

Fall Protection for Bridge Maintenance

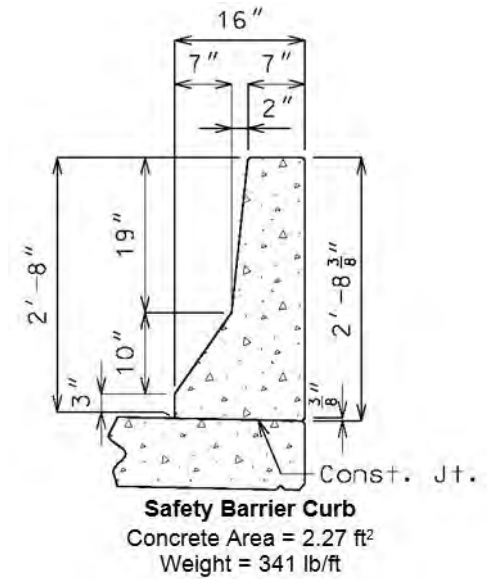
Work Group Update

AASHTO 2017 Spring Meeting
Portland, Maine

Gregg Fredrick, WyDOT



Fall Protection for Bridge Maintenance



Fall Protection for Bridge Maintenance

Work Group Participants

- **Russel Yurek**, MD DOT, Director of Maintenance,
- **Jim Gaus**, MI DOT, Occupational Safety Specialist
- **Steve Lund**, MN Dot, Director of Maintenance and Security
- Tom Koch, NC DOT, State Bridge Engineer
- **Scott Mabry**, NC DOT, Director of Safety and Risk Management
- **Rudy Malfabon**, NV DOT, Director
- Rich Tetreault, VT AOT, Deputy Secretary, SCOH member
- **Camille Erwin** – VT AOT, Safety and Health
- **Linea Laird**, WA DOT, Chief Engineer
- **Chris Keegan**, WA DOT, State Bridge Maintenance Engineering - SC on Maintenance
- **Gregg Fredrick**, WY DOT, Chief Engineer
- **Tom Drda**, FHWA, Bridge Safety Engineer, SE territory
- **AASHTO** – Keith Platte, Troy Suing



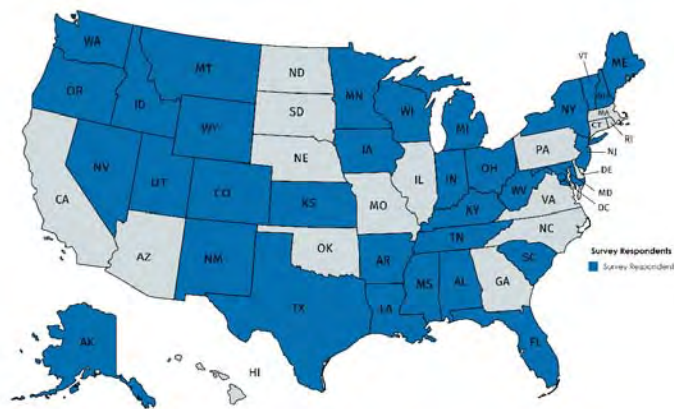
Fall Protection for Bridge Maintenance

Is this a national issue?

State survey

April 2017

- 5 Notified or fined for a violation
- 9 Had discussions with State OSHA
- 5 Worked for state variance/exemption
- 8 Implemented fall protection measures

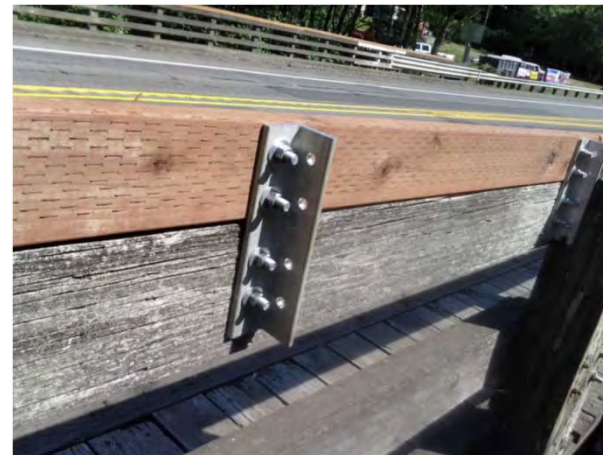


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Fall Protection for Bridge Maintenance

What are some states doing now?



