



CITY OF SWEET HOME PARKS AND TREE COMMITTEE AGENDA

May 17, 2023, 8:30 AM
Santiam Conference Room
3225 Main Street, Sweet Home, OR 97386

WIFI Passcode: guestwifi

PLEASE silence all cell phones – Anyone who wishes to speak, please sign in.

Mission Statement

The City of Sweet Home will work to build an economically strong community with an efficient and effective local government that will provide infrastructure and essential services to the citizens we serve. As efficient stewards of the valuable assets available, we will be responsive to the community while planning and preparing for the future.

Meeting Information

The City of Sweet Home is streaming the meeting via the Microsoft Teams platform and asks the public to consider this option. There will be opportunity for public input via the live stream. To view the meeting live, online visit <http://live.sweethomeor.gov>. If you don't have access to the internet you can call in to 971-203-2871, choose option #1 and enter the meeting ID to be logged in to the call. Meeting ID: #491 332 600

Call to Order and Pledge of Allegiance

Roll Call of Park and Tree Committee Members:

Time Reports

Meeting Minutes

- a) [April 19, 2023 Meeting Minutes](#)

Public Comment. This is an opportunity for members of the public to address the Park and Tree Committee on topics that are not listed on the agenda.

Old Business

Beautification Committee Update

Weddle Bridge

Dahlenberg Bridge

Lower Sankey Park Donor Celebration

Ivy Removal

OPRD Grant

Park & Tree Committee Workshop recap

Park System Master Plan

- a) [Weddle Bridge Inspection Report](#)

New Business

The location of the meeting is accessible to the disabled. If you have a disability that requires accommodation, advanced notice is requested by notifying the City Manager's Office at 541-367-8969.

Round Table Discussions (Committee comments about topics not listed on the agenda)

Adjournment

The Sweet Home Park and Tree Committee welcomes your interest in these agenda items. Pursuant to ORS 192.640, this agenda includes a list of the principal subjects anticipated to be considered at the meeting; however, the Committee may consider additional subjects as well. This meeting is open to the public and interested citizens are invited to attend.

If you have questions, please contact the Community and Economic Development Department at 3225 Main Street, Sweet Home, Oregon 97386; Phone: (541) 367-8113.

SHMC 1.10 CITY COMMITTEES

§ 2.10.050 POWERS AND DUTIES.

A. Park and Tree Committee. The powers and duties of the Park And Tree Committee shall be as follows:

1. To conduct an inventory of existing street trees, including historical trees and public properties in need of beautification and plantings and present a written report to the City Council of its findings;
2. To develop and recommend to the City Council, for its adoption, a master list of trees suitable for planting within the city. The list shall be reviewed annually, a copy of which shall be kept on file in the office of the City Recorder for public information;
3. To develop and recommend to the City Council, for its adoption, ordinances and policies for the planting, care, maintenance, replacement and protection of trees throughout the city;
4. To act in an advisory capacity to the Planning Commission with respect to landscape design, suitable plantings, protection of natural vegetation and street tree requirements;
5. To submit recommendations to the City Council regarding the beautification of public properties and rights-of-way;
6. To promote public knowledge and acceptance of the value of tree planting and maintenance programs and requirements;
7. To develop a capital development program for each fiscal year, to include acquisition of new land and/or development of existing property for parks and other recreation areas;
8. To recommend recreation programing needs to be produced by the city;
9. To recommend an operating budget to carry out the recreation program as outlined for the forthcoming fiscal year; and
10. To preform additional duties and studies as may be required from time to time by the City Council.
11. To meet a minimum of four meetings a year, beginning with the month of December, which meeting should be devoted to the development of the next year's capital and recreation programs.

(Ord. 1263, § 1, 2017)



CITY OF SWEET HOME PARKS AND TREE COMMITTEE MINUTES

April 19, 2023, 8:30 AM
Santiam Conference Room
3225 Main Street, Sweet Home, OR 97386

WiFi Passcode: guestwifi

PLEASE silence all cell phones – Anyone who wishes to speak, please sign in.

Mission Statement

The City of Sweet Home will work to build an economically strong community with an efficient and effective local government that will provide infrastructure and essential services to the citizens we serve. As efficient stewards of the valuable assets available, we will be responsive to the community while planning and preparing for the future.

Call to Order and Pledge of Allegiance

The meeting was called to order at 8:33 AM

Roll Call of Park and Tree Committee Members:

PRESENT

Josh Marvin
Matthew Betchel
Chairman Wally Shreeves
Bob Dalton
Nancy Patton
Debra Northern
Councilor Dave Trask

ABSENT

Lena Tucker

STAFF

Greg Springman, Public Works Director
Dominic Valloni, Operations Manager
Sean Hegge, Crew Lead Facilities and Parks
Blair Larsen, Community and Economic Development Director
Angela Clegg, Associate Planner

Time Reports

Chairman Shreeves asked the Committee to email Clegg their hours for the Arbor Day event.

Meeting Minutes

A motion to approve the minutes was made by Patton, seconded by Dalton.

Yea: 4

Nay: 0

Absent: 1

Abstain: 2

Public Comment. None

The location of the meeting is accessible to the disabled. If you have a disability that requires accommodation, advanced notice is requested by notifying the City Manager's Office at 541-367-8969.

