

July 26, 2021

Mr. Karl Alexy
Associate Administrator for Railroad Safety
& Chief Safety Officer
Federal Railroad Administration
1200 New Jersey Avenue, SE
Washington, DC 20590

RE: Texas A&M Quiet Zone in College Station, Texas
Public Authority Application (PAA)
Response to Comments (UP QZ # TX041006)

Dear Mr. Alexi:

We appreciate Union Pacific Railroad's (UP) comments to the PAA along with their partnership and support throughout the Quiet Zone process. Our partners and stakeholders are invaluable in implementing this project. I offer the following response in reference to the comments provided to you from Melinda DuBay with UP on June 18, 2021.

In the first paragraph, the letter should state Texas A&M University as the Public Authority for the Quiet Zone, rather than the City of College Station which is a partnering entity.

Secondly, UP noted concerns about the at-grade crossings of F&B Rd. At the time of the development and publication of the PAA, it was known that dividing the crossing into two was desired, which the PAA acknowledged as a possibility. Below are recalculated risk indices for F&B Rd. and the Quiet Zone in response to UP's recommendation. Details of the analysis are attached.

DOT No.	Location	Risk Index with Horns	Quiet Zone Risk Index
743209X	UPRR at F&B Road (Track 1)	15,191.07	7,348.22
978312L	UPRR at F&B Road (Track 2)	15,700.89	15,713.45
743211Y	UPRR at Old Main Drive	17,583.82	8,798.95
743212F	UPRR at John Kimbrough Drive	27,390.74	9,137.55
	Average of All Crossings	18,966.63	10,249.54

The Quiet Zone Risk Index for F&B Road (Track 1), Old Main Drive, and John Kimbrough Boulevard is less than the Risk Index with Horns.

Peter Lange
322 Polo Rd., Suite 350
1250 TAMU
College Station, TX 77843-1250

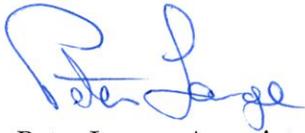
Tel. 979.845.9700 Fax 979.847.8685
transport.tamu.edu

The Quiet Zone Risk Index for F&B Road (Track 2) is 0.08% greater than its Risk Index with Horns. Given the order of magnitude of the risk indices, these two values should be considered as relatively equal to each other.

Collectively, the Quiet Zone Risk Index is less than the Risk Index with Horns. Therefore, the basis of quiet zone establishment, reducing the Quiet Zone Risk Index to at or below the Risk Index with Horns, remains satisfied.

If you have any questions or need additional information, please contact me by phone (979) 845-9700 or email at plange@tamu.edu.

Sincerely,

A handwritten signature in blue ink, appearing to read "Peter Lange".

Peter Lange, Associate Vice President
Transportation Services

Incl: as

C: Melinda DuBay, UP
Carolyn Cook, FRA Region V
Robert Travis, TxDOT Rail Highway Section
Lance Simmons, TxDOT Bryan District
Prarthana Banerji, Brazos County
Paul Kaspar, City of Bryan
James Smith, City of College Station



Mobility Planning & Engineering, LLC
4335 Hazepoint Drive
Katy, Texas 77494
TBPE Firm No. F-19852

Date: July 13, 2021
Project: TAMU Railroad Quiet Zone
MP&E Project No. 2019-010
Subject: Recalculation of Quiet Zone Risk Indices
Attachments: As Stated



This report presents the recalculation of the Texas A&M Quiet Zone risk indices. This recalculation is necessitated by the separation of the F&B Road crossing into two crossings.

For the Public Authority Application issued April 21, 2021, the Quiet Zone Risk Index was calculated assuming the two crossings at F&B Road were considered a single crossing with two tracks for inventory purposes. Since the issuance of that document, the crossing has been separated into two crossings. Track 1, the westernmost crossing, retained the original DOT designation, 743209X. Track 2, the easternmost crossing, was given a new DOT designation, 978312L.

Grade Crossing Inventory Form Data – Train Counts

The latest Grade Crossing Inventory Forms were retrieved from FRA’s online database and are attached. Those forms show the two separate crossings; however, the train counts have not been updated and 15 trains per day are listed on the form for each crossing. As the previous singular crossing listed an average of 15 trains per day (eight daytime and seven nighttime trains), and the crossings south have an average of 15 trains per day, it is not possible for there to now be 30 trains per day crossing F&B Road.

