**CALIFORNIA ENVIRONMENTAL QUALITY ACT**

**DRAFT**

# INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

FOR THE

## TEN-MILE CREEK PEDESTRIAN BRIDGE COUNTY ROAD NO. 429 (CR 429)

Federal Project Number: RPSTPLE 5910(089)
EA 01-1200-0167

PREPARED FOR:

**LEAD AGENCY**
**COUNTY OF MENDOCINO**
**DEPARTMENT OF TRANSPORTATION**
Mendocino County
340 Lake Mendocino Drive
Ukiah, CA 95482

PREPARED BY:

RAU AND ASSOCIATES, INC.
CIVIL ENGINEERS • LAND SURVEYORS
100 NORTH PINE STREET - (707) 462-6536 - UKIAH, CA 95482

November, 2014

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## PROJECT INFORMATION

### 1. Project Title:

Ten-Mile Creek Pedestrian Bridge at Branscomb Road, Laytonville, CA
Federal Project Number: RPSTPLE 5910(089), EA 01-1200-0167

### 2. Lead Agency Name and Address:

Mendocino County Department of Transportation
340 Lake Mendocino Drive
Ukiah, CA 95482

### 3. Contact Person and Phone Number:

Mr. Jackson Ford, Environmental Compliance Specialist,
(707) 463-4622, *fordj@co.mendocino.ca.us*

### 4. Project Location:

The existing bridge at Ten-Mile Creek is approximately 0.5 miles west of State Highway 101 in the town of Laytonville, on County Road 429 (CR 429) also referred to as Branscomb Road. Branscomb Road runs east-west in the area of the project, and 25.41 miles to the west it connects to State Highway 1. The site of the proposed project is located just east of where Branscomb Road sweeps to the south and Bauer Road (CR 319H) continues to the west. The bridge lies approximately 0.1 mile west of the west entrance to Laytonville High School. The existing vehicular bridge is further identified as Bridge Number 10C0101 and is located at the following approximate coordinates: Latitude 39º41'16", Longitude 123º29'31". The project lies within a 40 ft to 60 ft. wide Right of Way, in Section 12 of Township 21 North, Range 15 West, M.D.B.&M.; Laytonville 7.5 minute USGS quadrangle. Section 2 of this report includes a Project Location Map.

### 5. Project Sponsor's Name and Phone Number:

This project will be implemented by the Department of Transportation of Mendocino County (707) 463-4363. The Department will make use of Locally Administered 2012 State Transportation Improvement Program (STIP) Transportation Enhancement (TE) Off State Highway System funding, and from the County's Road Fund if required.

### 6. General Plan Designation:

The General Plan designation for parcels on the north side of Branscomb Road in the project area is RR10 (Rural Residential, 10 acres minimum) with parcels ranging from 0.5 acres to 32 acres, but generally 3 acres or less.

On the south side of the road, land is designated RR1 (Rural Residential, 1 acre minimum) with parcels ranging from 1 acre to 32 acres, and generally 5 acres or less. No work is planned on the south side of Branscomb Road.

## 7. Zoning:

Some of the work required will be performed within existing County right-of-way. The zoning designation of lands adjacent to the project where work is also planned is Rural Residential (RR), Combining Zoning Floodplain (FP).

## 8. Description of Project:

Mendocino County proposes to install a 120-ft long prefabricated 8-ft nominal width weathering steel truss style pedestrian bridge with a concrete walking surface. The new bridge will replace the function of a 3-ft wide cantilevered wood and steel walkway that was attached to the north side of the bridge to provide safer passage for pedestrians, off the travelled way. The existing walkway and, ultimately, the proposed walkway are important safety features for the local community. The pedestrian bridge provides a safer path for school traffic, as well as for the traffic to the local business that is also on the north side of Branscomb Road.

The new bridge will have minimum 54-in tall handrails, and will be designed to be ADA-accessible. It will be designed to clear span the channel bottom of Ten Mile Creek and will be aligned parallel to the existing vehicle bridge at a similar 30° skew. It will be installed approximately 29 ft centerline-to-centerline downstream (north) of the existing bridge. The final alignment will be established such that a replacement vehicular bridge of 22 ft half-width can later be constructed. The new bridge will be anchored at each end on concrete foundations constructed over steel support piles.

The existing bridge at Ten Mile Creek near Laytonville was constructed in 1952. Branscomb Road, categorized as a Major Collector, provides a coastal connection between State Highway 1 north of Westport and State Highway 101 at Laytonville. The existing reinforced concrete bridge with asphalt paved deck reaches an overall length of 115 ft and is comprised of three spans. Four bents comprised of 4-6 piles each support the 24-ft wide (22-ft curb-to-curb) structure. The inside dimension between Bent 1 and Bent 4 is approximately 110 ft. The vehicular bridge structure has a Sufficiency Rating (SR) of 58.6 (2010 inspection) as reported in the National Bridge Inventory Data[1] but it is deemed functionally obsolete. It is too narrow to meet the minimum AASHTO guidelines for width, and cannot safely accommodate non-vehicular traffic.

The work of the project includes mobilization; clearing and grubbing, and removal of vegetation to clear the way for construction including removal of eight trees including one large alder mid channel and seven other bay, buckeye, ash and willow trees; installing steel h-piles or pipe piles with vibratory pile driving equipment at each end of the bridge and as required to support the approach structures; constructing cast-in-place reinforced concrete pile cap abutments and asphalt paved or concrete approach walkways; assembly of the truss style bridge and erection of the bridge onto the constructed footings; mitigation for the eventual decay of the root mass of the in channel alder may be required for which specific measures are currently being negotiated with California Department of Fish and Wildlife, National Marine Fisheries Service, and Caltrans Local Assistance; removal of invasive species, planting replacement trees as mitigation for the removal of eight trees, and temporary and permanent erosion control measures; and cleanup and demobilization from the job site. All of the work is planned to avoid or minimize impact to the channel, and its wildlife and plant populations to the extent possible. Removal of invasive species – Himalayan blackberry and vinca – is proposed as an enhancement to improve the biological setting at the project site.

[1] *FHWA: National Bridge Inventory Data – IRR Branscomb Road over Ten Mile Creek, Bridge 10C0101, 2012.*

Additional right-of-way will be required to include the new bridge structure.

The existing walkway will be left in place for use as long as feasible while the new pedestrian bridge is constructed. A small shed located near the northwest end of the existing bridge is situated in the area of the planned west footing for the new pedestrian bridge. The shed will require relocation or demolition to allow for the construction of the pedestrian bridge.

During construction of the new bridge, it will be necessary at critical times to block vehicular traffic or to reduce it to one-lane to allow construction equipment to manuever materials into place. No alternative route is available.

Section 2 includes a figure depicting the Project Layout.

**9. Surrounding Land Uses and Setting:**

Residential/Commercial/School

**10. Other Public Agencies Whose Approval is Required:**

US Army Corps of Engineers

- Clean Water Act Section 404 Nationwide Permit for 14 (for Linear Transportation crossing projects) for discharges to jurisdictional waters of the United States.
- Jurisdictional Delineation of Waters of the US including Wetlands

US Fish and Wildlife/NOAA/National Marine Fisheries Service

- Under Section 7 consultation, agencies will review impacts to and protections for salmonids and other listed species under the Endangered Species Act.

California Regional Water Quality Control Board, North Coast Region

- Project review, input and approval for 401 Water Quality Certification for in-stream work subject to the Clean Water Act.

California Department of Fish and Wildlife

- 1600 Streambed and Lake Alteration Agreement for portions of project implementation within CDFW jurisdiction.

California Department of Transportation

- NEPA Clearance

Mendocino County Board of Supervisors

- Adoption of Resolution supporting a Mitigated Negative Declaration pursuant to CEQA requirements for the project.
- Approval of project work to be put out to bid for materials or construction.

Mendocino County Department of Transportation

- Supporting Determination of Mitigated Negative Declaration
- Encroachment Permit

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**PROJECT INFORMATION**

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# 1. INTRODUCTION

## *1.1 Introduction and Guidelines*

This Initial Study (IS) summarizes the technical studies prepared for the proposed Branscomb Road Pedestrian Bridge at Ten Mile Creek in Laytonville, CA (Project). It provides an evaluation of the potential environmental impacts, and justification for a Mitigated Negative Declaration (MND) for the proposed Project.

This document has been prepared according to the current California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq., and the State CEQA Guidelines. Environmental protection measures and Compensatory Mitigation measures have been proposed to avoid or minimize any significant impacts that were identified in the studies referenced herein.

## *1.2 Lead Agency*

The proposed Project is being funded by a combination of Locally Administered 2012 State Transportation Improvement Program (STIP) Transportation Enhancement (TE) Off-State Highway System funding, supplemented from the County's Road Fund if required for this proposed Project.

Mendocino County Department of Transportation (MCDOT) is the local lead agency for CEQA the Project. MCDOT engaged Rau and Associates, Inc. to prepare this IS to evaluate the significance of potential impacts resulting from this Project.

FHWA has designated Caltrans to act as the National Environmental Policy Act (NEPA) Lead Agency on its behalf. NEPA approval is anticipated to be in the form of a Categorical Exclusion supported by technical studies.

## *1.3 Technical Studies Supporting this Initial Study*

The following studies were performed to conform to NEPA and CEQA requirements and are incorporated to this Initial Study by reference. A list of report preparers is included in Section 5.1 near the end of this report.

- *Natural Environment Study (NES)*
- *Noise Technical Memo*
- *Agriculture and Forest Resources Technical Memo*
- *Geotechnical Report*
- *Flood Assessment Study (FAS)*
- *Habitat Assessment and Botanical Survey (HA&BS)*
- *Preliminary Jurisdiction Delineation of Waters of the US including Wetlands (PJDWUS)*
- *Riparian Restoration and Wetland Mitigation Monitoring Plan (RRWMMP)*
- *Biological Assessment (BS)*

*The following studies are confidential and only available to qualified readers.*

- *Archeological Survey Report (ASR)*
- *Historical Properties Survey Report (HPSR)*
- *Historical (HRER)*
- *Environmentally Sensitive Area (ESA) Action Plan*

Based on the results of the above mentioned studies, as summarized in this Initial Study, the County has determined that the Project would have less than significant impacts on the environment with the incorporation of mitigation measures. The County may approve the Project with the certification of a Mitigated Negative Declaration (MND).

## *1.4 Report Organization*

The remainder of this Initial Study is composed of the following sections:

2. **Project Description:** Provides the location, purpose, and objectives of the Project, a description of existing facility conditions and project alternatives considered, and outlines the design and construction of the project improvements.
3. **Initial Study Checklist and Supporting Documents:** Includes an introduction to the Initial Study Checklist, a Table of the Impacts and Mitigation Measures, and a Table listing proposed Mitigation Measures.
4. **Determination:** Provides the environmental determination for the proposed Project.
5. **Report Preparation and References:** Lists those responsible for the preparation of or contribution to this document, and includes a list of references used to prepare this document.

# 2. PROJECT DESCRIPTION

## *2.1 Location*

The Project is located in the area of Laytonville, CA, Mendocino County, California. It is situated along County Road 429 (CR 429), also referred to as Branscomb Road, at the site of the existing vehicular bridge that crosses Ten Mile Creek. **Figure 1 - Project Location Map** follows on the next page of this report. The site is approximately 0.5 miles west of State Highway 101 in the town of Laytonville, on Branscomb Road, at Mile Post 25.41. Branscomb Road runs east-west in the area of the Project. The site of the Project is located just east of where Branscomb Road sweeps to the south and Bauer Road (CR 319H) continues to the west. The bridge lies approximately 0.1 mile west of the west entrance to Laytonville High School.

The existing vehicular bridge is further identified as Bridge Number 10C0101 and is located at the following approximate coordinates: Latitude 39º41'16", Longitude 123º29'31". The bridge lies within a 40-ft. wide Right of Way, in Section 12 of Township 21 North, Range 15 West, M.D.B.&M.; Laytonville 7.5 minute USGS quadrangle.

The Project is located at the west side of Long Valley, nestled against the coastal mountain range, in the Laytonville Hydrologic Sub-area (Hydrologic unit code 111133)[1] of the Eel River hydrologic unit.

The California Department of Water Agencies uses a standard nested watershed delineation scheme using the State Water Resources Control Board numbering scheme. The hierarchy of watershed designations consists of six levels of increasing specificity in the USGS system: Hydrologic Region (HR), Hydrologic Unit (HU), Hydrologic Area (HA), Hydrologic Sub-Area (HSA), Super Planning Watershed (SPWS), and Planning Watershed (PWS). The primary purpose of the USGS database (Calwater 2.2) is the assignment of a single, unique code to a specific watershed polygon.

However this is different than that used by some other agencies. The USGS-Water Resources which delineates watersheds in a nationwide system refers to the South Fork Eel River as Hydrologic unit code 18010106[2].

## *2.2 Project Purpose and Objectives*

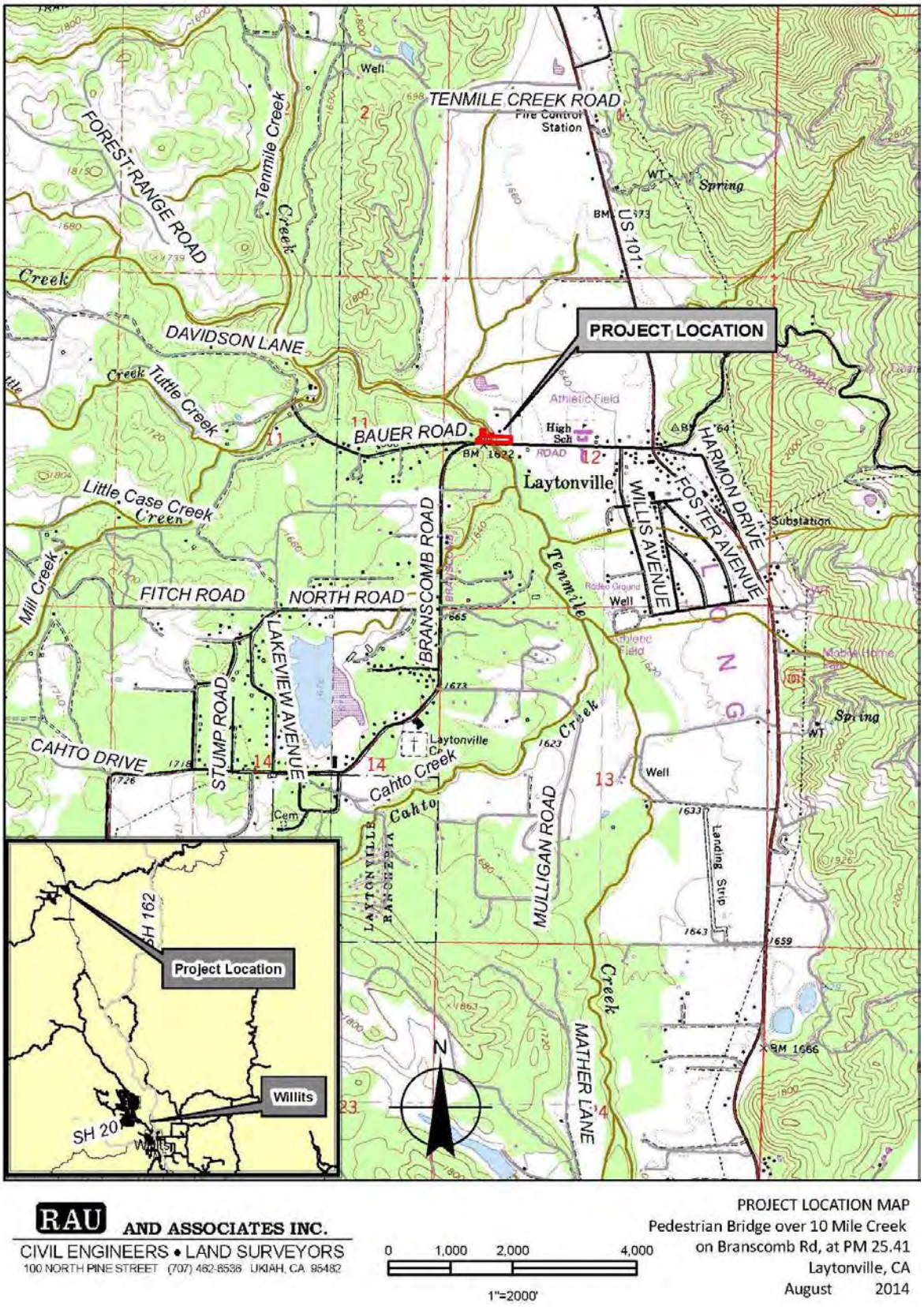
The purpose of the Project is to improve safety for pedestrian traffic by constructing a new pedestrian bridge to replace the existing 3-ft wide walkway. The proposed bridge will provide an alternate route for pedestrians, and provide a physical separation from the vehicular travelled way.

The pedestrian bridge will be installed 29 ft north of the highway bridge from centerline-to-centerline thus allowing clearance for widening of the existing bridge to 22 ft half width at some time in the future. The bridge will be constructed to comply with the County Standard to pass a 100-year flood flow with 1 ft of freeboard. It will be constructed with 54-in handrails and its approaches will be ADA-accessible.

The bridge will be designed to clear span the channel bottom of Ten Mile Creek to minimize impacts, and will be aligned parallel to the existing vehicle bridge, and fabricated and installed at a similar 30° skew to best handle stream hydraulics.

[1] US EPA: *http://water.epa.gov/polwaste/npdes/pesticides/upload/pgp_california_waters.pdf,* accessed Sep 2009
[2] Department of Conservation: *http://www.consrv.ca.gov/dlrp/wp/Documents/Appendix%20A%20-%20Watershed%20Coordinator%20Map.pdf,* accessed Sep 2014

**Figure 1 – Project Location Map**



## *2.3 Project Alternatives Considered*

Prior to proceeding with requesting grant funding MCDOT considered the following alternatives and concerns before determining that installing a standalone prefabricated pedestrian bridge was the preferred alternative that was the basis of their grant application.

- **No Project**: A "no project" alternative is not practical. The existing vehicle bridge does not provide reasonable safe passage for pedestrians due to its width. The existing 3-ft wide walkway requires ongoing maintenance and in time will require replacement.
- **Widen Existing Bridge**: Widening or replacing the existing bridge would be cost prohibitive. Sources of funding are not available to replace the highway bridge; its priority for program funding is too low to be eligible.
- **Multiple-span Bridge:** A multi-span bridge with footings in the channel was eliminated from consideration due to its potential for increased environmental impacts from pile supports within the creek channel, the designation of Ten Mile Creek as Critical Habitat for three threatened or endangered fish species.
- **Bridge Spanning Floodway:** Installing a longer bridge such that it would fully span the regulatory floodway is not feasible; the floodway extends over 170 ft to the east of the east end of the proposed bridge. This alternative would be cost prohibitive, would have equal or greater impacts within the project area, and would require equal or more compensatory mitigations be implemented.
- **Bridge South of Existing Bridge:** Placing the bridge on the south side of the existing bridge was determined not be feasible due to higher base flood elevations.
- There is a reasonable assumption of the presence of one or more sensitive fish species during construction, making in channel work more impractical.
- The resulting impacts from another style of bridge that could cause a rise in the Base Flood Elevation in this travel corridor that already floods would be infeasible to avoid.

