

**NCDOT Report 2018-027: Evaluation of Railway Station Passenger Boarding Platform Gap Filler Solutions for North Carolina Supplemental Documentation**

Source	Comment	Response
Amtrak	Concern was raised based on previous experiences. Mike Trosino, Director of Inspections and Testing, recalls a test in the late 1980's for a similar product proposed for LIRR. The product, in that case, did not survive daily passage of trains. The material was repeatedly struck by the moving equipment and was milled off after about 6 months.	Recent testing of gap filler products shows improved performance, as demonstrated in user comments outlined in the report and references.
Amtrak	From the study, and as confirmed by Gary Israelson, Assistant Superintendent Road Ops., it appears that freight traffic does not transverse along the platform's adjacent track at Raleigh (RUS). However, if the intent is to implement the proposed gap filler throughout the NC Rail System attention must be paid to potential freight operations adjacent to passengers boarding platforms. Per Mike Trosino's comments, typical freight cars are 8" wider than the passenger equipment at platform height and will potentially damage or remove the gap filler. This will also be the case for MofW equipment that may be used on this tracks.	Currently, the gap filler is only intended for use at high-platform stations in North Carolina. Freight is not currently planned for RUS, but the gap between the platform can be altered to accommodate freight at future stations, if needed.
Amtrak	Amtrak recommends to perform additional testing of the material along Track #1. This test should involve and include all existing trains operations – Amtrak, NC Rail	RUS is planned to serve as the pilot location for gap filler use in North Carolina. It is not required that the filler be installed on both tracks at once if there is a preference for an initial piloting phase.
Amtrak	In addition, since the proposed gap filler is intended for RUS and other NC Rail System locations, more scenarios should be tested before a final decision is made for implementation. Consider testing it against freight and maintenance equipment, as these have the potential to create the most impact to the material.	RUS can serve as the pilot location of gap filler, with the option to conduct further testing as deemed necessary by stakeholders. At this time, RUS is not expected to accommodate freight trains. At stations where freight will be accommodated, the gap between the platform can be altered to accommodate freight.
Amtrak	Section 6 (page 16) states that the material can bend if struck by a passing train. How much impact (frequency/force) can the filler resist before requiring replacement?	As demonstrated in user comments outlined in the report, maintenance is minimal and replacement time varies by frequency of use and environmental factors. Individual gap filler segments can be replaced as opposed to the full length of filler.
Amtrak	Section 6.3 mentions that NCDOT modified the grab bars to help ensure that the equipment will no longer strike a gap filler product. What happens when the impact comes from a Non-NCDOT rail equipment? Is the expectation that ALL rail equipment be modified to accommodate the gap filler to reduce impact?	This will be determined by NCDOT if a gap filler product is introduced.

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Amtrak	General comments on the test: what was the equipment used during the material test? Was the rail equipment traveling at its usual speed? What was the test duration? Was there a specific impact test conducted?	Initial tests at RUS and Capital Yard, as described in the report, were at low speeds due to safety protocols. These tests were initially conducted using a foam mockup and were then conducted using the actual gap filler product. No impact tests were conducted at RUS. Rather, these were conducted by the vendors. Additional tests were conducted by the Heathrow Express, detailed in Venables, M., and Enderson, P. (July 2016). "LU PTI – PEDs Project, Task Order 7 Report on Passive Gap Filler Testing." Creative Design Limited.
Amtrak	Did you consider testing the F.B. Wright product? How does it differ from the Delkor Rail filler? Is there any benefits to get one versus the other: material availability for new and/or replacement, lead time, pricing?	The F.B. Wright product was not tested because the vendor does not keep samples on-hand and required a substantial fee to produce a sample, and the cost of the sample was prohibitive. Delkor users and F.B. Wright users indicated similar experiences and Delkor actively produces the product whereas F.B. Wright requires custom orders.
City of Raleigh	Proposed funding for gap filler, \$98,393.00. Would NCDOT provide all or partial funding for this? If city has to provide, it would have to be proposed in a Capital Improvement project – three to five years for saving.	The sponsor is to be determined.
NCDOT	Clarify "implementation" costs. Is this just material costs? Add costs for installation costs.	It takes about ten minutes or less to mount each piece of gap filler product. The implementation cost will be the cost of labor for approximately 110 hours. This calculation is based on the following calculations: 655 section x 10 min/sec x 1 hr/60 min = 110 hours.
NCDOT	Point out difficulty of tightening bolts in the track footprint semi-annually	This will need to be evaluated prior to implementation. If there is a need to do this it should be added to the City of Raleigh maintenance plan.