



### ***Cumberland Town Council***

*Michael Perfetti, Chair*  
*Steve Moriarty, Vice-Chair*  
*Ron Copp*  
*Thomas Gruber*  
*William Stiles*  
*Shirley Storey-King*  
*George Turner*



### ***Falmouth Town Council***

*Teresa Pierce, Chair*  
*Faith Varney, Vice-Chair*  
*William Armitage*  
*Fred Chase*  
*Tony Payne*  
*Chris Orestis*  
*Bonny Rodden*

## **AGENDA**

Cumberland & Falmouth Joint Town Council Meeting  
Cumberland Town Council Chambers

**MONDAY, September 19, 2011**

### **7:00 Call to Order**

**Cumberland Town Councilors Present:** Steve Moriarty, Tom Gruber, Bill Stiles & George Turner

**Falmouth Town Councilors Present:** Teresa Pierce, Faith Varney & Bonny Rodden

### **I. Welcome & Opening Remarks by Chair(s)**

Councilor Moriarty welcomed everyone and made introductions. He explained that this is an informational meeting and neither Town Council would be taking any action this evening.

### **II. Presentation on Falmouth & Cumberland Quiet Zones, Theo Holtwijk**

Mr. Holtwijk made the following presentation to the Councils:

**Rail Crossing/Neighborhood Issues  
along Pan Am Railways line**

U.S. Department  
Of Transportation  
Federal Railroad  
Administration

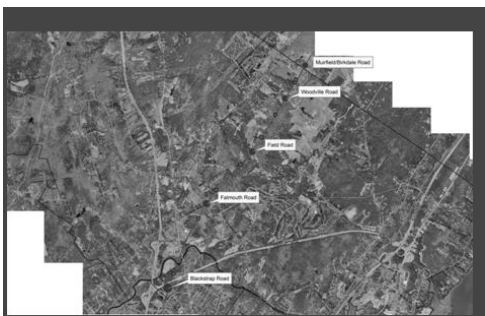
Pan Am  
Railways

Amtrak  
Downeaster

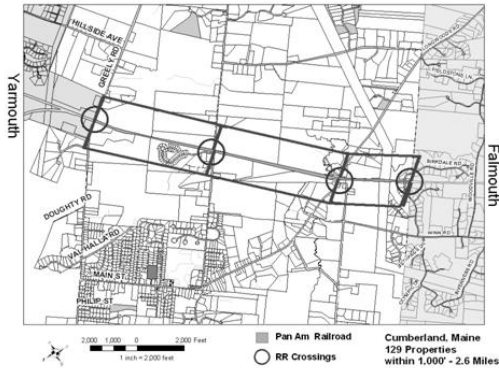
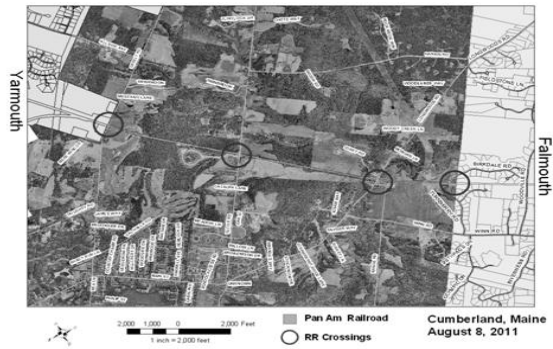
*Note: Preliminary research was conducted by Town of  
Falmouth staff and has not been reviewed by other parties*

**Pan Am Railways Line**

- Four (4) rail crossings in Falmouth: Blackstrap, Falmouth, Field, and Woodville roads
- One (1) crossing on private road: Muirfield Road/Birkdale Road (located in Cumberland, only road access is from Falmouth)
- Three (3) public crossings in Cumberland: Route 9, Tuttle, and Greely roads



Railroad Crossings in Falmouth

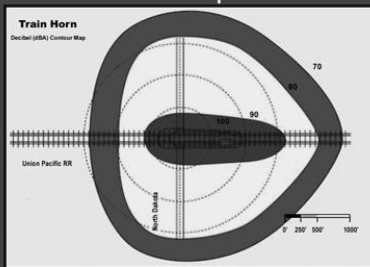


## Federal Horn Rule

- Routine sounding of train horn for max. ¼ mile or max. 20 seconds before crossing
- Max. (110 dB) and min. (96dB) sound level set
- No horn is sounded if sufficient safety measures are in place ("Quiet Zone")
  - Promote quality of life without compromising safety
- "44% more accidents at crossings with whistle ban and gates than without one"

(Source: Final Environmental Impact Statement, FRA, page 4-2)

## Noise Impact



Decibel contour footprint impact of train horn

## "Quiet Zone" (QZ)

- Blackstrap and Falmouth crossings are currently located in what is called a "Quiet Zone" (QZ) - approved by Federal Railroad Authority (FRA).
  - No routine train whistle will sound in this zone.
- QZ is only allowed if there are adequate supplemental safety measures in place that will ensure similar or greater safety related conditions than reliance on a train whistle.
  - Emergency sounding of horn is always permitted.



