2016 CEAO Bridge Conference

Special Hauling Vehicles (SHV) Load Rating Update

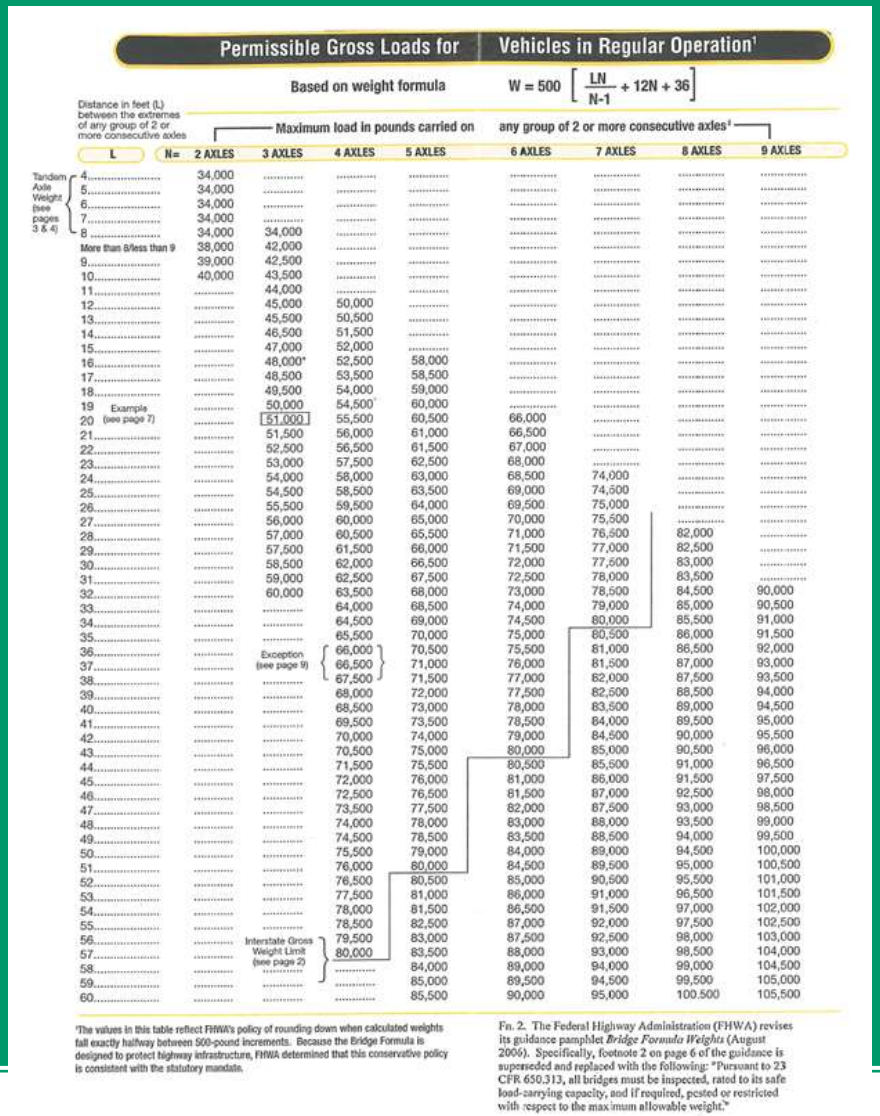
Amjad Waheed, PE
Assistant Administrator OSE
Ohio Department of Transportation

Columbus, OH
August 18, 2016

What is a SHV?

- **Special Hauling Vehicle**
- **It is a legal truck**
- **SU designation = Single Unit**

Federal Bridge Formula



Permissible Gross Loads for Vehicles in Regular Operation[1]

Based on weight formula $W = 500\left[\frac{LN}{N-1} + 12N + 36\right]$

Distance in feet (L) between the extremes of any group of 2 or more consecutive axles		Maximum load in pounds carried on any group of 2 or more consecutive axles[2]							
L	N=	2 AXLES	3 AXLES	4 AXLES	5 AXLES	6 AXLES	7 AXLES	8 AXLES	9 AXLES
Tandem Axle Weight (see pages 3 & 4) 4		34,000							
5		34,000							
6		34,000							
7		34,000							
8		34,000	34,000						
More than 8/less than 9		38,000	42,000						
9		39,000	42,500						
10		40,000	43,500						
11			44,000						
12			45,000	50,000					
13			45,500	50,500					
14			46,500	51,500					
15			47,000	52,000					
16			48,000*	52,500	58,000				
17			48,500	53,500	58,500				
18			49,500	54,000	59,000				
19 Example			50,000	54,500	60,000				
20 (see page 7)			51,000	55,500	60,500	66,000			
21			51,500	56,000	61,000	66,500			
22			52,500	56,500	61,500	67,000			
23			53,000	57,500	62,500	68,000			
24			54,000	58,000	63,000	68,500	74,000		
25			54,500	58,500	63,500	69,000	74,500		
26			55,500	59,500	64,000	69,500	75,000		
27			56,000	60,000	65,000	70,000	75,500		
28			57,000	60,500	65,500	71,000	76,500	82,000	
29			57,500	61,500	66,000	71,500	77,000	82,500	
30			58,500	62,000	66,500	72,000	77,500	83,000	
31			59,000	62,500	67,500	72,500	78,000	83,500	
32			60,000	63,500	68,000	73,000	78,500	84,500	90,000
33				64,000	68,500	74,000	79,000	85,000	90,500
34				64,500	69,000	74,500	80,000	85,500	91,000
35				65,500	70,000	75,000	80,500	86,000	91,500
36			Exception (see page 9)	66,000	70,500	75,500	81,000	86,500	92,000
37				66,500	71,000	76,000	81,500	87,000	93,000
38				67,500	71,500	77,000	82,000	87,500	93,500
39				68,000	72,000	77,500	82,500	88,500	94,000
40				68,500	73,000	78,000	83,500	89,000	94,500
41				69,500	73,500	78,500	84,000	89,500	95,000
42				70,000	74,000	79,000	84,500	90,000	95,500
43				70,500	75,000	80,000	85,000	90,500	96,000
44				71,500	75,500	80,500	85,500	91,000	96,500
45				72,000	76,000	81,000	86,000	91,500	97,500
46				72,500	76,500	81,500	87,000	92,500	98,000
47				73,500	77,500	82,000	87,500	93,000	98,500
48				74,000	78,000	83,000	88,000	93,500	99,000
49				74,500	78,500	83,500	88,500	94,000	99,500
50				75,500	79,000	84,000	89,000	94,500	100,000
51				76,000	80,000	84,500	89,500	95,000	100,500
52				76,500	80,500	85,000	90,500	95,500	101,000
53				77,500	81,000	86,000	91,000	96,500	101,500
54				78,000	81,500	86,500	91,500	97,000	102,000
55				78,500	82,500	87,000	92,000	97,500	102,500
56			Interstate Gross Weight Limit (see page 2)	79,500	83,000	87,500	92,500	98,000	103,000
57				80,000	83,500	88,000	93,000	98,500	104,000
58					84,000	89,000	94,000	99,000	104,500
59					85,000	89,500	94,500	99,500	105,000
60					85,500	90,000	95,000	100,500	105,500

*The values in this table reflect FHWA's policy of rounding down when calculated weights fall exactly halfway between 500-pound increments. Because the Bridge Formula is designed to protect highway infrastructure, FHWA determined that this conservative policy is consistent with the statutory mandate.

Fn. 2. The Federal Highway Administration (FHWA) revises its guidance pamphlet *Bridge Formula Weights* (August 2006). Specifically, footnote 2 on page 6 of the guidance is superseded and replaced with the following: "Pursuant to 23 CFR 650.313, all bridges must be inspected, rated to its safe load-carrying capacity, and if required, posted or restricted with respect to the maximum allowable weight."

Bridge Formula: $W = 500\left(\frac{LN}{N-1} + 12N + 36\right)$

Limits

Single Axle (max) = 20,000 lbs.

Tandem Axle (max) = 34,000 lbs.

Gross Weight (max) = 80,000 lbs.

Enacted 1975

What is a SHV?

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What is a SHV?

What is Required?

- **NCHRP 12-63 showed current AASHTO truck configurations don't capture demand from the SHV's.**
- **A simple comparison of ODOT Legal trucks with SHV's shows a need to load rate for these vehicles.**

What is required?

