

LOAD RATING & POSTING UPDATES

Jennifer Hart, PE

LoadRating@indot.in.gov

INDOT Bridge Evaluation



Resources for All ...State and LPA

Manual for Bridge
Evaluation, 3rd Edition,
with 2020 and 2022
Interim Revisions
(MBE)

Manual on Uniform
Traffic Control Devices
for Streets and
Highways 11th Edition
(MUTCD)

Specifications for the
National Bridge
Inventory (SNBI) Errata
Number 1

FAST Act's Emergency
Vehicles Questions
and Answers R01,
March 16

INDOT Bridge
Inspection Manual –
Updates in progress

Bridge Rating
Application Database
of Indiana (BRADIN)

Code of Federal
Regulations



INDOT Bridge Inspection Memo 24-03



INDIANA DEPARTMENT OF TRANSPORTATION

Driving Indiana's Economic Growth

Bridge Inspection Memorandum No. 24-03 Verification of Bridge Weight Restrictions

October 15, 2024

TO: All Inspection Personnel and Consultants

FROM: /s/ Anthony Marino SPM
Anthony Marino, P.E.
Bridge Inspection State Program Manager
Bridge Management Division

SUBJECT: Verification of Bridge Weight Restrictions

REFERENCE: 23 CFR 650.313 (l), (p), (q)

EFFECTIVE: Immediately




INDOT Bridge Inspection Memo 24-03


1. Each county, through the county’s current bridge inspection consulting firm responsible for the county’s bridge inspection program, shall review all Legal and Routine Permit Safe Posting Loads reported in BRADIN for each bridge within the county’s bridge asset inventory. The Safe Posting Loads reported in BRADIN for each bridge shall be compared and validated against the values coded for NBI Item 41: Structure Open, Posted, or Closed to Traffic and NBI Item 70: Bridge Posting.


5.2 - LOAD POSTING STATUS


B.PS.01 - Load Posting Status PO


B.PS.02 - Posting Status Change Date


 ITAMS

 Current Values

 ERMS Documents

 5.3 – LOAD EVAL & POSTING

 LEGACY CODING

 POSTING SIGNS

LEGACY Coding

(65) Inventory Rating Method	LRFR - Load and Resistance Factor Rating	(31) Design Load	A - HL93
(66) Inventory Rating	1.16	(70) Bridge Posting	5 - EQUAL TO OR ABOVE LEGAL LOADS
(63) Operating Rating Method	LRFR - Load and Resistance Factor Rating	(41) Structure Open/Posted/Closed	A - Open
(64) Operating Rating	1.57	Tons Posted	
		Date Posted/Closed	



INDOT Bridge Inspection Memo 24-03

2. All bridges that require installation of either Commercial Weight Limit signs or Emergency Vehicle Weight Limit signs (or both) shall have the weight limit tonnage values currently posted at all the bridge asset structures reviewed for accuracy and validated against the required Safe Posting Loads reported in BRADIN.



iTAMS

powered by BeyondAsset

≠ POSTING SIGNS

Maximum allowable per the load rating:

**WEIGHT
LIMIT
17
TONS**

**EMERGENCY
VEHICLE
WEIGHT LIMIT**
SINGLE AXLE 16T
TANDEM 20T
GROSS 27T



INDOT Bridge Inspection Memo 24-03

**Data may be
queried from
BRADIN**

3. On behalf of each county, bridge inspection consulting firms shall submit an individual county summary report to the INDOT State Program Manager for Bridge Inspections for each county that they are responsible. Each county summary report shall include the following tabulated information for all bridges within the county's bridge asset inventory:
 - a. NBI Number.
 - b. Bridge Structure Number.
 - c. NBI Item 41 coded value.
 - d. NBI Item 70 coded value.
 - e. Maximum allowable Commercial and Emergency Vehicle Weight Limit values (in Tons) as calculated per the load rating factors in BRADIN. If no weight limit is required, report "N".
 - f. Actual Commercial and Emergency Vehicle Weight Limit values (in Tons) posted at each bridge end and nearest roadway intersections. If none in place, report "N"

Each county summary report shall be signed and dated by the consulting firm's QC/QA Officer attesting to the fact that the information provided has been properly completed and reviewed for accuracy in accordance with the firm's Quality Control and Quality Assurance Procedures for Bridge Inspection.