Old Business

Beautification Committee Update: April 25th at 8:30 is the first median work day. The planting will possibly be early may.

Weddle Bridge: no report, no update. Staff will reach out to the engineer. Marvin informed staff of the Linn County bridge crew. Larsen stated that Linn County informed staff that they only work on their own bridges, but they gave staff the name of the current engineer contracted to inspect and report on the conditions.

Shreves asked staff about moving the Dahlenberg bridge. If and when it might be moved. staff informed the committee that there is currently no plan to move the bridge.

Lower Sankey Park Donor Celebration: Clegg gave an update. The date is tentatively planned for July 15.

Arbor Day After Action Report: Shreves stated that the event should only go two hours for future events. The committee agreed. Clegg asked the Committee to think about where they would like to hold the event in 2024. Betchel asked about more kids entertainment. There was discussion about the Arbor Day celebration and the typical activities involved. Patton asked staff to send out thank you notes to the participants.

Ivy Removal at Upper Sankey Park: Shreves discussed the date and whether they should involve the high school students. Valloni stated that it depends on weather. Hegge agreed with Valloni. The area is currently muddy. Hegge stated that they need to use hand tools to trim it back and he is researching herbicide for control. Clegg described the process used from her former job. Shreves asked staff when a good date would be for the committee to go out with staff. Clegg reminded the committee that any volunteers will need to fill out forms ahead of the event, but she will provide forms to have at the vent.

New Business

Naming Publicly Owned Facilities: Larsen went through the naming policy and went through the documents provided in the packet. Larsen also included a proposal to name the Sankey Park plaza in honor of Joe Graybill who designed the new park layout. The proposal is to name it Graybill Plaza. Larsen asked the Committee to vote on the name and recommend it to City Council. There was a discussion about naming other parks. The Committee will chose a date to have a workshop to discuss park naming in more detail. Larsen discussed his concerns about the pocket park on Elm. There was further discussion about the park naming process and fees.

A motion to recommend to City Council to name the new plaza in Sankey Park, Graybill Plaza, was made by Marvin, seconded by Patton.

Yea: 6

Nay: 0

Absent: 1

OPRD Grant: Clegg gave an update. Staff is hoping to hear back from the technical review committee if they move on to the next round. Staff should hear from the committee at the end of April to the first of May. Clegg informed the Committee that the new engineering technician, Ryan Wade, assisted in the grant submission. Clegg gave a background of the process for the new Committee members. She informed the Committee that she has created a web form and a way to donate online. Shreves asked about the timeline for the grant. Larsen and Clegg reviewed the timeline. Larsen reminded the Committee that we are hoping to get as many donations as possible before the presentation, however we will continue the donor campaign in order to raise the amount of money needed to fully fund the project. Dalton asked staff if there are large donors can the bandstand/community event center be named after the donor? Larsen explained the process and informed the committee that they can vote to propose a name for the bandstand/community event center based on a donation. Larsen recommended that there be no guarantees, however the Committee can inform donors that the Committee is in favor of naming the structure after a large donor. Shreves asked of the Committee to make a motion to proposed to name the Bandstand/Community Event Center after a large donor.

A motion was made by Patton for the Park and Tree Committee to recommend to the City Council naming the bandstand/community event center after a large donor if it is proposed, seconded by

Northern.
Yea: 6
Nay: 0
Absent: 1

Round Table Discussions (Committee comments about topics not listed on the agenda)

Kid to Park Day: Shreves gave an update about his research on the day. He reported that it is a national day not having to do with parks. Shreves recommends that we don't add this day to the events. He recommends that we use the bridge day, donor celebration day, as a day to get kids out to the parks.

Parks Master Plan: Shreves asked staff for an update. Larsen gave an update and informed the committee that staff will give updates as the process progresses.

Patton asked about the naming of Lake Shore Park and having a dedication for the name. Patton asked why Lagea Mull included that park in the parks list and why there was emphasis on calling it by its official name. Larsen explained that it is an Army Corp property and not City owned. The purpose for pushing its official name was because it is more appealing than the nickname when promoting Sweet Home. Clegg informed the Committee that the parks brochure that staff created also included parks just outside City limits for promotional purposes. The goal is to show visitors the amenities inside and surrounding the City of Sweet Home.

Chairman Shreves proposed April 27th at 8:30 AM for a Committee workshop. Clegg will notice the workshop on the calendar.

Adjournment

The meeting was adjourned at 9:57 AM.

Weddle Covered Bridge (Sweet Home, OR)

JANUARY 31, 2023



Oregon Transportation Professionals, LLC
202 DEANN DRIVE, UNIT #2
INDEPENDENCE, OR 97351
(503) 932-3093

Table of Contents

Executive Summary.....	1
Section 1 Bridge Location & Description	2
Section 2 Bridge Inspection	2
Truss members.....	2
Floor beams and stringers.....	8
Abutments.....	12
Section 3 Recommendations	18
Section 4 Limitations.....	20
Appendix A Original Record Drawings.....	21
Appendix B Bridge Inspection Data Summary.....	23

Executive Summary

Oregon Transportation Professionals, LLC, was contracted by the City of Sweet Home to visually inspect the Weddle Covered Bridge. The city intends to continue public access to the bridge and ensure that the bridge remains suitable for continued access. This report documents the findings of the inspection.

