MILLERTON ROAD WIDENING PROJECT

North Fork Road to Millerton Lake State Park Entrance

FY 2018 NATIONAL INFRASTRUCTURE INVESTMENTS - BUILD PROGRAM

FON: DTOS59-18-RA-BUILD1

County of Fresno, Public Works and Planning
Steven E. White, P.E.
Director

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Steven E. White P.E.
Director of Public Works and Planning
County of Fresno
2220 Tulare Street, 8th Floor
Fresno, CA 93721
(559) 600-4078
www.co.fresno.ca.us

I. PROJECT DESCRIPTION

A. GENERAL

The proposed Millerton Road Widening Project (MRWP) aims to widen a 1.7-mile stretch of Millerton Road to four lanes, in a rural region of Fresno County, California, as the initial phase of a larger 4.7-mile roadway improvement project. The project is located approximately 10 miles from the census-designated urbanized area for the city of Fresno. Through this transportation improvement project, the County endeavors to meet the transportation infrastructure needs of the rural population, provide better connections to tribal lands, and invigorate the local economy through improved access.

FIGURE 1: HISTORIC MILLERTON COURTHOUSE

FIGURE 2: ONE OF THE MANY SCENIC VIEWS FROM MILLERTON LAKE STATE PARK.

The MRWP is responding to a high level of projected traffic demand, and will promote improved traffic operations, rural residential community access, bike safety, and motorist safety. The project will contribute to community safety by decreasing the California Fire Department's response times to fires in the region, and is expected to bolster regional development and tourism opportunities by better accommodating seasonal traffic to the scenic Millerton Lake State Park and the Table Mountain Rancheria tribal lands and casino. The MRWP will achieve these objectives by transforming the current two-lane rural roadway into a four-lane divided arterial roadway with paved shoulders, which will include signed and striped bicycle lanes.

The total project, of which the Millerton Road Widening Project is the first phase, has been preliminarily designed by Table Mountain Rancheria's consultant group, AECOM.

The reconstructed roadway will generally follow the centerline of the existing roadway, with deviations to improve turning radii and road grade. The minimum design speed for the roadway will be 45 mph, and will conform to a higher design speed of 55 mph when possible.

Several public road intersections, private road intersections, and driveway intersections will also be improved to accommodate the widening of the road and median improvements. Additionally, this project will include the incorporation of new, pocketed, left-turn lanes, and a new, two-lane, pre-stressed I-girder bridge to complement the already existing bridge, and accommodate increased traffic flow. These alterations will contribute to a higher level of safety and utility for motorists and bicyclists.

Finally, erosion control measures will be utilized on all embankment area slopes, as well as on cut slopes when the slope material will support growth. By seeding and mulching all slopes that are a part of this project, we will prevent erosion, and promote a more aesthetically pleasing landscape for those who will be utilizing the newly improved roadway. Relocation of electrical and telephone utilities may also be required in certain areas, and will similarly provide opportunities to improve the existing infrastructure system as a side effect of this project.

B. PROJECT HISTORY

The Millerton New Town Specific Plan, adopted by the Fresno County Board of Supervisors in December of 1984, and subsequently amended on multiple occasions, provides for a mixed-use development on 1,420 acres. The ultimate population of this development will be between 8,000 and 10,000 people, who will reside in approximately 3,500 dwelling units. The residential population will be supported by retail commercial uses, public services and utilities, parks, and a public school.

The objective of the Millerton Specific Plan necessitates a system of major roadways that will accommodate the increased traffic volumes associated with the newly adopted land uses and the increased densities allowed by these land uses. The Millerton Road Widening Project will also establish design and improvement standards for future road improvement projects.

The Table Mountain Rancheria trust land is adjacent to the Millerton New Town area to the northeast. The Table Mountain Casino is located on this land and is a very popular destination for area residents. Table Mountain Rancheria in is the process of planning and developing a major expansion of their casino, which will generate increased traffic on Millerton Road, from the construction phase through operation. Providing a reliable and safe transportation corridor for the Rancheria, its operations, guests, staff, and residents is vital to the success of the tribal community.

Therefore, it is imperative that the Millerton Road Widening Project set an outstanding precedent of reducing visual impact and maintaining a semi-rural character whenever possible for the future of the community.

C. COMMUNITY BENEFIT

Based on 2011 traffic counts, the daily traffic for this length of Millerton Road averaged 8,300 trips per day. It is anticipated that these rates will substantially increase as the area continues to grow. The travel time savings for commuters and recreational travelers, after the improvements, will help to ensure more vibrant economic opportunities and more fulfilling personal lives, improving their quality of life for the rural community. Additionally, the project would maintain a lower traffic congestion rate, and provide additional future savings on transportation and safety spending.

