

Meeting Minutes - Swan River Bridge SC #4



Date: 7/27/2016

Facilitator: Wade Salyards / Kathy Harris

Time: 1:00 PM

Minutes CC: Attendees, Steve Grabill, Shane Stack

Attending:

Name	Organization	Phone Number	E-Mail
Wade Salyards	MDT Consultant Design	406-444-0451	wsalyards@mt.gov
Bob Vosen	MDT Missoula	406-751-2020	rvosen@mt.gov
James Freyholtz	MDT Missoula	406-751-2066	jfreyholtz@mt.gov
Vicki Crnich	MDT Planning	406-444-7653	vcrnich@mt.gov
Chris Hardan (Phone)	MDT Bridge	406-444-9221	chardan@mt.gov
Pam Holmquist	Flathead Co Commissioner	406-758-5508	pholmquist@flathead.mt.gov
Dave Prunty	Flathead Co Public Works	406-758-5790	dprunty@flathead.mt.gov
Jed Fisher	Flathead Co Parks & Rec	406-758-5805	jedfisher@flathead.mt.gov
Walter Kuhn	Citizen Representative	406-837-4550	wkuhn@k-mmi.com
Paul Mutascio	CFBB	406-261-1049	pmutascio@centurytel.net
Susan Hansen	Citizen Representative	406-250-4685	btrfly@montanasky.net
Kathy Harris	KLJ	406-441-5784	kathy.harris@kljeng.com
Russ Lay	KLJ	406-4452-8600	russ.lay@kljeng.com

Note: Action Items are shown below in italics.

Agenda Topics

The fourth Steering Committee (SC) meeting was held on July 27, 2016 at 1:00 in the Kalispell Montana Department of Transportation (MDT) office to present six bridge concepts and develop the Committee ratings of the previously-approved criteria (for comparing the bridge options).

1) Old Business

- a) Review SC Meeting #3 Minutes. There were no comments or changes to the meeting minutes.
- b) Baseline Design and Environmental Document: Two background planning reports have been drafted and are now posted on the project website.
 - i) The Existing and Projected Conditions Report summarizes the bridge and traffic conditions.
 - ii) The E-Scan Report identifies soil and groundwater contamination as future construction issues. Although there will be other environmental steps with a future project, no other significant items were found at this time.
- c) The Transportation/Bridge Needs Memo was submitted to the SC, and had no comments at this time.

- 2) **New Business - Bridge Option and Screening Matrix.**
- a) **Bridge Options:** Russ Lay described six bridge options listed **Attachment 1**.
 - b) **Screening Matrix:** The SC reviewed and rated the six bridge options, with the qualitative ratings shown in **Attachment 2**. During the discussion, the following changes were made to the Screening Criteria:
 - i) Omit Criteria "Provide Structurally Adequate Bridge" as it is redundant
 - ii) Add a cost comparison (using \$..... \$\$\$\$ ratings).
 - iii) The screening criteria for the "enhancement of the historical appearance by the walkway" was difficult to gain consensus and was not completed by the SC.
 - c) During the discussion, the following comments were offered:
 - i) Pam Holmquist noted the County may not support a rehabilitation that utilizes antiquated pin-style truss connections.
 - ii) Dave Prunty restated the County opposition to a wooden deck and pin connections, due to the higher maintenance needs. This will be reflected in the screening ratings.
 - iii) Bob Vosen noted that construction administration costs will be higher for a rehabilitation due to the specialized construction methods and MDT's subsequent need to hire specialized inspection services (resulting in higher costs). The manufacturing of the rehabilitation members (replacement) would likely be a very specialized firm and out of state.
 - iv) The Historical Listing (NRHP) and the need to retain the listing versus the appearance was discussed in detail. The need for a safe, long-term solution that keeps the historic look is greater than the need to keep the listing.
 - v) Paul Mutascio restated the consideration of the economic value that the bridge brings to the local community. The SC felt that this was reflected in the various screening criteria.
 - d) Following the meeting, KLJ offered two recommendations which were sent to the SC via email. The SC agreed that the following two changes should be implemented:
 - i) Omit the Evaluation Criteria "Enhance Historic Bridge Appearance with Walkway".
 - ii) Include Bridge Option 7, which offers a new, one-lane through truss bridge. The ratings will be similar to Option 3 (steel girder bridge with existing truss reattached) except:
 - (1) Clearance above the river is better for Option 7
 - (2) Costs will be range around the middle of the bridge rehab option.
 - iii) KLJ updated the Matrix for these two items and it is shown in the attachments (with gray shading)
- 3) Kent Barnes joined the end of the meeting and offered the following on bridge funding:
- i) Funding requests will be approved by MDT (not federal) based upon the County Commission request for a specific bridge rehabilitation or replacement.

- ii) MDT will consider if the request provides a cost effective design that meets the needs of the community.