The bridge was found to be in subpar condition during the bridge inspection. The truss will require some maintenance, but the floor beams and stringers exhibit the bulk of the problems. There are floor beams and stringers with decay over 50% of the member depth. Maintenance recommendations have been included in the report to reduce the future risk and liability to the city when the bridge incurs typical loads.

A structural analysis of the load carrying capacity of the timber structure is recommended to determine whether the bridge can carry vehicle loads used in maintenance operations as well as heavy pedestrian loads that may occur during large events such as the Oregon Jamboree. At a minimum, the floor beams should be analyzed.

Section 1 Bridge Location & Description

The Weddle Covered Bridge is located at the Southwest corner of Sweet Home High School and provides a connection to the nearby Sanky Park. The bridge is open to the public for pedestrian use only, through it must also support vehicles used in maintenance operations. Listed on the National Register of Historic Places in Oregon, the history of Weddle Covered Bridge is well documented. Additional information can be found on Wikipedia and other internet sources.

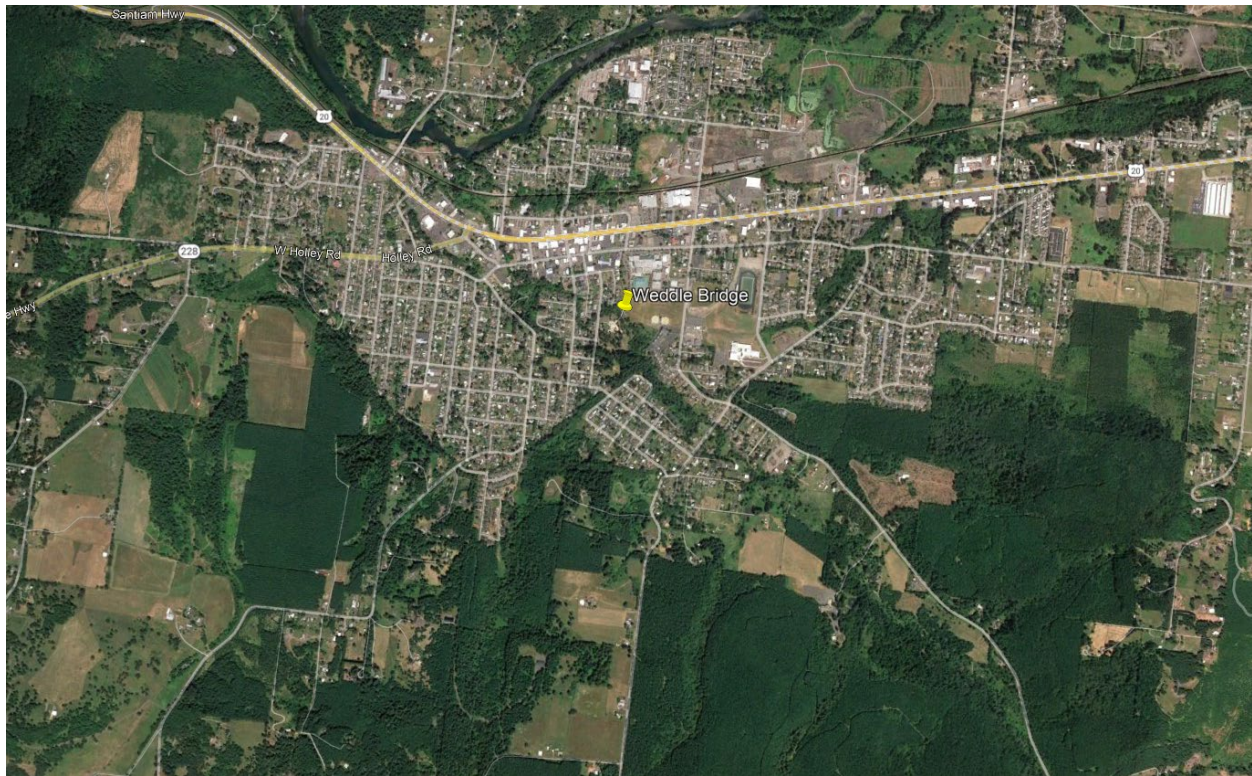


Figure 1 - Map View

The bridge is a single span bridge timber structure comprised of a covered Howe truss with timber floor beams, timber stringers and a timber deck.

The record drawings are included in Appendix A from the original bridge. The bridge has been modified (plans not included) several times. The whole structure was rebuilt in 1990 and the timber deck has been replaced.

Section 2 Bridge Inspection

Truss members

The bridge superstructure was inspected on May 31, 2022. The substructure was also inspected on September 20, 2022. Visual inspection, sounding and resistograph timber boring was used to evaluate the structure and extent of decay in structural members. Ladders were used to access the upper chord above the bridge deck. Similarly, ladders were used to inspect the substructure. Removal of the board

and batten siding was necessary to inspect the lower chord. Bent 1 was assumed to be the bent at the Southwest corner of the bridge and Bent 2 at the Northeast corner.

