SHOPP Asset Management Pilot Request Form

Divison of Transportation Programming
State Highway Operation and Protection Program (SHOPP)

Project Manager: Anand Kapoor
Phone: (559) 243-3588

<table>
<thead>
<tr>
<th>Dist</th>
<th>County</th>
<th>Route</th>
<th>Prefix</th>
<th>PM</th>
<th>Prefix</th>
<th>PM</th>
<th>EA</th>
<th>PPNO</th>
<th>Project ID</th>
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<tbody>
<tr>
<td>06</td>
<td>Madera</td>
<td>99</td>
<td>26.3</td>
<td></td>
<td>26.8</td>
<td></td>
<td>0P910</td>
<td>6642</td>
<td>06-1200-0307</td>
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</table>

☐ Includes Multiple Locations (Complete Page 2 of this Form)

MPO: MCTC

Project Location/Description (Include the nearest city, town or landmark)

DESCRIPTION: Madera 99/233 Interchange Improvement
LOCATION: Rte 99 PM 26.2-26.92 (1/8 mile S of the gore point of the NB off-ramp to N of Ash Slough Br) Rte 233 PM 3.58-3.887 (Chowchilla Blvd to Jct Rte 99/233, End Of County)

Need for project and proposed improvements (Elaborate using PID language)

Degradation in level of service below LOS "D" is anticipated at the North Route 99 and 233 Connector within the next few years. The southbound (SB) and northbound (NB) off-ramps with One-Way Stop Control currently operate at LOS "D" and LOS "F" during peak travel hours respectively. This degradation will continue as the City of Chowchilla approves residential and commercial development east of the interchange. The City also needs to improve pedestrian circulation by providing sidewalk at the Route 233 bridge overcrossing.

The project proposes to construct two 2-lane roundabouts at the intersections of SR 233 and the SR 99 ramp termini. It proposes to realign the SR 99 southbound off-ramp for proper roundabout orientation. In addition, it proposes to install sidewalk to accommodate current pedestrian traffic needs on SR 233 Overcrossing, and upgrade existing guard railings, bridge railings, and stormwater systems.

PA&ED / M200 | 03/01/2016
PS&E / M380 | 10/01/2017
R/W Cert / M410 | 02/01/2018
RTL / M460 | 03/01/2018
CCA / M600 | 07/01/2020
END Project / M800 | 07/01/2022

Support ($1,000)
(Escalated to FY of Programming)

<table>
<thead>
<tr>
<th>FY</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/W Construction</td>
<td>2017/18</td>
</tr>
<tr>
<td>R/W Construction</td>
<td>2017/18</td>
</tr>
<tr>
<td>Total Capital</td>
<td></td>
</tr>
</tbody>
</table>

Legislative District Numbers
(Separate multiple Districts with a comma)

| State Assembly | 5 |
| State Senate | 12 |
| Congressional | 16 |

Capital Construction Cost Escalation Rate: 6,500

☐ Approved  ☐ Denied

District SFP (Print) | District SFP (Sign) | District SFP (Print) | District SFP (Sign) | SHOPP Exec. (Print) | SHOPP Exec. (Sign)
Samer Shaath | | | Samer Shaath |
Sharri Bender Ehler | | | Sharri Bender Ehler |
Marco Sanchez | | | Marco Sanchez |

Phone: (559) 243-3421
Phone: (559) 488-4057
Phone: (559) 444-2559
I. Introduction

This project incorporates asset management principles in improving the State Route (SR) 99 and SR 233 Interchange, in the City of Chowchilla in Madera County. The project proposes to construct two 2-lane roundabouts at the SR 99 off-ramp termini at SR 233 (Robertson Blvd). It proposes to realign the SR 99 southbound off-ramp for proper roundabout orientation and to widen the south end of the southbound Ash Slough Bridge up to 9 feet to accommodate the SR 99 southbound off-ramp. In addition, it proposes to install sidewalk to accommodate current pedestrian traffic needs on SR 233 Overcrossing.

This project quantifies the operational, safety, capacity increasing, ADA, and rehabilitation needs and proposes the corresponding programming for each need. This project is a multi-agency partnership between the City of Chowchilla, Madera County Transportation Commission, and Caltrans.