## Downeaster Impact

- Current rail traffic: 8 freight trains/day
- New Downeaster extension of service from Portland to Brunswick: + 6 trains/day
- Corridor upgrades paid for by the Northern New England Passenger Rail Authority (NNEPRA), operator of the Downeaster.
- Rail upgrade will allow freight trains to travel at higher speeds (from 40 to 60 mph)

## Crossing Upgrades

- NNEPRA-funded crossing upgrades may not be enough to either maintain QZ at Blackstrap and Falmouth Roads or add a new QZ to Field and Woodville Roads and into Cumberland.
  - Upgrades planned for September-October 2011
- There are supplemental safety measures (SSM's) that can be added to maintain or expand a QZ.
- Quiet zone measures are typically all Town cost

## QZ Safety Improvement Options

- Quad gate system \$\$\$
- Gates with medians or channelization \$
- One way street with gates N/A
- Temporary closures N/A

No QZ, but reduced horn noise:

- Wayside horn \$\$
- Alternative Safety Measures may be possible

## Quad gate system

- Gates at a crossing sufficient to block traffic from entering crossing when the gates are lowered
- When train approaches, all lanes on both sides of crossing are spanned by gates
- Upgrade from 2 to 4 gates: \$150K + road costs



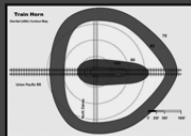
## Gates with medians or channelization

- Reboundable vertical panels on raised curb
- Prevents drivers from circumventing the gates by switching into oncoming traffic lane and driving around the lowered gates to cross the tracks
- Must extend at least 60-100 feet from the gate arm
- Cost: \$13K



## Wayside horn

- Stationary horn system mounted at crossing rather than at train
- Automatically activated when train approaches
- Sounds like a train horn
- Activated until train reaches crossing
- Sound impact much more limited, but constant
- Cost: \$100K



## 1. Maintain Existing QZ in Falmouth?

- NNEPRA:
  - Will make min. required crossing improvements
  - Limited to 2 gates at crossings (these already exist at Blackstrap and Falmouth)
  - Supports train horn
  - Environmental Assessment states “no noise impact”
- May not maintain QZ. Whose responsibility is it to maintain existing quiet zone?

## 2. Expand QZ or Add New QZ?

- Field and Woodville Road improvements are Town of Falmouth responsibility
- Muirfield/Birkdale improvements are private responsibility, but may require municipal endorsement(s)
- Add New QZ in Cumberland too?

## Quiet Zone Qualifications

- Nationwide Significant Risk Threshold (NSRT)
  - = average risk with flashers, gates and train horns
- Risk Index with Horns
  - = risk at a crossing within QZ with train horns
- Quiet Zone Risk Index (QZRI)
  - = average risk for all crossings in a QZ: added risk due to no horns minus reduced risk due to safety measures

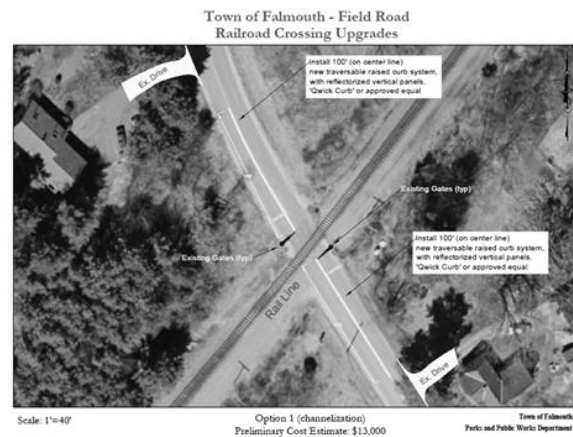
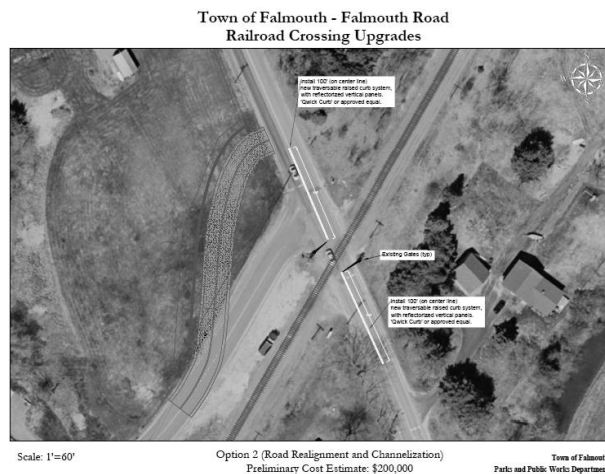
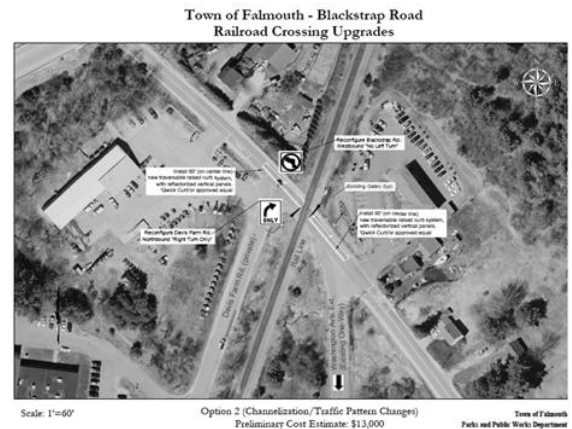


