

Integrated Waste Road & Bridge Operations Sonoma County Airport Sonoma County Transit

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January 4, 2019

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The Sonoma County Department of Transportation and Public Works (County), in coordination with the California Department of Transportation (Caltrans), District 4, is consulting with your agency/organization regarding the proposed Watmaugh Road Bridge Replacement Project located on Watmaugh Road, above Sonoma Creek, in Sonoma County. This consultation is being conducted in accordance with Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations 36 CFR Part 800, as well as the Caltrans January 2014 First Amended Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California (Section 106 PA).

Enclosed, please find a copy of the Finding of Adverse Effect report, which documents the effects of the project on historic properties, in this case the Watmaugh Road Bridge. The State Historic Preservation Officer (SHPO) concurred with the project's finding of adverse effect on November 8, 2018. As you will see, our analysis has determined the project alternatives that were considered, most would have an adverse effect on the historic bridge pursuant to 36 CFR 800.5. The alternatives that would not have an adverse effect would cause considerable impacts to other environmental resources or would not meet the purpose and need of the project.

In order to resolve the adverse effects the project will have on this cultural resource, we are developing a Memorandum of Agreement (MOA). The MOA will document the measures the County will complete to mitigate these effects on the historic bridge. To date, the County proposes to document the current bridge and its history through the preparation of large format photographs and a historical narrative produced to Historic American Engineering Record (HAER) standards. The County also plans to develop public programming to disseminate this information. It is our hope that we can collaborate with your organization to develop educational tools, materials, or exhibitions to memorialize the importance of the Watmaugh Road Bridge to the historic development of Sonoma County.

To that end, we would like to hear from you regarding ideas and input on the topics and implementation methods for this programming.

If your organization has concerns about provisions of the MOA or would like to be involved in the resolution of the adverse effects, please contact Karen Reichardt, Caltrans Cultural Resources Specialist, at (510) 286-5530 or via email, karen.reichardt@dot.ca.gov, or Rich Stabler, via email, rich.stabler@sonoma-county.org, or Joel LeCureaux, P.E at Joel.LeCureaux@sonoma-county.org by February 5, 2019.

Sincerely,

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Rich Stabler Senior Environmental Specialist, Permit Sonoma

Enclosure: Finding of Adverse Effect for the Watmaugh Road Bridge Project BRLS-5920 (092)

#### FINDING OF ADVERSE EFFECT

Watmaugh Road Bridge Replacement Project Sonoma, Sonoma County, California

> 04-SON-0-CR BRLS 5920 (092)

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Date

Date

August 2018

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#### INTRODUCTION

The Sonoma County Department of Transportation and Public Works, in coordination with the California Department of Transportation (Caltrans), District 4, proposes to replace the Watmaugh Road Bridge (20C-0017) over Sonoma Creek. The proposed project would result in the replacement of the existing truss bridge that was constructed in 1929 and replace it with a new concrete 32-ft wide box girder or concrete slab bridge, essentially within the alignment of the current bridge. In an effort to maintain the visual setting of the existing bridge, the trusses from the bridge will be retained, restored to the extent practicable; and added to the new bridge as a nonstructural element.

Caltrans approved the Historic Property Survey Report for the project on October 11, 2016. On December 13, 2016, the State Historic Preservation Officer (SHPO) concurred that the house at 228 W. Watmaugh Road is not eligible for listing in the National Register of Historic Places (National Register), and that the Watmaugh Road Bridge is eligible for the National Register under Criteria A and C at the local level of significance. Lacking sufficient information to concur with a determination eligibility for the McElroy Ranch at 240 W. Watmaugh Road, the SHPO recommended considering the property eligible for the purposes of this project.

Watmaugh Road Bridge is a three-span, pony truss bridge constructed in 1929. The bridge is Sonoma County Landmark No. 103 and is included in a Sonoma County thematic district of historic bridges (Harris 1993). This bridge will be removed. McElroy Ranch (240 W. Watmaugh Road) is a twostory, Italianate house constructed in 1894 and associated outbuildings, see Figures 7-9. This property is within the area of potential effects for historic architecture and the County will obtain a temporary construction easement to conform the road and the driveway.

Caltrans has determined that the undertaking as a whole will have an Adverse Effect on historic properties pursuant to Section 106 PA Stipulation X.C, and is consulting SHPO regarding this finding (or seeking SHPO concurrence with this finding), pursuant to the January 2014 *First Amended Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California (PA) Stipulation XI, 36 CFR 800.6(a), and 800.6(b)(1).* 

#### **DESCRIPTION OF THE UNDERTAKING**

#### **Project Description**

Watmaugh Road Bridge crosses Sonoma Creek one mile south of the town of Sonoma. The bridge is seismically vulnerable and structurally deficient, and is subject to collapse during moderate to severe earthquake. As of April 2018, Watmaugh Road Bridge has a sufficiency rating of 3 out of a possible 100 based on "MAP-21" evaluation criteria, and is considered "scour critical code 3", per FHWA,

"Bridge is scour critical; bridge foundations determined to be unstable for calculated scour conditions".



Figure 1: Watmaugh Road Bridge looking southwest from creek bed, Caltrans 6/10/2010.

The County of Sonoma provides the following information regarding the need for this undertaking (Sonoma County Clerk of the Board of Supervisors 2012):

Due to the age of the bridge and the degradation that has occurred in the channel since the original bridge construction, the existing structure has the following deficiencies:

- 1. The bridge is considered fracture critical and although it is checked by Caltrans every year, it has the potential to collapse without warning
- 2. Exhibits signs of structural deficiencies as a result of rust in the truss joints
- 3. The approach spans are failing due to age and wear
- 4. The bridge pier foundations have been found to be "scour critical" by Caltrans inspectors and are currently undermined from significant erosion by Sonoma Creek
- 5. Does not meet modern seismic standards and could be subject to collapse during an earthquake
- 6. Lacks standard shoulder width, and cannot accommodate large loads due to lane width and structural limitations for weight loading
- 7. The bridge is currently load limited down to 71 percent of capacity due to structural deficiencies (17 US Tons per Vehicle, 24 Tons per Semi-Trailer combination and per Truck and Full Trailer).
- 8. The road alignment and bridge obscure the driver's safe site distance due to the curve of the roadway and obstruction by the trusses, resulting in collisions.

9. There are no pedestrian or bike facilities provided due to the narrow width of the span.



Figure 2: Span 1 side of bent 2, spalling at girder 2 pedestal right edge of deck, Caltrans 4/27/2016.

Figure 3: Typical edge of deck soffit spall, span 2, near bent 3, Caltrans 4/27/2016.



Figure 4: Bottom chord, vertical and floor beam connection, also vertical member damage, Caltrans 4/27/2016.

Figure 5: Damaged left concrete bridge rail near abutment 2, mid rail missing and end post spalled, Caltrans 4/27/2016.

The proposed bridge project would construct a replacement bridge within the approximate alignment of the existing bridge. The new bridge would be a three span, pre-stressed, concrete box girder or concrete slab bridge that would be approximately 185 feet in length. The new bridge roadway would be 32 feet wide (excluding barriers), and consist of two 11-foot travel lanes and two 5-foot minimum width shoulders. The approach roadway width would also be widened to about 32 feet and taper until

it conforms to the existing roadway at each end of the bridge. Trusses from the original bridge would be retained, cleaned, painted, and attached to the new bridge, and metal lattice would be applied to the exterior railing to resemble lattice that was original to the bridge. Note, the original metal lattice was replaced with "W" section metal beam guardrail at some point in the past.

#### Area of Potential Effects

The project's APE is shown in Attachment A. The APE for archaeology was established as the County's right-of-way along Watmaugh Road for a distance of 625 feet westward from Sonoma Creek and 675 feet eastward, and minor amounts of additional right-of-way required to construct the project and for temporary construction easements. The APE is about 100 feet wide at its widest point, and includes the locations of potential temporary construction easements, access routes to the creek, and new right-of-way. The proposed staging area is within the existing right-of-way. Vertically, the project area ranges from the surface to a maximum depth of about 17 feet at the abutments.

As shown in Attachment A, the APE for historic architecture is a pentagon extending approximately 300 to 500 feet from the bridge in all direction. It includes the county right-of-way along Watmaugh Road and portions of five adjacent parcels. Three of the parcels are planted as vineyard, and two of those contain residences. The other two parcels are residential properties.