The inspection portion of the project involved assessing the existing conditions of the structure. The superstructure of the bridge was examined to determine the condition of the protective systems (paint), welded or other connections, and the defects associated with the main load carrying members of the bridge (beams and diaphragms).

The roof appears to have widespread surface decay replacing the shingles is recommended. Based on appearance, the shakes were installed in 1990 with the covered bridge which would age them 32 years. A replacement should be planned considering cedar shake roof usually lasts around 30 years.



Figure 2 – Cedar shake roof should be replaced soon.

Weddle Covered Bridge

Fortunately, the roof is still effective, and no leaks were observed at the time of the inspection. The top chord is in good shape without signs of advancing decay. While the roof is the primary moisture barrier, the secondary preservation system is a good coat of paint.

The overall truss is in fair condition. The top chord has minimal timber defects with minor checks throughout. There are localized areas of decay in diagonals and the bottom chord. Most of the



Figure 3 - Unpainted top chord

substantial decay was located on the downstream side either in the diagonals or bottom chord. It is evident that most seasonal rain (and therefore decay) is intrusive on the downstream side of the structure.

When rating decay in timber, 10% to 50% of the section loss in a member is considered moderate and enough for replacement. Our recommendation is to replace all moderately decayed structural members. Should the City decide not to replace these members, we recommend a load rating to be completed for public safety to limit the occupancy and maintenance vehicles. A complete load rating of the truss will cost over \$20,000. An alternative approach is only analyzing the the members with the greatest decay and posting the bridge for those members. A floor beam/stringer load rating costs around \$3,000 each.

To avoid analyzing the full truss, an approach for the chords could be augmenting the decayed sections with steel (plates/channels) i.e a repair to replace the lost capacity. This option wouldn't give full load rating for the truss but would be sufficient in keeping it in service for a few more years.

Over 50% decay is considered major and should be scheduled for immediate replacement and further load restrictions.

The downstream diagonals have areas of moderate to heavy decay present. L3U4 (Right) a 10"x10" downstream diagonal has minor decay in right member which should be monitored in the future if the decay spreads. The Left member has major decay (9") localized at the brace. While not designed as a tension or compression member, the bracing serves to provide rigidity against buckling.



Figure 4– Downstream L3U4 (Left) 9" of Major Decay



Figure 5 – Downstream L3U4 (right) 2” of minor decay



Figure 6 - Downstream U6L7 (Left) 5" Moderate Decay

The bottom chord also has decay throughout with moderate decay on top of the bottom chord along the downstream side of the bridge. All of the bottom chords are 12"x12". L1L2 and L6L7 have 3" of moderate decay. L2L3 has 6" of decay. And 6" of decay centered in bottom chord towards FB2 and 6" at the top FB3.

Floor beams and stringers



Figure 7 - Bottom chord L2L3 and Floor beam 2

The floor beams are typically 12" wide and 22" deep. The defects worth noting are areas of heavy decay, splits and checking. When excessive decay was found it was around the steel rods and towards the bottom of the floor beam

Floor beams 5 and 6 have some of the most urgent problems due to major decay (around 12"). The decay found in 5 and 6 was found on the upstream side. Floor beams 2 and 7 had moderate decay (around 9") on the downstream end.

Weddle Covered Bridge

Floor beam 3 has a split at both ends that will need to be monitored. We recommend repair with a fish plate to stabilize the split.



Figure 8 – Split at end of Floor Beam 3

The steel rods and anchor plates have mild surface corrosion and pitting. They need to be painted to prevent future section loss. The section loss is within tolerable limits.



Figure 9 – Pitting on tie rod anchors

Most of the stringers are in satisfactory condition. There are stringers with heavy decay, splits, and checking. Major decay was found in stringers: S6 in bay 1, and S1,5,6 and 8 in Bay 8. Moderate decay was found in Bay 3, 4 and 5. Specific stringers are specified in maintenance recommendations.



Figure 10 - Bottom chord and stringer 1, 2 and 3

Weddle Covered Bridge

a)



Figure 11 - Surface decay and fire damage to Bay 5 Stringers 7 & 8

The deck of the bridge was also examined. The deck system was in satisfactory condition with some noted defects. These defects influence the long-term maintenance and safety of the bridge. Recommendations to maintain the structure have been summarized in Section 3 later in this document.

Abutments

The substructure of the bridge was examined. Both ends of the bridge appear well supported on the concrete blocks that do not have a deep footing system.

Weddle Covered Bridge



Figure 12 - Bent 2 scour – monitor scour after peak rainfall events.

Bent 2 has some scour with no undermining and appears to be in a stable condition. Monitoring the scour is critical. Erosion around the substructure may cause structure instability and should be prevented. Maintenance recommendations have been included with a monitoring program to continually reevaluate the stability of the substructure.

The channel under the bridge was also assessed to determine waterway adequacy. The channel was determined to be in stable condition.



Figure 13 – Bent 1 backwall is a 1” shell with 11” of decay.



Figure 14 – Crack present in Bent 2 appears stable but should be monitored.