## FRA's Quiet Zone Calculator

- Type of warning device
- Vehicles per day
- Trains per day
- Trains per daylight hours
- Number of tracks
- (Un)paved road
- Max. train speeds
- Number of lanes
- Number of years for accident analysis
- Number of accidents during analysis years

## QZ Preliminary Options

Crossing Location	Option 1	Option 2	Option 3
Blackstrap	Channelization/one-way road (Davis Farm Road)	Quad gates	Wayside Horn (no QZ)
Falmouth	Channelization/road realignment (Leighton Road)	Quad gates	Wayside Horn (no QZ)
Field	Channelization	Wayside Horn (no QZ)	Quad gates
Woodville	Channelization	Wayside Horn (no QZ)	Quad gates
(Muirfield/Birkdale)	Channelization	Wayside Horn (no QZ)	Quad gates
Main St/Route 9	Channelization	Wayside Horn (no QZ)	Quad gates
Tuttle	Channelization (may require realignment of Crossing Brook Road)	Wayside Horn (no QZ)	Quad gates
Greely	Channelization	Wayside Horn (no QZ)	Quad gates



**Falmouth Country Club at Birkdale & Muirfield Rd**



### Longwoods Road Near Corey & Cross Road Cumberland



### Tuttle Road At Crossing Brook Rd



### Greely Road Spring Brook Farm & Twin Brook Park

Crossing	Type	Traffic count (ADT)	Town	Automatic Flashing lights + Gates (as planned by NSRP, inch required)		Channelization (allows work to be done outside RT right of way)		Upgrade to Quiet gates (requires work to be done by railroad on RT right of way)	
				QZK	Cost to Town of Palmyra or Cumberland	QZK	Cost	QZK	Cost
Blacktop	Public	4,522	Palmyra	21,075.24	\$0	5,105.85	\$12K	3,705.30	\$100K
Palmyra	Public	3,750	Palmyra	10,520.51	\$0	4,821.85	\$200K	3,478.77	\$100K
Field	Public	225	Palmyra	10,284.27	\$0	2,565.30	\$12K	1,645.70	\$100K
Woodville	Public	620	Palmyra	15,847.17	\$0	2,856.70	\$12K	2,705.40	\$120K
Murfield/Bridale	Private		Cumberland						
Route 9	Public	5,207	Cumberland	27,249.00	\$0	9,312.42	\$12K	6,704.94	\$100K
Tuttle	Public	2,615	Cumberland	28,074.12	\$0	7,016.35	\$12K	5,055.34	\$120K
Greely	Public	1,610	Cumberland	25,057.26	\$0	5,764.34	\$12K	4,150.35	\$120K

- Quiet zones can be a combination of contiguous crossings each with a combination of improvements as long as **average QZRI** is less than 14,007.00 (=NSRT).
- All crossings in new QZ must have safety measures added regardless how low their risk indexes may be.