### PUBLIC PARTICIPATION

The project to replace Watmaugh Road Bridge has a long history, and over the course of time has undergone several rounds of environmental review. Public outreach efforts are summarized below.

A public meeting regarding the bridge replacement project was held at the Sonoma County Library on May 9, 2010. The replacement project was presented to the Sonoma County Landmarks Commission on September 7 and October 5, 2010, and February 1, 2011. On June 7, 2011, the County presented a bypass bridge alternative to the Landmarks Commission. In response to comments received at those meetings, the County designed the currently proposed project. The redesigned project was presented to the Landmarks Commission, and on July 24, 2012, the Commission recommended that the County Board of Supervisors deny the proposed project and the bypass alternative, requesting that bridge rehabilitation be reconsidered.

The County prepared an Environmental Impact Report for the proposed replacement project during the second half of 2012. A 45-day comment period commenced on October 1, 2012, a public hearing was held on October 16, 2012, and the comment period ended on November 14, 2012. The Final EIR, comprising the Draft EIR and a Response to Comments document, was made available to the public on November 28, 2012. The Board held a hearing on the Final EIR on December 4, 2012, and on December 11, 2012, the Board of Supervisors adopted a resolution certifying the Final EIR and adopting a resolution making a Statement of Overriding Considerations for the removal of a County-designated landmark, and approving the project. On January 8, 2013 the Board formally adopted a resolution to approve the project.

#### **Current Undertaking**

The current undertaking is subject to Section 106 which requires consultation with potentially interested parties. A Public Meeting was held on March 20, 2017, at Adele Harrison Middle School in Sonoma. Attendees were apprised of the bridge's National Register eligibility and the status of the

proposed project. The County also presented a project timeline and a description of the proposed project to the Sonoma County Landmarks Commission on August 15, 2017.

Pursuant to Section 106, letters and emails were sent to national, regional, and local organizations with interest in historic bridges, generally, and the Watmaugh Road Bridge, specifically. Sonoma Valley residents have had many comments over the years regarding replacement of the Watmaugh Road Bridge, and two local organizations, Friends of Watmaugh Bridge and Citizens for the Preservation of Sonoma Historic Bridges, were formed in response to its replacement. As part of this study, letters were sent to the following 10 organizations on April 11, 2017, and follow-up emails were sent on May 16, 2017, to groups who had not replied.

The Historic Bridge Foundation Kitty Henderson, Executive Director	Sonoma County Historical Society Jeremy Nichols, President
historicbridges.org	Citizens for the Preservation of Sonoma
Nathan Holth	Historic Bridges
	Rose M. Zoia, Attorney
Sonoma County Landmarks Commission	
Chelsea Holup, Staff Liaison	Sonoma League for Historic Preservation
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Sonoma Valley Historical Society	
Patricia Cullinan	Petaluma Historical Library and Museum
	Harry W. Nieuwboer
Friends of Watmaugh Bridge	HARDERSON - HARD BUILDER WENNUNGEN IN HARDERSON
Johanna M. Patri	Western Sonoma County Historical Society
	Rae Swanson

Correspondence with the above-listed groups resulted in emails and/or telephone conversations with the following people:

Kitty Henderson, Executive Director of The Historic Bridge Foundation, called on May 18, 2017. She indicated that she had been in contact with Sonoma Valley groups in the past when removal of the bridge was first considered. The Foundation considers Watmaugh Bridge to be an "at risk" historic bridge. She is interested in being a consulting party, and was advised to contact Caltrans regarding that issue. She asked for a copy of the bridge evaluation completed by Garcia and Associates, (GANDA) and it was emailed to her on May 24, 2017. No comments have been received since that time.

Nathan Holth, HistoricBridges.org, emailed to say that he would be glad to review the documentation and proposed scope of work. A copy of the project plans was sent to him via email on May 8, 2017. No comments have been received since that time.

On June 30, 2017, a telephone call was placed to Chelsea Holup, Staff Liaison for the Sonoma County Landmarks Commission, to inquire about the Commission's review of the project. She indicated that the Watmaugh Road Bridge Replacement project has not been brought before the commission yet and would probably not go to them for a while.

Prema Behan, Director of the Sonoma League for Historic Preservation, responded to an email sent on May 5, 2017. Ms. Behan asked for more time for the League's Board of Directors to review the correspondence. No comments have been received since that time. Patricia Cullinan, who serves on the Sonoma County Landmarks Commission and is the Director of the Sonoma Valley Historical Society, requested a copy of the project plans. Plans were sent to her via email on May 2, 2017. No comments have been received since that time.

Rose M. Zoia, Attorney for Citizens for the Preservation of Sonoma Historic Bridges, emailed on May 16, 2017. She indicated that she had forwarded the original letter to the group, and that she would do so again to have them contact Tom Origer & Associates directly. A letter was then received via email from Patricia Daffurn, who is a member of Citizens for the Preservation of Sonoma Historic Bridges and Friends of Watmaugh Bridge. Further, Ms. Daffurn brought up typical environmental issues for Sonoma County bridge projects. Relevant to this document, are her comments regarding the historical importance of the Watmaugh Bridge. Ms. Daffurn concurred with Tom Origer and Associates' previous bridge evaluations that found the bridge eligible for the California Register. Many of Ms. Daffurn's comments focused on aspects of the previous CEQA review process, but they may be relevant to the NEPA review. Attached to her email were photographs of the bridge and an article that appeared in a local newspaper regarding Watmaugh Bridge. Ms. Daffurn's letter was copied to Karen Reichardt at Caltrans District 4 and she replied with an email dated July 7, 2017. Reichardt's letter is included in Appendix A.

Johanna M. Patri, a member of Friends of Watmaugh Bridge and Citizens for the Preservation of Sonoma Historic Bridges, replied via email on April 29, 2017. Ms. Patri summarized our previous interactions that occurred in 2001 when the County proposed a seismic retrofit of the bridge and NEPA review was in process and during the CEQA-level evaluation of the bridge in 2012, and in 2014 when the current replacement project prompted a revised NEPA review. Writing on behalf of Citizens for the Preservation of Sonoma Historic Bridges, Ms. Patri stated, "Our focus remains on preserving the bridge." She also questioned the County's assessment of the bridge as being in too critical a shape to rehabilitate because of detours utilizing the bridge during the past flooding.

Harry W. Nieuwboer, President of the Petaluma Historical Library and Museum, sent an email on May 16, 2017, stating that Watmaugh Bridge was outside their area of interest, and that they took no position on the project.

Copies of correspondence and a log of consultation efforts are attached to this report.

#### **DESCRIPTION OF HISTORIC PROPERTIES**

#### Watmaugh Road Bridge

Watmaugh Road Bridge is a three-span bridge measuring 170 feet long and 24 feet wide. The main span is 102 feet long and is a riveted steel, polygonal top chord, Warren pony truss with a concrete deck. The main span has steel beam guardrails, and is flanked by reinforced concrete approach spans with cast concrete rails. The approaches measure 38 feet on the west and 29 feet on the east. The bridge is supported by two concrete piers.

The Watmaugh Road Bridge was designed by Sonoma County Surveyor, E.A. Peugh in 1929, and the contractor was W.L. Proctor. The bridge is situated in its original location and the surrounding area remains rural agricultural land much as it was in 1929 when the bridge was built. Its design is unaltered except for the replacement of its original steel lattice guardrails with steel "W" section metal beam guardrail. Sonoma County recognizes the importance of the bridge as a contributor to a County Historical Bridge District (Harris 1993).

In a letter dated December 13, 2016, the State Historic Preservation Officer sent notice of concurrence with a determination that Watmaugh Road Bridge was eligible for the National Register at the local level. The bridge was determined eligible under Criterion A as a component of the Sonoma County's first countywide highway plan, and Criterion C because it embodies the distinctive characteristics of a polygonal top chord Warren pony truss bridge, one of only two that remain in Sonoma County and one of 24 statewide. It is also among the earliest examples of this bridge type in California (Schultz 2016). The period of significance is 1929, the year the bridge was completed.



Figure 6: View of Watmaugh Road Bridge looking west, Caltrans, 4/27/2016.

Character-defining features of the Watmaugh Road Bridge include the Warren truss system with distinctive polygonal top chords, riveted connections, and the tapered concrete posts and small capitals of the substructure.