Fall Protection for Bridge Maintenance

Option	Pro	Con
Letter of Interpretation	Relatively straight forward process	<ul style="list-style-type: none"> • No Guarantee • Could harm some states • Limited in possible scope
OSHA Variance Request	Could help those states <u>with</u> “State Plans”	<ul style="list-style-type: none"> • Can only be requested in states with “State Plans” • Long process • OSHA: “Last resort”
Rule Change	Could help all states	<ul style="list-style-type: none"> • Unknown process/timeline • Unknown result • Could open up other issues
Manage Individually	Immediate Flexible to individual needs	<ul style="list-style-type: none"> • Inconsistent application • Adds to M&O time/costs • Doesn't solve the issue



Questions?

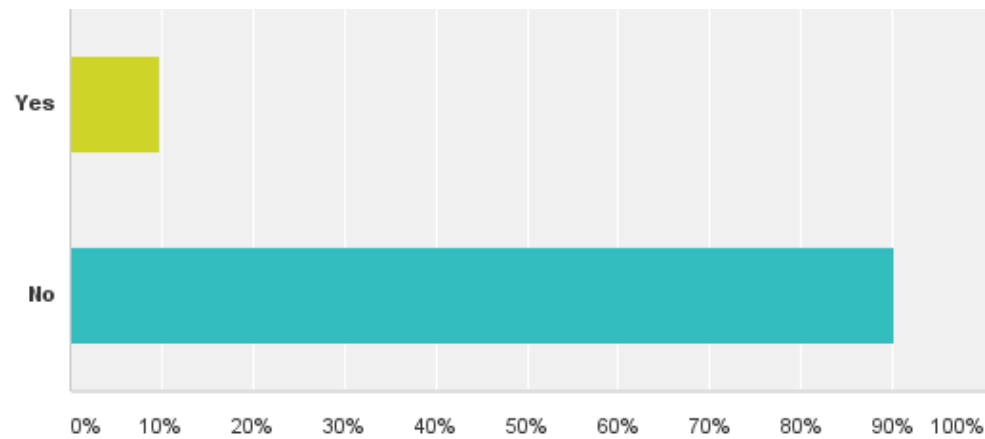


Fall Protection Survey

Thursday, May 11, 2017

Answered: 51 Skipped: 15

Q4: Does your agency have an OSHA Approved State Plan that has a different fall protection standard than that described in 1926.52(b)(1)?



Answered: 51 Skipped: 15

Q4: Does your agency have an OSHA Approved State Plan that has a different fall protection standard than that described in 1926.52(b)(1)?

Answer Choices	Responses
Yes	9.80% 5
No	90.20% 46
Total	51

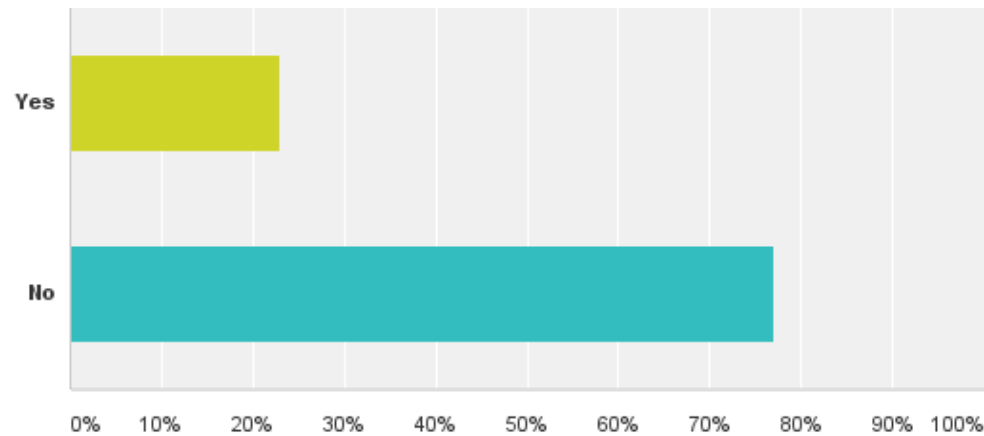
Q5 - If Yes, please describe

(Does your agency have an OSHA Approved State Plan that has a different fall protection standard than that described in 1926.52(b)(1)?)

