.

Cross slopes

Existing cross slope super elevations from PM 53.0 to 55.7 do not meet current standards. Cross slope correction has been mitigated into the project through anticipated design exceptions or correction depending on the alternative.

Vertical clearances

There are no known vehicular vertical clearance issues in the travelled way or pedestrian vertical clearance issues on the sidewalk in the corridor. The project will ensure minimum ADA vertical clearances are adhered.

Curb Types

Existing curb in the 45 MPH zone from PM 51.0 to 51.2 does not meet current standards as it is a Type A vertical curb. Upgrading the curb has been mitigated into the project cost and schedule.

Roadway Geometric Information and Condition

Posted and Design Speed

PM	Posted Speed (mph)	Design Speed (DS)
50.65 - 51.15	45	45
51.15 - 51.54	30	30
51.60 - 51.75	25	25
51.75 - 51.81	30	30
51.85 - 52.00	45	45
52.00 - 52.52	55	55
52.52 - 55.70	60	60

Traveled Way, Shoulders, and Median Geometric Information

Curve Data

Curve #	PM		Length	Radius (R)	DS	e (%)	Min R	Meet HDM?
1	50.85	51.07	1170.81'	935'	45	5	1190'	No
2	51.18	51.22	233.65'	1000'	30	2	2830'	No
3	51.30	51.34	438.44'	2500'	30	2	2830'	No
4	51.89	52.08	1015.62'	2000'	45	6	1250'	Yes
5	52.20	52.23	341.88'	1600'	55	8	960'	Yes
6	52.23	52.33	473.01'	1600'	55	8	960'	Yes
7	52.64	52.75	474.42'	1300'	60	8	1200'	Yes
8	52.80	52.91	570.68'	1150'	60	8	1200'	No
9	52.99	53.10	141.91'	1500'	60	8	1200'	Yes
10	53.15	53.21	315.39'	5000'	60	2	11500'	No
11	53.23	53.31	313.09'	1500'	60	2	11500'	No
12	53.41	53.54	477.26'	1000'	60	2	11500'	No
13	53.58	53.75	940.96'	2000'	60	2	11500'	No

Curve #	PM		Length	Radius (R)	DS	e (%)	Min R	Meet HDM?
14	53.92	54.10	802.62'	3000'	60	2	11500'	No
15	54.26	54.40	623.86'	1000'	60	2	11500'	No
16	54.45	54.61	854.92'	1750'	60	2	11500'	No
17	54.61	54.69	434.83'	3000'	60	2	11500'	No
18	54.69	54.80	577.39'	2500'	60	2	11500'	No
19	54.90	55.16	1371.88'	5000'	60	2	11500'	No
20	55.16	55.33	891.85'	2000'	60	2	11500'	No
21	55.50	55.64	754.97'	5000'	60	2	11500'	No

PM 50.6 - 50.85		**Existing**	**Proposed**	**Minimum RRR Standards**
Minimum Curve Radius	Radius (ft)	tangent	tangent	
Through Traffic Lanes	Number of Lanes	4	4	
	Lane Width (ft)	12/12	12/12	12
	Type (Flexible, Rigid, or Composite)	Flexible	Flexible	
Paved Shoulder Width	Left (ft)	8	8	8
	Right (ft)	8	8	8
Median Width	(ft)	12	12	
Shoulder is a Bicycle Lane	(Y/N)-Width (ft)	Y - 8	Y - 8	4
Other Bicycle Lane Width (3)	Width (ft)	-	-	
Bicycle Route	(Y/N)	Y	Y	
Facilities Adjacent to the Roadbed (4)	Code-Width (ft)	-	-	

PM 50.85 - 51.22		**Existing**	**Proposed**	**Minimum RRR Standards**
Minimum Curve Radius	Radius (ft)	935	935	
Through Traffic Lanes	Number of Lanes	4	4	
	Lane Width (ft)	12/12	12/12	12
	Type (Flexible, Rigid, or Composite)	Flexible	Flexible	
Paved Shoulder Width	Left (ft)	8	8	8
	Right (ft)	8	8	8
Median Width	(ft)	12	12	
Shoulder is a Bicycle Lane	(Y/N)-Width (ft)	Y - 8	Y - 8	4
Other Bicycle Lane Width (3)	Width (ft)	-	-	
Bicycle Route	(Y/N)	Y	Y	
Facilities Adjacent to the Roadbed (4)	Code-Width (ft)	P - 4.5	P - 4.5	6

PM 51.22 - 51.69		**Existing**	**Proposed**	**Minimum RRR Standards**
Minimum Curve Radius	Radius (ft)	2500	2500	
Through Traffic Lanes	Number of Lanes	4	4	

PM 51.22 - 51.69		**Existing**	**Proposed**	**Minimum RRR Standards**
	Lane Width (ft)	12/12	12/12	12
	Type (Flexible, Rigid, or Composite)	Flexible	Flexible	
Paved Shoulder Width	Left (ft)	8	8	8
	Right (ft)	8	8	8
Median Width	(ft)	12	12	
Shoulder is a Bicycle Lane	(Y/N)-Width (ft)	Y - 10	Y - 10	4
Other Bicycle Lane Width (3)	Width (ft)	-	-	
Bicycle Route	(Y/N)	Y	Y	
Facilities Adjacent to the Roadbed (4)	Code-Width (ft)	P - 8 to 11	P - 8 - 11	8

PM 51.69 - 51.89		**Existing**	**Proposed**	**Minimum RRR Standards**
Minimum Curve Radius	Radius (ft)	2000	2000	
Through Traffic Lanes	Number of Lanes	4	4	
	Lane Width (ft)	12/12	12/12	12
	Type (Flexible, Rigid, or Composite)	Flexible	Flexible	
Paved Shoulder Width	Left (ft)	8	8	8
	Right (ft)	8	8	8
Median Width	(ft)	12	12	
Shoulder is a Bicycle Lane	(Y/N)-Width (ft)	Y - 8	Y - 8	4
Other Bicycle Lane Width (3)	Width (ft)	-	-	
Bicycle Route	(Y/N)	Y	Y	
Facilities Adjacent to the Roadbed (4)	Code-Width (ft)	-	-	

PM 51.89 - 52.08 (4)		**Existing**	**Proposed**	**Minimum RRR Standards**
Minimum Curve Radius	Radius (ft)	2000	2000	
Through Traffic Lanes	Number of Lanes	4	4	
	Lane Width (ft)	12/12	12/12	12
	Type (Flexible, Rigid, or Composite)	Flexible	Flexible	
Paved Shoulder Width	Left (ft)	8	8	8
	Right (ft)	8	8	8
Median Width	(ft)	12	12	
Shoulder is a Bicycle Lane	(Y/N)-Width (ft)	Y - 8	Y - 8	4
Other Bicycle Lane Width (3)	Width (ft)	-	-	
Bicycle Route	(Y/N)	Y	Y	
Facilities Adjacent to the Roadbed (4)	Code-Width (ft)	-	-	

PM 52.08 - 52.33		**Existing**	**Proposed**	**Minimum RRR Standards**
Minimum Curve Radius	Radius (ft)	1600	1600	
Through Traffic Lanes	Number of Lanes	4	4	

PM 52.08 - 52.33		**Existing**	**Proposed**	**Minimum RRR Standards**
	Lane Width (ft)	12/12	12/12	12
	Type (Flexible, Rigid, or Composite)	Flexible	Flexible	
Paved Shoulder Width	Left (ft)	8	8	8
	Right (ft)	8	8	8
Median Width	(ft)	4	4	
Shoulder is a Bicycle Lane	(Y/N)-Width (ft)	Y - 8	Y - 8	4
Other Bicycle Lane Width (3)	Width (ft)	-	-	
Bicycle Route	(Y/N)	Y	Y	
Facilities Adjacent to the Roadbed (4)	Code-Width (ft)	-	-	

PM 52.33 - 53.02		**Existing**	**Proposed**	**Minimum RRR Standards**
Minimum Curve Radius	Radius (ft)	1150	1150	
Through Traffic Lanes	Number of Lanes	4	4	
	Lane Width (ft)	12/12	12/12	12
	Type (Flexible, Rigid, or Composite)	Flexible	Flexible	
Paved Shoulder Width	Left (ft)	8	8	8
	Right (ft)	8	8	8
Median Width	(ft)	-	-	
Shoulder is a Bicycle Lane	(Y/N)-Width (ft)	Y - 8	Y - 8	4
Other Bicycle Lane Width (3)	Width (ft)	-	-	
Bicycle Route	(Y/N)	Y	Y	
Facilities Adjacent to the Roadbed (4)	Code-Width (ft)	-	-	

PM 53.02 - 53.20		**Existing**	**Proposed**	**Minimum RRR Standards**
Minimum Curve Radius	Radius (ft)	5000	5000	
Through Traffic Lanes	Number of Lanes	4	4	
	Lane Width (ft)	12/12	12/12	12
	Type (Flexible, Rigid, or Composite)	Flexible	Flexible	
Paved Shoulder Width	Left (ft)	3	3	8
	Right (ft)	8	8	8
Median Width	(ft)	-	-	
Shoulder is a Bicycle Lane	(Y/N)-Width (ft)	Y - 3	Y - 3	4
Other Bicycle Lane Width (3)	Width (ft)	-	-	
Bicycle Route	(Y/N)	Y	Y	
Facilities Adjacent to the Roadbed (4)	Code-Width (ft)	-	-	

PM 53.20 - 53.79		**Existing**	**Proposed**	**Minimum RRR Standards**
Minimum Curve Radius	Radius (ft)	1000	1000	
Through Traffic Lanes	Number of Lanes	4	4	

PM 53.20 - 53.79		**Existing**	**Proposed**	**Minimum RRR Standards**
	Lane Width (ft)	12/12	12/12	12
	Type (Flexible, Rigid, or Composite)	Flexible	Flexible	
Paved Shoulder Width	Left (ft)	3	3	8
	Right (ft)	3	3	8
Median Width	(ft)	-	-	
Shoulder is a Bicycle Lane	(Y/N)-Width (ft)	Y - 3	Y - 3	4
Other Bicycle Lane Width (3)	Width (ft)	-	-	
Bicycle Route	(Y/N)	Y	Y	
Facilities Adjacent to the Roadbed (4)	Code-Width (ft)	-	-	

PM 53.79 - 54.09		**Existing**	**Proposed**	**Minimum RRR Standards**
Minimum Curve Radius	Radius (ft)	1000	1000	
Through Traffic Lanes	Number of Lanes	4	4	
	Lane Width (ft)	12/12	12/12	12
	Type (Flexible, Rigid, or Composite)	Flexible	Flexible	
Paved Shoulder Width	Left (ft)	8	8	8
	Right (ft)	8	8	8
Median Width	(ft)	-	-	
Shoulder is a Bicycle Lane	(Y/N)-Width (ft)	Y - 8	Y - 8	4
Other Bicycle Lane Width (3)	Width (ft)	-	-	
Bicycle Route	(Y/N)	Y	Y	
Facilities Adjacent to the Roadbed (4)	Code-Width (ft)	-	-	

PM 54.09 - 55.60		**Existing**	**Proposed**	**Minimum RRR Standards**
Minimum Curve Radius	Radius (ft)	1000	1000	
Through Traffic Lanes	Number of Lanes	4	4	
	Lane Width (ft)	12/12	12/12	12
	Type (Flexible, Rigid, or Composite)	Flexible	Flexible	
Paved Shoulder Width	Left (ft)	3	3	8
	Right (ft)	3	3	8
Median Width	(ft)	-	-	
Shoulder is a Bicycle Lane	(Y/N)-Width (ft)	Y - 8	Y - 8	4
Other Bicycle Lane Width (3)	Width (ft)	-	-	
Bicycle Route	(Y/N)	Y	Y	
Facilities Adjacent to the Roadbed (4)	Code-Width (ft)	-	-	

PM 55.60 - 55.70		**Existing**	**Proposed**	**Minimum RRR Standards**
Minimum Curve Radius	Radius (ft)	5000	5000	
Through Traffic Lanes	Number of Lanes	4	4	

PM 55.60 - 55.70		Existing	Proposed	Minimum RRR Standards
	Lane Width (ft)	12/12	12/12	12
	Type (Flexible, Rigid, or Composite)	Flexible	Flexible	
Paved Shoulder Width	Left (ft)	8	8	8
	Right (ft)	8	8	8
Median Width	(ft)	-	-	
Shoulder is a Bicycle Lane	(Y/N)-Width (ft)	Y - 8	Y - 8	4
Other Bicycle Lane Width (3)	Width (ft)	-	-	
Bicycle Route	(Y/N)	Y	Y	
Facilities Adjacent to the Roadbed (4)	Code-Width (ft)	-	-	

Notes:
1. Enter existing post mile limits (expand as needed for varied geometrics.)
2. Enter proposed post mile limits (expand as needed for varied geometrics.)
3. "Other Bicycle Lane Width" is the width of a bicycle lane that is not within the shoulder and is part of the traveled way.
4. Codes for row "Facilities Adjacent to the Roadbed":
   B – Bicycle path
   P – Pedestrian walkway
   B/P – shared bicycle and pedestrian path
   L – Landscaped area between the curb and sidewalk

Mainline Pavement Condition

- General Information
  Roadway Classification: Class 1

Item or Milestone	Year
Current Automated Pavement Condition Survey (APCS)	2015
Ten-Year Plan (TYP)	2017
PIR Completed and signed (Current)	2018
Planned Delivery (RTL)	2024

- Distress Types and Extents:

Concrete Pavement Distress: There is no concrete pavement within the project limits.

Flexible Pavement Distress:

Type	Extent	
	Current APCS Yr (actual)	RTL Yr (predicted)
Alligator B Cracking (%)	2.36	20.2
Rutting (inches)	0.15	0.15
International Roughness Index (IRI, inches/mile)	66	96
Patching* (%)		Not applicable
Nonstructural Cracking* (Longitudinal, Transverse, or Block)		Not applicable
Other* (raveling, bleeding, pumping etc.)		Not applicable
* Include minor distresses only if necessary, such as to supplement low effectiveness or cracking values. May be available from observation or APCS raw data (refer to the APCS Manual for definitions or check with HQ Pavement Program Advisor, District Maintenance Engineer, or District Materials Engineer).		

Pavement Performance Measures

Year	Pavement Type	Caltrans Performance Measures (lane-miles)					MAP-21 Condition (lane-miles)			Total Lane Miles	Effectiveness (%)	
		Green	Yellow	Blue	Orange	Red	Good	Fair	Poor		SHOPP Effectiveness ((Red + Orange) /Total Lane Miles) %	Rehab Effectiveness (Red/ Total Lane Miles) %
Current APCS	Flexible	0.995	12.951	0.0	0.417	0.0	0.0	14.363	0.0	14.363	2.9	0.0
	Rigid											
RTL Delivery	Flexible	0.0	0.417	0.0	13.266	0.680	0.0	14.363	0.0	14.363	97.1	4.63
	Rigid											

Median, Shoulder, and Ramp Pavement Condition

Shoulders and median exhibit the same distress as the travelled way. The shoulders will be repaired with the same method as the travelled way for each alternative.

Structure Geometric Information and Condition

There are no existing bridges within the job limits. There are two Mechanically Stabilized Earth (MSE) walls on each side of the highway from PM 51.0 to 51.2. The exterior concrete on the wall is spalling. The spalling repair as determined by structures has been identified as a Known Risk in the Risk Register.

9. ALTERNATIVES

A 20-yr Flexible Rehab strategy is required per Figure 2-6 of Life Cycle Cost Analysis (LCCA) Manual. The Average Annual Daily Traffic (AADT) is less than 15,000, Alligator B cracking is less than 50% and average rutting is less than 1/2", and the 20-yr Traffic Index (TI) is less than 11.5. This indicates a LCCA is not required. Rubberized Hot Mix Asphalt (RHMA) is not viable because the project is over 4,000' in elevation. Structural section recommendation in Attachment K was used to determine 20 year strategies for each alternative.

All alternatives provide the opportunity for space re-allocation through the Lee Vining Community. The space re-allocation includes lane reduction, bike lanes, curb bulb-outs, and increased parking. All alternatives also include enhanced crosswalks.

The following alternatives should be investigated:

Alternative A1 – Programmable and Minimum Project Alternative
Full Depth Reclamation (FDR) with Pulverization through Lee Vining Community (PM 51.2 to 51.7). PM 53.0 to 55.70 omitted from project.
Alternative A2 proposes to perform a full depth reclamation (FDR) with pulverization from PM 51.2 to PM 51.7 through the community. The alternative proposes to cold plane and place asphalt concrete (AC) pavement south of the community, PM 50.6 to 51.0, and north of the community, PM 51.7 to 53.0. PM 53.0 to 55.7 is omitted from the project with this alternative.

The pulverization segment will have 0.65' of AC pavement. From PM 50.6 to 51.2 (south of the community) and 53.0 to 55.7 (along Mono Lake), the cold plane will be 0.20' deep followed by 0.20' of AC pavement. From 51.7 to 53.0 (north of the community and south of Mono Lake) the cold plane will be 0.40' deep followed by 0.40' of AC pavement.

All guardrail through the corridor will be replaced with Midwest Guardrail System (MGS). ADA facilities including sidewalk, curb ramps, and driveways will be replaced and upgraded to current standards. All drainage through the community, PM 51.2 to 51.7, will be replaced to accommodate roadway cross slope changes necessary to achieve ADA standards. Infiltration basins are proposed in two locations on the east side of the community.

Alternative A2 – Programmable Project Alternative
Full Depth Reclamation (FDR) with Pulverization PM 50.6 to 53.0. PM 53.0 to 55.70 omitted from project.

Alternative A2 proposes to perform a full depth reclamation (FDR) with pulverization from PM 50.6 to PM 53.0 and place 0.65' asphalt concrete (AC) pavement. PM 53.0 to 55.7 is omitted from the project with this alternative.

All guardrail through PM 50.6 to PM 53.0 will be replaced with Midwest Guardrail System (MGS). ADA facilities including sidewalk, curb ramps, and driveways will be replaced and upgraded to current standards. All drainage through the community, PM 51.2 to 51.7, will be replaced to accommodate roadway cross slope changes necessary to achieve ADA standards. Infiltration basins are proposed in two locations on the east side of the community.

Alternative A3
Full Depth Reclamation (FDR) with Pulverization through Lee Vining Community, widen shoulders to 5'.
Alternative A3 proposes to perform a full depth reclamation (FDR) with pulverization from PM 51.2 to PM 51.7 through the community. The alternative proposes to cold plane and place asphalt concrete (AC) pavement south of the community, PM 50.6 to 51.0, and north of the community, PM 51.7 to 55.7. Shoulders will be widened to 5' from PM 53.0 to 55.7 along Mono Lake.

The pulverization segment will have 0.65' of AC pavement. From PM 50.6 to 51.2 (south of the community) and PM 53.0 to 55.7 (along Mono Lake), the cold plane will be 0.20' deep followed by 0.20' of AC pavement. From PM 53.0 to 55.7 where the shoulder is widened to 5' the pavement will be capped with 0.10' of AC pavement. From 51.7 to 53.0 (north of the community and south of Mono Lake) the cold plane will be 0.40' deep followed by 0.40' of AC pavement.

All guardrail through the corridor will be replaced with Midwest Guardrail. ADA facilities including sidewalk, curb ramps, and driveways will be replaced and upgraded to current standards. All drainage through the community, PM 51.2 to 51.7, will be replaced to accommodate roadway cross slope changes necessary to achieve ADA standards. Infiltration basins are proposed in two locations on the east side of the community.

Alternative A4
Full Depth Reclamation (FDR) with Pulverization through Lee Vining Community and along Mono Lake, widen shoulders to 5'.
Alternative A4 proposes to perform a full depth reclamation (FDR) with pulverization from PM 51.2 to PM 51.7 through the community and PM 53.0 to 55.7 along Mono Lake. The alternative proposes to cold plane and place asphalt concrete (AC) pavement south of the community, PM 50.6 to 51.0, and north of the community, PM 51.7 to 53.0.

The pulverization segment will have 0.65' of AC pavement. From PM 50.6 to 51.2 (south of the community) the cold plane will be 0.20' deep followed by 0.20' of AC pavement. From 51.7 to 53.0 (north of the community and south of Mono Lake) the cold plane will be 0.40' deep followed by 0.40' of AC pavement.

All guardrail through the corridor will be replaced with Midwest Guardrail. ADA facilities including sidewalk, curb ramps, and driveways will be replaced and upgraded to current standards. All drainage through the community, PM 51.2 to 51.7, will be replaced to accommodate roadway cross slope changes necessary to achieve ADA standards. Infiltration basins are proposed in two locations on the east side of the community. This is the only alternative that will correct super elevations along the Mono Lake section and therefore will require less design exceptions than A3.

Alternative B – No Build Alternative
The no build alternative will not meet the project purpose and need as it will not bring ADA or guardrail up to current standards, restore the pavement to a state of good repair, nor address the local needs of the Lee Vining Community.

Additional Consideration - Roundabout
Roundabout at intersection of Route 120 and 395
A roundabout at the intersection of Route 120 and 395 is being considered as a tertiary component to the alternatives. The construction estimate for the roundabout is approximately 2.2 million. The roundabout could serve as a traffic calming device as the travelling public enters the Lee Vining Community from the south. It could also reduce collisions at the intersection.

Stage-able Alternative
Alternatives 1 and 2 are the most stageable alternatives because they do not include a shoulder widening. The work through the Lee Vining Community will require at least 2 stages to ensure function of the local community. Without widening shoulders, the remaining project could be completed in one other stage. Construction through the 2-lane section could be completed with a typical lane closure with reversible control. The alternative is anticipated to be completed in one season and does not need to be phased into two projects.

Alternatives 3 and 4, which include the widening, will require a much longer construction period. This is due to the retaining wall work, slope stabilization work, and pavement widening work. In addition to the 2 stages through the community, the remaining project will most likely need to be completed with temporary traffic signals in at least three different stages. The entire project would therefore be anticipated to be at least 2 construction seasons over 2 years. This will cause more disruption to the local community of Lee Vining and tourism. Alternatives 3 and 4 could be phased into two segments. This would be particularly useful to Alternative 4 to account for budgetary constraints as it is the most expensive alternative. The logical phasing is to construct PM 50.6 to PM 53.0 in one phase and the widening section from PM 53.0 to 55.7 (along Mono Lake) in a second phase.

While phasing Alternatives 3 or 4 into smaller portions of the overall project to be constructed in accordance with available funding, it should be noted that phasing would not be the most cost effective means to complete the overall project. With each partial solution phase, additional planning and mobilization costs will occur that will result in substantially

more cost for overall project completion than if the project were completed in its entirety with one project.

Programmable Project Alternative Discussion
The programmable project alternative meets the purpose and need by restoring the pavement and concrete, upgrading all ADA facilities to current standards, replacing drainage systems, and allowing for complete street improvements that will address the local needs of the Lee Vining Community.

Proposed Engineering Features
Preliminary pavement structure design includes a full depth reclamation (FDR) with pulverization through the corridor to a minimum thickness of 0.45' followed by 0.65' hot mix asphalt (HMA). This design is per the structural recommendation in Attachment K. The structural recommendation is a 20 year design using a TI of 10.5, Basement R-Value of 50, and R value of 78. The anticipated performance life is at least 20 years with minimal maintenance.

Design Standards
6th Edition Highway Design Manual (HDM) was used in preparation of this report. Preparation and approval of the Design Standard Decision Document, will be deferred until the PA&ED phase when more accurate topographic, utility, environmental, and right of way information is known. The decision to defer is concurred by the approval authority, Brian Wesling, District Deputy of Design.

Minimum Radius
See table below for anticipated radii design exceptions per the programmable alternative and alternative 2. One radius will require a design exception at PM 52.80 per the table above. The superelevation is already at a maximum of 8% for snow areas per HDM 301.3 so the radius would need to be lengthened to be brought into current standards. The radius is only 50' below the minimum and there is no accident history on the curve. There is no justification for correcting the curve and a design exception is anticipated.

Curves at PM 50.85 and 51.18 will be brought within standards by increasing the superelevation as shown in the table. Design exceptions will not be required from PM 53.0 to 55.7 because the section is excluded from the project with these alternatives.

Alternatives 1 & 2: Anticipated Radii Design Exceptions

Curve #	PM		DS	Exist R	Existe (%)	Min R	Proposede (%)	Min R	Design Exception?
1	50.85	51.07	45	935'	5	1190'	5.6	903'	No
2	51.18	51.22	30	1000'	2	2830'	3.6	972'	No
3	51.30	51.34	30	2500'	2	2830'	RC 2.0	2240'	No
4	51.89	52.08	45	2000'	6	1250'	6	1250'	No
5	52.20	52.23	55	1600'	8	960'	8	960'	No

Curve #	PM		DS	Exist R	Existe (%)	Min R	Proposed e (%)	Min R	Design Exception?
6	52.23	52.33	55	1600'	8	960'	8	960'	No
7	52.64	52.75	60	1300'	8	1200'	8	1200'	No
8	52.80	52.91	60	1150'	8	1200'	8	1200'	Yes
9	52.08	53.04	60	1500'	8	1200'	8	1200'	No
10	53.15	53.21	60	5000'	2	11500'	2	11500'	N/A
11	53.23	53.31	60	1500'	2	11500'	2	11500'	N/A
12	53.41	53.54	60	1000'	2	11500'	2	11500'	N/A
13	53.58	53.75	60	2000'	2	11500'	2	11500'	N/A
14	53.92	54.10	60	3000'	2	11500'	2	11500'	N/A
15	54.26	54.40	60	1000'	2	11500'	2	11500'	N/A
16	54.45	54.61	60	1750'	2	11500'	2	11500'	N/A
17	54.61	54.69	60	3000'	2	11500'	2	11500'	N/A
18	54.69	54.80	60	2500'	2	11500'	2	11500'	N/A
19	54.90	55.16	60	5000'	2	11500'	2	11500'	N/A
20	55.16	55.33	60	2000'	2	11500'	2	11500'	N/A
21	55.50	55.64	60	5000'	2	11500'	2	11500'	N/A

See table below for anticipated radii design exceptions for Alternative 3. 13 design exceptions for radii are anticipated for this alternative since the superelevations will not be corrected in the section. The cold plane may be able to correct some of the superelevations but that will not be known until a survey is completed.

Alternative 3: Anticipated Radii Design Exceptions

Curve #	PM		DS	Exist R	Existe (%)	Min R	Proposed e (%)	Min R	Design Exception?
1	50.85	51.07	45	935'	5	1190'	5.6	903'	No
2	51.18	51.22	30	1000'	2	2830'	3.6	972'	No
3	51.30	51.34	30	2500'	2	2830'	RC 2.0	2240'	No
4	51.89	52.08	45	2000'	6	1250'	6	1250'	No
5	52.20	52.23	55	1600'	8	960'	8	960'	No
6	52.23	52.33	55	1600'	8	960'	8	960'	No
7	52.64	52.75	60	1300'	8	1200'	8	1200'	No
8	52.80	52.91	60	1150'	8	1200'	8	1200'	Yes
9	52.08	53.04	60	1500'	8	1200'	8	1200'	No
10	53.15	53.21	60	5000'	2	11500'	2	11500'	Yes
11	53.23	53.31	60	1500'	2	11500'	2	11500'	Yes
12	53.41	53.54	60	1000'	2	11500'	2	11500'	Yes
13	53.58	53.75	60	2000'	2	11500'	2	11500'	Yes

Curve #	PM		DS	Exist R	Existe (%)	Min R	Proposed e (%)	Min R	Design Exception?
14	53.92	54.10	60	3000'	2	11500'	2	11500'	Yes
15	54.26	54.40	60	1000'	2	11500'	2	11500'	Yes
16	54.45	54.61	60	1750'	2	11500'	2	11500'	Yes
17	54.61	54.69	60	3000'	2	11500'	2	11500'	Yes
18	54.69	54.80	60	2500'	2	11500'	2	11500'	Yes
19	54.90	55.16	60	5000'	2	11500'	2	11500'	Yes
20	55.16	55.33	60	2000'	2	11500'	2	11500'	Yes
21	55.50	55.64	60	5000'	2	11500'	2	11500'	Yes

See table below for anticipated radii design exceptions for Alternative 4. Since this alternative will correct most superelevations through pulverization, there are 4 anticipated design exceptions.