The boundary of this historic property forms a rectangle measuring 200 feet long (east-west) and 42 feet wide (north-south), and encompasses the maximum length and width of the superstructure and substructure. The length measures the distance between the farthest ends of the wing walls; the width is from the outside edges of the wing walls.

#### **McElroy Ranch**

The McElroy Ranch is located northeast of Watmaugh Road Bridge. It includes a two-story, Italianate dwelling, a tank house, and a large barn with an adjacent shed. These buildings date to 1886. Also on the parcel are several sheds, a garage, and a brick oven; construction of these structures is estimated as early to mid-twentieth century. Four collapsed buildings are also located on the parcel.



Figure 8: McElroy Ranch, main house looking northwest, GANDA, 9/27/2013.

Figure 7: McElroy Ranch, barn, looking west, GANDA, 9/27/2013.

This ranch was one of several successful vineyards and orchards that were established along Watmaugh Road between the 1870s and 1890s and that contributed to Sonoma County's economic growth in the late nineteenth century. The main residence is a significant example of late nineteenth Italianate architecture and retains the majority of its original design features. Although several of the older agricultural outbuildings are in a state of collapse or disrepair, the property retains its prominent residence, wood barn, adjacent shed, and small tank house (Schultz 2016).



Figure 9: Aerial showing location of McElroy Ranch in proximity to the Watmaugh Road Bridge, 6/19/2018.

The McElroy Ranch is assumed eligible for the National Register subject to a letter dated December 13, 2016, from the State Historic Preservation Officer. The property is considered eligible under Criterion A because it "represents the formative stage in the late nineteenth-century development of the southern end of Sonoma Valley, when the area was divided into small-scale orchards and vineyards that helped grow the county's economy and establish it as a leading producer of wine and fresh and dried fruit" (Schultz 2016:20). Under Criterion C, the McElroy Ranch is considered eligible

for the National Register because "The main residence, tank house, barn, and adjacent wood shed form a significant collection of rural, vernacular farm [buildings] prevalent in southern Sonoma Valley in the late nineteenth century," and the main residence is exemplary of late nineteenth Italianate architecture (Schultz 2016:21). The period of significance is 1886, the year the house and outbuildings were constructed.

Character-defining features of the McElroy Ranch include its rural setting and historical layout, as well as the Italianate architecture of the house, including the symmetrical facade; the low-pitched, hipped roof with moderate eaves and brackets; and the tall, narrow, one-over-one, wood-sashed windows. The McElroy Ranch boundaries correspond with the existing parcel line.

#### APPLICATION OF THE CRITERIA OF ADVERSE EFFECT

An adverse effect is defined at 36 CFR Part 800.5(a), where examples of adverse effects are also provided:

(1) Criteria of adverse effect. An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative.

(2) Examples of adverse effects. Adverse effects on historic properties include, but are not limited to:

- (i) Physical destruction of or damage to all or part of the property;
- (ii) Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the Secretary's standards for the treatment of historic properties and applicable guidelines;
- (iii) Removal of the property from its historic location;
- (iv) Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;
- Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features;
- (vi) Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and
- (vii) Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

Watmaugh Road Bridge and the McElroy Ranch were identified as historic properties within the APE for this project. The potential for adverse effects to those properties was assessed by applying the Criteria of Adverse Effect to the proposed undertaking.

#### **Proposed Undertaking**

#### Watmaugh Road Bridge

The proposed undertaking entails removing the existing, National Register-eligible bridge and constructing a concrete box girder or slab bridge in approximately the same alignment as the existing bridge. This project would constitute an adverse effect under Criteria of Adverse Effect 2(i) because the bridge would be removed and all seven aspects of the resource's integrity will be impacted. In an effort to minimize the impact to the aspects of materials, workmanship, and feeling, the original metal trusses would be retained and installed on the new bridge as non-structural elements. Thus, preserving the character defining feature which make the bridge eligible under Criterion C. Moreover, while not mitigating the loss of the historic resource; the substructure, abutments and piers for the new bridge will be located in the same location as the existing bridge to reduce the impact to the aspects of Setting, Location, Feeling and Association.



Figure 10: Elevation of proposed project design, 1/24/2014.



Figure 11: Current condition of bridge and roadway, looking west, DEIR, Sepetmber 2012.



Figure 12: Simulation of proposed project, looking west, DEIR, September 2012.

### **McElroy Ranch**

The McElroy Ranch at 240 W. Watmaugh Road is included in the architectural APE. Since this property is adjacent to the easterly approach slab, there will need to be a transition created from the new road to the property owner's driveway. Therefore, a temporary construction easement is required from the parcel for the driveway conform paving. Approximately 500 square feet of asphaltic concrete will be placed within the property right of way over the existing crushed blue shale. Figure 9 shows the relationship of the undertaking to the McElroy Ranch. Further, there would be no added features that would alter its integrity.

The undertaking would not constitute an adverse effect to this historic property because it would not alter, directly or indirectly, any of the characteristics of the historic property that qualify the property for inclusion in the National Register. The project will not affect the historic integrity of the McElroy Ranch:

- Integrity of location would be retained as the property would not be moved.
- Integrity of design, materials and workmanship would be retained because no changes would be made to the eligible features.
- Integrity of feeling and setting would be affected somewhat as the project would add a modern bridge to the landscape, and would require removal of three black locust trees and a 12-inch limb from a black oak tree along the southwest edge of the property.
- Integrity of association would remain as the project will not change the property's relationship to late nineteenth-century agricultural development.

While there would be some effect on the feeling and setting, integrity is maintained in all other aspects, which is in keeping with the National Register requirement that an historic property possess "several, and usually most, of the aspects" that define integrity. The finding for this resource is no adverse effect.

#### ALTERNATIVES CONSIDERED BUT REJECTED

Nine build alternatives (1-9) were previously identified for the project and were evaluated based on their cost, and impacts to human, biological, cultural and physical environments.

Alternative 1 - No Project

Alternative 2 – Seismic retrofit of existing bridge to meet the no collapse criteria

Alternative 3 – Construction of a downstream (south) bridge leaving existing bridge in-place

Alternative 4 – Rehabilitate the existing bridge

- Alternative 5 Replace existing bridge with steel arch bridge
- Alternative 6 Rehabilitate existing bridge and add a parallel bicycle/pedestrian bridge downstream (south) of existing bridge
- Alternative 7 Rehabilitate existing bridge and add a one-way bridge for traffic and bicycle/pedestrians downstream (south) of existing bridge
- Alternative 8 Construction of a new parallel bridge upstream (north) leaving existing bridge inplace
- Alternative 9 Sell existing bridge and construct new bridge

Alternative 1, 2 have the potential to not adversely affect the historic Watmaugh Road Bridge, but neither alternatives address the condition of the fracture critical components, decaying concrete at the pedestals, and piers, and the powerful hydraulic forces currently removing soil from under the spread footing foundations. Therefore, a strong seismic event would leave the bridge unrepairable or even collapse into the Sonoma Creek. Moreover, these alternatives do not allow for the bridge to be widened which is critical for the safety of the traveling public, pedestrians and maintenance personnel of the bridge on this increasingly, busy road.

The alternatives (3, 6, 7, and 8) consider realignment of the bridge to either the north or the south, and would have dramatically larger project footprints than alternatives 2 and 4. However, alternatives (2-4, 6-8) are likely to adversely impact biological resources, by incorporating areas of riparian habitat into the project, and causing permanent impacts for the project, which are avoided by the current design of the project. Linked to the permanent effects of tree removal and road re-alignment, the implementation of these alternative would have potential to significantly impact the visual resources within the project boundary. Further, these alternatives require acquisition of private right-of-way and affect the properties adjacent to the bridge. The alternatives that construct a new bridge downstream would require purchase of private right-of-way, and change the access and egress to the property. The alternative that constructs a new bridge upstream, would require the removal of two houses and an outbuilding as well as shifting the road significantly closer to a the McElroy Ranch house.

Alternative 4 and 5 would adversely affect the historic resource. Alternative 4 would obscure the bridge so severely that it would result in an adverse effect to the structural and biological resources by encasing the bridge in structural steel and altering the steam for the construction of the pier piles. Alternative 5 would replace the existing bridge with new bridge on the same alignment without retaining any of the existing bridges character defining features.