INDOT Bridge Inspection Memo 24-03

Select Columns for Dashboard Export

Rating Status

☐ Bridge is Active

☒ Submitted Date

☒ Created Date

☐ Rating ID

☐ Submitted By

☐ Created By

☐ Rating is Active

☒ Revision Date

☐ Submitted

☐ Revision By

Select All

Deselect All

Rating Header

☒ NBI

☐ Deterioration Included

☐ Shop Drawings Available

☐ Rater Name

☐ B.L.R.04 – Load Rating Method

☐ B.L.R.08 – Routine Permit Loads

☐ B.P.S.02 – Posting Status Change Date

☐ (64) Operating Rating

☐ Tons Posted

☐ Posted Tonnage (Gross) CV

☐ Posted Tonnage (5-Axle) CV

☐ Posted Tonnage (Tandem) EV

☒ Bridge #

☐ DES

☐ Rating Program

☐ B.L.R.01 – Design Load

☐ B.L.R.05 – Inv. Load Rating Factor

☐ Toll Road

☐ (65) Inventory Rating Method

☐ (31) Design Load

☐ Date Posted/Closed

☐ Posted Tonnage (2-Axle) CV

☐ Posted Tonnage (6-Axle) CV

☐ Posted Tonnage (Gross) EV

☒ Parent Asset

☐ SPMS Contract #

☐ Program Version

☐ B.L.R.02 – Design Method

☐ B.L.R.06 – Oper. Load Rating Factor

☐ Extra Heavy Duty Highway

☐ (66) Inventory Rating

☒ (70) Bridge Posting

☐ Commercial Vehicle Sign

☐ Posted Tonnage (3-Axle) CV

☐ Emergency Vehicle Sign

☐ Notes

☐ Rehab Designation

☐ Plans Available

☐ Rating Firm

☐ B.L.R.03 – Load Rating Date

☐ B.L.R.07 – Controlling Legal Load Rating Factor

☐ B.P.S.01 – Load Posting Status

☐ (63) Operating Rating Method

☒ (41) Structure Open / Posted / Closed

☐ Posted Tonnage (Single Axle) CV

☐ Posted Tonnage (4-Axle) CV

☐ Posted Tonnage (Single Axle) EV

Select All

Deselect All

Design Inventory Loads

Design Operating Loads

Legal and Routine Permit Loads

Special Permit Loads

Select All

Deselect All

Export



INDOT Bridge Inspection Memo 24-03

Select Columns for Dashboard Export

Rating Status

Rating Header

Design Inventory Loads

Design Operating Loads

Legal and Routine Permit Loads

☐ EV2: Legal RF

☒ EV Single Axle: Legal SPL

☐ NRL: Legal RF

☐ Alternate Military: Legal RF

☐ HS20-44: Legal LC

☐ AASHTO Type 3: Legal SPL

☐ Toll Road Loading #2: Routine Permit RF

☐ AASHTO Type 3S2: Legal LC

☐ SU5: Legal SPL

☐ AASHTO Type 3-3: Legal RF

☐ Lane Type: Legal LC

☐ SU6: Legal SPL

☐ SU7: Legal RF

☐ Michigan Train Truck #5: Routine Permit LC

☐ Michigan Train Truck #8: Routine Permit SPL

☐ EV2: Legal LC

☒ EV Tandem: Legal SPL

☐ H20-44: Legal RF

☐ Alternate Military: Legal LC

☐ HS20-44: Legal SPL

☐ SU4: Legal RF

☐ Toll Road Loading #2: Routine Permit LC

☐ AASHTO Type 3S2: Legal SPL

☐ Toll Road Loading #1: Routine Permit RF

☐ AASHTO Type 3-3: Legal LC

☐ Lane Type: Legal SPL

☐ Special Toll Road Truck: Routine Permit RF

☐ SU7: Legal LC

☐ Michigan Train Truck #5: Routine Permit SPL

☐ EV3: Legal RF

☒ EV Gross: Legal SPL

☐ H20-44: Legal LC

☐ Alternate Military: Legal SPL

☐ AASHTO Type 3: Legal RF

☐ SU4: Legal LC

☐ Toll Road Loading #2: Routine Permit SPL

☐ SU5: Legal RF

☐ Toll Road Loading #1: Routine Permit LC

☐ AASHTO Type 3-3: Legal SPL

☐ SU6: Legal RF

☐ Special Toll Road Truck: Routine Permit LC

☐ SU7: Legal SPL

☐ Michigan Train Truck #8: Routine Permit RF

☐ EV3: Legal LC

☒ CV Gross: Legal SPL

☐ H20-44: Legal SPL

☐ HS20-44: Legal RF

☐ AASHTO Type 3: Legal LC

☐ SU4: Legal SPL

☐ AASHTO Type 3S2: Legal RF

☐ SU5: Legal LC

☐ Toll Road Loading #1: Routine Permit SPL

☐ Lane Type: Legal RF

☐ SU6: Legal LC

☐ Special Toll Road Truck: Routine Permit SPL

☐ Michigan Train Truck #5: Routine Permit RF

☐ Michigan Train Truck #8: Routine Permit LC

✓ Select All

✗ Deselect All

Special Permit Loads

✓ Select All

✗ Deselect All

Export



INDOT Bridge Inspection Memo 24-03

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Submitted Date	Revision Date	Created Date	NBI	Bridge #	Parent Asset	(70) Bridge Posting	(41) Structure Open / Posted / Closed	EV Single Axle: Legal SPL	EV Tandem: Legal SPL	EV Gross: Legal SPL	CV Gross: Legal SPL	
137	4/8/19 8:11 AM	6/30/23 8:03 AM	4/8/19 8:09 AM	0100150	01-00150	Adams	5 - EQUAL TO OR ABOVE LEGAL LOADS	A - Open					
138	9/27/24 11:09 AM	9/27/24 11:09 AM	9/26/24 12:42 PM	0100151	01-00151	Adams	5 - EQUAL TO OR ABOVE LEGAL LOADS	A - Open					
139	5/28/19 8:32 AM	6/30/23 8:03 AM	5/24/19 11:01 AM	0100152	01-00134	Adams	5 - EQUAL TO OR ABOVE LEGAL LOADS	A - Open					
140	9/4/24 9:51 AM	9/4/24 9:51 AM	8/22/24 3:51 PM	0100154	01-00154	Adams	5 - EQUAL TO OR ABOVE LEGAL LOADS	A - Open					
141	4/2/19 1:52 PM	6/30/23 8:03 AM	4/2/19 10:35 AM	0100155	01-00155	Adams	5 - EQUAL TO OR ABOVE LEGAL LOADS	A - Open					
142	4/2/19 1:55 PM	6/30/23 8:03 AM	4/2/19 10:37 AM	0100156	01-00156	Adams	5 - EQUAL TO OR ABOVE LEGAL LOADS	A - Open					
143	3/5/19 10:17 AM	6/30/23 8:03 AM	2/25/19 12:02 PM	0100157	01-00177	Adams	5 - EQUAL TO OR ABOVE LEGAL LOADS	A - Open					
144	9/27/24 11:08 AM	9/27/24 11:08 AM	9/25/24 12:08 PM	0100158	01-00164	Adams	5 - EQUAL TO OR ABOVE LEGAL LOADS	A - Open					
145	4/2/19 2:14 PM	6/30/23 8:03 AM	4/2/19 10:49 AM	0100159	01-00180	Adams	5 - EQUAL TO OR ABOVE LEGAL LOADS	A - Open					
146	3/5/19 10:19 AM	6/30/23 8:03 AM	2/25/19 12:04 PM	0100160	01-00179	Adams	5 - EQUAL TO OR ABOVE LEGAL LOADS	A - Open					
147	3/4/19 2:52 PM	6/30/23 8:03 AM	2/25/19 10:28 AM	0100161	01-00066	Adams	5 - EQUAL TO OR ABOVE LEGAL LOADS	A - Open					
148	4/2/19 2:08 PM	6/30/23 8:03 AM	4/2/19 10:45 AM	0100162	01-00167	Adams	5 - EQUAL TO OR ABOVE LEGAL LOADS	A - Open					
149	3/4/19 2:49 PM	6/30/23 8:03 AM	2/25/19 10:27 AM	0100163	01-00060	Adams	5 - EQUAL TO OR ABOVE LEGAL LOADS	A - Open					
150	3/4/19 2:55 PM	6/30/23 8:03 AM	2/25/19 10:30 AM	0100164	01-00071	Adams	5 - EQUAL TO OR ABOVE LEGAL LOADS	A - Open					
151	3/4/19 2:41 PM	6/30/23 8:03 AM	2/25/19 10:23 AM	0100165	01-00034	Adams	5 - EQUAL TO OR ABOVE LEGAL LOADS	A - Open					
152	4/2/19 1:23 PM	6/30/23 8:03 AM	4/2/19 10:16 AM	0100166	01-00099	Adams	5 - EQUAL TO OR ABOVE LEGAL LOADS	A - Open					
153	3/5/19 9:20 AM	6/30/23 8:03 AM	2/25/19 11:25 AM	0100167	01-00126 B	Adams	5 - EQUAL TO OR ABOVE LEGAL LOADS	A - Open					
154	3/4/19 3:44 PM	6/30/23 8:03 AM	2/25/19 10:51 AM	0100168	01-00088 B	Adams	5 - EQUAL TO OR ABOVE LEGAL LOADS	A - Open					
155	3/22/19 10:46 AM	6/30/23 8:03 AM	3/20/19 7:12 AM	0100169	01-00078 B	Adams	5 - EQUAL TO OR ABOVE LEGAL LOADS	A - Open					
156	9/4/24 9:43 AM	9/4/24 9:43 AM	8/22/24 3:41 PM	0100171	01-00082 B	Adams	5 - EQUAL TO OR ABOVE LEGAL LOADS	A - Open					
157	9/4/24 9:49 AM	9/4/24 9:49 AM	8/22/24 3:49 PM	0100172	01-00139 B	Adams	5 - EQUAL TO OR ABOVE LEGAL LOADS	A - Open					
158	9/4/24 9:47 AM	9/4/24 9:47 AM	8/22/24 3:45 PM	0100173	01-00117 B	Adams	5 - EQUAL TO OR ABOVE LEGAL LOADS	A - Open					
159	9/27/24 10:58 AM	9/27/24 10:58 AM	9/25/24 11:42 AM	0100174	01-00075 B	Adams	5 - EQUAL TO OR ABOVE LEGAL LOADS	A - Open					
160	11/2/21 1:18 PM	6/30/23 8:03 AM	11/2/21 12:58 PM	0100301	01-00703	Adams	5 - EQUAL TO OR ABOVE LEGAL LOADS	A - Open					
161	9/20/21 7:58 AM	6/30/23 8:03 AM	9/9/21 12:37 PM	0100302	01-00722	Adams	5 - EQUAL TO OR ABOVE LEGAL LOADS	A - Open					
162	11/2/21 1:48 PM	6/30/23 8:03 AM	11/2/21 1:34 PM	0100303	01-00769	Adams	0 - MORE THAN 39.9% BELOW LEGAL LOADS	P - Posted for Load	13.9025	16.43	22.79	19.3607	
163	11/12/19 7:38 AM	6/30/23 8:03 AM	11/11/19 12:56 PM	0100304	01-00181	Adams	5 - EQUAL TO OR ABOVE LEGAL LOADS	A - Open					
164	9/6/22 3:45 PM	6/30/23 8:03 AM	9/6/22 3:29 PM	0100305	01-00106 B	Adams	5 - EQUAL TO OR ABOVE LEGAL LOADS	A - Open					
165	9/27/24 11:06 AM	9/27/24 11:06 AM	9/27/24 11:03 AM	0100306	01-00182	Adams	5 - EQUAL TO OR ABOVE LEGAL LOADS	A - Open					
166													



Bridge # / NBI # / DES #: Rating ID: Parent Asset:

☐ Include Superseded Reports ☐ Include In-Progress Reports

	NBI	Bridge #	DES	Rating ID	In-Service R...	Submitted Date	Revision Date	Rehab Designation	Deterioration Included	B.L.R.03 – Load Rati...
Page 1 of 0										

INDOT Bridge Inspection Memo 24-03

- For all bridges that require the installation of weight limit posting signs, the responsible bridge inspection consulting firm shall ensure that current and clear photograph documentation showing all required weight limit signs installed at both bridge ends and advanced warning at the respective nearest roadway intersections, and in accordance with the MUTCD, are uploaded to the Photos tab within the iTAMS Bridge Asset File and correctly identified as “Load Posting” for the photo type.

Photographs of weight limit signs that are only attached to either the most recent bridge inspection report or critical finding report by itself are no longer considered sufficient by INDOT for Metric 14 compliance; current and clear weight limit signs must be uploaded and maintained in the Photos tab within the iTAMS Bridge Asset File for each bridge requiring weight limit restrictions.