#	Responses	Date
1	Our state adopted the OSHA standard and our MIOSHA amended it. Our policy is located at the following website. http://www.michigan.gov/documents/CIS_WSH_part45_55749_7.pdf - Additionally, our state has two safety topics distributed by our internal safety division directing us on proper use and inspection of fall arrest systems.	4/21/2017 9:03 AM
2	We must follow our provincial Ministry of Labour requirements for fall protection	4/19/2017 10:13 AM
3	Ontario Occupational Health and Safety Act, Construction Regulation	4/19/2017 9:51 AM
4	Likley similar to what is used in our province but actual details may differ	4/19/2017 8:18 AM
5	We had an agreement with Oregon OSHA that if we were not to break the plane of the rail (lean over) then we would be considered in compliance. This agreement has been rescinded by Oregon OSHA.	4/14/2017 10:38 AM
6	NA	4/13/2017 12:49 PM
7	For Construction Division OSHA Standards addressed in NJDOT Standard Specifications for Road and Bridge Construction	4/6/2017 4:25 PM
8	OSHA Standards addressed in NJDOT Standard Specifications for Road and Bridge Construction	4/6/2017 3:34 PM
9	Similar to the OSHA rules, but more restrictive. You must be 10 feet or more from the edge.	4/6/2017 12:40 PM
10	We are not an OSHA governed state agency	4/5/2017 2:38 PM

Answered: 48 Skipped: 18

Q6: Has your State OSHA, or state equivalent, office engaged in discussions with your agency regarding maintenance fall protection requirements when work occurs between existing traffic barriers that are less than 39 inches high (42 inch +/- 3 inches), the hazard is four feet or greater, and the work is between the barrier and the edge stripe?



Answered: 48 Skipped: 18

Q6: Has your State OSHA, or state equivalent, office engaged in discussions with your agency regarding maintenance fall protection requirements when work occurs between existing traffic barriers that are less than 39 inches high (42 inch +/- 3 inches), the hazard is four feet or greater, and the work is between the barrier and the edge stripe?

Answer Choices	Responses	
Yes	22.92%	11
No	77.08%	37
Total		48

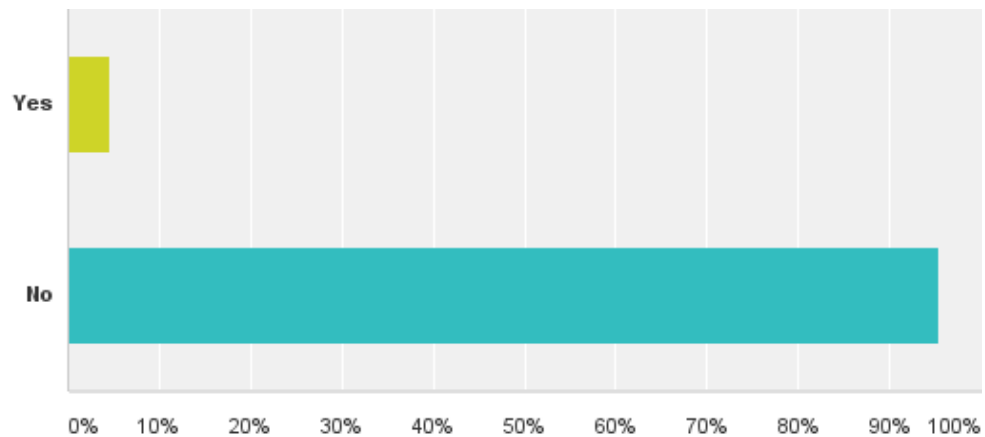
Q7 - If Yes, please describe

(Has your State OSHA, or state equivalent, office **engaged in discussions** with your agency regarding maintenance fall protection requirements when work occurs between existing traffic barriers that are less than 39 inches high (42 inch +/- 3 inches), the hazard is four feet or greater, and the work is between the barrier and the edge stripe?)