- **FHWA requires load rating for these vehicles to be completed.**

- **ODOT has prepared a proposed plan to load rate for SHV's.**
  - Plan is posted on ODOT's OSE web site.

What is Required?

Federal Highway Administration

Memorandum

Subject: ACTION: Load Rating of Specialized Hauling Vehicles

Date: November 15, 2013

/s/ Original Signed by
From: Joseph S. Krolak
Acting Director, Office of Bridge Technology

In Reply Refer To:
HIBT-10

To: Federal Lands Highway Division Engineers
Division Administrators

The purpose of this memorandum is to clarify FHWA's position on the analysis of *Specialized Hauling Vehicles* (SHVs) as defined in the AASHTO Manual for Bridge Evaluation (MBE) during bridge load rating and posting to comply with the requirements of the *National Bridge Inspection Standards* (NBIS). The intent of the load rating and posting provisions of the NBIS is to insure that all bridges are appropriately evaluated to determine their safe live load carrying capacity considering all unrestricted legal loads, including State routine permits, and that bridges are appropriately posted if required, in accordance with the MBE.

The SHVs are closely-spaced multi-axle single unit trucks introduced by the trucking industry in the last decade. Examples include dump trucks, construction vehicles, solid waste trucks and other hauling trucks. SHVs generally comply with Bridge Formula B and are for this reason considered legal in all States, if a States' laws do not explicitly exclude the use of such vehicles.

NCHRP Project 12-63 (Report 575, 2007) studied the developments in truck configurations and State legal loads and found that AASHTO Type 3, 3-S2 and 3-3 legal vehicles are not representative of all legal loads, specifically SHVs. As a result, legal load models for SHVs were developed and adopted by AASHTO in 2005 , recognizing that there is an immediate need to incorporate SHVs into a State's load rating process, if SHVs operate within a State. The SHV load models in the MBE include SU4, SU5, SU6 and SU7 representing four- to seven-axle SHVs respectively, and a Notional Rating Load (NRL) model that envelopes the four single unit load models and serves as a screening load. If the load rating factor for the NRL model is 1.0 or greater, then there is no need to rate for the single-unit SU4, SU5, SU6 and SU7 loads. However, if the load rating factor for the NRL is less than 1.0, then the single-unit SU4, SU5, SU6 and SU7 loads need to be considered during load rating and posting.

What is Required?

The SHVs create higher force effects, and thus result in lower load ratings for certain bridges, especially those with a shorter span or shorter loading length such as transverse floor beams, when compared to AASHTO Type 3, 3-S2 and 3-3 legal loads and HS20 design load. Therefore, SHVs, i.e., SU4, SU5, SU6 and SU7 or NRL, are to be included in rating and posting analyses in accordance with Article 6A.2.3 and Article 6B.9.2 of the 1st Edition of the MBE (Article 6B.7.2 of the 2nd Edition of the MBE), unless one of the following two conditions is met:

Condition A: The State verifies that State laws preclude SHV use; or

Condition B: The State has its own rating vehicle models for legal loads and verifies that the State legal load models envelope the *applicable* AASHTO SHV loading models specified in Appendix D6A and Figure 6B.9.2-2 of the 1st Edition of the MBE (Figure 6B.7.2-2 of the 2nd Edition of the MBE), and the State legal load models have been included in rating/posting analyses of all bridges. The SHV types, e.g. six- or seven-axle SHVs, precluded by State laws need not be considered.

The SHV load models apply to Allowable Stress Rating, Load Factor Rating, and Load and Resistance Factor Rating in accordance with Section 6A and 6B of the MBE.

The FHWA recognizes that there are bridges in the inventory that have not been rated for SHVs and that it is not feasible to include SHVs in the ratings for the entire inventory at once. FHWA is establishing the following timelines for rating bridges for SHVs, if neither Condition A or B is met:

What is Required?

Group 1: Bridges with the shortest span not greater than 200 feet should be re-rated after their next NBIS inspection, but no later than December 31, 2017, that were last rated by:

a) either Allowable Stress Rating (ASR) or Load Factor Rating (LFR) method and have an operating rating for the AASHTO Routine Commercial Vehicle either Type 3, Type 3S2, or Type 3-3 less than 33 tons (English), 47 tons (English), or 52 tons (English) respectively; or
b) Load and Resistance Factor Rating (LRFR) method and have a legal load rating factor for the AASHTO Routine Commercial Vehicle, either Type 3, Type 3S2 or Type 3-3, less than 1.3.

Group 2: Rate those bridges not in Group 1 no later than December 31, 2022.

For either group, if a re-rating is warranted due to changes of structural condition, loadings, or configuration, or other requirements, the re-rating should include SHVs.

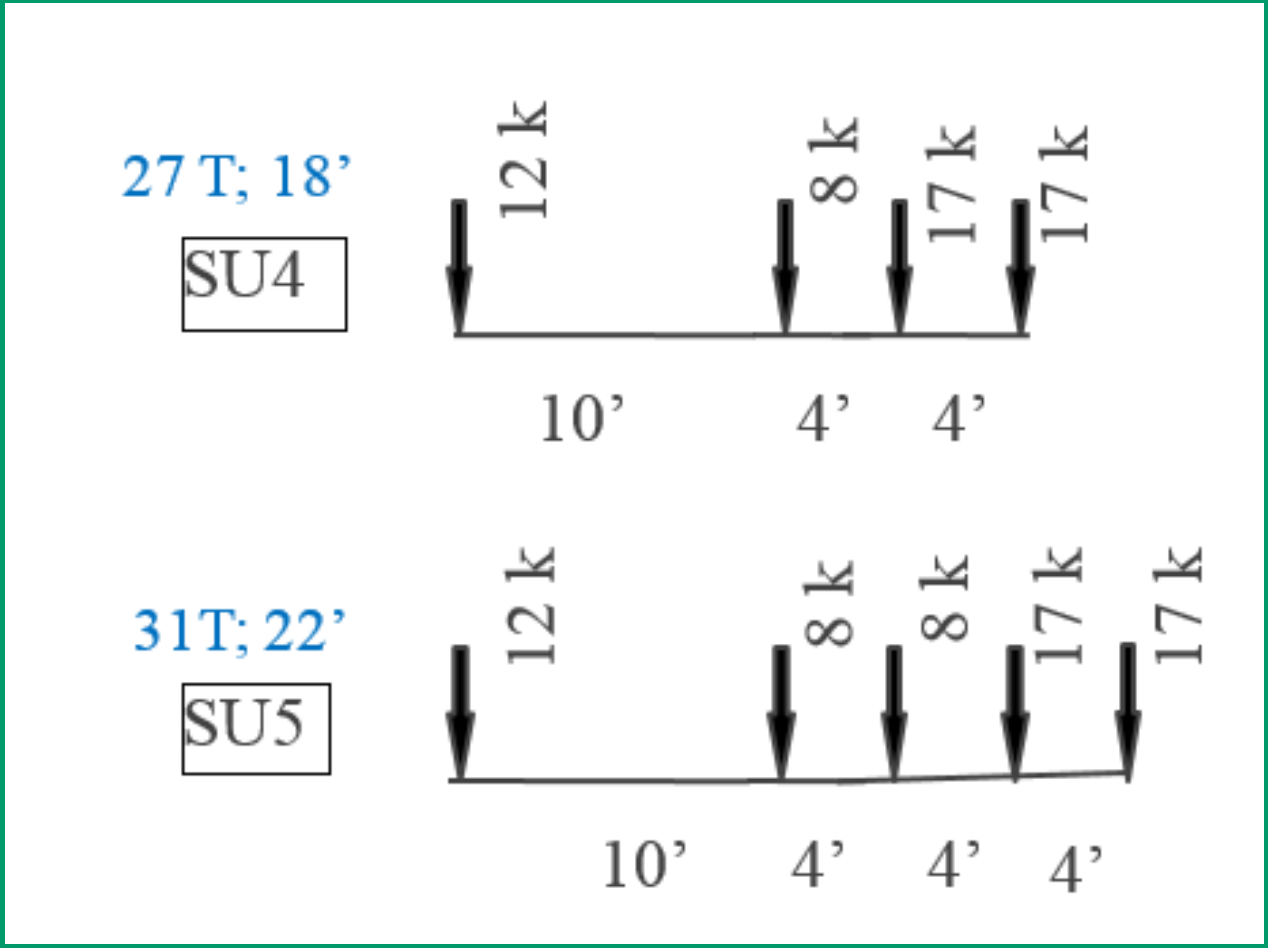
The selection of load rating method should comply with FHWA's Policy Memorandum *Bridge Load Ratings for the National Bridge Inventory*, dated October 30, 2006.