< Asset Info Elements Critical Findings Inspections Audits Maintenance/History Documents Photos Linked assets Masters forum >

comments Name From SEARCH RESET

Name asc ACTIONS OPTIONS

Approach Alignment



Posting 96th St at US 421

Approach Alignment



Posting 96th St at US31

Approach Alignment



Posting North approach

Approach Alignment



Posting sign at 86th St

Approach Alignment



Posting South approach

Edit

+ Add

+ Button add many

Export

Export to

Download



INDOT Bridge Inspection Memo 24-03

5. A critical finding shall be submitted for any bridge missing required Commercial or Emergency Vehicle Weight Limit signs or displaying tonnage values that are greater than the maximum weight limit values allowable by the Safe Posting Loads reported in BRADIN.

INDOT Bridge Evaluation will coordinate with the INDOT Districts and the District Bridge Inspection Supervisors to ensure that all required Commercial and Emergency Vehicle weight limit requirements are satisfied for the State's bridge inventory.

These actions shall be completed by **January 31, 2025**.



BRADIN Development & SNBI

IN.gov

INDOT

Bridge Rating Application Database of Indiana

HOME

HELP

CONTACT

SIGN OUT

Welcome Caleb Hatting

Home / NBI - 005004 / Rating - 60809

NBI: 005004 Bridge: (19)21-52-01435 A

Rehab Designation	A	Rating Program	CANDE / Spreadsheet
Deterioration Included	FALSE	Program Version	
DES		Rating Firm	IN Department of Transportation (INDOT)
SPMS Contract #		Rater Name	Biller, Joshua
Plans Available	FALSE		
Shop Drawings Available	No		
5.1 - LOADS AND LOAD RATING			
B.L.R.01 - Design Load	H20	Extra Heavy Duty Highway	False
B.L.R.02 - Design Method	LFD	Toll Road	No
B.L.R.03 - Load Rating Date	10/16/2020		
B.L.R.04 - Load Rating Method	EJ		
B.L.R.05 - Inv. Load Rating Factor	0.81		
B.L.R.06 - Oper. Load Rating Factor	1.35		
B.L.R.07 - Controlling Legal Load Rating Factor	1.19		
B.L.R.08 - Routine Permit Loads	C		
POSTING - COMMERCIAL VEHICLES			
Commercial Vehicle Sign		Posted Tonnage (2-Axle)	
Posted Tonnage (Single Axle)		Posted Tonnage (3-Axle)	
		Posted Tonnage (4-Axle)	
		Posted Tonnage (5-Axle)	
Posted Tonnage (Gross)		Posted Tonnage (6-Axle)	

5.2 - LOAD POSTING STATUS

B.L.P.S.01 - Load Posting PO
Status

B.L.P.S.02 - Posting
Status Change Date

5.3 - LOAD EVAL & POSTING

LEGACY CODING

POSTING SIGNS

POSTING - EMERGENCY VEHICLES

Emergency Vehicle
Sign




Posted Tonnage (Single
Axle)

Posted Tonnage
(Tandem)

Posted Tonnage



BRADIN Development & SNBI – Subsection 5.1

 Bridge Rating Application Database of Indiana



Home / NBI - 005004 / Rating - 60809

NBI: 005004 Bridge: (19)21-52-01435 A

Rehab Designation	A
Deterioration Included	FALSE
DES	
SPMS Contract #	
Plans Available	FALSE
Shop Drawings Available	No

5.1 - LOADS AND LOAD RATING

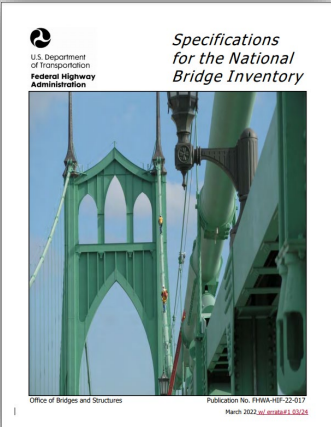
B.L.R.01 – Design Load	H20
B.L.R.02 – Design Method	LFD
B.L.R.03 – Load Rating Date	10/16/2020
B.L.R.04 – Load Rating Method	EJ
B.L.R.05 – Inv. Load Rating Factor	0.81
B.L.R.06 – Oper. Load Rating Factor	1.35
B.L.R.07 – Controlling Legal Load Rating Factor	1.19
B.L.R.08 – Routine Permit Loads	C

 iTAMS
powered by BeyondAsset

5: Loads, Load Rating, and Posting

5.1: Loads and Load Rating

(B.L.R.01) Design Load	(B.L.R.02) Design Method
H20, H-20	LFD, Load Factor Design
(B.L.R.03) Load Rating Date	(B.L.R.04) Load Rating Method
10/16/2020	EJ, Field evaluation and documented engineering judgment
(B.L.R.05) Inventory Load Rating Factor	(B.L.R.06) Operating Load Rating Factor
0.81	1.35
(B.L.R.07) Controlling Legal Load Rating Factor	(B.L.R.08) Routine Permit Loads
1.19	C, Bridge does not carry routine permit loads. Routine permit loads are not applicable.



SUBSECTION 5.1: LOADS AND LOAD RATING


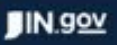
The data items in this subsection provide information on the load carrying capacity of the bridge, as well as the method used to determine the capacity and load posting. These data items are considered part of the Primary Data Set and have a one-to-one relationship with a bridge. Some of the data items remain static once a bridge has been inventoried, but others may change after reevaluation of the load rating.

The following data items are included in this subsection.

Item ID	Data Item
B.L.R.01	Design Load
B.L.R.02	Design Method
B.L.R.03	Load Rating Date
B.L.R.04	Load Rating Method
B.L.R.05	Inventory Load Rating Factor
B.L.R.06	Operating Load Rating Factor
B.L.R.07	Controlling Legal Load Rating Factor
B.L.R.08	Routine Permit Loads



BRADIN Development & SNBI – Subsection 5.2


 Bridge Rating Application Database of Indiana


Home / NBI - 005004 / Rating - 60809


NBI: 005004

Bridge: (19)21-52-01435 A

Rehab Designation	A	Rating Program
Deterioration Included	FALSE	Program Version
DES		Rating Firm
SPMS Contract #		Rater Name
Plans Available	FALSE	
Shop Drawings Available	No	

 iTAMS
powered by BeyondAsset

*Specifications
for the National
Bridge Inventory*



Office of Bridges and Structures
Publication No. FHWA-HIF-22-017
March 2022, [see errata#1.03/24](#)

SUBSECTION 5.2: LOAD POSTING STATUS

The data items in this subsection provide information on the status of the bridge with regards to weight or other load restrictions, and are considered part of the Posting Status Data Set. These data items have a many-to-one relationship with a bridge.

The posting status of a bridge may change multiple times between data submittals and throughout its service life, such as after reevaluation of the load rating. Data items in this subsection are reported for each change in posting status. Reporting posting status changes that were accepted into the NBI in prior years is not required unless it is found that the accepted data were incomplete or incorrect.

The following data items are included in this subsection.



Item ID	Data Item
B.PS.01	Load Posting Status
B.PS.02	Posting Status Change Date

5: Loads, Load Rating, and Posting

5.1: Loads and Load Rating

5.2: Load Posting Status

5.2 Load Posting Status

	 (B.PS.01) Load Posting Status	 (B.PS.02) Posting Status Date Change
#1	PO	

5.2 - LOAD POSTING STATUS

B.PS.01 - Load Posting Status PO

B.PS.02 - Posting Status Change Date



BRADIN Development & SNBI – Subsection 5.3

IN.govINDOT

Bridge Rating Application Database of Indiana


Home / NBI - 005004 / Rating - 60809

NBI: 005004 Bridge: (19)21-52-01435 A

Rehab Designation	A	Rating Program
Deterioration Included	FALSE	Program Version
DES		Rating Firm
SPMS Contract #		Rater Name
Plans Available	FALSE	
Shop Drawings Available	No	
5.1 - LOADS AND LOAD RATING		
B.L.R.01 – Design Load	H20	Extra Heavy Duty High
B.L.R.02 – Design Method	LFD	Toll Road
B.L.R.03 – Load Rating Date	10/16/2020	No
B.L.R.04 – Load Rating Method	EJ	
B.L.R.05 – Inv. Load Rating Factor	0.81	
B.L.R.06 – Oper. Load Rating Factor	1.35	
B.L.R.07 – Controlling Legal Load Rating Factor	1.19	
B.L.R.08 – Routine Permit Loads	C	

U.S. Department of Transportation
Federal Highway Administration

Specifications
for the National
Bridge Inventory



Office of Bridges and Structures
Publication No. FHWA-HIF-22-017
March 2022 w/ errata 1.03/24

SUBSECTION 5.3: LOAD EVALUATION AND POSTING

The data items in this subsection provide information on the load carrying capacity of the bridge with respect to the legal load configurations established by AASHTO, FHWA, the State transportation department, Federal agency, or Tribal government. These data items are considered part of the Posting Evaluation Data Set and have a many-to-one relationship with a bridge when applicable.