### Summary chart

Option	Quiet Zone	Safety Measures	QZRI	Town of Palmyra Cost	Murfield/Bridale Cost	Town of Cumberland Cost
1	Blacktop-Palmyra	Channelization (S)	9,080.24	\$220K	\$0	\$0
2	Blacktop-Murfield/Bridale	Channelization (S)	4,127.71	\$220K	\$12K	\$0
3	Blacktop-Route 9	Channelization (S)	5,172.65	\$220K	\$12K	\$20K
4	Blacktop-Greely	Channelization (S)	5,510.85	\$220K	\$12K	\$20K
5	Blacktop-Greely	Quiet gates (S)	5,975.02	\$550K	750	\$550K

### Process for new or expanded QZ

1. Submit a Notice of Intent (NOI) to Expand or Create a New Quiet Zone to FRA, Pan Am, NNEPRA, MDOT
2. 60-day comment period for FRA, Pan Am, NNEPRA, MDOT
3. Prepare final design. Incorporate comments received in design, if warranted
4. Recommend review with FRA before construction
5. Update Grade Crossing Inventory Forms for every crossing to be included in New Quiet Zone

### QZ Process (continued)

6. Install Advance Warning Signs and install treatments
7. Update National Grade Crossing Inventory to reflect current conditions at each public crossing within the Quiet Zone
8. Submit a Notice of Quiet Zone Establishment (NOE) to FRA, Pan Am, NNEPRA, MDOT.
9. Quiet zone takes automatically effect – applies to all freight and passenger trains
10. Submit periodic updates, including updated USDOT Grade Crossing Inventory Forms, to FRA every 5 +/- years.

### Next Steps

- ✓ September 19: Informational meeting with FRA
- Review by Falmouth and Cumberland Town Councils
  - Other questions that need to be answered
  - Pursue Quiet Zone or not?

### III. Introduction of and opening remarks from Randy Dickinson, Federal Railroad Administration

Mr. Dickinson of the Federal Railroad Administration said that he has been doing this for over 20 years and this is the first time that any community has been so well prepared and conversant on the issues.

Mr. Holtwijk's presentation was very impressive. Mr. Dickenson offered to take questions or comments from the Council or the audience.

Councilor Moriarty: when the upgrades are completed and the passenger trains are running, will the horns on the trains sound as loudly as they do now or will there be a different sound pattern.

Mr. Dickinson: Federal regulation requires them to begin sounding within 20 minutes and no greater than ¼ mile away from a crossing. They are also required to sound a specific pattern at a minimum of 96 decibels (dB) and a maximum of 110 dB.

Councilor Moriarty asked if the increased speed would cause the trains to sound their horns in a different location.

Mr. Dickinson: Yes, ¼ mile back from where they currently begin sounding their horns.

Councilor Turner: if a train is in a quiet zone and the engineer has the right to sound the horn under certain circumstances, does there have to be an emergency for the conductor to sound the horn, or can it be a judgment call.

Mr. Dickinson: the locomotive engineer has the discretion to use any safety appliance that he sees necessary.

Councilor Rodden asked Mr. Dickinson to clarify the statement in Mr. Holtwijk's presentation "44% more accidents at crossings with whistle ban and gates than without".

Mr. Dickinson: if the horns are silenced, it increases the risk factor by 44%. The regulation then requires material substitutes (i.e. channelization) to bring that back down to the zero benchmark.

Councilor Stiles: why not make the crossing arm longer so vehicles cannot get through when the gate is down.

Mr. Dickinson: communities can come up with innovative ideas and longer gate arms are something that could be proposed as an alternative safety measure. Although, Washington does not like that particular concept due to the risk of a vehicle getting trapped.

Councilor Gruber: the decibel range is 110 – 96. Has it been set that we will be at the minimum 96 decibels.

Mr. Dickinson: that is a range that the horn has to be at when tested at the factory. Anything between 96 & 110 dB meets the legal standard.

Councilor Gruber: what happens with the gates during a power outage?

Mr. Dickinson: gates are designed to fail during a power outage so they would come down automatically.

Councilor Gruber: all trains will be going 60 mph now.

Mr. Dickinson: Amtrak will likely go 60 mph, but the freight equipment will likely maintain their current speeds.

Councilor Gruber: channelization or gate arms, which one is safer?

Mr. Dickinson: the risk factor is a little less for the 4 quadrant gates than for the channelization.

Councilor Gruber: if a community invests in quiet zones, does the liability shift to the community?

Mr. Dickinson: as with any federal minimum standard, as long as the standard is being met the community is indemnified as long as they are operating within the provisions of the regulation.

Rich Gill, Falmouth on the Green: the Muirfield/Birkdale area did not show any traffic numbers in Mr. Holtwjk's presentation. If traffic counts are necessary, how will that data be obtained?

Mr. Dickinson: the regulation addresses public crossings only. That area is a private crossing. There will be no credit or demerit in the calculation for that road because it is a private road.

Sara Gideon, Freeport Town Council: asked Mr. Dickinson if he had safety data for the quiet zones that have been in place thus far.