A State may utilize an alternative approach in lieu of the above to address the load rating for SHVs for bridges in their inventory; however, the approach must be reviewed and formally accepted by FHWA.

The timeline presented above will be incorporated into the review of Metric 13 under the National Bridge Inspection Program (NBIP); specifically, it is expected that all bridges meeting Group 1 criteria be load rated for SHVs by the end of 2017. Please work with your State to assist them in developing appropriate actions to meet those timelines. If your State is currently developing or implementing a Plan of Corrective Actions (PCA) for load rating bridges, the PCA should be reviewed and modified as necessary to take into account the rating of SHVs for those bridges and these timelines.

We request that you share this memorandum with your State or Federal agency partner. All questions that cannot be resolved at the Division Office level should be directed to Lubin Gao at lubin.gao@dot.gov or at 202-366-4604.

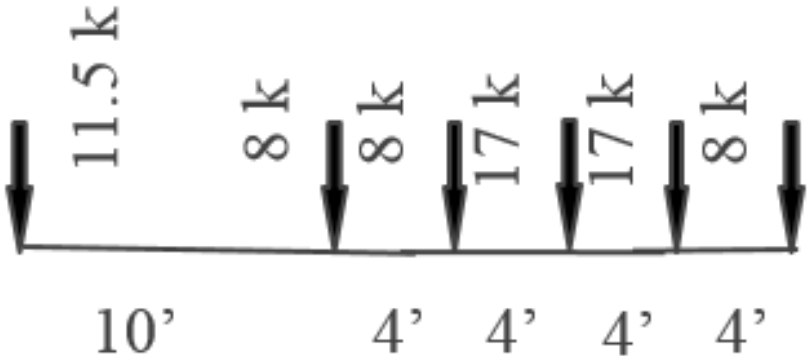
AASHTO SHV Configurations



AASHTO SHV Configurations

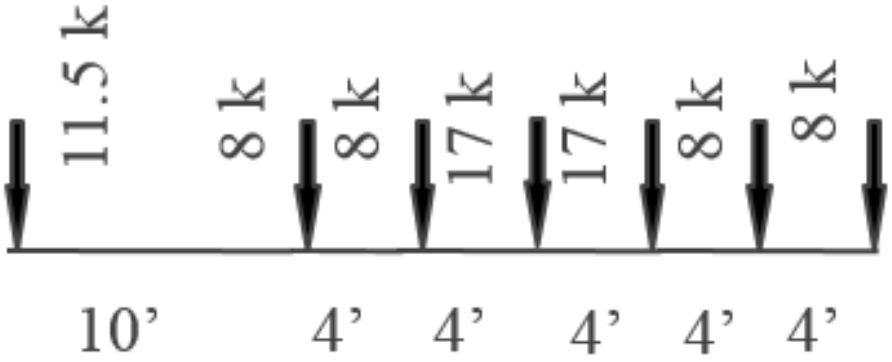
34.75T; 26’

SU6

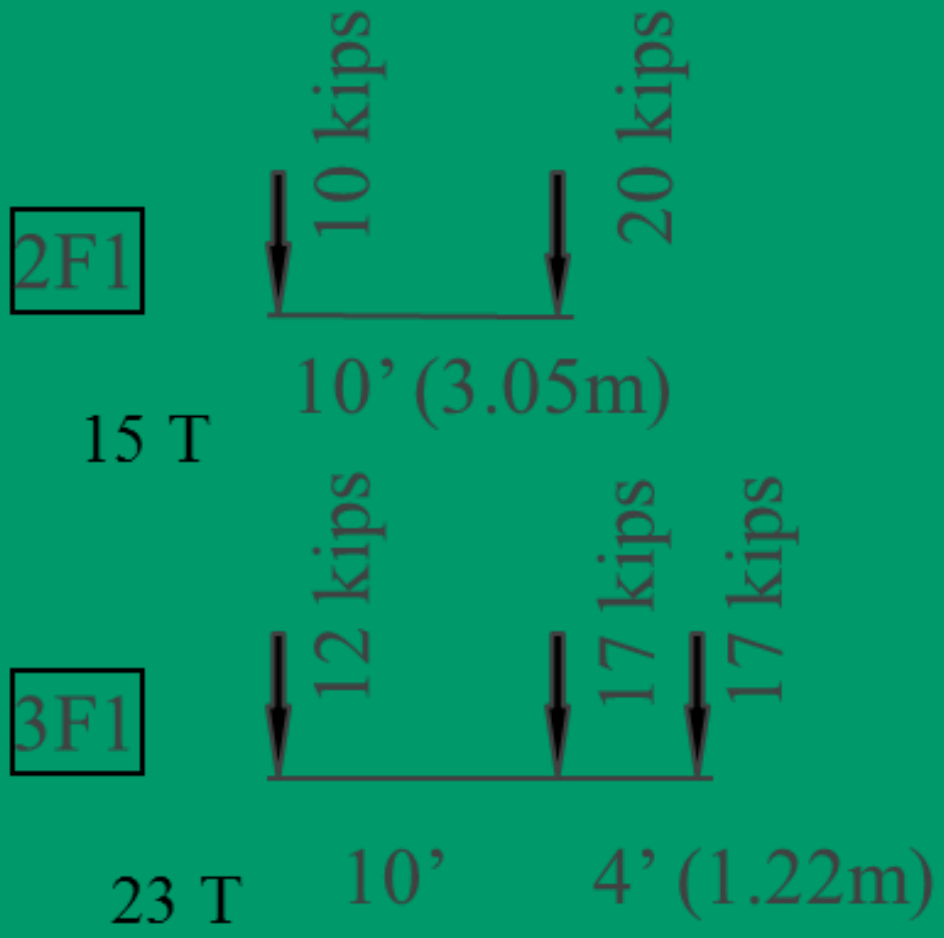


38.75T; 30’