Alternative 4: Anticipated Radii Design Exceptions

Curve #	PM		DS	Exist R	Existe (%)	Min R	Proposed e (%)	Min R	Design Exception?
1	50.85	51.07	45	935'	5	1190'	5.6	903'	No
2	51.18	51.22	30	1000'	2	2830'	3.6	972'	No
3	51.30	51.34	30	2500'	2	2830'	RC 2.0	2240'	No
4	51.89	52.08	45	2000'	6	1250'	6	1250'	No
5	52.20	52.23	55	1600'	8	960'	8	960'	No
6	52.23	52.33	55	1600'	8	960'	8	960'	No
7	52.64	52.75	60	1300'	8	1200'	8	1200'	No
8	52.80	52.91	60	1150'	8	1200'	8	1200'	Yes
9	52.08	53.04	60	1500'	8	1200'	8	1200'	No
10	53.15	53.21	60	5000'	2	11500'	8	1200'	No
11	53.23	53.31	60	1500'	2	11500'	8	1200'	Yes
12	53.41	53.54	60	1000'	2	11500'	4.95	2842'	Yes
13	53.58	53.75	60	2000'	2	11500'	7.20	1720'	Yes
14	53.92	54.10	60	3000'	2	11500'	8	1200'	No
15	54.26	54.40	60	1000'	2	11500'	8	1200'	Yes
16	54.45	54.61	60	1750'	2	11500'	8	1200'	No
17	54.61	54.69	60	3000'	2	11500'	8	1200'	No
18	54.69	54.80	60	2500'	2	11500'	8	1200'	No
19	54.90	55.16	60	5000'	2	11500'	8	1200'	No
20	55.16	55.33	60	2000'	2	11500'	8	1200'	No
21	55.50	55.64	60	5000'	2	11500'	8	1200'	No

Vertical Sight Distances

See table below for anticipated vertical curve design exceptions for the programmable alternative. Curves at PM 50.91 and 51.03 do not meet minimum length at a design speed of 45 MPH. The programmable alternative will correct these curves through the pulverization of the roadway. As-built data for PM 51.2 to 53.0 is unavailable. No design exceptions are anticipated as the pulverization would most likely correct any issues. The need for more design exceptions is a Known Risk and has been placed in the Risk Register. Alternative 2 may require a design exception at PM 50.91 because the area is being cold planed instead of pulverized.

Vertical Curve Design Exceptions

PM	Type	Curve Length (ft)	Min HDM Length (ft)	Proposed Length (ft)	Design Exception?
50.35	Crest	1476	550	1476	No
50.72	Crest	861	450	861	No
50.91	Sag	400	450	450	No
51.03	Crest	400	450	450	No
51.13	Sag	558	300	558	No
51.2 - 53.0					Unknown

Horizontal Sight Distances

There are no known horizontal sight distance issues with Alternatives 1 and 2. Alternatives 3 and 4 have many non-standard sight distances from PM 53.0 to 55.7 that will not be corrected due to the cost of earthwork and visual impacts. The horizontal sight distance at PM 55.10, however, will be corrected by removal of an existing berm. Berm removal has been mitigated into the project cost through the earthwork estimate. It has been mitigated into schedule through environmental planning.

Shoulder & Bike Lane Width

The programmable alternative meets minimum shoulder width requirements for 4-lane conventional highway as it will maintain 8' minimum shoulders throughout from PM 50.6 to 53.0. PM 50.6 to 51.0 and 51.7 to 50.3 does not have a curb and gutter and therefore meets requirements for Class II Bikeway (Bike Lane) per Figure 301.2A of the HDM. The project proposes to provide striping delineating the bikeway in those sections. PM 51.0 to 51.7 will need space re-allocation to accommodate the bikeway and parking. The area is proposed to be re-allocated from 4 lanes to 2 lanes with a two-way-left-turn lane (TWLTL), parking, and bikeway. The bikeway will be a minimum of 5' and parking will be a minimum of 8' per Figure 301.2A of the HDM.

Design Standards - Curb, Sidewalk, Ramps, Driveways

Curb in the 45 mph section from PM 51.0 to 51.2 will be changed to type B-6 per HDM Table 303.1. All sidewalk, ramps, and driveways shown in the existing facility section will brought up to current ADA standards.

Highway Planting and Irrigation
Existing irrigation under sidewalks and trees in the sidewalk through the community will be replaced.

Construction and Right-of-Way Cost Estimate
The construction and right-of-way cost estimates for each alternative are shown in Attachment D. The programmable and minimum are outlined below as they are the closest to allocated funding.

Alternative 1 - Programmable
Right-of-way costs are estimated at $354,796 (escalated) including $254,085 of acquisition. Escalated construction capital costs are estimated at $14,132,000. The total escalated construction capital cost, including right-of-way is $14,486,796.

Alternative 2
Right-of-way costs are estimated at $354,796 (escalated) including $254,085 of acquisition. Escalated construction capital costs are estimated at $17,917,000. The total escalated construction capital cost, including right-of-way is $18,271,796.

The project will follow all design standards except those identified below:

Design Standards Risk Assessment Matrix			
Alternative	Standard (HDM index, DIB, TOPD, etc.)	Nonstandard feature and its risk of not being approved (low, medium, high)	Justification for the approval risk rating and additional data/studies needed for approval
1, 2, 3 & 4	HDM 105.2 Sidewalks and Walkways	Existing sidewalks are less than 8' from curb to buildings and 6' from curb to retaining wall (low)	Cost prohibitive to move retaining wall. Will reduce lane width to 11' to provide 5' minimum to meet federal standards. Sidewalk will be a minimum of 6' along buildings.
1	HDM 201.5 Stopping Sight Distance at Grade Sags	PM 50.72 curve is 50' less than minimum (low)	Pavement grade will not be adjusted so unable to fix curve. If design exception is not anticipated then must go with Alternative 2.
3 & 4	HDM 201.6 Stopping Sight Distance on Horizontal Curves	4 curves from PM 53.0 to 55.7 do not meet minimum sight distances (low)	Cost prohibitive and too high of visual impact to remove slope.
1 & 2	HDM 202.2 Standards for Superelevation	Radius at PM 52.8 is 50' below minimum at 8% e (low)	Cost prohibitive to change radius as there is no accident history and sight distance is good.
3	HDM 202.2 Standards for Superelevation	Radii below minimums at 13 curves (medium)	Superelevations in the area will not be corrected with this alternative. If design exceptions are not anticipated then must go with Alternative 4
4	HDM 202.2 Standards for Superelevation	Radii below minimums at 4 curves (low)	Superelevations will be changed to maximum available based off of geometry. Changing radii is cost prohibitive.
3 & 4	HDM 301.2 Class II Bikeway Lane Width	Speeds greater than 40 mph (PM 53.0 - 55.7) minimum is 6' (medium)	Shoulders will be widened to 5' to minimize environmental, right of way, and capital costs.
3 & 4	HDM 302.1 Shoulder Widths	Shoulder widths are less than 8' PM 53.0-55.7 (low)	Shoulders will be widened to 5' to minimize environmental, right of way, and capital costs.

10. COMPLETE STREETS

Are complete streets features included? ☒*Yes* ☐*No*

Complete street features such as a space-reallocation to reduce lanes, add bike lanes, parking, and bulb outs is under development in coordination with community outreach. Design specifics will be designed in a later phase.

Pedestrian Facilities

Lee Vining Creek Trail access will be enhanced on the north end of the eastern retaining wall. Enhancement may include concrete entrance and informational sign to encourage use.

Sidewalk is from PM 51.2 to 51.7 on the southbound side and PM 51.24 to 51.58 on the northbound side. Almost all existing sidewalk through Lee Vining has non-compliant cross slopes greater than 1.5%. All sidewalk will be replaced and corrected as part of this project. There is 5430 linear feet of sidewalk on the project. All other sidewalk features, existing curb ramps, driveways and crosswalks that are non-compliant are listed below.

Sidewalks

Facility Type and Location	Meets ADA Standards?	Non-ADA Compliant Features	Status of Each Noncompliant Location
PM 51.01 Rt to PM 51.25 Rt	No	Passing lanes	Will be corrected as part of this project
PM 51.05 Lt to PM 51.24 Lt	No	Passing lanes	Will be corrected as part of this project
PM 51.07 Lt	No	Sign point restriction	Will be corrected as part of this project
PM 51.16 Lt	No	Sign point restriction	Will be corrected as part of this project

Curb Ramps

Facility Type and Location	Meets ADA Standards?	Non-ADA Compliant Features	Status of Each Noncompliant Location
PM 51.01 Rt	No	Landing, Detectable Warning Surface (DWS)	Will be corrected as part of this project
PM 51.05 Lt	No	Non-standard ramp	Will be corrected as part of this project
PM 51.24 Rt	No	Landing, DWS	Will be corrected as part of this project
PM 51.25 Rt	No	Landing, DWS	Will be corrected as part of this project
PM 51.25 Lt	No	No receiving ramp	Will be corrected as part of this project
PM 51.26 Lt Lee Vining Ave	No	Landing, DWS	Will be corrected as part of this project
PM 51.27 Lt Lee Vining Ave	No	Landing, Drainage Inlet obstruction, DWS	Will be corrected as part of this project
PM 51.27 Rt Midblock	No	No receiving ramp	Will be corrected as part of this project
PM 51.31 Lt Fourth St	No	Landing, DWS, Gutter slope	Will be corrected as part of this project
PM 51.32 Lt Fourth St	No	Cross slope, Chamfer, DWS	Will be corrected as part of this project
PM 51.32 Rt Midblock	No	Landing, DWS	Will be corrected as part of this project
PM 51.34 Lt Third St	No	Landing, DWS	Will be corrected as part of this project
PM 51.35 Lt Third St	No	Landing, DWS	Will be corrected as part of this project
PM 51.40 Rt Mattly Ave	No	Landing, Ramp slope	Will be corrected as part of this project
PM 51.41 Rt Mattly Ave	No	DWS	Will be corrected as part of this project
PM 51.44 Lt Second St	No	Low spot in ramp, DWS	Will be corrected as part of this project
PM 51.44 Rt Midblock	No	DWS, Landing, Ramp & Gutter slope	Will be corrected as part of this project
PM 51.45 Lt Second St	No	Landing, Cross slope, DWS	Will be corrected as part of this project
PM 51.45 Rt Midblock	No	No receiving ramp	Will be corrected as part of this project
PM 51.50 Rt First St	No	DWS, Gutter slope	Will be corrected as part of this project
PM 51.50 Lt First St	No	Landing, DWS, Cross slope, Gutter slope	Will be corrected as part of this project
PM 51.51 Rt First St	No	Gutter slope	Will be corrected as part of this project
PM 51.51 Lt First St	No	Landing, DWS, Chamfer, Gutter slope	Will be corrected as part of this project
PM 51.52 Rt Midblock	No	DWS	Will be corrected as part of this project
PM 51.55 Lt Beaver Ln	No	Landing, DWS, Gutter slope	Will be corrected as part of this project
PM 51.55 Rt Midblock	No	No receiving ramp	Will be corrected as part of this project
PM 51.71 Rt	No	No ramp	Will be corrected as part of this project

Driveways

Facility Type and Location	Meets ADA Standards?	Non-Compliant ADA features	Status of Each Noncompliant Location
PM 51.25 Rt (Lake View Lodge)	No	Cross slope	Will be corrected as part of this project
PM 51.27 Rt (Lake View Lodge)	No	Cross slope, Move driveway	Will be corrected as part of this project
PM 51.29 Rt (Yosemite Trading)	No	Cross slope	Will be corrected as part of this project
PM 51.30 Rt (Beavers)	Yes	May no longer need driveway	Will check with land owner and remove if possible
PM 51.33 Rt (Yosemite Gateway)	No	Cross slope, Sidewalk below curb	Will be corrected as part of this project
PM 51.36 Rt (Yosemite Gateway)	No	Cross slope	Will be corrected as part of this project
PM 51.37 Rt Shell Station	No	Cross slope	Will be corrected as part of this project
PM 51.39 Rt Shell Station	No	Cross slope	Will be corrected as part of this project
PM 51.42 Lt Lee Vining Motel	No	Cross slope	Will be corrected as part of this project
PM 51.43 Lt Lee Vining Motel	No	Cross slope	Will be corrected as part of this project
PM 51.44 Rt Second St	No	Cross slope	Will be corrected as part of this project
PM 51.46 Rt Fire Station	No	Cross slope	Will be corrected as part of this project
PM 51.47 Lt Murphy's Lodging	No	Cross slope	Will be corrected as part of this project
PM 51.48 Lt Murphy's Lodging	No	Cross slope	Will be corrected as part of this project
PM 51.49 Rt Mono Cone	No	Cross slope	Will be corrected as part of this project
PM 51.50 Rt Mono Cone	No	Cross slope	Will be corrected as part of this project
PM 51.51 Lt Murphy's Lodging	No	Cross slope	Will be corrected as part of this project
PM 51.53 Rt Caltrans Yard	No	Cross slope	Will be corrected as part of this project
PM 51.53 Lt Chevron	No	Cross slope	Will be corrected as part of this project
PM 51.54 Lt Chevron	No	Cross slope	Will be corrected as part of this project
PM 51.55 Lt	No	Cross slope	Will be corrected as part of this project
PM 51.58 Rt County Yard	No	Cross slope	Will be corrected as part of this project
PM 51.66 Rt County Yard	No	Cross slope	Will be corrected as part of this project
PM 51.70 Rt School	No	Cross slope	Will be corrected as part of this project

Cross Walks

Facility Type and Location	Meets ADA Standards?	Non-Compliant ADA features	Status of Each Noncompliant Location
PM 51.31 Lt Fourth St	No	Cross slope	Will be corrected as part of this project
PM 51.32 Across 395	No	Cross slope, Grade in shoulder	Will be corrected as part of this project
PM 51.34 Lt Third St	No	Cross slope	Will be corrected as part of this project
PM 51.40 Rt Mattly Ave	No	Cross slope	Will be corrected as part of this project
PM 51.44 Across 395	No	Grade in shoulder	Will be corrected as part of this project
PM 51.44 Second St	No	Cross slope	Will be corrected as part of this project
PM 51.50 Rt First St	No	Cross slope	Will be corrected as part of this project
PM 51.50 Lt First St	No	Cross slope	Will be corrected as part of this project
PM 51.51 Across 395	No	Grade in shoulder	Will be corrected as part of this project

Bicycle Facilities

Location (post mile limits)	Deficiency
PM 51.2 to PM 51.7	No bike lane. Re-allocate space to reduce to two lanes with center turn lane and class II bike lane
PM 50.6 to 51.2 and 51.7 to 53.0	Stripe class II bike lane

Transit Facilities

Location (post mile limits)	Deficiency
PM 51.55 Rt	Transit Stop Improvements

11. CLIMATE CHANGE CONSIDERATION

GHG Emissions Analysis is being deferred to PA&ED since an in-depth GHG Analysis will be performed with the Environmental Document.

12. ENVIRONMENTAL COMPLIANCE

To identify environmental issues, constraints, costs, and resource needs, an attached PEAR was prepared for the project. Potential disposal, staging, and borrow sites have been identified but will need further review in the PA&ED phase for complete environmental review. Field studies were not conducted, and technical studies have been deferred to the PA&ED phase.

The anticipated environmental document under CEQA is an Initial Study/Mitigated Negative Declaration for all Alternatives. The anticipated environmental document under NEPA is a Categorical Exclusion for Alternatives 1 and 2 and a Routine Environmental Assessment with proposed Finding of No Significant Impact for Alternatives 3 and 4. This document level has been selected based on environmental specialists' analysis of potential/known resources in the proposed project areas. The California Department of Transportation would act as the lead agency in the preparation of a joint NEPA/CEQA (National Environmental Policy Act/California Environmental Quality Act) environmental document. Caltrans will serve as the NEPA lead agency under its assumption of responsibility pursuant to 23 U.S. Code 326.

For the proposed project, the following reports are anticipated: Native American consultation under AB 52, Archaeological Survey Report, Historic Property Survey Report, and Extended Phase I Proposal and Report.

The estimated time to obtain environmental approval is 18 months for Alternatives 1 and 2 and 24 months for Alternatives 3 and 4 from the "Begin Environmental" milestone (M020). The survey window for biological surveys is from February-October. Assuming an approved Environmental Study Request by November, 2020, the following schedule is proposed:

Alternatives 1 & 2:
-September 2020: Begin Environmental.
-April 2021: Begin field surveys.
-October 2021: Finish field surveys.
-December 2021: Specialists' documents complete.
-February 2022: Draft Environmental Document (DED).
-April 2022: Final Environmental Document (FED).
-May 2022: Project Approval and Environmental Document (PA&ED).

Alternatives 3 & 4:
-September 2020: Begin Environmental.
-April 2021: Begin field surveys.

-October 2021: Finish field surveys.
-December 2021: Specialists' documents complete.
-April 2022: Draft Environmental Document (DED).
-August 2022: Final Environmental Document (FED).
-September 2022: Project Approval and Environmental Document (PA&ED).

13. RIGHT-OF-WAY

The following assumptions and limiting conditions were identified in the attached right-of-way data sheet for Alternative 1:

1. The project is listed in the November 2018 Bishop "Status of Projects" on page 9. The target Right of way Certification Date is not provided. It is anticipated that Construction will take place in 2023.

2. The Project Engineer indicates that **new** right of way is required for this project, plus indicating that approx. 20 potholes are needed.

3. The Environmental Branch has not provided an MCCE so it is undetermined if there are any permit filing fees or mitigation acreage required on the project.

4. Private ownerships plus LA-DWP, Mono County, Mono Lake State Park, State Lands Commission, and USFS administered properties are located within project limits and could be potentially affected by this project. Longer lead times will be needed when working with any Governmental Agencies.

5. Right of Way activities (ordering title reports, preparing base maps, preparing appraisal maps, etc) can commence upon receipt of the completed Certificate of Sufficiency. Anticipated Lead Times for this project will be –

Preparation of R/W Maps to Regular R/W activities (base map prep, order title reports, appraisal map prep, comparable sales search)	8	Months
Regular R/W activities (acquiring parcels or permits, performing RAP, utility relocation activities) to Right of Way Certification.	24	Months

14. STORMWATER

This project used the long form for Storm Water Data Report (SWDR) based upon the criteria in determining short or long form (Attachment B).

It was determined that the project's combined risk (Project Sediment Risk and Receiving Water Risk) is level 1 based upon risk level determination tool. The programmable alternative has new impervious surface area exceeding 1 acre, therefore, treatment BMPs are

required on the project and have been included in cost estimates. Alternative 2 has less impervious surface area than the programmable alternative and may be below the treatment BMP threshold. If the programmable alternative is not the selected alternative a reassessment will be required.

The SWDR will require revision as the project progresses through next phases. More detailed cost estimate for storm water items will be done towards the PS&E stage.

15. TRANSPORTATION MANAGEMENT PLAN

The transportation management plan is shown in Attachment J. Most strategies are under development and will be incorporated during PS&E. Continued coordination with local agencies will help determine the methods of notifying the public. As most of the project is four lanes, at least one lane of traffic will be open in each direction during construction. Where there are two lanes, one way reversible traffic control will be used with delays up to 20 minutes. Appropriate signage, phasing, and contingency plans will be included in the plans, specifications, and estimate for construction.

16. BROADBAND AND ADVANCE TECHNOLOGIES

A. Wired broadband facility
The corridor has existing wired broadband facility in place on the southbound side of the highway. The project does not anticipate a need to relocate the facility. Potential re-location of the facility to ensure accommodation has been placed as a known risk in the Risk Register.

B. Fueling opportunities for zero-emission vehicles
A charge station in the state right-of-way is not being considered by California Department of Transportation as there is no feasible location available. The Eastern Sierra Electric Vehicle Association and Mono County Local Transportation Commission are taking the lead on establishing potential universal level-2 Electrical Vehicle (EV) charging station at Gus Hess Park near the project area.

C. Provision of vehicle to infrastructure (V2I) for transitional or full autonomous vehicle and supporting high speed data infrastructure
The project will place 6" traffic stripe to aid autonomous vehicles. District 9 does not have a district Transportation Management Center so the provision of vehicle to infrastructure (V21) for transitional or full autonomous vehicle and supporting high speed data infrastructure is not required.

17. ADDITIONAL CONSIDERATIONS

Contaminated material including regulated, designated and hazardous waste
The hazardous waste scoping for this project site indicated low risk of sources of hazardous wastes or soil contaminants within the areas of construction. If hazardous wastes or soil contaminants are encountered during construction, any wastes created will be properly disposed of off-site, according to the State and County disposal regulations. If these wastes are to be transported off-site, soil testing and reporting will be required prior to PS&E delivery. If soils exhibit Aerially Deposited Lead (ADL) above regulatory thresholds, a testing report shall be included in the contract documents as an informational handout, and items for appropriate disposal shall be included in the Contract plans, specifications, and estimate.

Material and/or disposal site
#190 Baseline site, Mine ID 91-26-0016, will be used as a material and disposal site.

Salvaging and recycling of hardware and other non-renewable resources
All salvageable materials will be taken to appropriate places. All concrete, pulverized material, and roadway excavation that must be taken off site will be taken to material sites or asphalt plants where they can be re-used.

Recycled Materials
A full depth reclamation with pulverization is a recycled material to be used as base. This will save greenhouse gases and cost by eliminating trucking of the material off site. All metal beam guardrail, metal sign posts, and other metal products will be recycled.

Resource Conservation
Sustainability will be assessed throughout the project. All material will be used on site wherever possible and recycling will be maximized.

Construction Staging
Two staging sites are available for contractor's use; the Caltrans Lee Vining Maintenance Yard and Baseline Pit #190. Other areas along shoulders and at intersections are available within Caltrans right-of-way. The most difficult staging will be through the community of Lee Vining from PM 51.0 to 51.7. Construction through the community will be staged to have minimal impact on local businesses. The project staging plans will be drawn during PS&E. Construction staging is proposed as follows depending on the height of the temporary grade brakes as determined in PS&E:

1. Close northbound and reduce traffic to one lane in each direction on the southbound side. Construct sidewalk, curb, and gutter on northbound side then pulverize and pave northbound to match the gutter. This would keep workers safest while working on both sidewalk and pavement, and reduce traffic on the pulverized surface. Switch traffic to newly paved northbound and construct southbound sidewalk, then pulverize, and pave to match.

2. Close northbound and southbound shoulders. Construct sidewalk on both sides of highway. After construction of sidewalk, curb, and gutter close northbound and reduce traffic to one lane in each direction on the southbound side. Pulverize northbound pave to match the gutter. Switch traffic to newly paved northbound and construct southbound sidewalk, then pulverize and pave to match.
3. If traffic running on pulverized surface is not a concern or temporary lower construction speed limits are being considered, then the entire highway could be pulverized at once. This would reduce high mobilization costs associated with the pulverizing machine. Close northbound and southbound shoulders. Construct sidewalk, curb and gutter on both sides of highway. Pulverize entire highway one lane at a time while shifting traffic. After pulverization of entire highway is complete, pave highway to match gutter line one lane at a time while shifting traffic.

18. ESTIMATE, FUNDING, AND PROGRAMMING

Estimate

Estimated Capital & Support Cost ($1,000s)- Programmable Alternative							
Component	Total Min	Total Max	(A) Total Most Likely	(B) Risk Adjusted Amount	(C) Total Risk Adjusted Cost (A+B)	(D)* Escalation Adjusted Amount	(E) Total Escalated Cost (C+D)
Support							
PA&ED	NA	NA	2,356	8	2,364	148	2,512
PS&E	NA	NA	2,036	8	2,044	260	2,304
Right of Way	NA	NA	1,449	0	1,449	209	1,658
Construction	NA	NA	2,281	7	2,288	404	2,692
Capital							
Right of Way	NA	NA	290	0	290	47	337
Construction	NA	NA	11,481	60	11,541	2,591	14,132
Totals	NA	NA	19,893	83	19,976	3,659	23,635

Total Escalated Cost = Program Amount as input into Table E: Funding Table for Programmable Alternative

Funding

Federal-aid Funding:
It has been determined that this project is eligible for Federal-aid funding.

Programming

Cost Breakdown:

Fund Source	Fiscal Year Estimate for the Programmable Alternative								
20.10.201.120	Prior	18/19	19/20	20/21	21/22	22/23	23/24	24/25	Total
Component	In thousands of dollars ($1,000)								
PA&ED Support				2,512					2,512
PS&E Support					2,304				2,304
Right-of-Way Support					1,658				1,658
Construction Support								2,692	2,692
Right-of-Way								337	337
Construction								14,132	14,132
Total				2,512	3,962			17,161	23,635

The support cost ratio is 63.3% (Total Capital Outlay Support Cost / Total Capital Cost).
An escalation rate of 3.2% for capital costs and 3.2% for support costs in FY 19/20 through 21/22 and 2% each year afterwards, applied to the mid-point of the duration of each component except for right of way capital which is escalated at 5-10%.

19. DELIVERY SCHEDULE

Project Milestones		Milestone Date (Month/Day/Year)	Milestone Designation (Target/Actual)
PROGRAM PROJECT	M015	10/04/19	Target
BEGIN ENVIRONMENTAL	M020	9/1/20	Target
NOTICE OF PREPARATION (NOP)	M030	1/28/21	Target
NOTICE OF INTENT (NOI)	M035	1/28/21	Target
CIRCULATE DED EXTERNALLY	M120	2/1/22	Target
PA & ED	M200	3/1/22	Target
PS&E TO DOE	M377	2/8/24	Target
DRAFT STRUCTURES PS&E	M378	1/4/24	Target
RIGHT OF WAY CERTIFICATION	M410	6/17/24	Target
READY TO LIST	M460	6/17/24	Target
FUND ALLOCATION	M470	9/11/24	Target
HEADQUARTERS ADVERTISE	M480	10/2/24	Target
AWARD	M495	12/10/24	Target
APPROVE CONTRACT	M500	12/24/24	Target
CONTRACT ACCEPTANCE	M600	10/24/25	Target
END PROJECT	M800	10/5/26	Target

20. EXTERNAL AGENCY COORDINATION

Federal Highway Administration (FHWA)
This project is an Assigned Project in accordance with the current Federal Highway Administration (FHWA) and Department of Transportation (Caltrans) Joint Stewardship and Oversight Agreement.

