

W3B2

Memorandum Date: November 17, 2008
Order Date: December 3, 2008

TO: Board of County Commissioners

DEPARTMENT: Public Works

PRESENTED BY: Frank Simas
Real Property Manager

AGENDA ITEM TITLE: IN THE MATTER OF REVISING THE CURRENT LOAD POSTING ON EARNEST COVERED BRIDGE (STATE BRIDGE ID NO. 39C176) LOCATED AT MP 0.04 ON PASCHELKE ROAD WITH A 9-TON WEIGHT LIMIT FOR ALL VEHICLES AND THE LOAD POSTING ON MOSBY CREEK COVERED BRIDGE (STATE BRIDGE ID NO. 39C241) LOCATED AT MP 0.20 ON LAYNG ROAD WITH AN 8-TON WEIGHT LIMIT FOR ALL VEHICLES.

I. **MOTION**

THAT THE ORDER BE APPROVED AUTHORIZING THE REVISION OF THE CURRENT LOAD POSTING ON EARNEST COVERED BRIDGE (STATE BRIDGE ID NO. 39C176) LOCATED AT MP 0.04 ON PASCHELKE ROAD WITH A 9-TON WEIGHT LIMIT FOR ALL VEHICLES AND THE LOAD POSTING ON MOSBY CREEK COVERED BRIDGE (STATE BRIDGE ID NO. 39C241) LOCATED AT MP 0.20 ON LAYNG ROAD WITH AN 8-TON WEIGHT LIMIT FOR ALL VEHICLES

II. **AGENDA ITEM SUMMARY**

Recent load rating analysis conducted by the State Bridge Engineer based on the most recent bridge inspection information and load rating summary report shows the current posted weight limits are no longer sufficient. The State Bridge Engineer recommends the Earnest Covered Bridge be posted for 9 tons for all vehicles and Mosby Creek Covered Bridge be posted for 8 tons for all vehicles.

III. BACKGROUND/IMPLICATIONS OF ACTION

A. Board Action and Other History

Paschelke Road is located northeasterly of Marcola, running north/south between Marcola Road and Wendling Road on the east side of the Mohawk River. It is a Rural Local road with an Average Daily Traffic (ADT) of 130 veh/day at the Marcola Road end and 200 veh/day at the Wendling Road end (traffic counts from 2001). Earnest Covered Bridge is a one-lane bridge located on Paschelke Road at MP 0.04.

Earnest Covered Bridge was posted for a 20-ton weight limit in 1964 and upgraded to 30 tons in 1975. In 1981 the posting was revised to 10 tons Type 3 trucks, 20 tons Type 3S2 trucks, and 30 tons Type 3-3 trucks. A restoration project was completed in 1990 without revising the load posting.

Layng Road is located easterly of Cottage Grove, running north/south between Mosby Creek Road and Row River Road. Layng Road is a Rural Local road with an ADT of 280 veh/day at the Mosby Creek Road end and 360 veh/day at the Row River Road end (traffic counts from 2001). Mosby Creek Covered Bridge is a one-lane bridge located on Layng Road at MP 0.20.

Mosby Creek Covered Bridge was posted for a 20-ton weight limit in 1975. The bridge posting was revised to 10 tons Type 3 trucks, 20 tons Type 3S2 trucks, and 30 tons Type 3-3 trucks after a 1990 restoration project.

Current posting for both bridges is 10 tons Type 3 trucks, 20 tons Type 3S2 trucks, and 30 Type 3-3 trucks. In October, 2006 a load rating summary report was generated by Parsons Brinckerhoff, Inc, a consultant engineering firm hired by ODOT as part of the bi-annual bridge inspection program. The report was based on 2004 inspection data. Because the bridge was already posted, a review of the report was given a low priority. The report was reviewed by the State Bridge Engineer in August, 2008 and coupled with inspection information from 2006, the State Bridge Engineer issued a load restriction recommendation to post the Earnest Covered Bridge for 9 tons for all vehicles and the Mosby Creek Covered Bridge for 8 tons for all vehicles. These postings should be in place on or before December 1, 2008.

After receiving the recommendations, staff contacted the South Lane School District and the Marcola School District for school bus information. Both of these bridges are used by the respective school districts and to reroute would create an inconvenience. Staff requested the State Bridge Engineer re-evaluate the bridges with the bus loading information. Subsequent load ratings found the bridges were of insufficient structure to continue carrying the bus loadings.

B. Policy Issues

Under ORS 810.030, a road authority may impose restrictions on its highways to protect the highway or a section of highway from being unduly damaged and to protect the interest and safety of the general public.

C. Board Goals

This action meets Goal 5 of the adopted Lane County Transportation System Plan (TSP): To promote a safe, functional, and well-maintained bridge network in Lane County.

D. Financial and/or Resource Considerations

There will be no significant financial impact to the County.

E. Analysis

Mosby Creek Covered Bridge was constructed in 1920 and Earnest Covered Bridge constructed in 1938, both where designed to standards and loading considerably less than today's standards. Both bridges were restored in 1990 and continued with a 10-20-30 ton load posting. A bridge inspection conducted in 2006 found signs of decay and splits throughout the stringers and trusses. The most recent load rating recommends a posting on both bridges of less than 10 tons for all vehicles.

F. Alternatives/Options

1. Move to approve the attached Order authorizing the removal of the existing 10-20-30-ton weight limit postings and replacing them with a 9-ton weight limit posting on Earnest Covered Bridge and an 8-ton weight limit posting on Mosby Creek Covered Bridge.