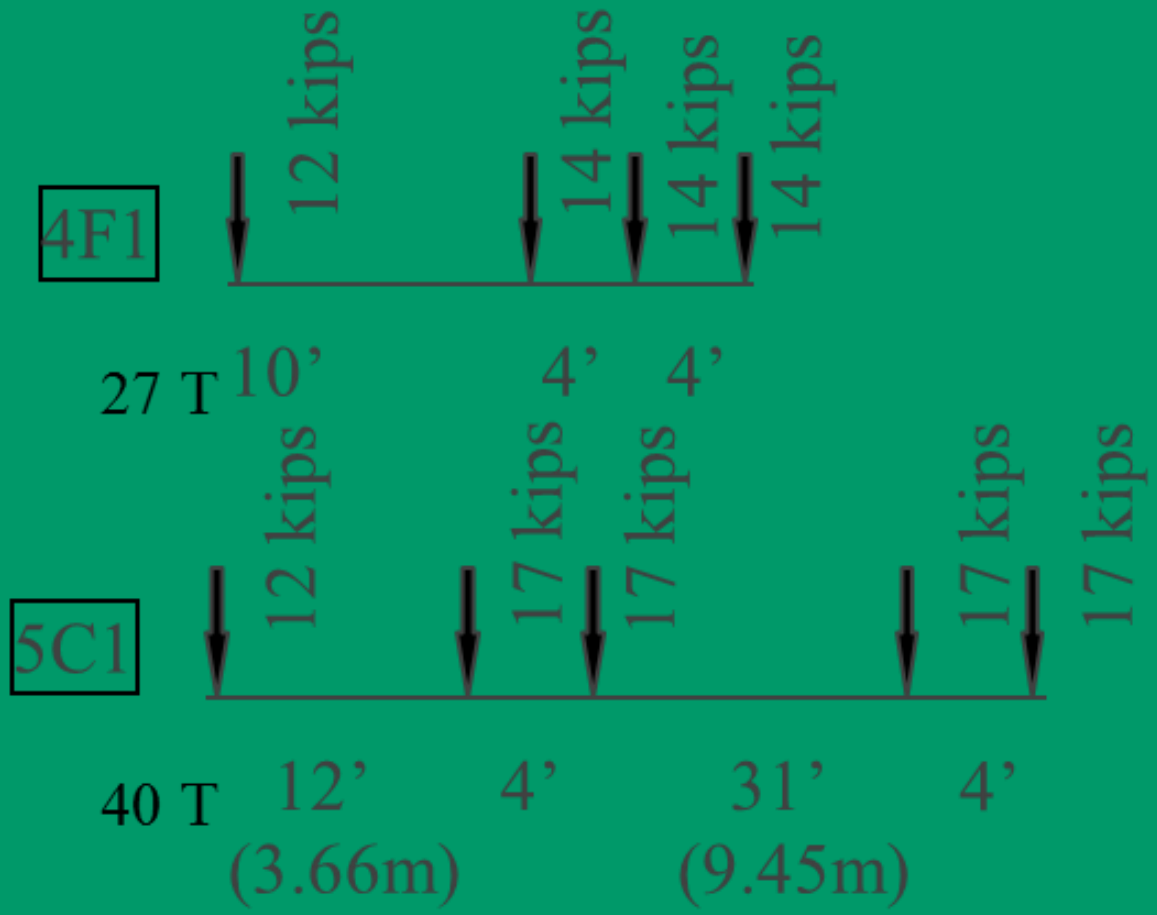
SU7



Ohio Legal Loads

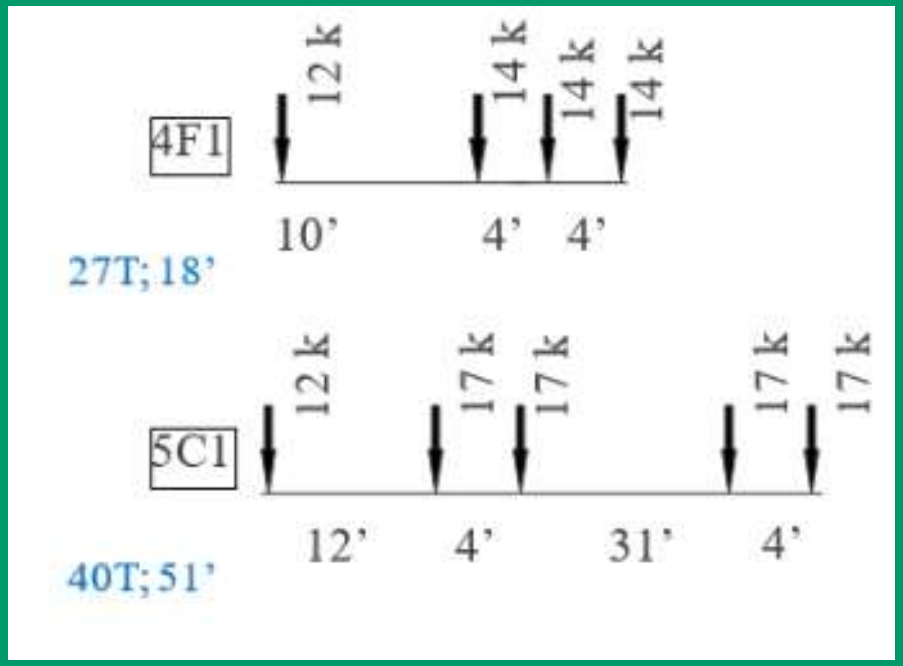


Ohio Legal Loads

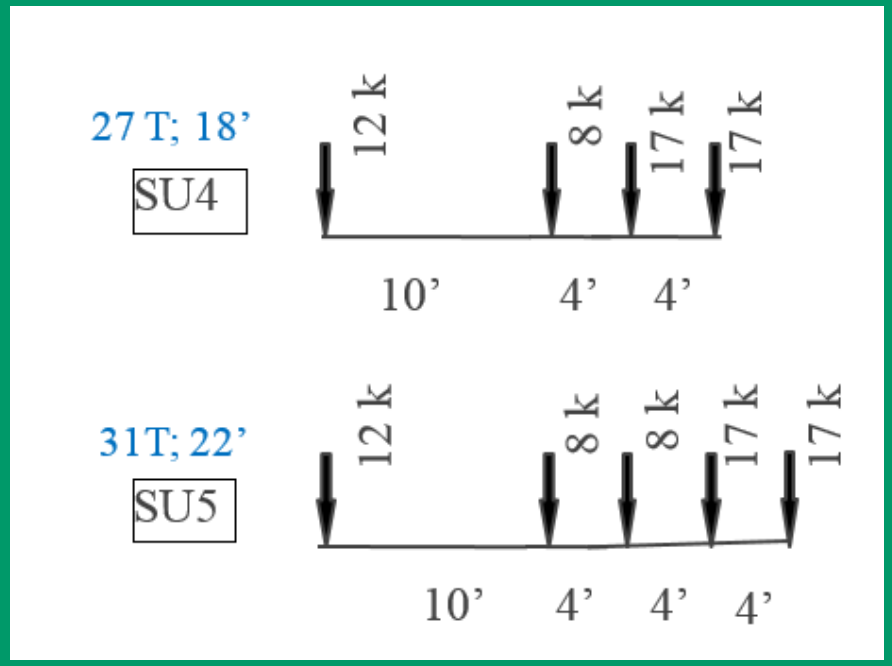


Ohio Legal Loads

Ohio Legal Loads

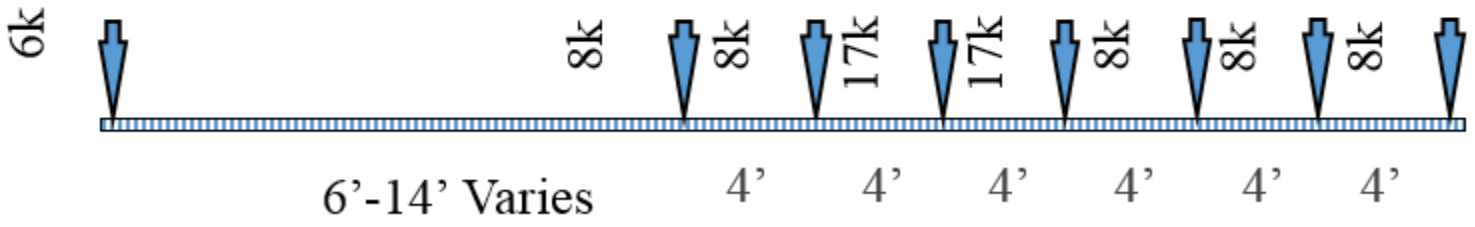


AASHTO SHV



SHV Configurations

Notional Rating Load (NRL); 40T; 30’- 38’



Load Rating – New Bridges

Legal and Posting Load Rating Trucks

All new legal & posting load ratings performed after December 1, 2015 shall include SHVs (SU4, SU5, SU6 & SU7) as well as current Ohio Legal Loads (2F1, 3F1, 4F1, 5C1)

Load Rating – Existing Bridges

Group Inventory into 3 Groups:

- **Group A – Ohio Legal RF ≥ 1.35**
- **Group B – Ohio Legal RF ≥ 1.0 and RF < 1.35**
- **Group C – Ohio Legal RF < 1.0 (posted bridges)**

Load Rating – Existing Bridges

Group A

- **No Action Required**
- **ODOT to prepare and submit study to FHWA to verify Ohio Legal Loads RF threshold of 1.35**
- **A research project is underway with Universities**

Load Rating – Existing Bridges

Group B

- Re-rate per current method of analysis (LFR or LRFR)
- Prepare an updated BR-100
- Update Bridge Inventory
- Post the bridge if needed
- Complete by Dec. 31, 2022

Load Rating – Existing Bridges

Group C

- Re-rate per current method of analysis (LFR or LRFR).
- Prepare an updated BR-100
- Update Bridge Inventory
- Install new posting sign
- Complete by December 31, 2017