The painting system on the outside of the house is approaching the end of its useful life. Repainting of the bridge within the next five years will extend the life of the exterior siding and more importantly protect the interior truss members. As a protective system, paint repels damaging moisture that leads to timber decay. The inside portion has some life left but the top of the top chord is unpainted.



Figure 15 – Outside paint condition

Weddle Covered Bridge



Figure 16 – Inside Paint condition

Weddle Covered Bridge

a)

Section 3 Recommendations

Recommendation #1 – Replace the truss roofing to mitigate moisture penetration to structural members of the bridge. Cedar shake roofs usually last 20 - 30 years. Alternative composite roofing shingles that look like cedar shake are available for additional longevity to preserve structural members. Maintenance Priority = Routine High (next 2-3 years), est. \$12,000.

Recommendation #2 – Replace Floor Beams 2, 5, 6, and 7. Maintenance Priority = Urgent (next 12-24 months), est. \$15,000.

Recommendation #3 – Replace CS4 timber stringers: Bay 8 Stringer 1,5,6,8, and Bay 1 stringer 6. Monitor or replace CS3 timber stringers: Bay 1 Stringer 5, Bay 2 Stringer 5, Bay 3 Stringer 1, Bay 4 Stringer 4,7, 8, Bay 5 Stringer 1,3,5,7, Bay 7 stringer 3, and Bay 8 Stringer 10. Insert shims for timber stringers: Bay 3 Stringer 2 and 7, and Bay 4 Stringer 5. Maintenance Priority = Routine High (next 2-3 years), est. \$19,000.

Recommendation #4 – Repair CS3/CS4 timber truss members. Maintenance Priority = Urgent (next 1-2 years), est. \$10,000.

Recommendation #5 – Replace missing 3 bolts on U4L5(L) Truss Member Connection. Maintenance Priority = Routine Schedule (next 2-3 years), est. \$1,000.

Recommendation #6 – Replace bridge deck near Bent 2 with CS3 decay. Maintenance Priority = Routine High (next 2-3 years), est. \$3,000.

Recommendation #7 – Clean and paint pitted plates at bottom connection of steel cables. Maintenance Priority = Routine Schedule (next 2-3 years), est. \$2,000.

Recommendation #8 – Replace broken anchor and missing bolt on L5L6(L) member connection near Floor beam 6. Maintenance Priority = Routine High (next 2-3 years), est. \$2,000.

Recommendation #9 – Replace rail section with major decay. Maintenance Priority = Routine High (next 2-3 years), est. \$1,000.

Recommendation #10 – Replace bumper boards on both sides of the bridge. Approach at both ends of decayed boards at the ends of the bridge. The timber sill/backwall is also needs to be replaced due to decay. Maintenance Priority = Routine High (next 2-3 years), est. \$3,000.

Recommendation #11 – Have bridge analyzed for maintenance vehicle loads and heavy pedestrian loads that are possible at events such as the Oregon Jamboree. Maintenance Priority = Urgent (next 6-12 months), est. \$20,000.

Recommendation #12 – Monitor the bridge ends after significant storms or flooding events to make sure the substructure fully supports the bridge ends. The bridge should have the concrete blocks fully bearing on the ground without any deflection to the structure. Immediately halt traffic using the bridge until the bridge abutments are stable and fully supported. Maintenance Priority = Monitor, est. \$250/year.

Recommendation #13 – Inspect the bridge every five years. Maintenance Priority = Routine Schedule (every 5 years), est. \$3,000.

Weddle Covered Bridge

Recommendation #14 – Limit bridge (signing) to 50 people until a load rating is performed for an occupancy limit determination and maintenance vehicle weight limit. Maintenance Priority = Urgent (next 6 months), est. \$2,000.

Section 4 Limitations

A bridge inspection is an evaluation at a moment in time. Bridges never improve as they age. The federal standard for maintaining a bridge on a public road is a periodic inspection schedule to monitor the aging condition and recommend necessary maintenance for the bridge. In Oregon, ODOT uses a 24-month cycle, which is required by federal code 23CFR650, to monitor bridge conditions and maintain structural integrity. Some bridges can have an annual or even bi-annual inspection schedule, depending on the severity of a bridge's deficiencies.

However, privately-held bridges (such as this one) are not subject to this regulation. The onus and risk management is held by the bridge owner.

Load rating and analysis is typically done about every 10 years, or earlier if the routine bridge inspection determines that there is a reason to reevaluate a bridge. A bridge may be load-rated more often because of an observed failure of a bridge element, collision damage, or because the bridge owner applied more dead load to the bridge (such as placing an additional 4 inches of asphalt on a bridge deck). Just like an inspection, a load rating is strictly an evaluation at a moment in time.

The data presented in this report reflects the condition of the bridge at the time of the inspection. An engineer cannot certify a bridge for unseen future conditions. Due to the serious implications this imposes on bridge owners, routine inspections and periodic maintenance is highly recommended to avoid a catastrophic failure due to neglect.

The inspection performed is also limited by visual inspection. Material testing, full hydraulic analysis for a base flood event, or certification that the bridge will withstand a significant seismic event or even a major collision is not cost effective nor recommended on a regular basis. Some engineering firms offer these types of services should the client desire a higher level of assurance, but they usually come with a significant cost. Also, these types of inspections usually occur on a 'lifeline route', which this bridge is clearly not.

