



MEMORANDUM

To: Nathan Poore, Town Manager

From: Theo Holtwijk, Director of Long-Range Planning

Date: October 16, 2012

Re: **Railroad Crossing Upgrades - Quiet Zone – Amtrak/Downeaster Train**

With the impending start of the Downeaster train on November 1st, staff updated the Quiet Zone (QZ) parameters and has sought confirmation from the Federal Railroad Administration (FRA) regarding its application requirements. The Council last discussed this issue in June 2012.

Staff found that:

- several of the QZ parameters changed in a significant manner, and
- FRA recommended a different QZ approach than previously developed.

Based on this new information, there are three options available to the Town. These have been detailed on the following page. In summary, these options are:

- A. making no channelization improvements at any of the crossings,
- B. making channelization improvements at two of the four crossings, and
- C. making channelization improvements at all four crossings.

If any channelization improvements are made, staff anticipated that those can be made by Spring 2013.

When the Downeaster train service starts on November 1, 2012, it is the understanding of staff that:

- the Blackstrap and Falmouth crossings will still be subject to the current Quiet Zone, and
- the Field and Woodville crossings will continue to have train horns from trains passing through, including those from Downeaster trains.

Option 1	Crossing	Description	Safety	Quality of life	Cost	Future status
Maintain existing QZ at Blackstrap and Falmouth	Blackstrap and Falmouth	Existing QZ at Blackstrap and Falmouth.	Meets FRA standard with ½ gates and bells at crossing.	No train horns.	None	QZ at Blackstrap and Falmouth depends on what traffic volume figures are used and on accident history and future. QZRI is re-calculated annually. QZ could be in jeopardy in near future. Partial channelization at that time may be an option.
	Woodville and Field	No QZ for Woodville and Field.	Meets FRA standard with ½ gates, bells at crossing and train horn.	There will be additional train horns.	None	n/a
Option 2	Crossing	Description	Safety	Quality of life	Cost	Future status
Establish new QZ for Woodville and Field	Blackstrap and Falmouth	Existing QZ at Blackstrap and Falmouth.	Meets FRA standard with ½ gates and bells at crossing. Less safe than Woodville and Field as there is more traffic here and no channelization.	No train horns.	None	QZ at Blackstrap and Falmouth depends on what traffic volume figures are used and on accident history and future. QZRI is re-calculated annually. QZ could be in jeopardy in near future. Partial channelization at that time may be an option.
	Woodville and Field	Make channelization improvements. This may likely be done through “designation” (need to confirm this). Keep separate from Blackstrap and Falmouth.	Meets FRA standard with ½ gates and bells at crossing, and additional channelization safety improvements.	No train horns.	\$70K	No annual calculation of QZRI.
Option 3	Crossing	Description	Safety	Quality of life	Cost	Future status
Make channelization improvements at all crossings	Blackstrap and Falmouth	Make partial channelization improvements. These can only be done through “application” (need to confirm this).	Likely to meet FRA standard with ½ gates and bells at crossing, and additional channelization safety improvements. Note: FRA, Pan Am and MDOT get to comment.	No train horns.	\$57K	QZRI calculation is close to threshold. QZ may not have long lifespan.
	Woodville and Field	Make channelization improvements. This may likely be done through designation (need to confirm this).	Meets FRA standard with ½ gates and bells at crossing, and additional channelization safety improvements.	No train horns.	\$70K	No annual calculation of QZRI.

BACKGROUND

- On **December 12, 2011**, the Council voted 7-0 to approve an order to authorize a supplemental appropriation of \$130,000 from the undesignated fund balance for railroad crossing upgrades.
 - These funds would pay for improvements to four railroad crossings along the Pan Am Railways line to be made in order to maintain (and expand) a so-called “Quiet Zone” (QZ) in Falmouth in anticipation of increased frequency and speed of trains when the Amtrak Downeaster train service starts.
 - The improvements consist of “channelization” devices as shown below. These are reboundable vertical panels mounted on a 2.5 feet wide traversable median with 45 degree granite curb intended to prevent drivers from circumventing the crossing gates by switching into oncoming traffic lane and driving around the lowered gates to cross the tracks. This work mandates slight road widenings.



Staff stated at that time that it would bring this topic back to the Council for a check-in if the Amtrak expansion does not happen.

- On **June 7, 2012**, the Town was informed by the Northern New England Passenger Rail Authority that the Amtrak Downeaster train service is scheduled to commence on or around November 1, 2012. The November 1, 2012 date required immediate action by the Town to make the necessary notifications to the Federal Railroad Administration and other parties and install the proposed crossing upgrades in time.
- **June 2012:** Staff did an additional check-in with the Council and the Council reaffirmed the direction.

- Work over the **summer 2012** revealed some changes in the QZ parameters.¹ This brought the calculations for Falmouth much closer much closer to the QZ threshold, potentially limiting the future status of the QZ. Staff also sought confirmation of the application process from FRA.

Additional notes:

- The private Muirfield-Birkdale crossing (located in Cumberland) is not part of any upgrade or Quiet Zone.
- The Town of Cumberland has opted not to make crossing upgrades at this time.
- The Falmouth Police Department is conducting educational outreach for the public that is associated with railroad crossing safety on October 30, 2012.
- The Council’s December 12, 2011 agenda materials provide further background information on this topic (including a Quiet Zone presentation). Please see: http://www.town.falmouth.me.us/Pages/FalmouthME_CouncilAgendas/2011/12122011/TM_RRCrossing_O

¹ The updated Quiet Zone parameters are:

1. The Downeaster/NNEPRA’s train schedule will still consist of 3 round trips (6 “moves”), but due to a delay in building its layover facility, there likely will be 2 additional “dead head” train moves each day for the foreseeable future. Also, in the future there may be additional roundtrips, but eight (8) train moves per day is a reasonable assumption to make.
2. The National Significant Risk Threshold (NSRT) was revised last January by FRA from 14,007 to 13,722. The Risk Index With Horns (RIWH) remains at 16,451.
3. Train speed information was obtained from NNEPRA and ranges from 60 to 70 mph.
4. Most significantly, staff was directed by FRA to obtain “up to date” traffic counts. The new traffic figures (in blue) are rather different from the data currently in the US DOT Crossing Inventory (green) and previously relied upon by the Town.

	US DOT		ME DOT	ME DOT
	1990-1997	year	1997	2010
Blackstrap	4522	1990		3430
Falmouth	3739	1997		7380
Field	225	1997	600	932 *
Woodville	620	1997	470	730

* Note: 2010 Field Road crossing is based on the trend of the Woodville 1997-2010 increase