Cycling enthusiasts once enjoyed cruising along the stretch of Millerton Road that the county is now hoping to improve. The scenic, rural setting and changes in topography made it an ideal place for them to enjoy the outdoors and stay active. However, the recent increases in traffic on this stretch of road have made it difficult, and often unsafe, for cyclists to share this space with motorists because the majority of the road does not have paved shoulders. The inclusion of 6-foot-wide paved shoulders in this project will function as directional bike lanes, and will allow cyclists to safely reclaim this once popular route as a community recreational resource, without impeding traffic or requiring the development of a separate thoroughfare.

FIGURE 3: FRESNO COUNTY CITIZENS ENJOYING THE SCENIC, RURAL THOROUGHFARE, MILLERTON ROAD

II. PROJECT LOCATION

Fresno County covers over 6,000 square miles of diverse terrain, bordering the California Coastal Range in the West and the Sierra Nevada Mountains in the east. The center of the county is the very heart of California's central San Joaquin Valley.

The proposed project is located in the Sierra Nevada foothills of eastern Fresno County, near Friant Dam and the Millerton Lake reservoir. The reservoir fulfills the irrigation and drinking water needs of many San Joaquin Valley residents and job-creating agricultural industry.

FIGURE 4: MILLERTON LAKE STATE RECREATIONAL AREA

Millerton Lake is a popular recreational destination in the region, and provides boating, swimming, fishing, and camping opportunities to local residents and visitors. The dam and recreational facilities are located off of Millerton Road, the subject of this improvement project.

As indicated in Figure 5, the western edge of the transportation improvement project begins at the intersection of North Friant Road, Millerton Road, and Road 286. The

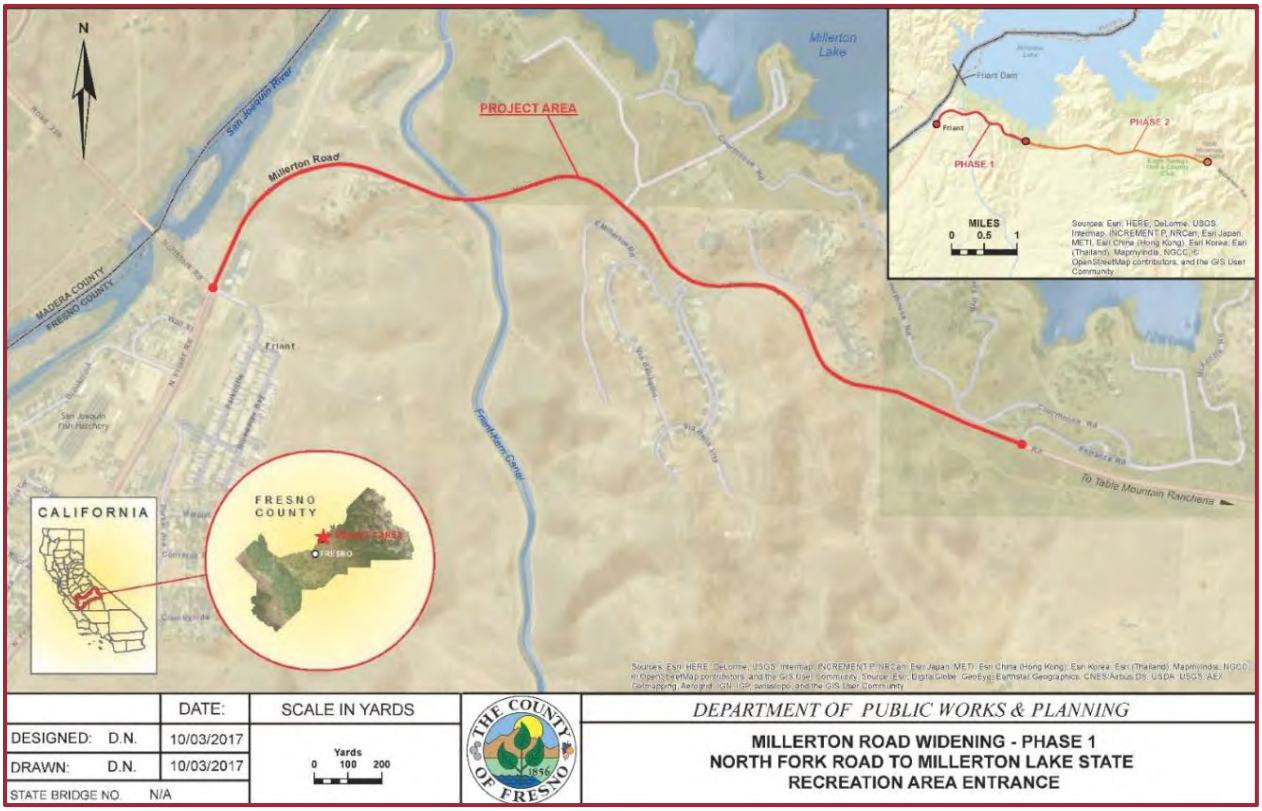

FIGURE 5: PROJECT LOCATION. AERIAL VIEW AND LOCATION, RELATIVE TO FRESNO COUNTY

eastern terminus of the project will be approximately one mile west of Auberry Road (which intersects with Millerton Road beyond the right edge of this map).