The proposed Project described herein was chosen for the following reasons.

+ A long span truss-style prefabricated bridge was chosen due to its lesser impact to biological and botanical resources.
+ Weathering steel was chosen for the truss construction due to its long term reduction in maintenance expense.
+ The 8-ft width of the proposed bridge is more appropriate for a pedestrian route that should accommodate more than one individual on foot, a bicyclist, or an equestrian safely.
+ The proposed north alignment is more suitable providing connectivity to approximately 700 ft of existing sidewalk on the north side of Branscomb Road, fronting the high school which is one of the destinations for pedestrians to be served by the proposed bridge.
+ Prefabricated bridges provide a cost effective alternative to traditional reinforced concrete bridges.

## *2.4 Proposed Project*

MCDOT proposes to install a prefabricated weathering steel truss style pedestrian bridge, approximately 120-ft long and 8-ft wide (nominal width), of 10-ft overall width, with a concrete walking surface with ADA accessible approaches. MCDOT proposes to remove the existing 3-ft

wide walkway constructed of wood and steel that is currently attached to the north side of the existing highway bridge.

### 2.4.1 Design Considerations

The proposed pedestrian bridge will be constructed such that it is near level from end to end. It will provide a minimum of 1 ft freeboard from the lowest member to the 100-year ($Q_{100}$) Base Flood Elevation (BFE) in compliance with the Mendocino County drainage regulations. The bridge will be constructed 29 ft north of (downstream of) the existing bridge, as measured from center to center of the two bridges, and at the same 30° skew. **Figure 2 – Project Layout** and **Figure 3 – Bridge Profile** follow on the next pages.

Due to the liquefiable nature of the soils identified during exploratory borings, the piles will be driven to depths of approximately 35 ft and 50 ft below grade, at the west and east end respectively, using vibratory pile driving equipment. They will be driven to depths that provide an increased factor of safety to avoid the need to "restrike" the piles to determine their bearing capacity.

To further reduce the risk of impacts to flooding, a raised walkway will be constructed to extend an additional 30 ft to the east beyond the end of the pedestrian bridge in lieu of constructing additional fill in the floodway. A shallower cross section of the lighter framing required for the walkway will allow the walking level to be sloped downward with minimal encroachment into the required freeboard area. At the end of the raised walkway, it will meet the approach ramp.

Approach ramps at each end, and the elevated walkway will be designed of sufficient lengths to allow slopes to comply with ADA requirements.

### 2.4.2 Construction of Project Improvements

Site Preparation and Water Quality Protections

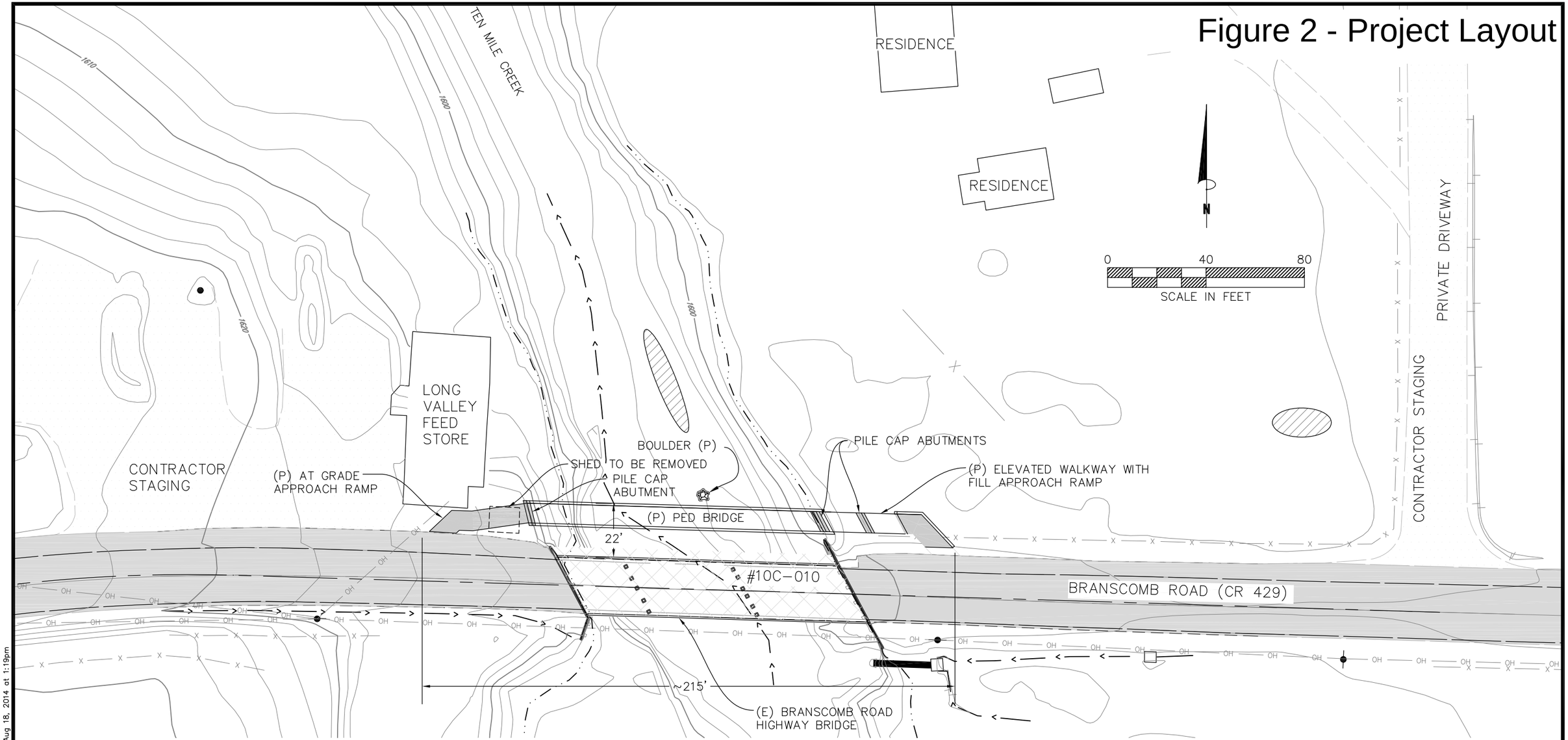
Clearing and grubbing, vegetation removal, and establishment of erosion and sediment control measures will be the first matters of business to undertake at the site. The Contractor will prepare a Water Pollution Control Plan and implement the site protection measures to protect water quality from potential impacts resulting from the work of the Project. Measures will comply with the Erosion Control Plan that will be prepared by the Engineer and included in the construction documents; Caltrans Standard Specifications and Special Provisions; Caltrans Water Pollution Control Program (WPCP) guidelines[1]; and requirements included in permits and in the approved Mitigated Negative Declaration (MND) for this Project. During preliminary studies and planning, erosion and sediment control measures were identified and are included in BMPs within this initial study.

Water quality and other environmental protection measures are called out in detail in Section 3.4 - Environmental Impacts and Mitigation Measures later in this report.

Trees conflicting with the planned construction will be removed. One 36-in diameter breast height (dbh) multi-trunk alder will be removed from mid-channel. It will be cut by chain saw and hoisted from the channel. The trunk will be cut with the root mass to be left in place. Seven other trees consisting of one bay, one buckeye, two ash, and three willow trees will also be removed from bank areas. Invasive species will be removed from all areas to be disturbed by the work, and vegetative matter capable of repropagation will be removed from the site.

[1] California Department of Transportation, *Stormwater Quality Handbooks Stormwater Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual*, Mar 2007

# Figure 2 - Project Layout




LEGEND

- WETLAND AREAS
- ORDINARY HIGH WATER MARK
- (E) BRIDGE
- (E) PIERS
- (E) ROAD
- (P) PAVED BRIDGE APPROACH
- (P) BRIDGE
- (P) ABUTMENT

PRELIMINARY DRAFT

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OWNER: MENDOCINO COUNTY DOT DEPARTMENT OF TRANSPORTATION

LOCATION: BRANSCOMB ROAD LAYTONVILLE, CALIFORNIA


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CIVIL ENGINEERS · LAND SURVEYORS
100 NORTH PINE STREET · (707) 462-6536 · UKIAH, CA 95482


DRAWING: PROJECT LAYOUT

PROJECT: TEN-MILE CREEK BRIDGE

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SHEET 1 of 1 SHEETS

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# Figure 3 - Bridge Profile

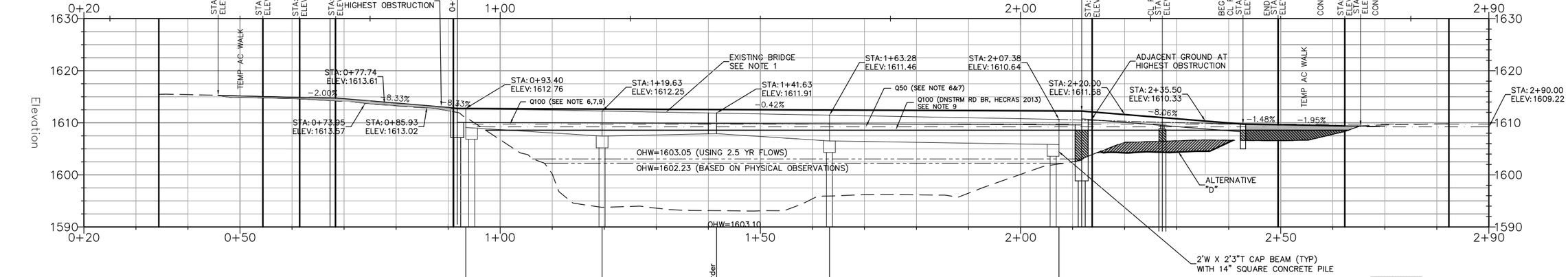
## PROFILE FOR FLOOD FLOW ASSESSMENT
## ALTERNATIVE C AND D SHOWN

### ALIGN PED PROFILE

Station

< West to Branscomb

East to Laytonville >




STATION 0+93.4 West End of Road Bridge

| | |
|---|---|
| TOC(SW) | = 1612.76 |
| TOS(SW) | = 1612.09 |
| TOP(SW) | = 1612.41 |
| BOG | = 1609.09 |
| GIRDER HT | = 3.00' |
| TOC(NW) | = 1613.04 |
| TOS(NW) | = 1612.37 |
| TOP(NW) | = 1612.52 |
| DELTA (TOC)= | 0.28' |

STATION 1+19.6 – Approx c/L Piers 3

| | |
|---|---|
| TOC(S) | = 1612.28 |
| TOS(S) | = 1611.62 |
| TOP(S) | = 1611.93 |
| BOG | = 1607.45 |
| GIRDER HT | = 4.17' |
| TOC(N) | = 1612.55 |
| TOS(N) | = 1611.88 |
| DELTA (TOC)= | 0.26' |

STATION 1+41.4 Approx high point @ Btm of Girder

| | |
|---|---|
| TOC(S) | = 1611.88 |
| TOS(S) | = 1611.21 |
| TOP(S) | = 1611.53 |
| BOG | = 1607.92 |
| GIRDER HT | = 3.29 |
| TOC(N) | = 1612.13 |
| TOS(N) | = 1611.46 |
| DELTA | = 0.25' |

STATION 1+63.3 – APPROX c/L PIERS 2

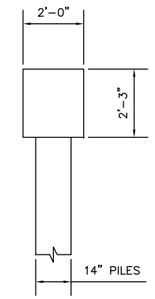
| | |
|---|---|
| TOC(S) | = 1611.48 |
| TOS(S) | = 1610.81 |
| TOP(S) | = 1611.12 |
| BOG | = 1606.84 |
| GIRDER HT | = 4.17' |
| TOC(N) | = 1611.71 |
| TOS(N) | = 1611.05 |
| DELTA (TOC)= | 0.24' |

STATION 2+07.4 East End of Road Bridge

| | |
|---|---|
| TOC(SE) | = 1610.65 |
| TOS(SE) | = 1609.98 |
| TOP(SE) | = 1610.29 |
| BOG | = 1605.81 |
| GIRDER HT | = 4.17' |
| TOC(NE) | = 1610.86 |
| TOS(NE) | = 1610.19 |
| TOP(NE) | = 1610.31 |
| DELTA (TOC)= | 0.21' |

FILL IN FLOODWAY

CHANNEL EXCAVATION IN FLOODWAY (NOT RECOMMENDED)




PIER CAP DETAIL

VERTICAL
0 10 20
SCALE IN FEET

HORIZONTAL
0 10 20
SCALE IN FEET

NOTES:

1. EXISTING BRIDGE PROFILE SHOWN REPRESENTS HIGHEST AND LOWEST FLOW OBSTRUCTION AS FOLLOWS:
   - LOWER LIMIT OF OBSTRUCTION CONTROLLED BY BRIDGE LONGITUDINAL X–SECTION @ SOUTH SIDE
   - UPPER LIMIT OF OBSTRUCTION CONTROLLED BY TOP OF CURB @ NORTH SIDE
   - GROUND AT HIGHEST POINT ON CROSS SECTION
2. X–SECTION AND CURB ARE SUPERIMPOSED ON CENTERLINE PROFILE OF PEDESTRIAN TRAVEL (ALONG DIRECTION OF FLOW).
3. BRIDGE PROFILE INFORMATION CALCULATED FROM INFORMATION ON PLANS DATED NOVEMBER 1951 (TEN MILE CREEK BRIDGE) TOTAL OF 3 SHEETS. SEE PLANS FOR OTHER DIMENSIONS AND ELEVATIONS. NOTE THAT NORTH IS DOWN ON THOSE DRAWINGS. REF TO PIER NOS. FROM THOSE PLANS
4. INFORMATION BASED ON FIELD SURVEYED DATA AND ORIGINAL PLAN DIMENSIONS TO ESTABLISH GIRDER ELEVATIONS.
5. PILES ARE 14" ACROSS, PILE CAP BEAMS ARE 2'3" ACROSS (SEE DETAIL).
6. ALL WATER SURFACE ELEVATIONS SHOWN ARE ON UPSTREAM SIDE OF EXISTING BRIDGE. BASED ON FEMA SECTION 1054:
   FIRM BFE Q100 = NGVD29 1609.71; NAVD88 1612.76 HEC–RAS 2013 (PRE AND POST) BFE Q100 = NGVD29 1609.69
   FIRM Q50 = NGVD29 1609.22; NAVD88 1612.27 HEC–RAS 2013 (PRE AND POST) BFE Q50 = NGVD29 1608.61
7. WATER SURFACE ELEVATIONS EXPERIENCED AT PROPOSED BRIDGE ARE EQUAL TO CALCULATED FEMA SECTION 1026.
8. BRIDGE PROFILE MODIFIED ON 9–27–13 FOR PRELIM 100 YR +1' AND FOR WALK TO CLEAR THE FUTURE 8' SHOULDERS.
9. BASED ON THE FLOOD ASSESSMENT STUDY, JULY 2013, NO RISE IS ANTICIPATED IN THE BFE AS A RESULT OF THE (P) PROJECT. BFE NOTED IN ITEM 6 ABOVE ARE BASED ON THE PRE–EXISTING HECRAS RUN B2.

ABBREVIATIONS:

| | | |
|---|---|---|
| TOC(S) | = | TOP OF CURB SOUTH SIDE (LOWER) |
| TOS(S) | = | TOP OF BRIDGE SLAB SOUTH SIDE – BASED ON 8" BELOW TOC (SEE NOTE 4) |
| TOP(S) | = | TOP OF PAVEMENT SOUTH SIDE (LOWER) |
| BOG | = | BOTTOM OF GIRDER (CALC'D FROM ACTUAL ELEVATION AND PLAN DIMENSIONS) |
| GIRDER HT | = | SEE NOTE 4 |
| TOC(N) | = | TOP OF CURB NORTH SIDE (HIGHER) |
| TOS(N) | = | TOP OF SLAB BASED ON 8" BELOW TOC (SEE NOTE 4) |
| TOP(N) | = | TOP OF PAVEMENT NORTH SIDE (HIGHER) |

LEGEND:

- Q100
- Q50
- OHW
- OG
- OG@ AT HIGHEST U/S GROUND OBSTRUCTION

PRELIMINARY DRAFT

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OWNER: MENDOCINO COUNTY DOT
DEPARTMENT OF TRANSPORTATION

LOCATION: BRANSCOMB ROAD
LAYTONVILLE, CALIFORNIA

RAU AND ASSOCIATES INC.
CIVIL ENGINEERS · LAND SURVEYORS
100 NORTH PINE STREET · (707) 462–6536 · UKIAH, CA 95482

DRAWING: PEDESTRIAN BRIDGE PROFILE

PROJECT: TEN–MILE CREEK BRIDGE

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| Date: | JULY 2014 |
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| JOB NO. | R11058 |

SHEET 1 of 1 SHEETS

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Foundations, Supports, Walkways and Approaches

The new bridge will be supported at each end on concrete foundations constructed over steel H-piles or pipe piles, three or more at each end. The piles will support the reinforced concrete pile cap abutments that will in turn support the ends of the bridge. It will be necessary to excavate around the tops of the driven piles in order to construct the pile cap abutments. Two or three additional piles will be driven approximately halfway between the east abutment and the approach ramp, and another abutment constructed over them to provide support to the raised walkway. The cast-in-place concrete abutment structures will extend to approximately 5 ft below the surrounding elevation, to protect them from being undermined.

Due to the topography, the west pile cap abutment will be constructed at a higher elevation on the west bank than is possible on the east end. The exposed surface of the west abutment will be approximately 6 ft and higher above the Ordinary High Water Mark (OHWM). At the east end of the new bridge, grades are more gradual leaving the channel. The bank elevation at the pile cap abutment will be at approximately the OHWM elevation of 1603.05'. A lengthier approach and a taller pile cap abutment are necessary at the east end to provide the transition from the elevation of the roadway shoulder to the elevation of the new bridge deck while complying with ADA requirements. Abutment foundations over the pile tops will be approximately 3-ft thick by 10-ft wide.

Grades across the project site (Site) and across Ten Mile Creek fall when travelling from west to east. On the west bank, a downward sloping approach walkway will be constructed starting from the shoulder elevation of Branscomb Road at approximately 1615.5'. It will lead to the abutment and the level of the walking surface of the bridge at approximately 1612.75' elevation, approximately 2.75 ft lower. The approach ramp at the east end will be sloped downward from the bridge to meet the shoulder elevation of the north side of Branscomb Road which is approximately 1609' at that location.

The concrete or asphalt paved approach ramps will be constructed over integrated root blanket protection designed to allow air and moisture to reach the nearby oak trees. Slopes of the walkways will comply with ADA requirements. The walkways will be surfaced with concrete or asphalt concrete paving.

Construction of footings, pile caps, and walkways, and other yet to be approved in-stream mitigation structures are anticipated to disturb approximately 960 SF temporarily and will replace approximately 563 SF of ground surface with permanent constructed features.

