

TREANORHL

COYOTE CREEK TRESTLE, SAN JOSE, CALIFORNIA  
SECRETARY OF THE INTERIOR'S STANDARDS  
COMPLIANCE REVIEW

July 21, 2023



## Table of Contents

1. INTRODUCTION .....	3
2. SUMMARY OF FINDINGS .....	3
3. METHODOLOGY .....	3
4. HISTORIC SIGNIFICANCE SUMMARY .....	3
5. PROPOSED PROJECT DESCRIPTION.....	5
6. SUMMARY PROPERTY DESCRIPTION .....	8
7. REGULATORY FRAMEWORK.....	10
8. SECRETARY OF THE INTERIOR'S STANDARDS ANALYSIS.....	11
9. IMPACT ANALYSIS.....	14
10. CONCLUSION.....	20
11. BIBLIOGRAPHY .....	21
APPENDIX .....	22





## 1. INTRODUCTION

This report evaluates three proposed designs for the Coyote Creek Trestle in San Jose, California. TreanorHL evaluated the historic significance of the subject structure in October 2022. It was determined that the Coyote Creek Trestle appears to be individually eligible for listing on the National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR), and as a San Jose City Landmark. The proposed designs are reviewed for compliance with the Secretary of the Interior's Standards for the Treatment of Historic Properties (the Standards), Rehabilitation treatment in order to determine if the project would result in a substantial adverse change in the significance of or cause an impact to the historic resource as defined at California Environmental Quality Act (CEQA) Guidelines 15064.5(b) or if the project would be eligible to receive a Class 31 categorical exemption from CEQA as specified in Section 15331.

## 2. SUMMARY OF FINDINGS

A thorough review of the three proposed alternatives was completed, with each alternative yielding different levels of compatibility with the Secretary of the Interior's Standards. Standard 8 was not assessed is outside the scope of this report.

Alternative 1 complies with Standards 3 and 7; and partially complies with 1, 2, 5, 6, 9, and 10. No design changes are recommended; however, mitigation measures are proposed to address the protection of Coyote Creek Trestle from potential damages due to construction-related activities and documentation is proposed to address the loss of some existing material. With implementation of these measures, the potential for project impacts to the identified historic resource would be reduced to less-than-significant.

Alternative 2 does not comply with the Standards. The proposed project for this alternative includes the demolition of the historic resource, and its replacement with a new structure. Although with a demolition impacts cannot be reduced to a level of less-than-significant, mitigation measures are suggested.

Alternative 3 complies with the Standards. As the alternative appears to be generally consistent with the Standards, the proposed changes would not result in substantial adverse change in the significance of or cause an impact to the historic resource. Alternative 3 includes the construction of a new bridge adjacent to the existing trestle and the stabilization of the trestle. Mitigation measures are proposed to address the protection of Coyote Creek Trestle from potential damages due to construction-related activities for the new bridge.

## 3. METHODOLOGY

TreanorHL reviewed the three alternatives' descriptions and conceptual elevations provided by GHD Inc., sent via email April 18, 2023. The October 2022 Historic Resources Evaluation for Coyote Creek Trestle was also reviewed. No additional site visits were conducted.

## 4. HISTORIC SIGNIFICANCE SUMMARY

As stated above, Coyote Creek Trestle appears eligible for listing in local, state, and national registers, therefore the trestle meets the definition of a historical resource per CEQA. The following paragraph is excerpted from TreanorHL's October 2022 Historic Resource Evaluation report and further details the basis for the finding of significance:

[...] Coyote Creek Trestle in reference to the NRHP and CRHR criteria, the subject property appears individually eligible for listing on the NRHP and CRHR under Criterion A/1 at the local level for its



association with the industrial development of San Jose. The subject trestle is one of only two extant pile bent trestles in the Santa Clara County and the only one in San Jose. The period of significance is from 1922 when it was completed to c. 1965 when San Jose's and the County's fruit industry started to decline. Coyote Creek Trestle retains sufficient integrity to communicate its significance under Criterion A/1 for its defined period of significance. Coyote Creek Trestle also appears eligible as a San Jose City Landmark under criteria 1, 4 and 6 as a good example of an early 20<sup>th</sup> century pile bent timber trestle (a rare remaining structure type), constructed during the period of *Inter-War Period (1918-1945)*.

Coyote Creek Trestle was also found potentially eligible as a San Jose City Landmark under criteria 1, 4, and 6. The trestle is a unique structure in San Jose. While the pile-bent trestle type was prevalent in railroad construction, many are no longer extant, and Coyote Creek is the last of its kind in San Jose. Further, the trestle exemplifies San Jose's economic heritage in the early part of the 20<sup>th</sup> century, as related to the canning and shipping industries.

Coyote Creek Trestle retains sufficient integrity overall to communicate its significance. The structure retains a high degree of integrity of location and setting, since it has not been moved. The trestle maintains a high degree of integrity of design, materials and workmanship, as limited alterations have occurred, although the loss of some material has occurred through fires. The integrity of feeling is retained as the physical attributes of the trestle, namely the early 20<sup>th</sup> century substructure and the pile-bent construction typical of its period, are largely intact. The removal of the rails and tracks at either approach have somewhat diminished the integrity of association.

The bent-pile structure is now a rare trestle type, and Coyote Creek is only one remaining in San Jose. Use of timber for both the substructure and superstructure is not common. While the deck is not important on its own, not many bridges have timber for both the superstructure and substructure. The metal rails have since been removed from the deck, but the timber ties and stringers still remain.

The character-defining features of the Coyote Creek Trestle are:

- Wood piles, vertical and bent.
- Wood elements remaining on the deck, including the ties, stringers, and caps.