2. Direct staff otherwise.

IV. TIMING/IMPLEMENTATION

Upon approval of the Order, staff will implement replacing the existing weight limit signs with revised weight limit signs and notify the South Lane and Marcola School Districts and emergency service providers of the revised weight limit.

V. RECOMMENDATION

Option 1.

VI. ATTACHMENTS

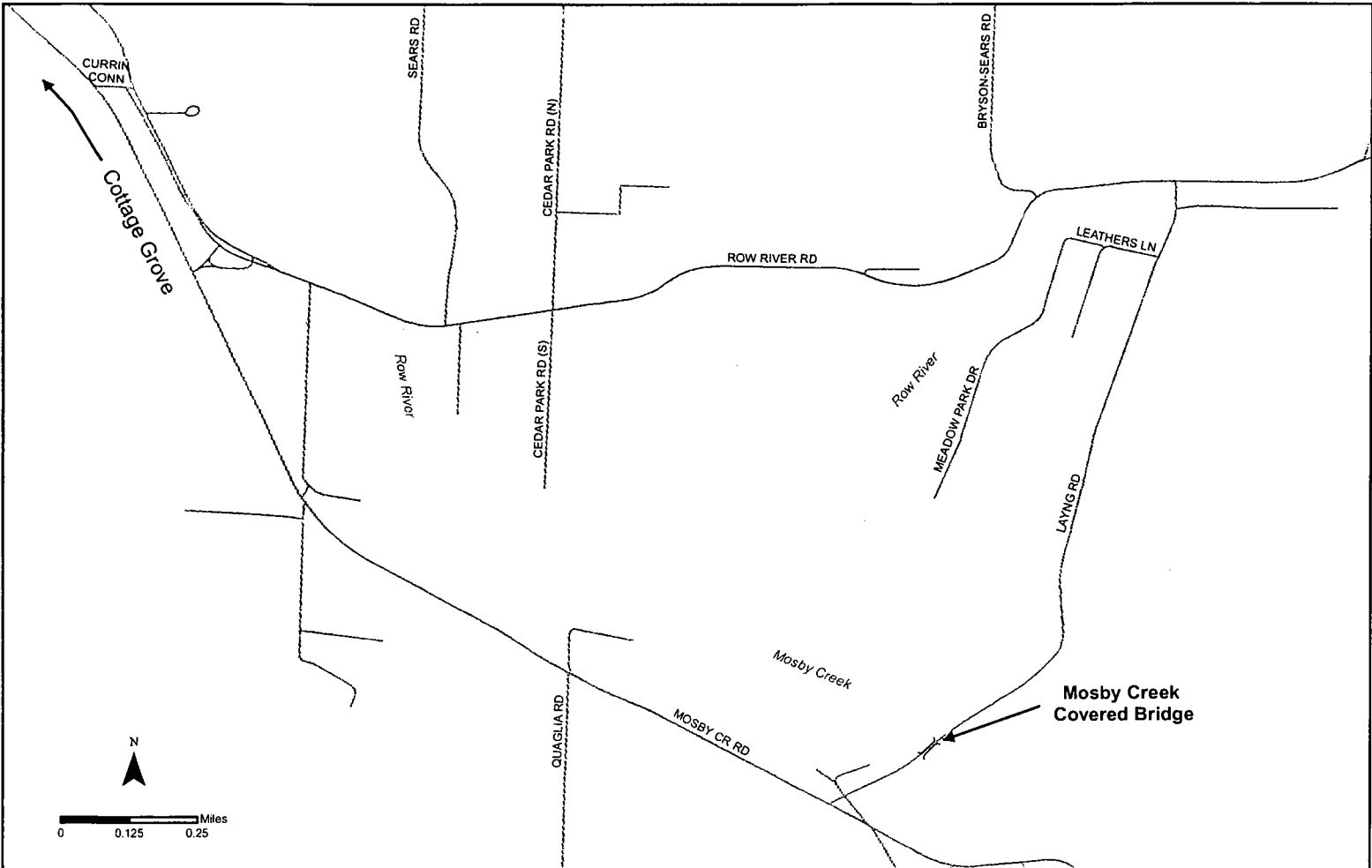
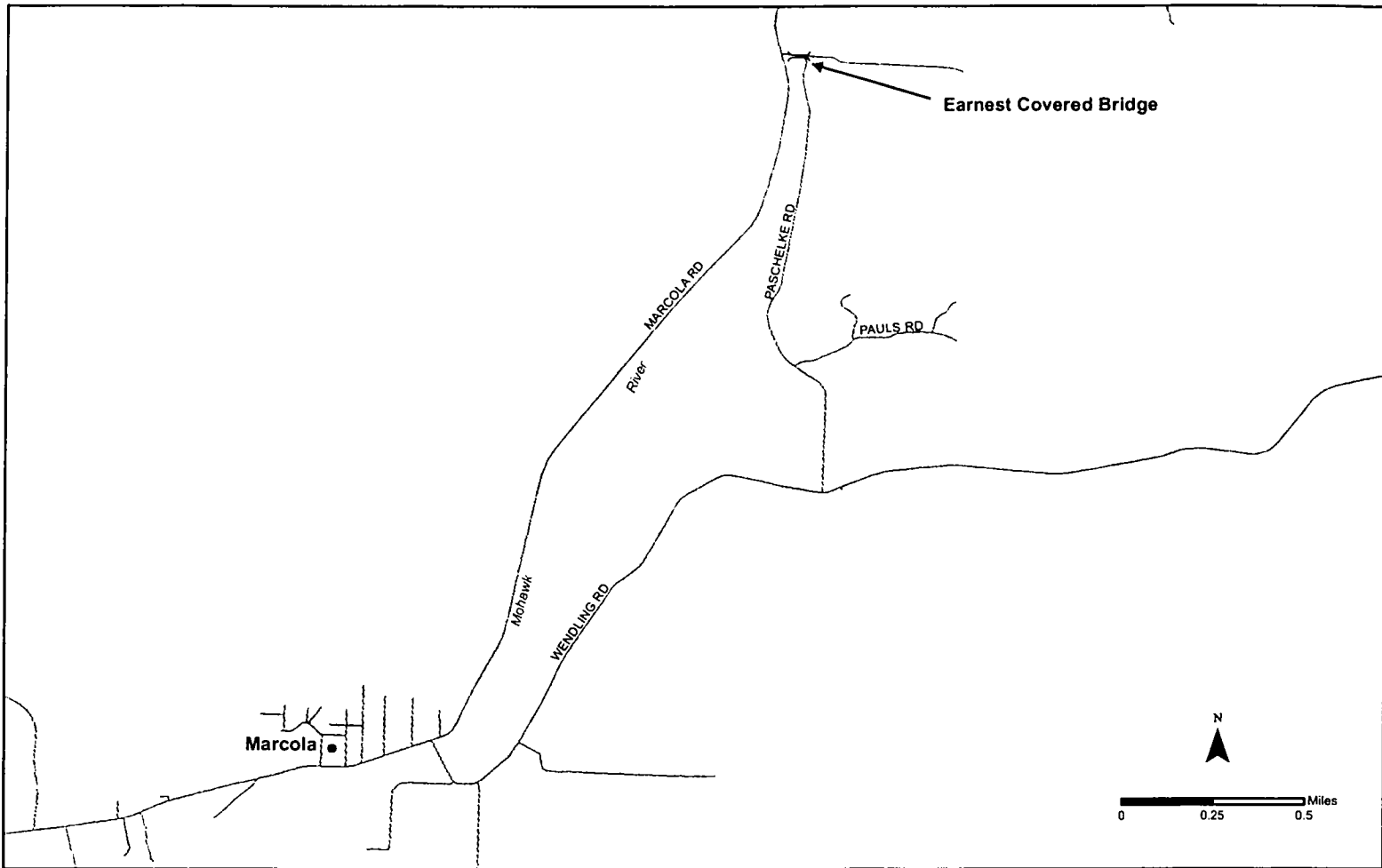
Attachment 1 – Vicinity Map

