From: Greg Minikel

To: Mackenzie Reed

Cc: Justin Nickels; Dan Koski; Eric Nycz; Jane Rhode; Erika Luebke

Subject: FW: External: B-36-142 8th Steet Manitowoc Date: Wednesday, February 15, 2023 2:02:55 PM

Attachments: Resolution Authorizing Emergency Repairs to the Eighth (8th) Street Lift Bridge.docx

Mackenzie,

Per the Mayor, please add an item to the Common Council agenda for February 20th. It is for an issue at the 8th St. bridge. See the attached e-mail below. The Mayor would like the e-mail from Jim McDowell of the DOT and photos to be attached to the agenda. Thanks.

I guess the agenda item could be titled "Emergency Repair of the Northwest Pinion Gear on the 8th St. Lift Bridge".

I have drafted/modified a proposed resolution for the Emergency Declaration. This was originally drafted by Kathleen in 2018 for Broadway St. Bridge. I simply amended it with the proper items or language for the 8th St. Lift Bridge.

Eric has not reviewed this yet. I am also not sure what the cost estimate is or which budget line this might be taken from.

From: McDowell, Jim - DOT < Jim. McDowell@dot.wi.gov>

Sent: Tuesday, February 14, 2023 9:34 AM

To: Lahm, Jason - DOT <jason.lahm@dot.wi.gov>; Hardinger, Thomas - DOT <Thomas.Hardinger@dot.wi.gov>; Greg Minikel <gminikel@manitowoc.org> **Cc:** Bohnsack, David - DOT <David.Bohnsack@dot.wi.gov>; Rades, Brady P - DOT

<Brady.Rades@dot.wi.gov>

Subject: External: B-36-142 8th Steet Manitowoc

All.

Yesterday I inspected the pinion problem on the 8th Street Lift Bridge.

Above are some photos of the condition. I have also included some pics of the shop and design drawing to get a better idea of why this is happing.

The NW pinion gear was identified that had moved outward 2" in the 2022 mechanical inspection from Collins. Collins identified that as a CS 4 which should have been identified as a critical finding at the time although they have mislabeled the location as being the NE when in fact it is the NW. Greg was not made aware being the local pm and neither was Brady or I.

If you look at the design drawing and the shop drawings it gives the indication of fit LC5 which is a clearance fit not a shrink fit which would rely on the tapered keys to keep the pinion from moving on the shaft.

I talked with Kevin Campi (mechanical engineer) from H&H and he has given a recommendation of

using the shaft and a jacking plate and tapped bolts to walk the pinion back into place and then install a keeper plate with a circle of A325 bolts taped 1/3 onto the gear and 2/3 into the shaft which is what the last pic shows.

I have recommended that CR Meyer should go down to inspect give an estimate and a timeline to do this work being that we are still in the offseason with limited ice in the river. If you have any questions let me know.

Thanks, Jim.

Jim McDowell

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