The project requires the following coordination:

California Department of Fish and Wildlife
California Fish and Game Code Section 1602
Lake or Streambed Alteration Agreement

Local Agency
Cooperative Agreements with Mono County

Local Agency
Agreements with Mono County LTC & RPAC, LA DWP

Regional Water Quality Control Board
Clean Water Act Section 401
Water Quality Certification

US Army Corps of Engineers
Department of Army Permit for:
Clean Water Act Section 404

Other
Review from Local Utility Companies
Approval from Private Land Owners

21. PROJECT REVIEWS

Scoping team field review Date 12/6/2017
Brad Rockwell, Jim Hibbert, Mark Heckman, Austin West, Matthew Goike, Stacey Toles, Joe Blommer, Damon Cherenzia
Safety field review Date 01/26/2018
Jed Eropkin, Lianne Talbot
District Program Advisor Lianne Talbot Date 05/09/2019
District Maintenance John Fox Date 06/03/2019
Project Manager Brian Mc Elwain Date 05/09/2019
Constructability Review PDT Meeting Date 01/08/2019

22. PROJECT PERSONNEL

Brian Mc Elwain, Project Manager	760-872-4361
Brad Rockwell, Design Manager	760-872-5251
Angie Calloway, Environmental Manager	760-872-2424
Brandon Fitt, Project Planning	760-872-0724
Lianne Talbot, Traffic Operations	760-872-0650
Tanisha Barfield, Right of Way	760-872-0641
Damon Cherenzia, Project Engineer	760-872-5217

23. ATTACHMENTS (Number of Pages)

A. Location map (1)
B. PIR Storm Water Data Report – Signed Cover Sheet (1)
C. Preliminary Environmental Analysis Report (PEAR) - 4 Alternatives (24)
D. 6-page PIR Cost Estimate - 4 Alternatives (24)
E. Risk Register (3)
F. RW Data Sheet Report – 4 Alternatives (9)
G. Transportation Planning Scoping Information Sheet (TPSIS) (10)
H. Structure PIR Cost Estimate/APS (Advance Planning Studies) (1)
I. SHOPP Performance Measures Reports (2)
J. TMP and Traffic Calculations (6)
K. Structural Section Recommendation (2)

Attachment A
Location Map

INDEX OF PLANS

XXXXXXX-XXXXXXXX

Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
09	Mno	395	50.5/55.6	1	1

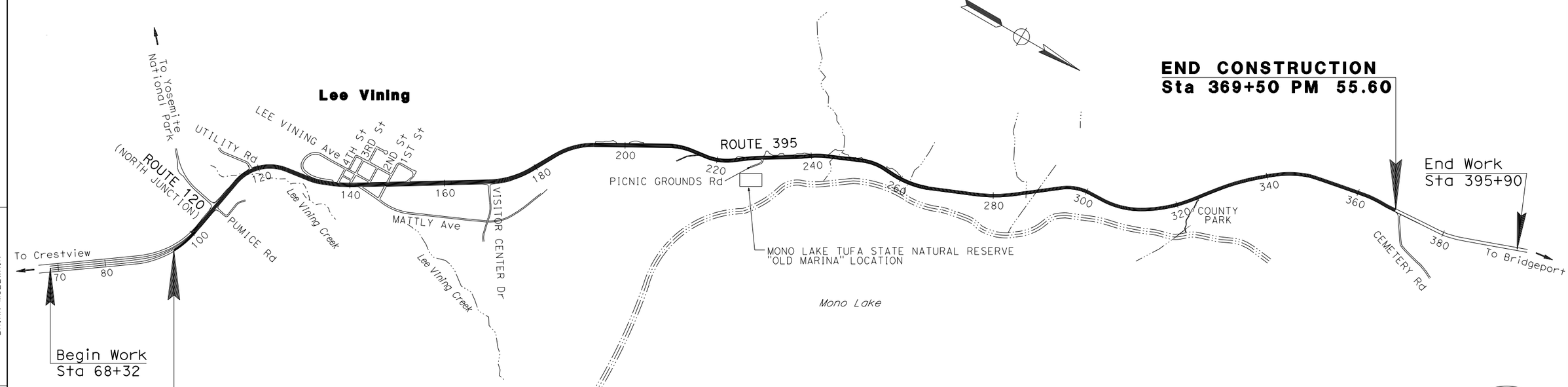
STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR BUILDING CONSTRUCTION

IN MONO COUNTY AT AND NEAR LEE VINING FROM 0.2 MILE SOUTH OF NORTH JUNCTION ROUTE 120 WEST TO CEMETERY ROAD

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2015



NO SCALE

PROJECT MANAGER: BRIAN MCELWAIN

DESIGN MANAGER: BRAD ROCKWELL

PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. — Exp. — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

CONTRACT No.	09-37430K
PROJECT ID	0918000015

LAST REVISION DATE PLOTTED => 06-MAR-2018
12-01-17 TIME PLOTTED => 14:41

BORDER LAST REVISED 8/1/2016 | CALTRANS WEB SITE IS: HTTP//WWW.DOT.CA.GOV/ | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => s135987 DGN FILE => 937430ab001.dgn | UNIT 4210 | PROJECT NUMBER & PHASE 09180000151

Attachment B
PIR Storm Water Data Report - signed cover sheet

Dist-County-Route: ~~Inv~~ Mno 09-Mno-395
Post Mile Limits: 50.6/55.7
Type of Work: Roadway Rehabilitation 3R
Project ID (EA): 0918000015 (37430K) "Lee Vining Rehab"
Program Identification: 20.XX.201.120
Phase: ☒ PID ☐ PA/ED ☐ PS&E

Regional Water Quality Control Board(s): Lahontan (Region 6V)
Total Disturbed Soil Area: 7.84 Acres PCTA: 6.39 Acres
Alternative Compliance (acres): TBD ATA 2 (50% Rule)? Yes ☐ No ☒
Estimated Const. Start Date: April 2024 Estimated Const. Completion Date: Sept 2024
Risk Level: RL 1 ☒ RL 2 ☐ RL 3 ☐ WPCP ☐ Other: _____
Is MWELO applicable? Yes ☐ No ☒
Is the Project within a TMDL watershed? Yes ☐ No ☒
TMDL Compliance Units (acres): _____
Notification of ADL reuse (if yes, provide date): Yes ☐ Date: _____ No ☒

This Report has been prepared under the direction of the following Licensed Person. The Licensed Person attests to the technical information contained herein and the date upon which recommendations, conclusions, and decisions are based. Professional Engineer or Landscape Architect stamp required at PS&E only.

Damon L. Cherenzia, Registered Project Engineer — 04-19-19 Date

I have reviewed the stormwater quality design issues and find this report to be complete, current and accurate:

Brian Mc Elwain, Project Manager — 5/14/19 Date

Ron Kaiser, Designated Maintenance Representative — 5-15-19 Date

Jim Hibbert, Designated Landscape Architect Representative — 5/13/19 Date

[Stamp Required at PS&E only]

Rob Sanchez, District Design SW Coordinator or Designee — 5/14/2019 Date

Attachment C

Preliminary Environmental Analysis Report (PEAR)

PRELIMINARY ENVIRONMENTAL ANALYSIS REPORT

1. Project Information

District 09	County Mono	Route 395	PM 50.50/55.60	EA 09-37430
Project Title: *Brief descriptive phrase, e.g., CAPM, Curve Re-alignment, Passing Lane, etc.* Lee Vining Rehab				
Project Manager Brian McElwain			Phone # 760-872-4361	
Project Engineer Damon Cherenzia			Phone # 760-872-5217	
Environmental Office Chief/Manager Angela Calloway			Phone # 760-872-2424	
PEAR Preparer Ryan Spaulding			Phone # 760-872-5244	

2. Project Description

Purpose and Need

Purpose: Restore the facility to a state of good repair so that the roadway will require minimal maintenance resources and bring fewer disruptions to the public over the life cycle of the pavement. Bring pedestrian facilities and crossings up to current standards required by the American Disabilities Act. Address and replace drainage systems. Provide a safe and efficient transportation system for interregional traffic that also addresses the local needs of the Lee Vining Community.

Need: The roadway has reached the end of its life cycle as it exhibits major pavement distress. The local community desires complete streets facilities to accommodate multimodal transportation use. This will also allow for the upgrade of ADA facilities that were constructed to previous standards. Additionally, current drainage facilities need to be upgraded and expanded to accommodate improvements.

Description of work

There are 4 alternatives being considered for the project along with a standalone design concept. Each alternative is explained in detail below. Material Site #190 (Baseline Pit) will be used for staging and storing. Wildlife crossing needs shall also be investigated.

ALTERNATIVES 1 & 2

Alternatives 1 & 2 omit PM 53.0 to 55.7 (along Mono Lake) from the project. Alternative 1 pulverizes the entire pavement area, while Alternative 2 pulverizes through the community from PM 51.0 to 51.7 and cold planes the pavement everywhere else. The environmental impacts for both alternatives are anticipated to be the same. Shoulder backing (3') will be placed where there is no sidewalk. These alternatives will not require any anchor mesh or guardrail retaining wall. These alternatives will replace all drainage, sidewalks, and guardrail and add drainage facilities including culverts and drainage basins through town.

ALTERNATIVES 3 & 4 - Widen 5' Shoulders

Alternatives 3 & 4 widen shoulders to 5' from PM 53.05 to PM 55.60 along the west shore of Mono Lake in addition to the areas through Lee Vining in alternatives 1 & 2**.** Alternative 3 pulverizes through the community from PM 51.0 and 51.7 and cold planes the pavement everywhere else. Alternative 4 pulverizes through the community from PM 51.0 to 51.7 and PM 53.0 to 55.7 along Mono Lake and cold planes the pavement everywhere else. Shoulder backing (3') will be placed where there is no sidewalk. These alternatives will replace all drainage, sidewalks, and guardrail. Drainage facilities including culverts and drainage basins will be added through town. Guardrail retaining wall and anchor mesh slope protection will be placed in various locations. Three power poles will be moved 20' from ETW out of clear recovery at PM 55.25 Rt, 55.27 Rt, and 55.34 Lt.

Standalone Design Concept - 120 Roundabout

This standalone design concept proposes a roundabout at the intersection of 120 and 395. Closing the entrance to the Old Marina from 395 and granting access from the Mono Lake Visitor Center is also under consideration. A proposal to the county may include widening and paving the graded road from the Mono Lake Visitor Center.

3. Anticipated Environmental Approval

Check the anticipated environmental determination or document for the proposed project in the table below.

CEQA		NEPA	
Environmental Determination			
Statutory Exemption	☐		
Categorical Exemption	☐	Categorical Exclusion (Alts 1 & 2)	☒
Environmental Document			
Initial Study or Focused Initial Study with proposed Negative Declaration (ND) or Mitigated ND (All Alternatives)	☒	Routine Environmental Assessment with proposed Finding of No Significant Impact (Alts 3 & 4) Complex Environmental Assessment with proposed Finding of No Significant Impact	☒ ☐
Environmental Impact Report	☐	Environmental Impact Statement	☐
CEQA Lead Agency (if determined):		Caltrans	
Estimated length of time (months) to obtain environmental approval:		**18** months (Alts 1 & 2); **24** months (Alts 3 & 4)	

4. Special Environmental Considerations

There are several special environmental considerations required for this project.

Permit/ Process Required	**Required for Alternative(s):**
CDFW 1602 LSA Agreement	1, 2, 3, 4
LRWQCB 401 Permit	1, 2, 3, 4
ACOE 404 Nationwide Permit	1, 2, 3, 4
Mitigation and Monitoring Plan – Wetlands, WOUS, riparian habitat	1, 2, 3, 4
Federal Agency Coordination: ACOE, USFS, BLM	All
Wetlands Delineation and report	1, 2, 3, 4
Community Impacts Analysis	All
Native American Coordination	All
Archaeological Survey Report	All
Historic Property Survey Report	All
Extended Phase I Proposal and Report	All

5. Anticipated Environmental Commitments

The anticipated environmental commitments for the proposed project will be further developed during the PA&ED phase. Below are notable commitments that have been identified for this PEAR. These commitments apply to all 4 alternatives (unless specified):

- Biology:
  - ESA Fencing (see attached MCCE for associated costs).
  - Pre-construction nesting bird and bat surveys (task order or in-house).
  - Task order construction monitors.
  - Long-term mitigation monitoring (riparian/wetlands/waters restoration).
- Cultural
  - ESA Fencing (see attached MCCE for associated costs).
- Paleontology
  - Construction monitoring (in-house).
- Visual/Landscape
  - Aesthetic treatments.
  - Erosion control/revegetation.

6. Permits and Approvals

The following table displays the required permits for all alternatives (1-4):

Permit Required:	Cost:	Timeline:
CDFW 1602 LSA Agreement	$15,680 (Alts 1 & 2); $40,320 (Alts 3 & 4)	Minimum of 6 months
ACOE Nationwide 404	No permit fee.	Minimum of 6 months
LRWQCB 401	$1,212 (Alts 1 & 2); $5,355 (Alts 3 & 4)	Minimum of 6 months

7. Level of Effort: Risks and Assumptions

Assumptions:

- The following permits will be required: USCACE 404 NWP, RWQCB 401 Certification, and CDFW 1602 Lake Streambed Alteration Agreement.
- The following species may be found within or adjacent to the biological study area (BSA): yellow rail, yellow warbler, pygmy rabbit.
- The following species are not anticipated to occur within the BSA: hoary bat, North American porcupine, northern goshawk, northern harrier, osprey, Sierra Nevada mountain beaver, Sierra Nevada red fox, spotted bat, Western mastiff bat, willow flycatcher, yellow-headed blackbird, Yuma myotis, common moonwort, foxtail thelypodium, golden violet, Utah monkeyflower.
- Impacts to willow flycatcher will be nonexistent or avoidable, and a 2081 Incidental Take Permit will not be needed.
- Special-status plant species do not occur within the BSA.
- Bats are not roosting in trees or culverts within the BSA.

- Wetlands, riparian habitat, and WOUS and waters of the state will be permanently impacted on alternatives 3 & 4; impacts to waters of the US and state will occur from alternatives 1 & 2.
- Mitigation for waters of the US and state will be required for alternatives 1 & 2.
- Mitigation for wetlands (CDFW and/or ACOE), riparian habitat, and WOUS will be required for alternatives 3 & 4.
- Mitigation for wetlands will require permittee-responsible mitigation (ILF and mitigation banks are not available in the project service area).
- ACOE will implement a 2:1 mitigation ratio.
- CDFW will implement a 3:1 mitigation ratio.
- The following surveys will require one survey season: botanical surveys, wildlife surveys, wetland and waters delineation, roosting bat surveys, WIFL surveys.
- Nesting birds may be present within and adjacent to the BSA and may require monitoring during construction.
- A task order biological monitor will be required to monitor construction activities, ensure permit compliance, and monitor nesting birds if work occurs within nest buffer areas.
- It will be determined that paleontological resources will not be impacted and, resultingly, a Paleontological Evaluation Report (and associated Paleontological Mitigation Plan) will not be needed during the PA&ED phase.

Risks: Please refer to the risk register associated with the Project Initiation Report.

8. PEAR Technical Summaries

8.1 Land Use: No studies or impacts are anticipated.

8.2 Growth: No studies or impacts are anticipated.

8.3 Farmlands/Timberlands: No studies or impacts are anticipated.

8.4 Community Impacts: (*All alternatives)* Due to the location of the proposed project and heavy role of tourism income to the town of Lee Vining, public notification and outreach will be vital to reducing impacts to the community. Public information meetings are recommended, and will require coordination between the Caltrans environmental coordinator, public information officer, planning and right-of-way divisions. For all proposed alternatives, the largest community impacts throughout the project limits are most likely to occur from increased traffic and access disruptions. In addition, the risk of impacting Section 4(f) resources (parks and recreational facilities) increases the possibility of delays for environmental clearance during PA&ED as coordination and approval from outside agencies would be required. Interested parties including the Park Service, Forest Service, and the Mono Lake Committee could also increase the amount of coordination and approvals needed for environmental clearance. It is likely that a full Community Impacts Analysis will need to be prepared and referenced in the Environmental Document. Community outreach efforts were undertaken during the planning phase

of this project, and the Community Impacts Analysis will both summarize these past efforts and include additional outreach strategies, if needed.

8.5 Visual/Aesthetics: *(Alternatives 1 & 2 and roundabout)* Review of the project site and project plans indicate that the project would not result in substantial adverse impacts to the visual environment. If a roundabout does become part of the project, the visual impacts document will need to include discussion of the feature and provide aesthetic treatments. This review indicates that the project would not adversely affect any "Designated Scenic Resource" as defined by CEQA statutes or guidelines, or by Caltrans policy. A Visual Impacts Assessment scoring questionnaire has been performed and the cumulative score was 11 out of a total possible of 30. Based upon the project score, a brief memorandum will be required as part of the project environmental impacts document.

(Alternatives 3 & 4) Review of the project site and project plans indicate that the project would not result in substantial adverse impacts to the visual environment. If a roundabout does become part of the project, the visual impacts document will need to include discussion of the feature and provide aesthetic treatments. A scenic resource evaluation will need to be performed and included as part of the visual impact assessment. A Visual Impacts Assessment scoring questionnaire has been performed and the cumulative score was 16 out of a total possible of 30. Based upon the project score, an abbreviated Visual Impacts Assessment will be required as part of the project environmental impacts document.

8.6 Cultural Resources: *(All alternatives)* The proposed project will be subject to a number of environmental laws, including the California Environmental Quality Act and the National Environmental Policy Act. The project is currently considered eligible for federal funding and will be subject to Section 106 of the National Historic Preservation Act.

As the project is currently scoped, no impacts related to cultural resources are anticipated under Alternatives 1, 2, 3, and 4 as a result of the main body of work along U.S. 395. It is important to note that the project does have the potential to impact unknown resources outside of the ROW through the construction of the drainage basins and associated culvert work for all four alternatives.

Although Tribal Cultural Resources have been identified within the project vicinity, none have been identified within the project's area of direct impact. However, this assessment may change as a result of background research and consultation. Potential impacts to a Tribal Cultural Resource may require a higher level CEQA document. Because the project is currently scoped as an Initial Study and Mitigated Negative Declaration, consultation under the Assembly Bill 52 amendments to CEQA with all identified tribes will be required and may result in the identification of additional Tribal Cultural Resources which may require additional consultation efforts, and efforts to avoid, minimize, and/or mitigate impacts.

The recommended studies and reports for Alternatives 1-4 are: Native American consultation under AB 52; an archeological survey of the project area; Archaeological Survey Report (ASR); Historic Property Survey Report (HPSR); and Extended Phase I Proposal and Report. It is anticipated that studies for Alternatives 1-4 will result in a finding of No Historic Properties Affected. These studies will likely require approximately 12 months to complete from the initiation of environmental phase to completion of compliance documentation and necessary reviews. If archaeological resources are discovered as a result of the work outside of the ROW, then an ESA Action Plan with Archaeological Monitoring Area document would be required, and a finding of No Adverse Effect-Standard Conditions Environmentally Sensitive Areas would be likely.

(Roundabout) The location of the roundabout is in a previously studied and highly developed location. The roundabout construction alone would be a screenable action under the Section 106 PA, meaning no historic properties affected.

8.7 Hydrology and Floodplain: No studies or impacts are anticipated.

8.8 Water Quality and Storm Water Runoff: (*All alternatives)* The project scope disturbs over an acre of soil and will require a Stormwater Prevention Plan and associated items. The scope includes potential treatment areas for storm water. The project scope may require 404/401 permits.

8.9 Geology, Soils, Seismic and Topography: No studies or impacts are anticipated.

8.10 Paleontology: (*All alternatives)* During the PA&ED phase, additional research and coordination with any land management agencies (BLM, USFS, etc.) and researchers with location-specific expertise will need to occur to determine potential impacts to paleontological resources. It is possible, but unlikely, that excavation greater than 4-6 feet to build the storm water basins could encounter Quaternary lakebed sediments which could be fossiliferous. In this event, and if no other supporting evidence to suggest fossil sensitivity is found during PA&ED, spot-checking during construction by a qualified paleontological monitor may be required. This would only be required at the basin locations and could be performed by CT staff during the construction phase. It will be determined during PA&ED and through the coordination to prepare the Paleontological Evaluation Report if construction monitoring will be needed.

Based on the identification of the postmile segment as “no sensitivity” for paleontological resources, it is unlikely that fossils will be encountered during project construction. If, however, it is determined during PA&ED studies that the project will impact resources, a Paleontological Evaluation Report (PER) will need to be completed and if mitigation is necessary, a Paleontological Mitigation Plan (PMP). These reports require a qualified principal paleontologist to complete, and thus will need to be tasked out to a consultant or appropriate staff in the Caltrans Central Region.

8.11 Hazardous Waste/Materials: (*All alternatives)* There are no known sources of soil contaminants within the areas of construction, but plumes of hydrocarbons could exist adjacent to historic gas stations. Excess material that could potentially involve Aerially Deposited Lead is not included in the scope of the project. Further analysis may be warranted.

8.12 Air Quality: (*All alternatives)* The project limits lie within the Great Basin Air Pollution Control District. The region encompassing the project limits is a state and federal PM 10 non-attainment area. A short-term degradation of mesoscale air quality can be expected due to exhausts of the required construction equipment. Dust levels are also expected to have a short-term impact because of the nature of the work. These short-term conditions will be minimized by enforcement of Caltrans dust control specifications.

The project may not be exempt from regional conformity analysis per 40 CFR 93.126, 127, or 128 if the roundabout alternative is included. Further analysis may be required.

8.13 Noise and Vibration: (*All alternatives)* The project is a Type III project and it is exempt from noise analysis (23CFR772). No further analysis is required.

8.14 Energy and Climate Change: No studies or impacts are anticipated.

8.15 Biological Environment: *(All Alternatives)* The proposed project will require surveys for rare plants, roosting bats, willow flycatcher and nesting birds. The following permits and approvals are anticipated for the project: CDFW 1602 Streambed Alteration Agreement, ACOE 404 Nationwide Permit, LRWQCB 401 Certification. Impacts to waters of the US and State of California are anticipated for alternatives 1 and 2. For alternatives 3 and 4, permanent impacts to riparian habitat, wetlands and waters of the US and State are anticipated. Permit conditions will likely require an on-site biological monitor during construction within jurisdictional areas (CDFW/ACOE/LRWQCB) and monitoring of active bird nests if any are found during pre-construction surveys. In addition, a construction window might need to be implemented if active willow flycatcher nests are located during pre-construction surveys.

If riparian vegetation is permanently impacted from the proposed project, mitigation may be required in the form of on-site riparian vegetation replanting, noxious weed abatement, and monitoring and reporting success criteria for three to five years post-construction. Alternatively, an off-site mitigation area may be accepted by CDFW and LRWQCB during the 1600 and 401 permitting phase as a method for mitigation for impacts to riparian vegetation. Permanent impacts to wetland features would also require compensatory mitigation through ACOE, LRWQCB, and CDFW. In-lieu fee programs are not available in this watershed, nor are mitigation banks present at the time of this document. Therefore, permittee-responsible

mitigation would be required if permanent impacts to wetlands could not be avoided during culvert replacement and shoulder widening.

The following biological reports are anticipated for the proposed project: Natural Environment Study, Wetlands Delineation and Wetlands Delineation Report, Mitigation and Monitoring Plan, Nesting Bird Plan, Revegetation Plan. The survey window for completing biological surveys is from April-October. The total duration to complete required studies and produce the Biological Reports required for the PA&ED phase is approximately 12 months.

(Roundabout) The standalone alternative (roundabout only) will require surveys for rare plants, roosting bats, and nesting birds. No permits will be required if the roundabout is constructed as a separate facility. Permanent impacts to riparian habitat, wetlands and waters of the US and State are not anticipated. The following biological reports are required: No Effects Memo. The survey window for completing biological surveys is from April-October.

8.16 Cumulative Impacts: No studies or impacts are anticipated.

8.17 Context Sensitive Solutions: No studies or impacts are anticipated.

9. Summary Statement for PSR or PSR-PDS

In order to identify environmental issues, constraints, costs and resource needs, a PEAR was prepared for the project. The Anticipated environmental document for the proposed project is a Categorical Exemption/Initial Study with Proposed Mitigated Negative Declaration (IS/MND) for alternatives 1 and 2; for alternatives 3 and 4, the anticipated environmental document level is a Routine Environmental Assessment (EA)/Initial Study with Proposed Mitigated Negative Declaration (IS/MND). This document level has been selected based on environmental specialists' analysis of potential/known resources in the proposed project area. The California Department of Transportation (Caltrans) would act as the lead agency in the preparation of a joint NEPA/CEQA (National Environmental Policy Act/ California Environmental Quality Act) environmental document. Caltrans would serve as the NEPA lead agency under its assumption of responsibility pursuant to 23 U.S. Code 327.

(Alternatives 1 & 2) The estimated time to obtain environmental approval is 18 months from the "Begin Environmental" milestone (M020). The survey window for biological surveys is from April-October. Assuming an approved Environmental Study Request by November 2020, the following schedule is proposed:

- September 2020: Begin Environmental.
- April 2021: Begin field surveys.
- October 2021: Finish field surveys.
- November 2021: Specialists' documents complete.
- January 2022: Draft Environmental Document (DED).
- March 2022: Final Environmental Document (FED).
- March 2022: Project Approval and Environmental Document (PA&ED).

(Alternatives 3 & 4) The estimated time to obtain environmental approval is 24 months from the "Begin Environmental" milestone (M020). The survey window for biological surveys is from April-October. Assuming an approved Environmental Study Request by September 2020, the following schedule is proposed:

- September 2020: Begin Environmental.
- April 2021: Begin field surveys.
- October 2021: Finish field surveys.
- December 2021: Specialists' documents complete.
- April 2022: Draft Environmental Document (DED).
- August 2022: Final Environmental Document (FED).
- September 2022: Project Approval and Environmental Document (PA&ED).

It is anticipated that several environmental studies and reports will be required for this project including, but not limited to (aforementioned studies and reports are anticipated for all alternatives, unless specified): Natural Environment Study, Wetlands Delineation and Wetlands Delineation Report, Mitigation and Monitoring Plan, Nesting Bird Plan, Revegetation Plan, Community Impacts Analysis, Paleontological

Identification/Evaluation Report, Visual Impacts Assessment (Alts 3 & 4), Archaeological Survey Report (ASR), Historic Property Survey Report (HPSR), Extended Phase I Proposal and Report. The following permits will also be required for this project: 1602 Lakebed Stream Alteration Agreement (CDFW), ACOE 404 Nationwide Permit, LRWQCB 401 Certification.

Stakeholder/ Agency Coordination: The stakeholders and agencies that will need to be coordinated with for this project are: CA Dept. of Fish and Wildlife, United States Army Corps of Engineers, Lahontan Regional Water Quality Control District, Bureau of Land Management, United States Forest Service, California State Parks, Mono Lake Committee, Mono County and Native American consultation with local Tribes. There are several private land parcels within the project area that may be impacted by the proposed project.

10. Disclaimer

This Preliminary Environmental Analysis Report (PEAR) provides information to support programming of the proposed project. It is not an environmental determination or document. Preliminary analysis, determinations, and estimates of mitigation costs are based on the project description provided in the Project Study Report (PSR). The estimates and conclusions in the PEAR are approximate and are based on cursory analyses of probable effects. A reevaluation of the PEAR will be needed for changes in project scope or alternatives, or in environmental laws, regulations, or guidelines.

11. List of Preparers

Cultural Resources specialist Emilie Zelazo	Date: 3/15/19
Biologist Katie Rodriguez	Date: 2/28/19
Community Impacts specialist Bradley Bowers	Date: 3/4/19
Noise and Vibration specialist Matthew Goike	Date: 3/4/19
Air Quality specialist Matthew Goike	Date: 3/4/19
Paleontology specialist Bradley Bowers	Date: 3/4/19
Water Quality specialist Matthew Goike	Date: 3/4/19
Hydrology and Floodplain specialist N/A	Date: N/A
Hazardous Waste/Materials specialist Matthew Goike	Date: 3/4/19
Visual/Aesthetics specialist	Date: 2/28/19

Jim Hibbert	
Energy and Climate Change specialist N/A	Date: N/A
Other: N/A	Date: N/A
PEAR Preparer (Name and Title) Ryan Spaulding, Environmental Planner	Date: 3/22/19

12. Review and Approval

I confirm that environmental cost, scope, and schedule have been satisfactorily completed and that the PEAR meets all Caltrans requirements. Also, if the project is scoped as a routine EA, complex EA, or EIS, I verify that the HQ DEA Coordinator has concurred in the Class of Action.

