



COLORADO
Department of Transportation
Division of Project Support

Staff Bridge
4201 E Arkansas Ave, Room 107
Denver, CO 80222-3406

Date: June 30, 2015

To: CDOT Bridge Rating and Overloads Squad
Kyle Lester - HQ Management
Danny Wells - Permit Office Manager

Signature on File

From: Behrooz Far, Staff Bridge Branch Manager

Subject: Policy for Evaluating the Colorado Bridge Weight Limit Map for Over-Wide
Overweight Vehicles

The allowable loads in the CDOT policy memorandum issued on February 22, 2008 for vehicles that are extra wide have been modified and extended to include additional scenarios i.e. $12' \leq d < 14'$ and $d \geq 14'$ (d = distance between adjacent axle groups as defined in the Colorado Bridge Weight Limit Map).

Please review and become familiar with these revisions. If you have any questions or recommendations for improvement, please contact:

M. Mac Hasan, Project Support Unit 303-757-9064

mahmood.hasan@state.co.us

BF/MH/dc

Attachment

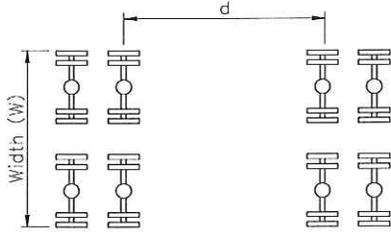
Distribution via e-mail:

J. Laipply, CDOT - Chief Engineer
S. McDaniel, CDOT - Director of Project Support
M. Greer, FHWA
K. Lester, HQ Management
D. Wells, Permit Office Manager



COLORADO WEIGHT LIMIT MAP DOUBLE DOLLY MAXIMUM ALLOWABLE PERMIT WEIGHT PER AXLE GROUPS (X 1,000 POUNDS)

Based on AASHTO Standard Specifications live load distribution factors for a concrete deck on Steel I-beams or on Prestressed concrete girders



Double Dolly = Two (2) independent axles adjacent to one another creating an axle line. Each axle line consists of eight (8) tires. A Double Dolly is typically used for very large and heavy loads such as Electrical Transformers or Refinery Equipment.

d = The distance between axle groups as defined on the Colorado Weight Limit Map.