Considering the track geometry further north in Bryan, Track 1 eventually bends westward towards Mumford and remains the Navasota Sub. Track 2 splits into two tracks just north of Groesbeck Street. One track bends to the west and merges with the Navasota Sub. The other track continues north as the Bryan Sub. As Track 2 serves two subdivisions, it is assumed that eight trains per day will be on Track 2 and seven trains per day will be on Track 1. Daytime trains are assumed to be four on Track 2 and four on Track 1. These assumptions are summarized below.

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RE: TAMU Railroad Quiet Zone
Recalculation of Quiet Zone Risk Indices



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DOT No.	Location	No. of Trains per Day	Daytime Trains	Nighttime Trains
743209X	UPRR (Track 1) at F&B Road	7	4	3
978312L	UPRR (Track 2) at F&B Road	8	4	4
Totals		15	8	7

Risk Index without Horns for F&B Road

The assumed train counts were entered into the FRA's online quiet zone calculator. Screen shots are provided as attachments to this report. The resulting Risk Index without Horns for these crossings are presented below along with the Risk Index without Horns presented in the submitted PAA for F&B Road when it was considered a single crossing with two tracks.

DOT No.	Location	Risk Index without Horns	
		<i>As Single Crossing with Two Tracks</i>	<i>As Two Separate Crossings</i>
743209X	UPRR at F&B Road	34,885.66	--
743209X	UPRR (Track 1) at F&B Road	--	25,338.70
978312L	UPRR (Track 2) at F&B Road	--	26,189.08

The Risk Index without Horns did not change for the other crossings.

Determination of Effectiveness Rates for F&B Road

As stated previously, the two crossings were listed as a single crossing. They are 100 feet apart (measured center of track to center of track). In March 2021, the crossing was split into two crossings. The original DOT crossing number of 743209X was assigned to Track 1, the western track, and a new DOT crossing number of 978312L was assigned to Track 2, the eastern track. Thus, an effectiveness rate will be calculated for each separate crossing.

743209X (Track 1):

For motorists eastbound along F&B Road, a non-traversable raised median will extend 101 feet westward from the gate arm for Track 1, satisfying the requirements for a Supplemental Safety Measure (SSM) using non-traversable curbs. This mitigation strategy is believed to be consistent with the intent of §222.A.3 and thus is considered to have an effectiveness rate of 0.80.

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For motorists westbound along F&B Road, a non-traversable raised median will extend 76.5 feet eastward from the gate arm for Track 1. The length of this median is limited by the presence of Track 2. For this approach, the effectiveness factor is a proration of the minimum required raised median length (100 feet) to the actual raised median length, which is calculated to be $76.5 \text{ ft.} / 100 \text{ ft.} \times 0.80 = 0.61$. Because the proposed improvement does not satisfy the definition of an SSM, it is classified as an Alternative Safety Measure (ASM).

Because not all of the safety improvements can be classified as SSMs, the safety improvements as a whole are thus considered an ASM. The effectiveness rate for the crossing as a whole is the average of the effectiveness rate for the proposed improvements along each approach, which is:

$$(0.80 + 0.61) / 2 = \underline{\mathbf{0.71}}$$

978312L (Track 2):

For motorists eastbound along F&B Road, a non-traversable raised median will extend 74.5 feet westward from the gate arm for Track 2. The length of this median is limited by the presence of Track 1. For this approach, the effectiveness factor is a proration of the minimum required raised median length (100 feet) to the actual raised median length, which is calculated to be $74.5 \text{ ft.} / 100 \text{ ft.} \times 0.80 = 0.60$. Because the proposed improvement does not satisfy the definition of an SSM, it is classified as an ASM.

For motorists westbound along F&B Road, a non-traversable raised median will extend 15.0 feet eastward from the gate arm for Track 2. The length of this median is limited by the presence of Wellborn Road. Where a roadway is within 100 feet of a crossing, the minimum required median length for an SSM is reduced to 60 feet. For this approach, the effectiveness factor is a proration of the minimum required raised median length to the actual raised median length, which is calculated to be $15 \text{ ft.} / 60 \text{ ft.} \times 0.80 = 0.20$. Additionally, because the proposed improvement does not satisfy the definition of an SSM, it is classified as an ASM.