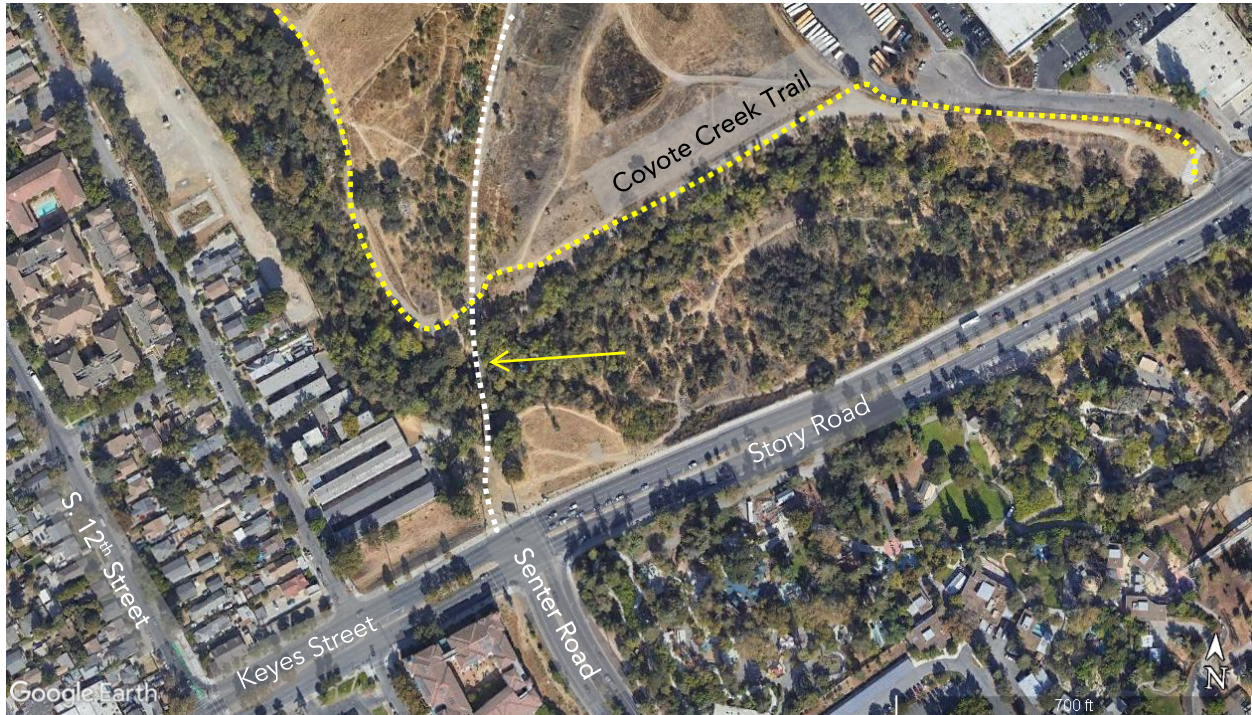


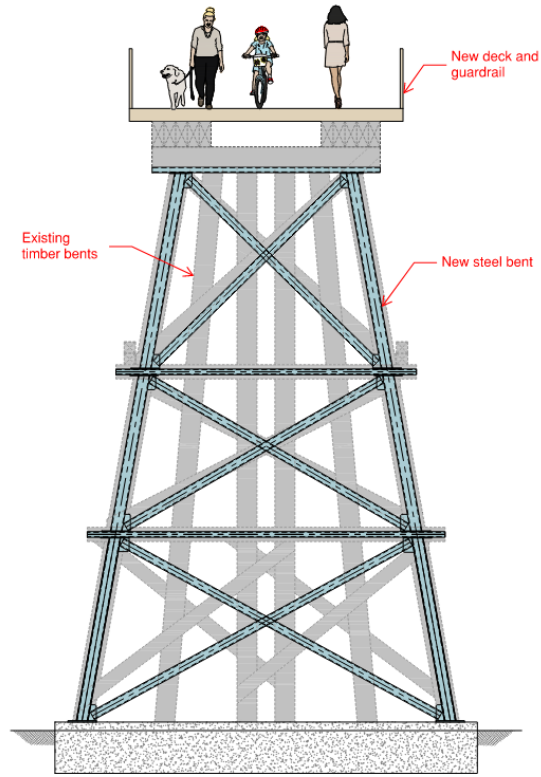
Figure 1. The Trestle is pointed out with a yellow arrow, Coyote Creek Trail in dashed yellow, and the proposed Five Wounds Trail in dashed white (Google Earth, imagery date August 2020).

## 5. PROPOSED PROJECT DESCRIPTION

Three project alternatives are proposed for the Coyote Creek Trestle. Alternative 1 is a collapse prevention and life safety retrofit of the existing structure. The proposed project would transform the historic railroad trestle into a section of the Five Wounds Trail, used for pedestrian and bicycle traffic. The main changes would take place on the timber bents and the deck. New steel bents would be installed between every two existing timber bents. At the deck, the railroad ties and catwalk would be removed. Installed in its place would be a new concrete deck, guardrails, and longitudinal stringers. Additionally, all the bolts and diagonal braces would be replaced. New steel plates would be added to reinforce the connections between the timber members. New framing members would be installed at the superstructure.

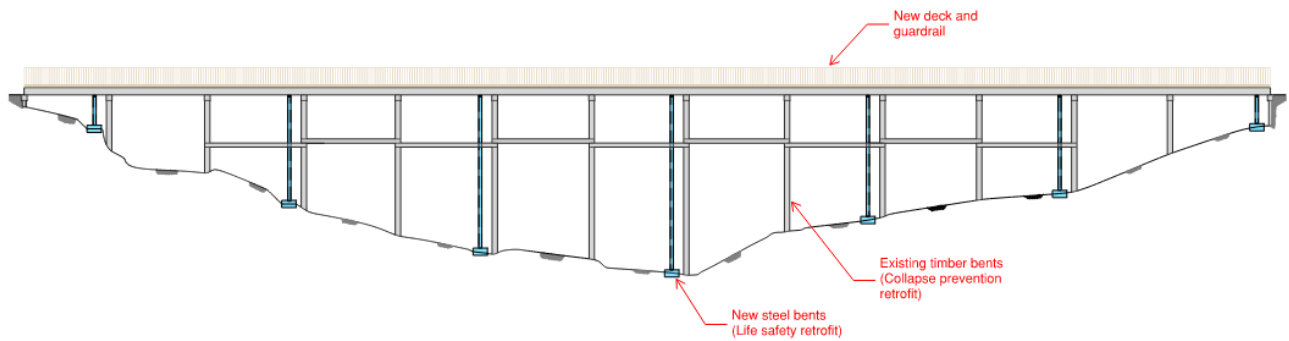
Alternative 2 proposes to demolish the Coyote Creek Trestle entirely. A new single-span 250-foot weathering steel truss bridge would be reconstructed following either the same alignment or a similar alignment. The bridge would be composed of two Pratt trusses connected by transverse floor beams supporting a concrete deck.

Alternative 3 includes new construction and a retrofit. Coyote Creek Trestle would receive a minor retrofit, and a 250-foot span weathering steel truss bridge would be constructed. The retrofit involves strengthening the existing timber elements and adding new steel plates and bolts for more support. The retrofit would only improve the structural integrity of the existing bridge, and would not allow for any type of traffic use. Open to pedestrians and bicyclists, the new bridge would be 250 feet in length and be constructed approximately 50 to 100 feet east of the existing bridge.



Alternative 1 - Life Safety Retrofit

Figure 2. Alternative 1. Retrofit Existing Bridge. Drawings provided by GHD Inc. Dated April 2023.



Alternative 1 Elevation View

Figure 3: Alternative 1. Retrofit Existing Bridge. Drawings provided by GHD Inc. Dated April 2023.

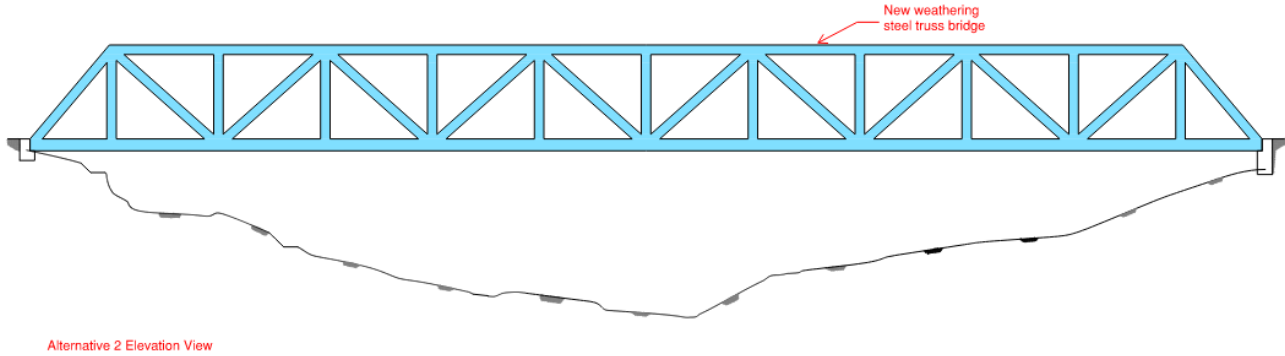


Figure 4. Alternative 2. Elevation of the new steel truss bridge. Drawings provided by GHD Inc. Dated April 2023.

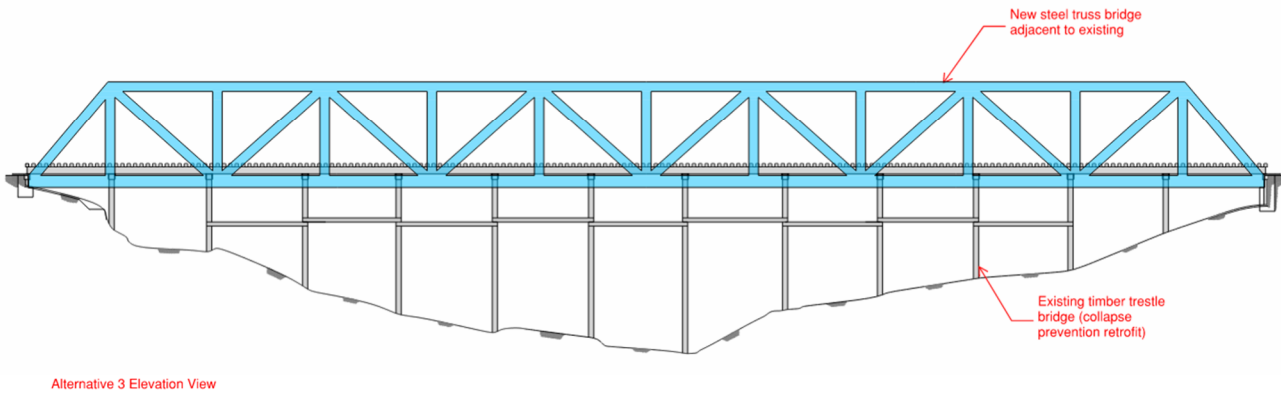


Figure 5. Alternative 3. Elevation of the new steel truss bridge and existing trestle with retrofit. Drawings provided by GHD Inc. Dated April 2023.