W	Axle Groups	Distance (d) Between Axle Groups											
		8' < d < 10'			10' ≤ d < 12'			12' ≤ d < 14'			d ≥ 14'		
		Orange	Yellow	White	Orange	Yellow	White	Orange	Yellow	White	Orange	Yellow	White
≤ 10' - 0"	Single Axle	22.0	25.0	27.0	22.0	25.0	27.0	22.0	25.0	27.0	22.0	25.0	27.0
	Tandem Axle	36.0	39.0	43.0	39.0	43.0	47.0	42.0	46.0	50.0	42.0	46.0	50.0
	Triple Axle	49.0	53.0	58.0	53.0	58.0	63.0	55.0	60.0	65.0	55.0	60.0	65.0
	Four or more Axles	52.0	57.0	62.0	57.0	62.0	68.0	60.0	66.0	72.0	60.0	66.0	72.0
11' - 0"	Single Axle	23.3	26.4	28.5	23.3	26.4	28.5	23.3	26.4	28.5	23.3	26.4	28.5
	Tandem Axle	38.1	41.2	45.5	41.2	45.5	49.7	44.4	48.6	52.9	48.0	52.5	57.1
	Triple Axle	51.8	56.0	61.3	56.0	61.3	66.6	58.1	63.4	68.7	62.8	68.5	74.2
	Four or more Axles	55.0	60.3	65.5	60.3	65.5	71.9	63.4	69.8	76.1	68.5	75.4	82.2
12' - 0"	Single Axle	24.5	27.9	30.1	24.5	27.9	30.1	24.5	27.9	30.1	24.5	27.9	30.1
	Tandem Axle	40.1	43.5	47.9	43.5	47.9	52.4	46.8	51.3	55.7	50.5	55.4	60.2
	Triple Axle	54.6	59.1	64.6	59.1	64.6	70.2	61.3	66.9	72.4	66.2	72.2	78.2
	Four or more Axles	57.9	63.5	69.1	63.5	69.1	75.8	66.9	73.5	80.2	72.2	79.4	86.6
13' - 0"	Single Axle	25.8	29.3	31.6	25.8	29.3	31.6	25.8	29.3	31.6	25.8	29.3	31.6
	Tandem Axle	42.2	45.7	50.4	45.7	50.4	55.1	49.2	53.9	58.6	53.1	58.2	63.3
	Triple Axle	57.4	62.1	67.9	62.1	67.9	73.8	64.4	70.3	76.1	69.6	75.9	82.2
	Four or more Axles	60.9	66.8	72.6	66.8	72.6	79.7	70.3	77.3	84.3	75.9	83.5	91.1
14' - 0"	Single Axle	27.0	30.7	33.2	27.0	30.7	33.2	27.0	30.7	33.2	27.0	30.7	33.2
	Tandem Axle	44.2	47.9	52.8	47.9	52.8	57.8	51.6	56.5	61.4	55.7	61.0	66.4
	Triple Axle	60.2	65.1	71.2	65.1	71.2	77.4	67.6	73.7	79.8	73.0	79.6	86.2
	Four or more Axles	63.9	70.0	76.2	70.0	76.2	83.6	73.7	81.1	88.4	79.6	87.6	95.5
15' - 0"	Single Axle	28.3	32.2	34.7	28.3	32.2	34.7	28.3	32.2	34.7	28.3	32.1	34.7
	Tandem Axle	46.3	50.2	55.3	50.2	55.3	60.5	54.0	59.2	64.3	58.3	63.9	69.4
	Triple Axle	63.0	68.2	74.6	68.2	74.6	81.0	70.7	77.2	83.6	76.4	83.3	90.2
	Four or more Axles	66.9	73.3	79.7	73.3	79.7	87.5	77.2	84.9	92.6	83.3	91.6	100.0
16' - 0"	Single Axle	29.6	33.6	36.2	29.6	33.6	36.2	29.6	33.6	36.2	29.5	33.6	36.3
	Tandem Axle	48.4	52.4	57.8	52.4	57.8	63.1	56.4	61.8	67.2	60.9	66.7	72.5
	Triple Axle	65.8	71.2	77.9	71.2	77.9	84.6	73.8	80.6	87.3	79.7	87.0	94.2
	Four or more Axles	69.8	76.6	83.2	76.6	83.2	91.3	80.6	88.6	96.7	87.0	95.7	104.4
17' - 0"	Single Axle	30.8	35.0	37.8	30.8	35.0	37.8	30.8	35.0	37.8	30.8	35.0	37.8
	Tandem Axle	50.4	54.6	60.2	54.6	60.2	65.8	58.8	64.4	70.0	63.5	69.6	75.6
	Triple Axle	68.6	74.2	81.2	74.2	81.2	88.2	77.0	84.0	91.0	83.1	90.7	98.2
	Four or more Axles	72.8	79.8	86.8	79.8	86.8	95.2	84.0	92.4	100.8	90.7	99.8	108.8
18' - 0"	Single Axle	32.1	36.4	39.3	32.1	36.4	39.3	32.1	36.4	39.3	32.1	36.4	39.3
	Tandem Axle	52.5	56.8	62.7	56.8	62.7	68.5	61.2	67.0	72.9	66.1	72.4	78.7
	Triple Axle	71.4	77.2	84.5	77.2	84.5	91.8	80.1	87.4	94.7	86.5	94.4	102.3
	Four or more Axles	75.8	83.1	90.3	83.1	90.3	99.1	87.4	96.2	104.9	94.4	103.9	113.3
19' - 0"	Single Axle	33.3	37.9	40.9	33.3	37.9	40.9	33.3	37.9	40.9	33.3	37.9	40.9
	Tandem Axle	54.5	59.1	65.1	59.1	65.1	71.2	63.6	69.7	75.7	68.7	75.2	81.8
	Triple Axle	74.2	80.3	87.8	80.3	87.8	95.4	83.3	90.9	98.4	89.9	98.1	106.3
	Four or more Axles	78.7	86.3	93.9	86.3	93.9	103.0	90.9	99.9	109.0	98.1	107.9	117.7
≥ 20' - 0"	Single Axle	34.6	39.3	42.4	34.6	39.3	42.4	34.6	39.3	42.4	34.6	39.3	42.4
	Tandem Axle	56.6	61.3	67.6	61.3	67.6	73.9	66.0	72.3	78.6	71.3	78.1	84.9
	Triple Axle	77.0	83.3	91.1	83.3	91.1	99.0	86.4	94.3	102.1	93.3	101.8	110.3
	Four or more Axles	81.7	89.6	97.4	89.6	97.4	106.9	94.3	103.7	113.1	101.8	112.0	122.1

Table 1

Based on AASHTO Standard Specifications live load distribution factors for a concrete deck on Steel I-beams or on Prestressed concrete girders