Because not all of the safety improvements can be classified as SSMs, the safety improvements as a whole are thus considered an ASM. The effectiveness rate for the crossing as a whole is the average of the effectiveness rate for the proposed improvements along each approach, which is:

$$(0.60 + 0.20) / 2 = \underline{\mathbf{0.40}}$$

Recalculation of Risk Indices

The calculations to determine the Quiet Zone Risk Index for each crossing and for the corridor are attached, and the results are summarized in the table below. In accordance with §222.59, George Bush Drive is not included because it will be equipped with wayside horns, and any crossing with a wayside horn is not included in the Quiet Zone Risk Index calculation.

The Quiet Zone Risk Index for F&B Road (Track 1), Old Main Drive, and John Kimbrough Boulevard is less than the Risk Index with Horns.

The Quiet Zone Risk Index for F&B Road (Track 2) is 0.08% greater than its Risk Index with Horns. However, given the order of magnitude of the risk indices, these two values should be considered as relatively equal to each other.

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RE: TAMU Railroad Quiet Zone
Recalculation of Quiet Zone Risk Indices



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DOT No.	Location	Risk Index with Horns	Quiet Zone Risk Index
743209X	UPRR (Track 1) at F&B Road	15,191.07	7,348.22
978312L	UPRR (Track 2) at F&B Road	15,700.89	15,713.45
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743212F	UPRR at John Kimbrough Drive	27,390.74	9,137.55
	Average of All Crossings	18,966.63	10,249.54

For comparison, the Nationwide Significant Risk Threshold is 15,488.00 as of the date of this document.

Therefore, the basis of quiet zone establishment, reducing the Quiet Zone Risk Index to at or below the Risk Index with Horns, remains satisfied.

U. S. DOT CROSSING INVENTORY FORM

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk * denotes an optional field.

A. Revision Date (MM/DD/YYYY) 05 / 10 / 2021	B. Reporting Agency <input checked="" type="checkbox"/> Railroad <input type="checkbox"/> Transit <input type="checkbox"/> State <input type="checkbox"/> Other	C. Reason for Update (Select only one) <input checked="" type="checkbox"/> Change in Data <input type="checkbox"/> Re-Open <input type="checkbox"/> New Crossing <input type="checkbox"/> Date Change Only <input type="checkbox"/> Closed <input type="checkbox"/> Change in Primary Operating RR <input type="checkbox"/> No Train Traffic <input type="checkbox"/> Quiet Zone Update <input type="checkbox"/> Admin. Correction	D. DOT Crossing Inventory Number 743209X
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Part I: Location and Classification Information