The improvement project continues down Millerton Road 4.7-miles, and will accommodate increased traffic flows between the existing Friant community, and the new mixed-use Millerton development, as shown in the center of Figure 5.

Several public road, private road, and driveway intersections, as well as pocketed left-turn lanes, will also be improved or added in the course of this project to accommodate the widening of the road and the median improvements. These intersections include the entrance to a CalFire Fire Station, Friant Dam Access Road, and Millerton Lake State Park. The road and intersection improvements made in the Millerton Road Widening Project will have the added benefit of providing improved emergency response to area wildfires and rural residents.

A new two-lane pre-stressed I-girder bridge will be located approximately thirteen (13) feet upstream of the existing bridge, spanning the Friant-Kern Canal, to accommodate westbound traffic. The existing Bridge will be retained and utilized for the eastbound lanes.

III. GRANT FUNDS, SOURCES AND USES OF PROJECT FUNDS

A. PROJECT COSTS

The total project cost, including environmental mitigation, right-of-way, utility relocation, and construction, is estimated to be approximately $27.6 million. Excluding the costs expended to date, the remaining cost is approximately $24.1 million.

Pursuant to the Millerton New Town Specific Plan, the development fees associated with the relevant, mixed-use development project, have been collected by the local County Service Area, and are being used to provide capital facilities. Development Fees are being collected for the construction of collector and arterial roadway service for the entire community.

B. NON-FEDERAL COMMITMENTS, FEDERAL SOURCES AND AMOUNT OF FUNDS

Project costs will be pieced together from various sources, including Table Mountain Rancheria, a federally recognized Native American Tribe with lands and a casino operation reliant on Millerton Road. Table Mountain Rancheria has consequently contributed $2.6 million toward the project for engineering and environmental studies and processes thus far and has committed an additional $0.9 million for future project costs.

Our proposal request is to fund the remaining cost required of the project, including a contingency for construction cost.

C. BUDGET

A more thorough engineer's estimate and funding/cost breakdown is included as an attachment.

D. FEDERAL FUNDING

This project has RSTP Funding in the amount of $46,900, which is being utilized to fund the completion of NEPA.

IV. MERIT CRITERIA

A. SAFETY

From January 2006 through December 2016, the 1.7 mile segment included in this phase has experienced no fewer than 101 collisions involving at least 138 vehicles, 103 injuries, and 7 fatalities. The rate of collisions per million vehicle miles (MVM) is approximately 1.08 (with 1.47 vehicles involved per MVM). The Injury and Fatality Rates per MVM are 1.10 and .07, respectively. Heavy traffic, on narrow lanes, is exacerbated in inclement weather. The additional travel lanes will

FIGURE 6: PICTURE OF TRAGIC TRAFFIC ACCIDENT ON MILLERTON ROAD

improve traffic flow and the view corridor for approaching traffic hazards. Improved road safety is vital to the rural community members who travel this corridor daily to reach jobs and services.

Given the types of anticipated accident reductions and the applied crash reduction factors, this project is expected to reduce the number of vehicles involved in collisions by 54.86%, injuries by 58.11%, and fatalities by 75.88%. It is estimated that the overall collision rate can be reduced by 54.33%.

Additionally, there is a CalFire station located on this segment of Millerton Road, and by improving the road and reducing congestion, it is expected that this fire station will be able to provide faster response time to regional wildfires, medical emergencies, rescue operations, and injury accidents. Much of this part of California is arid and regularly experiences prolonged periods of high heat, which combine to make the area particularly susceptible to wild fires. The Department is unable to estimate the potential resultant benefits or savings, but it is clear that quicker emergency responses can be the difference between a fire that destroys a few acres, or one that destroys a few thousand acres and hundreds of structures.

B. STATE OF GOOD REPAIR

Currently, Millerton Road is typified by two undivided traffic lanes, blind curves, and narrow shoulders, which often presents conflicts between vehicles, including unsafe passing and visual obstructions, and the inability for bicyclists to safely share the road alongside motor vehicles. Thought the pavement along this segment is generally in good condition, it is beginning to show signs of distress, including: edge, longitudinal and transverse, and alligator cracking.

If awarded, the grant-funded improvements will increase the road width to a four-lane divided arterial roadway with paved shoulders, which will include signed and striped bicycle lanes, and will increase visibility and safety for both vehicles and bicyclists. The Millerton Road Widening Project will extend the lifecycle of the improved road segment and reduce future maintenance costs. It is presently anticipated that maintenance costs may decrease by as much as 30% for the first twenty years following the project.