#	Responses	Date
1	Our safety office is working with the Ohio Public Employment Risk Reduction Program (PERRP).	4/25/2017 1:21 AM
2	Our Bridge inspectors have been exempted from this rule, as they are not considered to be actively engaged in working on the bridge during an inspection.	4/21/2017 1:05 AM
3	act has requirements for heights over 4 feet	4/19/2017 1:52 AM
4	dont know	4/17/2017 3:59 AM
5	Oregon has testified at recent OSHA meetings regarding the proposed enforcement of the above rule. Oregon has also been advised that enforcement of this rule will begin in November of 2017. There is still some consideration as to whether 4' or 6' must be maintained from the barrier.	4/14/2017 2:40 AM
6	We have a Safety Officer, not sure what he has discussed.	4/13/2017 4:51 AM
7	This would be handled by our Office of Employee Services (Amy Knight is in charge of safety, and all training we take out to field maintenance staff on fall protection)	4/12/2017 2:36 AM
8	They agreed that if we are setting up fall protection we are in compliance. They would not agree that if the actual work took less time than setup and take down of the fall protection, that the lower exposure time could be used. They also would not let us use the greater hazard of the traffic.	4/6/2017 4:45 AM
9	We have talked to the Bureau of Labor Standards of working near rail less than 39" and agreed upon means to comply	4/5/2017 6:44 AM
10	We undertook a risk assesment with maintenance work and developed a policy. Go to http://iHub/safetyandworkerscomp/documents/FallPreventionBridgeDeck.pdf	4/5/2017 4:51 AM
11	They asked that our workers are tied off for fall protection when the rail is less than 39"	4/5/2017 2:21 AM
12	We tried to get a variance and lost.	4/3/2017 7:54 AM

Answered: 43 Skipped: 23

Q8: Has your agency been notified of a violation or fined as a result of walking within an area where the hazard is four feet or greater and the traffic barrier is less than 39 inches high (42 inch +/- 3 inches)?



Answered: 43 Skipped: 23

Q8: Has your agency been notified of a violation or fined as a result of walking within an area where the hazard is four feet or greater and the traffic barrier is less than 39 inches high (42 inch +/- 3 inches)?

Answer Choices	Responses
Yes	4.65% 2
No	95.35% 41
Total	43

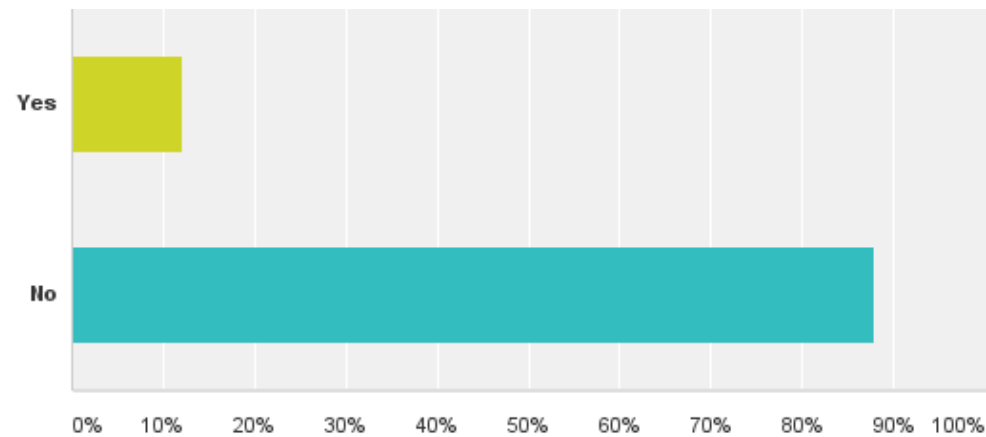
Q9 - If Yes, please describe

(Has your agency been **notified of a violation or fined** as a result of walking within an area where the hazard is four feet or greater and the traffic barrier is less than 39 inches high (42 inch +/- 3 inches)?)

#	Responses	Date
1	not known	4/19/2017 12:19 AM
2	dont know	4/17/2017 3:59 AM
3	To date Oregon has never been cited for this. OSHA cited that it hasn't hit their radar because zero workplace injuries have occurred from falling over bridge rails as the reason it hasn't been identified already.	4/14/2017 2:41 AM
4	Not for any Bridge Inspection activities.	4/13/2017 4:51 AM
5	Front page pictures of the Skagit River Bridge with people leaning over the open deck brought this to the attention of Labor and Industries.	4/6/2017 4:47 AM
6	Construction project	4/5/2017 4:51 AM

Answered: 41 Skipped: 25

Q10: Has your agency been notified of a violation or fined as a result of working within an area where the hazard is four feet or greater and the traffic barrier is less than 39 inches high (42 inch +/- 3 inches)?