Mr. Dickenson: does not know offhand. Safety data can be found on the FRA website.

Ms. Gideon asked the difference between the National Significant Risk Threshold vs. the Quiet Zone Risk Index and how these numbers are calculated.

Mr. Dickinson: First, you have to obtain the quiet zone risk index (the average risk index of all the crossings and quiet zones) this number represents the quiet zone risk index. Then, there is the National Significant Risk Threshold or the risk index with the horns. The quiet zone is established by bringing the quiet zone risk index down below one of the other two numbers.

Ms. Gideon: when a municipality applies for a quiet zone, how receptive is the FRA when that municipality has brought their risk index down with alternative safety measures.



Mr. Dickinson: first, if a municipality chooses to use supplemental safety measures at all crossings, there is no application process. The 60 day comment period comes with the letter of intent. This is the first step. The comments, objections, concerns, etc. of the various parties are now on record. The community, state, and the rail carrier should all get together and attempt to work out the objections and concerns. This is not a requirement and the community can move forward in spite of any objections of the various other parties involved.

Tina (?) of Falmouth on the Green: she lives on a private road that is located in Cumberland. Can a quiet zone be a standalone zone or is it a requirement that they have to be part of a collective series of zones that all need to be approved together?

Mr. Dickinson: the fact that the private road falls between the public roads would require it to be included in the quiet zone. A quiet zone exclusively around a private crossing is not an option because the regulation does not address private crossings.

Tina asked Mr. Dickinson if it is correct that improvements do not need to be done on private crossings if the other crossings are improved.

Mr. Dickinson: that is correct.

Dan Rosenthal, Cumberland: the significant risk threshold numbers presented are averages. Are the actual numbers available?

Mr. Dickinson: there is a calculator program that calculates the averages. As different scenarios are entered into the calculation (quad gates, median barriers, etc.) it recalculates the number and gives you the number that would exist if you installed different safety measures.

Councilor Moriarty: is it possible that you could have quiet zones and no quiet zone sections in a short corridor? Is a community able to pick and choose certain intersections to be quiet zones and others not?

Mr. Dickinson: the regulation states that a quiet zone has to be a minimum of ½ mile in length and every crossing within it has to be treated as a quiet zone.

Councilor Pierce asked for clarification if the Muirfield/Birkdale crossing would have to be flanked by quiet zones on either side in order for it to be a quiet zone.

Mr. Dickinson: Yes, because the regulation does not include private crossings except when they are included inside the confines of quiet zones on either side of them.

Jim Ascanio of Birkdale Road, Falmouth: in regard to a whistle ban at the Muirfield/Birkdale crossing, there is one in existence that was issued by MDOT approximately 11 years ago. It is generally ignored by the railroads, but it does exist.

Andrea Peabbles, Cumberland: asked about the effectiveness of median barriers. She has not seen them in our area.

Mr. Dickinson: it is surprising how often people will attempt to get around gates. He does not have statistics on the effectiveness of the median barriers.



Falmouth Town Manager, Nathan Poore: regarding an arrangement with MDOT that was mentioned earlier, it is his understanding that MDOT does not have the jurisdiction to approve a quiet zone. Pan Am is refusing to abide to a MDOT ruling. To think that there is any type of agreement, absent a quiet zone, is a long shot at best. In regard to channelization as opposed to quad gates and wayside horns, is all conducted outside of the railroad right-of-way. Any work that is done inside the railroad right-of-way is required to have contracts and licensing agreements that would cost the communities money. That is another advantage to having channelization outside of the railroad right-of-way.

Cumberland Town Manager, Bill Shane: asked Mr. Dickinson to clarify Mr. Poore's statement. There is some confusion as to where channelization has to occur (inside or outside the railroad right-of way).

Mr. Dickinson: channelization and the median barriers are designed to prevent people from slaloming around into the opposing lane and through the gates. The gate arm is normally set approximately 15 feet off the nearest rail. If a median barrier is installed from the gate back, that is not infringing on the railroad property and will not have any problems from the rail carriers. He feels that we could make median barriers work very easily.

Ron Copp, Cumberland Town Council: asked Mr. Dickinson to talk about exactly what trespassing on railroad property means. So many people hunt, fish, and snowmobile around railroad tracks and he feels that it is important that the public realize that they may be trespassing.

Mr. Dickinson: trespassing has become a significant problem for the railroad, especially in the Northeast region of the country. Railroad property is private property and if you are on it, you are indeed trespassing. Trespassing is not only an illegal activity, it is also very dangerous.

#### **IV. Adjournment**

Meeting adjourned at 9:14 p.m.

Respectfully submitted by,

Brenda Moore  
Council Secretary