Attachment 2 – Earnest Covered Bridge letter from State Bridge Engineer

Attachment 3 – Mosby Creek Covered Bridge letter from State Bridge Engineer

Attachment 4 – Email from Joe Charbonneau, ODOT Bridge Program Unit

Attachment 1



Attachment 2



Oregon

Theodore R. Kulongoski, Governor

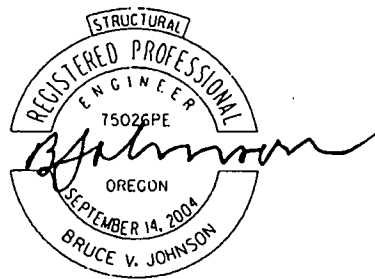
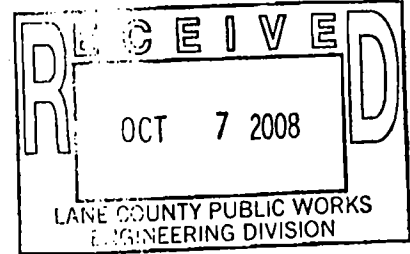
Department of Transportation

Transportation Building
355 Capitol St. NE, Rm. 301
Salem, OR 97301-3871

October 2, 2008

FILE CODE:

Bill Morgan
County Engineer
Lane County
3040 N Delta Hwy
Eugene, Oregon 97408



Bruce V. Johnson, P.E., S.E.
State Bridge Engineer

**RE: Load Restriction Recommendation
Mohawk River (Earnest) Covered Bridge
(Br.No.39C176)
Lane County**

Mohawk River Covered Bridge (Br. No. 39C176) is a 137 foot long, 17 foot wide timber stringer and timber Howe truss structure. The bridge is currently posted at 10 Tons for Type 3, 20 Tons for Type 3S2 and 30 Tons for Type 3-3 trucks.

The structure was last inspected in August, 2006. The inspector reported decay and splits throughout the stringers and the truss. There is minor rotation of several diagonals of the truss. The inspector noted in the report to monitor these items.

Based on results of the load rating, we recommend the bridge be posted at 9 tons for all vehicles. Shear in the stringers control the rating. Attached are the Posting Summary Sheet and the Load Rating Summary.

Attachment 2

Posting Responsibility

ODOT recommends the bridge be posted for load until repaired or replaced. It is ultimately the county's responsibility to have the structure posted. The correct posting signs should be in place no later than December 1, 2008. The posting signs should look like figure R12-1, as shown on the last page of this letter.