## 6. SUMMARY PROPERTY DESCRIPTION

Sourced from the October 2022 Historic Resources Evaluation (HRE) for Coyote Creek Trestle:

Constructed from 1921 to 1922, Coyote Creek Trestle is a single-track timber high-pile trestle approximately 250 feet in length. While various types of wood bridges were utilized in U.S. railroad construction as early as the 1830s, most timber trestles for railroads were constructed in the U.S. between 1900 and 1950. The Trestle is of pile-bent construction, which was commonly used for railroad tracks in areas with soft ground, over water, or over a ravine. The estimated height for the Trestle is approximately 25 feet at its tallest point; pile trestles do not typically reach higher than 30 feet. The piles might have been covered with tar and a layer of whitewash to delay erosion.

The Trestle's substructure is composed of eight spans and eight sets of six round piles, four vertical and two battered. Each set of piles has two, four, or six sway braces, depending on its height. At the highest point, piles have six sway braces—two on either side, staggered at the top, middle, and bottom sections. The two end piles have two sway braces. While most sway braces are wood, several are metal, indicating a possible repair after the Trestle's initial construction. Depending on height, either one or two ledgers are attached to the piles. While most of the ledgers are wood, several are metal and appear to be later repairs.

The superstructure of the Trestle consists of the top portion, or the deck, cap, stringers, ties, and rails. The superstructure is a variation of the plank deck type, where lumber planks are laid on top of the supporting beams, or stringers. The piles are connected with a horizontal square cap on top which extends past the span. The ties rest on stringers, which are perpendicular to both the ties and the caps. Most of the ties are only as wide as the stringers, however every seventh tie extends past the stringers. On the extended ties sit metal poles which hold up metal cables that run the length of the Trestle. The ties overlap approximately four feet into the land on the south entrance. The metal rails have since been removed.

A metal fence with an opening cut out occupies the south entrance. A metal grate supported by steel beams sits to the side. On the north entrance, a metal fence sits only to the side. The Trestle is raised above Coyote Creek and the Coyote Creek trail, which is paved in this area.



Figure 6. South entrance of Coyote Creek Trestle (September 2022).





Figure 7. The south entrance of the Trestle (left) and the north entrance of the Trestle (right) (September 2022).



Figures 8 and 9. View of the Trestle from the Coyote Creek Trail (left) and view of the Trestle off-trail (right) (September 2022).



Figure 10. A view of the Trestle from below with Coyote Creek on the bottom right (left) and a view of the footpath leading to the south end of the Trestle (right) (September 2022).





Figure 11. Looking east, a view of the Trestle from the Coyote Creek Trail with Coyote Creek on the bottom right (September 2022).

## 7. REGULATORY FRAMEWORK

The three project alternatives have been reviewed and evaluated in this report in accordance with the requirements of CEQA. Consistency with the *Standards* is necessary for a project to receive a Class 31 categorical exemption from CEQA as specified in Section 15331 of the CEQA Guidelines. The section states as follows:

Class 31 consists of projects limited to maintenance, repair, stabilization, rehabilitation restoration, preservation, conservation or reconstruction of historical resources in a manner consistent with the Secretary of Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings (Weeks and Grimmer, 1995).

The CEQA Guidelines provide for various classes of categorical exemptions, including Class 31 exemptions for projects that are limited to rehabilitation of historical resources in a manner consistent with the *Standards*. However, this exemption cannot be used where the proposed project may cause a substantial adverse change in the significance of a historical resource as defined by the CEQA Guidelines in Section 15064.5(b).

The CEQA Guidelines state that physical demolition of a resource by definition constitutes a "substantial adverse change" and would therefore have a significant adverse effect on the resource. Furthermore, relocation or "alteration of the resource or its immediate surroundings" can also constitute a substantial adverse change in the significance of an historical resource if it would result in "material impairment" of the resource. A project is considered to result in material impairment when it "alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion" in the CRHR (Section 15064.5(b)(2)(A)). However, if the proposed project would not result in a "material impairment" and is found to be consistent with the *Standards*, it will qualify for the Class 31 categorical exemption. Further, generally a project that follows the *Standards* "shall be considered as mitigated to a level of less than a significant impact on the historical resource" (Section 15064.5(b)(3)).



## 8. SECRETARY OF THE INTERIOR'S STANDARDS ANALYSIS

Of the four prescribed treatments for historic properties outlined in the *Standards*, Rehabilitation provides the most appropriate set of standards for the subject project. Rehabilitation is the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features that convey its historical, cultural, or architectural values. The following is a standard-by-standard evaluation of the three alternatives.

1. *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

Alternative 1: The proposed project to retrofit the existing bridge will change the historic use as a freight train trestle to a pedestrian and bicycle bridge. Two types of retrofitting are proposed to address two structural issues. The first is a collapse prevention retrofit, which requires the replacement of existing bolts and diagonal braces where deteriorated on the existing bridge. This retrofit additionally requires new steel plates to reinforce the connections between the timber members. The second retrofit addresses the lack of lateral capacity to safely carry loads across the bridge. This deficiency is to be addressed with the installation of new steel bents between every two existing timber bents. The existing railroad ties and catwalk will be removed, and replaced with a new concrete deck and guardrails.

The proposed changes together allow for sufficient support to accommodate pedestrian and bicycle traffic. The changes proposed largely retain the structure's distinctive materials, features, and spatial relationships; however the deck, a character-defining feature, will be removed. Therefore, the project partially complies with Rehabilitation Standard 1.

Alternative 2: Alternative 2 is a project that proposes to demolish the existing Coyote Creek Trestle and construct a new steel truss bridge along the same or similar alignment as the existing trestle. The proposed project does not comply with Rehabilitation Standard 1, as all distinctive materials and features will be demolished.

Alternative 3: Alternative 3 proposes a new steel truss bridge to be constructed adjacent to the existing Coyote Creek Trestle, which would receive a minor retrofit. The proposed work on the existing structure includes strengthening the timber piles and adding new steel plates and bolts to bolster the connection amongst the timber members. Work on the existing bridge retains the structure's character-defining features and spatial relationships, however the retrofit will not provide enough structural support to allow for any type of traffic, it will only prevent collapse due to a seismic event. The trestle will no longer be used, but as an abandoned trestle minimal changes will be made. The historic use will not be altered, nor supported. As designed, the proposed project is in compliance with Rehabilitation Standard 1.

2. *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize a property will be avoided.*

Alternative 1: The proposed project only partially maintains the historic character of the structure. The timber pile bents will be kept, however the project includes the removal of the wood deck. The proposed project partially complies with Standard 2.

Alternative 2: With the demolition of the trestle proposed under Alternative 2, the project does not comply with Rehabilitation Standard 2.

Alternative 3: The proposed project will maintain the historic materials and features of the existing structure as defined by its character-defining features including the timber pile bents and deck.

The new bridge will be constructed approximately 50-100 feet east of the existing trestle, generally keeping the spatial relationship between the existing bridge and its surroundings intact. The proposed project will be in compliance with Rehabilitation Standard 2.

3. *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.*

Alternative 1: The proposed project does not include architectural features that suggest a false sense of historical development, nor will it add conjectural historical features to Coyote Creek Trestle. Although the proposed project involves the addition of new steel bents and plates, the new work will clearly be differentiated. It will be simple in design and contemporary in character, while still relating to the historic building in proportions. As proposed, the project complies with Rehabilitation Standard 3.

Alternative 2: Alternative 2 proposes a full demolition of Coyote Creek Trestle and the construction of a new bridge in its place. The new bridge would be clearly modern and would not create a false sense of historical development therefore, project complies with Rehabilitation Standard 3.

Alternative 3: The proposed project does not include architectural features that suggest a false sense of historical development, nor will it add conjectural features to the trestle. The new work includes steel plates and bolts but will be visually compatible, as the new bridge is clearly modern. The proposed project is in compliance with Rehabilitation Standard 3.

4. *Changes to a property that have acquired historic significance in their own right will be retained and preserved.*

Alternative 1: The trestle received repairs over time, likely part of regular maintenance procedures required by the railroad companies. The repairs are most evident in the bracing, which were initially timber and replaced with metal. These repairs have not acquired significance over time and do not possess historical significance. Standard 4 is not applicable.

Alternative 2: The existing trestle is proposed to be demolished under Alternative 2. Standard 4 is not applicable.

Alternative 3: While the structure has received repairs over time, none have acquired historic significance. The proposed project will maintain and retain the structure's historic character. Standard 4 is not applicable.