Alternative 9 sought to sell the bridge. However, it was determined that the severity of the adverse effect of relocating the bridge would be greater than incorporating the historic trusses into the new bridge, as in the currently proposed project, because doing so would eliminate its Criterion A significance as well as damage its other character defining features, such as the tapered concrete posts and small capitals of the substructure.

#### Alternative 1 - No Project

Under the No Project alternative, the existing bridge would not be replaced. The bridge would be maintained to allow for its continued use, and would continue to be seismically inadequate and subject to damage or collapse under strong seismic conditions. This alternative would also not address the significant scour issue that exists at the bridge foundations and eventually the bridge would require closure due to a lack of stability.

Alternative 1 would not affect the character-defining features or historic integrity of the bridge. The integrity of location would be retained as the property would not be moved. The integrity of design, materials and workmanship would be retained because no changes would be made to the bridge. The integrity of feeling and setting would be retained because no changes would be made to the bridge or the surrounding area. The integrity of association would be retained because no changes would be made to the bridge or the surrounding area. The integrity of association would be retained because no changes would be made to the bridge or the surrounding area. The integrity of association would be retained because no changes would be made that would disassociate the bridge from Sonoma County's early, countywide highway plan. This alternative would have a no adverse effect to the Watmaugh Road Bridge.

This alternative was rejected because continued degradation would expose people and property to risk of injury, since the current bridge is rated by Caltrans as "Structurally Deficient", "Fracture Critical" and "Scour Critical". Further, at some point in the future as the bridge continues to degrade or becomes a safety concern for motorists, the costs to maintain the bridge may become too great and require closure of the bridge permanently.

#### Alternative 2 - Seismic Retrofit Existing Bridge to meet the No Collapse Criteria

This alternative was designed to meet a no collapse bridge standard per the final retrofit strategy report. Several retrofit measures were considered to meet this standard and they include assuming the bearing connections have failed, strengthening the existing bridge with structural steel, fastening the deck to the floor beams, construct larger pier caps, add catcher blocks, repair the columns at the construction joints, and enlarge Pier 2 spread footings. This alternative would minimize changes to the bridge's appearance, see Figures 13A-13D on sheets 15-16. Further, this alternative would meet the Secretary of the Interior's Standards (SOIS).

Strengthening the bridge superstructure components would minimize the alteration of the bridges distinctive features and not adversely affect the integrity of design, materials, workmanship, and feeling. Strengthening of the polygonal top chord would require adding (8) each <sup>3</sup>/<sub>4</sub>" thick plates at the four mid-span connections and fastened with 7/8" diameter nuts and bolts at 6" on center, see Figure 13A-13B. Strengthening of the bearing end truss members would require adding multiple plates and are approximately <sup>3</sup>/<sub>4</sub>" thick, 7'-3" long and fastened with 7/8" diameter nuts and bolts at 6 inches on center, see Figure 13C-13D. The structural fasteners used for the retrofit will be high strength bolts, nuts and plate washers instead of hot formed rivets, which were originally used to construct the bridge. Strengthening the vertical struts on the left truss in span No. 2 is due to damage at their lower ends, likely caused by drift impacts. Further, the deck would be strengthened by fastening the concrete deck to the steel beams with drill and bonded high strength threaded rods and fastened with washers and nuts, and would not be visible to those using the bridge.



Figure 13A: Current condition of top chord connection, June 18, 2018.



Figure 13B: Simulation of alternative 2, showing the placement of the steel connection plate at one of four midspan top chord gusset connections, June 18, 2018.



Figure 13C: Current condition of South West truss end, June 18, 2018.



Figure 13D: Simulation of alternative 2, showing the placement of steel plates, replacement of vertical "H" shape member and repair of the concrete Bent Cap. This would occur on all four truss ends, June 18, 2018.

Strengthening the bridge sub-structure components would also minimize the alteration of the bridges distinctive features and not adversely affect the integrity aspects of design, materials, workmanship, and feeling, see Figures 13C and 13D above. The pier caps at each end would require strengthening by increasing their size by encasing them in concrete, with an 86% difference in volume. Similar to the pier caps strengthening process, the two spread footing foundations at Pier No. 2 would have a size increase of 175% difference in volume.



Figure 13: Current condition looking west, DEIR September 2012.



Figure 14: Simulation of alternative 3, constructing a road to the downstream of the existing bridge, DEIR, September 2012.



Figure 15: Aerial showing the alignment for Alternative 3, constructing a new bridge downstream, June 2018.

Further, this alternative would have substantially more severe impacts to the riparian habitat and species in Sonoma Creek (which is of concern to the US Fish and Wildlife Service, the National Marine Fisheries Service) and thus require greater restoration and compensatory mitigation for impacts. Currently the mitigation for biological resources is limited to using Best Management Practices (BMPs) and restoring temporary construction impacts associated with replacing the bridge on the same alignment with no new permanent impacts. This alternative would build a new bridge in a new location and increase the project footprint to include approximately 1.7 acres of previously undisturbed riparian habitat. The County would utilize the existing approaches for mitigation planting, however it is likely that this would not be sufficient to mitigate the biological impacts of the alternative, incurring significant off-sight mitigation costs.

The affects to the current habitat are not limited to biological resources, but would also affect the viewshed and landscape at this densely vegetated area. If the project footprint were to increase by constructing a new bridge downstream the effect to visual resources would likely cause substantial impacts. Finally, since the current bridge is rated by Caltrans as "Structurally Deficient", "Fracture Critical" and "Scour Critical", at some point in the future, as the bridge continues to degrade and become a safety concern, the costs to maintain the bridge will become too great and require closure of the bridge permanently.

This alternative does not address correcting the current structural deficiencies of the existing bridge from seismic events, storms or flooding and still has potential to harm the traveling public. Further, the existing bridge could collapse onto the new bridge during a large seismic or storm event since it would still be relatively close and upstream of the new bridge.

#### Alternative 4 - Rehabilitate the Existing Bridge

This alternative would consist of replacing the existing concrete piers, adding structural steel over much of the existing steel lattice-work on the trusses, (essentially boxing in the trusses in new steel), strengthening the floor beams, replacing the existing bridge deck, rehabilitating the abutments, and repainting the structural steel, see Figures 17-18. Rehabilitation of the abutments would include excavating behind the abutments and installing 36" CIDH piles at the centerline of each girder, with a pier cap approximately 2'x 6'x full width and using cable restrainer units anchored from the pier cap, through the existing structural and functional problems of the existing bridge when compared to alternate 2, (the seismic retrofit).

This alternative does not meet the Secretary of the Interior's Standards (SOIS). Covering the truss members and existing steel lattice-work with structural steel would affect the integrity of design by obscuring the trusses as well as visually thickening the truss members. The integrity of workmanship would be affected because the original trusses and latticework would be hidden. Further, the bridge would no longer be visually recognizable as a riveted bridge as the steel casing would be bolted with a different bolt pattern than the current configuration of rivets. The rivets help visually date the bridge and by obscuring this feature it removes the bridge from its period of significance. The integrity of materials would be affected by introducing solid structural steel. The integrity of feeling would not be affected as the property would not be moved. The integrity of association would not be affected because no changes would be made that would disassociate the bridge from Sonoma County's early, countywide highway plan. Given that the integrity of materials, design, workmanship, and feeling would be so significantly affected this alternative would cause an adverse effect on the Watmaugh Road Bridge.

The strengthening of the bridge sub-structure components would also minimize the alteration of the bridges distinctive features. The strategy of this alternative include strengthening of the floor beams, replacing the existing bridge deck, strengthening the abutments, repainting the structural steel and placing rock slope protection within the channel. The construction process would be similar to Alternative 2 but with more machinery and heavy equipment accessing the channel and extensive excavation around all of the pier footings.

Alternative 4 was not only rejected from consideration because it would have an adverse effect on the historic Watmaugh Road Bridge, but the project would not address the need for widening and improvements to sight lines for users, and as such, this \$6,100,000.00 alternative would no longer be eligible for federal funding, similar to alternative 2.



Figure 16: Current condition of truss, May 17, 2018.



Figure 17: Simulation of Alternative 4, Rehabilitation, May 2018.

#### Alternative 5 - Replace Existing Bridge with Steel Arch Bridge

This alternative would construct a new steel arch bridge in place of the existing bridge. This alternative would meet all of the objectives of the project; however, removal of the historic bridge would be an adverse effect under Criteria of Adverse Effect 2(i).