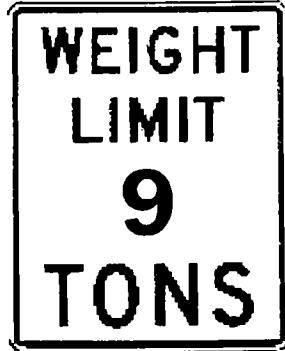
To assist us in managing the bridge load rating program, please let us know as soon as the new posting signs are installed. Please send a digital image of the posting sign to verify the posting complies with ODOT recommendations. Contact Joe Charbonneau, Load Rating Engineer, (503) 986-3387, for any questions on these issues.

cc: Kerry Werner, Design Engineer, Lane County Public Works
Bert Hartman, Bridge Program Unit Manager
Gary Bowling, Bridge Operations Managing Engineer
Steve Tuttle, Local Agency Coordinator
Tim Rogers, FHWA Oregon Division Bridge Engineer
Holly Winston, Senior Local Bridge Standards Engineer

bc: Richard Groff, Senior Load Rating Engineer
Nam Bui, Local Agency Load Rating Engineer
Joe Charbonneau, Load Rating Engineer

Attachment 2

Weight Limit Sign from MUTCD figure 2B-20, page 2B-44.



R12-1



Attachment 2

Oregon Department of Transportation Technical Services Branch

Bridge Engineering Section
Local Agency Bridge Load Rating
Posting Summary Sheet

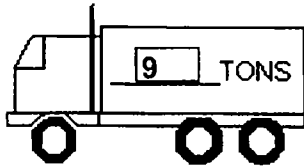
Local Agency: Lane County

NBIS Bridge Number: 39C176

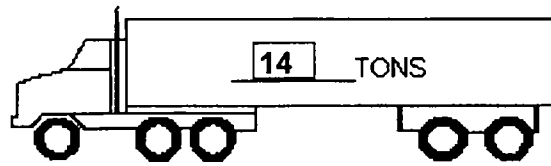
Date: 7/21/2006

Truck	Inventory	Operating	Posting Required
HS Equivalent	HS 7	HS 11	N/A
HS 20 (36 Ton)	11.9 Tons	19.8 Tons	N/A
Type 3 (25 Ton)	Tons	9.0 Tons	YES
Type 3S2 (40 Ton)	Tons	14.0 Tons	YES
Type 3-3 (40 Ton)	Tons	16.0 Tons	YES
Permit 5 (60.25 Ton)	Tons	17.5 Tons	N/A
Permit 6 (75.25 Ton)	Tons	19.6 Tons	N/A
Permit 7 (92.5 Ton)	Tons	26.8 Tons	N/A

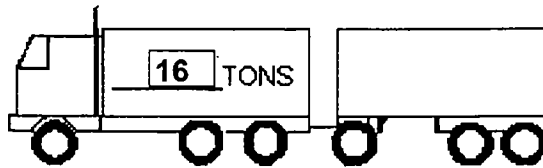
OREGON LEGAL LOADS RECOMMENDED POSTING



TYPE 3



TYPE 3S2



TYPE 3-3

COMMENTS:

Expires: _____



OREGON D.O.T. BRIDGE SECTION
LOAD RATING SUMMARY REPORT (PAGE 1)

For local agency bridges. Latest Revision 2/10/2006

BRIDGE DATA...

BRIDGE #: 139C176 NBI FEATURE: Mohawk River
 BRIDGE NAME: Mohawk River (Earrest) Covered Bridge
 HIGHWAY NAME: Pascheike Road
 REGION: 2 DIST: 05 COUNTY: Lane
 HIGHWAY #: 004
 MILEPOST: 0.04
 YEAR BUILT: 1938 DESIGN LOADING: Unknown (H107) OWNER: Lane County
 SPAN DESCR: Two 22'-0" spans, 75 Howe timber truss, 15'-0" span
 OTHER DESCR:

LOAD RATING ENGINEER DATA...

RATING DATE: 7/21/08 FIRM: Parsons Brinckerhoff Inc. ENGINEER: M. Miller CALCULATION BOOK:

LATEST INSPECTION DATA...

INSP. DATE: 10/19/04 ADT: 152 YEAR OF ADT (2 digits): 2002 A.C. DEPTH, INCHES: 0.0
 DECK: 6 SUPERSTR.: 6 SUBSTR.: 8 IMPACT ASSESSMENT (Elem. 325): WEAR SURFACE (Elem. 326): CS1
 CONDITION RATINGS →

RATING DATA...

LRFD FACTORS: IMPACT I+I: 1.00 γ_D : 1.20 γ_L : 1.30 DISTRIB. FACTORS: Operational Status (Item 41): P
 LOAD FACTOR LOAD RATINGS FOR N.B.I.: INVENTORY: HS 109 Single Lane: 1.000 Bridge Posting Status (Item 70): 0
 INVENTORY CODE: (2+tons): 212 OPER. CODE: (2+tons): 220 Multiple Lanes: 1.000 Temporary Status (Item 103):
 SECTIONS EVALUATED: 16 COMMENTS: Allowable stress method was used to rate timber members. LRFR and NBI methods were used to rate steel vertical rods. Rating for timber mem