5. *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Alternative 1: The materials character-defining features are the timber piles and deck. While the timber piles will be preserved, the deck will be removed entirely and replaced with new concrete. Therefore, the proposed project partially complies with Rehabilitation Standard 5.

Alternative 2: The project proposes to demolish the trestle. Therefore, Alternative 2 does not comply with Rehabilitation Standard 5.

Alternative 3: The proposed project maintains and preserves Coyote Creek Trestle's character-defining features, including the timber piles and deck. The structure will continue to convey its distinctive features, finishes, construction techniques, and examples of fine craftsmanship. Therefore, the proposed project complies with Rehabilitation Standard 5.

6. *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.*

Alternative 1: Alternative 1 requires the replacement of existing bolts and diagonal braces, however neither of these structural elements are distinctive historical features. The existing deck will be removed and replaced with concrete rather than wood; therefore the project only partially complies with Standard 6.

Alternative 2: None of the historic features will be retained, as the entire trestle is proposed to be demolished. Under Alternative 2, the project does not comply with Rehabilitation Standard 6.

Alternative 3: The project proposes to add new steel plates and bolts where the components are deteriorated on the existing bridge, however these features possess no historic significance. Therefore, the proposed project complies with Rehabilitation Standard 6.

7. *Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.*

Alternative 1: No chemical or physical treatments are proposed for the project. The project complies with Standard 7.

Alternative 2: All historic material will be demolished, which is a physical treatment that will cause damage to the historic material. Alternative 2 does not comply with Standard 7.

Alternative 3: No chemical or physical treatments are proposed for the project. The project complies with Standard 7.

8. *Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.*

Standard 8 is outside the scope of this report.

9. *New additions, exterior alterations or related new construction will not destroy historic materials, features and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.*

Alternative 1: The proposed project includes new steel bents, added between the existing timber pile bents, and the addition of a concrete deck and guardrail. The additional steel bents will not destroy historic materials, features, or spatial relationships that characterize the trestle. The steel bents are compatible with the existing structure and are differentiated through its material as the existing bents are timber.

The addition of the new concrete deck and guardrail require the removal of the existing timber deck, a character-defining feature. The new deck is compatible with the size, scale, proportion, and massing; and is differentiated from the old, as it will be concrete. The proposed project partially complies with Rehabilitation Standard 9.

Alternative 2: Alternative 2 proposes to demolish the existing Coyote Creek Trestle and construct a new steel truss bridge along the same or similar alignment as the existing trestle. The proposed project does not comply with Rehabilitation Standard 9.



Alternative 3: The new truss bridge will not destroy any historic materials found on the existing Coyote Creek Trestle, and it will be constructed adjacent to the structure, approximately 50 to 100 feet east. The general relationship of the existing trestle and its surroundings will be preserved. The proposed project complies with Rehabilitation Standard 9.

*10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Alternative 1: The new steel bents will be placed between existing timber bents of Coyote Creek Trestle. If removed in the future, the essential form and integrity of the structure will be unimpaired. The proposed changes call for the removal of the existing timber deck and its elements such as the caps and ties for the addition of a concrete deck and guardrail. The removal will affect the historic character of the structure. Therefore, the project partially complies with Rehabilitation Standard 10.

Alternative 2: A new steel truss bridge is proposed to replace the existing Coyote Creek Bridge. If the new bridge is removed, the historic bridge will still be gone. The proposed project does not comply with Rehabilitation Standard 10.

Alternative 3: Additions to the existing bridge include adding steel plates and bolts to strengthen the connection between the existing timber members. The new truss bridge will be constructed adjacent to the historic structure, approximately 50-100 feet to the east. If any of the new construction is to be removed in the future the form and integrity of the property will remain unimpaired. The proposed project complies with Rehabilitation Standard 10.

## **Summary**

Alternative 1: The loss of the decking material in Alternative 1 does not fully comply with the Standards, however the overall retention of the primary structural elements and the proposed rehabilitation work generally does comply with the Standards.

Alternative 2: In sum, the demolition of the existing trestle does not comply with the Standards.

Alternative 3: The retention of the existing material, the proposed stabilization work and the proposed adjacent construction comply with the Standards.

## **9. IMPACT ANALYSIS**

Historical resources include properties listed in or eligible for listing on the National Register of Historic Places, the California Register of Historical Resources, or local register of historical resources (as defined in Public Resources Code §5020.1(k)). According to Public Resources Code §15064.5(b), a project would have a significant effect on a historical resource if it would "cause a substantial adverse change in the significance" of that resource. Specifically, "[s]ubstantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired." Coyote Creek Trestle appears eligible as a San Jose City Landmark, and for listing in the NRHP and CRHR.

Alternative 1: The proposed project design is only partially compatible with the Standards as analyzed above due to the material loss of the historic decking; however the project largely complies with the retention of the primary structure and the overall rehabilitation of the structure for reuse as a pedestrian bridge.

**Impact 1: Construction-related impacts.** The proposed project includes the addition of steel bents between every two existing timber bents of Coyote Creek Trestle, which likely require below-grade excavation and new foundation work. This work may produce vibrations or physical damage that would result in potentially significant adverse impacts from construction to the historic resource under CEQA.

**Mitigation Measure 1a.** If pile-driving or other technique likely to yield vibrations is used, Coyote Creek Trestle should be surveyed to determine its existing condition. The survey shall be conducted by a historical architect meeting the *Secretary of the Interior's Professional Qualifications Standards for Historic Architecture* and a structural engineer with a minimum of five years of demonstrated experience with historic buildings. The purpose of the study would be to establish the baseline condition of the trestle prior to construction, including the location and extent of any visible cracks or other damages. The documentation shall take the form of written descriptions and photographs, and shall include those physical characteristics of the resources that conveys their historic significance and that justifies their inclusion on, or eligibility for inclusion on the local register. The documentation shall be reviewed and approved by the City of San Jose's Historic Preservation Officer (HPO), or equivalent.

**Mitigation Measure 1b.** Prepare and implement a Historical Resources Protection Plan (HRPP) to protect the historic features of Coyote Creek Trestle from direct or indirect impacts during construction activities (i.e., due to damage from operation of construction equipment, staging, and material storage). The project sponsor shall, prior to issuance of public works clearance, including any ground-disturbing work, prepare a plan establishing procedures to protect these resources. The project sponsor shall ensure the contractor follows this plan while working near these historical resources.

The plan shall be prepared by a qualified historical architect and is subject to review by the City's HPO. At a minimum, the plan shall include:

- guidelines for operation of construction equipment adjacent to the historical resources,
- means and methods to reduce vibrations from excavation and construction,
- requirements for monitoring and documenting compliance with the plan, and,
- education/training of construction workers about the significance of the adjacent historical resources.

**Mitigation Measure 1c.** A qualified team (team) of at least one qualified historical architect and one qualified structural engineer shall monitor the mitigation measures.

Coyote Creek Trestle would be monitored during construction and any changes to existing conditions would be reported, including, but not limited to, expansion of existing cracks or other exterior deterioration. Monitoring reports shall be submitted to the City's HPO, or equivalent on a periodic basis. The structural engineer shall consult with the historical architect, especially if any problems with character defining features of a historical resource are discovered. If in the opinion of the structural engineer, in consultation with the historical architect, substantial adverse impacts to the historical resource related to construction activities are found during construction, the monitoring team shall so inform the project sponsor, or sponsor's designated representative responsible for construction activities, as well as the City's HPO, or equivalent. The project sponsor shall adhere to the monitoring team's recommendations for corrective measures, including potentially halting construction in situations where construction activities would imminently endanger historical resources. The HPO, or equivalent, shall establish the frequency of monitoring and reporting.

### **Mitigation Measure 2: HAER-level II Documentation**

Documentation usually consists of a written history of the property, plans and drawings of the historic resource, and photographs.<sup>1</sup> Often, reference is made to the Historic American Engineering Record (HAER) and its guidelines for preparing histories, drawings and photographs. HAER documentation is referenced because it is recognized throughout the country as the standard way of documenting historic resources. The guidelines have a tiered approach to documentation, reserving the most rigorous level to relatively more important historic resources, such as the requirement for measured drawings, while for other resources a sketch plan could suffice.

Prior to demolition the project sponsor shall produce a HAER-like documentation package. This documentation will include:

- Drawings: select existing drawings, where available, should be photographed and at a minimum a sketch site plan and elevation of the trestle should be completed.
- Photographs: digitally photograph views of the existing structure, or reproduce historic views, where available.
- Written data: history and description.<sup>2</sup>

A qualified architectural historian meeting the qualifications in the Secretary of the Interior's Professional Qualification Standards will oversee the preparation of the sketch plans, photographs and written data. The existing DPR forms will fulfill the requirements for the written data report.