4) Schedule Next/Future Meetings

- a) Upcoming Public Meeting.
 - i) The upcoming Public meeting is scheduled for August 16 at 4:30 PM in the Bigfork Elementary School Cafeteria. Kathy will forward the advertisement to the SC. A mailing will be sent out to the community in the next week. The meeting will have a formal presentation and a formal Q&A session.
 - ii) The Bigfork SC members will participate in the presentation to the community.
 - iii) Kathy will coordinate with Dave Prunty if the County will participate in the presentation.
- b) Kathy will reschedule a summary presentation to the County Commission through Dave Prunty.
- c) The next SC meeting will review input received at August Public Meeting, and discuss the two anticipated options to be carried forward for more detailed review.

- END -

Next Meeting Information

Date: 10/4/2016

Facilitator: Wade Salyards/Kathy Harris

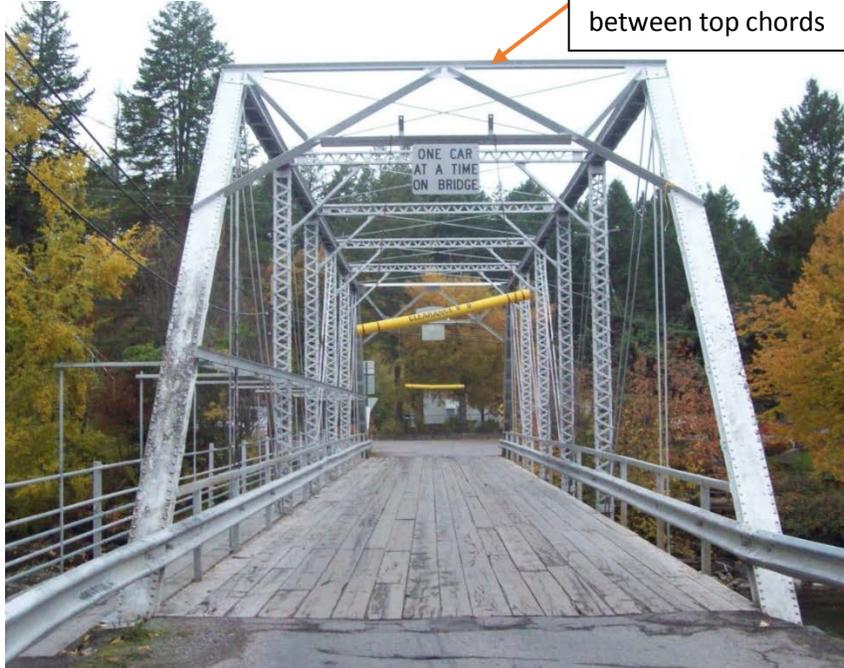
Time: 1:00 - 4:00 PM

Attachment 1 to SC Meeting #4: Six bridge options

Note: Option 7 is not shown as it was added after meeting

Truss Bridge Types

Through Truss



Through Truss: Truss has overhead horizontal bracing between the top chords of the trusses.

Pony Truss



Pony Truss: Truss does not have horizontal bracing between the top chords of the trusses.

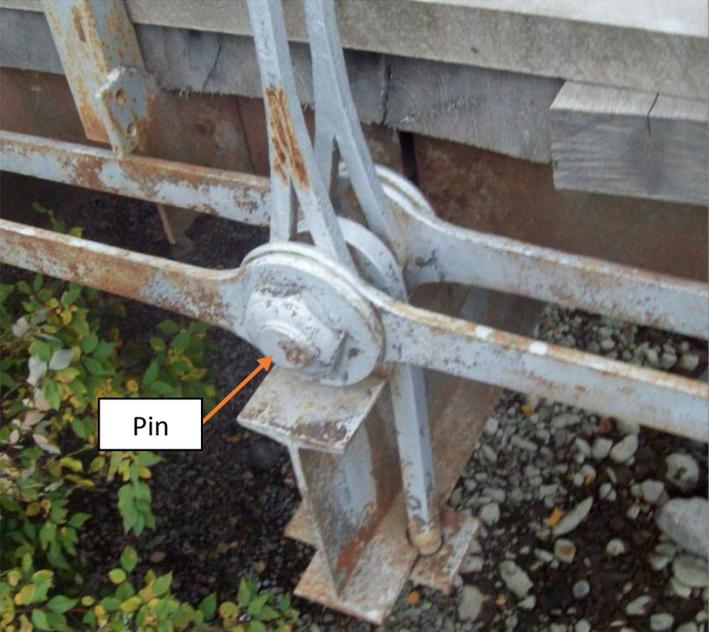
Truss Connection Types

Gusset Plate Connection



Gusset Plate Connection: All members bolt or rivet into a Gusset Plate.

Pinned Connection



Pinned Connection: All members connect to a steel rod or “pin”.

Note: Pinned connections are an antiquated method of construction and are expensive to reproduce.