Environmental Branch Chief — Date: 5/7/19

Project Manager — Date: 5/7/19

REQUIRED ATTACHMENTS:

Attachment A: PEAR Environmental Studies Checklist
Attachment B: Estimated Resources by WBS Code
Attachment C: Mitigation and Compliance Cost Estimate (MCCE)

Attachment A: PEAR Environmental Studies Checklist

District: 9.00	County: MNO	Route: 395	PM: 50.800/55.700	EA: 09-37430_
				Proj ID: 0918000015
Project Title: LEE VINING REHAB (Alts 1 & 2)				

	Not Anticipated	Memo to File	Report Required	Risk L M H	Comments
Human Environment					
Land Use	☐	☐	☐		
Coastal Zone	☑	☐	☐		
Wild & Scenic River Consistency	☑	☐	☐		
Growth	☑	☐	☐		
Farmlands/Timberlands	☑	☐	☐		
Community Impacts	☐	☐	☑		
Community Character and Cohesion	☑	☐	☐		
Relocations	☑	☐	☐		
Environmental Justice	☑	☐	☐		
Utilities/Emergency Services	☑	☐	☐		
Visual/Aesthetics	☐	☑	☐		
Cultural Resources					
Screening Memo	☑	☐	☐		
Archaelogical Survey Report	☐	☐	☑		
Historic Resources Evaluation Report	☑	☐	☐		
Historic Property Survey Report	☐	☐	☑		
Historic Resource Compliance Report	☑	☐	☐		
Section 106 / PRC 5024 & 5024.5	☐	☐	☑		
Native American Coordination	☐	☐	☑		
Finding of Effect	☑	☐	☐		
Data Recovery Plan	☑	☐	☐		
Memorandum of Agreement	☑	☐	☐		
Tribal Lands	☑	☐	☐		
Other	☑	☐	☐		
ARPA Permit	☑	☐	☐		
Physical Environment					
Hydrology and Floodplain	☑	☐	☐		
Water Quality	☐	☐	☑		
Stormwater Runoff	☑	☐	☐		
Geology, Soils, Seismic and Topography	☑	☐	☐		
Air Quality	☑	☐	☐		
Noise and Vibration	☑	☐	☐		
Energy and Climate Change	☑	☐	☐		
Hazardous Waste/Materials					
Hazardous Waste/Materials	☐	☐	☑		
ISA (Additional)	☑	☐	☐		

	Not Anticipated	Memo to File	Report Required	Risk L M H	Comments
PSI	☑	☐	☐		
Other	☑	☐	☐		
Paleontology					
Paleontology	☐	☑	☐		
PER	☑	☐	☐		
PMP	☑	☐	☐		
Biological Environment					
Natural Environment Study	☐	☐	☑		
Natural Environment Study (MI)	☑	☐	☐		
Section 7 Formal	☑	☐	☐		
Section 7 Informal	☑	☐	☐		
Section 7 No effect	☑	☐	☐		
Section 10	☑	☐	☐		
USFWS Consultation	☑	☐	☐		
NMFS Consultation	☑	☐	☐		
Species of Concern	☑	☐	☐		
Wetlands & Other Waters/Delineation	☐	☐	☑		
404(b)(1) Alternatives Analysis	☑	☐	☐		
Invasive Species	☐	☐	☐		
Coastal Management Plan	☑	☐	☐		
DFG Consistency Determination	☑	☐	☐		
HMMP	☐	☐	☑		
Other	☑	☐	☐		
Other					
Cumulative Impacts	☑	☐	☐		
Context Sensitive Solutions	☑	☐	☐		
Section 4(f)	☑	☐	☐		

	Not Anticipated	Memo to File	Report Required	Risk L M H	Comments

Permits	Not Anticipated	Required	Risk L M H	Comments
1600 Agreement Coordination	☐	☑		
2081	☑	☐		
401 Certification Coordination	☐	☑		
Tribal 401	☑	☐		
404 Permit Coordination	☐	☑		
Local Coastal Development Permit Coord.	☑	☐		
State Coastal Development Permit Coord.	☑	☐		
NPDES Coordination	☑	☐		
US Coast Guard (Section10)	☑	☐		
TRPA	☑	☐		
BCDC	☑	☐		
State Lands Commission Lease Agreement	☑	☐		
Bureau of Reclamation Encroachment Permit	☑	☐		

Attachment A: PEAR Environmental Studies Checklist

District: 9.00	County: MNO	Route: 395	PM: 50.800/55.700	EA: 09-37430_
				Proj ID: 0918000015
Project Title: LEE VINING REHAB (Alts 3 & 4)				

	Not Anticipated	Memo to File	Report Required	Risk L M H	Comments
Human Environment					
Land Use	☐	☐	☐		
Coastal Zone	☑	☐	☐		
Wild & Scenic River Consistency	☑	☐	☐		
Growth	☑	☐	☐		
Farmlands/Timberlands	☑	☐	☐		
Community Impacts	☐	☐	☑		
Community Character and Cohesion	☑	☐	☐		
Relocations	☑	☐	☐		
Environmental Justice	☑	☐	☐		
Utilities/Emergency Services	☑	☐	☐		
Visual/Aesthetics	☐	☐	☑		
Cultural Resources					
Screening Memo	☑	☐	☐		
Archaelogical Survey Report	☐	☐	☑		
Historic Resources Evaluation Report	☑	☐	☐		
Historic Property Survey Report	☐	☐	☑		
Historic Resource Compliance Report	☑	☐	☐		
Section 106 / PRC 5024 & 5024.5	☐	☐	☑		
Native American Coordination	☐	☐	☑		
Finding of Effect	☑	☐	☐		
Data Recovery Plan	☑	☐	☐		
Memorandum of Agreement	☑	☐	☐		
Tribal Lands	☑	☐	☐		
Other	☑	☐	☐		
ARPA Permit	☑	☐	☐		
Physical Environment					
Hydrology and Floodplain	☑	☐	☐		
Water Quality	☐	☐	☑		
Stormwater Runoff	☑	☐	☐		
Geology, Soils, Seismic and Topography	☑	☐	☐		
Air Quality	☑	☐	☐		
Noise and Vibration	☑	☐	☐		
Energy and Climate Change	☑	☐	☐		
Hazardous Waste/Materials					
Hazardous Waste/Materials	☐	☐	☑		
ISA (Additional)	☑	☐	☐		

	Not Anticipated	Memo to File	Report Required	Risk L M H	Comments
PSI	☑	☐	☐		
Other	☑	☐	☐		
Paleontology					
Paleontology	☐	☑	☐		
PER	☑	☐	☐		
PMP	☑	☐	☐		
Biological Environment					
Natural Environment Study	☐	☐	☑		
Natural Environment Study (MI)	☑	☐	☐		
Section 7 Formal	☑	☐	☐		
Section 7 Informal	☑	☐	☐		
Section 7 No effect	☑	☐	☐		
Section 10	☑	☐	☐		
USFWS Consultation	☑	☐	☐		
NMFS Consultation	☑	☐	☐		
Species of Concern	☑	☐	☐		
Wetlands & Other Waters/Delineation	☐	☐	☑		
404(b)(1) Alternatives Analysis	☑	☐	☐		
Invasive Species	☐	☐	☐		
Coastal Management Plan	☑	☐	☐		
DFG Consistency Determination	☑	☐	☐		
HMMP	☐	☐	☑		
Other	☑	☐	☐		
Other					
Cumulative Impacts	☑	☐	☐		
Context Sensitive Solutions	☑	☐	☐		
Section 4(f)	☑	☐	☐		

	Not Anticipated	Memo to File	Report Required	Risk L M H	Comments

Permits	Not Anticipated	Required	Risk L M H	Comments
1600 Agreement Coordination	☐	☑		
2081	☑	☐		
401 Certification Coordination	☐	☑		
Tribal 401	☑	☐		
404 Permit Coordination	☐	☑		
Local Coastal Development Permit Coord.	☑	☐		
State Coastal Development Permit Coord.	☑	☐		
NPDES Coordination	☑	☐		
US Coast Guard (Section10)	☑	☐		
TRPA	☑	☐		
BCDC	☑	☐		
State Lands Commission Lease Agreement	☑	☐		
Bureau of Reclamation Encroachment Permit	☑	☐		

ENVIRONMENTAL ANALYSIS WORKPLANS
PROJECT: Lee Vining Rehab Alts. 1 & 2
EA: 09-37430
EFIS: 09-1800-0015
Date: 5/2/19
Notes: bio critical path

PAED	100	160	165	170	175	180	TOTAL
4206 (staff)	20	50	1176	48	340	290	1924
4206 (consultants)	0	0	1700	0	0	0	1700
4206 (TOTAL)	**20**	**50**	**2876**	**48**	**340**	**290**	**3624**

BE (Begin Environmental): November 2020
DED: February 2022
FED: April 2022
PAED: May 2022

PSE	100	185	205	230	235	255	260	TOTAL
4206 (staff)	20	28	288	52	240	158	32	818
4206 (consultants)	0	0	0	0	0	0	0	0
4206 (TOTAL)	**20**	**28**	**288**	**52**	**240**	**158**	**32**	**818**

CONSTRUCTION	100	270	280	295	TOTAL
4206 (staff)	20	40	672	444	1176
4206 (consultants)	0	0	3500	0	3500
4206 (TOTAL)	**20**	**40**	**2572**	**444**	**4676**

ENVIRONMENTAL ANALYSIS WORKPLANS
PROJECT: Lee Vining Rehab Alts 3 & 4
EA: 09-37430
EFIS: 09-1800-0015
Date: 5/3/19
Notes: bio critical path

PAED	**100**	**160**	**165**	**170**	**175**	**180**	**TOTAL**
4206 (staff)	20	50	1356	48	426	350	2250
4206 (consultants)	0	0	1700	0	0	0	1700
4206 (TOTAL)	**20**	**50**	**3056**	**48**	**426**	**350**	**3950**

BE (Begin Environmental): September 2020
DED: April 2022
FED: August 2022
PAED: September 2022

PSE	**100**	**185**	**205**	**230**	**235**	**255**	**260**	**TOTAL**
4206 (staff)	20	28	442	64	820	252	40	1666
4206 (consultants)	0	0	0	0	0	0	0	0
4206 (TOTAL)	**20**	**28**	**442**	**64**	**820**	**252**	**40**	**1666**

CONSTRUCTION	**100**	**270**	**280**	**295**	**TOTAL**
4206 (staff)	20	40	790	878	1728
4206 (consultants)	0	0	3500	0	3500
4206 (TOTAL)	**20**	**40**	**4290**	**878**	**5228**

Revised: 5/6/2019

Environmental Division
Mitigation and Compliance Cost Estimate (M.C.C.E.)

This MCCE is for: **PEAR** Oversight Project:

Dist - Co - Rte - PM: 09-MNO-395-50.600/53.000
EA (Proj ID): 09-37430_ (0918000015)
Project Name: LEE VINING REHAB
Alternative #: 1 & 2
Project Manager: MCELWAIN, BRIAN J
Phone Number: 760-872-4361
MCCE Prepared By: Ryan Spaulding Date: 3/7/2019
Phone Number: 760-872-5244

Resource Item	232/332 Dollars	FY	Acres/ Credits	ROW $ Planned	FY	ROW $ Actual	Paid	Construction 042$ (BEEs)	FY
Archaeological									
Phase 0: Surveys and reports	$85,000	20/21					☐		
ESA fencing							☐	$1,500	24/25
Biological									
Wetland Delineation T.O.	$30,000	20/21					☐		
Phase 0 WIFL surveys	$35,000	20/21					☐		
Phase 0 bat surveys	$20,000	20/21					☐		
Phase 3 monitoring	$340,000	24/25					☐		
CDFW 1600 Mitigation				$12,000	21/22		☐		
ACOE Mitigation (PRM)				$40,000	21/22		☐		
ESA Fencing							☐	$10,500	24/25
Annual 401 Fee							☐	$1,700	22/23
Annual 401 Fee							☐	$1,700	23/24
Annual 401 Fee							☐	$1,700	24/25
Annual 401 Fee							☐	$1,700	25/26
Annual 401 Fee							☐	$1,700	26/27
Hazardous Waste									
Site investigation T.O.	$20,000	20/21					☐		
Landscape									
Aesthetic treatments							☐	$250,000	24/25
Erosion control/revegetation							☐	$50,000	24/25
Permit Fees									
CDFW Document Filing Fee				$2,354.75	21/22		☐		
1600				$15,680	21/22		☐		
401				$1,212	21/22		☐		
404 Nationwide Verification				$0.00	21/22		☐		
TOTAL	**$530,000**			**$71,246.75**				**$320,500**	

Approved By: _____ Date: _____
Environmental Branch Chief

Right of Way Capital: Mark Dossey Date: 5-6-19
Right-of-Way Office Chief, Mitigation

If cultural and biology mitigation totals more than $500,000: _____ Date: 5-7-19
Environmental Office Chief

Submitted to PM on: 5/8 **Initial** BM

Revised: 5/6/2019

Environmental Division
Mitigation and Compliance Cost Estimate (M.C.C.E.)

This MCCE is for: **PEAR** Oversight Project:

Dist - Co - Rte - PM: 09-MNO-395-50.600/53.000 EA (Proj ID): 09-37430_ (0918000015)
Project Name: LEE VINING REHAB Alternative #: 3 & 4
Project Manager: MCELWAIN, BRIAN J Phone Number: 760-872-4361
MCCE Prepared By: Ryan Spaulding Date: 3/5/2019 Phone Number: 760-872-5244

Resource Item	232/332 Dollars	FY	Acres/ Credits	ROW $ Planned	FY	ROW $ Actual	Paid	Construction 042$ (BEEs)	FY
Archaeological									
Phase 0: surveys and reports	$85,000	20/21					☐		
ESA fencing							☐	$1,500	24/25
Biological									
Wetland Delineation T.O.	$30,000	20/21					☐		
Phase 0 WIFL surveys	$35,000	20/21					☐		
Phase 0 bat surveys	$20,000	20/21					☐		
CDFW 1600 mitigation				$225,300	21/22		☐		
ACOE Mitigation (PRM)				$81,000	21/22		☐		
ESA Fencing							☐	$12,950	24/25
Phase 3 monitoring	$350,000	24/25					☐		
Annual 401 Fee							☐	$1,700	22/23
Annual 401 Fee							☐	$1,700	23/24
Annual 401 Fee							☐	$1,700	24/25
Annual 401 Fee							☐	$1,700	25/26
Annual 401 Fee							☐	$1,700	26/27
Hazardous Waste									
Site investigation TO	$20,000	20/21					☐		
Landscape									
Aesthetic treatments							☐	$250,000	24/25
Erosion control/revegetation							☐	$400,000	24/25
Permit Fees									
CDFW Document Filing Fee				$2,354.75	21/22		☐		
1600				$40,320	21/22		☐		
401				$5,355	21/22		☐		
404 Nationwide Verification				$0.00	21/22		☐		
TOTAL	**$540,000**			**$354,329.75**				**$672,950**	

Approved By: _____ Date: _____
Environmental Branch Chief

Right of Way Capital: Mark Dossey Date: 5-6-19
Right-of-Way Office Chief, Mitigation

If cultural and biology mitigation totals more than $500,000: _____ Date: 5-7-19
Environmental Office Chief

Submitted to PM on: 5/8 **Initial** BM

09-37430k
Lee Vining Rehab MCCE
Comments (Alternatives 1 & 2)

****PLEASE NOTE: The 401 permit fee is $1,212k and the 1600 permit fee is $15,680 for alternatives 1 and 2. STEVE is only able to display one permit fee cost for all build alternatives. The actual permit costs for alts 1 and 2 have been edited using PDF software.**

*****PLEASE NOTE: There is no associated permit fee for the 404 permit. A numerical value must be entered on the MCCE in order for the permit to display properly.**

232/T.O.
Wetland delineation and report (Biological/165): $30,000k
Phase 0 WIFL surveys (Biological/165): $35,000k
Phase 0 bat surveys (Biological/165): $20,000k
Phase 3 Monitoring (Biological/280): $340,000k
Phase 0 Surveys and reports (Archaeological/165): $85,000k

332/T.O.
Site Investigation/ADL study (Haz Waste/165): 20k

ROW$/050
Mitigation ACOE wetlands (Biological/235): $40k
Mitigation CDFW 1600 (Biological/235): $12k

042/BEEs
ESA Fencing (Biological/280): $10,500k
Aesthetic treatments (Landscape/280): $250k
Erosion control/revegetation (Landscape/280): $50k
Annual 401 permit fee ($1700k/year for 5 years): $8,500k

09-37430k
Lee Vining Rehab MCCE
Comments (Alternatives 3 & 4)

*****PLEASE NOTE: There is no associated permit fee for the 404 permit. A numerical value must be entered on the MCCE in order for the permit to display properly.**

232/T.O.
Wetland delineation and report (Biological/165): $30,000k
Phase 0 WIFL surveys (Biological/165): $35,000k
Phase 0 bat surveys (Biological/165): $20,000k
Phase 3 Monitoring (Biological/280): $350,000k
Phase 0 Surveys and reports (Archaeological/165): $85,000k

332/T.O.
Site Investigation/ADL study (Haz Waste/165): 20k

ROW$/050
Mitigation ACOE wetlands (Biological/235): $81k
Mitigation CDFW 1600 (Biological/235): $225,300k

042/BEEs
ESA Fencing (Biological/280): $12,950k
Aesthetic treatments (Landscape/280): $250k
Erosion control/revegetation (Landscape/280): $400k
Annual 401 permit fee ($1700k/year for 5 years): $8,500k

Attachment D

6-page PIR Cost Estimates

PROJECT INITIATION REPORT COST ESTIMATE

Dist-Co-Rte: 09-MNO-395
PM: PM 50.6/53.0
EA: 09-374300
Program Code: 201.361
May 1, 2019

PROJECT DESCRIPTION:

Limits: In Mono County at and near Lee Vining from 0.2 mile south of north junction Route 120 West to Cemetery Road.

Proposed Improvement: (Scope of Work) Pulverize PM 51.00 to 51.70 and overlay with 0.65' of Type A HMA. Mill 0.2' and place 0.2' HMA from PM 50.60 to 51.00 and mill 0.40' and place 0.40' HMA from 51.70 to 53.05. Remove PM 53.0 to 55.6 from project. Replace all drainage and sidewalk. Remove & replace metal beam guard rail. Replace and/or extend culverts.

Alternative: 1) PULVERIZE THROUGH TOWN, ELIMINATE LAKE SECTION

SUMMARY OF PROJECT COST ESTIMATE

TOTAL ROADWAY ITEMS	$	11,481,312
TOTAL STRUCTURE ITEMS	$	0
SUBTOTAL CONSTRUCTION COSTS	$	11,481,312
TOTAL RIGHT OF WAY ITEMS (Not Escallated)	$	289,747
TOTAL PROJECT CAPITAL OUTLAY COSTS	$	11,831,000
Construction Capital Escalated	$	14,132,000

Future Year 2025 at 3.20%
Current Year 2019

Reviewed by District Design Manager: (Signature) 5/20/19 (Date)

Approved by Project Manager: (Signature) 5/23/19 (Date)

Phone Number: (760) 872-1355

PROJECT INITIATION REPORT COST ESTIMATE

Dist-Co-Rte: 09-MNO-395
PM: PM 50.6/53.0
EA: 09-374300
Program Code: 201.361
May 1, 2019

I. ROADWAY ITEMS

Section 1 - Earthwork	Quantity	Unit	Unit Price	Item Cost	Section Cost
Roadway Excavation	3,000	CY	$44	$132,000	
Imported Borrow				$0	
Clearing & Grubbing		LS	$10,000	$0	
Develop Water Supply		LS	$10,000	$0	
Top Soil Reapplication		SY	$5	$0	
Structure Excavation-Ret Wall		CY	$65	$0	
Structure Backfill-Ret Wall		CY	$75	$0	
Pulverize Roadway	31,000	SQYD	$6	$186,000	
				Subtotal Earthwork:	$318,000
Section 2 - Pavement Structural Section*					
PCC Pvmt ____ **Depth**			$0	$0	
PCC Pvmt ____ **Depth**			$0	$0	
Asphalt Concrete	30,000	Ton	$150	$4,500,000	
Lean Concrete Base			$0	$0	
Cement-Treated Base			$0	$0	
Aggregate Base			$125	$0	
Treated Permeable Base			$0	$0	
Aggregate Subbase			$0	$0	
Pavement Reinforcing Fabric			$0	$0	
Edge Drains				$0	
Cold Plane AC Pavement	51,000	SQYD	$3	$153,000	
				Subtotal Structural Section:	$4,653,000
Section 3 - Drainage					
Replace Culvert	2,000	LF	$200	$400,000	
Headwalls	20	EA	$5,000	$100,000	
(X-Drains, overside, etc.)					
Minor Concrete Backfill	200	CY	$200	$40,000	
AC Dike (Type E)		LF	$12	$0	
Remove Culvert	1,700	LF	$50	$85,000	
				Subtotal Drainage:	$625,000

* Reference sketch showing typical pavement structural section elements of the roadway. Include (if available) T.I., R-Value and date when tests were performed.

PROJECT INITIATION REPORT COST ESTIMATE

Caltrans

Dist-Co-Rte: 09-MNO-395
PM: PM 50.6/53.0
EA: 09-374300
Program Code: 201.361
May 1, 2019

Section 4 - Specialty Items	Quantity	Unit	Unit Price	Item Cost	Section Cost
Clear Water Diversions	0	EA	$2,500	$0	
Metal Beam Guardrail	4,900	LF	$35	$171,500	
Natina	4,900	LF	$11	$53,900	
Minor Concrete (Sidewalk, Cur	1,100	CY	$550	$605,000	
Construction Site Management	1	LS	$20,000	$20,000	
Water Pollution Control	1	LS	$100,000	$100,000	
Structural Concrete-Ret Wall (I	0	CY	$0	$0	
Reinforcing Steel-Ret Wall	0	LB	$0	$0	
Guard Railing Retaining Wall		LF	$250	$0	
Erosion Control		SY	$2	$0	
Wire Mesh		SF	$3	$0	
Wire Mesh Anchors		EA	$775	$0	
Biological Monitoring	1	LS	$75,000	$75,000	
Bat/Jackrabbit Exclusions	0	LS	$0	$0	
Viola Relocation/Duff	0	LS	$0	$0	
Willows (Plant, Water)	0	LS	$50,000	$0	
ESA Fencing	1	LS	$30,000	$30,000	
Remove Rock Fence	1	LS	$100,000	$100,000	
Resident Engineer Office	1	LS	$8,000	$8,000	
			Subtotal Specialty Items:		$1,163,400

Section 5 - Traffic Items					
Lighting			$0	$0	
Traffic Delineation	70,000	LF	$0.35	$24,500	
Overhead Sign Structures			$0	$0	
Roadside Signs	80	EA	$750	$60,000	
Traffic Control Systems	1	LS	$250,000	$250,000	
Traffic Management Plan			$0	$0	
Construction Area Signs	1	LS	$5,000	$5,000	
Traffic Handling (CMS)	1	LS	$20,000	$20,000	
Temporary K-Railing	0	LF	$0	$0	
Staging	1	LS	$0	$0	
Maintain Traffic	1	LS	$30,000	$30,000	
Rumble Strip	269	Sta	$35	$9,415	
Delineators	800	EA	$50	$40,000	
			Subtotal Traffic Items:		$438,915

TOTAL ROADWAY ITEMS Sections 1 thru 5 $7,198,315

PROJECT INITIATION REPORT COST ESTIMATE

Dist-Co-Rte: 09-MNO-395
PM: PM 50.6/53.0
EA: 09-374300
Program Code: 201.361
May 1, 2019

Section 6 - Minor Items				Item Cost	Section Cost
$7,198,315 (Subtotal Sections 1 thru 5)	x	10% (5 to 10%)	=	$719,832	
			Minor Items:		$719,832

Section 7 - Roadway Mobilization					
$7,918,147 (Subtotal Sections 1 thru 6)	x	10% 5%- 10%	=	$791,815	
			Roadway Mobilization:		$791,815

Section 8 - Roadway Additions

Supplemental Work					
$7,918,147 (Subtotal Sections 1 thru 6)	x	10% (5 to 10%)	=	$791,815	

Contingencies					
$7,918,147 (Subtotal Sections 1 thru 6)	x	25% (**%)	=	$1,979,537	

TOTAL ROADWAY ADDITIONS:		$2,771,351
TOTAL ROADWAY ITEMS: (Subtotal Sections 1 thru 8)		$11,481,312

Estimate Prepared by: Damon Cherenzia (Print or Type Name) Phone: (760) 872-1355 04/22/19 (Date)

Estimate Checked by: Brad Rockwell (Print or Type Name) Phone: (760) 872-5251 04/22/19 (Date)

****Use appropriate percentage per PDPM, Part 3 Chapter 20.**
http://www.dot.ca.gov/hq/oppd/pdpm/pdpm.htm - pdpm

PROJECT INITIATION REPORT COST ESTIMATE

Caltrans

Dist-Co-Rte: 09-MNO-395
PM: PM 50.6/53.0
EA: 09-374300
Program Code: 201.361
May 1, 2019

II. STRUCTURE ITEMS

	STRUCTURE No. 1	No. 2	No. 3
Bridge Name			
Structure Type			
Width (out to out) - (ft)	0	0	0
Span Length - (ft)	0	0	0
Total Area - ft^2	0	0	0
Footing Type (pile/spread)			
Cost Per ft^2 (incl. 10% mobilization & 25% contingencies	$0	$0	$0
Total Cost for Structure	$0	$0	$0
Other	$0	$0	$0

* Add additional structures as necessary

SUBTOTAL STRUCTURES ITEMS $0

Railroad Related Costs (Not incl. in R/W Est) $0

TOTAL STRUCTURES ITEMS $0

COMMENTS:

Estimate Prepared by: Damon Cherenzia (Print or Type Name) Phone: (760) 872-1355 04/22/19 (Date)

(If appropriate, attach additional pages as backup)

PROJECT INITIATION REPORT COST ESTIMATE

Dist-Co-Rte: 09-MNO-395
PM: PM 50.6/53.0
EA: 09-374300
Program Code: 201.361
May 1, 2019

III. RIGHT OF WAY ITEMS

	Current Values 2019	Escalation Rates		Escalated Values
Acquisition	$207,500	5.0%	-	$252,218
Title and Escrow Fees	$6,000	0.0%	-	$6,000
Utility Relocation (State share)	$5,000	10.0%	-	$7,321
Mitigation (Bank Credits)	$52,000	0.0%	-	$52,000
Project Permit Fees	$19,247	0.0%	-	$19,247
1600 Permit	$0	0.0%	-	$0
401 & 404 Permit	$0	0.0%	-	$0
Construction Contract Work	$0	0.0%	-	$0
	$289,747			
	TOTAL RIGHT OF WAY**			$336,785
				ESCALLATED VALUE*

Date to which Values are Escalated: 2023

** Current total value for use on Sheet 1

Estimate Prepared by: Damon Cherenzia & Lora Rischer (Print or Type Name) Phone: (760) 872-1355 05/16/19 (Date)

(If appropriate, attach additional pages and backup including Right of Way Data Sheet and Environmental Mitigation and Compliance Cost Estimate Sheet).

PROJECT INITIATION REPORT COST ESTIMATE

Dist-Co-Rte: 09-MNO-395
PM: PM 50.6/53.0
EA: 09-374300
Program Code: 201.361
May 1, 2019

PROJECT DESCRIPTION:

Limits: In Mono County at and near Lee Vining from 0.2 mile south of north junction Route 120 West to Cemetery Road.

Proposed Improvement: (Scope of Work) Pulverize PM 50.60 to 53.00 and overlay with 0.65' of Type A HMA. Remove PM 53.0 to 55.6 from project. Replace all drainage and sidewalk. Remove & replace metal beam guard rail. Replace and/or extend culverts.