Data items in this subsection are reported, as applicable, for each AASHTO-legal load configuration evaluated, only when the bridge has undergone a load rating evaluation and each legal load configuration included in a posting when present at the bridge's posting analysis. The data for these items may change after reevaluation of the load rating.

The following data items are included in this subsection.

Item ID	Data Item
B.EP.01	Legal Load Configuration
B.EP.02	Legal Load Rating Factor
B.EP.03	Posting Type
B.EP.04	Posting Value

B.EP.03 and B.EP.04
FIELD OBSERVATIONS at the Bridge

POSTING - COMMERCIAL VEHICLES

Commercial Vehicle Sign	Posted Tonnage (2-Axle)
Posted Tonnage (Single Axle)	Posted Tonnage (3-Axle)
	Posted Tonnage (4-Axle)
	Posted Tonnage (5-Axle)
Posted Tonnage (Gross)	Posted Tonnage (6-Axle)

POSTING - EMERGENCY VEHICLES

Emergency Vehicle Sign
Posted Tonnage (Single Axle)
Posted Tonnage (Tandem)
Posted Tonnage





5.3 – LOAD EVAL & POSTING

LEGACY CODING

POSTING SIGNS

BRADIN Development & SNBI – Subsection 5.3

IN.gov

INDOT

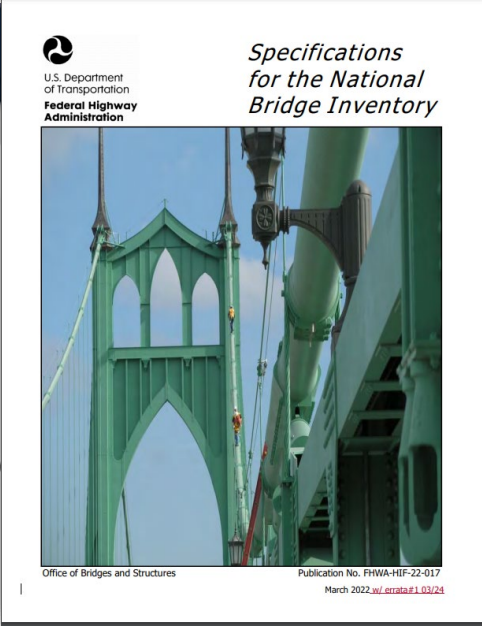
Bridge Rating Application Database of Indiana

Home / NBI - 005004 / Rating - 60809

NBI: 005004

Bridge: (19)21-52-01435 A

Rehab Designation	A	Rating Program	
Deterioration Included	FALSE	Program Version	
DES		Rating Firm	
SPMS Contract #		Rater Name	
Plans Available	FALSE		
Shop Drawings Available	No		
5.1 - LOADS AND LOAD RATING			
B.L.R.01 – Design Load	H20	Extra Heavy Duty High	
B.L.R.02 – Design Method	LFD	Toll Road	No
B.L.R.03 – Load Rating Date	10/16/2020		
B.L.R.04 – Load Rating Method	EJ		
B.L.R.05 – Inv. Load Rating Factor	0.81		
B.L.R.06 – Oper. Load Rating Factor	1.35		
B.L.R.07 – Controlling Legal Load Rating Factor	1.19		
B.L.R.08 – Routine Permit Loads	C		



SUBSECTION 5.3: LOAD EVALUATION AND POSTING

The data items in this subsection provide information on the load carrying capacity of the bridge with respect to the legal load configurations established by AASHTO, FHWA, the State transportation department, Federal agency, or Tribal government. These data items are considered part of the Posting Evaluation Data Set and have a many-to-one relationship with a bridge when applicable.

Data items in this subsection are reported, as applicable, for each AASHTO-legal load configuration evaluated, only when the bridge has undergone a load rating evaluation and each legal load configuration included in a posting when present at the bridge's posting analysis. The data for these items may change after reevaluation of the load rating.

The following data items are included in this subsection.

Item ID	Data Item
B.EP.01	Legal Load Configuration
B.EP.02	Legal Load Rating Factor
B.EP.03	Posting Type
B.EP.04	Posting Value

B.EP.03 and B.EP.04 FIELD OBSERVATIONS at the Bridge

5.3 - LOAD EVAL & POSTING

LEGACY CODING

POSTING SIGNS

5.3 - LOAD EVALUATION & POSTING

B.EP.03a - Commercial Vehicle Posting Type

B.EP.03b - Additional Posting Types

B.EP.03c - Other Posting Type

B.EP.04a - Commercial Posting Value

G - Gross

A - Single Axle

T - Truck Silhouette (R12-5 Sign)

Single-Unit

Single-Trailer

Multi-Trailer

X - Other (R12-Y5 Sign)

Posted Tonnage (2-Axle)

Posted Tonnage (3-Axle)

Posted Tonnage (4-Axle)

Posted Tonnage (5-Axle)

Posted Tonnage (6-Axle)

Posted Tonnage (7-Axle)

B.EP.03d - Emergency Vehicle Posting Type

B.EP.04d - Emergency Vehicle Posting Values

EV Posted Tonnage (Single Axle)

EV Posted Tonnage (Tandem)

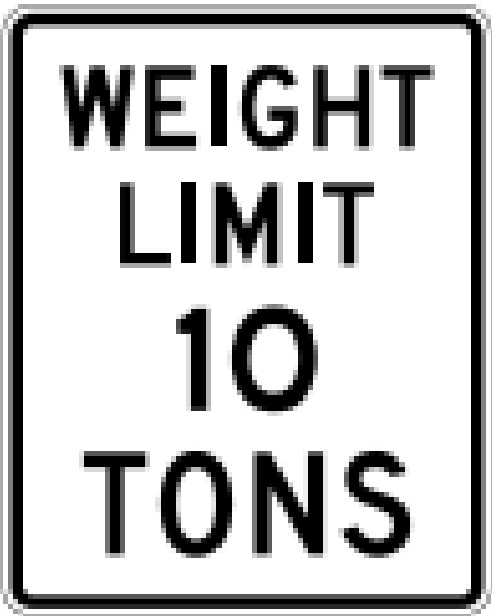
EV Posted Tonnage (Gross)



FHWA MUTCD Weight Limit Signs: G – Gross Load

- Display the lowest Safe Posting Load for all legal loads reported in BRADIN. State law does not allow this sign to include Emergency Vehicles.

PREFERRED SIGNAGE



R12-1

Truck Configuration	LRFR Code Reference
H-20	MBE 6A.4.4.2.1a
HS-20	MBE 6A.4.4.2.1a
Alternate Military	MBE 6A.4.4.2.1a
AASHTO Type 3	MBE 6A.4.4.2.1a
AASHTO Type 3S2	MBE 6A.4.4.2.1a
AASHTO Type 3-3	MBE 6A.4.4.2.1a
Lane-Type*	MBE 6A.4.4.2.1a
EV2	MBE 6A.4.4.2.1a
EV3	MBE 6A.4.4.2.1a
NRL**	MBE 6A.4.4.2.1b
SU4	MBE 6A.4.4.2.1b
SU5	MBE 6A.4.4.2.1b
SU6	MBE 6A.4.4.2.1b
SU7	MBE 6A.4.4.2.1b

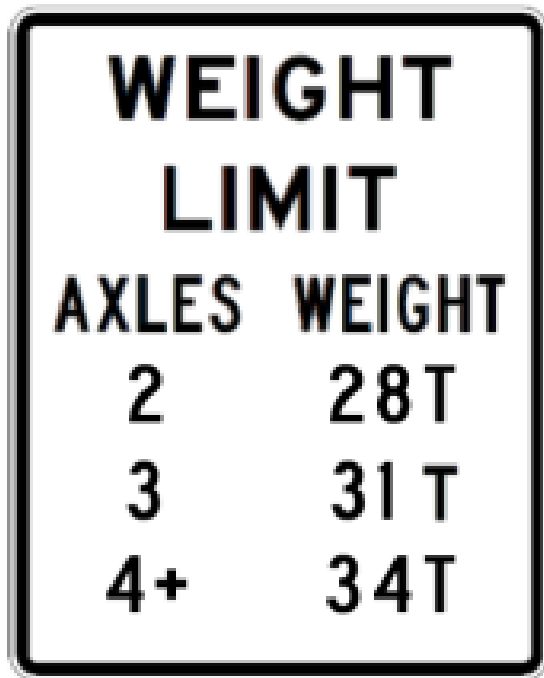
* Load and Resistance Factor Rating (LRFR) methodology only
** Not to be used for load posting. Not required for Engineering Judgment (EJ) methodology.

