

Sent 5/25/17 to SCOTE listserv:
Greetings,

STATE	RESPONSE DATE	X-LITE USED?	Question 1. Has Lindsay provided your state specific guidance or specifications for bolt torque to match in-service field conditions to crash testing conditions?	Question 2. Do you have data or experience that indicates in-service performance may have been affected by bolt torque?	Question 3. Do you have concerns that bolt torque may affect in-service performance?	NOTES
Alabama	6/6/2017	NO	No.	No.	No.	
California	5/26/2017		No additional information is shared by Lindsay. The specification should be in the installation manual .	No.	No.	
Deleware	5/26/2017	NO	--	--	--	
Idaho	5/26/2017	NO	--	--	--	The Idaho Transportation Department (ITD) has the X-Lite approved on our Qualified Products List, however we have none installed in Idaho. Therefore, we have no comment on the bolt torque specifications nor crash performance.
Indiana	5/26/2017	NO	--	--	--	Lindsay's end terminal is not on INDOT's approved products list; we have no experience with them.
Iowa	5/26/2017	NO	--	--	--	The X-LITE barrier is not approved for use in Iowa.
Kansas	5/26/2017	NO	No. Lindsay completed a review of our installation and provided a detailed list of concerns that we are currently reviewing. There was no mention of a torque issue.	KDOT will evaluate accident data to see if there are concerns but no concerns are known at this time.	Currently, we are working with Lindsay about the X-lite product and these type of questions. KDOT has suspended X-lite from future KDOT contracts. Our goal is to transition to the MASH product more quickly and X-lite would not qualify.	
Kentucky	5/31/2017	NO	--	--	--	Kentucky has no experience with this system.
Louisiana	6/2/2017		No.	No.	No.	

STATE	RESPONSE DATE	X-LITE USED?	Question 1. Has Lindsay provided your state specific guidance or specifications for bolt torque to match in-service field conditions to crash testing conditions?	Question 2. Do you have data or experience that indicates in-service performance may have been affected by bolt torque?	Question 3. Do you have concerns that bolt torque may affect in-service performance?	NOTES
Michigan	5/26/2017		Lindsay Transportation Solutions has not provided any bolt torque specifications for any of the bolts used in the X-Lite family of terminals. The only torque specification provided by Lindsay Transportation Solutions applies to the cable nut used to secure the cable assembly to the second post from the front of the terminal. Lindsay recommends applying a torque of 60 ft-lb to the cable nut to ensure the cable is taut after installation	No, the Michigan DOT (MDOT) has no data or field observations to suggest that in-service performance may have been affected by insufficient/inadequate bolt torque.	MDOT has no information or field observations that would suggest that inadequate or insufficient bolt torque may affect the terminal's in-service performance.	
Nebraska	5/26/2017	YES	No.	No.		We have insufficient data to provide an assessment.
New Hampshire	5/26/2017	YES	--	--	--	See expanded response.
New Mexico	6/1/2017		No.	No.	No.	
North Carolina	5/30/2017	YES	Nothing we know of other than the recommended 60 FT-LB torque in the installation manual to ensure cable is proper tightness.	No, we do not at this time	No, we do not at this time.	
South Dakota	5/26/2017	NO	No.	No, product is on our APL but none have been installed yet.	It would probably have an effect on performance.	
Tennessee	5/26/2017	YES	Installation instruction states, do not use torque wrench.	Yes. Field inspections revealed the fact yellow bolts can be torqued (manufacturer claimed they cannot) so the designed performance of the system would suffer.	Yes.	

STATE	RESPONSE DATE	X-LITE USED?	Question 1. Has Lindsay provided your state specific guidance or specifications for bolt torque to match in-service field conditions to crash testing conditions?	Question 2. Do you have data or experience that indicates in-service performance may have been affected by bolt torque?	Question 3. Do you have concerns that bolt torque may affect in-service performance?	NOTES
Texas	6/7/2017	YES	<p>Yes, recently we have discussed with Lindsay the torqueing required for the torque cable Nut at Post 2 (tightening of torque cable), 60 ft-lb is approximately required using a torque wrench. If no torque wrench available, then tighten until a max of ½" cable deflection is measured at the midpoint.</p> <p>Other current torque guidance is to not over tighten the special yellow shear bolts (no air impact wrench allowed); according to Lindsay these actually perform better the looser they are. Lindsay indicated that due to MASH they were NOT allowed to update their current X-LITE installation manual.</p>	We are reviewing crash data, and have not confirmed this.	It's a possibility; we will be talking with Lindsay again in early June to tie down any possible questions with the torqueing.	
Utah	5/30/2017	NO	--	--	--	
Wisconsin	5/30/2017	NO	--	--	--	I know that the Technical Committee of Roadside Design was asked similar questions by New York State. I have not seen a summary of the responses.
Wyoming	5/26/2017	NO	--	--	--	