

X-LITE End Terminal	1. Does the State DOT use Lindsay's X-LITE end terminal system?	2. If yes, approximately how many devices are currently deployed in the state?	3. Does the State DOT have any additional information to share with us about the Lindsay X-LITE	% of Xlite in State
Alaska	Yes	0	No	0.00%
Alabama	No	N/A	No	N/A
Arizona	Yes	0	ADOT has received feedback from contractors that the X-LITE has constructability challenges which is why they are not selecting the product. ADOT is also moving to remove from APL.	0.00%
Arkansas	No	N/A	No	N/A
California	Yes	297	No	2.02%
Colorado	Yes	300	No	2.04%
Connecticut	Yes	12	No crash history. This device has only been on CTDOT's Qualified Products List (QPL) since September 2015.	0.08%
Delaware	No	N/A	No	N/A
District of Columbia	No	N/A	No	N/A
Florida	Yes	45	One X-Lite guardrail terminal in the Jacksonville area has been involved in a property damage only incident. The photos are attached.	0.31%
Georgia	Yes	300	No longer on QPL	2.04%
Hawaii	No	N/A	No	N/A
Idaho	Yes	0	No, on QPL but none used so far	0.00%
Illinois	No	N/A	The state has the X-Tension on its Qualified Products List. They would like to know how the findings with the X-Lite will affect the eligibility of the X-Tension. We understand that the X-Lite was based on the X-Tension with some modifications.	N/A
Indiana	No	N/A	No	N/A
Iowa	No	N/A	No	N/A
Kansas	Yes	39	Have not experienced any concerns with performance of this end terminal	0.27%
Kentucky	No	N/A	No	N/A
Louisiana	Yes	31	No	0.21%
Maine	Yes	30	Currently gathering information on the X-LITE issue and will be making recommendations on future usage to chief engineer.	0.20%
Maryland	Yes	1635	No	11.13%
Massachusetts	Yes	2600	As MassDOT is part of the FHWA in-service performance evaluation (IPSE-GETS), data on x-lite crashes have been provided to the team. Please refer to them. In terms of our experience here in Massachusetts and with MassDOT installations, we are not aware of any issues with the performance of the X-Lite terminal ends. This product, like the other terminal ends on the market have shown to provide a level of roadside safety that can be expected under a reasonable crash condition. Like any roadside safety hardware, devices are tested under conditions set forth by the NCHRP 350 crash testing procedures and actual in-service crash results may not always replicate what was shown under standard conditions	17.70%
Michigan	Yes	85	No	0.58%
Minnesota	Yes	10	Not aware of any hits on the installations on the state highways	0.07%
Mississippi	No	N/A	No	N/A
Missouri	Yes	400	Lindsay X-Lite is not on MODOT's Qualified Products Listing.	2.72%
Montana	No	N/A	No	N/A
Nebraska	Yes	4	Nebraska Dept. of Roads uses the X-lite only as a 4' offset end treatment	0.03%
Nevada	No	N/A	No	N/A

New Hampshire	Yes	111	No, we do not have any in-service assessment on this system. Several systems have been damaged over the course of the winter but we are not aware of any issues with serious injury events . We are currently reviewing this special provision for 606 to move toward MASH terminals. I expect that we will be instituting the higher performing MASH terminals in contracts that advertise early this summer (June). At this time we have no wholesale action to replace any X-Lite systems. I do suspect, we will get some guidance from the Commissioner's Office on current construction projects where this terminals is the contractor's choice and where they have not yet been installed. If so, this will likely result in possible change order with the contractor to replace X-Lite. My recommendation would be to seek replacement for X-Lite terminals on Tier I and II roadways having posted speed of 45 mph or higher. I plan on meeting next Monday with Commissioners to discuss our next action plan for MASH compliance prior to the FHWA/AASHTO Implementation Agreement and this includes the terminals. The two systems that will be listed are Trinity SoftStop and Barrier Systems MSKT, both with eligibility letters from FHWA Safety Office. We await the issuance of the eligibility letter for the Lindsay MAX-Tension I. Once the FHWA letter is issued, this new system will be added to Section 660 spec.	0.76%
New Jersey	Yes	10	Ryan Samak, North Regional Manager of Lindsay, has informed the NJDOT that Lindsay inspected existing X-LITES for Tennessee DOT for 2 weeks and found that a majority of them had installation issues such as incorrect height (one was 40 " high), grading, and location of shear and splice bolts. The installation manual states that shear bolted should be hand tightened , then tighten a quarter turn. They are designed to break when hit. If you tighten them too much, they will break, then you need to replace it and tighten it correctly the next time. Lindsay Transportation Solutions will not be crash testing this system to MASH.	0.07%
New Mexico	No	N/A	No	N/A
New York	Yes	24	No	0.16%
North Carolina	Yes	1000	No	6.81%
North Dakota	No	N/A	No	N/A
Ohio	Yes	2	The two locations have not been impacted by a vehicle and required no maintenance. The two installations are NCHRP 350, Ohio DOT is now focused on MASH tested hardware	0.01%
Oklahoma	Yes	3	X-Lite is on ODOT QPL as "Conditional Approval"	0.02%
Oregon	Yes	0	While the X-LITE system was on the QPL it has since been removed so that no installations are currently allowed	0.00%
Pennsylvania	Yes	535	No known performance issues	3.64%
Puerto Rico	Yes	15	Only installed on P3 concessionary (Metropistas) two toll roads	0.10%
Rhode Island	Yes	50	RIDOT started seeing shop drawings/submittals come in with this brand in late 2014. There have been some concern from our Construction repair personnel to their quality , compared to other approved devices.	0.34%
South Carolina	Yes	500	Lindsay participated in a Guardrail workshop conducted in late 2016 and also provided installation training in each of the SCDOT Districts.	3.40%
South Dakota	No	N/A	No	N/A
Tennessee	Yes	1800	TDOT removed this terminal from the QPL on October 25, 2016. All X-Lite terminals on roadways 45 mph or greater will be removed and replaced with a MASH TL-3 terminal by Summer 2018 .	12.25%
Texas	Yes	1150	TxDOT is aware of the questions raised pertaining to the X-LITE system; and is in the process of gathering and assessing information on the X-LITE system.	7.83%
Utah	No	N/A	No	N/A

Vermont	Yes	5	The 5 installations were all installed on a single project to afford VTrans' Maintenance and Operations Bureau (MOB) the opportunity to evaluate them from a maintenance standpoint (ease of installation) . The MOB recommended to the Guardrail Committee that they were an acceptable option and the Guardrail Committee in turn recommended they be added to the APL, which they were in early 2016. It was determined that neither the MOB or the Construction section have verified any further installations after the original 5. None of these end sections have been involved in crash as of the date of this response	0.03%
Virginia	Yes	1000	on APL from Sept 2013 to Sept 2016	6.81%
Washington	No	N/A	No	N/A
West Virginia	Yes	2700	We are reviewing in-service performance within WV as well as other states' experiences.	18.38%
Wisconsin	No	N/A	No	N/A
Wyoming	No	N/A	No	N/A
Total "Yes"	33	14693	locations	
Total "No"	19			
Total Missing	0			

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