Load Rating – Existing Bridges

Group C - NBI Bridges only

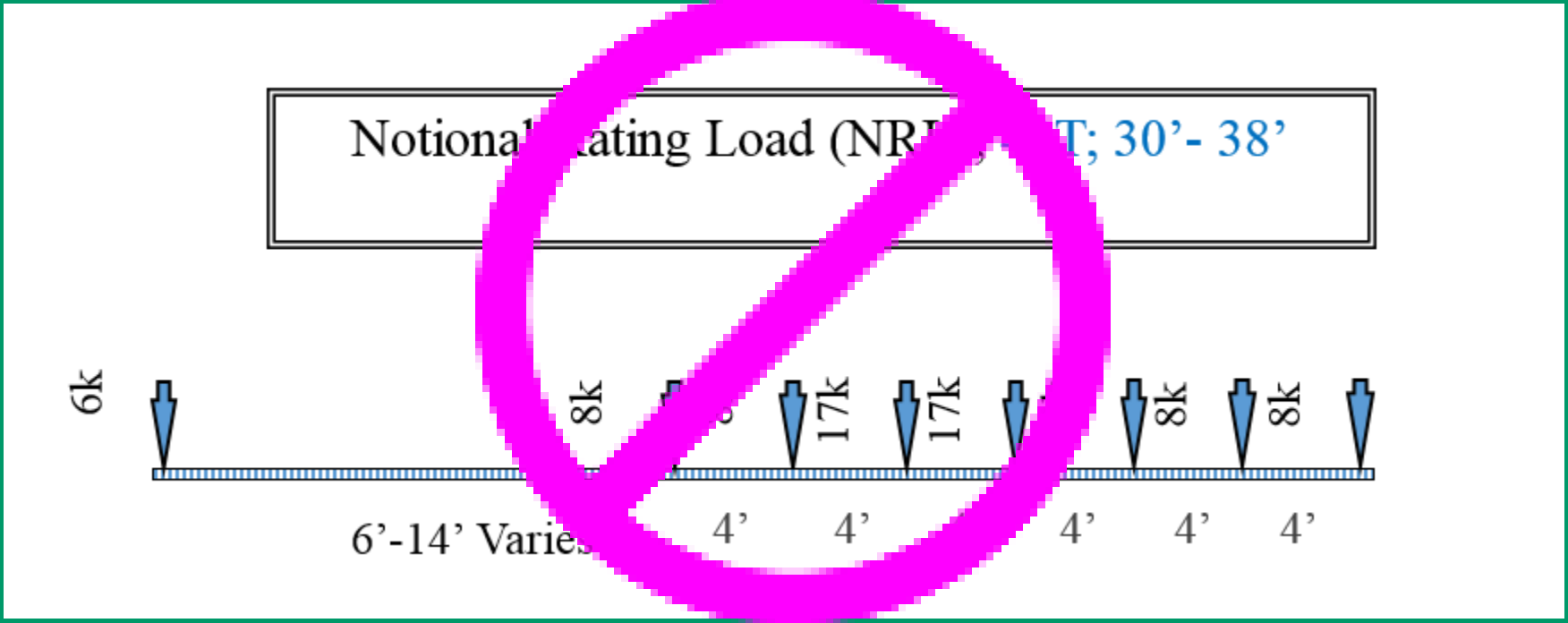
Inspection Responsibility	COUNT Structure File Number
ODOT	19
~~**OTPC**~~	~~1~~
CEAO	1,191
MUNI	52

Load Rating – Existing Bridges

Group B - NBI Bridges only

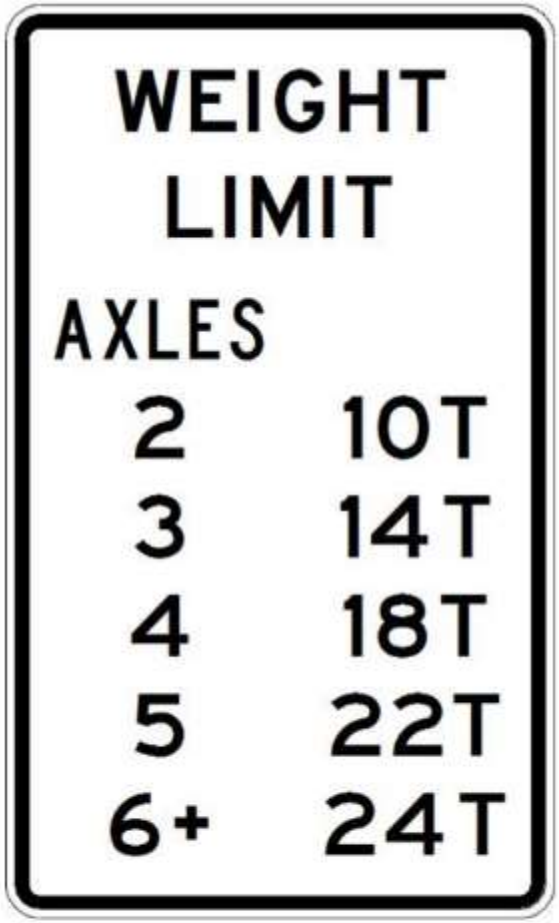
Inspection Responsibility	COUNT Structure File Number
ODOT	583
OTPC	100
CEAO	2300
MUNI	335

SHV Configurations




WEIGHT
LIMIT
15T
16T
17T
30T

New Load Posting Sign



NEW BRIDGE LOAD POSTING SIGN

(Size: 36 inches by 60 inches)

Load Rating – Existing Bridges

Proposed Plan

- ODOT will identify bridges in Groups A, B, & C (first cut)
- ODOT will keep track of completed load ratings
  - Counties/Cities/Consultants will update SMS
  - All completed work will be notified:
    - OTPC will notify Amjad Waheed (ODOT)
    - Counties will notify Mark Stockman (CEAO)
    - Cities will notify Omar Abu-Hajar (ODOT)

Load Rating – Existing Bridges

Proposed Plan For ODOT

- All ODOT bridges will be load rated by ODOT Central Office
- **Expectations**
  - ODOT Districts will assist in providing the plans and information
  - ODOT expects to meet the deadlines

Load Rating – Existing Bridges

Proposed Plan For OTPC

- The Ohio Turnpike Commission will have their bridges rated for SHV

- **Expectations**
  - Consultants hired by OTPC will assist in load rating
  - OTPC will meet the deadlines

Load Rating – Existing Bridges

Proposed Plan For Counties

- **Additional funds of $460,000 have been approved by ODOT/FHWA to reanalyze Group C bridges**
- CEAO will manage the projects for bridges that were previously load rated by a consultant
- Counties may hire consultants individually to complete the work

Load Rating – Existing Bridges

Proposed Plan For Counties

- ODOT's assumption is that Counties will use the same consultants who did original load rating of their bridges
- ODOT and County will split the cost of load rating equally (50% SP&R + 50% County)
- Funds are solely for load rating for SHV
- Inspections cannot be done using these funds
- Recommend to use separate contracts for any work other than load rating for SHV

Load Rating – Existing Bridges

Proposed Plan For Counties

- Michele Risko (CEAO) will accept applications from Counties
- CEAO will prepare a template of the Scope for counties as a starting point
- Counties will negotiate contracts with the Consultants. Cost proposals to be sent to Cindy Wang (ODOT) through Michele Risko for review.
- ODOT will reimburse 50% of the cost of rating

Load Rating – Existing Bridges

Proposed Plan For Cities

- ODOT/Cities will manage the projects for bridges that were previously load rated by a consultant
- Cities may hire consultants individually to complete the work
- **Expectations**
  - Use same consultant who originally load rated a bridge wherever and whenever it is possible

Load Rating – Existing Bridges

How will ODOT help?

- **Spread Sheets have been updated**
  - Posted to ODOT FTP site

- **BR-100 Load Rating Summary Form has been updated**
  - Posted to ODOT FTP site

Load Rating – Existing & New Bridges

How will ODOT help?

- Load rating requirements for SHV have been incorporated in the Bridge Design Manual (BDM) - July 2016 release.
- New Load Posting Signs are included in the Ohio Manual of Uniform Traffic Control Devices (MUTCD) - January 2016 release.

New BR-100

BRIDGE LOAD RATING SUMMARY REPORT

OFFICE OF STRUCTURAL ENGINEERING

OHIO DEPARTMENT OF TRANSPORTATION

SFN	BRIDGE NUMBER	DISTRICT
6800203	PRE-035-0963	8

ORIGINAL CONSTRUCTION	REHABILITATION YEAR	OVERALL STRUCTURE	FEATURE INTERSECTION
1992		22 ft	Trib of Seven Mile Creek

SPECIAL ASSUMPTIONS & COMMENTS	It is a CONSPAN culvert built in 1992. It was not load rated at that time. No software available to accurately model it. The culvert is in very good shape with GA=8 and performing well. A load rating is being assigned to this structure based on the origional design load.