Alternative: 2) PULVERIZE 50.6 to 53.0, ELIMINATE LAKE SECTION

SUMMARY OF PROJECT COST ESTIMATE

TOTAL ROADWAY ITEMS	$	14,632,025
TOTAL STRUCTURE ITEMS	$	0
SUBTOTAL CONSTRUCTION COSTS	$	14,632,025
TOTAL RIGHT OF WAY ITEMS (Not Escallated)	$	289,747
TOTAL PROJECT CAPITAL OUTLAY COSTS	$	14,922,000
Construction Capital Escalated	$	17,917,000

Future Year 2025 at 3.20%
Current Year 2019

Reviewed by District Design Manager: (Signature) 5/20/19 (Date)

Approved by Project Manager: (Signature) 5/23/19 (Date)

Phone Number: (760) 872-1355

PROJECT INITIATION REPORT COST ESTIMATE

Dist-Co-Rte: 09-MNO-395
PM: PM 50.6/53.0
EA: 09-374300
Program Code: 201.361
May 1, 2019

I. ROADWAY ITEMS

Section 1 - Earthwork	Quantity	Unit	Unit Price	Item Cost	Section Cost
Roadway Excavation	3,000	CY	$44	$132,000	
Imported Borrow				$0	
Clearing & Grubbing		LS	$10,000	$0	
Develop Water Supply		LS	$10,000	$0	
Top Soil Reapplication		SY	$5	$0	
Structure Excavation-Ret Wall		CY	$65	$0	
Structure Backfill-Ret Wall		CY	$75	$0	
Pulverize Roadway	82,000	SQYD	$6	$492,000	
				Subtotal Earthwork:	$624,000
Section 2 - Pavement Structural Section*					
PCC Pvmt ____ **Depth**			$0	$0	
PCC Pvmt ____ **Depth**			$0	$0	
Asphalt Concrete	45,000	Ton	$150	$6,750,000	
Lean Concrete Base			$0	$0	
Cement-Treated Base			$0	$0	
Aggregate Base			$125	$0	
Treated Permeable Base			$0	$0	
Aggregate Subbase			$0	$0	
Pavement Reinforcing Fabric			$0	$0	
Edge Drains				$0	
Cold Plane AC Pavement		SQYD	$3	$0	
				Subtotal Structural Section:	$6,750,000
Section 3 - Drainage					
Replace Culvert	2,000	LF	$200	$400,000	
Headwalls	20	EA	$5,000	$100,000	
(X-Drains, overside, etc.)					
Minor Concrete Backfill	200	CY	$200	$40,000	
AC Dike (Type E)		LF	$12	$0	
Remove Culvert	1,700	LF	$50	$85,000	
				Subtotal Drainage:	$625,000

* Reference sketch showing typical pavement structural section elements of the roadway. Include (if available) T.I., R-Value and date when tests were performed.

PROJECT INITIATION REPORT COST ESTIMATE

Caltrans

Dist-Co-Rte: 09-MNO-395
PM: PM 50.6/53.0
EA: 09-374300
Program Code: 201.361
May 1, 2019

Section 4 - Specialty Items	Quantity	Unit	Unit Price	Item Cost	Section Cost
Clear Water Diversions	0	EA	$2,500	$0	
Metal Beam Guardrail	4,900	LF	$35	$171,500	
Natina	4,900	LF	$11	$53,900	
Minor Concrete (Sidewalk, Cur	1,100	CY	$550	$605,000	
Construction Site Management	1	LS	$20,000	$20,000	
Water Pollution Control	1	LS	$100,000	$100,000	
Structural Concrete-Ret Wall (I	0	CY	$0	$0	
Reinforcing Steel-Ret Wall	0	LB	$0	$0	
Guard Railing Retaining Wall		LF	$250	$0	
Erosion Control		SY	$2	$0	
Wire Mesh		SF	$3	$0	
Wire Mesh Anchors		EA	$775	$0	
Biological Monitoring	1	LS	$75,000	$75,000	
Bat/Jackrabbit Exclusions	0	LS	$0	$0	
Viola Relocation/Duff	0	LS	$0	$0	
Willows (Plant, Water)	0	LS	$50,000	$0	
ESA Fencing	1	LS	$30,000	$30,000	
Remove Rock Fence	0	LS	$100,000	$0	
Resident Engineer Office	1	LS	$8,000	$8,000	
			Subtotal Specialty Items:		$1,063,400

Section 5 - Traffic Items					
Lighting			$0	$0	
Traffic Delineation	70,000	LF	$0.35	$24,500	
Overhead Sign Structures			$0	$0	
Roadside Signs	80	EA	$750	$60,000	
Traffic Control Systems	1	LS	$250,000	$250,000	
Traffic Management Plan			$0	$0	
Construction Area Signs	1	LS	$5,000	$5,000	
Traffic Handling (CMS)	1	LS	$20,000	$20,000	
Temporary K-Railing	0	LF	$0	$0	
Staging	1	LS	$0	$0	
Maintain Traffic	1	LS	$30,000	$30,000	
Rumble Strip	269	Sta	$35	$9,415	
Delineators	800	EA	$50	$40,000	
			Subtotal Traffic Items:		$438,915

TOTAL ROADWAY ITEMS Sections 1 thru 5 $9,501,315

PROJECT INITIATION REPORT COST ESTIMATE

Dist-Co-Rte: 09-MNO-395
PM: PM 50.6/53.0
EA: 09-374300
Program Code: 201.361
May 1, 2019

Section 6 - Minor Items				Item Cost	Section Cost
$9,501,315 (Subtotal Sections 1 thru 5)	x	10% (5 to 10%)	=	$950,132	
			Minor Items:		$950,132

Section 7 - Roadway Mobilization				
$10,451,447 (Subtotal Sections 1 thru 6)	x	10% 5%- 10%	=	$1,045,145
			Roadway Mobilization:	$1,045,145

Section 8 - Roadway Additions

Supplemental Work				
$10,451,447 (Subtotal Sections 1 thru 6)	x	5% (5 to 10%)	=	$522,572
Contingencies				
$10,451,447 (Subtotal Sections 1 thru 6)	x	25% (**%)	=	$2,612,862
			TOTAL ROADWAY ADDITIONS:	$3,135,434
			TOTAL ROADWAY ITEMS: (Subtotal Sections 1 thru 8)	$14,632,025

Estimate Prepared by: Damon Cherenzia (Print or Type Name) Phone: (760) 872-1355 04/22/19 (Date)

Estimate Checked by: Brad Rockwell (Print or Type Name) Phone: (760) 872-5251 04/22/19 (Date)

****Use appropriate percentage per PDPM, Part 3 Chapter 20.**
http://www.dot.ca.gov/hq/oppd/pdpm/pdpm.htm - pdpm

Caltrans

Dist-Co-Rte: 09-MNO-395
PM: PM 50.6/53.0
EA: 09-374300
Program Code: 201.361
May 1, 2019

II. STRUCTURE ITEMS

	STRUCTURE No. 1	No. 2	No. 3
Bridge Name			
Structure Type			
Width (out to out) - (ft)	0	0	0
Span Length - (ft)	0	0	0
Total Area - ft^2	0	0	0
Footing Type (pile/spread)			
Cost Per ft^2 (incl. 10% mobilization & 25% contingencies	$0	$0	$0
Total Cost for Structure	$0	$0	$0
Other	$0	$0	$0

* Add additional structures as necessary

SUBTOTAL STRUCTURES ITEMS $0

Railroad Related Costs (Not incl. in R/W Est) $0

TOTAL STRUCTURES ITEMS $0

COMMENTS:

Estimate Prepared by: Damon Cherenzia (Print or Type Name) Phone: (760) 872-1355 04/22/19 (Date)

(If appropriate, attach additional pages as backup)

PROJECT INITIATION REPORT COST ESTIMATE

Dist-Co-Rte: 09-MNO-395
PM: PM 50.6/53.0
EA: 09-374300
Program Code: 201.361
May 1, 2019

III. RIGHT OF WAY ITEMS

	Current Values 2019	Escalation Rates		Escalated Values
Acquisition	$207,500	5.0%	-	$252,218
Title and Escrow Fees	$6,000	0.0%	-	$6,000
Utility Relocation (State share)	$5,000	10.0%	-	$7,321
Mitigation (Bank Credits)	$52,000	0.0%	-	$52,000
Project Permit Fees	$19,247	0.0%	-	$19,247
1600 Permit	$0	0.0%	-	$0
401 & 404 Permit	$0	0.0%	-	$0
Construction Contract Work	$0	0.0%	-	$0
	$289,747			
TOTAL RIGHT OF WAY**				$336,785
				ESCALLATED VALUE*

Date to which Values are Escalated: 2023

** Current total value for use on Sheet 1

Estimate Prepared by: Damon Cherenzia & Lora Rischer (Print or Type Name) Phone: (760) 872-1355 05/16/19 (Date)

(If appropriate, attach additional pages and backup including Right of Way Data Sheet and Environmental Mitigation and Compliance Cost Estimate Sheet).

PROJECT INITIATION REPORT COST ESTIMATE

Caltrans

Dist-Co-Rte: 09-MNO-395
PM: PM 53.0/55.7
EA: 09-374300
Program Code: 201.361
May 1, 2019

PROJECT DESCRIPTION:

Limits: In Mono County at and near Lee Vining from 0.2 mile south of north junction Route 120 West to Cemetery Road.

Proposed Improvement: (Scope of Work) Pulverize PM 51.00 to 51.70 and overlay with 0.65' of Type A HMA, replace all drainage and sidewalk. Mill 0.2' and place 0.2' HMA from PM 50.6 to 51.0. Mill 0.4' and place 0.4' HMA from 51.70 to 53.05. Construct 5 foot shoulders from PM 53.05 to 55.6 and edgeline rumble strip, mill 0.2' and place 0.3' overlay over entire section. Stablize slopes with anchored double twisted wire mesh system. Construct retaining walls. Remove & replace metal beam guard rail. Replace and/or extend culverts.

Alternative: 3) PULVERIZE THROUGH TOWN ONLY, 5' WIDE SHOULDERS

SUMMARY OF PROJECT COST ESTIMATE

TOTAL ROADWAY ITEMS	$	16,937,472
TOTAL STRUCTURE ITEMS	$	0
SUBTOTAL CONSTRUCTION COSTS	$	16,937,472
TOTAL RIGHT OF WAY ITEMS (Not Escallated)	$	732,330
TOTAL PROJECT CAPITAL OUTLAY COSTS	$	17,670,000
Construction Capital Escalated	$	20,740,000

Future Year 2025 at 3.20%
Current Year 2019

Reviewed by District Design Manager: _____ (Signature) 5/20/19 (Date)

Approved by Project Manager: _____ (Signature) 5/23/19 (Date)

Phone Number: (760) 872-1355

PROJECT INITIATION REPORT COST ESTIMATE

Dist-Co-Rte: 09-MNO-395
PM: PM 53.0/55.7
EA: 09-374300
Program Code: 201.361
May 1, 2019

I. ROADWAY ITEMS

Section 1 - Earthwork	Quantity	Unit	Unit Price	Item Cost	Section Cost
Roadway Excavation	6,000	CY	$50	$300,000	
Imported Borrow				$0	
Clearing & Grubbing	1	LS	$10,000	$10,000	
Develop Water Supply	1	LS	$10,000	$10,000	
Top Soil Reapplication	4,000	SY	$5	$20,000	
Structure Excavation-Ret Wall	630	CY	$65	$40,950	
Structure Backfill-Ret Wall	1,260	CY	$75	$94,500	
Pulverize Roadway	31,000	SQYD	$6	$186,000	
				Subtotal Earthwork:	$661,450
Section 2 - Pavement Structural Section*					
PCC Pvmt ____ **Depth**			$0	$0	
PCC Pvmt ____ **Depth**			$0	$0	
Asphalt Concrete	41,000	Ton	$150	$6,150,000	
Lean Concrete Base			$0	$0	
Cement-Treated Base			$0	$0	
Aggregate Base	225		$125	$28,125	
Treated Permeable Base			$0	$0	
Aggregate Subbase			$0	$0	
Pavement Reinforcing Fabric			$0	$0	
Edge Drains				$0	
Cold Plane AC Pavement	102,000	SQYD	$3	$306,000	
				Subtotal Structural Section:	$6,484,125
Section 3 - Drainage					
Replace Culvert	2,700	LF	$200	$540,000	
Headwalls	20	EA	$5,000	$100,000	
(X-Drains, overside, etc.)					
Minor Concrete Backfill	200	CY	$200	$40,000	
AC Dike (Type E)	500	LF	$12	$6,000	
Remove Culvert	1,700	LF	$50	$85,000	
				Subtotal Drainage:	$771,000

* Reference sketch showing typical pavement structural section elements of the roadway. Include (if available) T.I., R-Value and date when tests were performed.

PROJECT INITIATION REPORT COST ESTIMATE

Caltrans

Dist-Co-Rte: 09-MNO-395
PM: PM 53.0/55.7
EA: 09-374300
Program Code: 201.361
May 1, 2019

Section 4 - Specialty Items	Quantity	Unit	Unit Price	Item Cost	Section Cost
Clear Water Diversions	4	EA	$2,500	$10,000	
Metal Beam Guardrail	11,550	LF	$35	$404,250	
Natina	11,550	LF	$11	$127,050	
Minor Concrete (Sidewalk, Cur	1,100	CY	$550	$605,000	
Construction Site Management	1	LS	$10,000	$10,000	
Water Pollution Control	1	LS	$25,000	$25,000	
Structural Concrete-Ret Wall (I	0	CY	$0	$0	
Reinforcing Steel-Ret Wall	0	LB	$0	$0	
Guard Railing Retaining Wall	3,750	LF	$250	$937,500	
Erosion Control	22,200	SY	$2	$33,300	
Wire Mesh	60,000	SF	$3	$180,000	
Wire Mesh Anchors	600	EA	$775	$465,000	
Biological Monitoring	1	LS	$75,000	$75,000	
Bat/Jackrabbit Exclusions	0	LS	$0	$0	
Viola Relocation/Duff	0	LS	$0	$0	
Willows (Plant, Water)	1	LS	$50,000	$50,000	
ESA Fencing	1	LS	$50,000	$50,000	
Remove Rock Fence	1	LS	$100,000	$100,000	
Resident Engineer Office	1	LS	$8,000	$8,000	
			Subtotal Specialty Items:		$3,080,100

Section 5 - Traffic Items					
Lighting			$0	$0	
Traffic Delineation	110,000	LF	$0.35	$38,500	
Overhead Sign Structures			$0	$0	
Roadside Signs	190	EA	$750	$142,500	
Traffic Control Systems	1	LS	$250,000	$250,000	
Traffic Management Plan			$0	$0	
Construction Area Signs	1	LS	$5,000	$5,000	
Traffic Handling (CMS)	1	LS	$10,000	$10,000	
Temporary K-Railing	0	LF	$0	$0	
Staging	1	LS	$0	$0	
Maintain Traffic	1	LS	$30,000	$30,000	
Rumble Strip	269	Sta	$35	$9,415	
Delineators	800	EA	$50	$40,000	
			Subtotal Traffic Items:		$525,415

TOTAL ROADWAY ITEMS Sections 1 thru 5 $11,522,090

PROJECT INITIATION REPORT COST ESTIMATE

Dist-Co-Rte: 09-MNO-395
PM: PM 53.0/55.7
EA: 09-374300
Program Code: 201.361
May 1, 2019

Section 6 - Minor Items				Item Cost	Section Cost
$11,522,090 (Subtotal Sections 1 thru 5)	x	5% (5 to 10%)	=	$576,105	
			Minor Items:		$576,105

Section 7 - Roadway Mobilization					
$12,098,195 (Subtotal Sections 1 thru 6)	x	10% 5%- 10%	=	$1,209,819	
			Roadway Mobilization:		$1,209,819

Section 8 - Roadway Additions

Supplemental Work					
$12,098,195 (Subtotal Sections 1 thru 6)	x	5% (5 to 10%)	=	$604,910	

Contingencies					
$12,098,195 (Subtotal Sections 1 thru 6)	x	25% (**%)	=	$3,024,549	

TOTAL ROADWAY ADDITIONS:		$3,629,458
TOTAL ROADWAY ITEMS: (Subtotal Sections 1 thru 8)		$16,937,472

Estimate Prepared by: Joe Blommer/Damon Cherenzia (Print or Type Name) Phone: (760) 872-1355 04/22/19 (Date)

Estimate Checked by: Brad Rockwell (Print or Type Name) Phone: (760) 872-5251 04/22/19 (Date)

****Use appropriate percentage per PDPM, Part 3 Chapter 20.**
http://www.dot.ca.gov/hq/oppd/pdpm/pdpm.htm - pdpm

PROJECT INITIATION REPORT COST ESTIMATE

Caltrans

Dist-Co-Rte: 09-MNO-395
PM: PM 53.0/55.7
EA: 09-374300
Program Code: 201.361
May 1, 2019

II. STRUCTURE ITEMS

	STRUCTURE No. 1	No. 2	No. 3
Bridge Name			
Structure Type			
Width (out to out) - (ft)	0	0	0
Span Length - (ft)	0	0	0
Total Area - ft^2	0	0	0
Footing Type (pile/spread)			
Cost Per ft^2 (incl. 10% mobilization & 25% contingencies	$0	$0	$0
Total Cost for Structure	$0	$0	$0
Other	$0	$0	$0

* Add additional structures as necessary

SUBTOTAL STRUCTURES ITEMS $0

Railroad Related Costs (Not incl. in R/W Est) $0

TOTAL STRUCTURES ITEMS $0

COMMENTS:

Structure items (MBGR Retaining Wall) included in roadway items.

Estimate Prepared by: Damon Cherenzia (Print or Type Name) Phone: (760) 872-1355 04/22/19 (Date)

(If appropriate, attach additional pages as backup)

PROJECT INITIATION REPORT COST ESTIMATE

Dist-Co-Rte: 09-MNO-395
PM: PM 53.0/55.7
EA: 09-374300
Program Code: 201.361
May 1, 2019

III. RIGHT OF WAY ITEMS

	Current Values 2019	Escalation Rates		Escalated Values
Acquisition	$272,500	5.0%	-	$331,225
Title and Escrow Fees	$14,000	0.0%	-	$14,000
Utility Relocation (State share)	$91,500	10.0%	-	$133,965
Mitigation (Bank Credits)	$306,300	0.0%	-	$306,300
Project Permit Fees	$48,030	0.0%	-	$48,030
1600 Permit	$0	0.0%	-	$0
401 Permit	$0	0.0%	-	$0
Construction Contract Work	$0	0.0%	-	$0
TOTAL RIGHT OF WAY**	$732,330			$833,520
				ESCALLATED VALUE*

Date to which Values are Escalated: 2023

** Current total value for use on Sheet 1

Estimate Prepared by: Damon Cherenzia & Lora Rischer (Print or Type Name) Phone: (760) 872-1355 05/16/19 (Date)

(If appropriate, attach additional pages and backup including Right of Way Data Sheet and Environmental Mitigation and Compliance Cost Estimate Sheet).

PROJECT INITIATION REPORT COST ESTIMATE

Dist-Co-Rte: 09-MNO-395
PM: PM 50.6/55.7
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Program Code: 201.361
May 1, 2019

PROJECT DESCRIPTION:

Limits: In Mono County at and near Lee Vining from 0.2 mile south of north junction Route 120 West to Cemetery Road.

Proposed Improvement: (Scope of Work) Pulverize PM 51.00 to 51.70 and PM 53.05 to 55.60 and overlay with 0.65' of Type A HMA. Mill 0.2' and place 0.2' HMA from PM 50.6 to 51.0. Mill 0.4' and place 0.4' HMA from 51.70 to 53.05. Replace all drainage and sidewalk. Construct 5 foot shoulders from PM 53.05 to 55.6 and edgeline rumble strip. Stablize slopes with anchored double twisted wire mesh system. Correct the superelevation at 7 horizontal curves and correct tangent cross-slope throughout project. Construct retaining walls. Remove & replace metal beam guard rail. Replace and/or extend culverts

Alternative: 4) PULVERIZE THROUGH TOWN AND ALONG LAKE, 5' WIDE SHOULDERS

SUMMARY OF PROJECT COST ESTIMATE

TOTAL ROADWAY ITEMS	$	19,638,597
TOTAL STRUCTURE ITEMS	$	0
SUBTOTAL CONSTRUCTION COSTS	$	19,638,597
TOTAL RIGHT OF WAY ITEMS (Not Escallated)	$	732,330
TOTAL PROJECT CAPITAL OUTLAY COSTS	$	20,371,000
Construction Capital Escalated	$	24,048,000

Future Year 2025 at 3.20%
Current Year 2019

Reviewed by District Design Manager: (Signature) 5/20/19 (Date)

Approved by Project Manager: (Signature) 5/23/19 (Date)

Phone Number: (760) 872-1355

PROJECT INITIATION REPORT COST ESTIMATE

Caltrans

Dist-Co-Rte: 09-MNO-395
PM: PM 50.6/55.7
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Program Code: 201.361
May 1, 2019

I. ROADWAY ITEMS

Section 1 - Earthwork	Quantity	Unit	Unit Price	Item Cost	Section Cost
Roadway Excavation	6,000	CY	$44	$264,000	
Imported Borrow				$0	
Clearing & Grubbing	1	LS	$10,000	$10,000	
Develop Water Supply	1	LS	$10,000	$10,000	
Top Soil Reapplication	4,000	SY	$5	$20,000	
Structure Excavation-Ret Wall	630	CY	$65	$40,950	
Structure Backfill-Ret Wall	1,260	CY	$75	$94,500	
Pulverize Roadway	81,500	SQYD	$6	$489,000	
				Subtotal Earthwork:	$928,450
Section 2 - Pavement Structural Section*					
PCC Pvmt ____ **Depth**			$0	$0	
PCC Pvmt ____ **Depth**			$0	$0	
Asphalt Concrete	52,100	Ton	$150	$7,815,000	
Lean Concrete Base			$0	$0	
Cement-Treated Base			$0	$0	
Aggregate Base	225		$125	$28,125	
Treated Permeable Base			$0	$0	
Aggregate Subbase			$0	$0	
Pavement Reinforcing Fabric			$0	$0	
Edge Drains				$0	
Cold Plane AC Pavement	70,500	SQYD	$3	$211,500	
				Subtotal Structural Section:	$8,054,625
Section 3 - Drainage					
Replace Culvert	2,700	LF	$200	$540,000	
Headwalls	20	EA	$5,000	$100,000	
(X-Drains, overside, etc.)					
Minor Concrete Backfill	200	CY	$200	$40,000	
AC Dike (Type E)	500	LF	$12	$6,000	
Remove Culvert	1,700	LF	$50	$85,000	
				Subtotal Drainage:	$771,000

* Reference sketch showing typical pavement structural section elements of the roadway. Include (if available) T.I., R-Value and date when tests were performed.

PROJECT INITIATION REPORT COST ESTIMATE

Caltrans

Dist-Co-Rte: 09-MNO-395
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May 1, 2019

Section 4 - Specialty Items	Quantity	Unit	Unit Price	Item Cost	Section Cost
Clear Water Diversions	4	EA	$2,500	$10,000	
Metal Beam Guardrail	11,550	LF	$35	$404,250	
Natina	11,550	LF	$11	$127,050	
Minor Concrete (Sidewalk, Cur	1,100	CY	$550	$605,000	
Construction Site Management	1	LS	$10,000	$10,000	
Water Pollution Control	1	LS	$25,000	$25,000	
Structural Concrete-Ret Wall (I	0	CY	$0	$0	
Reinforcing Steel-Ret Wall	0	LB	$0	$0	
Guard Railing Retaining Wall	3,750	LF	$250	$937,500	
Erosion Control	22,200	SY	$2	$33,300	
Wire Mesh	60,000	SF	$3	$180,000	
Wire Mesh Anchors	600	EA	$775	$465,000	
Biological Monitoring	1	LS	$75,000	$75,000	
Bat/Jackrabbit Exclusions	0	LS	$0	$0	
Viola Relocation/Duff	0	LS	$0	$0	
Willows (Plant, Water)	1	LS	$50,000	$50,000	
ESA Fencing	1	LS	$50,000	$50,000	
Remove Rock Fence	1	LS	$100,000	$100,000	
Resident Engineer Office	1	LS	$8,000	$8,000	
			Subtotal Specialty Items:		$3,080,100

Section 5 - Traffic Items					
Lighting			$0	$0	
Traffic Delineation	110,000	LF	$0.35	$38,500	
Overhead Sign Structures			$0	$0	
Roadside Signs	190	EA	$750	$142,500	
Traffic Control Systems	1	LS	$250,000	$250,000	
Traffic Management Plan			$0	$0	
Construction Area Signs	1	LS	$5,000	$5,000	
Traffic Handling (CMS)	1	LS	$10,000	$10,000	
Temporary K-Railing	0	LF	$0	$0	
Staging	1	LS	$0	$0	
Maintain Traffic	1	LS	$30,000	$30,000	
Rumble Strip	269	Sta	$35	$9,415	
Delineators	800	EA	$50	$40,000	
			Subtotal Traffic Items:		$525,415

TOTAL ROADWAY ITEMS Sections 1 thru 5 $13,359,590

PROJECT INITIATION REPORT COST ESTIMATE

Dist-Co-Rte: 09-MNO-395
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Section 6 - Minor Items				Item Cost	Section Cost
$13,359,590 (Subtotal Sections 1 thru 5)	x	5% (5 to 10%)	=	$667,980	
			Minor Items:		$667,980

Section 7 - Roadway Mobilization					
$14,027,570 (Subtotal Sections 1 thru 6)	x	10% 5%- 10%	=	$1,402,757	
			Roadway Mobilization:		$1,402,757

Section 8 - Roadway Additions

Supplemental Work

$14,027,570 (Subtotal Sections 1 thru 6)	x	5% (5 to 10%)	=	$701,378	

Contingencies

$14,027,570 (Subtotal Sections 1 thru 6)	x	25% (**%)	=	$3,506,892	
			TOTAL ROADWAY ADDITIONS:		$4,208,271
			TOTAL ROADWAY ITEMS: (Subtotal Sections 1 thru 8)		$19,638,597

Estimate Prepared by: Joe Blommer/Damon Cherenzia (Print or Type Name) Phone: (760) 872-1355 04/22/19 (Date)

Estimate Checked by: Brad Rockwell (Print or Type Name) Phone: (760) 872-5251 04/22/19 (Date)

****Use appropriate percentage per PDPM, Part 3 Chapter 20.**
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Caltrans

Dist-Co-Rte: 09-MNO-395
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May 1, 2019

II. STRUCTURE ITEMS

	STRUCTURE No. 1	No. 2	No. 3
Bridge Name			
Structure Type			
Width (out to out) - (ft)	0	0	0
Span Length - (ft)	0	0	0
Total Area - ft^2	0	0	0
Footing Type (pile/spread)			
Cost Per ft^2 (incl. 10% mobilization & 25% contingencies	$0	$0	$0
Total Cost for Structure	$0	$0	$0
Other	$0	$0	$0

* Add additional structures as necessary

SUBTOTAL STRUCTURES ITEMS $0

Railroad Related Costs (Not incl. in R/W Est) $0

TOTAL STRUCTURES ITEMS $0

COMMENTS:

Structure items (MBGR Retaining Wall) included in roadway items.

Estimate Prepared by: Damon Cherenzia (Print or Type Name) Phone: (760) 872-1355 04/22/19 (Date)

(If appropriate, attach additional pages as backup)

PROJECT INITIATION REPORT COST ESTIMATE

Caltrans

Dist-Co-Rte: 09-MNO-395
PM: PM 50.6/55.7
EA: 09-374300
Program Code: 201.361
May 1, 2019

III. RIGHT OF WAY ITEMS

	Current Values 2019	Escalation Rates		Escalated Values
Acquisition	$272,500	5.0%	-	$331,225
Title and Escrow Fees	$14,000	0.0%	-	$14,000
Utility Relocation (State share)	$91,500	10.0%	-	$133,965
Mitigation (Bank Credits)	$306,300	0.0%	-	$306,300
Project Permit Fees	$48,030	0.0%	-	$48,030
1600 Permit	$0	0.0%	-	$0
401 Permit	$0	0.0%	-	$0
Construction Contract Work	$0	0.0%	-	$0
	$732,330			
TOTAL RIGHT OF WAY**				$833,520
				ESCALLATED VALUE*

Date to which Values are Escalated: 2023

** Current total value for use on Sheet 1

Estimate Prepared by: Damon Cherenzia & Lora Rischer (Print or Type Name) Phone: (760) 872-1355 05/16/19 (Date)

(If appropriate, attach additional pages and backup including Right of Way Data Sheet and Environmental Mitigation and Compliance Cost Estimate Sheet).