The integrity of location would be affected because the bridge would be removed. The integrity of design, materials and workmanship would be affected because the bridge would be removed, leaving no character defining features. The integrity of feeling and setting would be affected, as the bridge would no longer exist. The integrity of association would be affected because the bridge would be removed and would no longer represent Sonoma County's early, countywide highway plan.

This alternative was rejected because it would have caused an adverse effect to the historic Watmaugh Road Bridge. Further, it may delay the project due to a complete re-evaluation of the Preliminary Engineering phase and would result in the project cancelation. Thus, continuing the use of a substandard bridge and possible road closure.

# Alternative 6 - Rehabilitate Existing Bridge and Add a Parallel Bicycle/Pedestrian Bridge Downstream (South) of Existing Bridge

This alternative would rehabilitate the existing bridge as described for Alternative 4, and construct an approximately10-foot wide separate bicycle/pedestrian crossing. The new crossing would be placed downstream (south) of the existing bridge, and would require the purchase of additional right-of-way from adjacent parcels.

This alternative does not meet the Secretary of the Interior's Standards (SOIS), as discussed under Alternative 4, because integrity of design, materials, and workmanship would be affected drastically by the addition of structural steel over all of the truss members obscuring the original workmanship and materials of the historic bridge. This alternative would have an adverse effect on the Watmaugh Road Bridge.

This alternative was rejected for similar community, right-of-way, biological and visual impacts associated with alternative 3.

# Alternative 7 - Rehabilitate Existing Bridge and Add a One-Way Bridge for Traffic and Bicycle/Pedestrians Downstream (South) of Existing Bridge

This alternative would rehabilitate the existing bridge as described for Alternative 4, and construct an approximately 16 to 18-foot-wide, one lane bridge to provide a single eastbound traffic lane and add a 5-foot shoulder for bicycles and pedestrians. The bridge would require the purchase of additional right-of-way from adjacent parcels.

Alternative 7 does not meet the Secretary of the Interior's Standards (SOIS), as discussed under Alternative 4, because integrity of design, materials, and workmanship would be affected drastically by the addition of structural steel over much of the existing steel latticework on the trusses, which comprise the character-defining truss system. This alternative would have an adverse effect on the Watmaugh Road Bridge.

This alternative was rejected for similar community, right-of-way, biological and visual impacts associated with alternative 3.

# Alternative 8 - Construction of a New Parallel Bridge Upstream (North) Leaving Existing Bridge In-Place

This alternative would construct a new 32-foot wide concrete bridge, consisting of two 11-foot travel lanes and two 5-foot shoulders. The new bridge would be constructed upstream (north) of the existing bridge. In order to avoid the existing bridge and provide adequate sight distance, the road approaches to the bridge would consist of long sweeping curves requiring acquisition of private residential land. The existing bridge would be closed to all traffic, including bikes and pedestrians, and would receive minimal maintenance to keep it intact.

This alternative does not alter the existing bridge; therefore, the integrity of location would be retained, as the bridge would not be moved. The integrity of design, materials, and workmanship would be retained because no changes would be made to the bridge. The integrity of feeling and setting would be affected somewhat by changes to the surrounding area. The integrity of association would be retained because no changes would be made that would disassociate the bridge from Sonoma County's early, countywide highway plan.

Watmaugh Road Bridge is eligible for the National Register under Criterion A as a component of the Sonoma County's first countywide highway plan, and Criterion C because it embodies the distinctive characteristics of a polygonal top chord Warren pony truss bridge. This alternative would not affect the bridge's relationship to, or ability to represent, its association with the County road plan, and would not affect character defining features of the bridge that make it significant for its architecture. This alternative would not have an adverse effect on the Watmaugh Road Bridge.



Figure 18: Aerial showing alignment for Alternative 8, construct a new bridge upstream, June 2018

This alternative was primarily rejected due to the large right-of-way requirement to construct a new bridge to the north of the existing bridge, see Figure 19. The new alignment would require the removal or relocation of one house located on the private parcel to the northwest along with two outbuildings. On the northeast side one outbuilding would have be removed. The road is currently 80

feet from the property on the northeast side, and the new road would be located within 10 feet of the front of the property. The right-of-way costs associated with this alternative are approximately \$1,940,000.

This alternative was also rejected for similar biological reasons as alternative 3. The project footprint would include approximately 1.4 acres of riparian habitat, and visual impacts similar to alternative 3. The alternative was rejected due to the large impact to the community and property owners adjacent to the bridge, as well as impacts to biological and visual resources.

#### Alternative 9 - Sell Existing Bridge and Construct a New Bridge

Alternative 9 would sell the single span truss system to another agency or non-profit group. The alternative considers the truss as the middle span of the three-span bridge.

This alternative was rejected for several reasons, but primarily because the new bridge incorporates the historic trusses into the architectural design. The existing polygonal top chords and vertical truss members were included in the design as result of Sonoma County Landmark's objection to the previous project presented to them on August 3, 2011. That project description proposed that the bridge would be completely removed. The inclusion of the trusses in the new bridge was included in the DEIR that was circulated to the public in September 2012 and approved by the County Board of Supervisors when the Final Environmental Impact Report (FEIR) document was certified on December 11, 2012. Since the FEIR the County has presented updates to the Sonoma County Landmarks Commission regularly. The last presentation of the project, including the utilization of the truss members on the new bridge, occurred on August 15, 2017. The Landmarks Commission had no comment on the presentation.

Moreover, it was determined that alternative 9 would have a more severe adverse effect on the bridge than the project as proposed because it would substantially affect many of the aspects of its historic integrity, by removing it from its historic context from which it derives much of its significance. The bridge is significant under Criterion A, as a component of the first countywide highway plan. The integrity of location would be entirely lost with the relocation of the bridge. The integrity of setting and association would be severely affected by relocating the bridge off the county highway system, this context has the potential to be completely lost if the bridge was relocated and ownership assumed by another group, agency or individual. Further, given that the bridge is a three-span bridge and the truss is a single span within the larger design, removing just the truss would significantly affect the integrity of design, materials and workmanship of the bridge. The relocation of other character defining elements including the tapered concrete posts and small capitals of the substructure could not be included in the sale of the bridge, due to their fragile nature and seismic deficiencies. The removal of the truss system, which is approximately 102 feet long, to be placed at an alternate location would also affect the feeling of the bridge, as it would no longer be visual as a bridge spanning approximately 180 feet over a river in dense riparian habitat.

#### CONCLUSIONS

The Sonoma County Department of Transportation and Public Works, in coordination with the California Department of Transportation (Caltrans), District 4, proposes to replace the Watmaugh Road Bridge (20C-0017) over Sonoma Creek. The project would result in the removal of the existing bridge and construction of a new bridge in the same location.

There are two historic properties within the project APE: Watmaugh Road Bridge and the McElroy Ranch at 240 W. Watmaugh Road. Removal of the existing bridge constitutes an adverse effect on the

Watmaugh Road Bridge under Criteria of Adverse Effect 2(i) because the project will affect all seven aspects of integrity as the bridge would be removed.

The proposed project would not affect the integrity of the McElroy Ranch, therefore there would be no adverse effect to the McElroy Ranch as a result of this project.

Pursuant to Section 106 PA Stipulation X.C, Caltrans finds that the project will have an Adverse Effect on a historic property.

#### POTENTIAL MITIGATION MEASURES

All mitigation will be developed in consultation with interested parties and stakeholders. The following measures have been proposed to mitigate adverse effects of the proposed project on the Watmaugh Road Bridge.

1. Preparation of a Historic American Engineering Record (HAER) following the guidelines promulgated in The *Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation* (National Park Service 2003). HAER documentation includes drawings, photographs, and history commensurate with the property's level of significance and complexity.

Dissemination of copies of the HAER report to the Sonoma County Library History Annex for inclusion in the Sonoma Heritage Collections and appropriate historical organizations.

2. Plaques on the new bridge describing the history of the bridge and corridor.

Investigate if there is a potential for an adjacent safe parking area or pedestrian access to the bridge, and if so, install descriptive plaques for the historic bridge that displays the new and the 1981 (original) plaque. If there is no potential for safe parking or pedestrian access to the new bridge, install large, easy to read, pole-mounted historic bridge plaques for passing motorists to view.