	ASE SELECT ON RIGHT, WHERE APPROPRIATE, BY USING THE DROP DOWN ARROW BUT
LOAD RATING PURPOSE:	1 - Initial Load Rating
LOAD RATING SOFTWARE:	0 - Assigned rating (No calculations were done)
RATING SOURCE:	1 - Plan information available for load rating analysis (Default)
RATING METHOD:	6 - Load Factor (LF) rating reported by rating factor (RF)
ORIGINAL DESIGN LOADING:	6 - HS20-44 & Alternate Military Loading

STRUCTURE RATING SUMMARY

OHIO LEGAL					SPECIALIZED HAULING VEHICLES (SHV)			
Loading Type	GVW (Tons)	Rating Factor - RF		Legal Weight (Tons)	Loading Type	GVW (Tons)	ating Factor - R	Legal Weight (Tons)
		Inv.	Oper.				Oper.	
HS20 Loadin	36	1.000	1.250	36.00				
Ohio - 2F1	15		1.500	15.00	SU4	27	1.500	27.00
Ohio - 3F1	23		1.500	23.00	SU5	31	1.500	31.00
Ohio - 4F1	27		1.500	27.00	SU6	34.75	1.500	34.75
Ohio - 5C1	40		1.500	40.00	SU7	38.75	1.500	38.75

Overall Posting Rating	Sign Posting Recommendation :
150%	
BRIDGE POSTING REQUIRED BY RATING	
No load posting is recommended	

AGENCY/FIRM	OSE, ODOT		REPORT DATE:	7/28/2016
RATED BY	PE #	PHONE NUMBER	EMAIL	
Amjad Waheed	55865	6147529972	amjad.waheed@dot.ohio.gov	
REVIEWED BY	PE #	PHONE NUMBER	EMAIL	

Load Rating Spreadsheets with SHV

Load Rating Summary - Ohio Legal Trucks				
Loading Type	GVW (Tons)	Rating Factor - RF		Safe GVW (Tons)
		Inventory	Operating	
HL-93	36	0.319	0.413	15
Ohio Legal - 2F1	15		0.900	14
Ohio Legal - 3F1	23		0.616	14
Ohio Legal - 4F1	27		0.555	15
Ohio Legal - 5C1	40		0.633	25
Ohio Legal Loads Overall Minimum Rating Factor				
55%				
Ohio Legal Loads Overall Controlling Truck				
Ohio Legal - 4F1				

Load Rating Summary - Specialized Hauling Vehicles (SHV)			
Loading Type	GVW (Tons)	Rating Factor - RF	Safe GVW (Tons)
		Operating	
SU4	27	0.550	15
SU5	31	0.510	16
SU6	34.75	0.462	16
SU7	38.75	0.432	17

New BR-100
No Posting Required

STRUCTURE RATING SUMMARY								
OHIO LEGAL					SPECIALIZED HAULING VEHICLES (SHV)			
Loading Type	GVW (Tons)	Rating Factor - RF		Legal Weight (Tons)	Loading Type	GVW (Tons)	Rating Factor - RF	Legal Weight (Tons)
		Inv.	Oper.				Oper.	
HS20 Loading	36	1.000	1.250	36.00				
Ohio - 2F1	15		1.500	15.00	SU4	27	1.500	27.00
Ohio - 3F1	23		1.500	23.00	SU5	31	1.500	31.00
Ohio - 4F1	27		1.500	27.00	SU6	34.75	1.500	34.75
Ohio - 5C1	40		1.500	40.00	SU7	38.75	1.500	38.75

Overall Posting Rating
150%
BRIDGE POSTING REQUIRED BY RATING
No load posting is recommended

Sign Posting Recommendation:

New BR-100
Posting Required

STRUCTURE RATING SUMMARY

OHIO LEGAL				
Loading Type	GVW (Tons)	Rating Factor - RF		Legal Weight (Tons)
		Inv.	Oper.	
HS20 Loading	36	0.244	0.408	14.69
Ohio - 2F1	15		0.653	9.80
Ohio - 3F1	23		0.490	11.27
Ohio - 4F1	27		0.437	11.80
Ohio - 5C1	40		0.490	19.60

SPECIALIZED HAULING VEHICLES (SHV)			
Loading Type	GVW (Tons)	Rating Factor - RF	Legal Weight (Tons)
		Oper.	
SU4	27	0.418	11.29
SU5	31	0.404	12.52
SU6	34.75	0.391	13.59
SU7	38.75	0.391	15.15

Overall Posting Rating
40%
BRIDGE POSTING REQUIRED BY RATING
LOAD POSTING IS RECOMMENDED

Sign Posting Recommendation:

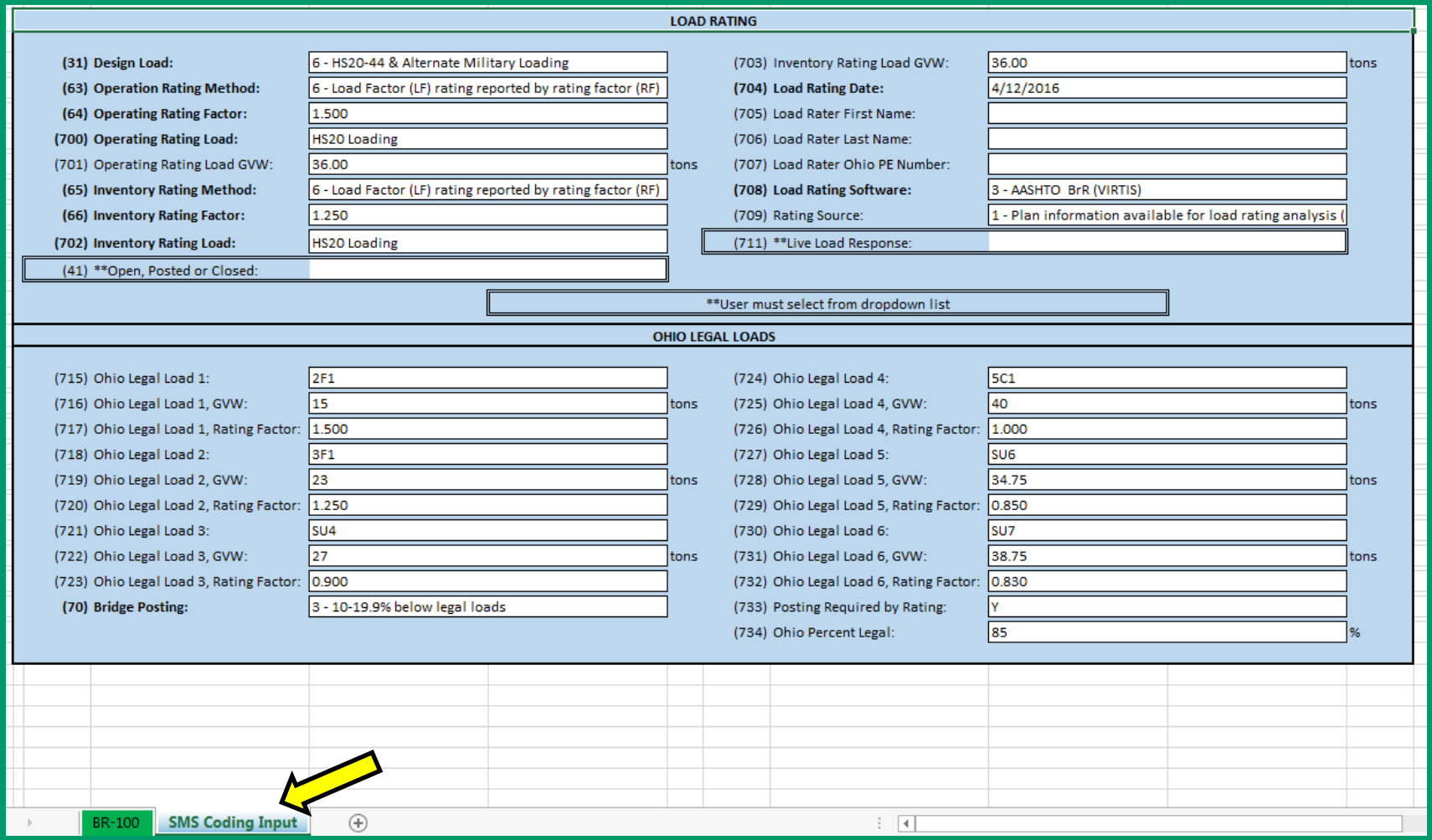
WEIGHT LIMIT	
AXLES	
2	10 T
3	11 T
4	11 T
5	13 T
6+	14 T