Attachment E
Risk Register

Risk Register for 09-37430, Lee Vining Rehab

Form v3.3 last modified 10/30/2018 CB

Risk Checkpoint:	PID
Date:	2/11/2019
Project Nickname:	Lee Vining Rehab
EA:	09-37430
Co-Rt, Post Miles:	Mono-395-50.5/55/.6
Project Manager:	Brian McElwain
FY & Program (SHOPP or STIP):	2020 (SHOPP)
Capital Costs:	$17,786,000k
Support Costs:	$9,914,772k
Total Costs:	$27,700,772k
RTL Target:	1/22/2024

Phase	Cost Contingency Range $k			Schedule Contingency Range (Wkg Days)		
	Optimistic	PERT	Pessimistic	Optimistic	PERT	Pessimistic
0-PA&ED	$4	$8	$12	48	132	168
1-PS&E	$4	$8	$12	36	90	120
2-RW Sup	$0	$0	$0	0	0	0
3-Con Sup	$3	$7	$10	39	108	137
Support Contingency	$11	$23	$33	123	330	425
9-RW Cap	$0	$0	$0	0	0	0
4-Con Cap	$40,000	$60,000	$80,000	14	24	34
Capital Contingency	$40,000	$60,000	$80,000	14	24	34
Total Contingency	$40,011	$60,023	$80,033	137	354	459

Risk Identification								Risk Assessment			Risk Response				Quantifying "Red" (High P & I) Level Risks			
Status	ID #	Type	Category	Title	Risk Statement	Current status / assumptions	Risk Trigger	Probability (P)	Cost Impact Schedule Impact (I)	Cost Score Schedule Score (PxI)	Strategy	Response Actions	Risk Owner	Updated	Impacted Phase	Calculated Contingency	Support (hours) Capital Cost $k	Schedule (Days)
Active	1	Threat	Environmental	Discovery of Paleontologial Resources	As a result of excavating into previously-undisturbed soils, paleontological resources could be impacted which would lead to increased project cost and delayed construction schedule	Paleontological resources have been found in the greater Mono Lake area, but not within the project area as described in preliminary design maps.	If research during PA&ED reveals a greater potential for the project to impact resources, monitoring could be needed. If project excavates into previously-undistrubed soils, there is always a possibility of fossils being uncovered.	2-Low (11-30%)	2 - Low (<$k)	4	Accept							
								20%	2 - Low (<1 month)	4								
Active	2	Threat	Right of Way	Receiving necessary right-of-way	Due to unknowns associated with dealing with external parties, not receiving all necessary right-of-way before construction could delay project.	Right-of-way department will coordinate with engineer to ensure proper mapping and requests are submitted early enough for public response.	External parties disagreeing with work or property values.	2-Low (11-30%)	2 - Low (<$k)	4	Mitigate	Right-of-way will compromise with external party to acquire property, or scope of work may be adjusted to disclude the property.	Damon Cherenzia	2/11/2019				
								20%	4 - Moderate (1-3 months)	8								
Active	3	Threat	Utilities	Utility relocation for drainage systems and highway re-grading.	Utilities could be impacted by pulverization and drainage work.	All utilities will be avoided through design.	Design cannot avoid utility or construction finds unknown utility.	3-Moderate (31 50%)	8 - High ($1k - $k)	24	Avoid	Utility will be scoped to be moved during PS&E or drainage systems will be re-designed.	Damon Cherenzia	2/11/2019	1-PS&E Sup	$4k 24	O 40 hours ML 80 hours P 120 hours PERT 80 hours	O 30 ML 60 P 90 PERT 60
								40%	4 - Moderate (1-3 months)	12					4-Con Cap	$60,000k 12	O $100,000k ML $150,000k P $200,000k PERT $150,000k	O 20 ML 30 P 40 PERT 30
Active	4	Threat	Stakeholders	Maintenance Agreement	There is no current maintenance agreement in place for the irrigation system under sidewalks and reaching a new agreeement may be difficult.	Caltrans and the County will argue over who will maintain the system.	Agreement is not reached.	2-Low (11-30%)	2 - Low (<$k)	4	Mitigate	Caltrans will work closely with County to ensure the needs of both parties are met.	Damon Cherenzia	2/11/2019				
								20%	2 - Low (<1 month)	4								
Active	5	Threat	Environmental	Infiltration Basins and culvert work.	Installation of infiltration basins and abandoning culverts may require more environmental permitting than anticipated.	Environmental will complete studies to ensure all constraints are met.	Research during PA&ED reveals a greater potential for the work to impact resources.	2-Low (11-30%)	4 - Moderate ($1k - $k	8	Accept	Engineer to cooordinate closely with environmental, stormwater, and right of way during P&ED.	Damon Cherenzia	2/11/2019				
								20%	4 - Moderate (1-3 months)	8								
Active	6	Threat	Design	Unknown culvert conditions.	Some culverts are buried and require cleaning in order for the engineer to make an assessment to determine if any work is necessary.	Maintenance and stormwater crew will clean culverts before PS&E	Culverts do not get cleaned and culvert does not get replaced.	2-Low (11-30%)	2 - Low (<$k)	4	Mitigate	Engineer to coordinate with maintenance to ensure culverts are cleaned.	Damon Cherenzia	2/11/2019				
								20%	2 - Low (<1 month)	4								
Active	7	Threat	Design	Design Exceptions	Design exceptions may not be granted for site distances or other standards that will not be corrected with the project due to high costs.	Design exceptions will be sought during PA&ED to ensure they are granted during design.	Cannot justify design exception which adds costs or changes scope of project.	2-Low (11-30%)	4 - Moderate ($1k - $k	8	Mitigate	Seek design acception or down-scope project.	Damon Cherenzia	2/11/2019				
								20%	4 - Moderate (1-3 months)	8								
Active	8	Threat	Structure Design	MSE wall spalling.	Existing spalling of exterior of MSE wall has not been inspected by structural engineer.	Civil engineer presumes the spalling is non-structural.	Structural engineer determines the spalling is structural and wall requires extensive work.	2-Low (11-30%)	4 - Moderate ($1k - $k	8	Avoid	If funding is unavailable conduct wall repair under new project or emergency project.	Damon Cherenzia	2/11/2019				
								20%	4 - Moderate (1-3 months)	8								

Risk Identification								Risk Assessment			Risk Response				Quantifying "Red" (High P & I) Level Risks			
Status	ID #	Type	Category	Title	Risk Statement	Current status / assumptions	Risk Trigger	Probability (P)	Cost Impact Schedule Impact (I)	Cost Score Schedule Score (PxI)	Strategy	Response Actions	Risk Owner	Updated	Impacted Phase	Calculated Contingency	Support (hours) Capital Cost $k	Schedule (Days)
Active	9	Threat	Construction	Contaminated soils	As a result of excavating into soils near facilities like existing gas stations, contaminated soils may be discovered which would lead to increased project cost and delayed construction schedule	Excavation of sidewalk will be avoided to ensure contaminated soils are not found.	Despite efforts to avoid excavation contaminated soils are discovered during construction.	3-Moderate (31 50%)	8 - High ($1k - $k)	24	Accept	Use existing contaminated soil contract to remove soils during construction.	Damon Cherenzia	2/11/2019	4-Con Cap		O $0k ML $0k P $0k	O 15 ML 30 P 45
									4 - Moderate (1-3 months)	12						12		PERT 30
								40%										
Active	10	Threat	Environmental	Biology	As a result of the spring and summer survey season having passed at the time the 'Begin Environmental' request is received, surveys would have to be conducted the following year which may impact schedule and cost.	The ESR will be submitted prior to the start of the survey season.	Submittal of the ESR during or right after the end of the survey season.	3-Moderate (31 50%)	4 - Moderate ($1k - $k	12	Avoid	Communicate early with the project engineer and the PDT about the importance of submitting the Environmental Study Request prior to the start of the survey season.	Angie Calloway	5/1/2019				
									8 - High (3-6 months)	24					0-PA&ED Sup	$4k	O 40 hours ML 80 hours P 120 hours	O 60 ML 180 P 210
								40%								66	PERT 80 hours	PERT 165
Active	11	Threat	Environmental	Biology	As the result of willow flycatcher being found nesting within or adjacent to the PIA, a construction window may be required to avoid take which will increase costs and may affect the schedule	Willow flycatcher will not be located within or adjacent to the PIA.	Willow flycatcher nests being identified within or adjacent to the PIA.	3-Moderate (31 50%)	4 - Moderate ($1k - $k	12	Avoid	Implement construction windows in order to avoid take.	Angie Calloway	5/1/2019				
									8 - High (3-6 months)	24					3-Con Sup	$4k	O 40 hours ML 80 hours P 120 hours	O 60 ML 180 P 210
								40%								66	PERT 80 hours	PERT 165
Active	12	Threat	Environmental	Biology	As a result of nesting birds requiring monitoring due to their proximity to the PIA, a monitor may be required which will increase costs and may affect the schedule.	Nesting birds will be found within the PIA, resulting in the need for a biological monitor.	Nesting birds in the project impact area.	3-Moderate (31 50%)	4 - Moderate ($1k - $k	12	Accept	Anticipate and scope for either a contractor-supplied biologist or task order biologist prior to construction.	Angie Calloway	5/1/2019				
									4 - Moderate (1-3 months)	12								
								40%										
Active	13	Threat	Environmental	Biology	As a result of sensitive-status plant species being present within the PIA, consultation with and possibly mitigation under CEQA may be required. This may impact schedule and cost.	Sensitive-status plants will not be found within the PIA during surveys.	Sensitive-status plants being found within the PIA.	2-Low (11-30%)	4 - Moderate ($1k - $k	8	Accept	Set aside contigency funds in the event that consultation and mitigation are required if sensitive-species plants are found within the PIA.	Angie Calloway	5/1/2019				
									8 - High (3-6 months)	16					0-PA&ED Sup	$2k	O 40 hours ML 80 hours P 120 hours	O 60 ML 180 P 210
								20%								33	PERT 80 hours	PERT 165
Active	14	Threat	Environmental	Biology	As a result of a change in design permanently impacting riparian vegetation for the selected alternative, then mitigation under a CDFW 1600 LSA permit would be required. This would likely be in the form of on-site restoration planting or off-site enhancement. This would impact scope, cost, and schedule.	No additional riparian vegetation will be impacted if any changes in design arise.	Changes in design impact riparian vegetation.	2-Low (11-30%)	4 - Moderate ($1k - $k	8	Accept	Set aside contigency funds in the event that design changes impact additional riparian vegetation not previously mitigated for.	Angie Calloway	5/1/2019				
									8 - High (3-6 months)	16					1-PS&E Sup	$2k	O 40 hours ML 80 hours P 120 hours	O 60 ML 180 P 210
								20%								33	PERT 80 hours	PERT 165
Active	15	Threat	Environmental	Biology	As a result of permitting agency staff experiencing turn-over, delays in receiving permits could occur. This would affect the project schedule.	No permitting agency staff turn-over will occur.	Turn-over with permitting agency staff.	2-Low (11-30%)	2 - Low (<$k)	4	Accept	Apply for needed permits as soon as possible during the PS&E phase.	Angie Calloway	5/1/2019				
									8 - High (3-6 months)	16					1-PS&E Sup	$2k	O 40 hours ML 80 hours P 120 hours	O 60 ML 180 P 210
								20%								33	PERT 80 hours	PERT 165
Active	16	Threat	Environmental	Biology	As a result of sensitive-status wildlife species occuring within the PIA or adjacent to the BSA, measures may need to be implemented in coordination with USFS, BLM, and/or CDFW which may impact schedule and cost	Sensitive-status wildlife species will not be found within the PIA during surveys.	Sensitive-status wildlife species being found within the PIA.	2-Low (11-30%)	8 - High ($1k - $k)	16	Accept	Set aside contigency funds in the event that consultation and mitigation are required if sensitive-status wildlife speices are found within the PIA.	Angie Calloway	5/1/2019	0-PA&ED Sup	$2k	O 40 hours ML 80 hours P 120 hours	O 60 ML 180 P 210
									8 - High (3-6 months)	16						33	PERT 80 hours	PERT 165
															3-Con Sup	$2k	O 40 hours ML 80 hours P 120 hours	O 60 ML 180 P 210
								20%								33	PERT 80 hours	PERT 165
Active	17	Threat	Environmental	Biology	As a result of unanticipated state or federally-listed species being found within or near the BSA, consultation with USFWS and CDFW will be required (this includes BA/BO and possible mitigation and/or 2081 ITP permit) which may impact schedule, cost and scope.	State or federally-listed species will not be found within the PIA during surveys.	State or federally-listed species being found within the BSA.	1-Very Low (1-10%)	8 - High ($1k - $k)	8	Accept	Set aside contigency funds in the event that State or federally-listed species are found within the PIA.	Angie Calloway	5/1/2019				
									16 - Very High (>6 months)	16					3-Con Sup	$1k	O 40 hours ML 80 hours P 120 hours	O 60 ML 180 P 210
								5%								9	PERT 80 hours	PERT 165
Active	18	Threat	Environmental	Cultural	As a result of the discovery of prehistoric archaeological resources at the drainage basin locations, a Phase II Proposal will be reqquired, which may impact the project's schedule, cost and scope.	Prehistoric archaeological resources will not be discovered at the drainage basin locations.	Discovery of prehistoric archaeological resources.	2-Low (11-30%)	4 - Moderate ($1k - $k	8	Accept	Set aside contingency funds in anticipation and response of this risk.	Angie Calloway	5/1/2019				
									4 - Moderate (1-3 months)	8								
								20%										

Risk Identification								Risk Assessment			Risk Response				Quantifying "Red" (High P & I) Level Risks			
Status	ID #	Type	Category	Title	Risk Statement	Current status / assumptions	Risk Trigger	Probability (P)	Cost Impact Schedule Impact (I)	Cost Score Schedule Score (PxI)	Strategy	Response Actions	Risk Owner	Updated	Impacted Phase	Calculated Contingency	Support (hours) Capital Cost $k	Schedule (Days)
Active	19	Threat	Environmental	Cultural	As a result of the discovery of built environment resources aged 45 years or older at the drainage basin locations, a Historic Resources Evaluation Report will be reqquired, which may impact the project's schedule, cost and scope.	Prehistoric archaeological resources will not be discovered at the drainage basin locations.	Discovery of prehistoric archaeological resources.	2-Low (11-30%)	1 - Very Low (Insignificant)	2	Accept	Set aside contingency funds in anticipation and response of this risk.	Angie Calloway	5/1/2019				
								20%	1 - Very Low (Insignificant)	2								
Active	20	Threat	Environmental	Cultural	As a result of a disagreement on the findings and/or level of effort between District 9 PQS and/or Native American groups, Inyo National Forest, LADWP, the Caltrans Cultural Studies Office (CCSO), and/or the SHPO, additional studies and reports may be required, which would impact the project's schedule, cost and scope.	No disagreements will arise.	Disagreement on findings and/or level of effort.	1-Very Low (1-10%)	4 - Moderate ($1k - $k	4	Accept	Set aside contingency funds in anticipation and response of this risk.	Angie Calloway	5/1/2019				
								5%	4 - Moderate (1-3 months)	4								

Attachment F

RW Data Sheet Report – For Each Alternative

Right of Way Data Sheet Report

To: Brian J. McElwain
Project Manager, District 9

Date: May 14, 2019
File Ref.: Mono 395 PM 50.6/53.0
EA: 09-374300 Alternatives 1& 2
Proj. No.: 09-1800-0015

Attention: Brad Rockwell, Design Manager
Damon Cherenzia, Project Engineer

From: **DISTRICT 9 OF RIGHT OF WAY OFFICE**

We have completed an UPDATED estimate of the right of way costs for the above-referenced project based on the Right of Way Data Sheet Request Form (email) dated: *May 13, 2019 supplying the MCCE form and costs outlined by the Environmental Branch which need to be included in this report. The "LeeVining Rehab" project has absorbed the old LeeVining ADA Project (EA 09-365500; 09-1500-0017). This rehabilitation project proposes to rehabilitate the pavement while correcting cross slope and super-elevations, replace sidewalk and drainage. Several alternatives are being looked at.* ***Alternative 1 and 2*** *are most preferred and have same right of way impacts : shoulders will not be widened, but 3 feet of shoulder backing will be used where there is no sidewalk; Postmile limits have been reduced to 50.5 to 53 (eliminating the section from Picnic Grounds Road to Cemetery Road); and, each proposes 3 areas of new right of way, approx. 11 areas of culvert work, guardrail replacement and sidewalk work through town.* The following assumptions and limiting conditions were identified:

1. The project is listed in the May 2019 Bishop "Status of Projects" on page 8. The target Right of Way Certification Date is not provided. It is anticipated that Construction will take place in the 2023 or 2024 year.

2. The Project Engineer indicates that **new** right of way is required for this project, that mitigation parcels maybe required, and that approximately 10 potholes are needed.

3. The Environmental Branch has provided an MCCE form outlining costs/needs, so permit filing fees and any mitigation acreage required on this project has been identified.

4. Private ownerships plus LA-DWP, Mono County, Mono Lake State Park, State Lands Commission and USFS administered properties are located within project limits and could be potentially affected by this project. Longer lead times will be needed when working with any Governmental Agencies.

5. Right of Way activities (ordering title reports, preparing base maps, preparing appraisal maps, etc) can commence upon the receipt of the completed Certificate of Sufficiency. Anticipated Lead Times for this project will be –

   - Preparation of R/W Maps to Regular R/W activities (base map prep, order title reports, appraisal map prep, comparable sales search) — 6 Months
   - Regular R/W activities (acquiring parcels or permits, performing RAP, utility relocation activities) to Right of Way Certification. — 18 Months

NOTE: **The last chance to submit map/project changes to Right of Way, without jeopardizing r/w certification date, is 3 months after start of regular right of way work.**

ANTICIPATED Right of Way LEAD - TIME will require a **minimum** of 18 months after we receive certified Appraisal Maps, the necessary environmental clearances have been obtained, and freeway agreements have been approved.

TANISHA BARFIELD
Office Chief, District 9
Right of Way

May 14, 2019
Mono 395 PM 50.6/53.0
"LeeVining Rehab"

1. **RIGHT OF WAY COST ESTIMATE:**
(entered into PMCS COST RW1-5 Screens)

	Current Value (Year 2019)	Escalation Rate	Escalated Value (Year 2023)
Acquisition costs	$207,500.00	5%	$252,217.00
Project permit fees (per MCCE form)	$ 19,246.75		$ 19,246.75
Mitigation bank credits (per MCCE form)	$ 52,000.00		$ 52,000.00
Utility Relocation (10 potholes at $500ea)	$ 5,000.00	10%	$ 7,320.00
Relocation Assistance			
Clearance/Demolition			
Title and Escrow Fees	$ 6,000.00		$ 6,000.00
TOTAL CURRENT VALUE	**$289, 746.00**		**$336,784.00 (r)**
R/W SUPPORT COSTS			
Construction Contract Work (construction costs to be included in projects PS&E)			

2. Current anticipated date of RIGHT OF WAY CERTIFICATION: **2023**

3. **PARCEL DATA:**
(entered on PMCS EVNT RW screen)

TYPE	NUMBER	DUAL/APPR	UTILITIES		RR INVOLVEMENT	
X			U4-1		None	X
A	41 TCE		-2		C & M Agmt	
B	3		-3		Service Contract	
C			-4		Lic/RE/Clauses	
D					**MISC R/W WORK**	
TOTAL:	44		U5-7	1	RAP Displacement	None
			5-8		Clear/Demo	None
			5-9		Const Permits	
EXCESS:	0				Cond	

Parcel Area: **Right of Way-** approximately 3 locations of new right of way as permanent drainage easements; approx. 11 temporary easements to perform culvert work and approx. 30 temporary easements to perform sidewalk work thru town. Private ownerships affected plus LA-DWP, USFS, BLM, SCE, Mono County, State Lands Commission and Mono Lake State Park. **Excess:** none
Environmental Mitigation Bank Credits/Acres: no acres outlined, just costs $12,000 for CDFW and $40,000 for ACOE (PRM).

4. Items of construction contract work: YES ☐ NO ☒

May 14, 2019
Mono 395 PM 50.6/53.0
"LeeVining Rehab"

5. Provide a general description of the right of way and excess lands required (zoning, use, major improvements, critical or sensitive parcels, etc.): Permanent drainage easements in 3 new locations plus TCE's for culvert and sidewalk work. All differing styles of properties like rural driveways, commercial driveways within business district, and rural with scattered businesses and recreational access in scenic areas.
   YES - RIGHT OF WAY REQUIRED ☒ NO – NONE REQUIRED ☐

6. Effect on assessed valuation: YES ☐ NOT SIGNIFICANT ☐ NO ☒

7. Utility facilities or rights of way affected: Yes ☐ NO ☒ Note: Potholing needed at this time only.

8. Railroad facilities or rights of way affected: YES ☐ Railroad Worksheet attached. NO ☒

9. Previously unidentified sites with hazardous waste and/or material found: NONE EVIDENT ☒

10. RAP displacements required: YES ☐ NO ☒

11. Material borrow and/or disposal sites required: YES ☐ NO ☒

12. Potential relinquishments and/or vacations: YES ☐ NO ☒

13. Existing and/or potential Airspace sites: YES ☐ NO ☒

14. Environmental mitigation parcels/fees required: YES ☒ NO ☐ The MCCE form contains the mitigation costs ($52,000) and the permit fee costs ($19,246.75) that are required, no acres were listed as being needed.

15. All Right of Way work will be performed by Caltrans staff: YES ☒ NO ☐

16. Data for evaluation provided by:
    Estimator : Lora Rischer Date: 5/15/2019
    Lora Rischer

I have personally reviewed this Right of Way Data Sheet and all supporting information. I find this Data Sheet complete and current, subject to the limiting conditions set forth.

5/16/2019
Date

Tanisha Barfield
TANISHA BARFIELD
Office Chief, District 9
Right of Way

Entered onto PMCS Screens (Event, Cost, Agre.) By: _____ Date: _____

Revised: 5/6/2019

Environmental Division
Mitigation and Compliance Cost Estimate (M.C.C.E.)

This MCCE is for: **PEAR** Oversight Project:

Dist - Co - Rte - PM: 09-MNO-395-50.600/53.000 EA (Proj ID): 09-37430_ (0918000015)

Project Name: LEE VINING REHAB Alternative #: 1 & 2

Project Manager: MCELWAIN, BRIAN J Phone Number: 760-872-4361

MCCE Prepared By: Ryan Spaulding Date: 3/7/2019 Phone Number: 760-872-5244

Resource Item	232/332 Dollars	FY	Acres/ Credits	ROW $ Planned	FY	ROW $ Actual	Paid	Construction 042$ (BEEs)	FY
Archaeological									
Phase 0: Surveys and reports	$85,000	20/21					☐		
ESA fencing							☐	$1,500	24/25
Biological									
Wetland Delineation T.O.	$30,000	20/21					☐		
Phase 0 WIFL surveys	$35,000	20/21					☐		
Phase 0 bat surveys	$20,000	20/21					☐		
Phase 3 monitoring	$340,000	24/25					☐		
CDFW 1600 Mitigation				$12,000	21/22		☐		
ACOE Mitigation (PRM)				$40,000	21/22		☐		
ESA Fencing							☐	$10,500	24/25
Annual 401 Fee							☐	$1,700	22/23
Annual 401 Fee							☐	$1,700	23/24
Annual 401 Fee							☐	$1,700	24/25
Annual 401 Fee							☐	$1,700	25/26
Annual 401 Fee							☐	$1,700	26/27
Hazardous Waste									
Site investigation T.O.	$20,000	20/21					☐		
Landscape									
Aesthetic treatments							☐	$250,000	24/25
Erosion control/revegetation							☐	$50,000	24/25
Permit Fees									
CDFW Document Filing Fee				$2,354.75	21/22		☐		
1600				$15,680	21/22		☐		
401				$1,212	21/22		☐		
404 Nationwide Verification				$0.00	21/22		☐		
TOTAL	**$530,000**			**$71,246.75**				**$320,500**	

Approved By: _____ Date: _____
Environmental Branch Chief

Right of Way Capital: Mark Dawson Date: 5-6-19
Right-of-Way Office Chief, Mitigation

If cultural and biology mitigation totals more than $500,000: _____ Date: 5-7-19
Environmental Office Chief

Submitted to PM on: 5/8 Initial BM

Right of Way Data Sheet Report

To: Brian J. McElwain
Project Manager

Date: May 14, 2019
File Ref.: Mono 395 PM 50.6/55.7
EA: 09-374300 Alternatives 3 & 4
Proj. No.: 09-1800-0015

Attention: Brad Rockwell, Design Manager
Damon Cherenzia, Project Engineer

From: **DISTRICT 9 OF RIGHT OF WAY OFFICE**

We have completed an UPDATED estimate of the right of way costs for the above-referenced project based on the Right of Way Data Sheet Request Form (email) dated: *May 13, 2019 supplying the MCCE form and costs outlined by the Environmental Branch which need to be included in this report. The "LeeVining Rehab" project has absorbed the old LeeVining ADA Project (EA 09-365500; 09-1500-0017). This rehabilitation project proposes to rehabilitate the pavement while correcting cross slope and super-elevations, replace sidewalk and drainage. And, widen shoulders from PM 53.0 to 55.7. Several alternatives are being looked at.* ***Alternative 3 and 4*** *are have same right of way impacts: shoulders widened from PM 53.0 to 55.7 (basically from Picnic Grounds Road to Cemetery Road); and, each proposes 7 areas of new right of way, approx. 15 areas of culvert work, 4 areas of Anchored Mesh work, and 8 areas of Guardrail/retaining wall work, plus sidewalk work through town.* The following assumptions and limiting conditions were identified:

1. The project is listed in the May 2019 Bishop "Status of Projects" on page 8. The target Right of Way Certification Date is not provided. It is anticipated that Construction will take place in the 2023 or 2024 year.

2. The Project Engineer indicates that **new** right of way is required for this project, that mitigation parcels maybe required, and that approximately 15 potholes are needed.

3. The Environmental Branch has provided an MCCE form outlining costs/needs, so permit filing fees or any mitigation acreage required on this project had been identified.

4. Private ownerships plus LA-DWP, Mono County, Mono Lake State Park, State Lands Commission and USFS administered properties are located within project limits and could be potentially affected by this project. Longer lead times will be needed when working with any Governmental Agencies.

5. Right of Way activities (ordering title reports, preparing base maps, preparing appraisal maps, etc) can commence upon the receipt of the completed Certificate of Sufficiency. Anticipated Lead Times for this project will be –

   - Preparation of R/W Maps to Regular R/W activities (base map prep, order title reports, appraisal map prep, comparable sales search) — 6 Months
   - Regular R/W activities (acquiring parcels or permits, performing RAP, utility relocation activities) to Right of Way Certification. — 18 Months

   NOTE: The last chance to submit map/project changes to Right of Way, without jeopardizing r/w certification date, is 3 months after start of regular right of way work.

ANTICIPATED Right of Way LEAD - TIME will require a **minimum** of 18 months after we receive certified Appraisal Maps, the necessary environmental clearances have been obtained, and freeway agreements have been approved.