3. Sonoma County Parks or Local Museum Interpretive Program

A display for a local museum or creation of an interpretive program at a nearby park could be made. The display could include a scale 3D model of the "As Built" 1929 Bridge, along with a synopsis of the history of the corridor, and details of the history of the Watmaugh Road Bridge. The display could also include digital photographic slideshows, PowerPoint presentations and/or a narrated video.

4. Watmaugh Road Bridge Web Page Creation on the County's Website

The website could include digital photographic slideshows, PowerPoint presentations and/or a narrated video production. The website could also include the production of short films describing the present project and the history of the bridge and the past crossings that have existed at the site. The HAER Documentation could be used as the basis of the information on the website.

Note: Consultation with public stakeholders to develop additional mitigation measures is ongoing and as such, proposed mitigation measures may be altered, and additional measures may be developed. These will be described in the Memorandum Of Agreement.

#### REFERENCES

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2016 Historical Resources Evaluation Report, Watmaugh Road Bridge Replacement Project, Sonoma, Sonoma County, California.

#### California Department of Transportation

- 2014 Local Agency Bridge List (10-31-2014). < http://www.dot.ca.gov/hq/LocalPrograms/hbrr99/ hbrr99a.htm#ebl>
- 2016 Local Agency Scour Critical Bridges. <a href="http://www.dot.ca.gov/hq/structur/strmaint/scour\_critical-local.pdf">http://www.dot.ca.gov/hq/structur/strmaint/scour\_critical-local.pdf</a>>

Harris, D.

1993 *Historic Resources Inventory Form for the Sonoma County Bridges Thematic District*. On file with the Sonoma County Landmarks Commission, Santa Rosa.

#### Moffatt & Nichol

2017 Watmaugh Road Bridge Replacement over Sonoma Creek (Br. No. 20C-0017) Structure Type Selection. Report prepared for the County of Sonoma.

National Park Service

2003 Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation. <a href="https://www.federalregister.gov/documents/2003/07/21/03-18197/guidlines-for-architectural-and-engineering-documentation">https://www.federalregister.gov/documents/2003/07/21/03-18197/guidlines-forarchitectural-and-engineering-documentation></a>

Schultz, E.

2016 Supplemental Architectural Resources Evaluation of Watmaugh Road Bridge (Caltrans #20C0017) and McElroy Ranch (240 W. Watmaugh Road) for Watmaugh Road Bridge Replacement Project, BRLS 5920 (020), Sonoma County, California.

Sonoma County Clerk of the Board of Supervisors

2012 Agenda Item Summary Report: Watmaugh Road Bridge Replacement Project.

# ATTACHMENT A

Project vicinity map Project location map Area of potential effects map

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Figure 1. Project vicinity (adapted from San Francisco Planning Department).).



Figure 3. Area of potential effects.

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Figure 2. Study area location (adapted from the 1980 USGS Sonoma and Sears Point 7.5' maps)

## ATTACHMENT B

List of Organizations and Contact Information Consultation Log Correspondence Figures with Correspondence

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#### **National**

Kitty Henderson, Executive Director The Historic Bridge Foundation P.O. BOX 66245 Austin, Texas 78766 512-407-8898 kitty@historicbridgefoundation.com

Historic Bridges.org Nathan Holth webmaster@historicbridges.org

#### County

Sonoma County Landmarks Chelsea Holup, Staff Liaison 2550 Ventura Avenue Santa Rosa, CA 95403 Chelsea.Holup@sonoma-county.org Patricia Cullinan, First District Stephanie McAllister, Second District Bryan Much, Third District Debra Watts, Fourth District Peter Jenny, Fifth District

Jeremy Nichols, President Sonoma County Historical Society P.O. Box 1373, Santa Rosa, CA 95402 jn6wfo@gmail.com

Harry W. Nieuwboer Petaluma Historical Library and Museum 20 Fourth Street Petaluma, CA 94952 (707) 778-4398 harry@petalumamuseum.com

Rae Swanson Western Sonoma County Historical Society 261 S. Main Street Sebastopol, CA 95472 <u>707-829-6711</u> raeswanson3710@sbcglobal.net wschs93@sonic.net

### Local

Prema Behan, Director Sonoma League for Historic Preservation 291 1st Street East Sonoma, CA 95476 (415) 215-8456 pbehan@classicwines.com

Patricia Cullinan Sonoma Valley Historical Society 270 First Street West Sonoma CA 95476 (707) 938-1762 cullinandesign@gmail.com

Johanna M. Patri Friends of Watmaugh Road Bridge PO Box 604 Sonoma, California 95476-0604 jmpatri@aol.com

Citizens for the Preservation of Sonoma Historic Bridges Rose M. Zoia (Attorney) 50 Old Courthouse Square. Suite 401 Santa Rosa California 95404 707.526.5894 rzoia@sbcglobal.net

CONSULTATION LOG Watmaugh Road Bridge Replacement					
Organization	Contact	Letter	Email		
The Historic Bridge Foundation	Kitty Henderson, Executive Director	04-11-2017	05-16-2017		
Ms. Henderson called on May 18, 2017. She the past when removal of the bridge was firs advised her to contact Caltrans regarding tha GANDA. I emailed the GANDA report to her o this organization.	t considered. She is interested in being at issue. She asked for a copy of the bri	a consulting par dge evaluation c	ty, and I ompleted by		
HistoricBridges.org	Nathan Holth	04-18-2017	05-05-2017		
Mr. Holth emailed to say that he would be g of project plans was sent to him via email on					
Sonoma County Landmarks Commission	Chelsea Holup, Staff Liaison	04-11-2017	05-16-2017		
		he project Che in	adjusted that		
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the Watmaugh Road Bridge project has not H to them for a while. Sonoma County Historical Society No comments were received from this organ Petaluma Historical Library and Museum TOA received an email from Harry Nieuwboo area of interest, and that they took no positi Western Sonoma County Historical Society	Jeremy Nichols, President ization. Harry W. Nieuwboer, President er in which he stated that the Watmaug on on the project. Rae Swanson	04-11-2017 04-11-2017 ch Bridge was our	05-16-2017 05-16-2017 tside their		

Organization	Contact	Letter	Email
Sonoma Valley Historical Society	Patricia Cullinan, Director	04-11-2017	04-27-201
Ms. Cullinan requested a copy of the projec comments have been received since that tir		il on May 2, 2017	. No
Citizens for the Preservation of Sonoma Historic Bridges	c/o Rose M. Zoia, Attorney	04-11-2017	05-16-201
Daffurn concurred with previous bridge eva	luations that found the bridge eligible fo	or the California	and the second state of the second state of the
National Register but felt that important inf evaluation. She also commented about the spoke at County meetings in support of savi and an article that appeared in a local news	ormation had been left out that might h "Many residents of Sonoma [who] wrot ng the bridge." Attached to her email w paper regarding Watmaugh Bridge.	nave strengthene e letters, signed vere photographs	Register and ed the petitions and
National Register but felt that important inf evaluation. She also commented about the spoke at County meetings in support of savi	ormation had been left out that might h "Many residents of Sonoma [who] wrot ng the bridge." Attached to her email w	nave strengthene e letters, signed	ed the petitions and
Archaeology / Historical Research

April 11, 2017

Kitty Henderson, Executive Director The Historic Bridge Foundation P.O. Box 66245 Austin, TX 78766

Re: Watmaugh Road Bridge Replacement, Sonoma County, California

Dear Ms. Henderson:

In accordance with Section 106 of the National Historic Preservation Act, our firm is seeking input from interested parties regarding a bridge replacement project proposed by the County of Sonoma. The County proposes to demolish and replace Watmaugh Road Bridge over Sonoma Creek, about two miles south-southeast of the city of Sonoma. This undertaking will receive funds from the Surface Transportation Program and requires compliance with Section 106.

The Watmaugh Road Bridge is a three-span, pony truss bridge designed by Sonoma County Surveyor, E.A. Peugh in 1929. The bridge is situated in its original location, and the surrounding area remains rural agricultural land much as it was in 1929 when the bridge was built. The bridge is unaltered except for the replacement of its original steel lattice guardrails with steel beam rails. Sonoma County recognizes the bridge as a County Landmark #103.