LOAD:	← 1st rating control →			← 2nd rating control →		
	R.F.	Limit State or V	MEMBER	R.F.	Limit State or V	MEMBER
DESIGN & LEGAL VEHICLES HS20 (72K) TYPE 3 (50K) TYPE 3S2 MAX (80K) TYPE 3-3 (80K) AASHTO LANE LOAD	0.33	Ser	V N/A Stringer	0.45	Ser	V N/A Stringer
	0.36	Ser	V N/A Stringer	0.54	Ser	V N/A Stringer
	0.35	Ser	V N/A Stringer	0.51	Ser	V N/A Floorbeam
	0.40	Ser	V N/A Stringer	0.56	Ser	V N/A Floorbeam
PERMIT VEHICLES, MULTIPLE LANES, FULL IMPACT	0.47	Ser	V N/A Stringer	0.61	Ser	V N/A Floorbeam
	0.29	Sir	V N/A Stringer	0.44	Sir	V N/A Stringer
	0.26	Sir	V N/A Stringer	0.34	Sir	V N/A Floorbeam
PERMIT VEHICLES, SINGLE LANE, FULL IMPACT	0.29	Sir	V N/A Stringer	0.42	Sir	V N/A Stringer
	0.29	Ser	V N/A Stringer	0.44	Ser	V N/A Stringer
	0.26	Ser	V N/A Stringer	0.34	Ser	V N/A Floorbeam
PERMIT VEHICLES, SINGLE LANE, 10% IMPACT	0.29	Ser	V N/A Stringer	0.42	Ser	V N/A Stringer
	0.26	Ser	V N/A Stringer	0.44	Ser	V N/A Stringer
	0.26	Ser	V N/A Stringer	0.34	Ser	V N/A Floorbeam

Attachment 3



Oregon

Theodore R. Kulongoski, Governor

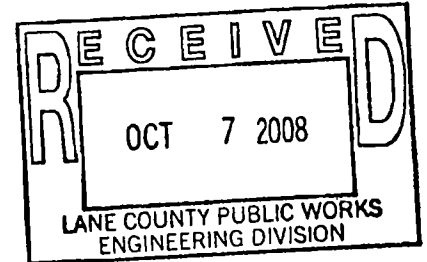
Department of Transportation

Transportation Building
355 Capitol St. NE, Rm. 301
Salem, OR 97301-3871

October 2, 2008

FILE CODE:

Bill Morgan
County Engineer
Lane County
3040 N Delta Hwy
Eugene, Oregon 97408



Bruce V. Johnson, P.E., S.E.
State Bridge Engineer

**RE: Load Restriction Recommendation
 Mosby Creek (Layng) Covered Bridge (Br.No.39C241)
 Lane County**

Mosby Creek (Layng) Covered Bridge (Br. No. 39C241) is a 135 foot long, 15 foot wide timber stringer and timber howe truss structure. The bridge is currently posted at 10 Tons for Type 3, 20 Tons for Type 3S2 and 30 Tons for Type 3-3 trucks.

The structure was last inspected in November, 2006. The inspector reported decay and splits throughout the stringers and the truss. The truss is also slightly leaning. The inspector noted in the report to monitor these items.

Based on results of the load rating, we recommend the bridge be posted at 8 tons for all vehicles. Compression forces in the diagonal members of the truss control the rating. Attached are the Posting Summary Sheet and the Load Rating Summary.

Attachment 3

Posting Responsibility

ODOT recommends the bridge be posted for load until repaired or replaced. It is ultimately the county's responsibility to have the structure posted. The correct posting signs should be in place no later than December 1, 2008. The posting signs should look like figure R12-1, as shown on the last page of this letter.

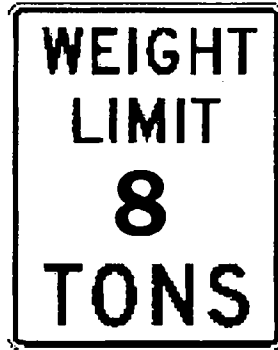
To assist us in managing the bridge load rating program, please let us know as soon as the new posting signs are installed. Please send a digital image of the posting sign to verify the posting complies with ODOT recommendations. Contact Joe Charbonneau, Load Rating Engineer, (503) 986-3387, for any questions on these issues.

cc: Kerry Werner, Design Engineer, Lane County Public Works
Bert Hartman, Bridge Program Unit Manager
Gary Bowling, Bridge Operations Managing Engineer
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Tim Rogers, FHWA Oregon Division Bridge Engineer
Holly Winston, Senior Local Bridge Standards Engineer

bc: Richard Groff, Senior Load Rating Engineer
Nam Bui, Local Agency Load Rating Engineer
Joe Charbonneau, Load Rating Engineer

Attachment 3

Weight Limit Signs from MUTCD figure 2B-20, page 2B-44.



R12-1



Attachment 3

Oregon Department of Transportation Technical Services Branch

Bridge Engineering Section
Local Agency Bridge Load Rating
Posting Summary Sheet

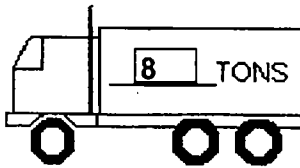
Local Agency: Lane County

NBIS Bridge Number: 39C241

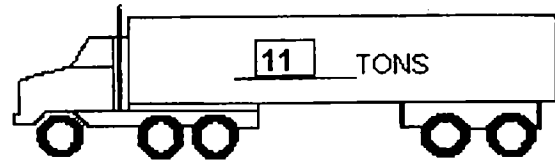
Date: 7/25/2006

Truck	Inventory	Operating	Posting Required
HS Equivalent	HS 5	HS 8	N/A
HS 20 (36 Ton)	8.6 Tons	14.4 Tons	N/A
Type 3 (25 Ton)	Tons	8.3 Tons	YES
Type 3S2 (40 Ton)	Tons	11.2 Tons	YES
Type 3-3 (40 Ton)	Tons	10.4 Tons	YES
Permit 5 (60.25 Ton)	Tons	12.7 Tons	N/A
Permit 6 (75.25 Ton)	Tons	12.8 Tons	N/A
Permit 7 (92.5 Ton)	Tons	15.7 Tons	N/A