Overloaded bridges and scour pose the greatest threat to most bridge owners and is a common reason for bridge collapse. A rigorously-enforced policy to deter overloading bridges is the best defense for a bridge owner over the long term to avoid accidents and costly litigation.

Appendix B Bridge Inspection Data Summary

NBI Item:	Value:
6 Features Intersected	Ames Creek
7 Facility Carried	Pedestrian Traffic
16 Latitude	44° 23' 40.66"
17 Longitude	122° 43' 35.82"
19 Bypass, Detour Length	0
28 Lanes On and Under	2/0
29 Approach Roadway Width	0
34 Skew	0
36 Traffic Safety Features	0
37 Historical Significance	0
41 Posting	K
43 Structure Type, Main	710
45 Number of Spans in Main Unit	1
46 Number of Approach Spans	0
47 Horizontal Clearance	17.5'
48 Length of Maximum Span	120'
49 Structure Length	120'
50 Curb or Sidewalk Widths	0/0
51 Roadway Width	17.5'
52 Deck Width, Out-to-out	17.5'
58 Deck	6
59 Superstructure	4
60 Substructure	5
61 Channel	7
71 Waterway Adequacy	6
72 Appr. Roadway Alignment	0
102 Direction of Traffic	2
103 Temporary Structure	
108 Wearing Surface	

ELEMENT	DEFECT	ENV	QTY	Condition State			
				1	2	3	4
(31) - Timber Deck		3	2100 SF	1893	171	36	0
(31) - Timber Deck	(1140) - Decay/Section Loss	3	83 SF	0	48	35	0
(31) - Timber Deck	(1150) - Check/Shake	3	19 SF	0	18	1	0
(31) - Timber Deck	(1180) - Abrasion/Wear	3	105 SF	0	105	0	0
(117) - Timber Stringer		3	1088 LF	786	219	69	14
(117) - Timber Stringer	(1140) - Decay/Section Loss	3	105 LF	0	32	59	14
(117) - Timber Stringer	(1150) - Check/Shake	3	171 LF	0	161	10	0
(117) - Timber Stringer	(1170) Split / Delamination	3	22 LF	0	22	0	0
(117) - Timber Stringer	(7000) Damage	3	4 LF	0	4	0	0
(135) - Timber Truss		3	240 LF	98	115	26	1
(135) - Timber Truss	(1140) - Decay/Section Loss	3	52 LF	0	25	26	1
(135) - Timber Truss	(1150) - Check/Shake	3	84 LF	0	84	0	0
(135) - Timber Truss	(1900) - Distortion	3	6 LF	0	6	0	0
(156) - Timber Floor Beam		3	182 LF	0	136	37	9
(156) - Timber Floor Beam	(1140) - Decay/Section Loss	3	17 LF	0	0	8	9
(156) - Timber Floor Beam	(1150) - Check/Shake	3	162 LF	0	136	26	0
(156) - Timber Floor Beam	(1170) Split / Delamination	3	3 LF	0	0	3	0
(206) - Timber Column		3	4 LF	0	4	0	0
(206) - Timber Column	(1150) - Check/Shake	3	4 LF	0	4	0	0

ELEMENT	DEFECT	ENV	QTY	Condition State			
				1	2	3	4
(215) - Concrete Abutment		3	52 LF	50	1	1	0
(215) - Concrete Abutment	(1130) - Cracks	3	2 LF	0	1	1	0
(148) Steel Main Cables (Secondary)		3	42 EA	0	0	42	0
(148) Steel Main Cables (Secondary)	(1000) - Corrosion	3	42 EA	0	0	42	0
(332) Timber Bridge Railing		3	240 LF	229	8	0	3
(332) Timber Bridge Railing	(1140) - Decay/Section Loss	3	11 LF	0	8	0	3
(963a) Covered Bridge Housing Roof		3	1 EA	0	0	1	0
(963b) Covered Bridge Housing Rails & Walls		3	1 EA	0	1	0	0
(963c) Covered Bridge Housing Protective System		3	1 EA	0	1	0	0
(980) - Approach Roadway Embankment		3	1 EA	1	0	0	0
(999) - Roadway Ride Quality		3	1 EA	0	0	1	0

Bridge Element Remarks

Element	Location	Deck
31	Bent 1	17.5' Wide Deck x 120' Length. Scattered CS2 Decay and Shakes with significant area of abrasion near Bent 1. Some CS3 Decay near Bent 2.