C. ECONOMIC COMPETITIVENESS

Millerton Road is the primary access route to Millerton Lake State Park, which is a popular recreation area that can attract thousands of visitors per day during the peak summer months. With over 40 miles of shore for water sports, this State park offers visitors swimming, fishing, and boating. The hills surrounding the lake provide good

hiking opportunities. Wildlife in the park includes ground squirrels, cottontails, mule deer, badgers and bald and golden eagles. During winter, the park has special boat tours to view the bald eagles.

The lake was created by construction of the Friant Dam across the San Joaquin River in 1944. The park contains the original Millerton County Courthouse, built in 1867. Visitors enjoy a variety of activities, both on and off the lake, including boating, swimming, fishing, and camping.

FIGURE 7: MILLERTON LAKE STATE PARK ENTRANCE

This recreational activity results in a considerable contribution to the local economy and rural businesses. The level of tourism greatly increases traffic flows and congestion, but the negative effects of this traffic influx will be lessened by the proposed road improvements. Additionally, the improved traffic conditions will improve the overall experience of our Millerton Lake State Park's visitors.

Millerton Road is the primary corridor that the Table Mountain Rancheria tribe members rely on to access their lands and governmental operation. It is used by more than 1,300 employees of Table Mountain Rancheria casino, thousands of patrons, and is integral to their economic success.

Based on 2017 traffic counts, the daily traffic for this stretch of Millerton Road averaged 11,600 users. It is predicted that these rates will substantially increase as the population and popularity of the area continues to grow, and as the Table Mountain Rancheria casino expands their facilities over the next few years.

FIGURE 8: FACILITIES AT TABLE MOUNTAIN RANCHERIA

Long-term travel time savings for rural community commuters and recreational travelers will help to ensure more vibrant economic opportunities, more fulfilling personal lives, and will improve the users' quality of life. The project will also maintain a lower traffic congestion rate as the area grows, which will provide additional future savings in road maintenance.

The calculated return on investment in regards to safety savings, which has been extrapolated from the per million vehicle

miles (MVM) rate calculated for the past ten years, and applied to the area's projected traffic growth, indicates a continued improvement in the economic competitiveness of the project. This analysis shows that the Millerton Road Widening project should lead to a net positive project investment before the expected lifetime of the project comes due. It is therefore economically viable, as well as a necessary public good for the growing rural community.

D. ENVIRONMENTAL PROTECTION

Implementation of the proposed project will result in numerous environmental benefits, as detailed below:

1. REDUCE ENERGY USE AND AIR POLLUTION THROUGH CONGESTION MITIGATION STRATEGIES.

As described in other sections of this grant application, the Proposed Project is needed to address poor traffic operations along Millerton Road, including congestion and excessive delays caused by unacceptable volume to capacity ratios along roadway segments, as well as intersections. Widening of Millerton Road and the associated traffic circulation benefits would improve fuel economy by allowing vehicles to maintain optimal traveling speeds, reducing vehicle idling times at area intersections and avoiding the potential for stop and go traffic. Improved fuel economy would reduce fossil fuel consumption and combustion, which would in turn reduce associated emissions of criteria air pollutants, hazardous air pollutants, and greenhouse gas emissions. This is of particular consequence in the San Joaquin Valley Air Basin, which is classified as extreme nonattainment for ozone (NOx and ROG, ozone precursors) and nonattainment for PM2.5 under the National Ambient Air Quality Standards (NAAQS).

2. AVOIDS ADVERSE ENVIRONMENTAL IMPACTS TO AIR OR WATER QUALITY, WETLANDS, AND ENDANGERED SPECIES.

The Proposed Project includes mitigation measures that are summarized below for the protection of air quality, water quality, wetlands, and endangered species, and are specified in more detail in the MMRP. These measures would aid in the avoidance of adverse environmental impacts as a result of the Proposed Project.

(A) AIR QUALITY

The Proposed Project would protect air quality in the region through the implementation of applicable SJVAPCD measures for particulate matter (PM), nitrogen oxides (NOx), reactive organic gases (ROG), or other construction emissions. Soil stabilization measures will ensure that disturbed areas during construction do not increase dust emissions.

(B) WATER QUALITY

The project will comply with the National Pollutant Discharge Elimination System (NPDES) General Permit, including Storm Water Pollution Prevention Plan (SWPPP) measures that will protect the water quality of nearby wetlands and waterways. These measures will control sediment from construction activities, ensure proper storage and cleanup of hazardous materials, reduce erosion, and revegetate disturbed areas (which will decrease the erosion potential of the soil). In addition to compliance with the NPDES General Permit, seeding and mulching of all slopes during construction will prevent erosion, which will protect the water quality of nearby waterways.

