



Oregon

Tina Kotek, Governor

Department of Transportation

Bridge Engineering Section

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July 18, 2023

Chad Carpenter
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**Subject: Load Restriction Recommendation
Oregon Water Wonderland, Wood Duck Court Bridge
(Br. No. 20783)
Deschutes County**

Recommendation

On July 13, 2023, Anderson Engineering and Surveying, our consulting local agency inspection firm discovered a Critical Finding on the routine inspection of the Oregon Water Wonderland, Wood Duck Court Bridge (Br. No. 20783).

Since several timber deck planks are cracked and near failure, we recommend the bridge be closed.

If a steel plate can be temporarily placed over the damaged areas of the deck, then the bridge can be posted at 3 tons until the timber deck is replaced.

Background

The Oregon Water Wonderland, Wood Duck Court (Br No. 20783) is a 47 foot long, 16.5 foot wide, simple span steel girder bridge with timber deck built in 1984. The bridge is owned by the HOA and now Mile High Community Management has taken over ownership of assets. On July 13, 2023, bridge inspector found to have major structural deficiencies. Several 6x12 timber deck planks were observed to be cracked and near failure, with 1 deck plank in a failed condition. The 2x12 running boards are cracked, split, have sections missing, and are unable to distribute the load effectively. The bridge is currently posted at 14 tons for the Type 3, 26 tons for the Type 3S2, 26 tons for the Type 3-3, 16 tons for the SU4, 19 tons for the SU5, 21 tons for the SU6 and SU7.

Repair Options

Strengthening of the timber decks and the interior girders would allow this bridge to remain in service without restriction.

Replacing the timber decks only, the bridge can be posted at 33 tons for the SU6 and 35 tons for the SU7.

Posting Responsibility

ODOT recommends this bridge be closed. It is ultimately the owner's responsibility to have the structure closed.

To assist us in managing the bridge load rating program, please let us know if the bridge has been repaired or closed.

Contact Nam Bui, Local Agency Load Rating Engineer, (503) 302-7395 or e-mail Nam.N.Bui@odot.oregon.gov, for any questions on these issues.

Sincerely,

Raymond BOTTENBERG
Raymond BOTTENBERG (Jul 18, 2023 14:45 PDT)

Ray Bottenberg, PE, SE
State Bridge Engineer

cc: Cody Smith, Deschutes County Engineer/Assistant Director
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