Element	Location	Stringers
117	Bay 1, Stringer 1	Double stringer, both counted here. 5' CS2 surface decay.
117	Bay 1, Stringer 2	80% Length CS2 Horizontal Split.
117	Bay 1, Stringer 3	No defects noted.
117	Bay 1, Stringer 4	CS2 Weather Checking Full length.
117	Bay 1, Stringer 5	CS2 Vertical Split 50% length of stringer at midspan. CS3 section loss near FB1.
117	Bay 1, Stringer 6	CS2 Weather Checking for 60% length of stringer at midspan. CS4 decay for first 0.25L.
117	Bay 1, Stringer 7	No defects noted.
117	Bay 1, Stringer 8	No defects noted.
117	Bay 1, Stringer 9	No defects noted.
117	Bay 1, Stringer 10	Double Stringer. No defects noted.
117	Bay 2, Stringer 1	10% length CS2 Horizontal Weather Checking at midspan.
117	Bay 2, Stringer 2	25% length CS2 Horizontal Weather Checking near midspan.
117	Bay 2, Stringer 3	20% length CS2 Horizontal Weather Checking near midspan.
117	Bay 2, Stringer 4	15% length CS2 Horizontal Weather Checking near midspan.
117	Bay 2, Stringer 5	50% length CS3 Horizontal Weather Checking at midspan.
117	Bay 2, Stringer 6	10% length CS2 Horizontal Weather Checking at midspan.
117	Bay 2, Stringer 7	10% length CS2 Horizontal Weather Checking at midspan.
117	Bay 2, Stringer 8	10% length CS2 Horizontal Weather Checking at midspan
117	Bay 3, Stringer 1	4' length of CS3 decay near FB2. 4' length CS2 decay near FB3.
117	Bay 3, Stringer 2	Needs shim at FB3
117	Bay 3, Stringer 3	No defects noted.
117	Bay 3, Stringer 4	2' CS2 Surface Decay near FB2.
117	Bay 3, Stringer 5	10% CS2 Vertical Weather Checking near FB2.
117	Bay 3, Stringer 6	No defects noted.
117	Bay 3, Stringer 7	Needs shim at FB3.
117	Bay 3, Stringer 8	15% CS2 Vertical Weather Checking near FB2, 15% CS2 Checks and Shakes near FB3.

Element	Location	Stringers
117	Bay 4, Stringer 1	No defects noted.
117	Bay 4, Stringer 2	No defects noted.
117	Bay 4, Stringer 3	No defects noted.
117	Bay 4, Stringer 4	CS2 Vertical Weather Checking, 20% length near midspan. CS3 decay at FB4, 2'.
117	Bay 4, Stringer 5	Need shim at FB3 and FB4.
117	Bay 4, Stringer 6	No defects noted.
117	Bay 4, Stringer 7	CS3 decay near FB3, 4'. CS3 decay near FB4, 4'.
117	Bay 4, Stringer 8	CS3 decay near FB4, 4'.
117	Bay 5, Stringer 1	CS3 decay near FB4, 4'.
117	Bay 5, Stringer 2	No defects noted.
117	Bay 5, Stringer 3	CS3 Surface Decay, 3'.
117	Bay 5, Stringer 4	No defects noted.
117	Bay 5, Stringer 5	7' of CS3 Surface Decay on outside.
117	Bay 5, Stringer 6	No defects noted.
117	Bay 5, Stringer 7	5' of CS3 surface decay near FB4.
117	Bay 5, Stringer 8	3' CS2 fire damage near FB4.
117	Bay 6, Stringer 1	1' CS2 Decay near FB5.
117	Bay 6, Stringer 2	CS2 shakes 0.5L near FB5.
117	Bay 6, Stringer 3	3' CS2 decay near FB6.
117	Bay 6, Stringer 4	1' CS2 Fire Damage near FB6
117	Bay 6, Stringer 5	No defects noted.
117	Bay 6, Stringer 6	No defects noted.
117	Bay 6, Stringer 7	CS2 check, 50% length.
117	Bay 6, Stringer 8	No defects noted.
117	Bay 7, Stringer 1	No defects noted.
117	Bay 7, Stringer 2	CS2 Surface Decay, full length.
117	Bay 7, Stringer 3	2' CS3 Shake near FB7.
117	Bay 7, Stringer 4	1' CS2 Shake on top near FB7.
117	Bay 7, Stringer 5	No defects noted.
117	Bay 7, Stringer 6	No defects noted.
117	Bay 7, Stringer 7	Full length CS2 Shake & check. 1' CS2 split near FB6.
117	Bay 7, Stringer 8	CS2 surface decay near FB6, 1' in length.

Element	Location	Truss Downstream Diagonals
117	Bay 8, Stringer 1	CS3 section loss first 80% then CS4 section loss last 20%.
117	Bay 8, Stringer 2	Double Stringer. No defects noted.
117	Bay 8, Stringer 3	2' Shake CS2 near 0.3L, 3' Shake CS2 near Bent 2.
117	Bay 8, Stringer 4	Full length CS2 shake
117	Bay 8, Stringer 5	Full Length CS2 check. CS4 decay near Bent 2, 3'. CS2 Surface decay at FB7 bearing. CS3 decay near midspan, 3'.
117	Bay 8, Stringer 6	Full length CS2 check. 3' CS2 Shake near Bent 2. CS4 decay near Bent 2, 3'.
117	Bay 8, Stringer 7	No defects noted.
117	Bay 8, Stringer 8	Full length CS2 check. CS4 Decay last 1' at FB7.
117	Bay 8, Stringer 9	Double stringer. CS2 shakes full length.
117	Bay 8, Stringer 10	Double stringer. Rt. Stringer has CS3 decay near FB7, 30% of length.