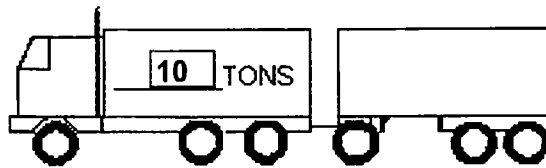
OREGON LEGAL LOADS RECOMMENDED POSTING



TYPE 3



TYPE 3S2



TYPE 3-3

COMMENTS:

Expires: _____



OREGON D.O.T. BRIDGE SECTION
LOAD RATING SUMMARY REPORT (PAGE 1)

For local agency bridges. Latest Revision 2/10/2006

BRIDGE DATA...

BRIDGE #: 39C241 NBI FEATURE: Mosby Creek
 BRIDGE NAME: Mosby Creek (Laying) Covered Bridge HIGHWAY #: 0.04
 HIGHWAY NAME: Laying Road REGION: 2 DIST: 05 COUNTY: Lane MILEPOST: 0.04
 YEAR BUILT: 1938 DESIGN LOADING: Unknown (H107) OWNER: Lane County
 SPAN DESC: 8'-9" Timber Stringer, 17'-3" Timber Stringer, ~90" Timber Howe Truss, 18'-5" Timber Stringer
 OTHER DESC:

LOAD RATING ENGINEER DATA...

RATING DATE: 7/25/06 FIRM: Parsons Brinckerhoff Inc. ENGINEER: M. Miller CALCULATION BOOK:

LATEST INSPECTION DATA...

INSPECTION DATE: 10/21/04 ADT: 267 IMPACT ASSESSMENT (Elem. 325): 2004 A.C. DEPTH, INCHES: 0.0
 DECK: 6 SUPERSTR.: 5 SUBSTR.: 2 WEAR SURFACE (Elem. 326): CS1
 CONDITION RATINGS → 6

RATING DATA...

LRFD FACTORS: IMPACT I+I: 1.00 γ_o: 1.20 γ₁: 1.30 DISTRI. FACTORS: Operational Status (Item 41): P
 LOAD FACTOR LOAD RATINGS FOR N.B.I.: INVENTORY: HS 4.8 OPERATING: HS 8.0 Bridge Posting Status (Item 70): 0
 INVENTORY CODE: (2-tions): 209 OPER. CODE: (2-tions): 214 Multiple Lanes: 1,000 Temporary Status (Item 103): 0
 SECTIONS EVALUATED: 20 COMMENTS: Allowable stress method was used to rate timber members. LRFR and NBI methods were used to rate steel vertical rods. Rating for timber mem

LOAD:	← 1st rating control →				← 2nd rating control →					
	R.F.	Limit State	+/-M or V	CONTROLLING... MEMBER	R.F.	Limit State	+/-M or V	CONTROLLING... MEMBER	SPAN	LOCATION
DESIGN & LEGAL VEHICLES HS20 (72K) TYPE 3 (50K) TYPE 3S2 MAX (80K) TYPE 3-3 (80K) AASHTO LANE LOAD	0.24	Sir	-P	N/A LO-U1 (diagonal)	0.27	Ser	V	N/A Stringer	1	1.0L
	0.33	Ser	V	N/A Stringer	0.33	Sir	-P	N/A LO-U1 (diagonal)	3	0.5L
	0.28	Sir	-P	N/A LO-U1 (diagonal)	0.33	Ser	V	N/A Stringer	3	1.0L
	0.26	Sir	-P	N/A LO-U1 (diagonal)	0.36	Ser	V	N/A Stringer	3	1.0L
PERMIT VEHICLES, MULTIPLE LANES, FULL IMPACT	0.27	Sir	-P	N/A LO-U1 (diagonal)	0.42	Ser	V	N/A Stringer	1	1.0L
	0.21	Sir	-P	N/A LO-U1 (diagonal)	0.27	Sir	V	N/A Stringer	3	1.0L
	0.17	Sir	-P	N/A LO-U1 (diagonal)	0.24	Sir	V	N/A Stringer	3	1.0L
PERMIT VEHICLES, SINGLE LANE, FULL IMPACT	0.17	Sir	-P	N/A LO-U1 (diagonal)	0.27	Sir	V	N/A Stringer	3	1.0L
	0.21	Sir	-P	N/A LO-U1 (diagonal)	0.27	Ser	V	N/A Stringer	3	1.0L
	0.17	Sir	-P	N/A LO-U1 (diagonal)	0.27	Ser	V	N/A Stringer	3	1.0L
PERMIT VEHICLES, SINGLE LANE, 10% IMPACT	0.19	Sir	-P	N/A LO-U1 (diagonal)	0.24	Ser	V	N/A Stringer	3	1.0L
	0.15	Sir	-P	N/A LO-U1 (diagonal)	0.22	Ser	V	N/A Stringer	3	1.0L
	0.15	Sir	-P	N/A LO-U1 (diagonal)	0.24	Ser	V	N/A Stringer	3	1.0L

Attachment 4

LEMHOUSE Brad

From: CHARBONNEAU Joseph P * Joe [Joseph.P.CHARBONNEAU@odot.state.or.us]
Sent: Thursday, November 13, 2008 10:56 AM
To: LEMHOUSE Brad
Cc: HARTMAN Bert H
Subject: Lane County Covered Bridges 39C176 & 39C241

