



## MEMORANDUM

**To:** Nathan Poore, Town Manager

**From:** Jay Reynolds, Public Works Director  
Theo Holtwijk, Director of Long Range Planning

**Date:** April 22, 2014

**Re:** **Railroad Crossing Upgrades - Quiet Zone**

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The Council received its last formal update on the Quiet Zone project on October 16, 2013.

At that time the Council re-affirmed its desire to create/maintain a Quiet Zone and install channelization improvements at all four crossings on the Pan Am rail line in Falmouth.

Specifically, the Town intended to pursue a “Public Authority Designation” for the establishment of a new quiet zone at the Field and Woodville crossings, and maintain the existing pre-rule quiet zone at Blackstrap and Falmouth crossings as is. Channelization improvements would be made at all for crossings (see example image below).<sup>1</sup>



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<sup>1</sup> Channelization devices 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.

**Recent steps completed by Town staff and Town Council:**

1. On September 24, 2013, staff filed a “Notice of Intent” to create a Quiet Zone at the Woodville and Field Road crossings with the Federal Railroad Administration (FRA) and other parties. No comments were received in the 60-day comment period.
2. At that time, staff obtained construction bids for the Woodville and Field Road crossings. Attached are the construction drawings. Bids ranged from \$100K to \$156K for the two crossings. Note: A total of \$130K was originally allocated for all four crossings.
3. Construction was targeted for spring 2014. Note: The Blackstrap and Falmouth Road crossings require a separate notification as a Quiet Zone already exists at these locations. Such a notification requires current traffic counts. As Blackstrap Road was being repaved last fall, that crossing was closed to traffic and no counts could be conducted at that time.
4. On October 16, 2013, The Town Council provided the following guidance and direction:
  - a. Reaffirmation of the preference of the channelization design.
  - b. Further evaluate scope, design, and access/property impacts at the Woodville Road crossing.
  - c. Consider phasing the crossings as two separate projects (Woodville/Field, and Falmouth/Blackstrap).

**Current status:**

1. Around the same time last fall the Town was notified by abutters (Thompson) of the Woodville Road crossing that the proposed channelization affected their existing field access curb-cut in a negative manner.
2. Staff investigated this situation and redesigned the plan for that location. This involved widening the existing apron radii on private property, filling side-slopes on private property, moving a utility pole, and removing guard rail at an additional cost estimated at \$30,000.00. This would allow equipment with a wheelbase of 40-feet to access the site. This work would require a construction easement from the property owner. See attached drawing.
3. Traffic movements in the redesign would be limited to right-turn-in and right-turn-out. For that reason, the redesign has not been supported by property owner. The owner has instead requested a physical break in the proposed channelization to also allow for left turns in and out of the property.
4. Staff’s opinion is that a break in the proposed channelization would make this not a pre-approved “Supplemental Safety Measure” (SSM), but an “Alternative Safety Measure” (ASM). Whereas SSM improvements can be constructed through a notification process, ASM improvements require formal application and approval from the FRA. Staff believes that such an approval to establish a Quiet Zone may be unlikely to obtain as approaching vehicles will be able to more easily circumvent any closed gates.
5. A so-called Quad Gate system at the Woodville would allow for right and left turn movements, but is not recommended due to its high cost (estimated at approximately \$500,000 for one crossing).
6. Last fall the Town received a note from James Ascanio of Birkdale Road regarding the relative safety of the Field and Woodville crossings with channelization improvements versus the safety of horns. Mr. Ascanio stated that “... rail crossings with gates, lights, channelization and NO horns were safer (lower risk of collision to motorists) than the

crossings with gates, lights, horns, and NO channelization. If you look at Theo's QZRI for the Field Rd. and Woodville Rd. QZ using channelization it is about 60% lower than the risk index with horns (3,857 vs. 9,250)." Staff contacted Ron Ries, Staff Director, Crossing Safety & Trespass Prevention Division, Federal Railroad Administration to discuss this statement. Mr. Ries confirmed that the Woodville/Field data indicates that "risk has been reduced" by (approximately) 60% according the Federal Train Horn Rule. In conclusion, Mr. Ascanio's interpretation above appears to be reasonable.

**Available Options for the Council:**

1. Do not pursue a new quiet zone at the Field and Woodville Road crossings and do not install any channelization. Maintain existing quiet zone at Blackstrap and Falmouth Road crossings in their current configuration without channelization improvements. This would leave all crossings in their current status/condition. Total construction cost is \$0.
2.
  - a. Proceed with SSM improvements for Woodville and Field Road crossings as revised to allow for right turns in and out of the abutting Thompson property. This option would require approval from the property owner to allow construction to occur on private property. Estimated total construction cost of this option for all four crossings, including this modification, is \$230,000.
  - b. Proceed with SSM improvements for Woodville and Field Road crossings as originally designed. This option could be pursued if no property owner approval for option 2.a can be obtained. It would, however, prohibit all turning movements by large equipment into the Thompson property. Estimated total construction cost of this option for all four crossings is \$200,000.
3. Depending on the outcome of Options 1 and 2, staff is requesting that The Council consider an order for a supplemental appropriation from unassigned fund balance to cover the additional costs of the project. The project budget will include the following:

\$130,000 - Original estimate to perform all work (funded by previous Council Order)

\$70,000 - Additional amount needed to perform all work in the right of way (additional funding necessary by order - see attached).

\$30,000 - Cost to construct a new entrance to private property to accommodate vehicular turning movements that would otherwise be impeded by the construction of a new median/channel (additional funding necessary by order - see attached).

Total project cost will be \$230,000 with the need to raise \$100,000 by a supplemental appropriation.

**Direction is requested from the Council regarding these options.**