With implementation of Measures 1a through 1c, the potential for project construction-related impacts to the identified historical resources would be reduced to **less-than-significant**. Also, the implementation of Measure 2 would reduce the impact of the loss of historic material to **less-than-significant**.

### **Alternative 2:**

The proposed project is not compatible with the Standards. The demolition of a historical resource cannot be mitigated to a less-than-significant level. The following mitigation measures are suggested, but generally are not adequate under CEQA to mitigate the loss of a historical resource significant for its historic association and architecture.

### **Mitigation Measure 1: HAER-level II Documentation**

Documentation usually consists of a written history of the property, plans and drawings of the historic resource, and photographs.<sup>3</sup> Often, reference is made to the Historic American Engineering Record (HAER) and its guidelines for preparing histories, drawings and photographs. HAER documentation is referenced because it is recognized throughout the country as the standard way of documenting historic resources. The guidelines have a tiered approach to documentation, reserving the most rigorous level to relatively more important historic resources, such as the requirement for measured drawings, while for other resources a sketch plan could suffice.

Prior to demolition the project sponsor shall produce a HAER-like documentation package. This documentation will include:

---

<sup>1</sup> United States National Park Service, Department of Interior. "Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines." [http://www.cr.nps.gov/local-law/arch\\_stnds\\_6.htm](http://www.cr.nps.gov/local-law/arch_stnds_6.htm) (accessed March 6, 2012).

<sup>2</sup> United States National Park Service, Department of Interior. "Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation: HABS/HAER Standards." September 29, 1983, republished 1990).

<sup>3</sup> United States National Park Service, Department of Interior. "Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines." [http://www.cr.nps.gov/local-law/arch\\_stnds\\_6.htm](http://www.cr.nps.gov/local-law/arch_stnds_6.htm) (accessed March 6, 2012).



- Drawings: select existing drawings, where available, should be photographed and at a minimum a sketch site plan and elevation of the trestle should be completed.
- Photographs: digitally photograph views of the existing structure, or reproduce historic views, where available.
- Written data: history and description.<sup>4</sup>

A qualified architectural historian meeting the qualifications in the Secretary of the Interior's Professional Qualification Standards will oversee the preparation of the sketch plans, photographs and written data. The existing DPR forms will fulfill the requirements for the written data report.

### **Mitigation Measure 2: Commemoration and Public Interpretation**

Since the proposed project requires the demolition of a historical resource on the site, creation of an interpretive program, exhibit or display is appropriate. This would require the project sponsor to prepare a permanent exhibit/display, with the help of an experienced professional, of the history of the property including, but not limited to, historic and current condition photographs, interpretive text, or drawings. The exhibit/display would be placed in a suitable, publicly accessible location on the site.

With implementation of Measures 1 and 2, the impacts to the identified historical resource will remain **significant**.

### **Alternative 3:**

Overall, the proposed project design for the existing bridge is compatible as analyzed above. However, the new bridge construction may cause direct or indirect impacts to the existing bridge. Any time there is construction activity adjacent to a historic resource, it is important to have measures in place to minimize unintentional damages and to prepare appropriate responses to any damage that may occur.

**Impact 1: Construction-related impacts.** The construction activities of the new bridge could potentially have impacts on the existing bridge. This may produce ground borne vibrations from construction that would result in potentially significant adverse impacts from construction to the adjacent historic resource, Coyote Creek Trestle. Such impacts could include unintentional damage to or destruction of character-defining features at the superstructure or substructure through physical impacts or cracking or damage due to construction-related vibrations from the construction of the new bridge.

**Mitigation Measure 1a.** If pile-driving or other ground vibration causing technique were to be used to construct the new bridge, Coyote Creek Trestle would be surveyed to determine its existing condition. The survey shall be conducted by a historical architect meeting the *Secretary of the Interior's Professional Qualifications Standards for Historic Architecture* and a structural engineer with a minimum of five years of demonstrated experience with historic buildings. The purpose of the study would be to establish the baseline condition of the trestle prior to construction, including the location and extent of any visible cracks or other damages. The documentation shall take the form of written descriptions and photographs, and shall include those physical characteristics of the resources that conveys their historic significance and that justifies their inclusion on, or eligibility for inclusion on the local register. The documentation shall be reviewed and approved by the City of San Jose's Historic Preservation Officer (HPO), or equivalent.

**Mitigation Measure 1b.** Prepare and implement a Historical Resources Protection Plan (HRPP) to protect the historic features of Coyote Creek Trestle from direct or indirect impacts during construction activities (i.e., due to

---

<sup>4</sup> United States National Park Service, Department of Interior. "Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation: HABS/HAER Standards." September 29, 1983, republished 1990).

damage from operation of construction equipment, staging, and material storage). The project sponsor shall, prior to issuance of public works clearance, including any ground-disturbing work, prepare a plan establishing procedures to protect these resources. The project sponsor shall ensure the contractor follows this plan while working near these historical resources.

The plan shall be prepared by a qualified historical architect and is subject to review by the City's HPO. At a minimum, the plan shall include:

- guidelines for operation of construction equipment adjacent to the historical resources,
- means and methods to reduce vibrations from excavation and construction,
- requirements for monitoring and documenting compliance with the plan, and,
- education/training of construction workers about the significance of the adjacent historical resources.

**Mitigation Measure 1c.** A qualified team (team) of at least one qualified historical architect and one qualified structural engineer shall monitor the mitigation measures.

Coyote Creek Trestle would be monitored during construction and any changes to existing conditions would be reported, including, but not limited to, expansion of existing cracks or other exterior deterioration. Monitoring reports shall be submitted to the City's HPO, or equivalent on a periodic basis. The structural engineer shall consult with the historical architect, especially if any problems with character defining features of a historical resource are discovered. If in the opinion of the structural engineer, in consultation with the historical architect, substantial adverse impacts to the historical resource related to construction activities are found during construction, the monitoring team shall so inform the project sponsor, or sponsor's designated representative responsible for construction activities, as well as the City's HPO, or equivalent. The project sponsor shall adhere to the monitoring team's recommendations for corrective measures, including potentially halting construction in situations where construction activities would imminently endanger historical resources. The HPO, or equivalent, shall establish the frequency of monitoring and reporting.

With implementation of Measures 1a through 1c, the potential for project construction-related impacts to the identified historical resources would be reduced to **less-than-significant**.

### Historic Integrity

The following is an analysis of the Alternative 1 and Alternative 3's potential impacts on the historic integrity of the historic resource. Historic integrity is the ability of a property to convey its historical significance and includes seven defined aspects: location, design, setting, materials, workmanship, feeling, and association.<sup>5</sup>

*Location is the place where the historic property was constructed or the place where the historic event occurred. The relationship between the property and its location is often important to understanding why the property was created or why something happened. The actual location of a historic property, complemented by its setting, is particularly important in recapturing the sense of historic events and persons.*

Alternative 1: The location of the historical resources would not change with the proposed project. The historical resources would continue to retain integrity of location.

---

<sup>5</sup> National Park Service, *How to Apply the National Register Criteria for Evaluation*, 44-45.

Alternative 3: The location of the historical resources would not change with the proposed project. The historical resources would continue to retain integrity of location.

*Design is the combination of elements that create the form, plan, space, structure, and style of a property. It results from conscious decisions made during the original conception and planning of a property (or its significant alteration) and applies to activities as diverse as community planning, engineering, architecture, and landscape architecture.*

Alternative 1: Integrity of design is somewhat compromised as Coyote Creek Trestle will receive new steel bents and a new concrete deck.

Alternative 3: Integrity of design will generally remain intact. Changes will only be made to strengthen the existing bents, including new steel plates and bolts.

*Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property. The choice and combination of materials reveal the preferences of those who created the property and indicate the availability of particular.*

Alternative 1: The proposed changes under this alternative will be replacing the ties and caps for a new concrete deck. Steel bents will be added between the existing timber members. Integrity of materials is compromised with the removal of the timber caps and ties and the addition of the concrete deck.

Alternative 3: Integrity of materials will be maintained. Proposed changes include minor strengthening measures, with the existing materials being preserved.

*Workmanship is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory. It is the evidence of artisans' labor and skill in constructing or altering a building, structure, object, or site.*

Alternative 1: Integrity of workmanship is diminished with the removal of the existing deck.

Alternative 3: The proposed project will retain integrity of workmanship.