The described features can be seen in **Figure 2 – Project Layout** and **Figure 3 – Bridge Profile** on earlier pages.

Prefabricated Bridge Assembly and Installation

The prefabricated bridge will be delivered to the Site in two or more sections. They will be assembled in the west bound lane of the existing bridge, and will be lifted by crane(s) onto the constructed footings. One way controlled traffic, and at times a complete closure, will be required during the assembly and setting activities.

A concrete walking surface will be constructed in the pan that is built into the bridge for that purpose. Once the bridge and approaches are completed, they can be opened for pedestrian traffic. The existing walkway will then be disassembled from the existing highway bridge and the materials hoisted from above. Best Management Practices will require that protection measures be in place prior to removal to prevent introduction of debris into the stream channel.

Revegetation and Instream Mitigation

Tree plantings to replace the eight trees removed for the construction will be performed in three general areas. Area A is north of Long Valley Feed Store, and will be the site for planting bay, buckeye, and ash trees. Areas B are two areas situated between the existing and proposed bridges on the banks above OHWM. Willows will be planted to replace those removed. A third area, Area C, is located on the east bank of Ten Mile Creek, situated just above OHWM, to be planted with alder trees. Removal of invasive species for tree planting will be conducted over the approximately 2,036 SF to be prepared for planting.

Large boulder or other in-stream mitigation structures may be placed in the stream channel, to improve habitat by encouraging scour to occur in the mid-channel area as mitigation for the eventual decay of the root ball of the large alder to be removed. Negotiations are currently in process with regulating agencies regarding this mitigation.

**Figure 4 – Project Areas of Disturbance and Mitigation** catalogs areas that will be disturbed by construction, areas to be used for planting replacement trees. This figure follows on the page following Table 1 below.

Permanent Erosion Control

As part of completing all work, Contractor shall install specified permanent erosion control measures to protect against erosion and sedimentation over the time period that it takes the disturbed areas to return to a vegetated and stable condition.

## *2.5 Tentative Schedule*

The work is planned to be performed during August and September of 2015, and in no event shall it extend past October 15, without concurrence of the regulatory agencies. This proposed time period avoids nesting and migration periods for species which might be present, and is typically the time of low flow or “no flow” in Ten Mile Creek and at a time with less likelihood for significant rainfall events to occur.

Construction will be limited to daylight hours between 7:00 am and 7:00 pm on weekdays unless otherwise approved by MCDOT.

## *2.6 Required Permits and Approvals*

The following table lists approving agencies, permits and approvals, and the purposes for these authorizations that are required to be obtained for the Ten Mile Pedestrian Bridge.

**TABLE 1. PERMITS AND APPROVALS**

| Approving Agency | Required Permit/Approval | Required For |
|---|---|---|
| ***Federal Agencies*** | | |
| California Department of Transportation (Caltrans) NEPA delegation per Federal Highway Administration (FHWA) | National Environmental Policy Act (NEPA) Categorical Exclusion | Funding |
| U.S. Army Corps of Engineers (USACE) | Section 404 Clean Water Act Nationwide Permit (Clean Water Act, 33 USC 1341) | Discharge of dredge/fill material into "Waters of the United States," including wetlands. |

## TABLE 1. PERMITS AND APPROVALS (CONTINUED)

| Approving Agency | Required Permit/Approval | Required For |
|---|---|---|
| ***State Agencies*** | | |
| California Department of Transportation (Caltrans) | Project Approval/ NEPA Compliance as delegated by FHWA | Funding through the Federal Highway Bridge Program Funding Approval |
| State Water Resources Control Board (SWRCB), Regional Water Quality Control Board (RWQCB) | Water Quality Certification (Clean Water Act Section 401) | Discharge into "Waters of the U.S.," including wetlands (see Army Corps of Engineers Section 404 Permit above). |
| California Department of Fish and Wildlife (CDFW) | Streambed Alteration Agreement (Fish and Game Code 1602) | Change in natural state of river, stream, lake (includes road or land construction across a natural streambed) which affects fish or wildlife resource. |
| ***Local Agencies*** | | |
| Mendocino County | Project Approval and CEQA Compliance | Project implementation and funding |

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# Figure 4 - Project Areas of Disturbance and Mitigation

## DISTURBANCE AND MITIGATION BENEFIT SUMMARY

### DISTURBANCE
Areas Disturbed for
Construction of Footings and Placement of Boulders

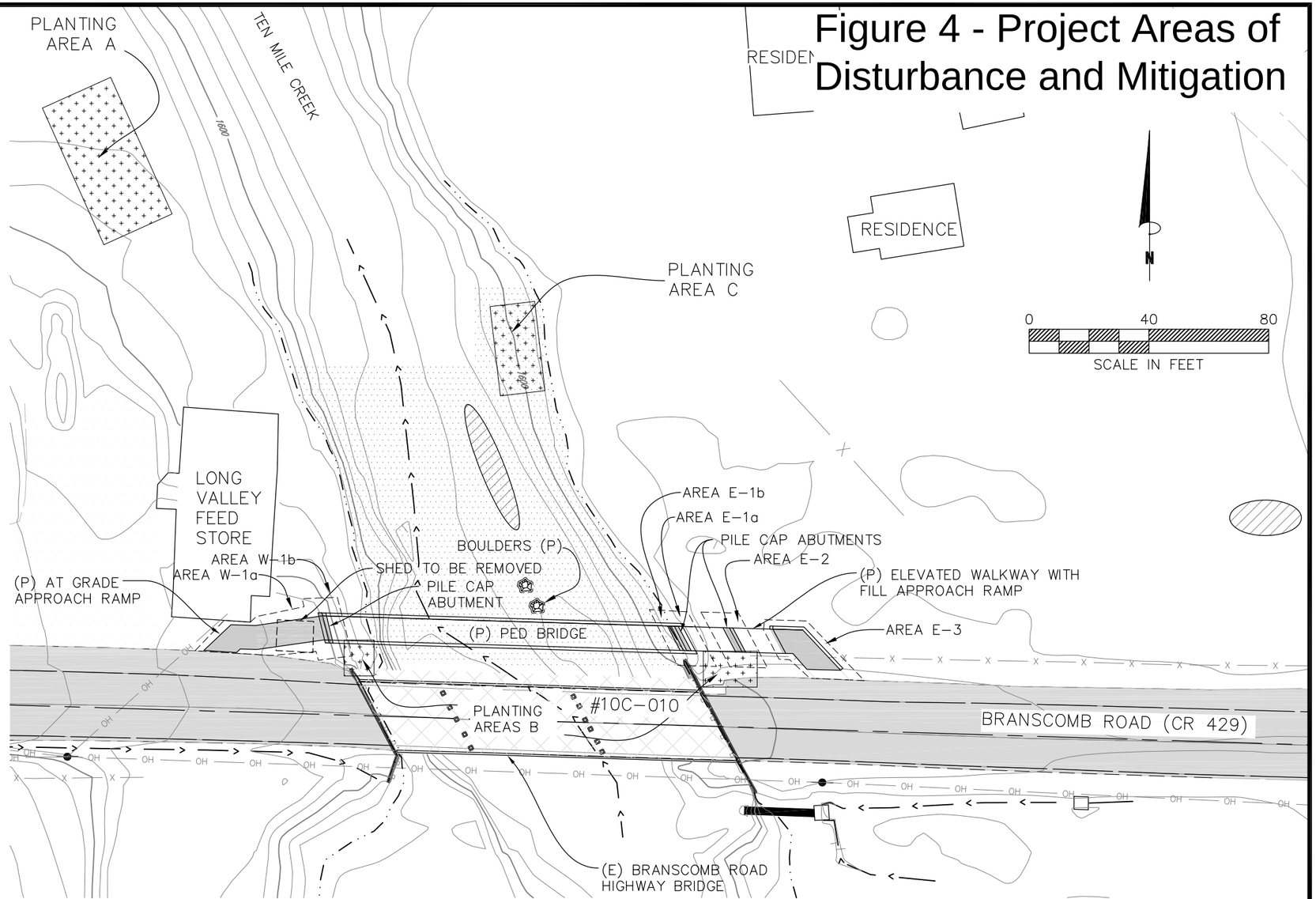
| Area | Labeled | | Temp (SF) | Perm (SF) | Total (SF) | Relation to OHWM | Relation to Q100 |
|---|---|---|---|---|---|---|---|
| W. Appr/Abut | Area W-1a | = | 71 | 0 | 71 | Above | Below |
| W. Appr/Abut | Area W-1b | = | 321 | 288 | 609 | Above | Above |
| E. Abut | Area E-1b | = | 64 | 10 | 74 | Below | Below |
| E. Abut | Area E-1a | = | 123 | 20 | 143 | Above | Below |
| E. Mid-Supp | Area E-2 | = | 196 | 30 | 226 | Above | Below |
| E. Appr | Area E-3 | = | 171 | 189 | 360 | Above | Below |
| Boulders | Boulders | = | 14 | 26 | 40 | Below | Below |
| Subtotals | | | | | | | |
| Above OHWM/Below Q100 (RWQCB Jurisdiction) | | = | 561 | 239 | 800 | | |
| Below OHWM/Below Q100 (USACOE Jurisdiction) | | = | 78 | 36 | 114 | | |
| Total | | = | 639 | 288 | 914 | | |
| Above OHWM/Above Q100 | | = | 321 | 288 | 609 | | |
| Total | | = | 960 | 563 | 1523 | | |

### MITIGATION BENEFITS
Areas Benefited by Removal of Invasive Species
Disturbance and Benefit Area

| Area | Labeled | | (SF) | OHWM | Q100 |
|---|---|---|---|---|---|
| West Planting | Area A | = | 1250 | Above | Below |
| Bridge Planting | Areas B west | = | 120 | Above | Below |
| Bridge Planting | Area B east | = | 216 | Above | Below |
| East Planting | Area C | = | 450 | Below | Below |
| Subtotals | | | | | |
| Above OHWM/Below Q100 (RWQCB Jurisdiction) | | = | 1586 | | |
| Below OHWM/Below Q100 (USACOE Jurisdiction) | | = | 450 | | |
| Total | All Areas | = | 2036 (All Temporary) | | |

### MITIGATION PLANTINGS

| Species | # Removed | # Planted |
|---|---|---|
| Alder | 1 | 6 |
| Ash | 2 | 12 |
| Bay | 1 | 6 |
| Buckeye | 1 | 6 |
| Willow | 3 | 18 |




LEGEND

- WETLAND AREAS
- ORDINARY HIGH WATER MARK
- (E) BRIDGE
- (E) PIERS
- (E) ROAD
- AREA OF OHW WITHIN STUDY AREA
- DISTURBANCE AREAS
- (P) MITIGATION PLANTING AREAS
- (P) PAVED BRIDGE APPROACH
- (P) BRIDGE
- (P) ABUTMENT

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MSVIEW:

OWNER: MENDOCINO COUNTY DOT
DEPARTMENT OF TRANSPORTATION

LOCATION: BRANSCOMB ROAD
LAYTONVILLE, CALIFORNIA


RAU AND ASSOCIATES INC.
CIVIL ENGINEERS · LAND SURVEYORS
100 NORTH PINE STREET · (707) 462-6536 · UKIAH, CA 95482


DRAWING: PROJECT AREAS OF DISTURBANCE AND MITIGATION

PROJECT: TEN-MILE CREEK BRIDGE

Date: JUNE 2014
Scale: AS SHOWN
Drawn: DMS
Checked: CAM
Reviewed: GCR
JOB NO. R11058

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# 3. ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

This chapter describes the human, physical, and biological environment that characterizes the Site.

This chapter includes the Environmental Checklist contained in Appendix G of the CEQA Guidelines, and includes the CEQA Mandatory Findings of Significance. Each resource section of the Appendix provides a description of the setting, a determination of impact potential, and a discussion of the impacts. At the end of each section, mitigation measures are provided that would reduce potential impacts to a less-than-significant level.

## *3.1 Human Environment*

### 3.1.1 Existing Land Uses

The General Plan designation for parcels on the north side of Branscomb Road in the project area is RR10 (Rural Residential, 10 acres minimum) with parcels ranging from 0.5 to 32 acres, but generally 3 acres or less. On the south side of the road, land is designated RR1 (Rural Residential, 1-acre minimum) with parcels ranging from 1 to 32 acres, and generally 5 acres or less. The zoning designation of lands adjacent to the Project is Rural Residential (RR). The parcel at the west end of the bridge on the north side of Branscomb Road is zoned commercial and the west entrance to Laytonville High School lies approximately 0.1 mile to the east of the Project. The Branscomb Road Pedestrian Bridge project site at Ten Mile Creek is generally surrounded by rural residences and vacant parcels.

Further research consisted of reviewing aerial imagery and ParcelQuest property record information. A search of the surrounds for a radius of 1,000 ft utilizing yielded:

| | |
|---|---|
| 15 Residences | 0 Industrial |
| 1 Commercial | 1 Public Facility (School) |

As the Project area is located on a well-used public road and there is a business (feed store) on the west bank of the creek, adjacent to the bridge site, the area was found to be relatively noisy and highly utilized by people.

### 3.1.2 Existing Facility Conditions

The existing reinforced concrete bridge with asphalt paved deck was constructed in 1952. The bridge has a Sufficiency Rating (SR) of 58.6 (2010 inspection) as reported in the National Bridge Inventory Data[3] but it is deemed functionally obsolete but structurally adequate. The existing reinforced concrete vehicular bridge, constructed in 1952, is 22 ft wide from curb-to-curb. The existing reinforced concrete bridge consisting of four bents comprised of 4-6 piles each which support the 24-ft wide structure with asphalt paved deck that reaches an overall length of 115 ft. The inside dimension between Bent 1 and Bent 4 is approximately 110 ft.

The existing concrete bridge geometry is not wide enough to safely accommodate pedestrians, bicyclists, or equestrians. It is too narrow to meet the minimum AASHTO guidelines for width, and cannot safely accommodate non-vehicular traffic. It does not meet current design standards for safety and operations.

A 3-ft wide cantilevered wood and steel walkway was attached in years past to the north side of the bridge, outside of a wooden guardrail set atop the bridge curb, to provide safer passage for pedestrians off the travelled way. It will accommodate pedestrian foot traffic in single file. The

[3] FHWA: *National Bridge Inventory Data – IRR Branscomb Road over Ten Mile Creek, Bridge 10C0101*, 2012.

walkway shakes significantly underfoot when vehicles are passing by. It requires ongoing maintenance due to its manner of construction and materials.

### 3.1.3 Farm and Timber Lands

A Technical Memo regarding farmlands was prepared and submitted for this Project.[4] Consulting the Mendocino County's Assessor's Office map "Lands in Timber Production Zones and Williamson Act Contracts within Mendocino County, 2013," it can be seen that no lands subject to Williamson Act contracts or Timberland Preserve zoning are in close proximity to the Site, as confirmed by records of the County of Mendocino Assessor's Office. A GIS search showed that a 1/4-mile radius about the Project limits encroaches onto three Williamson Act parcels, one to the north that appears to be used for grazing, one which appears to be primarily wooded, and a long narrow parcel that encompasses a private road. These three parcels have General Plan designation AG40 and are zoned AG. They are all isolated from the Project lands by Rural Residential properties, and are all indicated as "non-prime" on the Lands in Timber Production Zones and Williamson Act Contracts within Mendocino County (map) dated October 2011. No parcels wholly or partially within the 1/4-mile radius are designated as timberland.

A Land Evaluation Site Assessment (LESA) was performed for this Project and it was determined that prime farmlands would not be affected by the conversion of just over 0.1 acre from Farmland of Statewide Importance for the purposes of riparian tree planting areas and additional right of way.

### 3.1.4 Utilities

Existing overhead telephone and power lines parallel Branscomb Road along the south edge of the right of way and also cross the roadway just west of the bridge, and local storm drainage facilities are in the vicinity of the south side of the bridge. These will not be affected by the proposed Project.

### 3.1.5 Traffic and Emergency Services

Branscomb Road is categorized as a Major Collector carrying a "typical weekday" Average Daily Traffic (ADT) of approximately 3,869[5]. This route provides a coastal connection between State Highway 1 north of Westport and State Highway 101 at Laytonville. The counts reported in the referenced study are defined as a Tuesday, Wednesday, or Thursday during a week with no holidays and when local schools are in session.

Pedestrian access to the existing walkway will be maintained except during brief periods when maneuvering equipment or materials, or setting the bridge. The walkway will remain until the new pedestrian bridge is ready for use.

One way controlled traffic, and at times a complete closure, will be required during the assembly and setting activities. Complete closures will occur for 30 minute intervals, and then let cars pass before resuming work.

### 3.1.6 Visual and Aesthetics

Branscomb Road is not designated as a scenic highway. The crudely constructed wood and steel walkway will be replaced with a modern attractive weathering steel structure. Removal of existing trees will be a temporary impact, and replacement at a minimum 3:1 ratio with success criteria of 50% survival at 5 years, and removal of invasive species will restore and enhance the

[4] Rau and Associates, Inc., *Technical Memo – Technical Studies and Analyses – Farmlands*, Jul 2014.
[5] Fehr & Peers, *MCOG Travel Demand Forecasting Model – Final Model Development Report,* Oct 2010

setting. The bridge will also provide a safer and less obstructed vantage area for viewing the creek area.

### 3.1.7 Cultural Resources

The site was the subject of an archeological survey which was conducted for the proposed project. An Archeological Survey Report (ASR)[6], and a Historical Property Survey Report (HPSR)[7] were prepared by Alex DeGeorgey, MA, RPA. In addition, a Historical Resources Evaluation Report (HRER)[8] was prepared by Vicki Beard, Architectural Historian.

Alta Archaeological Consulting (ALTA) was retained to conduct a cultural resources inventory and National Register Evaluation for the Ten Mile Pedestrian Bridge Project. The ASR outlines the literature review and review of site records for historical findings within a 1/2-mile radius of the project site. Fieldwork was conducted on April 16, 2013 by Alex DeGeorgey and entailed an intensive pedestrian survey of the entire project area. A mini excavator was used to conduct exploratory trenching at the location of the proposed bridge footings. Additional field survey was completed on July 10, 2014. Two shovel probes were excavated in the areas where trees and vegetation will be planted. No prehistoric resources were identified during the field survey or extended phase one investigation.

The searches also identified two historic resources within the study area, the existing highway bridge constructed in 1952, and the historic commercial building that is now home to Long Valley Feed Store. These structures were reviewed and reported on in the HPSR. The bridge was determined by Caltrans to be Category 5 and not eligible for inclusion on the National Register; and the commercial building was also determined not to appear eligible for the National Register as outlined in the HRER (Beard, 2014).

### 3.1.8 Water Quality and Storm Water Runoff

Portions of the project will require a USACE 404 Nationwide Permit (NWP) notification and a Water Quality Control Board 401 Certification. Because the project is less than one (1.0) acre in disturbance area the project will not be subject to the NPDES requirements. However, a preliminary Erosion Control Plan has been developed as part of preliminary project planning. The ECP will be further developed with the final project plans and the contractor will be required to develop and submit a Water Pollution Control Plan (WPCP) in accordance with the final ECP and the Caltrans guidelines that incorporates agency-approved Best Management Practices (BMPs). This WPCP will be required to demonstrate how the Contractor will comply with the Erosion Control Plan and related requirements of the IS/MND for the Project.