II. Project Background

SR 99 is an important regional and local facility within the San Joaquin Valley. It is a major truck route, which provides critical access for shipment of agricultural goods to markets outside of the Valley. It also serves as a significant recreational access during the summer months. Regionally SR 99 extends south-north direction to link the San Joaquin and Sacramento Valleys from Interstate 5 approximately 8 miles north of Lebec to a junction with Interstate 5 in Red Bluff. SR 99 through the City of Chowchilla is a 4-lane facility throughout the City of Chowchilla with a posted speed limit of 65 mph.

SR 233 is a north south conventional highway that bisects the City of Chowchilla. SR 233 originates at SR 152 and extends from an interchange at SR 152 extending through the downtown area before terminating at the North SR 99 and 233 Connector (Br. No. 41-0055E) in the northeast. Within the project area, SR 233 is a 2-lane undivided conventional highway with 12-foot wide lanes and 8-foot shoulders. SR 233 is the only connection for traffic from eastbound SR 152 to northbound SR 99.

III. Safety
The proposed roundabouts at the ramp termini at this interchange will reduce the number and severity of broadside accidents at the ramp intersections, while maintaining improved traffic operation by having continuous traffic flow at low speeds (15 to 25 mph). Roundabouts have approximately 90% fewer fatal accidents and 76% fewer serious injury accidents compared to intersections with other types of controls, as documented in NCHRP Report 572. Wrong way movements onto off-ramp are also deterred with the geometry of the roundabout. Sidewalk will be added to accommodate pedestrian traffic over the existing Route 233 overcrossing. While there is inadequate width to provide bicycle lanes on the separation bridge, the slower speeds of vehicular traffic due to the roundabouts will make riding a bicycle in the traveled way more comfortable.

Maintenance vehicle pullouts and slope paving will be placed to lessen Maintenance worker exposure to traffic.

The following lists the elements of the project that improve the safety of the travelling public and maintenance staff and conform to Department's Strategic Goals for Safety and Health:

1. Reduce injuries and fatalities at the ramp intersections, as the roundabouts will reduce the number and severity of broadside accidents associated with a signalized intersection.
2. Improve safety of maintenance staff, as the roundabouts will significantly reduce maintenance compared with that required for a signalized intersection
3. Improve safety, as it will upgrade bridge railing as required per STRAIN report dated March 1, 2011
4. Improves safety of travelling public and pedestrian, as it will install better illumination
5. Improves safety of pedestrian, as it will construct standard sidewalk.
6. Improve safety of cyclists, as it will reduce speed of vehicles.
7. Improve safety of travelling public, as the new structure will provide 4-lane SR 233
8. Deter wrong way movements
9. Reduce maintenance worker’s exposure to traffic, as it will provide maintenance vehicle pullouts and slope paving.

IV. Stewardship and Efficiency Needs

The following SHOPP related needs exist within the project limits of Mad-99-26.3/26.8:

1. CAPM pavement rehabilitation to increase the life of the pavement
2. Traffic Operations to reduce congestion, improve traffic flow, and meet future traffic demands from proposed residential and business developments
3. Upgrade curb-ramps and sidewalk as per ADA requirements
4. New SR 99/233 separation structure to meet vertical and horizontal clearance requirements
5. Signs and Lighting to improve visibility and the gateway to the City
6. Stormwater management
7. ADA curb-ramps and sidewalk