1. Primary Operating Railroad Union Pacific Railroad Company [UP]		2. State TEXAS		3. County BRAZOS	
4. City / Municipality <input checked="" type="checkbox"/> In <input type="checkbox"/> Near BRYAN		5. Street/Road Name & Block Number F AND B ROAD (Street/Road Name) * (Block Number)		6. Highway Type & No. ST 0000	
7. Do Other Railroads Operate a Separate Track at Crossing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Specify RR			8. Do Other Railroads Operate Over Your Track at Crossing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Specify RR		
9. Railroad Division or Region <input type="checkbox"/> None Houston		10. Railroad Subdivision or District <input type="checkbox"/> None NAVASOTA SUB		11. Branch or Line Name <input checked="" type="checkbox"/> None	
12. RR Milepost 0074.380 (prefix) (nnnn.nnn) (suffix)		13. Line Segment *		14. Nearest RR Timetable Station *	
15. Parent RR (if applicable) <input checked="" type="checkbox"/> N/A		16. Crossing Owner (if applicable) <input type="checkbox"/> N/A UP			
17. Crossing Type <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private		18. Crossing Purpose <input checked="" type="checkbox"/> Highway <input type="checkbox"/> Pathway, Ped. <input type="checkbox"/> Station, Ped.		19. Crossing Position <input checked="" type="checkbox"/> At Grade <input type="checkbox"/> RR Under <input type="checkbox"/> RR Over	
20. Public Access (if Private Crossing) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		21. Type of Train <input checked="" type="checkbox"/> Freight <input type="checkbox"/> Intercity Passenger <input type="checkbox"/> Commuter		22. Average Passenger Train Count Per Day <input type="checkbox"/> Transit <input type="checkbox"/> Shared Use Transit <input type="checkbox"/> Tourist/Other <input type="checkbox"/> Less Than One Per Day <input type="checkbox"/> Number Per Day 0	
23. Type of Land Use <input type="checkbox"/> Open Space <input type="checkbox"/> Farm <input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Institutional <input type="checkbox"/> Recreational <input type="checkbox"/> RR Yard					
24. Is there an Adjacent Crossing with a Separate Number? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Provide Crossing Number 978312L			25. Quiet Zone (FRA provided) <input checked="" type="checkbox"/> No <input type="checkbox"/> 24 Hr <input type="checkbox"/> Partial <input type="checkbox"/> Chicago Excused Date Established		
26. HSR Corridor ID <input checked="" type="checkbox"/> N/A		27. Latitude in decimal degrees (WGS84 std: nn.nnnnnnn) 30.6243309		28. Longitude in decimal degrees (WGS84 std: -nnn.nnnnnnn) -96.3568163	
29. Lat/Long Source <input checked="" type="checkbox"/> Actual <input type="checkbox"/> Estimated		30.A. Railroad Use *			
30.B. Railroad Use *		31.A. State Use *			
30.C. Railroad Use *		31.B. State Use *			
30.D. Railroad Use *		31.C. State Use * State Phone# updated - date updated: 2018-08-16			
30.E. Railroad Use *		31.D. State Use *			
32.A. Narrative (Railroad Use) *			32.B. Narrative (State Use) *		
33. Emergency Notification Telephone No. (posted) 800-848-8715		34. Railroad Contact (Telephone No.) 402-544-3721		35. State Contact (Telephone No.) 512-416-2635	

Part II: Railroad Information

1. Estimated Number of Daily Train Movements				
1.A. Total Day Thru Trains (6 AM to 6 PM) 8		1.B. Total Night Thru Trains (6 PM to 6 AM) 7		1.C. Total Switching Trains 0
1.D. Total Transit Trains 0		1.E. Check if Less Than One Movement Per Day <input type="checkbox"/> How many trains per week? _____		
2. Year of Train Count Data (YYYY) 2020		3. Speed of Train at Crossing 3.A. Maximum Timetable Speed (mph) 30 3.B. Typical Speed Range Over Crossing (mph) From 15 to 30		
4. Type and Count of Tracks Main 1 Siding 0 Yard 0 Transit 0 Industry 0				
5. Train Detection (Main Track only) <input checked="" type="checkbox"/> Constant Warning Time <input type="checkbox"/> Motion Detection <input type="checkbox"/> AFO <input type="checkbox"/> PTC <input type="checkbox"/> DC <input type="checkbox"/> Other <input type="checkbox"/> None				
6. Is Track Signaled? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		7.A. Event Recorder <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		7.B. Remote Health Monitoring <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