*Association is the direct link between an important historic event or person and a historic property. A property retains association if it is the place where the event or activity occurred and is sufficiently intact to convey that relationship to an observer.*

Alternative 1: The property would remain sufficiently intact to convey association.

Alternative 2: The structure of retains integrity of association with the changes proposed under this alternative.

*Setting is the physical environment of a historic property. Whereas location refers to the specific place where a property was built or an event occurred, setting refers to the character of the place in which the property played its historical role. It involves how, not just where, the property is situated and its relationship to surrounding features and open space.*

The setting in the immediate physical environment of Coyote Creek Trestle has generally remained the same.

Integrity of setting is only partially compromised with the commercial/industrial development of the eastern section of the subject block and the construction of the Coyote Creek Trail under the Trestle, which was paved after the construction of the subject structure. The surrounding area developed with industrial and residential buildings in the mid-20<sup>th</sup> century. The southwest corner of the block, on which Coyote Creek Trestle sits, still maintains some vegetation.

Alternative 1: Integrity of setting would remain intact.

Alternative 3: Integrity of setting would remain intact.

*Feeling is a property's expression of the aesthetic or historic sense of a particular period of time. It results from the presence of physical features that, taken together, convey the property's historic character. Feeling is the quality that a historic property has in evoking the aesthetic or historic sense of a past period of time and an awareness of its historical importance.*

Alternative 1: The historical resources' ability to evoke a historic sense of the past would be compromised with proposed changes under this alternative. With replacement of the deck and additions of the steel bents, integrity of feeling will be somewhat diminished.

Alternative 3: Integrity of feeling is retained under Alternative 3.

### **Summary Impacts Analysis**

With the implementation of the proposed mitigation measures to Alternatives 1 and 3, the potential for project construction-related impacts to the identified historical resource and the loss of historic material (Alternative 1 only) would be reduced to less-than-significant. Alternative 2 does not meet the Standards and with the implementation of the mitigation measures, would not be mitigated to a level of less-than-significant.

## **10. CONCLUSION**

TreanorHL reviewed three alternatives for the proposed work at the Coyote Creek Trestle, an eligible historic resource. Alternative 1 was found to be partially compliant with the Standards; Alternative 2 was found to not be compliant with the Standards; and Alternative 3 was found to be in full compliance with the Standards. Mitigation measures are proposed for all three alternatives which would reduce potential impacts of Alternatives 1 and 3 to less-than-significant but would not reduce the impacts of Alternative 2 (demolition).



## 11. BIBLIOGRAPHY

City of San Jose. *Municipal Code, Chapter 13.48.110 - Procedure for designation of a landmark*. Accessed May 10, 2023.

[https://library.municode.com/ca/san\\_jose/codes/code\\_of\\_ordinances?nodeId=TIT13STSIPUPL\\_CH13.48HIPR\\_PT2DE\\_13.48.110PRDELA](https://library.municode.com/ca/san_jose/codes/code_of_ordinances?nodeId=TIT13STSIPUPL_CH13.48HIPR_PT2DE_13.48.110PRDELA).

TreanorHL. *Coyote Creek Trestle, San Jose, CA. Historic Resources Evaluation*. October 21, 2022.

Google Earth.

United States National Park Service, Department of Interior. "Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines." Accessed May 12, 2023.

<https://www.nps.gov/subjects/historicpreservation/upload/standards-guidelines-archeology-historic-preservation.pdf>

United States National Park Service, Department of the Interior, National Park Service. *The Secretary of the Interior's Standards for Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings*. (revised by Anne E. Grimmer). 2017.

United States National Park Service, Department of the Interior. *How to Apply the National Register Criteria for Evaluation, National Register Bulletin 15*. Washington, DC: United States Department of the Interior, 1997.

United States National Park Service, Department of Interior. "Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation: HABS/HAER Standards." September 29, 1983, republished 1990).

## APPENDIX

Three Alternative Descriptions with Elevations. (GHD Inc., April 2023)

## **Alternative 1 – Retrofit Existing Bridge**

Alternative 1 will follow the requirements of Option 3 as described in the Structural Evaluation report. The existing trestle bridge structure can support its own weight and resist short-term wind loading. While it was historically used for rail traffic and still has significant capacity to resist vertical loads, there are locations with severe deterioration. At its current state, the trestle supports are at risk of partial collapse from a significant seismic event due to deteriorated connections and inadequate lateral support system. The complete retrofit has been divided into two segments known as the "collapse prevention retrofit" and "life safety retrofit". The collapse prevention retrofit centers primarily on the existing timber bents, while the life safety retrofit involves the construction of seven new steel bents and new longitudinal stringers at the deck level. Both retrofit procedures are necessary to enable pedestrian access.

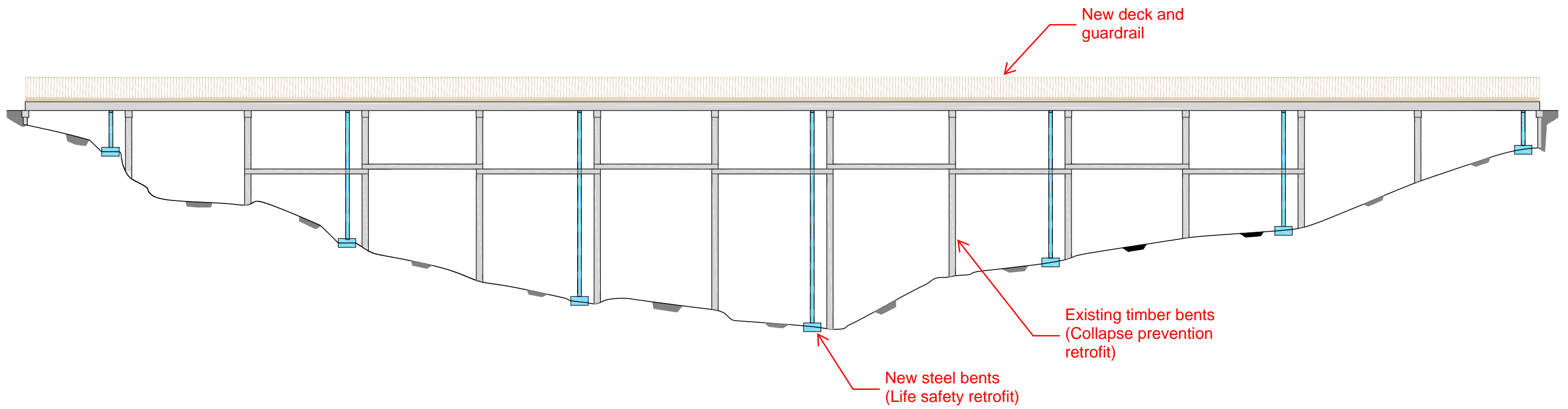
### *Collapse Prevention Retrofit*

Over time, the bolts, diagonal braces, and connections between the timber members of the bridge have significantly deteriorated, leaving the structure vulnerable and at risk of collapse during a significant seismic event. To prevent this, the minor retrofit would replace the existing bolts and diagonal braces and add new steel plates to reinforce the connections between the timber members. These measures would not only improve the capacity and durability of the structure but also provide greater protection against future deterioration and potential collapse. However, it should be noted that this level of retrofitting alone would not be sufficient to allow for safe pedestrian use of the bridge, and additional measures would be needed.