As described earlier construction of the footing structures will require excavation within the bank areas of Ten Mile Creek, and on the east side a small area of excavation will extend below the Ordinary High Water Mark (OHWM).

Although excavation below the channel bank is minimal, this work could potentially have significant water quality impacts including transport of sediment, concrete litter, and petroleum products, if certain aspects of construction were to be performed during high flows or if appropriate BMPs were not implemented. As noted in the biological section of this report, there are three special status species of fish present or likely to be present at the site. Water quality is critical for the lifecycle of these fish as noted in the Biological Assessment. Transport of any of the above noted items could potentially impact these species.

[6] DeGeorgey, A, *Archeological Survey Report – Ten Mile Creek Pedestrian Bridge,* Aug 2014
[7] DeGeorgey, A, *Historic Property Survey Report,* Oct 2014
[8] Beard, V, *Historical Resources Evaluation Report – Ten Mile Creek Pedestrian Bridge,* Jul 2014.

Several Erosion and Sediment Control, Non–Stormwater Management, and Material Management Best Management Practices (BMPs) have been incorporated into the project as measures to reduce impacts to water quality. These BMPs were derived from the CASQA *Stormwater Best Management Practice Handbook*, January 2003. Those BMPs are included in Section 3.4 Environmental Impacts and Mitigations under IX-Hydrology and Water Quality.

## *3.2 Physical Environment*

### 3.2.1 Topography, Geologic, and Hydrological Setting

Topography

Elevations at the site of the existing bridge range from approximately 1613 ft on the west bank to a low point of 1592.6 ft in the bottom of the creek channel. Ten Mile Creek at the site is a broad channel with a steep, somewhat scoured bank on the west side and a more gradual, sandy bank on the east side. The ordinary high water mark (OHWM) throughout the Project area appears to be contained within the channel rather than extending into the adjacent terrace. The channel bottom is mostly cobble, with the exception of a narrow vegetated gravel bar mid channel.

The headwaters of Ten Mile Creek lie approximately 4 miles upstream of the bridge and Cahto Creek converges approximately 0.3 mile upstream. Flow continues downstream from the bridge a distance of approximately 14 miles to where Ten Mile Creek joins the South Fork of the Eel River which then flows to the Eel River and finally to the Pacific Ocean. The creek crosses under Branscomb Road at the project location at a skew bearing approximately NNW. The existing bridge is designed with a 30° skew.

The project is approximately centered in a reach approximately 6,312 ft long that is described as "moderately entrenched, moderate gradient, riffle dominated channel with infrequently spaced pools, very stable plan and profile, stable banks and gravel-dominant substrates." The overstory is described as predominately hardwood trees in a stream inventory report[9] from which this information is taken.

Ten Mile Creek is shown as a solid blue line on the USGS quadrangle maps. A solid blue line is often used to symbolize one which flows for most or all of the year.

Geology

Regional geologic mapping[10] indicates that the project site is underlain by recent alluvium (less than 10,000 years old), consisting of silt and sand, along modern river flood plains. Some gravel is present in channel areas. Immediately to the west is a Quaternary aged non-marine terrace deposit, which is an older river and stream terrace. These two layers are shown to lie on top of Jurassic-Tertiary-aged bedrock of the Franciscan formation.

Further detail is provided by local geologic mapping of the Laytonville Quadrangle[11]. It shows that the bridge site is underlain by young alluvium deposit, with older alluvium mapped a few hundred ft to the west. Bedrock of the Franciscan formation (mapped as "mélange" - typically

[9] California Department of Fish and Game, *Stream Inventory Report Tenmile Creek,* July 2009.
[10] California Department of Natural Resources, Division of Mines and Geology, *Ukiah Sheet, Geologic Map of California*, 1960 (2nd Printing 1967).
[11] California Division of Conservation, Division of Mines and Geology, *Geology and Geomorphic Features Related to Landsliding, Laytonville NE, 7.5-Minute Quadrangle, Mendocino County, California*; DMG Open-File Report 84-41, 1984.

sheared sandstone and shale within a clay-rich matrix) is shown beyond the two alluvium deposits and likely underlies the alluvial sediments and valley fill under Laytonville Valley.

The young alluvium, dating to the Holocene period, is mostly unconsolidated, fine-grained sand and silt with minor amounts of gravel in channel. The older alluvium, dating to the Holocene-Pleistocene period, is mostly compact, but not cemented, flat lying layers of river and lake deposits ranging from boulder conglomerate and breccias to fine sand and silt. Coarser layers are more common along the base and edges of the deposit, near the Franciscan formation contact. The Franciscan formation, dating to the Tertiary-Cretaceous period, is described as being pervasively sheared with an argillaceous matrix surrounding pebble-sized to individual blocks of greywacke, greenstone, chert, conglomerate, serpentinite and ultramafic rocks.

Soils

According to the online soil survey application provided by the United States Department of Agriculture program Natural Resources Conservation Service (Reference 3), the bridge is located in the Haploxeralfs-Argixerolls complex (Soil Map Unit 134), which consists of 60% Haploxeralfs, 30% Argixerolls, and 10% minor constituents. Slopes in this region range from 0-9% and the landscape is characterized as “Terraces.” This soil formation is bordered by a loam soil formation to the east and a sandy loam soil to the south.

The Haploxeralfs are well-drained soils originating from alluvium, with a moderate available water capacity. The typical profile is the following: 0-30 inches, loam (CL-ML); 30-37 inches, gravelly sandy loam (SC-SM); and 37-60 inches, very to extremely gravelly sandy loam (GC-GM).

The Argixerolls are moderately well drained soils, also originating from alluvium, with a high available water capacity. The typical profile is the following: 0-11 inches, loam (CL-ML); 11-22 inches, clay loam to gravelly clay loam (CL-SC); 22-37 inches, gravelly clay loam (SC); and 37-60 inches, clay (CL).

The liquid limit and plasticity index range from 20 to 35 and 0 to 15 in the Haploxeralfs soil, while the Argixerolls soil has ranges of 20 to 50 and 0 to 25 respectively. The higher levels of both ranges occur in the more clayey soils. There is no evidence of a restrictive soil layer in the top 80 inches of either soil complex.

Hydraulics and Floodplain

The project construction is located both within the floodplain and floodway of Ten Mile Creek at the Branscomb Road crossing. Ten-Mile Creek is a perennial stream that has a drainage basin of 20.9 square miles. Ten Mile Creek flows most times of the year, but very often has no surface flow in late summer/early fall. Heavy winter storms can raise the creek level significantly. The 100-year regulatory Base Flood Elevation (BFE) is approximately 1609.71 ft, which is within approximately 0.6 ft of the road surface at the east end of the bridge.

The existing floodplain in the immediate area is contained to the west by the high bank along the channel. The easterly edge of the floodplain overtops the east channel bank and spreads along the valley floor where the floor is lower than the channel banks. At highest flows, floodwaters overtop Branscomb Road east of the bridge location prior to the existing bridge being overtopped. At its widest point the floodplain extends almost 400 ft east of the east channel bank. Likewise the floodway extends approximately 170 ft east of the easterly channel bank. The floodplain in the immediate area of the project encompasses sparse rural residential housing and ranching. Within the floodplain there are five residences with various outbuildings and one utility structure. Just east of the floodplain is the Laytonville High School. West of the project site is a farm supply business and a rural residential neighborhood.

The west end of the existing road bridge is approximately 2.2 ft higher than the east end. The proposed pedestrian bridge (preferred Alternative C) will be constructed approximately 1.6 ft higher than the existing bridge at the east end. The proposed east pile cap abutment, elevated approach walkway and its mid-support, and the east approach ramp will all lie within the 100-year floodway. The proposed west pile cap abutment will lie outside the floodway. The bridge assembly, the east walkway, the west pile cap abutment, and the west approach ramps will all be constructed above the BFE elevation.

The project encroaches into the regulatory floodplain and floodway. A Flood Assessment Study[12] (FAS) has been prepared for the project that addresses the required regulatory analysis. A copy of the published Flood Insurance Rate Map (FIRM) is included in that study. The FAS was prepared to assess the various alternatives and impacts to the floodplain and floodway. These are discussed in more detail below.

A "significant encroachment" as defined in 23 CFR 650.105 is a highway encroachment and any direct support of likely base floodplain development that would involve one or more of the following construction or flood-related impacts:

- A significant potential for interruption or termination of a transportation facility that is needed for emergency vehicles or provides a community's only evacuation route.
- A significant risk (to life or property), or
- A significant adverse impact on natural and beneficial floodplain values.

Preliminary alternatives that were eliminated early on in the project planning process are described below and, for the reasons stated, were not given further consideration.

A preliminary alternative considered included reconstructing the walkway on the existing bridge in a more permanent fashion. In order to construct a walkway that could accommodate pedestrians, bicyclists and equestrians in a safe manner would be cost prohibitive. The existing highway bridge is functionally obsolete, and the value of the improvement would be lost in the future if the existing vehicle bridge is replaced. For these reasons, this alternative was given no further analysis.

Various alternatives for which flooding potential was evaluated in the FAS for the proposed Project included constructing the pedestrian bridge at the elevation of the existing roadway bridge, constructing the proposed bridge with a standard fill for the walkway from the east abutment, constructing an overflow channel to offset fill volumes, and lengthening the proposed bridge to outside of the floodway. These were all eliminated due to flooding issues and/or increased environmental impacts. As well, a "No Project" alternative was considered. There is no alternative route for pedestrians. The existing bridge has no shoulders and the cantilevered wooden walkway is in disrepair. There is a school just east and north of the bridge, and residential neighborhood west and north of the bridge, so safe pedestrian access over the creek is essential.

The preferred alternative involves constructing the proposed bridge with a raised east walkway to reduce some of the fill in the floodway as described further elsewhere in this report. Based on the conveyance computations,[13] the project will not result in a rise to the BFE. The residential structures, commercial structures and the roadway (Branscomb Road) will not experience any significant impact. The FAS determined that the preferred alternative would not result in a "significant encroachment" as defined above. The preferred alternative is the basis of the proposed design for the IS/MND.

[12] Rau and Associates, Inc., *Flood Assessment Study,* Jul 2014
[13] Haestad Methods, *Floodplain Modeling using HECRAS*, 2003

Design criteria to minimize impacts (encroachments) in the floodplain to be included in the final construction documents include:

- Raising the bottom of the lowest chord of the proposed bridge one foot above the Base Flood Elevation to comply with County Standards.
- Incorporation of a raised walkway at the east end of the bridge, reducing the need for fill embankments in the regulatory Floodway.
- Specifying use of a long span truss style prefabricated bridge, not requiring additional supports in the channel leaving an unobstructed span slightly wider than the span of the existing bridge abutments.

During preparation of the FAS, staff at Michael Baker Corporation FEMA's technical consultant, was contacted for additional guidance. Field reviews were conducted with US Army Corp of Engineers Representative[14] and Regional Water Quality Control Board. Due to the insignificant encroachment on the floodplain and floodway a revised FIRM map was determined not to be warranted.

## *3.3 Biological and Botanical Environment*

### 3.3.1 Biological

The following information is derived from the Biological Assessment (BA) conducted for this Project[15] by wildlife biologists Jennifer Bartolomei and Stephanie Martin of North Coast Resource Management (NCRM), located in Redwood Valley, Mendocino County. Studies included pre-survey investigations, field surveys, and documenting observations, findings, and conclusions.

The proposed pedestrian bridge will cross over Ten Mile Creek, which flows into the South Fork Eel River, thence the Eel River, and finally into the Pacific Ocean. The Site is within Montane Hardwood upland and riparian habitat, with moderate-cover tree canopy. As the Project area is located on a well-used public road and there is a business (feed store) on the west bank of the creek, adjacent to the bridge site, the area was observed by wildlife biologists to be relatively noisy and highly utilized by people.

The Biological Assessment for this Project identified federally listed species anadromous fish occurring in the BSA and potentially affected by the Project. They included Central California Coast coho salmon (*Oncorhynchus kisutch*) (CCC coho), Northern California Coast steelhead (*Oncorhynchus mykiss*) (NCC steelhead), and California Coastal Chinook salmon (*Oncorhynchus tschawytscha*) (CC Chinook). In addition, the reach of Ten Mile Creek within the BSA is also designated Critical Habitat for these anadromous fish species and Essential Fish Habitat for Pacific salmon. **Figure 5–Biological and Botanical Study Area** and **Figure 6-Project Habitat Areas** follow on the next pages.

Other species of interest including northern red-legged frog (*Rana aurora*), northwestern pond turtle (*Actinemys marmorata*), yellow warbler (*Dendroica petechia*), ringtail (*Bassariscus astutus*), have some potential to occur, as suitable habitat exists within or near the Project area. There were ten species identified in initial queries that were examined and found to have little to no chance of occurring, due to the lack of suitable habitat within or near the Project area.

[14] Field review conducted with US Army Corp representative, R. Morganstern, Jun 11, 2014.
[15] Martin, Stephanie, *Biological Assessment for the Pedestrian Bridge over Ten Mile Creek Project*, Oct 2014

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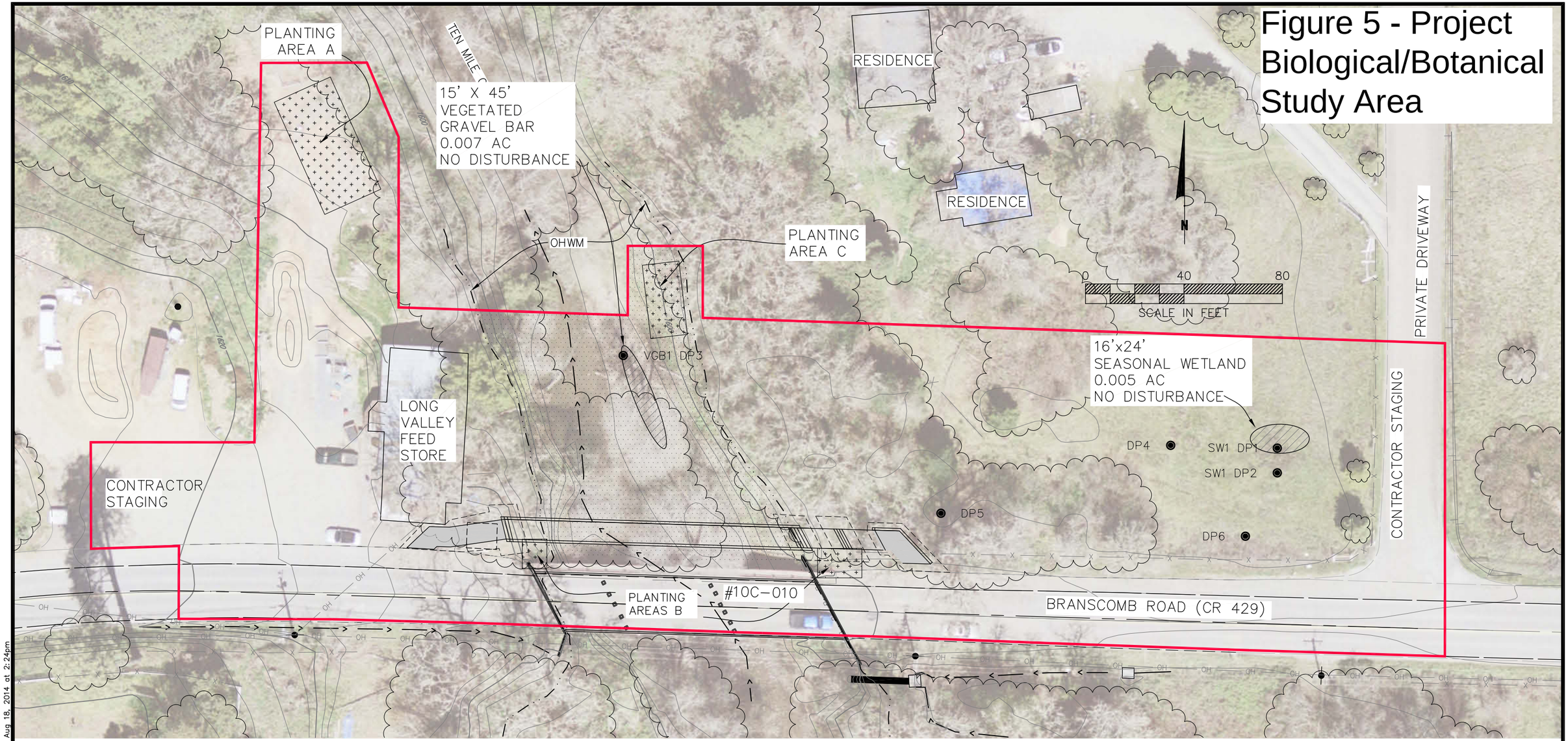
# Figure 5 - Project Biological/Botanical Study Area




LEGEND

- WETLAND AREAS
- ORDINARY HIGH WATER MARK
- (E) BRIDGE
- (E) PIERS
- (E) ROAD
- BIOLOGICAL/BOTANICAL STUDY AREAS – 1.64 AC
- AREA OF OHW WITHIN STUDY AREA
- DISTURBANCE AREAS
- DP1 WETLAND DELINEATION DATA POINT
- (P) MITIGATION PLANTING AREAS
- (P) PAVED BRIDGE APPROACH
- (P) BRIDGE
- (P) ABUTMENT

PRELIMINARY DRAFT

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Path: Z:\R11058\Drawings\Civil\Exhibits\R11058 EXHIBITS.dwg

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PATH: Z:R11058/Drawings/Civil/Exhibits
FILE: R11058 EXHIBITS.dwg
PSVIEW:
MSVP:
MSVIEW:

OWNER: MENDOCINO COUNTY DOT DEPARTMENT OF TRANSPORTATION

LOCATION: BRANSCOMB ROAD LAYTONVILLE, CALIFORNIA

RAU AND ASSOCIATES INC.
CIVIL ENGINEERS · LAND SURVEYORS
100 NORTH PINE STREET · (707) 462-6536 · UKIAH, CA 95482

DRAWING: PROJECT BIOLOGICAL/BOTANICAL STUDY AREA

PROJECT: TEN-MILE CREEK BRIDGE

| | |
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| Date: | JUNE 2014 |
| Scale: | AS SHOWN |
| Drawn: | DMS |
| Checked: | CAM |
| Reviewed: | GCR |
| JOB NO. | R11058 |