Figure 3-4.2 Required Legal Vehicles



FHWA MUTCD Weight Limit Signs: X – Other

PREFERRED SIGNAGE



R12-Y5

https://www.in.gov/dot/div/contracts/standards/bridge_inspection/inspector_manual/index.htm

Truck Configuration	LRFR Code Reference
H-20	MBE 6A.4.4.2.1a
HS-20	MBE 6A.4.4.2.1a
Alternate Military	MBE 6A.4.4.2.1a
AASHTO Type 3	MBE 6A.4.4.2.1a
AASHTO Type 3S2	MBE 6A.4.4.2.1a
AASHTO Type 3-3	MBE 6A.4.4.2.1a
Lane-Type*	MBE 6A.4.4.2.1a
EV2	MBE 6A.4.4.2.1a
EV3	MBE 6A.4.4.2.1a
NRL**	MBE 6A.4.4.2.1b
SU4	MBE 6A.4.4.2.1b
SU5	MBE 6A.4.4.2.1b
SU6	MBE 6A.4.4.2.1b
SU7	MBE 6A.4.4.2.1b

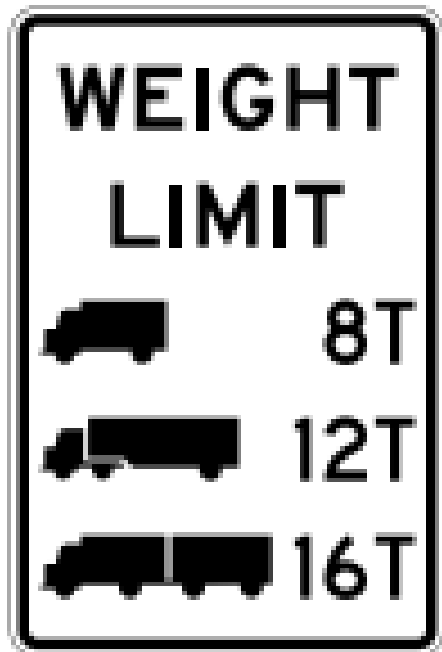
* Load and Resistance Factor Rating (LRFR) methodology only

** Not to be used for load posting. Not required for Engineering Judgment (EJ) methodology.

Figure 3-4.2 Required Legal Vehicles



FHWA MUTCD Weight Limit Signs: T – Truck Load



R12-5



Single-Unit



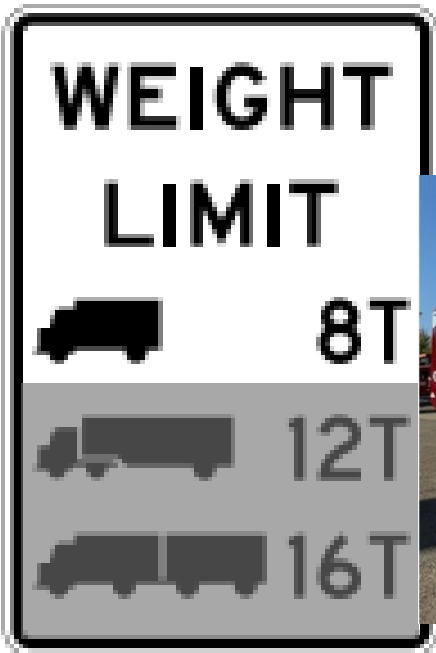
Single-Trailer



Multi-Trailer



FHWA MUTCD Weight Limit Signs: T – Truck Load



R12-5



Single-Unit

Truck Configuration	LRFR Code Reference
H-20	MBE 6A.4.4.2.1a
HS-20	MBE 6A.4.4.2.1a
Alternate Military	MBE 6A.4.4.2.1a
AASHTO Type 3	MBE 6A.4.4.2.1a
AASHTO Type 3S2	MBE 6A.4.4.2.1a
AASHTO Type 3-3	MBE 6A.4.4.2.1a
Lane-Type*	MBE 6A.4.4.2.1a
EV2	MBE 6A.4.4.2.1a
EV3	MBE 6A.4.4.2.1a
NRL**	MBE 6A.4.4.2.1b
SU4	MBE 6A.4.4.2.1b
SU5	MBE 6A.4.4.2.1b
SU6	MBE 6A.4.4.2.1b
SU7	MBE 6A.4.4.2.1b

* Load and Resistance Factor Rating (LRFR) methodology only
** Not to be used for load posting. Not required for Engineering Judgment (EJ) methodology.

Figure 3-4.2 Required Legal Vehicles



All trucks on a single frame. Truck tractor units travelling without a trailer. This includes the Specialized Haul Vehicles.

FHWA MUTCD Weight Limit Signs: T – Truck Load



R12-5



Single-Trailer

Truck Configuration	LRFR Code Reference
H-20	MBE 6A.4.4.2.1a
HS-20	MBE 6A.4.4.2.1a
Alternate Military	MBE 6A.4.4.2.1a
AASHTO Type 3	MBE 6A.4.4.2.1a
AASHTO Type 3S2	MBE 6A.4.4.2.1a
AASHTO Type 3-3	MBE 6A.4.4.2.1a
Lane-Type*	MBE 6A.4.4.2.1a
EV2	MBE 6A.4.4.2.1a
EV3	MBE 6A.4.4.2.1a
NRL**	MBE 6A.4.4.2.1b
SU4	MBE 6A.4.4.2.1b
SU5	MBE 6A.4.4.2.1b
SU6	MBE 6A.4.4.2.1b
SU7	MBE 6A.4.4.2.1b

* Load and Resistance Factor Rating (LRFR) methodology only
** Not to be used for load posting. Not required for Engineering Judgment (EJ) methodology.

Figure 3-4.2 Required Legal Vehicles



A vehicle consisting of two units, one of which is a tractor or straight truck power unit.

FHWA MUTCD Weight Limit Signs: T – Truck Load



R12-5



Multi-Trailer

Truck Configuration	LRFR Code Reference
H-20	MBE 6A.4.4.2.1a
HS-20	MBE 6A.4.4.2.1a
Alternate Military	MBE 6A.4.4.2.1a
AASHTO Type 3	MBE 6A.4.4.2.1a
AASHTO Type 3S2	MBE 6A.4.4.2.1a
AASHTO Type 3-3	MBE 6A.4.4.2.1a
Lane-Type*	MBE 6A.4.4.2.1a
EV2	MBE 6A.4.4.2.1a
EV3	MBE 6A.4.4.2.1a
NRL**	MBE 6A.4.4.2.1b
SU4	MBE 6A.4.4.2.1b
SU5	MBE 6A.4.4.2.1b
SU6	MBE 6A.4.4.2.1b
SU7	MBE 6A.4.4.2.1b

* Load and Resistance Factor Rating (LRFR) methodology only
** Not to be used for load posting. Not required for Engineering Judgment (EJ) methodology.

Figure 3-4.2 Required Legal Vehicles



A vehicle consisting of three or more units, one of which is a tractor or straight truck power unit.

FHWA MUTCD Weight Limit Signs: Emergency Vehicles G|A|D – Gross Load|Single Axle Load |Tandem Axle Load



QUESTIONS AND ANSWERS

Load Rating for the FAST Act's Emergency Vehicles

REVISION R01

March 16, 2018

Office of Bridges and Structures
Federal Highway Administration
1200 New Jersey Avenue, SE
Washington, DC 20590

Question 52

52. (Revision R01, March 16, 2018) A State has historically posted gross vehicle weight and not axle weight. In lieu of utilizing the recommended posting sign R12-7 or R12-7aP for emergency vehicles, can the State use the regular posting signs (such as R12-1, R12-5) to restrict all vehicles that exceed those posted weights?

Yes, it is acceptable to use a weight posting sign in lieu of R12-7 and R12-7aP with the following two conditions: 1) the posting limits on the sign are justified to be appropriate (generally conservative) in restricting the passage of the EVs; and 2) State law does not exempt the EVs from obeying the weight posting signs. However, for consistency and uniformity, it is strongly recommended that R12-7 or R12-7aP be utilized for bridges on the Interstate or within reasonable access.



FHWA MUTCD Weight Limit Signs: Emergency Vehicles G|A|D – Gross Load|Single Axle Load |Tandem Axle Load



QUESTIONS AND ANSWERS

Load Rating
for the FAST Act's Emergency Vehicles

REVISION R01

March 16, 2018

Office of Bridges and Structures
Federal Highway Administration
1200 New Jersey Avenue, SE
Washington, DC 20590

Does INDOT's current Bridge Inspection Manual guidance (**BIM 3-6.04**), allowing for the posting of a single tonnage GVW sign in lieu of the Emergency Vehicle sign, meet the requirements of FAST Act Q & A document?