Hi Brad,

I have attached the Load Rating Summary Sheets for Bridges 39C176 (Mohawk River Covered Bridge) and 39C241 (Mosby Creek Covered Bridge)

Bus descriptions: BUS_1 has 12k front axle, 24k back axle with 20.33 foot spacing

BUS_2 has 15.2k front axle, 23k back axle with 22.75 foot spacing

BUS_3 has 10k front axle, 21k back axle with 22.67 foot spacing

In all three situations, the rating factors are well below 1.0 (ranging between 0.40 and 0.50), meaning axle loads are considerably more than the bridges should experience. The design loading used in the 1920s and 30s was considerably smaller than the loads we design for now. The legal single axle weight for a truck presently is 20k.

As indicated in the letter sent to you last month, these structures should be posted for less than 10 tons.

Please let me know if you need further assistance. Thanks Brad.

<<LR39C176.xls>>

<<LR39C241.xls>>

Joe Charbonneau, PE

Load Rating Engineer

Bridge Program Unit

Oregon Dept. of Transportation

355 Capitol St NE, Room 320

Salem, OR 97301-3871

Ph: 503-986-3387 Fax: 503-986-3407

email: joseph.p.charbonneau@odot.state.or.us

11/13/2008

Attachment 4

OREGON D.O.T. BRIDGE SECTION LOAD RATING WORKSHEET (PAGE 3)

BRIDGE NO: 39C176
BRIDGE NAME: Mohawk River (Earnest) Covered Bridge
RATING DATE: 07/21/2006

SECTION EVALUATED	9th	10th	11th	12th	13th	14th	15th	16th
LRFD Brass OUT File Name: FORCE TYPE (+/M or V): PHI (Resistance Factor): MEMBER (eg. Int. girder): SPAN (eg. 1 of 4): LOCATION (eg. 0.1L): AASHTO Impact (1-I) P/S Only:	SPAN3-2.MCD +M N/A Stringer 1-2 0.5L	SPAN3-2.MCD V N/A Stringer 1-2 1.0L	SPAN3-BAY1.MCD +M N/A Stringer 3 0.5L	SPAN3-BAY1.MCD V N/A Stringer 3 1.0L	SPAN3-BAY2-4.MCD +M N/A Stringer 3 0.5L	SPAN3-BAY2-4.MCD V N/A Stringer 3 1.0L	FLOORBM.MCD +M N/A Floorbeam 3 0.5L	FLOORBM.MCD V N/A Floorbeam 3 1.0L
NBI RATINGS (HS20 VEHICLE) INVENTORY (HS20) OPERATING (HS20)	0.49 0.81	0.45 0.74	0.46 0.77	0.33 0.54	0.92 1.53	0.67 1.11	0.94 1.56	0.49 0.81
DESIGN & LEGAL VEHICLES HS20 (72K) TYPE 3 (50K) TYPE 3S2 MAX (80K) TYPE 3-3 (80K) AASHTO LANE LOAD	0.49 Ser 0.56 Ser 0.54 Ser 0.58 Ser 0.62 Ser	0.45 Ser 0.54 Ser 0.53 Ser 0.57 Ser 0.71 Ser	0.46 Ser 0.59 Ser 0.59 Ser 0.72 Ser 0.65 Ser	0.33 Ser 0.36 Ser 0.35 Ser 0.40 Ser 0.47 Ser	0.92 Ser 1.17 Ser 1.17 Ser 1.43 Ser 1.28 Ser	0.67 Ser 0.74 Ser 0.74 Ser 0.81 Ser 0.95 Ser	0.94 Ser 1.10 Ser 0.97 Ser 1.07 Ser 1.17 Ser	0.49 Ser 0.57 Ser 0.51 Ser 0.56 Ser 0.61 Ser
PERMIT VEHICLES, MULTIPLE LANES, FULL IMPACT PERMIT-5 (120.5K) PERMIT-6 (150.5K) BUS_3 BUS_1 BUS_2	0.46 Ser. 0.35 Ser.	0.44 Ser. 0.38 Ser.	0.49 Ser. 0.43 Ser. 0.72 Ser. 0.66 Ser. 0.63 Ser	0.29 Ser. 0.26 Ser. 0.48 Ser. 0.43 Ser. 0.42 Ser	0.97 Ser. 0.85 Ser.	0.60 Ser. 0.53 Ser.	0.89 Ser. 0.66 Ser.	0.46 Ser. 0.34 Ser.
PERMIT VEHICLES, SINGLE LANE, FULL IMPACT PERMIT-5 (120.5K) PERMIT-6 (150.5K) PERMIT-7 (185.0K) BUS_1 BUS_2	0.46 Ser 0.35 Ser	0.44 Ser 0.38 Ser	0.49 Ser 0.43 Ser 0.72 Ser 0.66 Ser 0.63 Ser	0.29 Ser 0.26 Ser 0.48 Ser 0.43 Ser 0.42 Ser	0.97 Ser 0.85 Ser	0.60 Ser 0.53 Ser	0.89 Ser 0.66 Ser	0.46 Ser 0.34 Ser
PERMIT VEHICLES, SINGLE LANE, 10% IMPACT PERMIT-5 (120.5K) PERMIT-6 (150.5K) PERMIT-7 (185.0K) BUS_1 BUS_2	0.41 Ser 0.32 Ser	0.40 Ser 0.34 Ser	0.45 Ser 0.39 Ser 0.65 Ser 0.60 Str 0.57 Str	0.26 Ser 0.24 Ser 0.44 Ser 0.39 Str 0.38 Str	0.89 Ser 0.77 Ser	0.54 Ser 0.48 Ser	0.80 Ser 0.60 Ser	0.42 Ser 0.31 Ser