Answered: 41 Skipped: 25

Q10: Has your agency been notified of a violation or fined as a result of working within an area where the hazard is four feet or greater and the traffic barrier is less than 39 inches high (42 inch +/- 3 inches)?

Answer Choices	Responses	
Yes	12.20%	5
No	87.80%	36
Total		41

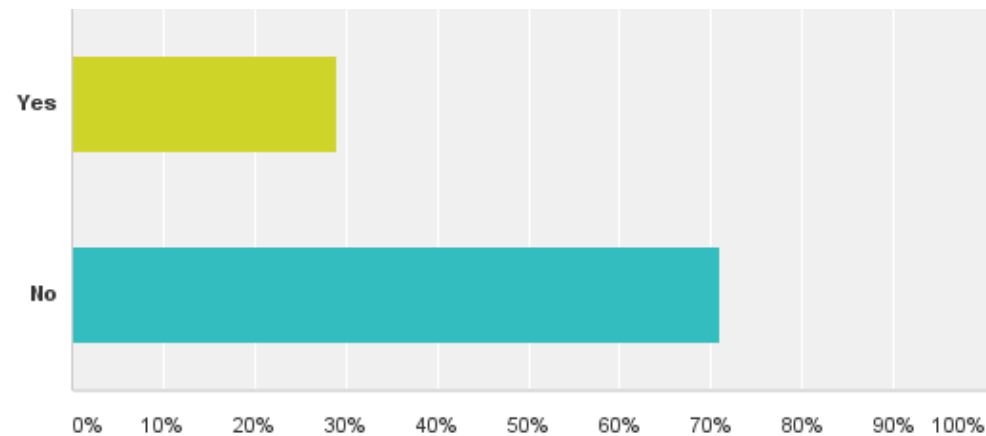
Q11 - If Yes, please describe

(Has your agency been notified of a violation or fined as a result of working within an area where the hazard is four feet or greater and the traffic barrier is less than 39 inches high (42 inch +/- 3 inches)?)

#	Responses	Date
1	An employee was cited for leaning on a barrier wall in an active construction zone. We have a two page memo written by our safety administration if you would like a copy.	4/21/2017 9:09 AM
2	Not specific to bridges, but we were contacted because when we would be on top of spreader boxes, pushing the salt/sand chunks through the screen that we were in violation. We haven't had issues on bridges as the barriers meet our local requirements	4/19/2017 10:18 AM
3	Unknown	4/19/2017 8:19 AM
4	dont know	4/17/2017 11:59 AM
5	Skagit River. Contractor set up barriers and rails after notification by Labor and Industries.	4/6/2017 12:48 PM
6	construction project	4/5/2017 12:52 PM
7	Worker was leaning against the barrier wall.	4/3/2017 3:54 PM

Answered: 38 Skipped: 28

Q12: Has your agency implemented any temporary fall restraint or fall arrest protection devices as a result of State OSHA, or state equivalent, notices, actions, or interpretations when working within an area where the hazard is four feet or greater and the traffic barrier is less than 39 inches high (42 inch +/- 3 inches)?



Answered: 38 Skipped: 28

Q12: Has your agency implemented any temporary fall restraint or fall arrest protection devices as a result of State OSHA, or state equivalent, notices, actions, or interpretations when working within an area where the hazard is four feet or greater and the traffic barrier is less than 39 inches high (42 inch +/- 3 inches)?