Compare with Guidance from Q&A

1. Is the posting limit on the sign justified to be appropriate (generally conservative) in restricting passage of the EVs?



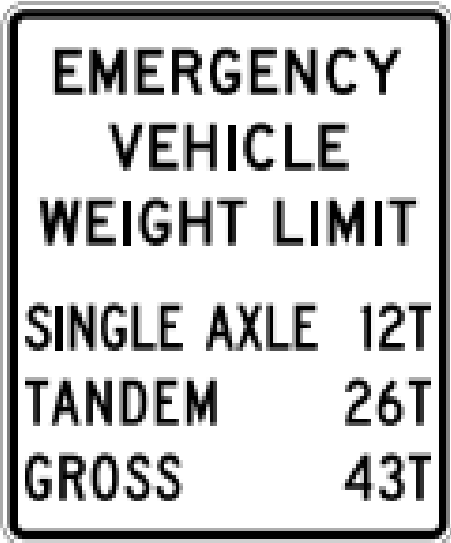
And

2. Does State law NOT exempt EVs from obeying the weight posting signs?



FHWA MUTCD Weight Limit Signs: Emergency Vehicles G|A|D – Gross Load|Single Axle Load |Tandem Axle Load

— Since the response is NOT yes for BOTH question 1 AND question 2, R12-7 or R12-7aP signs are to be utilized for bridges requiring posting for FAST Act Emergency Vehicles .



R12-7



R12-7aP

Truck Configuration	LRFR Code Reference
H-20	MBE 6A.4.4.2.1a
HS-20	MBE 6A.4.4.2.1a
Alternate Military	MBE 6A.4.4.2.1a
AASHTO Type 3	MBE 6A.4.4.2.1a
AASHTO Type 3S2	MBE 6A.4.4.2.1a
AASHTO Type 3-3	MBE 6A.4.4.2.1a
Lane-Type*	MBE 6A.4.4.2.1a
EV2	MBE 6A.4.4.2.1a
EV3	MBE 6A.4.4.2.1a
NRL**	MBE 6A.4.4.2.1b
SU4	MBE 6A.4.4.2.1b
SU5	MBE 6A.4.4.2.1b
SU6	MBE 6A.4.4.2.1b
SU7	MBE 6A.4.4.2.1b

* Load and Resistance Factor Rating (LRFR) methodology only

** Not to be used for load posting. Not required for Engineering Judgment (EJ) methodology.

Figure 3-4.2 Required Legal Vehicles



FHWA MUTCD SELECTIVE EXCLUSION SIGNS AND PLAQUES

SELECTIVE EXCLUSION SIGNS AND PLAQUES

Section 2B.45 Selective Exclusion Signs and Plaques

Option:

- 01 Selective Exclusion signs (see Figure 2B-12) may be used to provide notice to road users that State or local statutes or ordinances exclude designated types of traffic from using particular roadways or facilities.

Standard:

- 02 **Selective Exclusion signs shall clearly indicate the type of traffic that is excluded.**

Support:

- 03 Typical exclusion messages include:

- A. No Trucks (R5-2),
- B. NO MOTOR VEHICLES (R5-3),
- C. NO COMMERCIAL VEHICLES (R5-4),
- D. NO VEHICLES WITH LUGS (R5-5),
- E. No Bicycles (R5-6),
- F. NO NON-MOTORIZED TRAFFIC (R5-7),

These are not Weight Limit Signs.
May not be used in place of
Emergency Vehicle signs.

- 09 The NO THRU TRAFFIC (R5-12) or NO THRU TRUCKS (R5-2b) signs may be used at locations to prohibit through traffic from using a particular roadway or facility.



R5-2



R5-4



BRADIN Safe Posting Load Calculation Feature

MENU

IN.GOV

INDOT

Bridge Rating Application Database of Indiana

HOME

HELP

CONTACT

Welcom

Design Inventory Loads

Design Operating Loads

Legal and Routine Permit Loads

Special Permit Loads

Emergency Vehicles

EV2 (28.75 T)

EV3 (43 T)

Safe Posting Loads

Other

NRL

2 Axes

H20-44 (20 T)

Alternate Military (24 T)

3 Axes

HS20-44 (36 T)

AASHTO Type 3 (25 T)

Rating Factor

Load Capacity

Safe Posting

1.89	54.338
1.2	51.6
Single Axle	Tandem
Gross	

Rating Factor

Load Capacity

Safe Posting

1.75	35
1.4	33.6

Rating Factor

Load Capacity

Safe Posting


1.35	48.6
1.73	43.25

Rating Factor

Load Capacity

Safe Posting

Safe Posting Loads are not displayed in BRADIN if not required by the load ratings.



BRADIN Safe Posting Load Calculation Feature

5.3 – LOAD EVAL & POSTING

LEGACY CODING

POSTING SIGNS

INDOT Bridge Rating Application Database of Indiana

Design Inventory Loads | Design Operating Loads | Legal and Routine Permit Loads | Special Permit Loads

Emergency Vehicles

EV2 (28.75 T)

Rating Factor 1.304
Load Capacity 37.49

EV3 (43 T)

Rating Factor .878
Load Capacity 37.754

Safe Posting Loads

Single Axle 16.75
Tandem 27.218
Gross 37.754

Other

NRL

Rating Factor .879

2 Axes

H20-44 (20 T)

Rating Factor 1.528
Load Capacity 30.56
Safe Posting 30.56

Alternate Military (24 T)

Rating Factor 1.259
Load Capacity 30.216
Safe Posting 30.216

3 Axes

HS20-44 (36 T)

Rating Factor .939
Load Capacity 33.804

AASHTO Type 3 (25 T)

Rating Factor 1.313
Load Capacity 32.825

If EV load rating factors are < 1.0
BRADIN Calculates Safe Posting Loads

If any legal load rating factor is < 1.0
BRADIN Calculates Safe Posting Loads for all legal loads.

POSTING SIGNS

At the bridge:


WEIGHT LIMIT
30 TONS

EMERGENCY VEHICLE WEIGHT LIMIT
SINGLE AXLE 16T
TANDEM 27T
GROSS 37T

Maximum allowable per the load rating:

WEIGHT LIMIT
30 TONS

EMERGENCY VEHICLE WEIGHT LIMIT
SINGLE AXLE 16T
TANDEM 27T
GROSS 37T



BRADIN Safe Posting Load Calculation Feature

5.2 - LOAD POSTING STATUS

B.P.S.01 - Load Posting Status

PP

B.P.S.02 - Posting Status Change Date
07/25/2022

5.3 - LOAD EVAL & POSTING

LEGACY CODING

POSTING SIGNS



POSTING SIGNS

At the bridge:

WEIGHT
LIMIT
30
TONS

EMERGENCY
VEHICLE
WEIGHT LIMIT
SINGLE AXLE 16T
TANDEM 27T
GROSS 37T

Maximum allowable per the load rating:

WEIGHT
LIMIT
30
TONS

EMERGENCY
VEHICLE
WEIGHT LIMIT
SINGLE AXLE 16T
TANDEM 27T
GROSS 37T



Field Observations of Weight Limits on the Signs.
(B.EP.03 and B.EP.04)

Photos should be in iTAMS

Maximum Values based on Load Ratings

H20-44 (20 T)