Attachment 4

OREGON D.O.T. BRIDGE SECTION LOAD RATING WORKSHEET (PAGE 4)									
BRIDGE NO: 39C241 RATING DATE: 07/25/2006 BRIDGE NAME: Mosby Creek (Laying) Covered Bridge									
SECTION EVALUATED	17th	18th	19th	20th	21st	22nd	23rd	24th	
LRFD Brass OUT File Name: FORCE TYPE (+/-M or V): PHI (Resistance Factor): MEMBER (eg. Int. girder): SPAN (eg. 1 of 4): LOCATION (eg. 0.1L): AASHTO Impact (1+) P/S Only:	SPAN4.MCD +M N/A Stringer 4 0.5L	SPAN4.MCD V N/A Stringer 4 1.0L	FLOORBM.MCD +M N/A Floorbeam 3 0.5L	FLOORBM.MCD V N/A Floorbeam 3 1.0L					
NBI RATINGS (HS20 VEHICLE) INVENTORY (HS20) OPERATING (HS20)	0.49 0.81	0.50 0.83	0.66 1.09	0.43 0.72					
DESIGN & LEGAL VEHICLES HS20 (72K) TYPE 3 (50K) TYPE 3S2 MAX (80K) TYPE 3-3 (80K) AASHTO LANE LOAD	0.49 Ser 0.59 Ser 0.59 Ser 0.64 Ser 0.65 Ser	0.50 Ser 0.60 Ser 0.60 Ser 0.64 Ser 0.76 Ser	0.66 Ser 0.77 Ser 0.69 Ser 0.75 Ser 0.82 Ser	0.43 Ser 0.51 Ser 0.45 Ser 0.49 Ser 0.54 Ser					
PERMIT VEHICLES, MULTIPLE LANES, FULL IMPACT PERMIT-5 (120.5K) PERMIT-6 (150.5K) PERMIT-7 (185.0K) BUS_1 BUS_2	0.48 Ser 0.38 Ser 0.48 Ser	0.49 Ser 0.39 Ser 0.49 Ser	0.62 Ser 0.46 Ser 0.60 Ser	0.41 Ser 0.30 Ser 0.39 Ser					
PERMIT VEHICLES, SINGLE LANE, FULL IMPACT PERMIT-5 (120.5K) PERMIT-6 (150.5K) PERMIT-7 (185.0K) BUS_1 BUS_2	0.48 Ser 0.38 Ser 0.48 Ser	0.49 Ser 0.39 Ser 0.49 Ser	0.62 Ser 0.46 Ser 0.60 Ser	0.41 Ser 0.30 Ser 0.39 Ser					
PERMIT VEHICLES, SINGLE LANE, 10% IMPACT PERMIT-5 (120.5K) PERMIT-6 (150.5K) PERMIT-7 (185.0K) BUS_1 BUS_2	0.44 Ser 0.35 Ser 0.44 Ser	0.44 Ser 0.35 Ser 0.44 Ser	0.56 Ser 0.42 Ser 0.54 Ser	0.37 Ser 0.27 Ser 0.36 Ser					

IN THE BOARD OF COUNTY COMMISSIONERS
OF LANE COUNTY, OREGON

ORDER NO.

(IN THE MATTER OF REVISING THE
(CURRENT LOAD POSTING ON EARNEST
(COVERED BRIDGE (STATE BRIDGE ID
(NO. 39C176) LOCATED AT MP 0.04 ON
(PASCHELKE ROAD WITH A 9-TON
(WEIGHT LIMIT FOR ALL VEHICLES AND
(THE LOAD POSTING ON MOSBY CREEK
(COVERED BRIDGE (STATE BRIDGE ID
(NO. 39C241) LOCATED AT MP 0.20 ON
(LAYNG ROAD WITH AN 8-TON WEIGHT
(LIMIT FOR ALL VEHICLES.

WHEREAS, pursuant to ORS 810.030, the County may impose limits on any weight or dimensions of any vehicle or combination of vehicles to protect any highway or section of highway from being unduly damaged; and

WHEREAS, the current posting on both bridges is 10 tons for a Type 3 truck, 20 tons for a Type 3S2 truck, and 30 tons for a Type 3-3 truck; and

WHEREAS, analysis of the most recent bridge inspection and load rating report has prompted the State Bridge Engineer to recommend that Earnest Covered Bridge be posted for 9 tons for all vehicles and Mosby Creek Covered Bridge be posted for 8 tons for all vehicles;

NOW THEREFORE

IT IS ORDERED, that the load posting on Earnest Covered Bridge (State Bridge ID No. 39C176) located at MP 0.04 on Paschelke Road be posted for a 9-ton weight limit for all vehicles and on Mosby Creek Covered Bridge (State Bridge ID No. 39C241) located at MP 0.20 on Layng Road be posted for an 8-ton weight limit for all vehicles.

DATED this _____ day of _____, 2008.

APPROVED AS TO FORM

Date: 11-20-08 Lane County



OFFICE OF LEGAL COUNSEL

Chair,
Board of County Commissioners