SHEET 1 of 1 SHEETS

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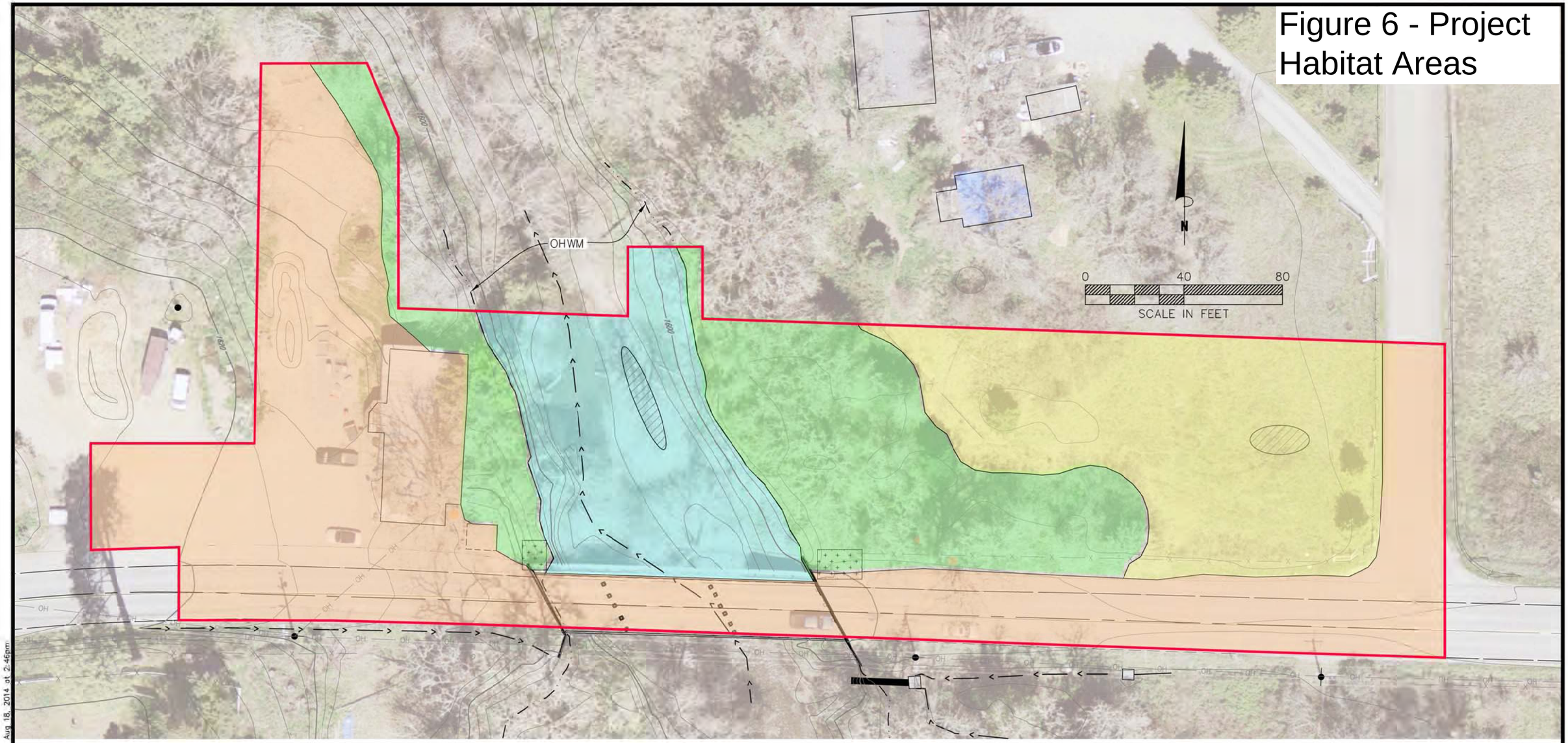
# Figure 6 - Project Habitat Areas




LEGEND

- BIOLOGICAL/BOTANICAL STUDY AREA (1.64 ACRES)
- BARREN (0.73 ACRES)
- MONTANE HARDWOOD (0.34 ACRES)
- RIVERINE (0.23 ACRES)
- ANNUAL GRASSLAND (0.33 ACRES)

PRELIMINARY DRAFT

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FILE: R11058 EXHIBITS.dwg
PSVIEW:
MSVP:
MSVIEW:

OWNER: MENDOCINO COUNTY DOT
DEPARTMENT OF TRANSPORTATION

LOCATION: BRANSCOMB ROAD
LAYTONVILLE, CALIFORNIA

RAU AND ASSOCIATES INC.
CIVIL ENGINEERS · LAND SURVEYORS
100 NORTH PINE STREET · (707) 462-6536 · UKIAH, CA 95482

DRAWING: PROJECT HABITAT AREAS

PROJECT: TEN-MILE CREEK BRIDGE

Date: JUNE 2014
Scale: AS SHOWN
Drawn: DMS
Checked: CAM
Reviewed: CCR
JOB NO. R11058

SHEET 1 of 1 SHEETS

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Path: Z:\R11058\Drawings\Civil\Exhibits\R11058 EXHIBITS.dwg Plot Date: Aug 18, 2014 at 2:46pm

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The federally listed marbled murrelet (*Brachyramphus marmoratus*) and northern spotted owl (*Strix occidentalis caurina*) are not known to occur within 2-miles of the Project and there is no habitat occurring within or adjacent to the Project that either species is likely to utilize. Therefore, these two avian species are not expected to be impacted by the Project.

During a site visit in 2012, juvenile steelhead (*Oncorhynchus mykiss*) fish were the only one of the above mentioned species observed within the Project area of Ten Mile Creek. No other special status species were observed. However, juveniles of all three fish, Chinook, coho, and steelhead, were observed to be present during a CDFW survey in 2011.

### 3.3.2 Botanical

The following information is derived from studies conducted for this Project by botanical and wetland consultant Geri Hulse-Stephens of Willits, CA. Her studies included presurvey investigations, various field surveys at different times of the year, and documenting observations, findings, and conclusions[16]. She also conducted wetland studies and prepared a preliminary wetlands delineation[17] as well as a vegetation restoration and mitigation plan[18] for the Project.

The vegetation within the Project area encompasses in-channel, woodland terrace and grassland vegetation and is identified by the following riparian alliances described in *A Manual of California Vegetation* (Sawyer, Keeler-Wolf, Evans 2009) and described in more detail in Ms. Hulse-Stephens's report.

**White Alder Groves** (*Alnus rhombifolia* Forest alliance) - This alliance consists of a plant community comprising a tree canopy greater than 5% absolute cover of mature white alder trees. One large white alder is to be removed as a result of this Project. This alliance that encompasses both sides of Ten Mile Creek transitions at the tops of its banks into valley oak woodland with arroyo willow as a common understory.

**Valley oak woodland** – *Quercus lobata* Woodland Alliance - This alliance is comprised of a plant community where valley oak is dominant or co-dominant with trees less than 30 meters tall and with open to continuous canopy. She identifies this as an "Intact oak woodland" and goes on to explain that an ***Intact*** oak woodland according to the Oak Woodlands Conservation Act (Guisti et al 2008) is free from destructive land use practices that inhibit or limit oak woodland to naturally sustain itself and associated flora and fauna. A map of native trees within the study area was provided by Rau and Associates, Inc. which provided the basis for a field investigation to determine the species of oak that had been mapped. Three large diameter valley oaks lie within close proximity to the proposed improvements.

The Project study also identified the following grassland alliances.

**Annual Brome Grasslands**-*Bromus (diandrus, hordeaceus)- Brachypodium distachyon*, Semi Natural Herbaceous Stands - This alliance is comprised of greater than 80% relative cover in the herbaceous layer of *Bromus diandrus, Bromus hordeaceus,* and non-natives; natives usually with low or insignificant cover. This alliance accounts for the largest acreage of grassland vegetation in cismontane California (Sawyer, Keeler-Wolf, Evans 2009).

The diverse species of vegetation that further make up these riparian and grassland alliances are listed in Ms. Hulse-Stephens's report. Her study results states "No rare taxa were found during the survey. No sensitive plant communities were observed within the survey area."

[16] Hulse-Stephens, G, *Habitat Assessment and Botanical Survey*, Aug 2014
[17] Hulse-Stephens, G, *Preliminary Jurisdictional Delineation of Waters of US including Wetlands*, Aug 2014
[18] Hulse-Stephens, G, *Riparian Restoration and Wetland Mitigation Monitoring Plan*, Aug 2014.

### 3.3.3 Wetlands

During her site evaluations, Ms. Hulse-Stephens identified potential wetland areas and performed additional site studies. Two areas of wetland, totaling 0.012 acres were identified and mapped.

One small seasonal wetland was mapped in a depression in the annual grassland east of Ten Mile Creek on the north side of Branscomb Road east of the private road. The field is seasonally moist with longer periods of standing water in the depression. The southern edge of the delineated depression lies 36 ft north of Branscomb Road.

A vegetated gravel bar was mapped within the Ten Mile Creek channel. Its southern-most edge is approximately 58 ft north of the existing Ten Mile Bridge. It is exposed to flooding during and following storm events and is situated on a gravel bar 20 to 35 inches above the channel bottom.

Both areas identified as potential wetlands can be avoided and will be protected with high visibility exclusionary fencing for the duration of the construction activities.

## *3.4 Environmental Impacts and Mitigation Measures*

This section of the Initial Study incorporates the Environmental Checklist contained in Appendix G of the CEQA Guidelines. Each resource topic section provides a determination of potential impacts and an explanation for the checklist impact questions, and is followed by a list of mitigation measures.

Addressed in this section are the following 17 environmental categories:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities

Each of the above listed categories has been evaluated and one of the following four determinations was made for each checklist question:

**"No Impact"** means that no impact to the environment would occur as a result of implementing the Project.

**"Less than Significant Impact"** means that implementation of the Project would not result in a substantial and/or adverse change to the environment and no mitigation is required.

**"Potentially Significant with Mitigation Incorporated"** means that the incorporation of one or more mitigation measures would reduce the impact from potentially significant to less than significant.

**"Potentially Significant Impact"** means that there is either substantial evidence that a Project related effect would be significant or, due to a lack of existing information, could have the potential to be significant.

| | | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|---|
| **I.** | **AESTHETICS** | | | | |
| Would the Project: | | | | | |
| a) | Have a substantial adverse effect on a scenic vista? | ☐ | ☐ | ☐ | ☑ |
| b) | Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | ☐ | ☐ | ☐ | ☑ |
| c) | Substantially degrade the existing visual character or quality of the site and its surroundings? | ☐ | ☐ | ☑ | ☐ |
| d) | Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | ☐ | ☐ | ☐ | ☑ |

**Discussion of Impacts**

a) **No Impact:** This County route is not within a state scenic highway. An aging walkway structure, added onto the concrete bridge structure, along with a handrail constructed of painted lumber, wire fencing, and angle iron supports will be removed. The new bridge will be fabricated of low maintenance weathering steel. Situated downstream of the existing bridge, the new pedestrian bridge will be more attractive than the existing walkway structure, and will offer a safer vantage for viewing surroundings by pedestrians. The Project will not have a detrimental effect on the vista.

b) **No Impact:** This County route is not within a state scenic highway. As of the publishing of the Mendocino County General Plan, Resource Management Element, August 2009, no roads or highways in Mendocino County had been adopted as scenic in Mendocino County. One building, Long Valley Feed Store, and the existing highway bridge, were reviewed and found to be of no historical significance.

c) **Less than Significant Impact:** One large alder tree will be removed along with seven other trees, including two ash, one buckeye, one bay and three willow trees. Removal of trees will not degrade views from the Project area or the surrounding parcels. Improvements included in the Project will not permanently degrade any scenic resources.

d) **No Impact:** This Project does not include any lighting equipment, and does not divert vehicular traffic from its existing route of travel. Construction operations will be limited to daylight hours.

**Mitigation Measures**

Mitigation Measures listed under sections IV-Biological Resources and IX-Hydrology and Water Quality will assure that impacts to aesthetic caused by vegetation removal are reduced to a less than significant level.

No additional project specific mitigations are required under this subject.

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|

## II. AGRICULTURE AND FOREST RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Would the Project:

| | | | | | |
|---|---|---|---|---|---|
| a) | Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use? | ☐ | ☐ | ☑ | ☐ |
| b) | Conflict with existing zoning for agricultural use, or a Williamson Act contract? | ☐ | ☐ | ☐ | ☑ |
| c) | Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), or timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | ☐ | ☐ | ☐ | ☑ |
| d) | Result in the loss of forest land or conversion of forest land to non-forest use? | ☐ | ☐ | ☑ | ☐ |
| e) | Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? | ☐ | ☐ | ☐ | ☑ |

### Discussion of Impacts

a) **Less than Significant Impact:** Additional land will be added to County ROW and will become integral to the function of the proposed Project. Conservatively, a total of 4,617 SF will be affected. An approximate area of 2,550 SF included in that amount is over the

bed, bank, and channel of the creek. The Site is in an area designated as Farmland of Statewide Importance by the USDA Natural Resources Conservation Service, and as shown on the Web Soil Survey[19]. A portion of the land of this designation is already encumbered at this location by the existing Branscomb Road ROW to be incrementally widened on the north side to include the pedestrian bridge.

Utilizing the Land Evaluation Site Assessment (LESA) Model Scoring Thresholds, the conversion of this land has a total LESA Score of 30.24 points, which is in the range of 0-39 Points, and is "Not Considered Significant."

b) **No Impact:** No lands subject to Williamson Act contracts or Timberland Preserve zoning are affected by the project, as confirmed by records of the County of Mendocino Assessor's Office.

A GIS search showed that a ¼ mile radius about the Project limits encroaches approximately 225 ft on one Williamson Act parcel to the north that appears to be used for grazing based on aerial photographic images. Such a circle encroaches approximately 600 ft onto a Williamson Act parcel to the west, on an area of the parcel which appears to be primarily wooded. A long narrow 0.22-acre parcel is encroached upon by approximately 140 ft. These three parcels have General Plan designation AG40 and are zoned AG. They are all isolated from the Project lands by Rural Residential properties, and are all indicated as "non-prime" on the *Lands in Timber Production Zones and Williamson Act Contracts within Mendocino County* (map) dated October 2011. No parcels wholly or partially within the 1/4-mile radius are designated as timberland.

Lands which are in the planned ROW area to be acquired are not currently in use for agricultural purposes. No land adjacent to the subject Project location is currently in use for agricultural purposes.

c) **No Impact:** The Project will not cause rezoning of forestland, timberland, or timberland zoned for timber production.

d) **Less than Significant Impact:** The Project area to be disturbed does not include any impacts to forest land other than the eight trees to be removed as mentioned in Section I-Aesthetics and discussed in more detail in Section IV-Biological Resources.

e) **No Impact:** Not Applicable. This Project will not have any effect on other surrounding land which would cause it to be converted to a non-agricultural use.

**Mitigation Measures**

Mitigation Measures listed for Section IV-Biological Resources will assure that impacts are reduced to a less-than-significant level.

No additional Project specific mitigations are required under this section.

[19] USDA Natural Resources Conservation Service: Web Soil Survey, *http://websoilsurvey.sc.egov.usda.gov/app/HomePage.htm,* accessed Dec 2013

| | | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|---|
| **III.** | **AIR QUALITY** | | | | |
| Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the Project: | | | | | |
| a) | Conflict with or obstruct implementation of the applicable air quality plan? | ☐ | ☐ | ☑ | ☐ |
| b) | Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | ☐ | ☐ | ☑ | ☐ |
| c) | Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | ☐ | ☑ | ☐ | ☐ |
| d) | Expose sensitive receptors to substantial pollutant concentrations? | ☐ | ☑ | ☐ | ☐ |
| e) | Create objectionable odors affecting a substantial number of people? | ☐ | ☐ | ☐ | ☑ |

**Discussion of Impacts**

a) **Less than Significant Impact:** The limited nature of the work to be performed will not have a significant impact on Air Quality. Site of all work, including staging will be less than one acre. Caltrans Standard Specifications will be used for construction; as such Contractor shall be responsible for complying will all applicable air pollution control rules and regulation specified therein.

b) **Less than Significant Impact:** There is minimal earth disturbing activity required during construction, therefore the risk of impacts from fugitive dust is low. A lense of ultramafic rock is present at the site, but is overlain by approximately 20 ft of silty sand and gravel that makes up the west bank of Ten Mile Creek. The only Project activity that will affect this lense is pile driving and that activity will not cause this material to be brought to the surface or to become airborne.

Caltrans Standard Specifications will be used for construction; and as such Contractor shall be responsible for complying will all applicable air pollution control rules and regulation specified therein. Potential air quality violations as a result of construction will be minimized through Best Management Practices (BMPs) to minimize the potential for fugitive dust.

The proposed Project is designed to provide safe pedestrian and bicycle facilities.

c) **Less than Significant Impact with Mitigations Incorporated:** Mendocino County is a state designated non-attainment area for particulate matter[20]. See a) and b) above for construction related issues. The Project will have no effect on the volume of vehicular traffic.

d) **Less than Significant Impact with Mitigations Incorporated:** See a) and b) above for construction related issues. Nearby residences, the adjacent business, and the high school are already subjected to vehicle emissions from Branscomb Road vehicular traffic. The Project will have no effect on the volume of vehicular traffic.

e) **No Impact:** Numbers of people in proximity to the Project during working hours are expected to be low, as work tasks will be scheduled to accommodate pedestrians, primarily school age, travelling to and from school during specific periods of time. Vehicle emissions can be highly objectionable, and the current bridge configuration places pedestrians directly adjacent to passing vehicles. One long-term outcome of this Project will be to move the course of pedestrian travel a greater distance from the travelled way and further from the source of routine traffic exhausts.

**Mitigation Measures**

Due to the limited construction activities associated with the proposed action, construction emissions would be well below regulatory levels. However, the following mitigation measures will be included to ensure effects related to air quality remain below significance thresholds during construction.

*Efforts to minimize the amount of disturbance and areas cleared of vegetation, and to revegetate disturbed areas as soon as possible after disturbance, included in Mitigation Measures listed in IV-Biological Resources and VII-Greenhouse Gas Emissions will also aid in assuring that potential impacts are reduced to a less than significant level.*

Fugitive Dust

*III-1 Contractor shall provide and use adequate water and/or other dust palliatives shall be used on all disturbed areas in order to avoid particle blow-off.*

*III-2 Track-out reduction measures such as gravel pads should be used at access points to minimize dust and mud deposits on roads affected by construction traffic.*

*III-3 Contractor shall sweep paved streets as necessary to control trackout or fugitive dust.*

*III-4 Contractor shall cover or tarp all vehicles hauling dirt or spoils on public roads if sufficient freeboard is not available to prevent material blow-off during transport.*

*III-5 Contractor shall limit work if wind conditions make preventing fugitive dust emissions impracticable.*

Construction

*III-6 Water shall be applied to exposed soil surfaces at the construction site(s) and equipment as frequently as necessary to control fugitive dust emissions. Keep soil moist while loading into dump trucks to minimize fugitive dust.*

*III-7 Cover construction materials and stockpiled soils if they are a source of fugitive dust.*

[20] California Environmental Protection Agency, Air Resources Board, *Area Designations Map/State and National,* can be viewed at: http://www.arb.ca.gov/desig/adm/adm.htm.