Answer Choices	Responses	
Yes	28.95%	11
No	71.05%	27
Total		38

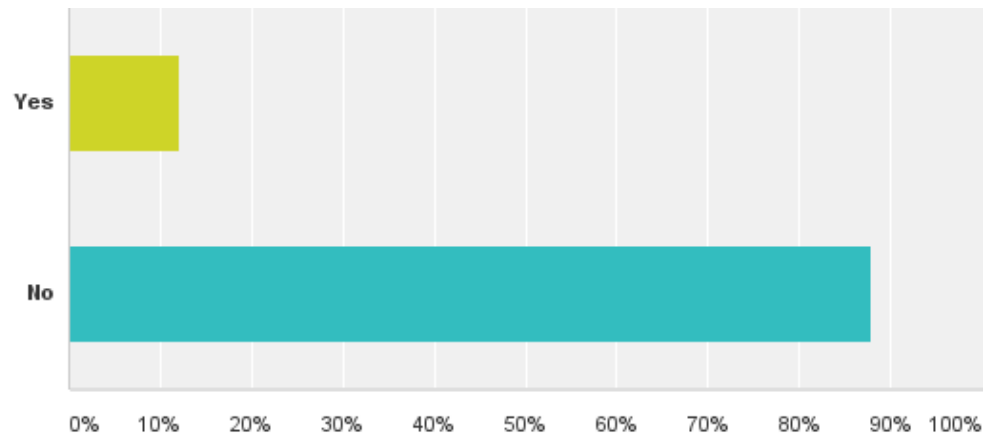
Q13 - If Yes, please describe

(Has your agency **implemented any temporary fall restraint** or fall arrest protection devices as a result of State OSHA, or state equivalent, notices, actions, or interpretations when working within an area where the hazard is four feet or greater and the traffic barrier is less than 39 inches high (42 inch +/- 3 inches)?)

#	Responses	Date
1	Some crews install parapet clamping guardrail systems with 2x4 timber guardrails. Some crews use fall protection anchors drilled in to the deck when repairing bridge railings.	4/21/2017 9:15 AM
2	In the situation of working on spreader boxes, we had to either use a stairway with a platform to work off of, or wear a fall arrest device	4/19/2017 10:20 AM
3	Unknown	4/19/2017 8:20 AM
4	During Maintenance Work Some Contractors are providing temporary height extensions	4/17/2017 1:18 PM
5	dont know	4/17/2017 11:59 AM
6	Not actually sure, we are required to use a fall restraint when inspecting from a lift truck or snooper.	4/13/2017 12:54 PM
7	Fall Restraint or Fall Arrest as necessary	4/10/2017 8:27 AM
8	Refer to NJDOT Divisions of Employee Safety and Maintenance	4/6/2017 4:33 PM
9	Refer to NJDOT Divisions of Employee Safety and Maintenance	4/6/2017 3:38 PM
10	Maintenance crews have purchased or manufactured devices that raise the rail height to at least 42 inches when they are working within ten feet of the existing rail.	4/6/2017 12:50 PM
11	Employees should remain clear of the barrier	4/6/2017 11:33 AM
12	we have developed fall protection equipment that can be mounted on the barrier for conditions that are not covered in our maintenance policy.	4/5/2017 12:54 PM
13	installation of temporary handrails or cables to hook off from	4/5/2017 10:22 AM
14	...but the use thereof is not widely accepted or used as the workers do not agree that it is a hazard.	4/3/2017 3:55 PM

Answered: 41 Skipped: 25

Q14: Has your agency worked with the State OSHA, or state equivalent, to get an exemption/variance from installation of fall restraint systems or fall arrest systems when working within an area where the hazard is four feet or greater and the traffic barrier is less than 39 inches high (42 inch +/- 3 inches)?



Answered: 41 Skipped: 25

Q14: Has your agency worked with the State OSHA, or state equivalent, to get an exemption/variance from installation of fall restraint systems or fall arrest systems when working within an area where the hazard is four feet or greater and the traffic barrier is less than 39 inches high (42 inch +/- 3 inches)?