(C) WETLANDS

Wetland mitigation within the Mitigation Monitoring and Reporting Program (MMRP) and Section 404 Clean Water Act (CWA) Nationwide Permit authorization from the United States Army Corps of Engineers (USACE) includes purchasing wetland creation credits through the in-lieu fee program. This program will involve the restoration, establishment, enhancement, and/or preservation of aquatic resources based on a thorough evaluation of appropriate locations and mitigation types to sustain and enhance a particular watershed. The wetlands and Waters of the U.S. to be affected by the Proposed Project are located in close proximity to the existing roadway, which reduces the quality of the existing wetland habitat. Participation in the in-lieu fee program will provide a greater environmental benefit by preserving or creating high quality aquatic resources that enhance the watershed and provide better habitat for species that utilize wetland features.

(A) ENDANGERED SPECIES

The Proposed Project will protect endangered species by complying with the Biological Opinion with an incidental take statement issued by the U.S. Fish and Wildlife Service for impacts to California Tiger salamander (CTS), Vernal Pool Fairy Shrimp (VPFS), and

Vernal Pool Tadpole Shrimp (VPTS). Approximately 26.14 acres of CTS habitat would be affected as a result of the Proposed Project, which will be offset by the purchase of 79.11 acres of preservation credits. The CTS habitat that would be affected is located in close proximity to the roadway, which diminishes the quality of existing CTS habitat; therefore, the protection of off-site habitat through this mitigation measure will improve the overall quality of habitat available to CTS. Additionally, the preservation credits that would be purchased for the impacted CTS habitat at a 3:1 ratio, resulting in preservation of a larger area than would be impacted, and a net environmental benefit. The Proposed Project will also implement measures to protect burrowing owls, Swainson's hawk, birds of prey, migratory birds, San Joaquin kit fox, and special status plants, as necessary.

3. PROVIDES ENVIRONMENTAL BENEFITS, INCLUDING WETLANDS CREATION, IMPROVED HABITAT CONNECTIVITY, AND STORMWATER MITIGATION.

As described above, the wetlands and Waters of the U.S. that would be affected by the Proposed Project are located in close proximity to an existing roadway, which exposes the wetlands to noise, dust, and air pollution from traffic on the roadway. The created and preserved wetlands through participation in the USACE's in-lieu fee program and purchase of habitat credits in compliance with the MMRP would be of higher quality, resulting in a net environmental benefit.

Improvements to the stormwater infrastructure within and adjacent to the roadway, including the replacement of culverts and roadside ditches, would increase the effectiveness of these features by bringing them into compliance with recent laws and standards for stormwater infrastructure and water quality protection. The new drainage facilities will result in improvements in the quality of stormwater run-off through the use of best management practices (BMPs) to prevent erosion and application of filtration devices. Additionally, the culvert sizing would increase in most locations, with a minimum diameter of 18 inches for all culverts (the largest proposed culvert is 36 inches in diameter). This would provide better habitat and connectivity across and along Millerton Road, allowing for improved wildlife migration and mobility for certain species.

E. QUALITY OF LIFE

The residents of the unincorporated foothill communities of Prather and Auberry, respectively located approximately 13 and 17 miles from the Millerton/North Fork Road intersection, frequently rely on the relative convenience that Millerton Road provides them to get to Madera County or to north and central Fresno. It lies along the most direct route to Madera, and the only alternate route available to north and central

Fresno will take them on a winding route through the foothills and the City of Clovis, which will take longer to reach a north Fresno destination.

Several housing and commercial developments are currently in various stages of planning and construction along Millerton Road. Increased connectivity and accessibility – along with the other developments, currently underway, will increase commercial opportunities and economic prospects, not only to new development, but also to the many rural communities served by Millerton Road.

FIGURE 9 VENTANA HILLS SUBDIVISION

The improvements which will be constructed as a part of this project will better tie the rural Fresno County foothill area to the Fresno/Clovis metropolitan area. By supporting regional development and economic growth, property values can be improved and the related construction and service industries will be buoyed. Additionally, it is expected that the residual impacts and job creation caused by such investment will be positively felt throughout the region.

The County suffers from socioeconomic strain, with chronically high unemployment (10%+) and poverty (20%+) rates, which are regularly over 50% higher than their respective national averages. Infusions of liquidity into major projects will help to bolster the regional economy, providing greater economic opportunity and a more favorable economic climate.

F. INNOVATION & PARTNERSHIP

Although the project does not encompass innovative safety approaches or technology, the County has partnered with Table Mountain Rancheria for the financing of the project, which is a notable and extremely effective partnership.

Table Mountain Rancheria has already contributed approximately $2.6 million toward the project for engineering, environmental studies, and the California Environmental Quality Act (CEQA) process. Table Mountain Rancheria is also completing the National Environmental Policy Act (NEPA) analysis, with the

FIGURE 10 TABLE MOUNTAIN CASINO

Bureau of Reclamation acting as lead agency. Additionally, Table Mountain Rancheria has $0.9 million allocated toward future construction costs.

V. PROJECT READINESS

All technical studies have been prepared in accordance with Federal and State requirements.