Tanisha Barfield

TANISHA BARFIELD
Office Chief, District 9
Right of Way

May 14, 2019
Mono 395 PM 50.6/55.7
"LeeVining Rehab"

1. **RIGHT OF WAY COST ESTIMATE:**
(entered into PMCS COST RW1-5 Screens)

	Current Value (Year 2019)	**Escalation Rate**	**Escalated Value (Year 2023)**
Acquisition costs	$272,500.00	5%	$331,225.00
Project permit fees (per MCCE form)	$ 48,029.75		$ 48,029.75
Mitigation bank credits (per MCCE form)	$306,300.00		$306,300.00
Utility Relocation (potholes & pole relocation)	$ 91,500.00	10%	$133,965.00
Relocation Assistance			
Clearance/Demolition			
Title and Escrow Fees	$ 14,000.00		$ 14,000.00
TOTAL CURRENT VALUE	**$732,330.00 (r)**		**$833,520.00 (r)**
R/W SUPPORT COSTS			
Construction Contract Work (construction costs to be included in projects PS&E)			

2. Current anticipated date of RIGHT OF WAY CERTIFICATION: **2023**

3. **PARCEL DATA:**
(entered on PMCS EVNT RW screen)

TYPE	**NUMBER**	**DUAL/APPR**	**UTILITIES**		**RR INVOLVEMENT**	
X			U4-1		None	X
A	57 TCE		-2		C & M Agmt	
B	7		-3		Service Contract	
C			-4		Lic/RE/Clauses	
D					**MISC R/W WORK**	
TOTAL:	64		U5-7	2	RAP Displacement	None
			5-8		Clear/Demo	None
			5-9		Const Permits	
EXCESS:	0				Cond	

Parcel Area: **Right of Way-** approximately 7 locations of new right of way as permanent drainage easements; approx. 27 temporary easements to perform culvert, guardrail, retaining wall and anchored mesh work plus additional approx. 30 temporary easements to perform sidewalk work thru town. Private ownerships affected plus LA-DWP, USFS, BLM, SCE, Mono County, State Lands Commission and Mono Lake State Park.
Excess: none
Environmental Mitigation Bank Credits/Acres: no acres outlined, just costs $225,300 for CDFW and $81,000 for ACOE (PRM).

4. Items of construction contract work: YES ☐ NO ☒

May 14, 2019
Mono 395 PM 50.6/55.7
"LeeVining Rehab"

5. Provide a general description of the right of way and excess lands required (zoning, use, major improvements, critical or sensitive parcels, etc.): Permanent drainage easements in 3 new locations plus TCE's for culvert and sidewalk work. All differing styles of properties like rural driveways, commercial driveways within business district, and rural with scattered businesses and recreational access in scenic areas.
   YES - RIGHT OF WAY REQUIRED ☒ NO – NONE REQUIRED ☐

6. Effect on assessed valuation: YES ☐ NOT SIGNIFICANT ☐ NO ☒

7. Utility facilities or rights of way affected: Yes ☒ NO ☐ Pole relocation and potholing.

8. Railroad facilities or rights of way affected: YES ☐ Railroad Worksheet attached. NO ☒

9. Previously unidentified sites with hazardous waste and/or material found: NONE EVIDENT ☒

10. RAP displacements required: YES ☐ NO ☒

11. Material borrow and/or disposal sites required: YES ☐ NO ☒

12. Potential relinquishments and/or vacations: YES ☐ NO ☒

13. Existing and/or potential Airspace sites: YES ☐ NO ☒

14. Environmental mitigation parcels/fees required: YES ☒ NO ☐ The MCCE form contains the mitigation costs ($306,300) and the permit fees costs ($48,029.75) that are required, no acres were listed as being needed.

15. All Right of Way work will be performed by Caltrans staff: YES ☒ NO ☐

16. Data for evaluation provided by:
    Estimator : Lora Rischer Date: 5/14/2019
    Lora Rischer

I have personally reviewed this Right of Way Data Sheet and all supporting information. I find this Data Sheet complete and current, subject to the limiting conditions set forth.

5/16/2019
Date

Tanisha Barfield
TANISHA BARFIELD
Office Chief, District 9
Right of Way

Entered onto PMCS Screens (Event, Cost, Agre.) By: _____ Date: _____

Revised: 5/6/2019

Environmental Division
Mitigation and Compliance Cost Estimate (M.C.C.E.)

This MCCE is for: **PEAR** Oversight Project:

Dist - Co - Rte - PM: 09-MNO-395-50.600/53.000 EA (Proj ID): 09-37430_ (0918000015)

Project Name: LEE VINING REHAB Alternative #: 3 & 4

Project Manager: MCELWAIN, BRIAN J Phone Number: 760-872-4361

MCCE Prepared By: Ryan Spaulding Date: 3/5/2019 Phone Number: 760-872-5244

Resource Item	232/332 Dollars	FY	Acres/ Credits	ROW $ Planned	FY	ROW $ Actual	Paid	Construction 042$ (BEEs)	FY
Archaeological									
Phase 0: surveys and reports	$85,000	20/21					☐		
ESA fencing							☐	$1,500	24/25
Biological									
Wetland Delineation T.O.	$30,000	20/21					☐		
Phase 0 WIFL surveys	$35,000	20/21					☐		
Phase 0 bat surveys	$20,000	20/21					☐		
CDFW 1600 mitigation				$225,300	21/22		☐		
ACOE Mitigation (PRM)				$81,000	21/22		☐		
ESA Fencing							☐	$12,950	24/25
Phase 3 monitoring	$350,000	24/25					☐		
Annual 401 Fee							☐	$1,700	22/23
Annual 401 Fee							☐	$1,700	23/24
Annual 401 Fee							☐	$1,700	24/25
Annual 401 Fee							☐	$1,700	25/26
Annual 401 Fee							☐	$1,700	26/27
Hazardous Waste									
Site investigation TO	$20,000	20/21					☐		
Landscape									
Aesthetic treatments							☐	$250,000	24/25
Erosion control/revegetation							☐	$400,000	24/25
Permit Fees									
CDFW Document Filing Fee				$2,354.75	21/22		☐		
1600				$40,320	21/22		☐		
401				$5,355	21/22		☐		
404 Nationwide Verification				$0.00	21/22		☐		
TOTAL	**$540,000**			**$354,329.75**				**$672,950**	

Approved By: _____ Date: _____
Environmental Branch Chief

Right of Way Capital: Mark Dossey Date: 5-6-19
Right-of-Way Office Chief, Mitigation

If cultural and biology mitigation totals more than $500,000: _____ Date: 5-7-19
Environmental Office Chief

Submitted to PM on: 5/8 Initial BM

Attachment G
Transportation Planning Scoping Information Sheet (TPSIS)

Transportation Planning Scoping Information Sheet

Proposed Project Summary

The purpose of the Project Summary is for Transportation Planning to highlight the key needs/improvements from the completed sections. Transportation Planners may use their discretion to modify the Project Summary page and whether it is necessary to reiterate the information provided in Sections 1 through 5. Bring this summarized form and the completed Transportation Planning Scoping Information Sheet to the Project Nomination Scoping Team meeting. Make sure to tie these proposed needs and improvements back to Caltrans' Strategic Management Plan goals.

Project Summary Table

Districts may fill out the information below if it is readily available. The Project Summary Table is optional.

EA	09-37430
EFIS	0918000015
County-Route-PM	MNO-395-50.50/55.60
Project Description	Rehabilitate Roadway/Upgrade ADA/replace drainage
Updated December 6th, 2018	

Section 1–System Planning

Section 2–LD-IGR

Section 3–Smart Mobility, Complete Streets, and Regional Planning

District 9 Planning conducted public outreach on potential complete streets features that could be incorporated into the project. Findings from the public outreach are consistent with local and regional complete streets planning.

Section 4–Climate Change and Environmental Considerations

Section 5–Tribal Government Coordination

Non-Federally recognized tribe, Mono Lake Kutzadika'a Paiute Indian Community, is in Lee Vining. Bishop Paiute Tribe will need to be contacted at begin environmental.

Transportation Planning Scoping Information Sheet

Project Nomination Scoping Team Information		
Title	Name	Phone Number
District Information Sheet Point of Contact	Austin West	(760) 872-0792
Project Nomination Coordinator	Brandon Fitt	(760) 872-0724
Transportation Planning Project Nomination Scoping Team Representative	Mark Heckman	(760) 872-1398

Transportation Planning Stakeholder Information		
Title	Name	Phone Number
Regional Planner	Austin West	
System Planner	Austin West	
Local Development Intergovernmental Review (LD-IGR) Planner	Gayle Rosander	(760) 872-0785
Sustainable Planning Grant Coordinator	Austin West	
Freight Planner	Jill Batchelder	(760) 872-0734
Transit Planner	Rick Franz	(760) 872-5203
Bicycle and Pedestrian Coordinator	Austin West	
Park and Ride Coordinator	N/A	
Native American Liaison	Brandon Fitt	
Climate Change Coordinator/Liaison	Mark Heckman	
Other Coordinators		

Reviewed by:

12/3/18
District Planning Representative (Date)

3-Dec-2018
Project Nomination Coordinator (Date)

Transportation Planning Scoping Information Sheet

Section 1: System Planning

ROUTE SEGMENT AND PROJECT INFORMATION			
EA	*09-37430*	**EFIS**	*0918000015*

	Co/Route/P.M.	**Project Description**
Choose Anchor Asset	MNO/395/50.5-55.6	*Rehabilitate Roadway/Upgrade ADA/replace drainage*
Local or Regional Planned/Programmed Project (if applicable)	N/A	

ROUTE DESIGNATIONS			
Freeway and Expressway	Yes	Scenic Highway	Yes
National Highway System	Yes	Truck Network Designation	IRRS
Strategic Highway Network	No	Interregional Road System	Yes
Federal Functional Classification	Other Prin. Arterial	Strategic Interregional Corridor	No
Other		Priority Interregional Facility	Yes

ADT		**V/C**				**Speeds**			
PM 50.90 – 52.35 (SR 120 – Town)									
Base Year 2012	Horizon Year 2040	Base Year 2012		Horizon Year 2040		Base Year 2012		Horizon Year 2040	
3730	3810	NB	.0780	NB	.0893	NB	65	NB	65
		SB	.0780	SB	.0893	SB	65	SB	65
Truck Volumes: 397					Truck Percentages: 13.6%				
ADT		**V/C**				**Speeds**			
PM 52.35 – 59.90 (Mono Lake)									
Base Year 2012	Horizon Year 2040	Base Year 2012		Horizon Year 2040		Base Year 2012		Horizon Year 2040	
3330	3810	NB	0.243	NB	.279	NB	65	NB	65
		SB	0.243	SB	.279	SB	65	SB	65
Truck Volumes: 213					Truck Percentages: 10.4%				

Please describe how the project will impact modal and intermodal facilities (if applicable): Pavement conditions, visibility of roadway markings, ADA to current standards, pedestrian crossing improvements, traffic calming

Please identify if the project need has been identified within the following documents:

☒ Transportation Concept Report (TCR)

☒ District System Management Plan (DSMP)

☒ Corridor System Management Plan (CSMP)

☐ Interregional Transportation Strategic Plan (ITSP)

☐ California Freight Mobility Plan (CFMP)

☐ State Highway System Management Plan/10 Year SHOPP

☒ Other (Feasibility Study, District Bike and Ped Plan, Regional Concept of Transportation Operations etc):

Transportation Planning Scoping Information Sheet

Section 2: Local Development – Intergovernmental Review

LD-IGR	
Please provide the below LD-IGR information, as applicable, for current and/or future local development projects that may impact, the proposed Caltrans project. Describe the land uses along the segment. Identify major sites, destinations and trip generators within or adjacent to the corridor. These can include: residential parks, recreation centers, religious institutions, schools, town centers, shopping centers, large employment centers and so forth. *The questions proposed here serve as a sample of considerations for the project. Please use sound planning and engineering judgement to determine which questions are relevant to the development of the proposed Caltrans project.*	
Local Agency Name/Project Sponsor: Mono County/ CPUC	Phone Number: Email: IGR contact information may be outdated – Austin West or Gayle Rosander will provide update info to the PE if necessary.
Project Distance to Development(s)	East Side Café - PM 50.9 (Lt) Mono County Lead. NW corner US 395/Utility Rd. CT reviewed 2006/2010. Project still pending/for sale. CT concerns re: access, landscaping, signage; discussion of project providing curb/gutter/sidewalk continuity with the north (SCE parcel in between). See photo in... SCE Substation – PM 50.99 (Rt) CPUC Lead. SCE alternation to Lee Vining Substation with additional US 395 access south of existing driveway. Addition and removal of poles/overheard lines; no impact to scenic highway view shed. CT Encroachment Permits review Nov/Dec 2018. Yosemite Outfitters (Banks CUP 04-02) – Lake View Lodge - PM 51.5 (Rt) Mono Lead. CT reviewed 2006. Discussion re: the awkward dwy, which is used for abutting Lake View Lodge parcel. LV Rehab project should examine if this access can be remedied. See photos and plan in.... Tioga Lodge - PM 53.7 (Lt) Mono Lake Boat Tour (2003) CA Parks Lead. Campsites (2014) Mono County Lead. Unsure if boat tours still occur; campsite project did not proceed. CT requested permit and access improvements. LV Rehab should examine area. See letter 0603CA.pdf in .... Mono Inn - PM 55.6 (Rt) Concrete planter and other State R/W encroachments should be removed/addressed as part of this project, with owner participation. See Memo, Encroachment Permit, photos, sketch, etc. in Q:\Planning\Asset Management\ProjectNomination\2020 PID Cycle\1718\Lee Vining Rehab
California Environmental Quality Act (CEQA) Status and Implementation Date	
National Environmental Policy Act Status (required for projects with Federal Funding)	
All vehicular and non-vehicular unmitigated impacts and planned mitigation measures include Transportation Demand Management (TDM) and Transportation System Management (TSM) that may affect Caltrans Facilities	
Approved mitigation measures and implementing party.	
Value of constructed mitigation and/or amount of funds provided.	
Encroachment Permit, Transportation Permit, Traffic Management Plan, or California Transportation Commission (CTC) Access approvals needed	
Describe relationship to Regional Blueprint, General Plans, or County Congestion Management Plans.	
Inclusion in a Regional Transportation Plan, Sustainable Community Strategy, or Alternative Planning Strategy?	
What type of regional or local mitigation/transportation impact fee program is in place?	
Traffic Mitigation Agreement with an agency or developer to collect a "Fair Share" to offset "nexus and proportionality" traffic impacts to the SHS.	

Transportation Planning Scoping Information Sheet

Section 3: Smart Mobility, Complete Streets, and Regional Planning

SMART MOBILITY FRAMEWORK PLACE TYPES			
Identify the SMF Place Type(s):			
☐ Urban Center	☐ Close-In Center	☐ Suburban Center	☐ Rural Settlement/Ag Land
☐ Urban Core	☐ Close-In Corridor	☐ Suburban Corridor	☒ Rural Towns
	☐ Close-In Neighborhood	☐ Suburban Dedicated Use Area	☐ Protected Lands
	☒ Compact Community	☐ Neighborhood	☐ Special Use Areas

3.1 Bicycle and Pedestrian Conditions

BICYCLE AND PEDESTRIAN CONDITIONS	Caltrans and Local/Regional Partner Needs/Opportunities with Project
Describe the existing bicycle and pedestrian facilities within the project limits *(e.g. bicycle/pedestrian accessibility; Class I, II, III, IV, signage; shoulder connections, sidewalks, on/off ramps, crosswalks, curb ramps; and bicycle/pedestrian counts etc.)* US 395 is designated a class 3 bicycle facility between 50.05 and 53.018 within the project limits. The designation continues south beyond the project limits. Bicycles are allowed in the entirety of the project limits on US 395. Shoulder widths vary from 0 ft – 10 ft with shoulder within the community of Lee Vining being used for parking. Marked highway crossings exist on US 395 in Lee Vining at 1st street, 2nd street, and 4th street. Sidewalks exist between PM 51.05 and 51.69 (not ADA compliant).	Between 6/25/17 and 7/2/17, D9 Planning conducted bicycle counts at 3 locations around Lee Vining to determine the amount of bicycle traffic occurring on US 395. It should be noted that these counts occurred at the start of the Lions fire, which impacted air quality in the lower Owens Valley. The locations and study count totals are as follows: US 395/ Cemetery Rd – 7, US 395 /1st street – 26, and US 395/ SR 120 – 43. The low counts at US 395/Cemetery Rd could be explained by the perceived impediment of riders passing along Mono Lake discouraging riders from using this section of highway. 17 Bicycles at the intersection of SR 120 and US 395 made turn movements from 395 (NB or SB) on to SR 120. Between November 2017 and September 2018, District 9 planning conducted a robust public outreach campaign in the community of Lee Vining to collect input on potential bicycle and pedestrian improvements in the community. The community expressed a strong desire for traffic calming, crossing improvements, bicycle improvements (both in town and along Mono Lake), additional parking, and a lane reduction. There was mixed opinion from the public on lane reductions and roundabouts. Since these features are traffic calming and also accomplish other Lee Vining Community Survey Results *Top 3 vehicle improvements - # 1 – Widen shoulder north of town along Mono Lake (51.9%) #2 – Reconfigure lanes for easier Left-hand-turns of US 395 (44.3%) #3 Improve on street parking (40.5%)* *Top 3 Bike Improvements #1- Improve bike lanes/markings along Mono Lake (68.9%) #2 improve bike lanes/markings between SR120 and LV (60.9%) #3*
Describe the physical and/or perceived impediments for bicyclists and pedestrians *(e.g. narrow shoulders or sidewalks, connectivity gaps, curb gutters, utility boxes, high vehicle speeds, or AADT)* Lee Vining Public Engagement: Between the forest service building/Visitor Center Drive (PM 51.914) and Cemetery Road (PM 55.60) narrow shoulders and vehicle speeds were identified as features that created rider discomfort and discouraged bicycling in this area. Vehicle speeds made bicyclists feel uncomfortable for the entirety of the project limit. Sidewalk exists through the community, but not up to current ADA standards. Sidewalks are incomplete and need upgrades. Vehicle speeds and 5-lanes make crossing the highway uncomfortable.	
Does the highway segment function as a "Main Street: or a "Safe Route to School"? Yes	
Describe the bicycle and pedestrian needs as identified in an existing Bicycle/Pedestrian Plan or comprehensive planning study for the corridor, if any. *(e.g. alternate parallel routes, gap closures for bicycle, pedestrian, or ADA facilities)* Lee Vining Public Engagement Summary Mono Basin Community Plan – Policies 1 and 2 are consistent with the outcome of the Lee Vining Public engagement.	

• Objective 1.3: Increase pedestrian and transit friendliness of streets by using context sensitive design measures such as those listed below. Some of these measures may not be appropriate on interregional routes: • Objective 2.2: Provide networks for pedestrians and bicyclists that are as safe as the network for motorists. Create functional, safe and secure travel ways for pedestrians and bicyclists may include the following measures: Mono County Bicycle Plan • US 395 along the west side of Mono Lake does not have adequate shoulders in some areas for safety. Past efforts to expand shoulders were controversial, and the project has since been abandoned by the LTC and Caltrans. • Major recreational destinations include Mono Lake, the Forest Service Visitor Center, Lundy Canyon, and SR 120/Lee Vining Canyon. Consider connecting these destinations via bike routes. • Most children at the schools in Lee Vining are bussed to school or walk. Commuting routes for school children are limited.	*– Improve bike lanes/markings along Mono Lake #3 – Improve bike markings through town (56.3%)* *Top 3 Pedestrian Improvements #1 Add/Make crosswalks more visible (63%) #2 Improve sidewalks to make it safer and easier to walk along the corridor (46.6%) #3 Install pedestrian Hybrid Beacons (38.6%)* Mono Basin Community Plan Objective 1.3 recommended bicycle features :*Gateway entrances Narrower travel lanes (10-11 feet), Medians with turning pockets, Bike lanes Provision for parking lanes (7-8 feet), Roundabouts Bus pullouts for regional and intra-city bus service, Landscaping between street and sidewalk (including triple tree canopy with median), 6-12 foot wide sidewalks at right-of-way line, Textured or colored pavement materials in sidewalks and streets in selected locations, Neckdowns, Numerous crosswalks, Flashing lights or other warning devices, Pedestrian oriented warning signs, Landscape treatments to help slow traffic, Building design and placement to give a sense of enclosure, Aesthetically compatible CMS/speed radar feedback/alert system to slow traffic and enforce speed limits through towns* Objective 2.2 recommended pedestrian features: *Sidewalks with ample widths Vertical curbs, Planter strips to separate sidewalks from the street, Parked cars along the street, Crosswalk lanes provided at regular and frequent intervals, Raised medians with pedestrian refuges where warranted on wide streets, Adequate lighting Bus pullouts for regional and intra-city bus service, Appendix A: General Plan Policies Page 7A Bicycle lanes in town centers serving as a 5 or 6 foot buffer between the parking lane or sidewalk and the travel lane. Bicycle lanes should be striped or extra wide curb lanes should be provided*
If applicable, is the Pedestrian Plan or comprehensive planning study included in the ADA Transition Plan? No	
Is the proposed project located on a corridor that accommodates or bisect recreational trails *(e.g. California Coastal Trail, backpacking, hiking, or equestrian trails)* No	
Contact information for bicycle, pedestrian or disabled advisory advocates. East Side Velo – Caroline Casey, President. ccasey@mammothresorts.com Sierra Cycling Foundation 760.935.4808 sam@sierracyclingfoundation.org	

3.2 Transit Conditions

TRANSIT CONDITIONS	Caltrans and Local/Regional Partner Needs/Opportunities with Project
What are the existing transit accommodations, if any? (e.g., such as transit stops or active transit line) ESTA - Lone Pine to Reno Route stop, w/ bus shelter, in Lee Vining in front of Caltrans Yard/Chevron.	Bus Shelter is not ADA compliant and will need to be relocated/replaced. Mono RTP **Action 22.D.4.c.** Support transit connections in Mono City and Lee Vining that provide local and regional connections for residents and visitors. ESTA 2015 Short Range Transit Plan – No applicable goals
Are there existing transit or proposed accommodations on intersecting local roadways? No	
Where is the nearest Park and Ride Lot? Who owns/maintains? N/A – no official park and ride lots in Lee Vining/Mono county. Tioga Gas Mart SR 120 is sometimes used as an unofficial parking area (seasonal)	

Transportation Planning Scoping Information Sheet

TRANSIT CONDITIONS	Caltrans and Local/Regional Partner Needs/Opportunities with Project
Describe transit facility needs identified in short-and long-range transit plans and RTP. Describe how these future plans relate to the corridor. None	
Contact information for local transit provider. Karie Bentley, Administration Manager Kbently@ESTransit.com (760) 872-1901 x11	

3.3 Local and Regional Planning

LOCAL AND REGIONAL PLANNING	
MPO/RTPA and Contact Name: Mono County LTC Gerry LeFrancios – Co-Executive Director glefrancois@mono.ca.gov (760)-924-1810	RTP Regional Policy GOAL 10 MAINTAIN THE EXISTING SYSTEM OF STREETS, ROADS AND HIGHWAYS IN GOOD CONDITION. Policy 9.E. Ensure that transportation projects comply with the requirements of the Americans with Disabilities Act (ADA) and are accessible to all persons. Mono Basin Action 22.B.1.e. Encourage the inclusion of cyclist amenities; e.g., bike-parking areas and racks, water and shade at activity centers in the Mono Basin. Activity centers include community and visitor centers, scenic kiosks and turnouts, interpretive sites, campgrounds, schools, parks, and some business establishments. Action 22.B.1.d. Request Caltrans to incorporate wider shoulders sufficient for bike travel (8 feet) into highway rehabilitation projects in the Mono Basin. Objective 22.C. Improve parking opportunities in Lee Vining. Action 22.C.1.e. Through a public process, and in coordination with Caltrans, consider the feasibility of reducing travel lanes and adding additional parking on US 395 through Lee Vining. Objective 22.D. Continue to explore additional elements that may be suitable for the comprehensive streetscape plan for the Lee Vining commercial district that enhance pedestrian safety, connectivity (including trails) and make Lee Vining a more attractive place to walk, live, and work. Policy 22.D.3. Ensure that streetscape improvements are compatible with maintenance practices and capabilities. Policy 22.D.4. Improvement designs for the US 395 corridor in Lee Vining shall address the needs of all feasible modes of people movement, including transit, cyclists, pedestrians, and local and interregional traffic. The movement of interregional traffic shall not be the sole consideration in the design of highway improvements within the Lee Vining community. Action 22.F.1.a. Require development projects to include transportation improvements to accommodate project demands on the circulation infrastructure, including pedestrian improvements, adequate parking for autos and buses, improved encroachments onto public roads, and associated drainage improvements.
Local County/City and Contact Name: Mono County Wendy Sugimura –Community and Economic Dev. Dir. wsugimura@mono.ca.gov (760) 924-1814	
Title and web-link to most current Regional Transportation Plan/Sustainable Community Strategy (RTP/SCS) Mono County RTP: https://monocounty.ca.gov/generalplan/regional-transportation-plan	
Is the proposed Caltrans project consistent with local and regional plans (General Plan, RTP)? If not, please explain. Yes	
Provide nexus between the RTP objectives and the proposed project to establish the basis for the project purpose and need. The purpose and need of the Rehab project are consistent with Mono County RTP goals to maintain the highway in a state of good repair, address drainage improvements in highway projects, examine for bicycle and pedestrian infrastructure upgrades, and maintain ADA infrastructure.	

Section 4: Climate Change and Environmental Considerations

Districts that have not yet received this data are advised to use Cal-Adapt and local and regional governments' vulnerability assessments and/or adaptation studies of transportation infrastructure, where available, to identify potential impacts to Caltrans' assets.

CLIMATE CHANGE AND ENVIRONMENTAL CONSIDERATIONS	
Is there an adopted Climate Action Plan for the City or County in which the proposed project is located?	☐ Yes ☒ No
Is the corridor susceptibility to climate change factors such as increased flooding or sea level rise? If yes, please indicate which factors to the right. ☒ Yes ☐ No	☐ Sea Level Rise/Storm Surge ☒ Temperature Changes ☒ Precipitation ☒ Wildfire
Is there a local and/or regional climate vulnerability assessment or adaptation plan? If yes, please provide link and/or further information.	☐ Yes ☒ No
Describe assets vulnerable to changes in climate conditions, such as landscape planting, irrigation systems.	Landscape Erosion/Rockfall, Drainage, Pavement, ADA
Does the proposed project include GHG measures from the Regional RTP/SCS's Environmental Impact Report (EIR)? *Consult with District Regional or LD-IGR Planner.*	N/A
Is the proposed project located on or near and of the following: sensitive habitat areas such as wetlands, native or sensitive species habitats, wildlife corridors, identified fish passage barrier, agricultural land?	Yes – Mono Basin National Forest Scenic Area, Mono Lake,

AIR QUALITY MANAGEMENT	
Name of Air Quality Management District (AQMD) Great Basin Unified Air Pollution Control District (GBUAPCD)	
Is the proposed project located in a Federal non-attainment or attainment maintenance area?	☒ Yes ☐ No PM 10 since 1995.