<table>
<thead>
<tr>
<th>Asset</th>
<th>Total Quantity</th>
<th>Pre-Project Condition</th>
<th>Post-Project Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Good</td>
<td>Fair</td>
</tr>
<tr>
<td>Pavement</td>
<td>4 lane-miles</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ADA Curb-ramps</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Signs</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>ADA Sidewalk</td>
<td>4000 LF</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bridge Rail Replacement</td>
<td>340</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Maintenance Vehicle Pullouts</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0 Curb and Gutter</td>
<td>4,000 LF 18 Curb Returns</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Lighting</td>
<td>4 Each</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Storm Drains</td>
<td>700 LF</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Item (Program)</td>
<td>Performance Measures</td>
<td>Description of Work</td>
<td>Cost</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------------------------</td>
<td>-------------------------------------------------------------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>Pavement</td>
<td>4 lane-miles of distressed pavement</td>
<td>Costs include: cold plane removal of existing friction course, Structural Section, earthwork, and Traffic Control</td>
<td>$5,077,200</td>
</tr>
<tr>
<td>Sidewalk Curb And Gutter</td>
<td>1760 yards of new sidewalk</td>
<td>Cost include 10-foot sidewalks at each Roundabout along with approaches.</td>
<td>$828,200</td>
</tr>
<tr>
<td>Bridges</td>
<td>Sliver Widening at Ash Slough &amp; Route 233 WB Overcrossing</td>
<td>Costs include widening north end of Northbound Ash Slough, Bridge for Westbound traffic including 10-foot sidewalk for pedestrian circulation.</td>
<td>$3,700,000</td>
</tr>
<tr>
<td>Storm Drains</td>
<td>10 pipe Along with Basin</td>
<td>Cost include: Installation of 10 new pipe and excavation cost of Basin</td>
<td>$618,200</td>
</tr>
<tr>
<td>Retaining Wall</td>
<td>250 LF of Retaining Wall</td>
<td>Costs include retaining wall any structure backfill.</td>
<td>$1,308,200</td>
</tr>
<tr>
<td>Lighting</td>
<td>2 Sets of 2 luminaires</td>
<td>Costs include: Luminaires for each roundabout location</td>
<td>$758,200</td>
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<tr>
<td>Water Pollution and Misc.</td>
<td>Lump Sum</td>
<td>Costs include: Construction site BMP and Resident Engineer Office</td>
<td>$192,000</td>
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</tbody>
</table>

**Total** $12,482,000

**V. Sustainability, Livability and Economy**

The following lists the elements of the project that reduce the environmental impacts of the transportation system on the environment and conform to Department's Strategic Goals for Sustainability, Livability and Economy:

1. Reduce delays and excessive queues at the signals; improve circulation; and allow free flow of traffic as it proposes two roundabouts. This will improve air quality and reduce long-term greenhouse gas emissions. SR 233
2. Reduce plant establishment period, maintenance, and water use as landscaping will incorporate native drought tolerant plants and will follow the latest drought policy.
3. Enhance the community’s quality of life and economic prosperity by improving the connection between new business and development on east side of SR 99 with the old town on the west side.
4. Encourage the bicycle and pedestrian traffic, as it will reduce vehicular speed and construct sidewalk. This will also improve walkability and livability.
5. Have no impact on historic and cultural resources, as no historic or cultural properties are identified within the project limits by the environmental staff. Native American consultation will continue during the life of this project.
6. There are no sound mitigation requirements on this project. However, the surrounding properties where the roundabouts will be located are commercial properties.
7. Avoid any impacts to Section 4(f) properties and encouraged travel to proposed parks and businesses on the east side of SR 99.
8. Foster collaboration and teamwork with the City of Chowchilla and MCTC. The City is sponsoring this project, which will incorporate Context Sensitive Solutions and might promote road diet.
9. Provide access onto Route 99, which is on the Primary Freight Network. It also provides access to industrial areas off Route 233, which is also an important connector from Route 152 as there is no direct connector from eastbound Route 152 to northbound Route 99.
10. Recycle existing pavement and use local materials.
11. Reduce overall operation and maintenance energy consumption as the proposed roundabout alternative compared to the signal alternative will reduce the need for signals operation and maintenance.
12. Protect prime habitat, as the roundabout alternative when compared to the signal alternative will reduce the storage need and eliminate construction of a new bridge over the Cottonwood Creek. This will avoid impacts to the important identified natural resources at the creek.
13. Minimize impacts to existing farmland, as the roundabouts will not need realigned longer connectors. The minimal farmland impacted by this project is already slated for urban development in the city’s General Plan.
14. Improve stormwater management through a proposed basin with ample capacity
15. Use appropriate non-invasive species and control or eliminate existing invasive species
16. Reduce greenhouse gas emissions, as the roundabouts will lead to less delay and idling as compared to a traffic signal (a life-cycle carbon assessment has not been).