A. TECHNICAL FEASIBILITY

Table Mountain Rancheria has paid for the development of plans and specifications for the overall widening of Millerton between North Fork Road and Table Mountain Road. These plans and specifications can be updated and revised to ensure up-to-date regulatory compliance and to bring the project to construction.

B. PROJECT SCHEDULE

The County of Fresno and Table Mountain Rancheria have been working toward a shovel ready project since 2008, and it is anticipated that construction can be completed by the end of 2024 if grant funding can be obtained. Table Mountain Rancheria funded the design and preparation of environmental studies while the County of Fresno has pursued construction funding for the project.

All technical reports were prepared to Federal and State standards. With no Federal sponsor, U.S. Army Corps of Engineers (USACOE) was the Federal Lead Agency for the Endangered Species Act, Section 7 Consultation and National Historic Preservation Act, Section 106 Consultation triggered by the Nationwide Permit No. 14 Notification. The U.S. Bureau of Reclamation (BOR) prepared an Environmental Assessment / Finding of No Significant Impact for approximately 9.48 acres of BOR easements necessary to construct the project, however could not be the NEPA Lead Agency for impacts outside BOR jurisdiction.

A detailed schedule is included with the attachments.

C. REQUIRED APPROVALS

1. ENVIRONMENTAL PERMITS AND REVIEWS

(A) NEPA AND DOT CONSULTATION

Caltrans District 6, Local Assistance will approve and release for public comment the County of Fresno prepared Environmental Assessment. The Caltrans District 6 Director will sign the Findings of No Significant Impact (FONSI), which is the anticipated determination.

(B) OTHER AGENCY APPROVALS

U.S. Army Corps of Engineers must re-verify / extend the Nationwide Permit No. 14 verification issued on December 5, 2014.

(C) PROJECT IMPACTS AND POSSIBLE MITIGATION

The project requires mitigation and minimization and avoidance measures in the following areas:

- Aesthetics: Cut and fill slopes should look natural and be constructed to facilitate planting, erosion control, and ease of maintenance.
- Air Quality: Implement applicable San Joaquin Valley Air Pollution Control District measures for particulate matter, nitrogen oxides, reactive organic gases and other construction emissions.
- Biological Resources: Comply with Biological Opinion with incidental take statement issued by the U.S. Fish and Wildlife Service for impacts to California Tiger salamander, Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp.
- Implement measures to protect burrowing owls, Swainson's hawk, birds of prey, migratory birds, San Joaquin kit fox, and special status plants, as necessary.
- Cultural Resources: Implement standard measures to address inadvertent discovery of cultural materials or human remains.
- Greenhouse Gas Emissions: Implement California Air Pollution Control Officers Association measures to reduce greenhouse gas emissions.
- Hazards and Hazardous Materials: Construction equipment should be equipped with a spark arrestor in good working order. Staging or construction areas

FIGURE 11 SWAINSON'S HAWK

should be cleared of materials that could serve as fuel for combustion when using spark-producing equipment.

- Hydrology and Water Quality: The project shall comply with the NPDES General Permit.
- Noise: Construction activities shall be limited to occur only between the hours of 6:00 am to 9:00 pm Monday through Friday, and between the hours of 7:00 am to 5:00 pm on Saturday and Sunday

FIGURE 12 CALIFORNIA TIGER SALAMANDER

To review the adopted measures in their entirety, see the CEQA Mitigation and Monitoring and Reporting Plan (also referenced in BOR's FONSI) located with the project's attachments.

(D) DISCUSSIONS WITH DOT

In October 2016, Caltrans District 6, Local Assistance conducted a preliminary review of all environmental technical reports and agency approvals and provided a tentative scope of work to complete NEPA for the entire project (BOR's EA / FONSI only addressed impacts related to approximately 9.48 acres of BOR easements needed to construct the project).

(E) PUBLIC ENGAGEMENT

A public hearing will be held during the public comment period for the Environmental Assessment.

2. STATE AND LOCAL APPROVALS

The following approvals will be required to be obtained:

- The California Department of Fish and Wildlife must issue a California Endangered Species Act, Incidental Take Permit for impacts to endangered species.

- A Clean Water Act, Section 401 Water Quality Certification is required from the Regional Water Quality Control Board.

3. Federal Transportation Requirements

This project has been included in the Fresno Council of Government's 2014 Regional Transportation Plan, and has been designed to meet all federal guidelines.

Figure 13 Endangered San Joaquin Valley Kit Fox

D. ASSESSMENT OF PROJECT RISKS AND MITIGATION STRATEGIES

The proposed mitigation measures were adopted during the CEQA and BOR's NEPA review. Substantial modification is not anticipated to result from the Caltrans NEPA review.