U. S. DOT CROSSING INVENTORY FORM

A. Revision Date (MM/DD/YYYY) 05/10/2021		PAGE 2		D. Crossing Inventory Number (7 char.) 743209X	
Part III: Highway or Pathway Traffic Control Device Information					
1. Are there Signs or Signals? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		2. Types of Passive Traffic Control Devices associated with the Crossing			
2.A. Crossbuck Assemblies (count) 0		2.B. STOP Signs (R1-1) (count) 0	2.C. YIELD Signs (R1-2) (count) 0	2.D. Advance Warning Signs (Check all that apply; include count) <input type="checkbox"/> None <input checked="" type="checkbox"/> W10-1 4 <input type="checkbox"/> W10-3 <input type="checkbox"/> W10-11 <input checked="" type="checkbox"/> W10-2 2 <input type="checkbox"/> W10-4 <input type="checkbox"/> W10-12	
2.E. Low Ground Clearance Sign (W10-5) <input type="checkbox"/> Yes (count _____) <input checked="" type="checkbox"/> No		2.F. Pavement Markings <input checked="" type="checkbox"/> Stop Lines <input type="checkbox"/> Dynamic Envelope <input checked="" type="checkbox"/> RR Xing Symbols <input type="checkbox"/> None		2.G. Channelization Devices/Medians <input type="checkbox"/> All Approaches <input type="checkbox"/> Median <input type="checkbox"/> One Approach <input checked="" type="checkbox"/> None	2.H. EXEMPT Sign (R15-3) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2.I. ENS Sign (I-13) Displayed <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		2.J. Other MUTCD Signs <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Specify Type R8-8 Count 2 Specify Type _____ Count _____ Specify Type _____ Count _____		2.K. Private Crossing Signs (if private) <input type="checkbox"/> Yes <input type="checkbox"/> No	
2.L. LED Enhanced Signs (List types)					
3. Types of Train Activated Warning Devices at the Grade Crossing (specify count of each device for all that apply)					
3.A. Gate Arms (count) Roadway 2 Pedestrian 0	3.B. Gate Configuration <input checked="" type="checkbox"/> 2 Quad <input type="checkbox"/> Full (Barrier) Resistance <input type="checkbox"/> 3 Quad <input type="checkbox"/> Median Gates <input type="checkbox"/> 4 Quad	3.C. Cantilevered (or Bridged) Flashing Light Structures (count) Over Traffic Lane 0 <input type="checkbox"/> Incandescent Not Over Traffic Lane 0 <input type="checkbox"/> LED		3.D. Mast Mounted Flashing Lights (count of masts) 2 <input type="checkbox"/> Incandescent <input checked="" type="checkbox"/> LED <input checked="" type="checkbox"/> Back Lights Included <input type="checkbox"/> Side Lights Included	3.E. Total Count of Flashing Light Pairs 4
3.F. Installation Date of Current Active Warning Devices: (MM/YYYY) ____/____/____ <input checked="" type="checkbox"/> Not Required		3.G. Wayside Horn <input type="checkbox"/> Yes Installed on (MM/YYYY) ____/____/____ <input checked="" type="checkbox"/> No		3.H. Highway Traffic Signals Controlling Crossing <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	3.I. Bells (count) 2
3.J. Non-Train Active Warning <input type="checkbox"/> Flagging/Flagman <input type="checkbox"/> Manually Operated Signals <input type="checkbox"/> Watchman <input type="checkbox"/> Floodlighting <input checked="" type="checkbox"/> None				3.K. Other Flashing Lights or Warning Devices Count 0 Specify type _____	
4.A. Does nearby Hwy Intersection have Traffic Signals? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4.B. Hwy Traffic Signal Interconnection <input type="checkbox"/> Not Interconnected <input checked="" type="checkbox"/> For Traffic Signals <input type="checkbox"/> For Warning Signs	4.C. Hwy Traffic Signal Preemption <input type="checkbox"/> Simultaneous <input checked="" type="checkbox"/> Advance	5. Highway Traffic Pre-Signals <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Storage Distance * _____ Stop Line Distance * _____	6. Highway Monitoring Devices (Check all that apply) <input type="checkbox"/> Yes - Photo/Video Recording <input type="checkbox"/> Yes - Vehicle Presence Detection <input type="checkbox"/> None	
Part IV: Physical Characteristics					
1. Traffic Lanes Crossing Railroad Number of Lanes 3 <input type="checkbox"/> One-way Traffic <input checked="" type="checkbox"/> Two-way Traffic <input type="checkbox"/> Divided Traffic		2. Is Roadway/Pathway Paved? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3. Does Track Run Down a Street? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4. Is Crossing Illuminated? (Street lights within approx. 50 feet from nearest rail) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Crossing Surface (on Main Track, multiple types allowed) Installation Date * (MM/YYYY) ____/____/____ Width * 10 Length * 40 <input type="checkbox"/> 1 Timber <input type="checkbox"/> 2 Asphalt <input type="checkbox"/> 3 Asphalt and Timber <input checked="" type="checkbox"/> 4 Concrete <input type="checkbox"/> 5 Concrete and Rubber <input type="checkbox"/> 6 Rubber <input type="checkbox"/> 7 Metal <input type="checkbox"/> 8 Unconsolidated <input type="checkbox"/> 9 Composite <input type="checkbox"/> 10 Other (specify) _____					
6. Intersecting Roadway within 500 feet? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Approximate Distance (feet) 45			7. Smallest Crossing Angle <input type="checkbox"/> 0° - 29° <input type="checkbox"/> 30° - 59° <input checked="" type="checkbox"/> 60° - 90°		8. Is Commercial Power Available? * <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Part V: Public Highway Information					
1. Highway System <input type="checkbox"/> (01) Interstate Highway System <input type="checkbox"/> (02) Other Nat Hwy System (NHS) <input checked="" type="checkbox"/> (03) Federal AID, Not NHS <input type="checkbox"/> (08) Non-Federal Aid		2. Functional Classification of Road at Crossing <input type="checkbox"/> (0) Rural <input checked="" type="checkbox"/> (1) Urban <input type="checkbox"/> (1) Interstate <input type="checkbox"/> (5) Major Collector <input type="checkbox"/> (2) Other Freeways and Expressways <input type="checkbox"/> (3) Other Principal Arterial <input type="checkbox"/> (6) Minor Collector <input checked="" type="checkbox"/> (4) Minor Arterial <input type="checkbox"/> (7) Local		3. Is Crossing on State Highway System? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4. Highway Speed Limit 30 MPH <input checked="" type="checkbox"/> Posted <input type="checkbox"/> Statutory
5. Linear Referencing System (LRS Route ID) *					
6. LRS Milepost *					
7. Annual Average Daily Traffic (AADT) Year 2019 AADT 007306		8. Estimated Percent Trucks 03 %	9. Regularly Used by School Buses? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Average Number per Day 10		10. Emergency Services Route <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Submission Information - This information is used for administrative purposes and is not available on the public website.					
Submitted by _____ Organization _____ Phone _____ Date _____					
Public reporting burden for this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. According to the Paperwork Reduction Act of 1995, a federal agency may not conduct or sponsor, and a person is not required to, nor shall a person be subject to a penalty for failure to comply with, a collection of information unless it displays a currently valid OMB control number. The valid OMB control number for information collection is 2130-0017. Send comments regarding this burden estimate or any other aspect of this collection, including for reducing this burden to: Information Collection Officer, Federal Railroad Administration, 1200 New Jersey Ave. SE, MS-25 Washington, DC 20590.					