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|
| **IV. BIOLOGICAL RESOURCES** | | | | |
| Would the Project: | | | | |
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | ☐ | ☑ | ☐ | ☐ |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service? | ☐ | ☑ | ☐ | ☐ |
| c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | ☐ | ☑ | ☐ | ☐ |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | ☐ | ☑ | ☐ | ☐ |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | ☐ | ☑ | ☐ | ☐ |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | ☐ | ☐ | ☐ | ☑ |

**Discussion of Impacts**

a) **Less than Significant Impact with Mitigation Incorporated:** There is potential for impact to Chinook salmon, steelhead, and/or Coho salmon, depending on stream

conditions during construction. Creek flow conditions at the time of construction could affect the necessary mitigations.

The eventual decay of the root mass of the alder tree to be removed may result in reduced low flow scouring which currently results in deepened pools or areas of flow adjacent to the root mass. Ten Mile Creek has been observed to have a dynamic equilibrium, therefore the active and wetted portions of channel has the tendency to move to the easterly or westerly from year to year within the defined bank during the low flows of summer months.

Excavation could potentially create sediment or encourage erosion.

Vibratory driving of steel H-piles or steel pipe piles in lieu of diesel impact hammer driving of concrete piles is a preferred method to reduce the potential for barotrauma to fish.

There is potential for accidental discharge of petroleum products from construction equipment.

b) **Less than Significant Impact with Mitigation Incorporated:** The Biological Assessment prepared for the Project addresses the designated critical habitat for Chinook in the California Coastal ESU, for steelhead in the Northern California ESU, and for coho in the Northern California/Southern Oregon ESU. Sedimentation and removal of vegetation were identified as sources of potential impact from construction. One large (36" dbh) alder tree will be removed along with seven other trees consisting of two ash, one bay, one buckeye, and three willow trees. The alder was noted as being close to the existing busy roadway and does not appear to be attractive as wildlife habitat, however its removal will reduce shading. Shading lost will be partially offset by additional shading provided by the new pedestrian bridge, by providing an expanse of the permanent shade, while the replacement trees become established in the interim and beyond.

   As noted in the Habitat Assessment and Botanical Survey an intact oak woodland consisting of Valley Oaks and Black Oaks is present at the site. Three mature Valley Oaks have potential to be impacted by construction within their driplines.

c) **Less than Significant Impact with Mitigation Incorporated:** Two areas of wetland delineated within in the proximity of the Project, are situated with one approximately 30 ft north of the proposed work, and the other over 100 ft east of the proposed work. Thusly, it will be possible to avoid any impacts to the wetland areas.

d) **Less than Significant Impact with Mitigation Incorporated:** No birds identified as a species of concern have been reported in the area of the Project. Work in the channel bottom will be limited to manual labor working with hand tools.

e) **Less than Significant Impact with Mitigation Incorporated:** This Project will comply with the County's oak tree retention and replacement policies intended to protect and retain natural vegetation to the extent possible. See Mitigations Measures listed below which will reduce impacts to less-than significant levels.

f) **No Impact:** No other conservation plan is currently adopted or approved, other than those listed herein.

**Mitigation Measures**

Efforts to avoid, minimize, or mitigate impacts to a less than significant level affecting biological resources that will be taken and are detailed below.

<u>General Efforts</u>

*IV-1 In order to avoid and/or minimize impacts to wildlife, the County will coordinate preconstruction surveys to ensure that no listed or special status species are present within the project vicinity, prior to the onset on construction activities.*

*IV-2 Construction is temporary and it will only be allowed to occur only during daylight hours limited to 7:00 am to 7:00 pm weekdays which will minimize impacts to public and to wildlife.*

*IV-3 In order to minimize the potential for impacts, the Project design incorporates a prefabricated truss style bridge that will clear span the channel bottom. The bridge type to be specified is such that the sections will be assembled, lifted from the bridge deck level onto the prepared foundations, eliminating the need to enter the creek bottom with mechanized equipment or to erect scaffolding or falsework on the channel bottom.*

*IV-4 Best practices require that the proposed work be performed between June 15 and October 15. Construction work for this Project is proposed in a period of low stream flow in late summer of 2015, from August 1 through September 15, and in no case later than October 15, unless a consultation with CDFW/NOAA NMFS is conducted.*

Fish and Wildlife Measures

Large boulder(s) or woody debris may be placed in the stream channel to provide instream structure to encourage scouring. This process is currently in negotiation with California Department of Fish and Wildlife, National Marine Fisheries Service and Caltrans Local Assistance, Refer to Mitigation Measure IV-16 below for additional information.

Construction noise has the potential to impact both human and wildlife species if not minimized. Impacts due to noise will be minimized on this Project by implementation of the following mitigation measures. The size of equipment used and the proximity to receptors have a direct effect on the noise pressure level. Pile driving will result in excessive noise; however, it will be of a short duration. Pile driving will be accomplished with vibratory pile driving methods, avoiding the use of impact hammer driving, as described earlier in this report. Actual pile driving is anticipated to be completed in one to two days. Refer to Mitigation Measures presented in XII–Noise to be implemented on this project.

Potential impacts to biological resources, resulting effects on water quality resulting from construction, including those related to sedimentation and erosion, and from other contaminants reaching the water course are addressed in Mitigations Measures presented in IX – Hydrology and Water Quality.

Protection of Valley Oaks

Potential impacts to three existing Valley oaks could result from equipment working in proximity to trees, and from placing fill within the driplines of the trees as described in the Habitat Assessment and Botanical Survey. No significant trenching is required to be performed crossing the root zones of the trees. The following measures will be implemented to increase awareness about working in root zones and to avoid smothering the roots of the affected oaks with additional fill by constructing a 6-in (minimum thick) root protection blanket, designed to allow air and moisture to reach the underlying roots. The following Mitigation Measures are more fully described in the Riparian Restoration and Wetland Mitigation Monitoring Plan.

*IV-5 Construction documents will include requirements and provide details to avoid or minimize impacts to the root zone of the Valley oaks. Specific methods include:*

*Contractor shall plan construction activities such that the tree trunks and limbs are avoided while maneuvering equipment.*

*The use of equipment within the driplines of the oaks should be avoided to the extent possible. If it is necessary to maneuver equipment within an area less than half the distance from the dripline to the bole of the tree, the area should be bridged with railroad ties and steel plates.*

*If serious bark wounds occur to the subject trees, an arborist should be contacted to examine and reshape the wound for proper healing.*

*IV-6 To avoid impact to roots of one 36" dbh Valley oak near the end of the east bridge approach, fills will be constructed that will incorporate "root blanket protection" to allow air and water to reach the root area.*

*Work will begin with careful clearing of surface debris down to or slightly below the surrounding grade. Exposed roots will be maintained in a moist and protected condition until fill is placed, such as by covering with damp burlap bags.*

*A "geogrid" style textile will be placed over the prepared area. Over that, a layer not less than 6 inches deep, of properly sized clean aggregate will be placed. The geogrid will be wrapped up the sides and onto the top of the gravel blanket to contain the gravel, and a geotextile filter-style fabric will be placed over the root blanket to prevent sediment from filling in the air voids.*

*Above the sandwiched rock blanket, the fills will be brought to the proper grade with a combination of base rock and a finished surface of concrete and/or asphalt paving.*

*To reduce the footprint of the fill at the east end, a small retaining curb will be constructed on the north and east side of the approach. Due to its proximity to the 36-inch valley oak it will be necessary to bridge the curb along the area at its closest to the tree to avoid excavation for a deepened footing. If practicable, the raised walkway approach will be extended as far as possible to minimize the area of fill required for the east approach ramp.*

*IV-7 To avoid impact to roots of one 24" dbh Valley oak near the end of the east bridge approach, root blanket protection to allow air and water to reach root area will be installed prior to adding fill to reach the required grade. See further details above.*

*IV-8 To avoid impact to roots of one 48" dbh Valley oak near the end of the west bridge approach, root blanket protection to allow air and water to reach root area will be installed prior to adding fill to reach the required grade. See further details above.*

*IV-9 In addition, invasive species will be removed from areas disturbed by construction as a measure of enhanced mitigation and so as not to inadvertently cause additional spreading. As enhanced mitigation for disturbances caused by project activities, invasive species shall be required to be removed carefully by hand from all areas disturbed for construction and for planting of trees. Care shall be taken to avoid leaving roots that can repropogate. Removed vegetative materials capable of repropagating shall not be used as mulch, and shall be disposed of properly off the project site. These areas will be restored as outlined in the RRWMMP referred to above.*

Mitigation Planting

The following Mitigation Measures address impacts to riparian vegetation that affect sensitive species and the riparian community described in the Habitat Assessment and Botanical Survey. Preparation and planting methods related to implementing these mitigation measures are more fully described in the Riparian Restoration and Wetland Mitigation Monitoring Plan. The minimum required replacement planting rate is 3:1 for each species. A higher replacement planting ratio of 6:1 is proposed to help ensure that success will be achieved in the five-year monitoring period.

Revegetation monitoring for the riparian mitigation area will be initiated immediately following completion of the planting, and extend for a period of up to five years. Monitoring surveys will consist of a general site walkover evaluating the survival and health of riparian plantings, signs

of drought stress, weed or herbivory problems, and the presence or trash or other debris. Corrective measures including replacement of revegetation plantings, application of supplemental irrigation, hand removal of non-native weeds, replacement or removal of protective plant covers, and the removal of trash and debris will be implemented as necessary. Within the mitigation area, less than 50% total mortality of species, replaced at a minimum 3:1 ratio (including container stock and hardwood cuttings) will be considered a success. Greater than 50% mortality of species will be considered acceptable if "volunteer" native species provide complete vegetation coverage in the mitigation area. If monitoring results indicate that revegetation efforts are not meeting established success criteria, corrective measures would be implemented.

*IV-10 To compensate for the removal of one 36" dbh white alder, six alders will be planted (6:1 replanting ratio) on the east side of Ten Mile Creek (Planting Area C) and invasive species will be removed from the area as described in Mitigation Measures IV-18 and IV-19. The area is below the OHWM to provide close proximity to water, and is subjected to sunlight, both of which are needed for the alders to succeed. Success shall be the result of achieving no less than a 50% survival rate of the species as more thoroughly described above.*

*IV-11 To compensate for the removal of one 10" dbh California buckeye tree, six buckeye trees will be planted on the west side of Ten Mile Creek (Planting Area A) and invasive species will be removed from the area as mentioned in IV-10 above. Success shall be the result of achieving no less than a 50% survival rate of the species as more thoroughly described above.*

*IV-12 To compensate for the removal of two 4" dbh Oregon ash tree, twelve ash trees will be planted on the west side of Ten Mile Creek (Planting Area A) and invasive species will be removed from the area as mentioned in IV-10 above. Success shall be the result of achieving no less than a 50% survival rate of the species as more thoroughly described above.*

*IV-13 To compensate for the removal one 4" dbh California Bay trees, six bay trees will be planted on the west side of Ten Mile Creek (Planting Area A) and invasive species will be removed from the area as mentioned in IV-10 above. Success shall be the result of achieving no less than a 50% survival rate of the species as more thoroughly described above.*

*IV-14 To compensate for the removal of three 4" dbh Arroyo willow tree, eighteen willow trees will be planted on the west side of Ten Mile Creek (Planting Areas B) between the two bridges, and invasive species will be removed as mentioned in IV-10 above. Success shall be the result of achieving no less than a 50% survival rate of the species as more thoroughly described above. These tree plantings will also serve to reduce sedimentation and erosion due to their placement.*

*IV-15 MCDOT shall secure a source for providing water to irrigate plantings during the plant establishment period. If a local source cannot be procured MCDOT will secure a location for and furnish a storage tank to facilitate routine irrigation, and shall replenish water supply as necessary.*

*IV-16 The eventual decay of the root mass and the likely loss of the deepened pool or areas of flowing water benefiting fish and wildlife species will require mitigation. Large boulders or woody debris may be placed to encourage the development of pools near the center of the channel bottom, downstream of the bridge within the studied area of potential effects. Negotiations* are currently in process with regulating agencies regarding this

mitigation. *In order to minimize potential impacts of this work, the following measures will be taken:*

*As a proactive measure, to avoid project delays it is recommended that flow conditions be monitored the month preceding construction so that a course of action can be undertaken in a timely manner.*

*If there is standing or flowing water at the only advantageous location for the boulder placement at the time of construction, CDFW/NOAA NMFS will be notified and a snorkel survey will be conducted to determine if species of concern are present. If required an Incidental Take Permit (ITP) will be acquired and those present will be relocated or the flow temporarily diverted.*

*If possible boulders or woody debris will be lowered from the bridge level above by crane or boom truck into the prepared holes.*

*Laborers will repack the holes around the boulders or woody debris with the excavated material around the boulders.*

Protection to Wetlands

The following Mitigation Measures address impacts to riparian vegetation that affect sensitive species and the riparian community described in the Habitat Assessment and Botanical Survey. These mitigation measures are more fully described in the Riparian Restoration and Wetland Mitigation Monitoring Plan.

*IV-17 The Contractor shall be required to install and maintain high visibility protective exclusionary fencing around two existing wetland areas within the Biological/Botanical Study Area, identified in the preliminary wetland delineation report, both of which are outside of the construction areas. Fencing will help to avoid accidental disturbance of or damage to wetland vegetation damage by preventing entry into the protected areas.*

Removal of Invasive Species

*IV-18 Invasive vegetative species shall be removed from areas disturbed by the construction and planting activities. They shall be removed according to guidance provided in the RRWMMP report. In general, vegetation shall be removed carefully by hand from all areas disturbed for construction and replanting. Care shall be taken to avoid leaving roots that can repropogate. Stripped vegetative matter of native and non-invasive species may be placed as mulch over disturbed areas where called for in construction documents.*

*IV-19 Vegetative matter that is capable of repropagating invasive species shall not be used as mulch and shall be removed from the site by the Contractor.*

Protection of Existing Vegetation

*IV-20 The Engineer shall include specifications in the construction documents that require the Contractor to comply with CASQA Erosion Control BMP EC-2 and Stream Bank Stabilization EC-12, which includes at a minimum the following protective measures.*

*IV-21 The Contractor shall preserve existing vegetation where not otherwise specified for removal. Contractor shall plan work such that no new access will be required to be developed, other than over the minimum footprints required to be disturbed for the work.*

*IV-22 The Contractor shall not allow mechanized track or wheel driven equipment to be used in the streambed to avoid impacts to the channel bottom.*

*IV-23 The Contractor shall, to the extent feasible, limit the use of track or wheel driven equipment at the pile cap construction locations, to minimize wear and tear on existing vegetation.*

Restoration of Vegetation

*IV-24 Areas disturbed by the construction and plantings shall be treated as described in the RRWMMP in "Table 5. Recommended Plant Installation Specifications for Temporary Disturbance Areas."*

*IV-25 Revegetation and protection shall be performed as soon as feasible to provide the most effective protection and prior to the onset of the rainy season.*

| | | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|---|
| **V.** | **CULTURAL RESOURCES:** | | | | |
| | Would the Project: | | | | |
| a) | Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5? | ☐ | ☐ | ☐ | ☑ |
| b) | Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5? | ☐ | ☑ | ☐ | ☐ |
| c) | Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | ☐ | ☐ | ☐ | ☑ |
| d) | Disturb any human remains, including those interred outside of formal cemeteries? | ☐ | ☐ | ☐ | ☑ |

**Discussion of Impacts**

a) **No Impact:** A building of historical interest currently housing a commercial feed store is of significant age, and is the subject of a Historical Resources Evaluation Report (HRER) prepared for this Project.

The existing highway bridge (10C0101) was determined not be of historical significance.

b) **Less than Significant Impact:** An Environmentally Sensitive Area (ESA) has been defined by the Project Archeologist, and an ESA Action Plan has been prepared. Mitigation tasks are outlined in the ESA Action Plan, and listed below. These actions will help assure that potential impacts to archeological resources are reduced to a less than significant level.

c) **No Impact:** No unique geologic features are associated with the Project. The potential for encountering paleontological resources is not anticipated due to the geology and topography of the site. If any paleontological resources are encountered during construction, Mitigation Measure V-12 below will help assure that potential impacts are reduced to a less than significant level.

d) **No Impact:** No archaeological or cultural artifacts have been identified within the Project study area, and encountering human remains is unlikely. If any human remains are encountered during construction, Mitigation Measure V-13 below will help assure that potential impacts are reduced to a less than significant level.

**Mitigation Measures**

Prior to construction the following Mitigation Measures to minimize potential impacts to cultural resources will be implemented:

*V-1 Contract provisions will provide direction to Contractor in the event cultural materials are discovered during construction, as described further in Measure V-12 below.*

*V-2 Contract provisions will provide direction to Contractor in the event human remains are discovered during construction, as described further in Measure V-13 below.*

*V-3 The County Engineer and Project Manager will ensure that the ESA for CA-MEN-1146 will be clearly described and illustrated in the plans and specifications prepared to guide construction of the undertaking.*

*V-4 All responsible parties, including the Project Archaeologist will review the final design plans and bid package to ensure that ESA are included.*

*V-5 The County Project Manager will ensure the ESA Action Plan is included in the Environmental Commitment Record (ECR) and the Engineer File.*

*V-6 All responsible parties will ensure that the ESA is discussed during the preconstruction meeting. The importance of the ESA will be discussed with construction personnel and it will be stressed that no construction activity shall occur within the ESA. Additionally, construction personnel will be informed of historic preservation laws that protect archaeological sites against any disturbance or removal of artifacts.*

*V-7 The County Engineer will notify the Project Archaeologist at least ten days in advance of construction to ensure that the Project Archaeologist will be available to monitor fence installation and allow for a field review of the ESA location.*

*V-8 All responsible parties will perform a field review of the ESA location at least one calendar week prior to construction activities.*

During construction the following Mitigation Measures will be implemented:

*V-9 Driven t-posts or lathe with clearly visible "Area Prohibited" signage will be installed by the Contractor along the proposed ESA for CA-MEN-1146 at least one week prior to initiating any work. The Project Archaeologist will coordinate this activity with the County Engineer, and be present to supervise and monitor fence installation.*

*V-10 The Project Archaeologist will be notified when construction begins and will inspect the construction area on a periodic basis to ensure that the ESA is not breached. The County Engineer will visit weekly during construction to ensure the integrity of the ESA.*

*V-11 The Caltrans Project Archaeologist and State Historic Preservation Officer will be notified by the County Engineer and/or Manager and Project Archaeologist within 24 hours of any ESA breach and consult immediately to determine how the breach will be addressed.*

*V-12 In the event that cultural materials are discovered during construction, Contractor shall halt all earth-moving activity within and around the immediate discovery area and will be diverted until a qualified archaeologist can assess the nature and significance of the find.*

*V-13 In the event that human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains. The County Coroner shall be contacted. Pursuant to CA Public Resources Code (PRC) Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), which will then notify the Most Likely Descendent (MLD).*

After construction the following Mitigation Measures will be implemented:

*V-14 The County Engineer and/or County Manager will inform the Project Archaeologist and Caltrans Project Archaeologist when construction is finished.*

*V-15 The Contractor, under supervision of the County Engineer and/or Project Archaeologist will remove ESA signage at the conclusion of construction.*

| | | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|---|
| **VI.** | **GEOLOGY AND SOILS** | | | | |
| | Would the Project: | | | | |
| a) | Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: | | | | |
| i) | Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. | ☐ | ☐ | ☑ | ☐ |
| ii) | Strong seismic ground shaking? | ☐ | ☑ | ☐ | ☐ |
| iii) | Seismic-related ground failure, including liquefaction? | ☐ | ☑ | ☐ | ☐ |
| iv) | Landslides? | ☐ | ☐ | ☐ | ☑ |
| b) | Result in substantial soil erosion or the loss of topsoil? | ☐ | ☑ | ☐ | ☐ |
| c) | Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on-site or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | ☐ | ☑ | ☐ | ☐ |
| d) | Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? | ☐ | ☐ | ☐ | ☑ |
| e) | Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? | ☐ | ☐ | ☐ | ☑ |

**Discussion of Impacts**

a i) **Less than Significant Impact:** Refer to: Department of Conservation Regulatory Maps, Fault Zone Map, Special Studies Zone, Laytonville Quadrangle, dated July 1, 1983. The proposed project is approximately 1.5 Miles north of the delineated Special Study Zone Boundary[21].