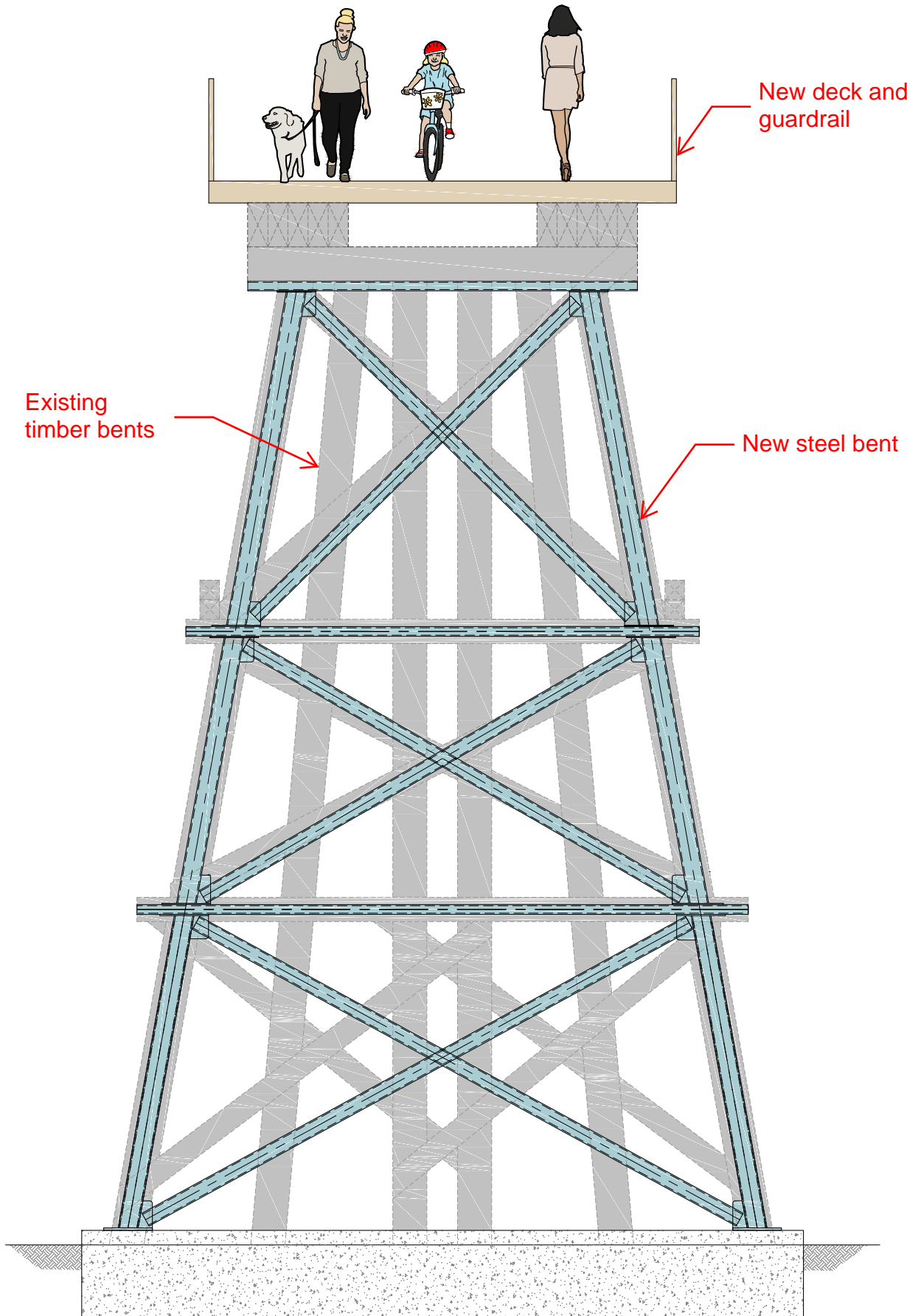
### *Life Safety Retrofit*

The Structural Evaluation report revealed that the existing trestle bridge lacks sufficient lateral capacity. To address this issue, a major retrofit is needed, which involves the installation of new steel bents between every two timber bents. These supplementary structures would provide lateral support that are deficient in the existing timber bents.

New framing members would also be required in the superstructure to allow loads to transfer into the new bents. Finally, the existing railroad ties and catwalk will be replaced with a new deck and guardrails.

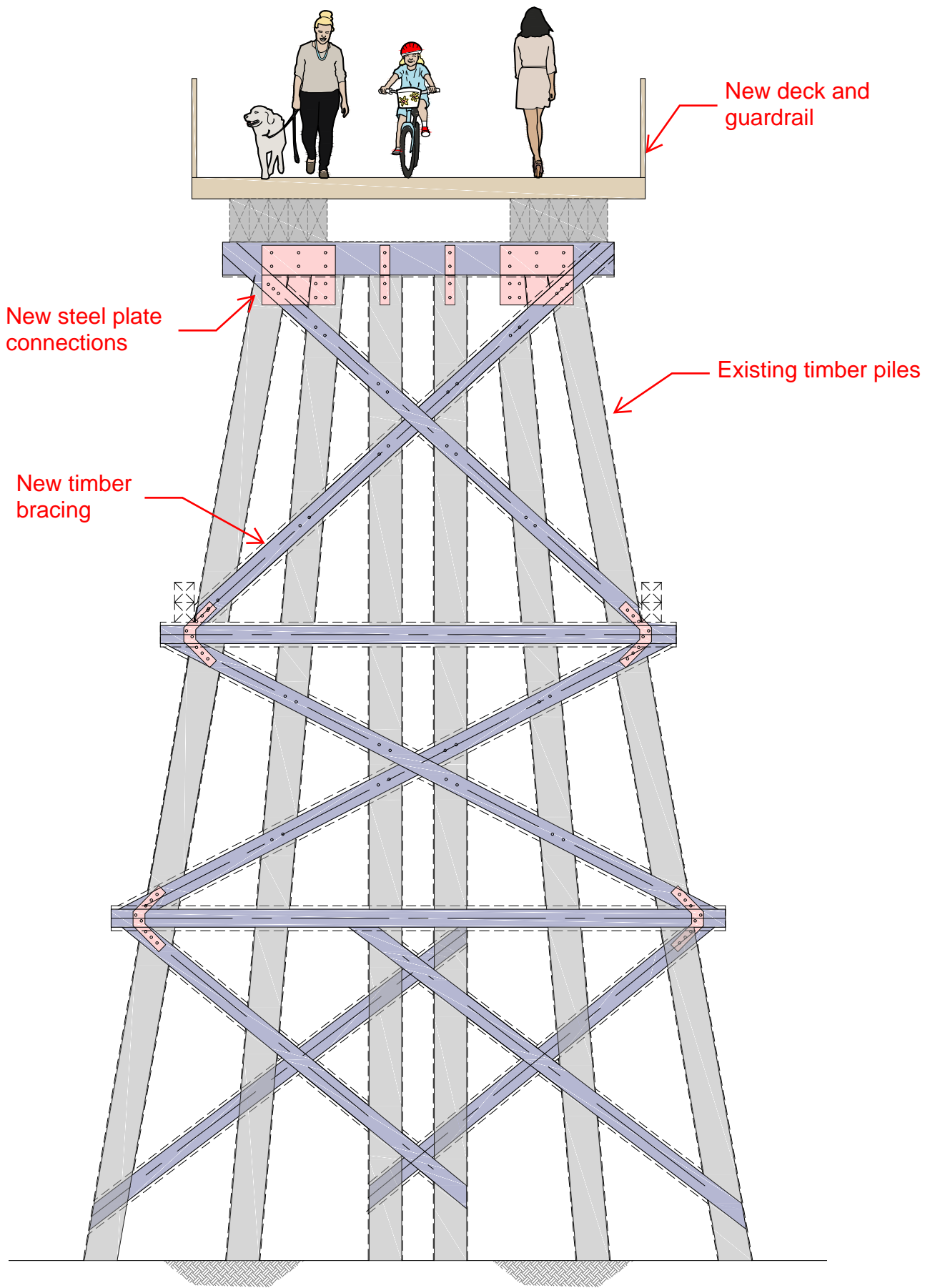


Alternative 1 Elevation View



Alternative 1 - Life Safety Retrofit





Alternative 1 - Collapse Prevention Retrofit

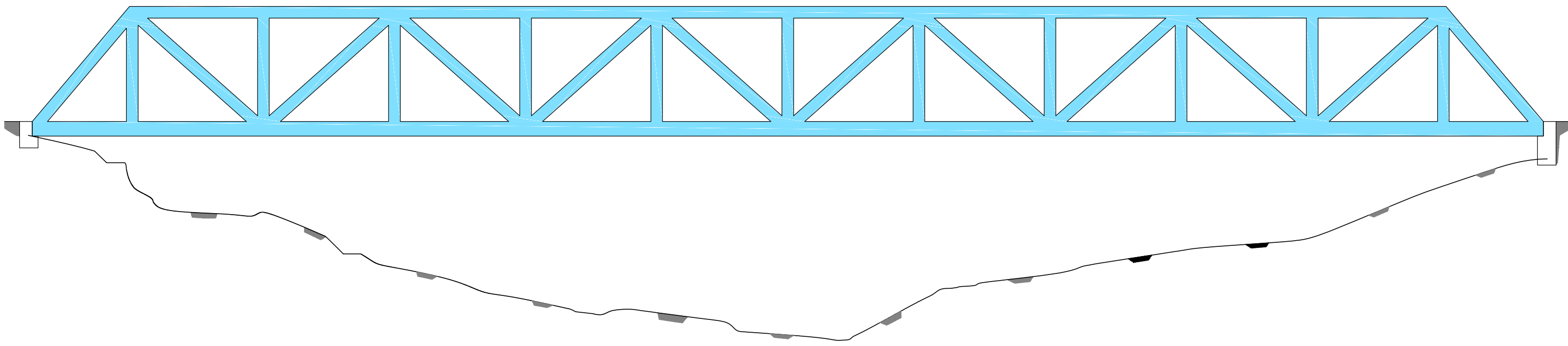
## **Alternative 2 – Steel Truss Bridge, Demolish Existing Bridge**

Alternative 2 is to demolish the existing timber trestle bridge and construct a new 250-foot span weathering steel truss bridge in the same or similar alignment. It is a single-span simply-supported bridge with two steel Pratt trusses which appear as a trapezoid with a longer lower chord and shorter upper chord along with intermediate vertical posts and diagonal bracing. Transverse floor beams are used to connect the two trusses together, providing support for the cast-in-place concrete deck. This type of bridge can be prefabricated in modular sections, transported to the site, and assembled on-site.