Bridge Options

Option #1 – No Build



- 1-Lane
 - Through Truss
 - No change in current appearance
-

Option #2 – New 1-Lane Pony Truss



Photo courtesy of www.conteches.com. Bridge color can vary.

- 1-Lane
- Pony Truss (no overhead bracing)
- Heavier (thicker) bridge members
- Gusset plate connections
- Slightly more massive appearance

Option #3 – New 1-Lane Steel Girder Bridge with Architectural Trusses



Photo courtesy of www.historicbridges.org (modified).

- 1-Lane
 - Steel Girders carry the bridge loads (steel to match truss material)
 - Reuse existing trusses as non-load bearing, “architectural” features
 - Appearance from the river will be thicker where girders add to the thickness of bridge deck
-

Option #4 – New 1-Lane Concrete Girder Bridge



- 1-Lane
- Concrete structure (girders, deck, and barriers)
- Modern “typical concrete bridge” appearance and typical design/maintenance. Thicker depth and no overhead feature.

Option #5 -Rehabilitation with Integral Walkway



- 1-Lane
- Through Truss (with overhead bracing). Replace all steel members below the deck and 75% of the members above the deck
- Wider walkway will be totally rebuilt
- Changes in member size/thickness will be hardly noticeable
- All pinned connections will be rebuilt

Option #6 – New 2-Lane Concrete Girder Bridge with Architectural Trusses



Photo courtesy of MDT.

- 2-Lane
- Concrete Girders carry the bridge loads
- Widen distance between and reuse existing trusses as non-load bearing, “architectural” features
- Appearance from the river will be thicker where girders add to the thickness of bridge deck
- Appearance from road will be wider

Attachment 2 to SC Meeting #4: Completed Screening Matrix

#	Description	Screening Criteria 			
		Maintain Historic Truss Appearance			
		Required:	✓		
		Maintain Hist. Appearance	Maintain Hist. Integrity Listing	Keep Silver Paint Color	Replicate (Exs.) OH. Truss Dimensions
1	No Build	●	●	●	●
2	New, 1-Lane, Pony Truss	◐	●	●	◐
3	New, 1-Lane, Steel Girder w/ Arch Truss	◐	●	●	◐
4	New, 1-Lane, Concrete Girder	●	●	○	●
5	Rehabilitation, with Integral Walkway	●	◐	●	◐
6	New, 2-Lane, Concrete Girder w/ Arch Truss	neutral	●	●	●
7	New, 1-Lane, Through Truss	◐	●	●	◐

#	Description	Screening Criteria								
		Constructible and Maintainable								
		Required: ✓	✓	✓	✓					
		Funding for Rehab or Replacement	Permit-able (Construction)	Permit-able-brdg. Stormwater	Ease of Maintenance (By County)	Remove Wooden Deck	Reduce special Maint. Needs	Reduce Brdg. Degradation Into River	Avoid ROW Acquisition	Minimize Utility Cost
1	No Build	○	○	○	●	●	●	●	●	●
2	New, 1-Lane, Pony Truss	◐	◐	◐	◐	●	◐	◐	◐	○
3	New, 1-Lane, Steel Girder w/ Arch Truss	◐	◐	◐	◐	●	◐	◐	◐	◐
4	New, 1-Lane, Concrete Girder	◐	◐	◐	●	●	◐	◐	◐	○
5	Rehabilitation, with Integral Walkway. No wooden deck.	◐	◐	◐	◐	●	◐	◐	●	◐
6	New, 2-Lane, Concrete Girder w/ Arch Truss	●	◐	◐	◐	●	●	◐	●	●
7	New, 1-Lane, Through Truss	◐	◐	◐	◐	●	◐	◐	◐	○



#	Description	Screening Criteria 							
		Provide Safe Crossing of Swan River							
		Required:	✓	✓	✓				
		Increase Load Rating (HS 15 Min.)	Min. One-Vehicular Lane	ADA Ped Area & Railing	Provide 75 Year Brdg. Life	Maintain Clearance Above River	Maintain Slow Speeds	Improve Other Design Standards	Improve Guardrail (Approach)
1	No Build	●	◐	○	●	●	◐	●	●
2	New, 1-Lane, Pony Truss	●	◐	●	●	◐	◐	◐	●
3	New, 1-Lane, Steel Girder w/ Arch Truss	●	◐	●	●	◐	◐	◐	●
4	New, 1-Lane, Concrete Girder	●	◐	●	●	●	◐	◐	●
5	Rehabilitation, with Integral Walkway	●	◐	●	◐	●	◐	◐	◐
6	New, 2-Lane, Concrete Girder w/ Arch Truss	●	●	●	●	●	◐	●	●
7	New, 1-Lane, Through Truss	●	◐	●	●	◐	◐	◐	●

Attachment 3 to SC Meeting #4: Option 7 – Example of New, 1-Lane, Through Truss.