VI. **System Performance**

The Ramp Termini are one-way stop controlled and will not be able to handle project traffic volumes for the design year. The southbound and northbound off-ramps with One-Way Stop Control currently operate at LOS “D” and LOS “F” (with extended delay and long queue).
during peak travel hours, respectively. If the project is not constructed, this interchange’s traffic operation is expected to become worse with the proposed developments on the east side of the town.

In consultation with the Technical Planning branch as well as the Traffic Operations branch, the roundabout alternative was selected and approved by the Intersection Traffic Control Evaluation (ITE) District Coordinator as the intersection traffic control strategy that best fits the purpose and need of the project.

Construction of two roundabouts, widening of SR 233 to 4 lanes, construction of a new SR 99/233 separation, and installation of adequate safety features, will improve travel time reliability, and reduce travel delays.

VII. **Organizational Excellence**

The City of Chowchilla is sponsoring the project and Madera County Transportation Commission is funding it through the local Measure funds. As Stakeholders, the City of Chowchilla has been in full support of the project and has supplied the Project Development Team with local traffic count data in the development of the traffic analysis recommendation.

The proposed roundabouts at the ramp termini at this interchange shows the willingness of the Project Development Team to implement innovative ideas that are most appropriate to the traffic needs of the location. Roundabouts have approximately 90% fewer fatal accidents and 76% fewer serious injury accidents compared to intersections with other types of controls, as documented in NCHRP Report 572.
VIII. Funding Plan

The following table depicts all of the currently programmed and currently unprogrammed needs broken down by component. Presently, Madera County Transportation Commission has $12.5 toward the project (see-attached letter from MCTC). An additional $9.5M is needed to fund the need for a complete project.

<table>
<thead>
<tr>
<th>Component</th>
<th>Total Need</th>
<th>SHOPP funded by measure funds</th>
<th>Currently unprogrammed SHOPP needs</th>
<th>Currently unprogrammed STIP needs</th>
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<tbody>
<tr>
<td>PAED</td>
<td>$1.4M</td>
<td>$1.4K</td>
<td>$0</td>
<td>$0</td>
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<tr>
<td>PS&amp;E</td>
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<td>$2.1M</td>
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<tr>
<td>Right of Way Support</td>
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<tr>
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<tr>
<td>Construction Support</td>
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<td>$13.5M</td>
<td>$11.1M</td>
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<tr>
<td>Total Project Cost</td>
<td>$22M</td>
<td>$12.5M</td>
<td>$9.5M</td>
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</table>

IX. Recommendation

In an effort to promote asset management, District request to program from the 15/16FY SHOOP $2.4M (construction capital) and $7.1M (support); along with Measure Funds of $11.1M (construction capital) and $1.4M (support) and from the 17/18FY. This project is currently on track for delivery in the 17/18 FY. It is proposed that the CTC vote the 15/16 SHOOP funded portion at the April 2018 CTC meeting.

X. Attachments:
1. Attachment A: Title Sheet
2. Attachment B: Typical Cross Section
3. Attachment C: Layout 1, Layout 2, and Layout 3
4. Financial Commitment Letter from MCTC
5. SR 99 Northbound termini at SR 233 and Nonstandard sidewalk and shoulders
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY

IN CHOWCHILLA AT POSTMILE 26.6

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

LOCATION OF CONSTRUCTION
Rte 233 PM 26.6

LOCATION MAP
August 13, 2015

Anand Kapoor, Project Manager
California Department of Transportation
2015 E. Shields Ave., Suite 100
Fresno, CA 93726

RE: MCTC Financial Commitment to SR 99/233 Interchange Project

Dear Mr. Kapoor:

The Madera County Transportation Commission (MCTC) has committed a total of $12,500,000 towards the SR 99/233 Interchange Project through the Measure T Program. Measure T is a twenty year (2007-2027), half-cent sales tax program collected in Madera County that funds several identified transportation projects in the region. The SR 99/233 project is identified in Phase II (2017-2025) of the Measure T Regional Program.

MCTC currently has a Cooperative Agreement with Caltrans in the amount of $700,000 to conduct Project Approval and Environmental Documentation (PA&ED) for this project. Any additional funding available from the State will contribute to the successful completion of this project.

Please contact Troy McNeil at (559) 675-0721 or troy@maderactc.org if you have any questions.

Sincerely,

Patricia Taylor, Executive Director
Madera County Transportation Commission