[21] California Department of Conservation, California Geological Survey, search for regulatory maps, *http://www.quake.ca.gov/gmaps/WH/regulatorymaps.htm* accessed Jan 2014

a ii) **Less than Significant Impact:** Project design criteria allows for structural damage to occur in a seismic event, but does not allow for collapse.

a iii) **Less than Significant with Mitigation Incorporated:** Liquefaction and/or co-seismic settlement are a risk in loose to medium dense, saturated alluvium. A liquefaction assessment was not within the scope of the project study; however, the project geotechnical engineer considers the saturated alluvium to approximate depth of 20 ft at the west bank and 28 ft at the east bank as being subject to liquefaction.

a iv) **No Impact:** The Project area is not threatened by landslides, as indicated on the regulatory map entitled Geology and Geomorphic Features related to Landsliding, Laytonville 7.5' Quadrangle[22].

b) **Less than Significant with Mitigation Incorporated**: Areas disturbed for construction and for planting of trees could be eroded by rainfall if they are in an unprotected state. Areas to be disturbed are limited to just the amount necessary to perform the work. No additional access routes are to be developed for this Project.

c) **Less than Significant with Mitigation Incorporated:** Project geotechnical investigation was structured to study liquefaction and resulting design factors in the presence of liquefiable soils on the east end of the Project.

d) **No Impact:** Expansive soils were not found to be present at the site during the geotechnical investigations for the Project.

e) **No Impact:** Not applicable to the scope of this Project. No waste disposal systems required as a part of this Project.

**Mitigation Measures**

*V-1 Vibratory equipment will be specified to be used for pile driving. The piles will be driven to deeper depths calculated to provide an increased factor of safety to avoid the common practice of restriking the piles to determine their bearing capacity.*

Mitigation Measures listed for IV-Biological Resources and IX-Hydrology and Water Quality will help assure that sediment and erosion impacts are reduced to a less-than-significant level.

No additional Project specific mitigations are required under this section.

[22] Kilbourne, R.T., *Geology and Geomorphic Features related to Landsliding*, Laytonville 7.5' Quadrangle, 1984, *ftp://ftp.consrv.ca.gov/pub/dmg/pubs/ofr/OFR_84-41/OFR_84-41.pdf,* accessed Jan 2014

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|
| **VII. GREENHOUSE GAS EMISSIONS** | | | | |
| Would the Project: | | | | |
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | ☐ | ☑ | ☐ | ☐ |
| b) Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | ☐ | ☐ | ☑ | ☐ |

**Discussion of Impacts**

a) **Less than Significant with Mitigation Incorporated:** Construction of this Project will generate greenhouse gas (GHG) emissions. Assumptions related to equipment usage were included in the Natural Environment Study (NES) for this Project.

The Build Carbon Neutral Construction Carbon Calculator[23] calculates the effect of the loss of vegetation resulting from the Project. This Project includes a total of 3,559 SF of areas disturbed of which 563 SF is permanent. Areas disturbed for the work, cleared of invasive species, and replanted with native vegetation, including the areas of 48 replacement trees total 2,996 SF. The calculator provided results that indicate approximately 2 metric tons of GHG emissions in the form of $CO_2$ will result from this Project due to loss of vegetation.

The online calculator provided by the Greenhouse Gas Protocol[24] (1) was used to estimate the GHG emissions produced by equipment during the construction process, specifically the amount of CO2. It was assumed that the primary equipment used during construction would be a loader backhoe, pile-driver, concrete mixing truck, two 80-ton cranes, two semi-trailer trucks, and a compactor. Using best available information in regard to fuel consumption of each piece of equipment, the GHG emissions calculator estimates that the construction equipment will produce approximately 9.7 metric tons of CO2 during the 6 weeks of expected construction time.

The total estimated greenhouse gas emissions from this Project is calculated to be 11.7 metric tons. The Mendocino County Air Quality Management District does not have a construction-related emissions threshold, but considers operational emissions significant if they exceed 1,100 metric tons annually.

The following Best Management Practices (BMPs) will be incorporated in the Project construction documents to assure that impacts due to GHGs are reduced to a less than significant level.

b) **Less than Significant Impact:** Mendocino County Air Quality Management District has not adopted a plan, or policy, or regulations for reducing Greenhouse Gas Emissions. The State of California has adopted several regulations regarding reducing tailpipe emissions

[23] Build Carbon Neutral, Construction Carbon Calculator, *http://buildcarbonneutral.org/,* accessed Sep 2014
[24] GHG Emissions from Transport or Mobile Sources, The Greenhouse Gas Protocol, *http://www.ghgprotocol.org/calculation-tools/all-tools,* accessed Oct 2014

and exhausts produced by diesel fuel engines. The measures referred to below will be incorporated in the Project construction documents and will help assure that impacts due to GHGs are reduced to a less than significant level.

**Mitigation Measures**

The following equipment emissions measures will aid in assuring the impacts are reduced to a less than significant level.

*VII-1 Construction equipment and vehicles should be properly tuned and maintained. Low sulfur fuel should be used in all construction equipment.*

*VII-2 Limit idling times on trucks and equipment used during construction*

| | | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|---|
| **VIII.** | **HAZARDS AND HAZARDOUS MATERIALS** | | | | |
| | Would the Project: | | | | |
| a) | Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | ☐ | ☐ | ☑ | ☐ |
| b) | Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | ☐ | ☐ | ☑ | ☐ |
| c) | Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | ☐ | ☐ | ☑ | ☐ |
| d) | Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | ☐ | ☐ | ☐ | ☑ |
| e) | For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard for people residing or working in the Project area? | ☐ | ☐ | ☐ | ☑ |
| f) | For a Project within the vicinity of a private airstrip, would the Project result in a safety hazard for people residing or working in the Project area? | ☐ | ☐ | ☐ | ☑ |
| g) | Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | ☐ | ☑ | ☐ | ☐ |
| h) | Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? | ☐ | ☐ | ☐ | ☑ |

**Discussion of Impacts**

a) **Less than Significant Impact:** Small amounts of potentially hazardous materials will be used on this Project such as fuel, lubricants, and cleaning materials. Proper use of materials in accordance with local, state, and federal requirements, and as required in the construction documents, will reduce the potential for accidental releases or emissions from hazardous materials. This will assure that the risks of Project uses impacting the human or biological environment will be reduced to a less than significant level. There will be no increase in traffic as a result of this Project, thus an increase in exposure due to the risks of transporting hazardous materials will not change.

b) **Less than Significant Impact:** See response to a) above.

c) **Less than Significant Impact:** The SW corner of the high school parcel is within approximately 435 ft of the Project (less than 1/4-mile) and nearest building is approximately 848 ft. However due to the small amounts of material to be handled, and as described in a) above, the Project will result in a less than significant impact.

d) **No Impact:** A search of the Geotracker database for a distance of 1000 ft of the Site yielded no cleanup sites[25].

e) **No Impact:** There is no public use airport in Laytonville.

f) **No Impact:** Project is almost 7,000 ft NNW of a private airstrip.

g) **Less than Significant Impact with Mitigations Implemented:** There is no alternate route around the Project. The Project will interrupt traffic, but only for short periods of time. The contractor will be required to prepare a traffic control and communication plans which shall address the ability to provide passage to emergency response vehicles, which will reduce impacts to less than significant.

h) **No Impact:** Project will not increase risk due to wildland fires above existing conditions

**Mitigation Measures**

Mitigation Measures listed in IX-Hydrology and Water Quality will assure that potential for impacts from hazards and hazardous materials shall be reduced to a less than significant level.

Mitigation Measure XVII-2 will be implemented to address accessibility for emergency response vehicles to assure that impacts to emergency response efforts shall be reduced to a less than significant level.

[25] *http://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=Laytonville%2C+CA, accessed Oct 2014*

| | | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|---|
| **IX.** | **HYDROLOGY AND WATER QUALITY** | | | | |
| | Would the Project: | | | | |
| a) | Violate any water quality standards or waste discharge requirements? | ☐ | ☑ | ☐ | ☐ |
| b) | Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | ☐ | ☐ | ☐ | ☑ |
| c) | Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? | ☐ | ☑ | ☐ | ☐ |
| d) | Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? | ☐ | ☐ | ☐ | ☑ |
| e) | Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? | ☐ | ☐ | ☐ | ☑ |
| f) | Otherwise substantially degrade water quality? | ☐ | ☑ | ☐ | ☐ |
| g) | Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | ☐ | ☐ | ☐ | ☑ |
| h) | Place within a 100-year flood hazard area structures which would impede or redirect flood flows? | ☐ | ☐ | ☐ | ☑ |

| | | | | | |
|---|---|---|---|---|---|
| i) | Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? | ☐ | ☐ | ☐ | ☑ |
| j) | Inundation by seiche, tsunami, or mudflow? | ☐ | ☐ | ☐ | ☑ |

**Discussion of Impacts**

a) **Less than Significant Impact with Mitigations Incorporated:** All work will be performed above the ordinary high water except for a very small portion of excavation for the east pier footing and possible excavation of holes in which to seat mitigation boulders or woody debris. All ground disturbing work will be performed during the dry time of the year, when the water is well below the OHW. Typical BMPs will be employed throughout construction to minimize any impact to less than significant as noted. Erosion Control Plan will be included with the construction documents. The Contractor will be required to implement and maintain water quality BMPs throughout construction. These measures will be incorporated into a water pollution control plan (WPCP) to be developed by the Contractor.

b) **No Impact:** Project construction will not draw on or interfere with groundwater resources. Minimal hardscape will be added so there will be no significant deterrent to groundwater recharge.

c) **Less than Significant Impact with Mitigations Incorporated:** Project design and construction will incorporate BMPs for all disturbed areas to provide temporary and permanent erosion and siltation control measures. Mitigation Measures included here, in IV-Biological Resources, and in the preliminary Erosion Control Plan will be implemented to assure that potential erosion and/or siltation impacts are reduced to a less-than-significant level.

d) **No Impact:** Project will require fill in the floodway and within the confines of the stream channel. The project Flood Assessment Study was conducted and determined that the project would not result in a rise in the base flood elevation. Additionally, permitting requirements imposed by Mendocino County, and best practices imposed on the Contractor in accordance with the contract conditions should safeguard the project such that the risk of impacts due to flooding are reduced to less than significant impact. Agency approvals will provide assurance that there will be no impact.

e) **No Impact:** Project creates approximately 529 SF of impermeable surface including walking surface hardscape at the approaches and at the pile cap abutments. Design will assure that existing drainage capacities are adequate to accommodate incremental increase in runoff. Existing roadside ditches will be realigned as necessary and reconstructed. No new storm drainage facilities are proposed.

f) **Less than Significant Impact with Mitigations Incorporated:** Project will require fill to be placed in the floodway and within the confines of the stream channel. A Flood Assessment study was conducted and determined that the project would not result in a rise in the base flood elevation. Additionally permitting requirements imposed by Mendocino County and best practices required of the Contractor in accordance with the construction documents will assure that potential impacts to water quality are reduced to a less than significant level.

g) **No Impact:** Project does not include new housing. Five existing residences, various outbuildings, and one utility structure are located within the 100-year flood hazard area.

h) **No Impact:** No new housing is being constructed as part of this project. Existing structures will see no significant rise as a result of the proposed improvements.

i) **No Impact:** The project is not located within a Dam Failure Inundation Zone as indicated in the map *(http://hazardmitigation.calema.ca.gov/docs/lhmp/Mendocino_County_of.pdf)* that is shown as Figure C-3, included in the Mendocino County Multi-Hazard Mitigation Plan (URS, Jan 2008). The Project will not expose people or structures to higher risk due to dam failure.

j) **No Impact:** The site of the Project is not subject to inundation by seiche, tsunami, or mudflow.

**Mitigation Measures**

Clearing and grubbing, vegetation removal, and establishment of erosion and sediment control measures will be the first matters of business to undertake at the site. The Contractor will prepare a Water Pollution Control Plan and implement the site protection measures to protect water quality from potential impacts resulting from the work of the Project. Measures will comply with the Erosion Control Plan that will be prepared by the Engineer and included in the construction documents; Caltrans Standard Specifications and Special Provisions; Caltrans Water Pollution Control Program (WPCP) guidelines[26]; and requirements included in permits and in the approved Mitigated Negative Declaration (MND) for this Project. During preliminary studies and planning, erosion and sediment control measures were identified and are included in BMPs within this initial study.

To minimize the potential for impacts, the Contractor shall be required to perform work and complete permanent protection measures in as short a time frame as feasible to provide the most effective protection, and prior to the onset of the rainy season. Mitigation Measures identified in IV-Biological Resources also address hydrology and water quality concerns, including scheduling, and are not list here to avoid duplication or conflict.

General Efforts

*IX-1 A Water Pollution Control Plan (WPCP) will be prepared by the Contractor, and approved by the Engineer, including (BMPs) to address areas where materials, equipment, and operations are to occur adjacent to the stream bank or other areas where the streambank may be disturbed by the work.*

Erosion Control and Sediment Transport

The Engineer shall include specifications in the construction documents that require the Contractor to comply with CASQA Sediment and Erosion Control BMPs, including at a minimum the following protective measures.

*IX-2 To minimize potential impacts of sedimentation caused by disturbing the channel bottom and bank areas during removal of trees, the Contractor shall cut trees near ground level, leaving root balls intact.*

*IX-3 Contractor shall hoist vegetation from the channel, from above, and to avoid the use of wheeled or tracked equipment entering the channel to accomplish this task.*

*IX-4 Contractor will be required to utilize work methods and equipment to avoid or minimize the need for using mechanized equipment in the channel bottom to minimize disturbance of the substrate when placing the in-stream mitigation materials, as described previously in this report.*

[26] California Department of Transportation, *Stormwater Quality Handbooks Stormwater Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual*, Mar 2007

*IX-5 Contractor shall install silt fences below the work, and fiber rolls along slope contours to intercept runoff, thus minimizing the potential for impacts by reducing flow velocity, releasing runoff as sheet flow, and removing sediment.*

*IX-6 Contractor shall install temporary check dams in any area of concentrated flow such as roadside ditch that becomes disturbed by the work to minimize potential impacts by removing sediment from the flow stream.*

*IX-7 Contractor shall install storm drain inlet protection in the area of the work to minimize the likelihood of sediment being conveyed to the stream channel.*

Vehicle and Equipment Fueling and Maintenance

*IX-8 Contractor shall minimize the potential for impacts to biological resources and surroundings by performing fueling and maintenance of vehicles and equipment at an offsite facility, whenever possible. Contractor shall designate an area away from drainage courses to be used, if fueling is to take place on site.*

*IX-9 Contractor shall minimize impacts resulting from spills by ensuring that absorbent spill cleanup materials and spill kits are available on the site and are disposed of properly after use. Contractor shall be properly prepared to begin work with appropriate protective measures in place. Use drip pans or absorbent pads at all times. The equipment should be as leak-free as possible.*

*IX-10 As a measure to avoid allowing contaminants being released to the work area and to facilitate cleanup, Contractor shall park equipment over plastic sheeting or equivalent. Plastic sheeting is not a substitute for drop pans or absorbent pads. Use less hazardous products, e.g. vegetable oil, when practicable.*

*IX-11 Contractor shall minimize the potential for impacts to water quality by storing equipment away from flowlines, drainage courses, and inlets, by protecting hydraulic attachments from run-on by placing them on plywood, and by covering them with plastic when rain is forecast.*

*IX-12 Contractor shall minimize potential for impacts by inspecting entire work areas and equipment for leaks and spills on a daily basis. Inspect equipment routinely for damage and repair equipment as needed.*

Concrete Curing

*IX-13 If using chemical curing compound, Contractor shall avoid overspraying of curing compounds, shall minimize drift by spraying close to surface. Contractor shall use proper storage, handling, and transporting of the material products.*

*IX-14 Contractor may use wet blankets or similar method utilizing water to avoid the use of chemicals but shall minimize volumes used to conserve, and shall avoid discharge to the surroundings of the water that has come in contact with freshly placed concrete for minimum of 30 days.*

Material Delivery, Storage, and Use

The Engineer shall include specifications in the construction documents that require the Contractor to comply with CASQA Waste Management and Materials Pollution Control BMPs WM-1 and WM-2, including at a minimum the following protective measures.

*IX-15 In order to minimize the potential for spillage or discharge to waterways, Contractor shall store materials away from vehicular traffic and away from waterways. Contractor shall monitor storage areas on a daily basis to examine for potential leaks or spills.*

*IX-16 In order to minimize the potential for mishandling or accidents, the Contractor shall maintain Material Safety Data Sheets (MSDS) for all materials in use or stored at the site.*

*IX-17 Contractor shall minimize storage of hazardous materials on site. Contractor shall assure that all chemicals are stored in their original labelled containers, with secondary containment if required by codes.*

*IX-18 In order to minimize the period of time, for which impacts might occur, Contractor shall remove from the site all materials no longer needed, as soon as possible.*

Stockpile Management

The Engineer shall include specifications in the construction documents that require the Contractor to comply with CASQA Waste Management and Materials Pollution Control BMP WM-3, which include at a minimum the following protective measures.

*IX-19 Contractor shall place any stockpile at least 50 ft away from concentrated drainages and watercourses to avoid material becoming waterborne.*

*IX-20 Material stockpiled shall be properly covered to avoid transport of sediment during rain events, and from becoming airborne due to wind.*

*IX-21 Contractor shall remove stockpiles from the project area as soon as the material is no longer needed to minimize the period of time that the potential for disturbance can occur.*

Spill Prevention and Control

The Engineer shall include specifications in the construction documents that require the Contractor to comply with CASQA Waste Management and Materials Pollution Control BMP WM-4, which include at a minimum the following protective measures.

*IX-22 In order to avoid potential for improper storage, prolonged cleanup efforts and delayed response to emergencies, Contractor shall maintain storage, cleanup, and spill reporting instructions for hazardous materials on site. Contractor shall properly store used cleanup materials, and remove promptly from the project site.*

*IX-23 To minimize the impact and extent of an accidental spill, Contractor shall maintain a supply of spill cleanup materials where it can be readily accessed.*

Solid Waste Management

The Engineer shall include specifications in the construction documents that require the Contractor to comply with CASQA Waste Management and Materials Pollution Control BMP WM-5, which include at a minimum the following protective measures.