AGENCY/FIRM	ODOT CEN OSE	REPORT DATE:	7/27/2016

RATED BY	PE #	PHONE NUMBER	EMAIL
Cindy Wang	pe # 67618	(614) 466-1973	cindy.wang@dot.ohio.gov

REVIEWED BY	PE #	PHONE NUMBER	EMAIL

New BR-100
SMS Coding Input



LOAD RATING

(31) Design Load:	6 - HS20-44 & Alternate Military Loading		(703) Inventory Rating Load GVW:	36.00	tons
(63) Operation Rating Method:	6 - Load Factor (LF) rating reported by rating factor (RF)		**(704) Load Rating Date:**	4/12/2016	
(64) Operating Rating Factor:	1.500		(705) Load Rater First Name:		
(700) Operating Rating Load:	HS20 Loading		(706) Load Rater Last Name:		
(701) Operating Rating Load GVW:	36.00	tons	(707) Load Rater Ohio PE Number:		
(65) Inventory Rating Method:	6 - Load Factor (LF) rating reported by rating factor (RF)		**(708) Load Rating Software:**	3 - AASHTO BrR (VIRTIS)	
(66) Inventory Rating Factor:	1.250		(709) Rating Source:	1 - Plan information available for load rating analysis (	
(702) Inventory Rating Load:	HS20 Loading		(711) **Live Load Response:		
(41) **Open, Posted or Closed:					

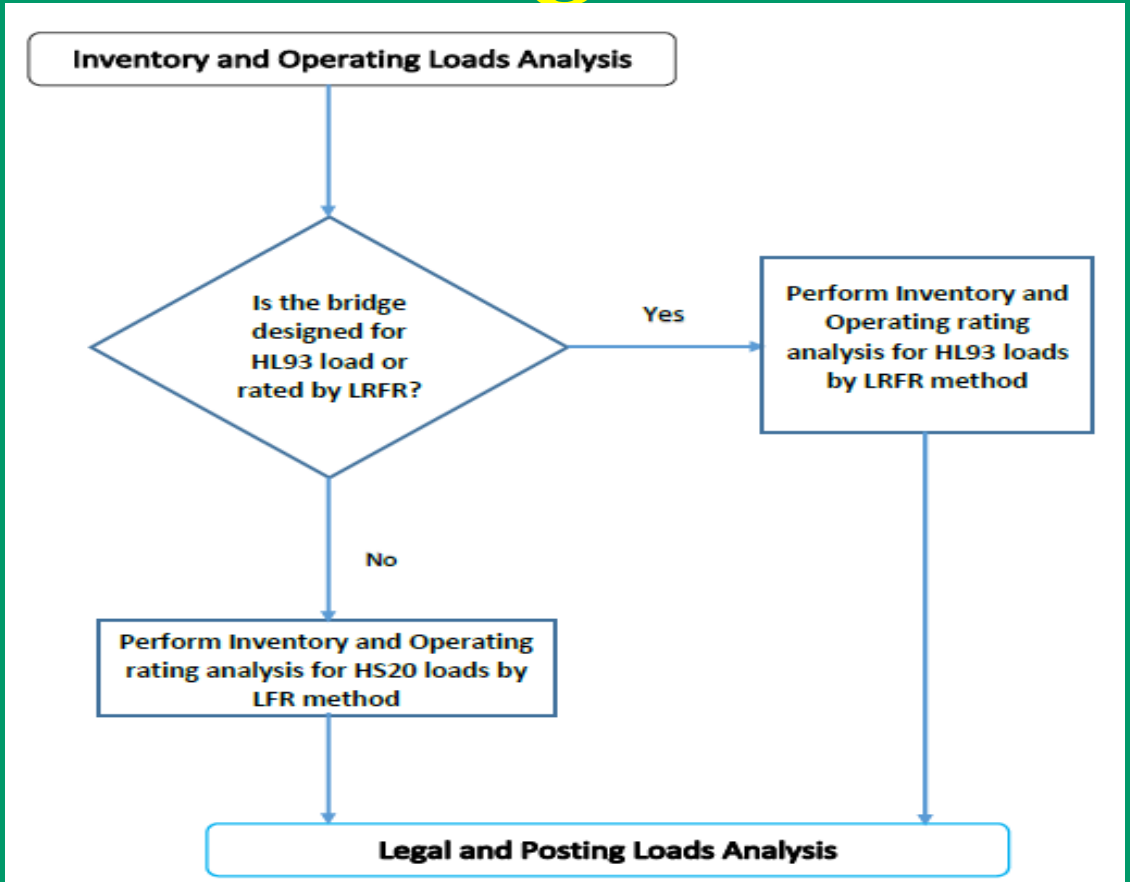
**User must select from dropdown list

OHIO LEGAL LOADS

(715) Ohio Legal Load 1:	2F1		(724) Ohio Legal Load 4:	5C1	
(716) Ohio Legal Load 1, GVW:	15	tons	(725) Ohio Legal Load 4, GVW:	40	tons
(717) Ohio Legal Load 1, Rating Factor:	1.500		(726) Ohio Legal Load 4, Rating Factor:	1.000	
(718) Ohio Legal Load 2:	3F1		(727) Ohio Legal Load 5:	SU6	
(719) Ohio Legal Load 2, GVW:	23	tons	(728) Ohio Legal Load 5, GVW:	34.75	tons
(720) Ohio Legal Load 2, Rating Factor:	1.250		(729) Ohio Legal Load 5, Rating Factor:	0.850	
(721) Ohio Legal Load 3:	SU4		(730) Ohio Legal Load 6:	SU7	
(722) Ohio Legal Load 3, GVW:	27	tons	(731) Ohio Legal Load 6, GVW:	38.75	tons
(723) Ohio Legal Load 3, Rating Factor:	0.900		(732) Ohio Legal Load 6, Rating Factor:	0.830	
(70) Bridge Posting:	3 - 10-19.9% below legal loads		(733) Posting Required by Rating:	Y	
			(734) Ohio Percent Legal:	85	%