In 2016, Erica Schultz of Garcia and Associates (GANDA) completed historical resource evaluations for two resources within the project's area of potential effects (APE). Both Watmaugh Road Bridge and the residence at 240 W. Watmaugh Road are considered eligible for inclusion in the National Register of Historic Places (National Register) and the California Register of Historical Resources (California Register). Schultz indicated that the bridge was eligible under Criteria A/1 and C/3 in her evaluation:

Constructed in 1929, the bridge contributed to the modernization of Sonoma County's transportation network in the 1920s and 1930s (Criterion A/1) and is a significant example of a rare bridge type, the polygonal top chord Warren pony truss (Criterion C/3). Only one other polygonal top chord Warren pony truss bridge (Crocker Road Bridge) is extant in Sonoma County and only two dozen remain in California. Although the original metal lattice guardrails have been replaced, the bridge retains a sufficient level of integrity for listing in the [National Register and California Register].

Archaeology / Historical Research

April 11, 2017

Nathan Holth HistoricBridges.org

via email

Re: Watmaugh Road Bridge Replacement, Sonoma County, California

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Nathan Holth April 11, 2017 Page 2

The County of Sonoma's Transportation & Public Works-Roads Division recently reported the following:

Watmaugh Bridge is seismically vulnerable and severely structurally deficient. It does not meet modern seismic standards and could be subject to collapse during moderate to severe earthquake. Additionally, the bridge suffers from structural deficiencies, including:

- Rust in several joints has caused the concrete to crumble away from the underlying steel.
- Inadequate footings are undermined by high creek flows. Substantial erosion has been noted around the base of the shallow footings.
- The truss has deteriorated and can no longer support normal loads.

The Sufficiency Rating of the bridge, which is a federal standard, rates the bridge at 4 out of 100.

Our firm is preparing documents discussing the effects the project will have on this historic property and possible mitigation measures, and we invite your comments on the subject. Enclosed are photographs of the Watmaugh Road Bridge and a map showing its location.

Please address your comments or questions to Vicki Beard at:

 Phone:
 (707) 584-8200

 Fax:
 (707) 584-8300

 Email:
 vbeard@origer.com

 Mail:
 PO Box 1531, Rohnert Park, CA 94927

Thank you in advance for your consideration.

Vich Bearl

Vicki Beard Senior Associate

Archaeology / Historical Research

April 11, 2017

Sonoma County Landmarks Commission % Chelsea Holup 2550 Ventura Avenue Santa Rosa, CA 95403

Re: Watmaugh Road Bridge Replacement, Sonoma County, California

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Constructed in 1929, the bridge contributed to the modernization of Sonoma County's transportation network in the 1920s and 1930s (Criterion A/1) and is a significant example of a rare bridge type, the polygonal top chord Warren pony truss (Criterion C/3). Only one other polygonal top chord Warren pony truss bridge (Crocker Road Bridge) is extant in Sonoma County and only two dozen remain in California. Although the original metal lattice guardrails have been replaced, the bridge retains a sufficient level of integrity for listing in the [National Register and California Register].

Chelsea Holup April 11, 2017 Page 2

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Vich Bearl

Vicki Beard Senior Associate

Archaeology / Historical Research

April 11, 2017

Jeremy Nichols Sonoma County Historical Society P.O. Box 1373 Santa Rosa, CA 95402

Re: Watmaugh Road Bridge Replacement, Sonoma County, California

Dear Mr. Nichols:

In accordance with Section 106 of the National Historic Preservation Act, our firm is seeking input from interested parties regarding a bridge replacement project proposed by the County of Sonoma. The County proposes to demolish and replace Watmaugh Road Bridge over Sonoma Creek, about two miles south-southeast of the city of Sonoma. This undertaking will receive funds from the Surface Transportation Program and requires compliance with Section 106.

The Watmaugh Road Bridge is a three-span, pony truss bridge designed by Sonoma County Surveyor, E.A. Peugh in 1929. The bridge is situated in its original location, and the surrounding area remains rural agricultural land much as it was in 1929 when the bridge was built. The bridge is unaltered except for the replacement of its original steel lattice guardrails with steel beam rails. Sonoma County recognizes the bridge as a County Landmark #103.

In 2016, Erica Schultz of Garcia and Associates (GANDA) completed historical resource evaluations for two resources within the project's area of potential effects (APE). Both Watmaugh Road Bridge and the residence at 240 W. Watmaugh Road are considered eligible for inclusion in the National Register of Historic Places (National Register) and the California Register of Historical Resources (California Register). Schultz indicated that the bridge was eligible under Criteria A/1 and C/3 in her evaluation:

Constructed in 1929, the bridge contributed to the modernization of Sonoma County's transportation network in the 1920s and 1930s (Criterion A/1) and is a significant example of a rare bridge type, the polygonal top chord Warren pony truss (Criterion C/3). Only one other polygonal top chord Warren pony truss bridge (Crocker Road Bridge) is extant in Sonoma County and only two dozen remain in California. Although the original metal lattice guardrails have been replaced, the bridge retains a sufficient level of integrity for listing in the [National Register and California Register].

Jeremy Nichols April 11, 2017 Page 2

The County of Sonoma's Transportation & Public Works-Roads Division recently reported the following:

Watmaugh Bridge is seismically vulnerable and severely structurally deficient. It does not meet modern seismic standards and could be subject to collapse during moderate to severe earthquake. Additionally, the bridge suffers from structural deficiencies, including:

- Rust in several joints has caused the concrete to crumble away from the underlying steel.
- Inadequate footings are undermined by high creek flows. Substantial erosion has been noted around the base of the shallow footings.
- The truss has deteriorated and can no longer support normal loads.

The Sufficiency Rating of the bridge, which is a federal standard, rates the bridge at 4 out of 100.

Our firm is preparing documents discussing the effects the project will have on this historic property and possible mitigation measures, and we invite your comments on the subject. Enclosed are photographs of the Watmaugh Road Bridge and a map showing its location.

Please address your comments or questions to Vicki Beard at:

 Phone:
 (707) 584-8200

 Fax:
 (707) 584-8300

 Email:
 vbeard@origer.com

 Mail:
 PO Box 1531, Rohnert Park, CA 94927

Thank you in advance for your consideration.

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Vicki Beard Senior Associate

Archaeology / Historical Research

April 11, 2017

Harry W. Nieuwboer Petaluma Historical Library and Museum 20 Fourth Street Petaluma, CA 94952

Re: Watmaugh Road Bridge Replacement, Sonoma County, California

Dear Mr. Nieuwboer:

In accordance with Section 106 of the National Historic Preservation Act, our firm is seeking input from interested parties regarding a bridge replacement project proposed by the County of Sonoma. The County proposes to demolish and replace Watmaugh Road Bridge over Sonoma Creek, about two miles south-southeast of the city of Sonoma. This undertaking will receive funds from the Surface Transportation Program and requires compliance with Section 106.

The Watmaugh Road Bridge is a three-span, pony truss bridge designed by Sonoma County Surveyor, E.A. Peugh in 1929. The bridge is situated in its original location, and the surrounding area remains rural agricultural land much as it was in 1929 when the bridge was built. The bridge is unaltered except for the replacement of its original steel lattice guardrails with steel beam rails. Sonoma County recognizes the bridge as a County Landmark #103.

In 2016, Erica Schultz of Garcia and Associates (GANDA) completed historical resource evaluations for two resources within the project's area of potential effects (APE). Both Watmaugh Road Bridge and the residence at 240 W. Watmaugh Road are considered eligible for inclusion in the National Register of Historic Places (National Register) and the California Register of Historical Resources (California Register). Schultz indicated that the bridge was eligible under Criteria A/1 and C/3 in her evaluation:

Constructed in 1929, the bridge contributed to the modernization of Sonoma County's transportation network in the 1920s and 1930s (Criterion A/1) and is a significant example of a rare bridge type, the polygonal top chord Warren pony truss (Criterion C/3). Only one other polygonal top chord Warren pony truss bridge (Crocker Road Bridge) is extant in Sonoma County and only two dozen remain in California. Although the original metal lattice guardrails have been replaced, the bridge retains a sufficient level of integrity for listing in the [National Register and California Register].

Under the proposed plan, Watmaugh Road Bridge will be demolished and a concrete box girder or slab bridge will be constructed in approximately the same alignment as the existing bridge. The original metal trusses will be affixed to the new bridge as non-structural elements.

www.origer.com

Harry W. Nieuwboer April 11, 2017 Page 2

The County of Sonoma's Transportation & Public Works-Roads Division recently reported the following:

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The Sufficiency Rating of the bridge, which is a federal standard, rates the bridge at 4 out of 100.