Preliminary Engineering funds are programmed in Fresno Council of Governments, Federal Transportation Improvement Program, which allows the County to initiate Caltrans' NEPA review. Caltrans conducted a preliminary review of the environmental technical reports and Regulatory Agency approvals, and provided a tentative scope of work to complete NEPA. The following environmental milestones are complete:

- NEPA: Final Environmental Assessment / Finding of No Significant Impact issued by Bureau of Reclamation on May 16, 2017, for approximately 9.48 acres of BOR easements
- National Historic Preservation Act, Section 106: State Historic Preservation Officer issued concurrence letter on November 16, 2015 (USACOE, Lead Agency)
- Clean Water Act, Nationwide Permit: Nationwide Permit No. 14 verification letter issued by USACOE on December 5, 2014
- CEQA: Notice of Determination (Mitigated Negative Declaration) filed with the Fresno County Clerk on December 13, 2013. Notice of Completion filed with State Clearinghouse on October 28, 2013 (SCH# 2013101092).
- Federal Endangered Species Act, Section 7 Consultation: Biological Opinion with an incidental take statement was issued by U.S. Fish and Wildlife Service on October 22, 2013 (USACOE, Lead Agency)

The following environmental milestones remain:

FIGURE 14 MILLERTON ROAD AT FRIANT KERN CANAL

- Issue Request for Proposal (RFP) for Environmental Consultant
- Prepare:
    - Noise Study Report
    - Air Quality Conformity Analysis
    - Water Quality Assessment Report
    - Location Hydraulic Study
    - Summary Floodplain Evaluation Report
    - Section 4(f) Report (de minimis anticipated)
    - Community Impact Assessment
    - Natural Environment Study
    - Visual Assessment (Update to Caltrans standards)
    - Biological Assessment (Update if new species listed)
- Update Environmental Assessment using Caltrans template.
- Caltrans to conduct NEPA review (FONSI anticipated)
- Obtain Incidental Take Permit (ITP) from California Department of Fish and Wildlife
- Extend existing USACOE Nationwide Permit verification
- Obtain Section 401 Water Quality Certification from RWQCB
- Purchase compensatory mitigation and implement avoidance and minimization measures prior to construction.

VI. BENEFIT COST ANALYSIS, RESULTS AND METHODOLOGY

The traffic impact studies from developments and rural communities identified as being reliant on Millerton Road indicate that the cumulative impact on Millerton Road could more than double the 2017 average daily traffic rate, when fully built out. For purposes of the Safety and Social/Time Savings portions of the analysis, a relatively conservative traffic escalation factor of 3% per year was applied to project traffic rates. This analysis

provided a traffic escalation of approximately 120% between the 2017 traffic counts and 2044 (approximately 20 years after project completion). As a result of using such a modest rate, and because future (additional) traffic congestion moderation was not accounted, the benefit-cost analysis does not represent the greatest potential benefits rate, but a moderate possibility.

FIGURE 15 MILLERTON ROAD ACCIDENT

The Safety portion was the most complex part of this Benefit-Cost Analysis. Collisions along the segment first had to be ascertained, which required isolating those collisions inside of the project area, and tabulating the number of accidents, injuries, and fatalities per year. The number of vehicles involved in multi-vehicle collisions is not data regularly identified by the Department, so all multi-vehicle collisions were calculated as involving two vehicles, for a minimum number of vehicles involved in collisions.

The data was separated into the collision-type categories and subcategories, and the Federal Highway Administration's (FHWA) "Desktop Reference for Crash Reduction Factors, September 2008, FHWA-SA-08-011" was used to find best estimate crash reduction factors for each category/subcategory. Some collision-types were not reduced, such as those of unknown cause, or those caused by drivers who were under the influence, as these types of accidents are either not readily preventable (or accountable) by transportation improvements, or will not be significantly impacted by the improvements. Where multiple factors were applied, they were factored together to demonstrate the combination of countermeasures.

The applied Crash Reduction Factors calculated the potential preventable rates, which were added together and refactored to get combined collision reduction factors. These rates were applied to future collisions, which were scaled by the future traffic rate and the calculated rates of accidents, injuries, and fatalities per million vehicle miles (MVM).

The resultant statistical value of safety benefits was calculated using the Benefit-Cost Analysis Guidance for Discretionary Grant Programs resource guide's given Value of Statistical Life, Value of Injuries, and Value of Property Damage. Because the Department's data does not include the severity of injuries, the value of injuries was calculated using the Abbreviated Injury Scale data conversion matrix included therein, which provided an average statistical value of injuries.