BR-100 | SMS Coding Input

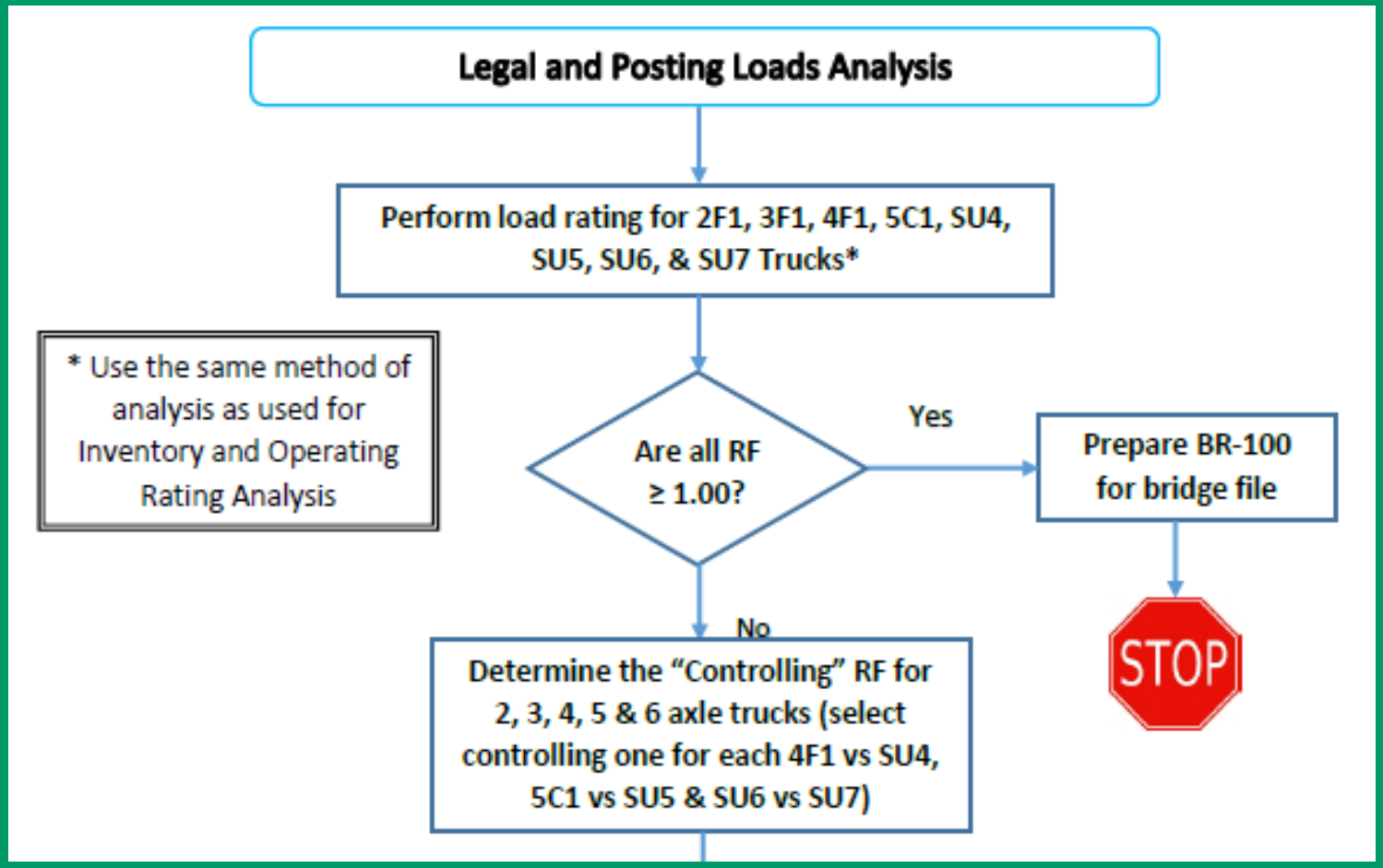
Load Rating – Flowchart



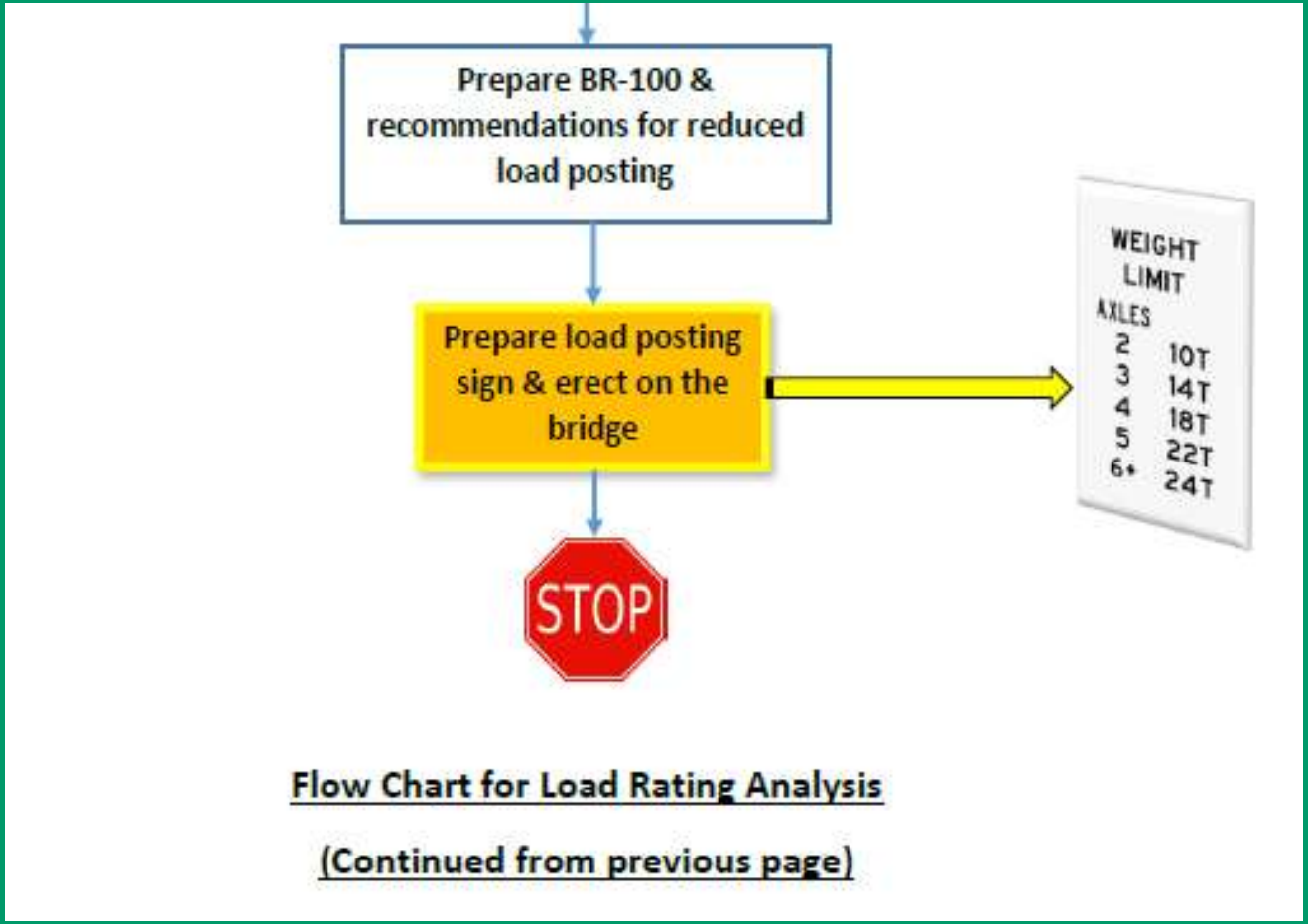
Flow Chart for Load Rating Analysis

(Continued on next page)

Load Rating – Flowchart



Load Rating – Flowchart



Special Cases of Load Ratings

- Trusses
  - Treat them like other bridge types
- Gusset Plate Analysis
  - If gusset plate analysis controls the bridge rating, re-analyze for SHVs
- Special Bridge Postings
  - No change in policy
- Bridges Exempt from Load Rating
  - No change in policy
- Non-Highway Bridges
  - No change in policy

Update on Load Rating for SHV
As of August 12, 2016

- ODOT Inspected Bridges (Group C)
  - Total bridges: 19
  - 1 bridge replaced and posting rescinded
  - 6 bridges are scheduled to be replaced by December 31, 2017
  - 1 bridge posted due to damage and scheduled to be replaced
  - 8 bridges are being reviewed
  - 3 bridges remaining to be worked at

Update on Load Rating for SHV
As of August 12, 2016

- Ohio Turnpike Inspected Bridges (Group C)
  - 1 bridge replaced and posting rescinded
  - 100% complete

Update on Load Rating for SHV
As of August 12, 2016

- ODOT Inspected Bridges (Group B)
  - Total bridges=~ 583
  - 139 bridges are scheduled to be replaced by December 31, 2022
  - 19 bridges have been re-analyzed
  - 73% of bridges need to be re-analyzed
- Ohio Turnpike Inspected Bridges (Group B)
  - Total bridges=~ 100
  - No updates available at this time

Update on Load Rating for SHV
As of August 12, 2016

- County Inspected Bridges (Group C)
  - Total bridges=~ 1191
  - ~415 will be replaced by end of 2017
  - ~50 bridges have been reanalyzed
- City Inspected Bridges (Group C)
  - Total bridges=~ 52
  - No updates available at this time

Update on Load Rating for SHV
As of August 12, 2016

- County Inspected Bridges (Group B)
  - Total bridges=~ 2300
  - ~284 will be replaced by end of 2022
  - 18 bridges have been reanalyzed
- City Inspected Bridges (Group B)
  - Total bridges=~ 335
  - No updates available at this time

Questions?

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Ohio Department of Transportation

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BRIDGE
LEGAL LOADS
REDUCED40%
FOR
TOTAL WEIGHT
AND AXLE LOADS
02/19/2007


SPEED
LIMIT
10
WEIGHT
LIMIT
12
TONS