*IX-24 In order to avoid wastage of reusable materials, Contractor shall prepare a "Construction and Demolition Recycling and Reuse Plan" and submit it to Mendocino Solid Waste Management Authority (MSWMA) for construction debris, and dispose of the same according to Mendocino County recommendations for local recycling opportunities.*

*IX-25 Contractor shall dismantle the wood and steel walkway, hoisting material from the above, to avoid the need to work on the channel bottom. Any material that must be removed from the creek channel will be hoisted from above.*

*IX-26 In order to avoid the spread of invasive species, Contractor shall hand dig to remove invasive vegetative matter (such as roots of Himalayan blackberries which can repropogate) and dispose of offsite. Stripped invasive vegetative matter that will not repropogate (such as blackberry canes) may be placed as mulch over disturbed areas.*

*Hand digging offers the additional advantage of avoiding impacts caused by using mechanized equipment*

*IX-27 Trash facilities shall be located away from the water course, and outside of the 100-year floodplain, to avoid their accidental discharge to the project site.*

*IX-28 Contractor shall collect site trash on a daily basis to avoid scavenging and tracking of waste.*

Hazardous Waste Management

The Engineer shall include specifications in the construction documents that require the Contractor to comply with CASQA Waste Management and Materials Pollution Control BMP WM-6, which include at a minimum the following protective measures.

*IX-29 In order to minimize response time to emergencies and to ensure proper handling, Contractor shall maintain a copy of all Hazardous Waste Manifests.*

*IX-30 In order to avoid chemical reactions, to minimize efforts to recycle and dispose of materials, Contractor shall segregate hazardous wastes from non-hazardous wastes on site. Mixing wastes can cause chemical reactions and can make recycling impossible and disposal difficult.*

Concrete Waste Management

Concrete will be used to construct the pile cap/support structures, portions of the elevated approaches and to pave the bridge deck. The Engineer shall include specifications in the construction documents that require the Contractor to comply with CASQA Waste Management and Materials Pollution Control BMP WM-8, which include at a minimum the following protective measures.

*IX-31 In order to avoid spillage and tracing, Contractor shall provide, utilize, and maintain, temporary concrete washout station(s), located in a designated area, at least 50 ft away from watercourse.*

*IX-32 To avoid continued potential for accidental releases or damage, concrete washout station(s) shall be removed from the site as soon as practicable.*

Sanitary/Septic Waste Management

The Engineer shall include specifications in the construction documents that require the Contractor to provide temporary sanitary facilities for workers.

*IX-33 In order to avoid accidental spills reaching the water course, sanitary unit(s) shall be placed away from the watercourse outside of the 100-year floodplain, in a location that can be properly maintained by the service provider. Sanitary/septic wastes should be disposed of according to state and local requirements.*

| | | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|---|
| **X.** | **LAND USE AND PLANNING** | | | | |
| | Would the Project: | | | | |
| a) | Physically divide an established community? | ☐ | ☐ | ☐ | ☑ |
| b) | Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | ☐ | ☐ | ☐ | ☑ |
| c) | Conflict with any applicable habitat conservation plan or natural community conservation plan? | ☐ | ☑ | ☐ | ☐ |

**Discussion of Impacts**

a) **No Impact:** Does not provide any barrier that causes a division. The proposed footbridge replaces an existing walkway. Traffic obstructions will be temporary, limited to short durations, and only take place during construction work hours. The permanent, wider and more stable walkway will serve to provide a safer corridor between the communities on either side of the bridge.

b) **No Impact:** The proposed footbridge replaces an existing walkway. The Project enhances community's goals to improve pedestrian safety along Branscomb Road.

c) **Less than Significant Impact with Mitigation Incorporated:** One large alder tree along with two ash, one bay, one buckeye and three willows will be removed because they conflict with work to be performed. They are close to the existing busy roadway and they do not appear to be attractive as wildlife habitat due to its conflict with. Shading lost over the channel, by the removal of the alder tree will be offset by shading provided by the new pedestrian bridge. Mitigation Measures listed in IV-Biological Resources will help assure that potential impacts due to removal of vegetation are reduced to a less than significant level.

Three mature Valley Oaks lie within close proximity of the work to construct the approaches to the bridge ends and have the potential to be impacted by fill placed within. Mitigation Measures listed in IV- Biological Resources will help assure that potential impacts due to filling within the driplines are reduced to a less than significant level.

**Mitigation Measures**

Mitigation Measures listed in IV-Biological Resources will help assure that potential impacts to habitats and natural communities are reduced to a less than significant level.

| | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| **XI.** | **MINERAL RESOURCES** | | | | |
| | Would the Project: | | | | |
| a) | Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | ☐ | ☐ | ☐ | ☑ |
| b) | Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan? | ☐ | ☐ | ☐ | ☑ |

**Discussion of Impacts**

a) **No Impact:** No known mineral resource of value is present at the site.

b) **No Impact:** No delineated resource recovery site at this location.

**Mitigation Measures**

No project specific mitigations are required under this section.

| | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| **XII.** | **NOISE** | | | | |
| | Would the Project result in: | | | | |
| a) | Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | ☐ | ☑ | ☐ | ☐ |
| b) | Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | ☐ | ☑ | ☐ | ☐ |
| c) | A substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project? | ☐ | ☐ | ☐ | ☑ |
| d) | A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project? | ☐ | ☑ | ☐ | ☐ |
| e) | For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels? | ☐ | ☐ | ☐ | ☑ |
| f) | For a Project within the vicinity of a private airstrip, would the Project expose people residing or working in the Project area to excessive noise levels? | ☐ | ☐ | ☐ | ☑ |

**Discussion of Impacts**

a) **Less than Significant Impact with Mitigations Implemented:** Construction noise will occur over an approximately six week period of time. Vibratory pile driving is anticipated to be the noisiest activity. This activity will occur over a period of one to two days and only between the hours of 7:00 am and 7:00 pm. In addition, pile driving activities will be limited to periods of no more than 30 minutes over any one hour period of time. These and other mitigation noise measures below should reduce noise impacts to a less than significant level.

b) **Less than Significant Impact with Mitigations Implemented:** See a) above.

c) **No Impact:** There will be no change in traffic to contribute to additional noise. Ambient noise level should be improved by the removal of the existing walkway from the existing vehicular bridge.

d) **Less than Significant Impact with Mitigations Implemented:** See a) above.

e) **No Impact:** Not applicable. Area does not have an airport land use plan and an existing airstrip approximately 7,000 ft from the Project is not open to public use.

f) **No Impact:** See e) above.

**Mitigation Measures**

Pile driving will result in excessive noise; however, it will be of a short duration. Pile driving will be accomplished with vibratory pile driving methods, avoiding the use of impact hammer driving, as described earlier in this report. Actual pile driving is anticipated to be completed in one to two days. The following mitigation measures will be implemented help assure that impacts due to noise are reduced to a less than significant level.

*XII-1 To minimize impacts to residents and businesses, the County shall provide notifications to local residences, businesses, and school as to dates, durations, and emergency contact telephone numbers prior to the start of pile driving.*

*XII-2 To minimize impacts to the public and to wildlife, the noisiest work, that is pile driving, shall be performed during August, if practical, when school is not in session, and breeding and nesting periods have passed. In no case shall pile driving be conducted outside of the period of July 1 – September 15.*

*XII-3 To minimize impacts to the public, the County will have a plan to deal with complaints; keep a log of complaints and resulting actions.*

*XII-4 To minimize impacts during pile driving, the Contractor shall conduct work in accordance with the Mendocino County Zoning Ordinance-Title 20-Division II of The Mendocino County Code (Ord. No. 4017 (part), adopted 1998), such that the surrounding community and wildlife species shall not be exposed to noise from pile driving for more than 30 minutes in any hour.*

*XII-5 To minimize impacts, the Contractor's internal combustion engine powered equipment shall be equipped with mufflers of the type recommended by the manufacturer and shall be maintained in good working order.*

*XII-6 To minimize impacts, the Contractor will be encouraged to use quiet plant and machines, which are specifically designed to produce less noise. Generally, electrically powered equipment is noticeably quieter than diesel-powered equipment and hydraulically powered equipment is quieter than pneumatic power. Avoid equipment that is either over- or underpowered.*

*XII-7 To minimize impacts, the Contractor will be required to arrange the work site to minimize use of movement alarms on vehicles and mobile plant. Ensure that unnecessary noise is avoided, such as dropping of materials.*

*XII-8 To minimize impacts, the Contractor will be encouraged to maintain machines regularly - simple maintenance can reduce noise levels by as much as 50 per cent, to keep cutting tools sharp, to keep machinery covers and panels closed and well fitted; to replace worn parts; check and replace defective vibration dampers, bearings, and gears; tune and adjust engines.*

*XII-9 To minimize impacts, the Contractor will be required to, where possible, to not leave unnecessary equipment running or idling.*

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|
| **XIII. POPULATION AND HOUSING** | | | | |
| Would the Project: | | | | |
| a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | ☐ | ☐ | ☐ | ☑ |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | ☐ | ☐ | ☐ | ☑ |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | ☐ | ☐ | ☐ | ☑ |

**Discussion of Impacts**

a) **No Impact:** Not applicable. No additional or extended roadways, or homes or businesses are proposed as part of this Project.

b) **No Impact:** Not applicable. No dwellings are to be removed by this Project.

c) **No Impact:** No persons are to be displaced by this Project.

**Mitigation Measures**

No project specific mitigations are required under this section.

| | | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|---|

## XIV. PUBLIC SERVICES

a) Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

| | | | | | |
|---|---|---|---|---|---|
| i) | Fire protection? | ☐ | ☑ | ☐ | ☐ |
| ii) | Police protection? | ☐ | ☑ | ☐ | ☐ |
| iii) | Schools? | ☐ | ☑ | ☐ | ☐ |
| iv) | Parks? | ☐ | ☐ | ☐ | ☑ |
| v) | Other public facilities? | ☐ | ☐ | ☐ | ☑ |

### Discussion of Impacts

a i) **Less than Significant Impact with Mitigations Incorporated:** Traffic disruptions during the course of construction may include temporary short-term full closures (moving equipment, setting bridge sections) or periods of single lane closures with traffic control. Closures will be coordinated through encroachment permit process. Mitigation Measures listed in XVI-Transportation/Traffic will be implemented to reduce impact to less-than-significant level.

a ii) **Less than Significant Impact with Mitigations Incorporated:** See a i).

a iii) **Less than Significant Impact with Mitigations Incorporated:** Project requirements included in the contract documents will require scheduling around pedestrian traffic during typical travel times. If work is required to be performed during periods when school is in session, work will be planned to avoid closures during peak hours and during periods when school age pedestrians require through passage, and will require provision of appropriate protections to the walking public passing through the Project area. Mitigation Measures listed in XVI-Transportation/Traffic will be implemented to reduce impact to a less-than-significant level.

a iv) **No Impact:** Not applicable, no local park facilities.

a v) **No Impact:** Not applicable, no other public facilities.

### Mitigation Measures

Mitigation Measures included in XVI-Transportation/Traffic will be implemented to reduce impact to a less-than-significant level.

No additional project specific mitigations are required under this subject.

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|
| **XV. RECREATION** | | | | |
| a) Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | ☐ | ☐ | ☐ | ☑ |
| b) Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | ☐ | ☐ | ☐ | ☑ |

**Discussion of Impacts**

a) **No Impact:** Not applicable. No local park facilities are located in the Project area.

b) **No Impact:** Not applicable. No local recreational facilities are included in the Project or required to be added as result of the Project.

**Mitigation Measures**

No project specific mitigations are required under this subject.

| | | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|---|
| **XVI.** | **TRANSPORTATION/TRAFFIC** | | | | |
| | Would the Project: | | | | |
| a) | Conflict with an applicable plan, ordinance or policy establishing a measure of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? | ☐ | ☐ | ☑ | ☐ |
| b) | Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? | ☐ | ☐ | ☑ | ☐ |
| c) | Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? | ☐ | ☐ | ☐ | ☑ |
| d) | Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | ☐ | ☐ | ☐ | ☑ |
| e) | Result in inadequate emergency access? | ☐ | ☑ | ☐ | ☐ |
| f) | Conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities? | ☐ | ☐ | ☐ | ☑ |

**Discussion of Impacts**

a) **Less than Significant Impact:** Construction of a new footbridge to replace the existing walkway affixed to the highway bridge will not change the lane configuration or the anticipated level of traffic that will use Branscomb Road. This Project is consistent with

the Mendocino County 2010 Regional Transportation Plan (Dow and Associates, Sep 2011), identified as a Non-Motorized Transportation Short-Range Improvement.

The outcome of this Project will be to move the course of pedestrian travel a further distance from the travelled way and the source of routine traffic exhausts, and will enhance the community's effort to improve pedestrian safety along Branscomb Road. The Project will have no effect on the volume of vehicular traffic.

b) **Less than Significant Impact:** No change to the level of service is caused by the addition of the footbridge, no additional vehicular traffic will result from this Project.

c) **No Impact:** Addition of a foot bridge has no relationship to air traffic patterns.

d) **No Impact:** Project will not change any lane configurations, approach distances or such, and will improve safety by providing separation between pedestrian and vehicular traffic at this bridge site.

e) **Less than Significant Impact with Mitigations Incorporated:** Traffic disruptions during the course of construction may include temporary short-term full closures (moving equipment, setting bridge sections), as well as single-lane closures with traffic control. Full closures will be limited to 30 minutes, and then traffic will be allowed to pass before the work resumes. The work will be coordinated through County encroachment permit process which will facilitate notifications to emergency agencies. The construction Contractor will be required to prepare a Traffic Control Plan Closures which will address access for emergency response vehicles during construction.

Mitigation measures listed below will be implemented to assure that the impact is reduced to a less-than-significant impact.

f) **No Impact:** This Project improves safety for all modes of pedestrian travel in relation to motorized traffic.

**Mitigation Measures**

*XVI-1 Contractor shall be required to secure an encroachment permit from MCDOT prior to the onset of construction activities. Contractor shall provide a Traffic Control Plan (TCP) and shall schedule work and coordinate with MCDOT to allow adequate notification to be provided to emergency service responders and the public at large.*

*XVI-2 Contractor shall be required to prepare a TCP that meets the current California Manual on Uniform Traffic Control Devices (MUTCD) as well as state and local traffic control regulations. The plan shall address signage, equipment entering and exiting the county road way, accommodating pedestrian traffic safely, managing partial and full traffic closures, and providing emergency response access through the project site at all times.*

| | | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|---|
| **XVII.** | **UTILITIES AND SERVICE SYSTEMS** | | | | |
| | Would the Project: | | | | |
| a) | Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | ☐ | ☐ | ☐ | ☑ |
| b) | Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | ☐ | ☐ | ☐ | ☑ |
| c) | Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | ☐ | ☐ | ☑ | ☐ |
| d) | Have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed? | ☐ | ☐ | ☑ | ☐ |
| e) | Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments? | ☐ | ☐ | ☐ | ☑ |
| f) | Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? | ☐ | ☐ | ☑ | ☐ |
| g) | Comply with federal, state, and local statutes and regulations related to solid waste? | ☐ | ☐ | ☐ | ☑ |

**Discussion of Impacts**

a) **No Impact:** Addition of a pedestrian footbridge does not increase demand for wastewater treatment facilities.

b) **No Impact:** Addition of a pedestrian footbridge does not increase demand for water or wastewater treatment facilities.

c) **Less than Significant Impact:** An insignificant amount of hard surfacing over areas will be required to transition from the approach ramps to the roadside. Much of these areas are already somewhat impermeable being heavily trodden or a part of the road side shoulder. In areas of raised walkways, the ground beneath will remain permeable. Roadside drainage currently erodes the watercourses leading to Ten Mile Creek.

Improvements to this drainage in the form of temporary and/or permanent downdrains, and the planting of willows in the subject areas will improve erosion control at the site while handling the incremental increase in drainage, reducing the potential impacts to a less than significant level.

d) **Less than Significant Impact:** Contractor will be responsible for procuring water for construction tasks (concrete placement, dust control). No water will shall be allowed to be withdrawn from Ten Mile Creek. A water source will be required for watering the replacement tree plantings until they become established. MCDOT will provide a source for the watering activity during the tree establishment period. Options include negotiating with neighboring residents to supply water, or to provide space for a temporary tank which would be filled from a MCDOT water truck on an infrequent basis.

e) **No Impact:** Not applicable to this Project. Wastewater treatment services are not required for this Project.

f) **Less than Significant Impact:** A minor volume of waste will be generated. Most of the demolished walkway materials can be recycled, and construction waste such as lumber can be reused or recycled. Solid waste that is generated that cannot be recycled will be trucked to the Laytonville Transfer Station located at 1825 Branscomb Road. The volume of waste generated should not overwhelm the capacity of the transfer station to accept it.

g) **No Impact:** This Project would conform to all applicable state and federal solid waste regulations.

**Mitigation Measures**

Mitigation measures included in Section IV-Biological Resources will help insure that impacts to drainage and to water supply remain less than significant.

No additional project specific mitigations are required under this subject.

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|
| **XVIII. MANDATORY FINDINGS OF SIGNIFICANCE** | | | | |
| a) Does the Project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | ☐ | ☑ | ☐ | ☐ |
| b) Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a Project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.) | ☐ | ☐ | ☐ | ☑ |
| c) Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | ☐ | ☐ | ☑ | ☐ |

**Discussion of Impacts**

a) **Less than Significant Impact with Mitigations Incorporated:** As stated previously, this Project has the potential for adverse impacts to biological resources, particularly to the Central California Coast coho salmon, Northern California Coast steelhead, and California Coastal Chinook salmon. Mitigation measures listed in Section IV-Biological Resources would reduce the impacts to a less than a significant level. By implementing the Best Management Practices, environmental protection, avoidance, and minimization measures incorporated into the Project design and description, plus complying with existing rules, regulations, and policies, the Project will not degrade the quality of the environment. The Project is consistent with the existing land uses, and the relevant plans and policies that govern such projects.

b) **No Impact:** This Project will include improvements that provide additional safety to pedestrians on Branscomb Road by replacing the narrow 3-ft wide walkway attached to the highway bridge with a new 8-ft wide pedestrian bridge with ADA-accessible approaches. The Project does not encourage additional development and impacts will be limited to the construction phase. All mitigations for impacts can be achieved on the Site with additional Right-of-Way and easements acquired. There are no impacts that are not

mitigated to a less than significant level of impact and there are no anticipated cumulative impacts as a result of the proposed Project.

c) **Less than Significant Impact:** Impacts caused by the Project are temporary. Construction noise is the most likely impact to affect humans. Implementation of mitigation measures listed in this document would assure that the impacts remain at a less than a significant level, ant that the Project would not result in substantial adverse effects on human beings.

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## 4. DETERMINATION

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "Potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Jackson Ford 11/7/2014

Signature Date

Jackson Ford, Environmental Compliance Specialist
Mendocino County Department of Transportation

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# 5. REPORT PREPARATION AND REFERENCES

## *5.1 Report Preparation*

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- *Historical Resources Evaluation Report, Jul 2014*

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