This type of bridge is constructed with weathering steel, which is a specially designed alloy that forms an exterior rust barrier, creating a low-maintenance surface that does not require painting or cleaning. Weathering steel truss bridges are ideal for locations that require low-maintenance structures that can withstand harsh environmental conditions.

The construction process involves lifting the bridge into place using mobile cranes and bearing it on cast-in-place concrete abutments at each end.

New weathering  
steel truss bridge



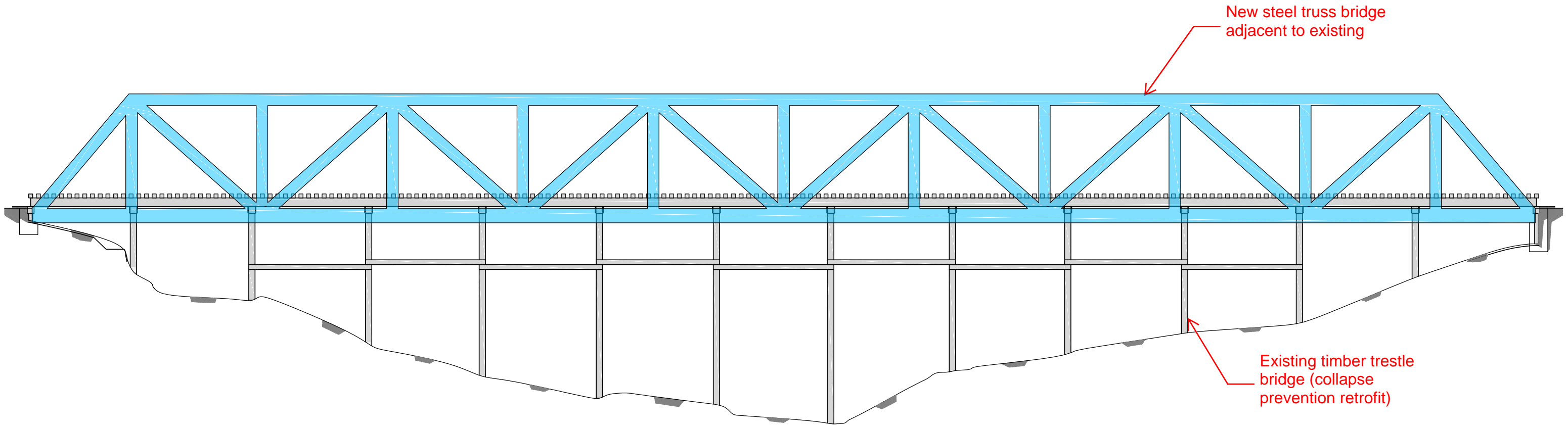
Alternative 2 Elevation View

### **Alternative 3 – Steel Truss Bridge, Minor Retrofit of Existing Bridge**

Alternative 3 is a combination of the minor retrofit from Alternative 1 and the new weathering steel truss bridge from Alternative 2 if the existing bridge could not be demolished. The existing bridge would undergo a minor retrofit that involves strengthening the existing timber members and adding new steel plates and bolts to enhance the connections between the members. This retrofit would improve the structural integrity of the existing bridge and increase its overall capacity, preventing collapse due to a significant seismic event.

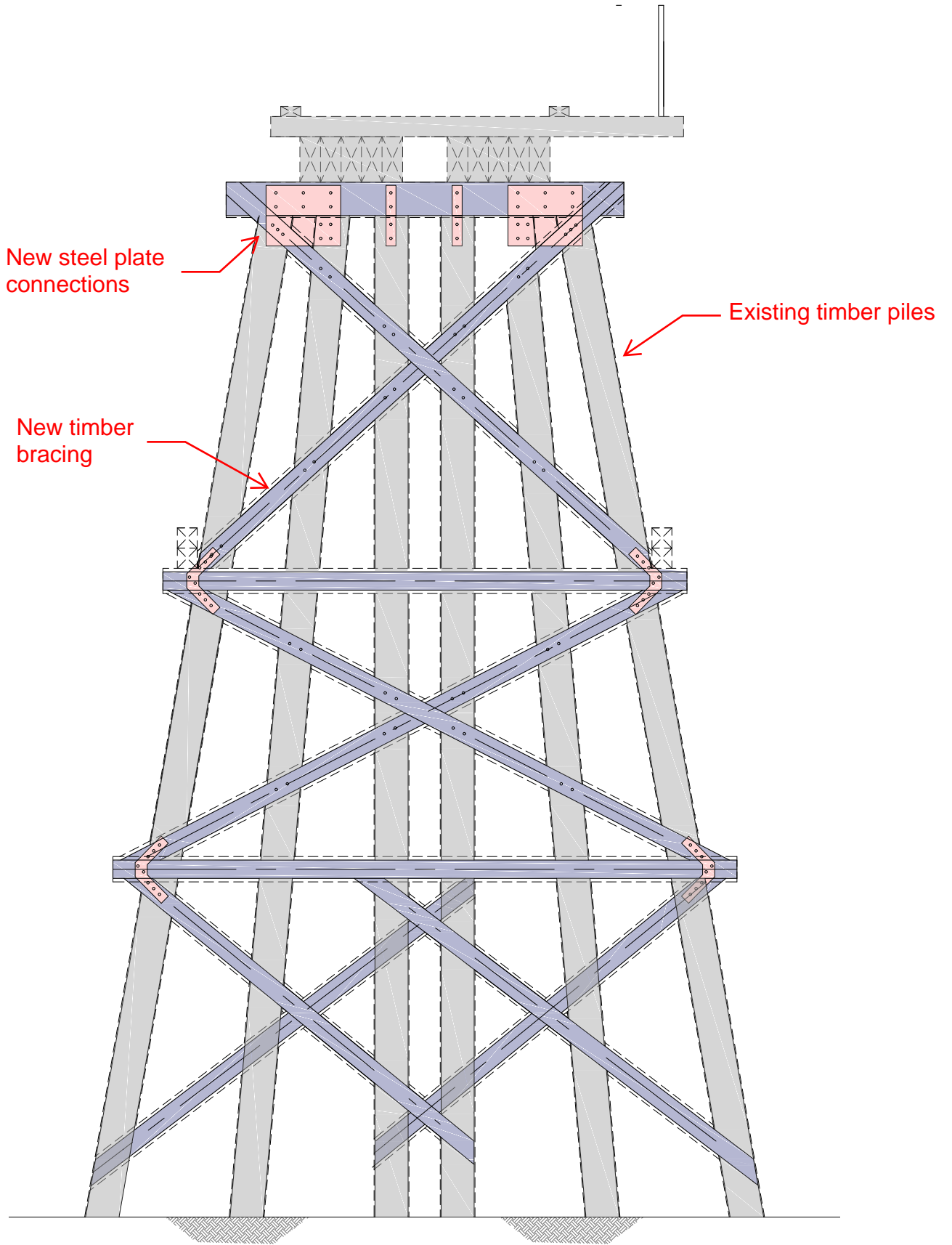
In addition to the minor retrofit, a new 250-foot span weathering steel truss bridge would be constructed adjacent to the existing bridge. The new bridge would be prefabricated in modular sections and assembled on-site, then lifted into place using mobile cranes.

The existing bridge would not be open to the public and is in place to showcase the historical bridge while the new bridge would serve as a pedestrian and bicycle bridge on the Five Wounds Trail.



Alternative 3 Elevation View





Alternative 3 - Collapse Prevention Retrofit