Element	Location	Truss Downstream Diagonals
135	L0U1	No defects noted.
135	L1U2	Suspect Decay on Left (L ₁ X10) (R ₁ X10).
135	L2U3	Suspect Decay both sides (L ₁ X10) (L ₁ X10 Starting on Left).
135	L3U4	Decay on Right bottom (R1 R2X8). CS4 Decay Left above brace (X1R9).
135	U3L4	Distortion, Decay Left.
135	L4U5	Decay Right (X10) R CS2 8'.
135	U4L5	Decay Right below brace (X10), Left missing 3 bolts (X10).
135	U5L6	Decay Left Middle (X10).
135	U6L7	CS3 Decay Left (R5X5).
135	U7L8	L CS2 10'.

Element	Location	Top Chord Downstream
135	U1U2	L outside - CS2 check top. R - CS2 check btm
135	U2U3	L outside - CS2 check top. R - CS2 check btm
135	U3U4	L outside - CS2 check top 75%. R - CS1
135	U4U5	L outside - CS1. R - CS1
135	U5U6	L outside - CS1. R - CS1
135	U6U7	L outside - CS1. R - CS1

Element	Location	Bottom Chord Downstream
135	L0L1	No defects noted.
135	L1L2	3' CS3 Section loss near FB1
135	L2L3	4' CS3 Section loss near FB2. 4' CS3 Section loss near FB3.
135	L3L4	No defects noted.
135	L4L5	No defects noted.
135	L5L6	No defects noted. Anchor rod broken and bolt missing at connection.
135	L6L7	5' CS3 section loss near mid length.
135	L7L8	No defects noted.

Element	Location	Truss Upstream Diagonals
135	L0U1	Insufficient thread engagement, loose bolt Left 12' off ground.
135	L1U2	Left btm decay, X10.
135	L2U3	X10. No defects noted.
135	L3U4	Left btm decay, soft but X10. Right side CS2 Checks Full Length.
135	U3L4	Left Middle, btm Decay X10.
135	L4U5	No defects noted.
135	U4L5	Right shake, decay, soft X10. Right decay btm R2X8, L soft X10.
135	U5L6	Both decay middle L X10, Right X10.
135	U6L7	Right Decay, Soft X10.
135	U7L8	No defects noted.

Element	Location	Top Chord Upstream
135	U1U2	L - CS1. R outside - CS2 check top and inside face
135	U2U3	L - CS1. R outside - CS2 check inside face
135	U3U4	L - CS1. R outside - CS1
135	U4U5	L - CS2 check inside face. R outside - 2" shake for 1' @ U4
135	U5U6	L - CS1. R outside - CS1
135	U6U7	L - CS1. R outside - CS1

Element	Location	Bottom Chord Upstream
135	L0L1	No defects noted
135	L1L2	No defects noted.
135	L2L3	No defects noted.
135	L3L4	No defects noted.
135	L4L5	No defects noted.
135	L5L6	No defects noted. Added 10' of CS2 decay from L5 to L8 for sporadic soft spots.
135	L6L7	No defects noted.
135	L7L8	No defects noted.

Element	Location	Steel Cables
148		42 total steel cables in truss. All have CS4 paint protection full length. All plates at bottom connection have CS3 pitting. Left Side 3' steel cable with insufficient thread.

Element	Location	Floor beams
156	Floor beam 1	Full Length CS2 Weather Checking. 1' CS2 Shake under Stringer 7.
156	Floor beam 2	CS2 Horizontal Weather Checking full length. X3R9 Upstream side at anchors.
156	Floor beam 3	CS3 Horizontal Weather Checking Full Length. CS3 Split at both ends.
156	Floor beam 4	CS2 Horizontal Weather Checking full length.
156	Floor beam 5	Full Length CS2 Check, CS3 decay at upstream anchor rod location. CS3 split last 3' downstream side.
156	Floor beam 6	Full Length CS2 Check, CS3 decay at anchor rod locations.
156	Floor beam 7	Full Length CS2 Check, CS3 decay at downstream connection.

Element	Location	Timber Column
206	L0	Column Left CS2 Check Full Height.

Element	Location	Concrete Abutment
215	Bent 1	1' CS2 crack. Timber sill on abutment has CS4 section loss full length.
215	Bent 2	1' CS3 crack D/S. Timber sill on abutment has CS2 check full length. Bumper board rotted. Footing is exposed.

Element	Location	Rail
332	Upstream Rail	2' CS2 Decay @ L0, 3' CS2 Decay @ L4,
332	Downstream Rail	CS2 Decay @ L2, CS4 Decay @ Bent 2

Element	Location	Covered Bridge Housing Roof
963a	Covered Bridge Housing	Roof is 95% effective, however decay is widespread so replacement is recommended.

Element	Location	Covered Bridge Housing Rails & Walls
963b	Covered Bridge Housing	Rails and walls are in good condition with minor decay.

Element	Location	Covered Bridge Housing Protective System
963c	Covered Bridge Housing	Protective system has widespread decay. Replacement recommended if routine inspection is not performed.

Element	Location	Approach Roadway Embankment
980		CS1

Element	Location	Roadway Ride Quality
999		Bent 2 has a bump due to approach beam decay, CS3.