Answer Choices	Responses
Yes	12.20% 5
No	87.80% 36
Total	41

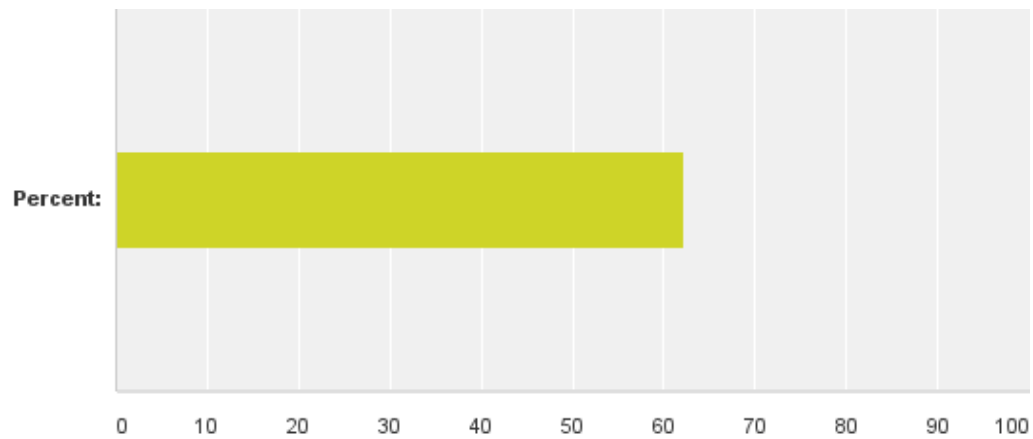
Q15 - If Yes, please describe

(Has your agency worked with the State OSHA, or state equivalent, to get an **exemption/variance** from installation of fall restraint systems or fall arrest systems when working within an area where the hazard is four feet or greater and the traffic barrier is less than 39 inches high (42 inch +/- 3 inches)?)

#	Responses	Date
1	As stated previously, our bridge inspectors are allowed to walk across the bridge to perform their inspection without fall arrest protection.	4/21/2017 9:17 AM
2	Rope access inspections of F/C structures	4/19/2017 2:18 PM
3	dont know	4/17/2017 11:59 AM
4	Not to my knowledge.	4/13/2017 12:54 PM
5	Refer to NJDOT Divisions of Employee Safety and Maintenance	4/6/2017 4:33 PM
6	Refer to NJDOT Divisions of Employee Safety and Maintenance	4/6/2017 3:40 PM
7	See previous answers.	4/6/2017 12:51 PM
8	yes see policy at http://ihub/safetyandworkerscomp/documents/FallPreventionBridgeDeck.pdf	4/5/2017 12:54 PM
9	Not an exemption but a variance. It was denied.	4/3/2017 3:56 PM

Answered: 34 Skipped: 32

Q16: Please provide an estimated percentage of your bridge barrier rail height which is less than 39 inches (42 inch +/- 3 inches).



Answered: 34 Skipped: 32

Q16: Please provide an estimated percentage of your bridge barrier rail height which is less than 39 inches (42 inch +/- 3 inches).

Answer Choices	Average Number	Total Number	Responses
Percent:		62	2,116
Total Respondents: 34			

Q16: Please provide an estimated percentage of your bridge barrier rail height which is less than 39 inches (42 inch +/- 3 inches).

#	Percent:	Date
1	67	4/25/2017 8:35 AM
2	20	4/25/2017 8:20 AM
3	40	4/25/2017 2:38 AM
4	0	4/20/2017 1:36 AM
5	35	4/19/2017 6:19 AM
6	45	4/19/2017 4:41 AM
7	0	4/19/2017 2:20 AM
8	0	4/19/2017 12:20 AM
9	90	4/17/2017 5:55 AM
10	50	4/17/2017 5:19 AM
11	85	4/17/2017 4:33 AM
12	98	4/17/2017 4:21 AM
13	95	4/17/2017 3:41 AM
14	90	4/17/2017 3:25 AM
15	90	4/14/2017 2:42 AM
16	90	4/13/2017 4:58 AM
17	80	4/11/2017 9:48 AM
18	39	4/10/2017 12:28 AM
19	50	4/9/2017 11:51 PM

Q16: Please provide an estimated percentage of your bridge barrier rail height which is less than 39 inches (42 inch +/- 3 inches).

20	90	4/6/2017 7:27 AM
21	50	4/6/2017 5:17 AM
22	80	4/6/2017 4:52 AM
23	90	4/6/2017 3:17 AM
24	1	4/6/2017 12:05 AM
25	95	4/5/2017 10:02 AM
26	62	4/5/2017 6:46 AM
27	99	4/5/2017 6:43 AM
28	0	4/5/2017 5:27 AM
29	75	4/5/2017 4:54 AM
30	95	4/5/2017 3:30 AM
31	50	4/5/2017 3:23 AM
32	90	4/5/2017 2:30 AM
33	95	4/5/2017 1:55 AM
34	80	4/3/2017 7:56 AM