Our firm is preparing documents discussing the effects the project will have on this historic property and possible mitigation measures, and we invite your comments on the subject. Enclosed are photographs of the Watmaugh Road Bridge and a map showing its location.

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Vicki Beard Senior Associate

Archaeology / Historical Research

April 11, 2017

Rae Swanson Western Sonoma County Historical Society 261 S. Main Street Sebastopol, CA 95472

Re: Watmaugh Road Bridge Replacement, Sonoma County, California

Dear Ms. Swanson:

In accordance with Section 106 of the National Historic Preservation Act, our firm is seeking input from interested parties regarding a bridge replacement project proposed by the County of Sonoma. The County proposes to demolish and replace Watmaugh Road Bridge over Sonoma Creek, about two miles south-southeast of the city of Sonoma. This undertaking will receive funds from the Surface Transportation Program and requires compliance with Section 106.

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In 2016, Erica Schultz of Garcia and Associates (GANDA) completed historical resource evaluations for two resources within the project's area of potential effects (APE). Both Watmaugh Road Bridge and the residence at 240 W. Watmaugh Road are considered eligible for inclusion in the National Register of Historic Places (National Register) and the California Register of Historical Resources (California Register). Schultz indicated that the bridge was eligible under Criteria A/1 and C/3 in her evaluation:

Constructed in 1929, the bridge contributed to the modernization of Sonoma County's transportation network in the 1920s and 1930s (Criterion A/1) and is a significant example of a rare bridge type, the polygonal top chord Warren pony truss (Criterion C/3). Only one other polygonal top chord Warren pony truss bridge (Crocker Road Bridge) is extant in Sonoma County and only two dozen remain in California. Although the original metal lattice guardrails have been replaced, the bridge retains a sufficient level of integrity for listing in the [National Register and California Register].

Rae Swanson April 11, 2017 Page 2

The County of Sonoma's Transportation & Public Works-Roads Division recently reported the following:

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Thank you in advance for your consideration.

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Vicki Beard Senior Associate

Archaeology / Historical Research

April 11, 2017

Prema Behan Sonoma League for Historic Preservation 291 1st Street East Sonoma, CA 95476

Re: Watmaugh Road Bridge Replacement, Sonoma County, California

Dear Ms. Behan:

In accordance with Section 106 of the National Historic Preservation Act, our firm is seeking input from interested parties regarding a bridge replacement project proposed by the County of Sonoma. The County proposes to demolish and replace Watmaugh Road Bridge over Sonoma Creek, about two miles south-southeast of the city of Sonoma. This undertaking will receive funds from the Surface Transportation Program and requires compliance with Section 106.

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In 2016, Erica Schultz of Garcia and Associates (GANDA) completed historical resource evaluations for two resources within the project's area of potential effects (APE). Both Watmaugh Road Bridge and the residence at 240 W. Watmaugh Road are considered eligible for inclusion in the National Register of Historic Places (National Register) and the California Register of Historical Resources (California Register). Schultz indicated that the bridge was eligible under Criteria A/1 and C/3 in her evaluation:

Constructed in 1929, the bridge contributed to the modernization of Sonoma County's transportation network in the 1920s and 1930s (Criterion A/1) and is a significant example of a rare bridge type, the polygonal top chord Warren pony truss (Criterion C/3). Only one other polygonal top chord Warren pony truss bridge (Crocker Road Bridge) is extant in Sonoma County and only two dozen remain in California. Although the original metal lattice guardrails have been replaced, the bridge retains a sufficient level of integrity for listing in the [National Register and California Register].

Prema Behan April 11, 2017 Page 2

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Vicki Beard Senior Associate

Archaeology / Historical Research

April 11, 2017

Patricia Cullinan Sonoma Valley Historical Society 270 First Street West Sonoma CA 95476

Re: Watmaugh Road Bridge Replacement, Sonoma County, California

Dear Ms. Cullinan:

In accordance with Section 106 of the National Historic Preservation Act, our firm is seeking input from interested parties regarding a bridge replacement project proposed by the County of Sonoma. The County proposes to demolish and replace Watmaugh Road Bridge over Sonoma Creek, about two miles south-southeast of the city of Sonoma. This undertaking will receive funds from the Surface Transportation Program and requires compliance with Section 106.

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In 2016, Erica Schultz of Garcia and Associates (GANDA) completed historical resource evaluations for two resources within the project's area of potential effects (APE). Both Watmaugh Road Bridge and the residence at 240 W. Watmaugh Road are considered eligible for inclusion in the National Register of Historic Places (National Register) and the California Register of Historical Resources (California Register). Schultz indicated that the bridge was eligible under Criteria A/1 and C/3 in her evaluation:

Constructed in 1929, the bridge contributed to the modernization of Sonoma County's transportation network in the 1920s and 1930s (Criterion A/1) and is a significant example of a rare bridge type, the polygonal top chord Warren pony truss (Criterion C/3). Only one other polygonal top chord Warren pony truss bridge (Crocker Road Bridge) is extant in Sonoma County and only two dozen remain in California. Although the original metal lattice guardrails have been replaced, the bridge retains a sufficient level of integrity for listing in the [National Register and California Register].

Patricia Cullinan April 11, 2017 Page 2

The County of Sonoma's Transportation & Public Works-Roads Division recently reported the following:

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Thank you in advance for your consideration.

Vich Bear

Vicki Beard Senior Associate

Archaeology / Historical Research

April 27, 2017

Citizens for the Preservation of Sonoma Historic Bridges % Rose M. Zoia 50 Old Courthouse Square, Suite 401 Santa Rosa, California 95404

Re: Watmaugh Road Bridge Replacement, Sonoma County, California

Dear Ms. Zoia:

This letter is direct to you because in 2012 you responded to comments regarding the Watmaugh Road Bridge replacement project on behalf of Citizens for the Preservation of Sonoma Historic Bridges. We have not been able to find contact information for that organization. Would you please forward this letter to the group or let us know how to reach them directly.

In accordance with Section 106 of the National Historic Preservation Act, our firm is seeking input from interested parties regarding a bridge replacement project proposed by the County of Sonoma. The County proposes to demolish and replace Watmaugh Road Bridge over Sonoma Creek, about two miles south-southeast of the city of Sonoma. This undertaking will receive funds from the Surface Transportation Program and requires compliance with Section 106.

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Constructed in 1929, the bridge contributed to the modernization of Sonoma County's transportation network in the 1920s and 1930s (Criterion A/1) and is a significant example of a rare bridge type, the polygonal top chord Warren pony truss (Criterion C/3). Only one other polygonal top chord Warren pony truss bridge (Crocker Road Bridge) is extant in Sonoma County and only two dozen remain in California. Although the original metal lattice guardrails have been replaced, the bridge retains a sufficient level of integrity for listing in the [National Register and California Register].

Rose M. Zoia April 27, 2017 Page 2

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Under the proposed plan, Watmaugh Road Bridge will be demolished and a concrete box girder or slab bridge will be constructed in approximately the same alignment as the existing bridge. The original metal trusses will be affixed to the new bridge as non-structural elements.

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Thank you in advance for your consideration.

Vich Bear

Vicki Beard Senior Associate

Archaeology / Historical Research

April 27, 2017

Johanna M. Patri PO Box 604 Sonoma, California 95476-0604

Re: Watmaugh Road Bridge Replacement, Sonoma County, California

Dear Ms. Patri:

In accordance with Section 106 of the National Historic Preservation Act, our firm is seeking input from interested parties regarding a bridge replacement project proposed by the County of Sonoma. The County proposes to demolish and replace Watmaugh Road Bridge over Sonoma Creek, about two miles south-southeast of the city of Sonoma. This undertaking will receive funds from the Surface Transportation Program and requires compliance with Section 106.

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Constructed in 1929, the bridge contributed to the modernization of Sonoma County's transportation network in the 1920s and 1930s (Criterion A/1) and is a significant example of a rare bridge type, the polygonal top chord Warren pony truss (Criterion C/3). Only one other polygonal top chord Warren pony truss bridge (Crocker Road Bridge) is extant in Sonoma County and only two dozen remain in California. Although the original metal lattice guardrails have been replaced, the bridge retains a sufficient level of integrity for listing in the [National Register and California Register].

Johanna M. Patri April 27, 2017 Page 2

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