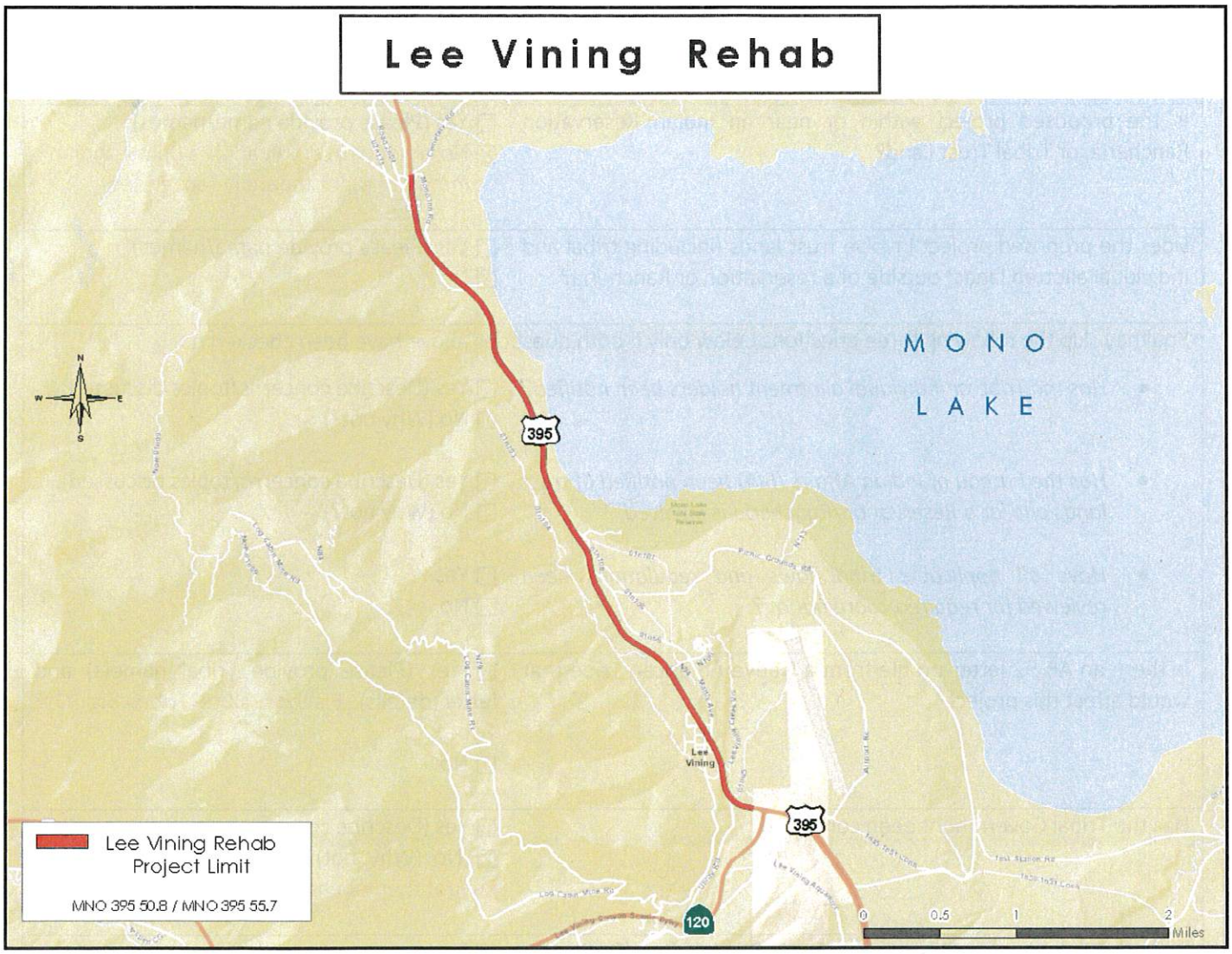
Section 5: Tribal Government Coordination

Please refer to Section 5 of the Transportation Planning Scoping Information Sheet for further guidance on AB 52 and the Tribal Employment Rights Ordinance (TERO) questions.

TRIBAL GOVERNMENT COORDINATION	
Is the proposed project within or near an Indian Reservation Rancheria, or Tribal Trust Land?	☐ Yes (Please provide name/names) ☒ No - Mono Lake Kutzadika'a Paiute Indian Community is not federally recognized
Does the proposed project involve trust lands (including tribal and individual allotted lands) outside of a reservation or Rancheria?	☐ Yes (Please provide name/names) ☒ No
You may skip the following three questions below only if both questions above have been checked no.	
• *Has the Tribe or individual allotment holders been notified?*	☐ Yes (Describe concerns/topics discussed) ☐ No (Why not?)
• *Has the Bureau of Indian Affairs (BIA) been notified (if trust lands and/or a Reservation/Rancheria is involved)?*	☐ Yes (Describe concerns/topics discussed) ☐ No (Why not?)
• *Have all applicable tribal laws and regulations been reviewed for required coordination?*	☐ Yes ☐ No
Is there an AB 52 letter on file from a Native American Tribe that would affect this project?	☒ Yes (Please provide Tribal name(s) and letter details). Bishop Paiute Tribe, Big Pine Tribe ☐ No
Has the Tribal Government been contacted?	☐ Yes (Describe concerns/topics discussed) ☒ No (Why not) Will be contacted during Environmental phase.
Does the Tribe have a Tribal Employment Rights Office/Ordinance (TERO)?	☐ Yes ☒ No
• *Has the TERO been reviewed for required coordination?*	☐ Yes ☐ No
• *Is there a related Memorandum of Understanding (MOU) between the District and the Tribe?*	☐ Yes ☐ No
Does Caltrans have other MOUs with the Tribe?	☒ Yes (Provide title and description or content) ☐ No

Transportation Planning Scoping Information Sheet

SEGMENT MAP



Attachment H

Structure PIR Cost Estimate

DES Workload Resource Estimate

EA 09-37430

Project ID: 09-1800-0015

09-37430 MNO 395 50.6/ 55.7

Resources estimated on 2/13/2019 3:41:39 PM

Assigned APS		BSS	05/17/2023	District PS&E	11/16/2023	Struct. Cost $	1,000
Approve PID	08/10/2018	General Plan	06/01/2023	Ready to List	01/22/2024	District Cost $	9,000
Program Project	SHOPP	Draft SPS&E	08/08/2023	App. Contract	07/29/2024	Total Cost $	10,000
PA&ED	03/18/2022	Final SPS&E	10/01/2023	CCA	11/21/2025		

Project Scope:

Perform full depth FDR with pulverization from PM 51.2 to PM 51.7 through Lee Vining. Mill and fill from PM 50.6 to PM 51.2 and PM 51.7 to PM 55.7. Widen shoulders to 5' from PM 53.0 to PM 55.7 and perform anchor mesh slope stabilization. Construct 8 guardrail retaining walls. All drainage will be replaced or enhanced based off new flow lines. Replace all ADA features including concrete sidewalks, curb ramps and driveways.
Restore the facility to a state of good repair so that the roadway will require minimal maintenance resources and bring fewer disruptions to the community of Lee Vining over the life cycle of the pavement. Bring pedestrian

Risks and Assumptions:

K-phase structure scope and cost estimate was not prepared by DES. Risk - As a result of PA&ED phase planning study effort, it is found that additional nonstandard retaining wall work is required, which could result in an increase in DES support and construction costs. The design and construction phase resource estimate for DES should be considered preliminary pending PA&ED phase planning study effort. (MD)

GS Risks and Assumptions:

-Assumed early drilling and geophysical work during PA&ED. If the environmental permits cannot be obtained in time, the drilling will need to occur during PS&E which will increase the project cost.

-If District Environmental determines the site to be contaminated/hazardous, an A&E Contract will be required for the drilling, laboratory testing and field logging which will increase the cost of the project. An estimate will need to be obtained from the Consultant.

RBS CODE				WBS CODE																	Total
					PHASE K	PHASE 0			PHASE 1							PHASE 3					
		E-FIS	CC	100	150	160	175	180	185	230	240	250	255	260	265	270	275	280	285	290	295	
PPM- PROJ MGMT-PROJECT DELIVERY	59.3564,PPM	3564	110	124																	124
PPM- PROJ MGMT-PROJ DLVRY SUPPORT	59.3566,PPM	3566	141	160																	160
SD- SD TASK MGMT SUPPORT	59.3590,SDSN	3590	235	32		16					16	16					8				88
SD- MGMT-BRIDGE DSGN CENTRAL	59.3602,SDSN	3602	248	240		400					1,040	90			5		165		45		10	1,995
SP&I- DESIGN & TECHNICAL SERVICES	59.3619,SP&I	3619	266	40	10	22				40	420	60	8			24	32		88			744
SP&I- STATE BRIDGE ENGINEER SUPPORT	59.3628,SP&I	3628	279	4		8					16	6					30		8	8		80
DES OE- CONST CONTRACT SCHEDULING	59.3633,OE	3633	284												62							62
DES OE- CONST CONTRACTING SYSTEMS	59.3634,OE	3634	285												20							20
DES OE- CONST CONTRACT AWARDS	59.3635,OE	3635	286												100							100
SD- SOE-STRUC COST ESTIMATES	59.3639,SDSN	3639	290			40					130	90			24							284
DES OE- CNTRCT'G COORD & QUALITY PRGM	59.3640,OE	3640	291	26											56							82
SD- SOE-STRUC SPECIFICATIONS (North)	59.3642,SDSN	3642	293								130	60			24		16		8	8		246
DES OE-AADD COORDINATION	59.3645,OE	3645	302												26							26
SD- SURVEYS-PI NORTH	59.3646,SDSN	3646	308	20		250					250											520
SD- PHOTOGRAMMETRY	59.3648,SDSN	3648	311	8		370			40													418
GS- GEOTECHNICAL SUPPORT	59.3650,GS	3650	316			250													4	4		258
METS- STRUCTURAL MATERIALS	59.3652,METS	3652	318	8		40										210						258
METS- ROADWAY MATERIALS TESTING	59.3654,METS	3654	320	13		24										410						447
GS- GEOTECH DRILLING SERVICES	59.3656,GS	3656	322			420																420
GS- GEOTECH DESIGN NORTH	59.3657,GS	3657	323	30		300				100		24	8			40			8	8		518
GS- GEOTECH DESIGN POLICY & PRACTICE	59.3659,GS	3659	325			8				6												14
SC- FIELD CONST OFFICE C	59.3669,SCON	3669	542	40	24	32					80	40			4		1,200	13	32	26	19	1,510
			Hrs:	745	34	2,180	0	0	40	146	2,082	386	16	0	321	684	1,451	13	193	54	29	8,374
			PYs:	0.42	0.02	1.24	0.00	0.00	0.02	0.08	1.18	0.22	0.01	0.00	0.18	0.39	0.83	0.01	0.11	0.03	0.02	4.76

Attachment I

SHOPP Performance Report

SHOPP Project - Accomplishment - Performance Measures - Benefits

District: 09 **Tool ID:** 19018 **Project ID:** 0919000001 **EA:** 37870 **Co-Rte-PM:** MNO-395-55.5/58.2 (Primary Location)

Res In PID WP: 08/06/18 **Project Manager:** Brian Mcelwain

Save to Excel

☐ Bridge	☑ Pavement	☑ Drainage	☐ Facilities	☑ Safety	☐ Mobility	☐ Roadside	☑ Complete Streets	☐ Sustainability /Climate Change	☐ Advance Mitigation	☐ Major Damage	☑ Green-house Gases	☐ Relinquishment

Performance & Accomplishments (PRG)

	Activity Detail	Performance Objective	Unit of Measurement	Quantity	Assets in Good Cond	Assets in Fair Cond	Assets in Poor Cond	New Asset Added	Comment
1	Mainline existing Asphalt CAPM (e.g. 2" thin overlay (w or w/o wearing surface, cold in place, digouts, etc) (201.121)	Pavement Class I	Lane Miles	9.413		9.413			
2	Replace/Install Culverts (201.151)	No Performance Objective in the SHSMP	EA	18.0			18.0		
3	Replace Install/Culverts (201.151)	Drainage System Restoration	LF	1665.55	1218.47	168.72	278.36		
4	Abandon/remove culvert (201.151)	No Performance Objective in the SHSMP	EA	2.0			2.0		
5	Abandon/remove culvert (201.151)	Drainage System Restoration	LF	15.77		15.77			
6	Guard Rail (201.010, .015)	No Performance Objective in the SHSMP	LF	4900.0			4900.0		
7	Sign Panel replacement	Sign Panel Replacement	EA	4.0			4.0		
8	Is any location within the project limits Ped/Bike accessible?	No Performance Objective in the SHSMP	Yes/No						Yes
9	Quantitative - Proposed Mitigated	No Performance Objective in the SHSMP	MTCO2e	1124.0					14% Reduction
10	Quantitative - Unmitigated	No Performance Objective in the SHSMP	MTCO2e	1286.0					

SHOPP Project - Accomplishment - Performance Measures - Benefits

District: 09 **Tool ID:** 18987 **Project ID:** 0918000015 **EA:** 37430 **Co-Rte-PM:** MNO-395-50.8/55.7 (Primary Location)

Res In PID WP: 11/07/17 **Project Manger:** Brian Mcelwain **HQ PM Conc TYP:** 10/30/17 **HQ PM Conc PID:** 10/30/17

☐ Bridge	☑ Pavement	☑ Drainage	☐ Facilities	☑ Safety	☑ Mobility	☑ Roadside	☑ Complete Streets	☐ Sustainability /Climate Change	☐ Advance Mitigation	☐ Other	☐ Major Damage	☐ Green-house Gases

Performance & Accomplishments (PRG)

	Activity Detail	Performance Objective	Unit of Measurement	Quantity	Assets in Good Cond	Assets in Fair Cond	Assets in Poor Cond	New Asset Added	Comment
1	Mainline existing Asphalt Pavement Rehabilitation {e.g. Lane Replace, thick overlay, full depth recycle, etc..} USE FOR CLASS 1 & 2 ROADS (201.122, 120)	Pavement Class I	lane-miles	14.17		14.17	0.0		
2	Replace/Install Culverts (201.151)	Drainage System Restoration	EA	6.0			6.0		
3	Replace Install/Culverts (201.151)	Drainage System Restoration	LF	541.6			541.6		
4	Lighting - Rehabilitation (201.170)	Lighting Rehabilitation	EA	4.0			4.0		
5	Census Station (201.315)	Transportation Management Systems	EA	1.0			1.0		
6	ADA - Repair existing sidewalk (201.361)	ADA Pedestrian Infrastructure	LF	4200.0			4200.0		
7	ADA - Repair/upgrade curb ramp (201.361)	ADA Pedestrian Infrastructure	EA	26.0			26.0		
8	ADA - Modify driveway (201.361)	ADA Pedestrian Infrastructure	LF	400.0			400.0		
9	ADA - Modify crosswalk (201.361)	ADA Pedestrian Infrastructure	LF	100.0			100.0		
10	ADA - Location	ADA Pedestrian Infrastructure	EA	116.0			116.0		
11	Worker Safety - Miscellaneous Paving/Treatment (201.235)	Roadside Safety Improvements	Location	1.0			1.0		
12	Class II Bike Lane (201.999) - CSC	No Performance Objective in the SHSMP	Linear Miles	1.2				1.2	
13	Curb Extensions/bulb-out (201.999) - CSC	No Performance Objective in the SHSMP	EA	2.0				2.0	
14	Is any location within the project limits Ped/Bike accessible?	No Performance Objective in the SHSMP	Yes/No	1.0					Yes

Attachment J
TMP and Traffic Calculations

TRAFFIC MANAGEMENT PLAN CHECKLIST

District / EA / ID: 09-37430 / 0918000015
Co.-Rte-PM: Mno-395-50.6/55.7
Date Prepared: February 8, 2019
Prepared By: Damon Cherenzia
Description: Lee Vining Rehab

	Included in Project	Under Dvlpmnt	Not required	Not Applicable	COMMENTS
1.0 Public Information					
1.1 Brochures and Mailers			X		
1.2 Media Releases (& minority media sources)		X			Include at construction PIO
1.3 Paid Advertising			X		
1.4 Public Information Center			X		
1.5 Public Meetings/Speakers Bureau		X			If requested or deemed necessary
1.6 Telephone Hotline			X		
1.7 Visual Information (videos, slide, shows, etc.)		X			If requested
1.8 Total Facility Closure			X		
1.9 Local cable TV and News		X			If PIO deems necessary
1.10 Traveler Information Systems (Internet)		X			Post to Caltrans Quickmap
1.11 Internet		X			Include at construction by PIO
2.0 Motorist Information Strategies					
2.1 Electronic Message Signs			X		
2.2 Changeable Message Signs		X			In construciton plans and specs
2.3 Extinguishable Signs			X		
2.4 Ground Mounted Signs		X			Construction area signs in plans
2.5 Commercial Traffic Signs			X		
2.6 Highway Advisory Radio (fixed and mobile)			X		
2.7 Planned Lane Closure Web Site		X			To be in SSP's
2.8 Caltrans Highway Information Network (CHIN)		X			SSP's, reported during construction
2.9 Radar Speed Message Sign			X		
3.0 Incident Management					
3.1 Construction or Maintenance Zone Enhance Enforcement Program - COZEEP or MAZEEP			X		
3.2 Freeway Service Patrol				X	
3.3 Traffic Surveillance Stations (loop detectors and CCTV)			X		
3.4 911 Cellular Calls	X				RE/Inspectors have cell phones
3.5 Transportation Management Center			X		
3.6 Traffic Control Officers			X		
3.7 Traffic Management Teams			X		
3.8 On-site Traffic Advisor			X		
3.9 CHP Helicopter			X		
3.10 Upgraded Equipment			X		

	Included in Project	Under Dvlpmnt	Not required	Not Applicable	COMMENTS
4.0 Construction Strategies					
4.1 Incentive/Disincentive Clauses			X		
4.2 Ramp Metering				X	
4.3 Lane Rental			X		
4.4 Off peak/Night/Weekend Work		X			If it minimizes local disruption
4.5 Planned Lane/Ramp Closures		X			One-way reversing control
4.6 Project Phasing		X			
4.7 Temporary Traffic Screens			X		
4.8 Total Facility Closure			X		
4.9 Truck Traffic Restrictions			X		
4.10 Variables Lanes			X		
4.11 Extended Weekend Closures		X			
4.12 Reduced Speed Zones		X			Pulverized surface
4.13 Coordination with adjacent construction		X			In SSP's. Develop at PS&E
4.14 Traffic Control Improvements			X		
4.15 Contingency Plans		X			Include in SSP's
4.15.1 Material Plant on standby			X		
4.15.2 Extra Critical Equipment on site			X		
4.15.3 Material Testing Plan			X		
4.15.4 Alternate Material on site (In case of failure or major delays)		X			Cold mix, base
4.15.5 Emergency Detour Plan					
4.15.6 Emergency Notification Plan			X		
4.15.7 Weather Conditions Plan		X			RE to notify
4.15.8 Emergency Funding Plan		X			Addressed in SSP's
4.15.9 Delay Timing and Documentation Plan			X		
4.15.10 Late Closure Reopening Notification (Policy & Plan)			X		
4.15.11 Traffic Inspector on site			X		
5.0 Demand Management					
5.1 HOV Lanes/Ramps				X	
5.2 Park-and-Ride Lots			X		
5.3 Parking Management/Pricing			X		
5.4 Rideshare Incentives			X		
5.5 Rideshare Marketing			X		
5.6 Transit, Train, or Light-Rail Incentives			X		
5.7 Transit Service Improvements			X		
5.8 Variable Work Hours			X		
5.9 Telecommute			X		
5.10 Ramp Metering			X		
6.0 Alternate Route Strategies					
6.1 Ramp Closures				X	
6.2 Street Improvements		X			
6.3 Reversible Lanes			X		
6.4 Temporary Lanes or Shoulders Use			X		
6.5 Freeway to freeway connector closures				X	

	Included in Project	Under Dvlpmnt	Not required	Not Applicable	COMMENTS
7.0 Other Strategies					
7.1 Application of new technology			X		
7.2 Innovative products			X		
7.3 Improved specifications			X		
7.4 Staff Training/Development			X		
7.5 Upgraded Equipment			X		

COMMENTS:

It is anticipated that this project will be constructed using standard lane and shoulder closures during construction. Since most of the project is located within a 4-lane conventional highway, one lane in each direction will be open at all times. Only PM 52.8 to 53.0 will require one way reversible traffic closures. Minor delays will occur. Bicycle and pedestrian traffic will need to be considered and accomodated during construction.

Peer Review Committee:

This TMP has been reviewed by the following PEER Committee Members:

	Name	Tele/Fax	Representing	Signature
1-	Brad Rockwell	(760) 872-5251	Design	B Rockwell
2-	Tim Shultz	(760) 872-5211	North Construction Area	T Shultz

Approved by:

LIANNE TALBOT
PEER COMMITTEE CHAIR

State of California
DEPARTMENT OF TRANSPORTATION

California State Transportation Agency

M e m o r a n d u m

Serious drought
Help Save Water!

To: **DAMON CHERENZIA**
Engineering Branch D

Date: December 8, 2017

File: 09-37430K
Mono 395 PM 50.6/55.7
Lee Vining Rehabilitation

From: **JED EROPKIN**
Traffic Operations

Subject: Traffic Index (TI) Calculations and Design Designation

Attached you will find the Traffic Index (TI) Calculations and Design Designation for Lee Vining Rehabilitation Project, Mono 395 PM 50.6/55.7. Project Number is 0918000015. Please include this document as an attachment to your Project Report.

Data Year..... 2016 AADT = 4650
Construction Year AADT..... 2022 AADT = 4790
5 Year AADT..... 2027 AADT = 4910
10 Year AADT..... 2032 AADT = 5040
20 Year AADT..... 2042 AADT = 5290
5 Year TI..... 2027 TI = 9.0
10 Year TI..... 2032 TI = 9.5
20 Year TI..... 2042 TI = 10.5
Construction Year DHV..... 2022 DHV = 1040
5 Year DHV..... 2027 DHV = 1060
10 Year DHV..... 2032 DHV = 1090
20 Year DHV..... 2042 DHV = 1150
2016 Directional Split = 54.27 %
2016 Trucks = 23.3 %

If you have any questions, please do not hesitate to call me. I may be reached at (760) 872-0711.

Attachment

c: File

TRAFFIC INDEX and DESIGN DESIGNATION
CALCULATION SHEET

CO-RTE-PM Mono 395 PM 50.6/55.7
EA 09-37430K
JOB NAME Lee Vining Rehabilitation

Requested by: Damon Cherenzia
Unit: Engineering Branch D
Date: 12/08/17

Census Year	2016	
Construction Year	2022	
Complete Construction Year	2023	
2 Way AADT	4,650	
Lane Distribution Factor	1.0	(Table 613.3B, Highway Design Manual)

	AM Peak	PM Peak
Peak Hour Percent, K	21.67	17.19
Directional Split, D	51.32	54.27
Product of K and D, KD	11.12	9.33
DHV = AADT x K /100	1008	799

PERCENT TRUCKS (%)	23.3
1 WAY TRUCK VOLUME	588
GROWTH FACTOR, %/Year	0.5

----------TRAFFIC INDEX CALCULATIONS----------

Traffic Index Calculations are based on completion of construction per HDM 103.2

FIVE YEAR TRAFFIC INDEX

Vehicle Type	Trucks (%)	Present ADT One Way	Expansion Factor	Expanded ADT One Way	5 Year Constant	Lane Factor	ESALs
2 axle	45.6	268.0	1.0485	281.0	345	1	96,945
3 axle	15.64	92.0	1.0485	96.0	920	1	88,320
4 axle	12.17	72.0	1.0485	75.0	1470	1	110,250
5 axle	26.58	156.0	1.0485	164.0	3445	1	564,980
TOTALS	99.99	588.0		616.0			860,495

Five Year TI **9.0**

TEN YEAR TRAFFIC INDEX

Vehicle Type	Trucks (%)	Present ADT One Way	Expansion Factor	Expanded ADT One Way	10 Year Constant	Lane Factor	ESALs
2 axle	45.6	268.0	1.0617	285.0	690	1	196,650
3 axle	15.64	92.0	1.0617	98.0	1840	1	180,320
4 axle	12.17	72.0	1.0617	76.0	2940	1	223,440
5 axle	26.58	156.0	1.0617	166.0	6890	1	1,143,740
TOTALS	99.99	588.0		625.0			1,744,150

Ten Year TI **9.5**

TWENTY YEAR TRAFFIC INDEX

Vehicle Type	Trucks (%)	Present ADT One Way	Expansion Factor	Expanded ADT One Way	20 Year Constant	Lane Factor	ESALs
2 axle	45.6	268.0	1.0885	292.0	1380	1	402,960
3 axle	15.64	92.0	1.0885	100.0	3680	1	368,000
4 axle	12.17	72.0	1.0885	78.0	5880	1	458,640
5 axle	26.58	156.0	1.0885	170.0	13780	1	2,342,600
TOTALS	99.99	588.0		640.0			3,572,200

Twenty Yr TI **10.5**

SHOULDER TIs

Design Life	2% ESALs	TI
5 Year	17,210	**5.5**
10 Year	34,883	**6.0**
20 Year	71,444	**6.5**

----------DESIGN DESIGNATION----------

Design Designation is based on year of construction per HDM 103.1

Construction Year AADT..... **AADT (2022) = 4790**
Five Year AADT..... **AADT (2027) = 4910**
Ten Year AADT..... **AADT (2032) = 5040**
Twenty Year AADT..... **AADT (2042) = 5290**
Construction Year DHV..... **DHV (2022) = 1040**
Five Year DHV..... **DHV (2027) = 1060**
Ten Year DHV..... **DHV (2032) = 1090**
Twenty Year DHV..... **DHV (2042) = 1150**
D = 54.27 %
T = 23.3 %

Jed Eropkin
TRAFFIC OPERATIONS

December 8, 2017
DATE

Attachment K

Structural Section Recommendation

State of California
DEPARTMENT OF TRANSPORTATION

California State Transportation Agency

Memorandum

Serious drought.
Help Save Water!

To: DAMON CHERENZIA
DESIGN ENGINEER
DISTRRICT 9 ENGINEERING BRANCH B

Date: February 22, 2018

File: 09-37430 (09 1800 0015)

From: TIM SHULTZ TAS
District Materials Engineer
District 9

REGISTERED PROFESSIONAL ENGINEER
TIM A. SHULTZ
No. 47850
Exp. 12-31-19
CIVIL
STATE OF CALIFORNIA

Subject: **STRUCTURAL SECTION RECOMMENDATION FOR PID USE**

This memo is in response to your email request dated January 2, 2018 for structural section recommendations for the Lee Vining Rehab Project. This project will include full depth recycle within the limits (51.23-51.71) of the town of Lee Vining, this is to accommodate changing cross slopes for ADA compliance purposes, as well as maintaining the grade to conform generally with existing elevations. Areas outside of the town limits will be rehabilitated in a more traditional manner. If any widening is to be done, the recommendation for the full depth recycle in town can be used. All of the recommendations are based on limited information and should be used for estimate/planning purposes only, in the PID. This project is in Mono County on Highway 395 from PM 50.6 to PM 55.7.

With a full reconstruction of the town core, the PDT should consider a 40-year design. With no solid information, my recommendation would be to increase the estimate of the structural section work by 30% to cover the probable additional cost increase of doing a 40-year design.

These recommended structural sections are designed in accordance with Chapters 600 to 660 of the Highway Design Manual. Below is a summary of the initial assumptions and design criteria:

TI (10) years) = 9.5
TI (20 years) = 10.5
Basement R-Value = 50 (assumption, no testing in the immediate area)
Pulverized pavement will be assumed to have the same R value as Class 2 AB (78)

Travelled Way:

For TI(20) = 10.5

From PM51.23-51.71

0.65' HMA over 0.45 Class 2 AB (or pulverized HMA)

Full depth HMA: 0.85'HMA over native material (R >= 50)

For rehab areas outside of the limits above The recommendation is to mill off 0.20' of the existing surface and placing a 0.40' overlay, EP to EP.

Shoulders:

Use the same structural section as the Travelled Way, with both subgrade and surface sloped appropriately. If shoulders are widened in the rehab area, use 0.65'HMA over 0.45'Class 2 AB(or pulverized HMA). Additionally, the full depth option of 0.85'HMA over native could be used.

Rubberized Hot Mix Mix Asphalt

RHMA is not recommended for this project within the limits of 51.23-51.71. RHMA could be used outside of those limits. That section would be 0.20' cold plane, 0.20'HMA and 0.15' RHMA on top of that.

Shoulder backing

Shoulder backing should be placed at all locations where roadway excavation activities will not provide proper backing to the new structural section.