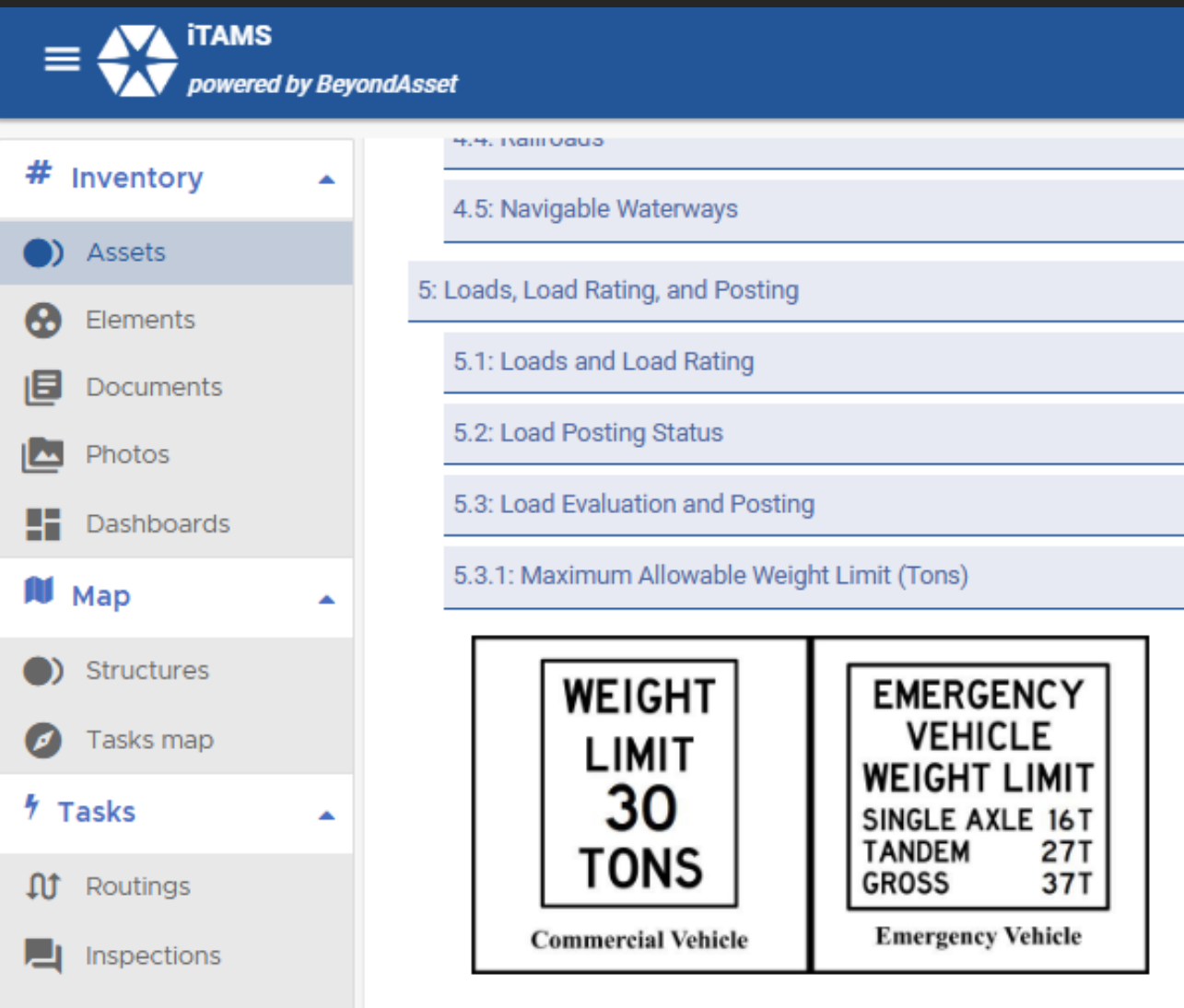
Rating Factor	1.528
Load Capacity	30.56
Safe Posting	30.56

Safe Posting Loads

Single Axle	16.75
Tandem	27.218
Gross	37.754



iTAMS Maximum Safe Posting Load Image – In Progress



The iTAMS interface shows a sidebar menu with options: Inventory, Assets, Elements, Documents, Photos, Dashboards, Map, Structures, Tasks map, Tasks, Routings, and Inspections. The main content area displays a hierarchical list of load posting options:

- 4.4: Navigable Waterways
- 4.5: Navigable Waterways
- 5: Loads, Load Rating, and Posting
 - 5.1: Loads and Load Rating
 - 5.2: Load Posting Status
 - 5.3: Load Evaluation and Posting
 - 5.3.1: Maximum Allowable Weight Limit (Tons)

At the bottom, two sample weight limit signs are shown:

**WEIGHT
LIMIT
30
TONS**

Commercial Vehicle

**EMERGENCY
VEHICLE
WEIGHT LIMIT**
SINGLE AXLE 16T
TANDEM 27T
GROSS 37T

Emergency Vehicle



Field Observations of
Weight Limits on the Signs.
(B.EP.03 and B.EP.04)

Photos should be in iTAMS

Maximum Values based on Load Ratings

H20-44 (20 T)	
Rating Factor	1.528
Load Capacity	30.56
Safe Posting	30.56

Safe Posting Loads	
Single Axle	16.75
Tandem	27.218
Gross	37.754



BRADIN & Weight Limit Observations

How should BRADIN fields be coded now?

POSTING - COMMERCIAL VEHICLES

Commercial Vehicle Sign

Posted Tonnage (2-Axle)

Posted Tonnage (Single Axle)

Posted Tonnage (3-Axle)

Posted Tonnage (4-Axle)

Posted Tonnage (Gross)

Posted Tonnage (5-Axle)

Posted Tonnage (6-Axle)

POSTING - EMERGENCY VEHICLES

Emergency Vehicle Sign

Posted Tonnage (Single Axle)

Posted Tonnage (Tandem)

Posted Tonnage (Gross)



BRADIN & Weight Limit Observations



POSTING - COMMERCIAL VEHICLES

Commercial Vehicle Sign

G

Posted Tonnage (Single Axle)

Posted Tonnage (Gross)

8

Posted Tonnage (2-Axle)

Posted Tonnage (3-Axle)

Posted Tonnage (4-Axle)

Posted Tonnage (5-Axle)

POSTING - EMERGENCY VEHICLES

Emergency Vehicle Sign

Posted Tonnage (Single Axle)

Posted Tonnage (Tandem)

Posted Tonnage (Gross)

5.2 - LOAD POSTING STATUS

B.PS.01 - Load Posting Status

PA

B.PS.02 - Posting Status Change Date

Date of B.PS.01 Change

PA – Permanent Needs Action
Emergency Vehicle Signs are not in place



BRADIN & Weight Limit Observations



Maximum allowable per the load rating:	
WEIGHT LIMIT	EMERGENCY VEHICLE WEIGHT LIMIT
TONS	
	SINGLE AXLE 16T
	TANDEM 29T
	GROSS 41T

POSTING - COMMERCIAL VEHICLES

Commercial Vehicle Sign

Posted Tonnage (Single Axle)

Posted Tonnage (Gross)

Posted Tonnage (2-Axle)

Posted Tonnage (3-Axle)

Posted Tonnage (4-Axle)

Posted Tonnage (5-Axle)

Posted Tonnage (6-Axle)

POSTING - EMERGENCY VEHICLES

Emergency Vehicle Sign

X

Posted Tonnage (Single Axle)

16

Posted Tonnage (Tandem)

29

Posted Tonnage (Gross)

41

5.2 - LOAD POSTING STATUS

B.PS.01 - Load Posting Status

PP

B.PS.02 - Posting Status Change Date

Date of B.PS.01 Change

BRADIN updates will be transforming the Emergency Vehicle Sign Code from “X” to “G|A|D”



Maximum allowable per the load rating:

WEIGHT
LIMIT

TONS

EMERGENCY
VEHICLE
WEIGHT LIMIT
SINGLE AXLE 16T
TANDEM 25T
GROSS 35T



Limit Observations

BRADIN updates will be transforming Posted Axle tonnages when Commercial Vehicle Sign = T

POSTING - COMMERCIAL VEHICLES	
Commercial Vehicle Sign	T
Posted Tonnage (Single Axle)	
Posted Tonnage (Gross)	
POSTING - EMERGENCY VEHICLES	
Emergency Vehicle Sign	X
Posted Tonnage (Single Axle)	21
Posted Tonnage (Tandem)	25
Posted Tonnage (Gross)	35

Posted Tonnage (2-Axle)	26
Posted Tonnage (3-Axle)	36
Posted Tonnage (4-Axle)	35
Posted Tonnage (5-Axle)	35
Posted Tonnage (6-Axle)	35

5.2 - LOAD POSTING STATUS	
B.PS.01 - Load Posting Status	PD
B.PS.02 - Posting Status Change Date	Date of B.PS.01 Change

BRADIN updates will be transforming the Emergency Vehicle Sign Code from “X” to “G|A|D”

PD – Permanent Needs Reduction, Emergency Vehicle Signs exceed Maximum



BRADIN & Weight Limit Observations

BRADIN updates will be transforming Posted Axle tonnages when Commercial Vehicle Sign = T



POSTING - COMMERCIAL VEHICLES

Commercial Vehicle Sign **T**

Posted Tonnage (Single Axle)

Posted Tonnage (Gross)

Posted Tonnage (2-Axle) **29**

Posted Tonnage (3-Axle) **39**

Posted Tonnage (4-Axle) **40**

Posted Tonnage (5-Axle) **40**

Posted Tonnage (6-Axle) **40**

POSTING - EMERGENCY VEHICLES

Emergency Vehicle Sign

Posted Tonnage (Single Axle)

Posted Tonnage (Tandem)

Posted Tonnage (Gross)