Accident Factors					Preventable			
Applied Crash Reduction Factors [a]	CRFs			Applied	Overall	Vehicles	Injuries	Fatalities
	1	2	3		*27.25*	*30.92*	*22.54*	*3.91*
Install Turn Lanes (33); Increase Lanes, Run Off Road (61); Widen Shoulder, Paved, 0-6Ft (69)	44%	60%	12%	80.29%	16.06	16.86	8.83	3.21
Install Turn Lanes (33); Increase Lanes, All (61); Widen Shoulder, Paved, 0-6Ft (69)	42%		12%	48.96%	1.47	2.94	0.98	0.00
Install Raised Median (32); Install Turn Lanes (33)	42%		12%	48.96%	8.32	8.32	7.83	0.00
Install Raised Median (32); Install Turn Lanes (33)	38%	45%	12%	69.99%	1.40	2.80	4.90	0.70
					22.06	*32.62*	*26.68*	*0.00*
Install Turn Lanes (33); Increase Lanes, Run Off Road (61); Widen Shoulder, Paved, 0-6Ft (69)	44%	60%	12%	80.29%	5.62	5.62	5.62	0.00
Install Turn Lanes (33); Increase Lanes, All (61); Widen Shoulder, Paved, 0-6Ft (69)	42%		12%	48.96%	5.88	11.75	3.92	0.00
Install Raised Median (32); Install Turn Lanes (33)	42%		12%	48.96%	6.36	6.85	7.34	0.00
Install Raised Median (32); Install Turn Lanes (33)	38%	45%	12%	69.99%	4.20	8.40	9.80	0.00
Increase Lanes, All (61)	35%	28%	12%	58.82%	1.18	2.35	1.18	0.00
Increase Lanes, Head On & Run Off Road (61); Install Raised Median (73)	38%	45%	12%	69.99%	4.90	9.80	11.90	1.40
Increase Lanes, Run Off Road (61); Widen Shoulder, Paved, 0-6 Ft (69)	35%	28%	12%	55.07%	2.20	4.41	2.20	0.00
None. Accidents are either not readily preventable by transportation improvements or project improvements will not significantly impact.								
					57.59	**80.10**	**64.50**	**5.31**
[a] 2008 (Page Number in Parenthesis)	Overall Crash Reduction Factors				**54.33%**	**54.86%**	**58.11%**	**75.88%**

FIGURE 16 ACCIDENT FACTORS

The Social/Time Savings portion assumed the $13.60/hour recommended for all-purpose local travel in the BUILD BCA Guidance. Major factors include: a 5 minute delay per vehicle, per day for the construction phase; and no calculated savings after construction. It is anticipated that the reduction in future congestion will lead to limited time savings, however, those were not calculated and are not included in the BCA.

The additional maintenance costs shown in the Benefit-Cost Summary represent a 40% increase per mile, when compared to the average annual maintenance expenditure per mile of road in Fresno County. It is presently anticipated that maintenance costs may actually decrease by as much as 30% for the first twenty years following the project, as the newly reconstructed road should require less immediate attention.

The Benefit-Cost Summary sheet compiles this information into monetized terms, combines it, then provides an annual summary for undiscounted and 7% discounted benefits. The cumulative/scaled benefits and costs are also shown on an annualized basis. According to our calculations, the entire project should become net-positive within eight years (post-construction) using the 7% discount rate.

Several spreadsheets have been included with the attachments for this package, detailing the underlying project benefit-cost analysis, and demonstrating the methodology.

A. COST SHARE

1. Non-Federal Share

Project costs will be pieced together from various sources, including Table Mountain Rancheria. Table Mountain Rancheria is a federally recognized Native American Tribe with lands reliant upon Millerton Road. They have contributed $2.6 million toward the project for engineering and environmental studies and processes. Table Mountain Rancheria has committed an additional $0.9 million for future project costs.

2. Fiscal Constraints

There are insufficient funds to construct this project without selection for a grant. The County's road funding resources are limited by other projects that have obtained higher tier approval ratings from regional bodies. This project will remain shelf-ready until adequate funding can be obtained to proceed with construction. Until then, the County will have to continue to shoulder the financial burden of the continued safety and maintenance costs inherent in an insufficient roadway.

3. Full Life-cycle Costs

The costs of operations and maintenance will be borne by the County, and are expected to be approximately $8,000 to $10,000 per mile for the entirety of the road's lifecycle. This maintenance budget is approximately $4,000 more per mile than what the current infrastructure would require, and this difference is due to a larger surface area, from a wider road and paved shoulders.

4. Federal Wage Rate Certification

A wage rate certification is included with the attachments.

VII. APPLICATION PACKAGE

SF-424

Project Narrative

Attachments

- Federal Wage Rate Certification (Included on Grants.gov)
- Located on the County's Website (link):
    - Funding and Costs Spreadsheet
    - Detailed Schedule Spreadsheet
    - U.S. Fish and Wildlife Biological Opinion
    - U.S. Army Corps of Engineers Nationwide Permit Verification
    - Bureau of Reclamation Finding of No Significant Impacts
    - State Historic Preservation Office Letter of Concurrence
    - State Clearinghouse Compliance Letter
    - Mitigated Negative Declaration and Notice of Determination
    - Mitigation and Monitoring and Reporting Plan
    - Benefit-Cost Analysis Spreadsheets
    - Collision History
    - Letters of Support