5.2 - LOAD POSTING STATUS

B.PS.01 - Load Posting Status **PP**

B.PS.02 - Posting Status Change Date **Date of B.PS.01 Change**

Maximum allowable per the load rating:

**WEIGHT
LIMIT

TONS**

**EMERGENCY
VEHICLE
WEIGHT LIMIT**
SINGLE AXLE **T**
TANDEM **T**
GROSS **T**



Maximum allowable per the load rating:

WEIGHT
LIMIT
23
TONS

EMERGENCY
VEHICLE
WEIGHT LIMIT
SINGLE AXLE 16T
TANDEM 21T
GROSS 29T

Limit Observations

POSTING - COMMERCIAL VEHICLES

Commercial Vehicle Sign

X

Posted Tonnage (Single Axle)

Posted Tonnage (Gross)

Posted Tonnage (2-Axle) 23

Posted Tonnage (3-Axle) 30

Posted Tonnage (4-Axle) 28

Posted Tonnage (5-Axle) 28

Posted Tonnage (6-Axle) 28

POSTING - EMERGENCY VEHICLES

Emergency Vehicle Sign

X

Posted Tonnage (Single Axle)

16

Posted Tonnage (Tandem)

21

Posted Tonnage (Gross)

29

5.2 - LOAD POSTING STATUS

B.PS.01 - Load Posting Status

PP

B.PS.02 - Posting Status Change Date

Date of B.PS.01 Change

BRADIN updates will be transforming the Emergency Vehicle Sign Code from "X" to "G|A|D"



BRADIN & Weight Limit Observations



Maximum allowable per the load rating:

**WEIGHT
LIMIT
23
TONS**

**EMERGENCY
VEHICLE
WEIGHT LIMIT**
SINGLE AXLE T
TANDEM T
GROSS T

POSTING - COMMERCIAL VEHICLES

Commercial Vehicle Sign **X**

Posted Tonnage (Single Axle)

Posted Tonnage (Gross)

Posted Tonnage (2-Axle) **23**

Posted Tonnage (3-Axle) **35**

Posted Tonnage (4-Axle) **31**

Posted Tonnage (5-Axle) **31**

Posted Tonnage (6-Axle) **31**

POSTING - EMERGENCY VEHICLES

Emergency Vehicle Sign

Posted Tonnage (Single Axle)

Posted Tonnage (Tandem)

Posted Tonnage (Gross)

5.2 - LOAD POSTING STATUS

B.PS.01 - Load Posting Status **PP**

B.PS.02 - Posting Status Change Date **Date of B.PS.01 Change**



BRADIN & Weight Limit Observations



Maximum allowable per the load rating:	
<div><div>WEIGHT LIMIT 17 TONS</div></div>	<div><div>EMERGENCY VEHICLE WEIGHT LIMIT</div><div><div>SINGLE AXLE16T</div><div>TANDEM20T</div><div>GROSS27T</div></div></div>

POSTING - COMMERCIAL VEHICLES

Commercial Vehicle Sign	G	Posted Tonnage (2-Axle)
Posted Tonnage (Single Axle)		Posted Tonnage (3-Axle)
		Posted Tonnage (4-Axle)
Posted Tonnage (Gross)	17	Posted Tonnage (5-Axle)
		Posted Tonnage (6-Axle)

POSTING - EMERGENCY VEHICLES

Emergency Vehicle Sign	X
Posted Tonnage (Single Axle)	13
Posted Tonnage (Tandem)	16
Posted Tonnage (Gross)	22

BRADIN updates will be transforming the Emergency Vehicle Sign Code from “X” to “G|A|D”

5.2 - LOAD POSTING STATUS

B.PS.01 - Load Posting Status	PP
B.PS.02 - Posting Status Change Date	Date of B.PS.01 Change

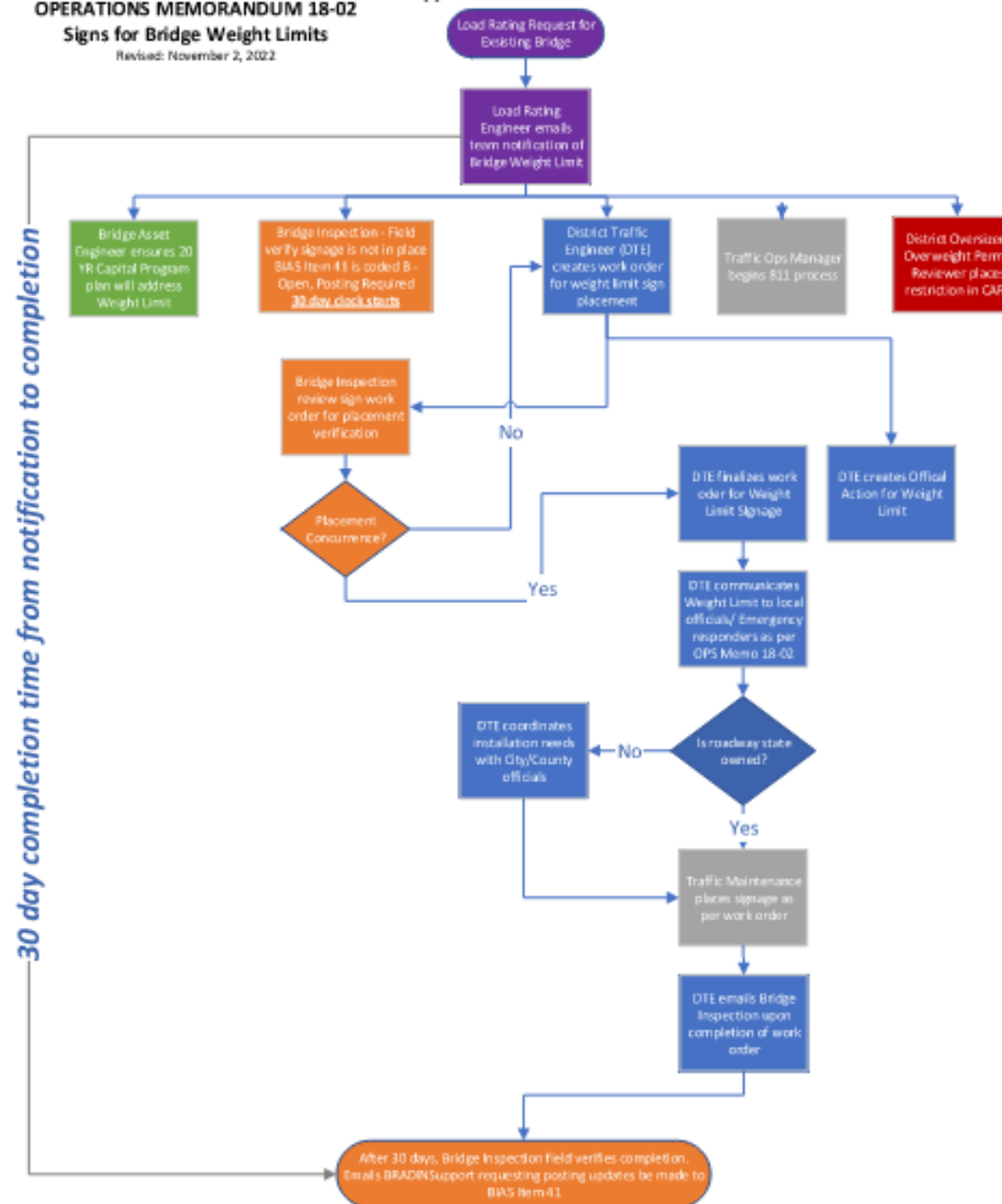


Bridge Weight Limit Posting Coordination

OPERATIONS MEMORANDUM 18-02 Signs for Bridge Weight Limits

Revised: November 2, 2022

Appendix C - Notification Process Flowchart



Load Rating

Bridge Asset Engineer

Bridge Inspection

District Traffic Engineer

Traffic Operation Mgr

District Overweight Permit Review



On the Horizon

- Kick off research to change Indiana Code regarding Emergency Vehicle posting requirements.
- Establish an LPA BrR Database at INDOT
 - Facilitate county transitions
 - Allows for INDOT to assess the impact of potential State Legislative changes
 - INDOT is able to validate reported ratings
 - Process and report any new legal vehicles
 - Promote standardized modelling
 - Ability to assist with overweight permitting as needed
- Create INDOT audit tool that reads posting images from iTAMS and compares the posted values to the maximum allowable safe posting load in BRADIN.
- Weight Limit Posting image in iTAMS
- BRADIN Enhancements
- Bridge Inspection Manual updates



Thank you!

Jennifer Hart, PE
LoadRating@indot.in.gov
INDOT Bridge Evaluation