U. S. DOT CROSSING INVENTORY FORM

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk * denotes an optional field.

A. Revision Date (MM/DD/YYYY) 05 / 10 / 2021	B. Reporting Agency <input checked="" type="checkbox"/> Railroad <input type="checkbox"/> Transit <input type="checkbox"/> State <input type="checkbox"/> Other	C. Reason for Update (Select only one) <input checked="" type="checkbox"/> Change in Data <input type="checkbox"/> Re-Open <input type="checkbox"/> New Crossing <input type="checkbox"/> Date Change Only <input type="checkbox"/> Closed <input type="checkbox"/> Change in Primary Operating RR <input type="checkbox"/> No Train Traffic <input type="checkbox"/> Quiet Zone Update <input type="checkbox"/> Admin. Correction	D. DOT Crossing Inventory Number 978312L
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Part I: Location and Classification Information

1. Primary Operating Railroad Union Pacific Railroad Company [UP]		2. State TEXAS		3. County BRAZOS	
4. City / Municipality <input checked="" type="checkbox"/> In <input type="checkbox"/> Near BRYAN		5. Street/Road Name & Block Number F and B Road (Street/Road Name) * (Block Number)		6. Highway Type & No. ST 0000	
7. Do Other Railroads Operate a Separate Track at Crossing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Specify RR			8. Do Other Railroads Operate Over Your Track at Crossing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Specify RR		
9. Railroad Division or Region <input type="checkbox"/> None Houston		10. Railroad Subdivision or District <input type="checkbox"/> None Navasota Sub		11. Branch or Line Name <input checked="" type="checkbox"/> None	
12. RR Milepost 0074.385 (prefix) (nnnn.nnn) (suffix)		13. Line Segment *		14. Nearest RR Timetable Station *	
15. Parent RR (if applicable) <input checked="" type="checkbox"/> N/A		16. Crossing Owner (if applicable) <input checked="" type="checkbox"/> N/A			
17. Crossing Type <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private		18. Crossing Purpose <input checked="" type="checkbox"/> Highway <input type="checkbox"/> Pathway, Ped. <input type="checkbox"/> Station, Ped.		19. Crossing Position <input checked="" type="checkbox"/> At Grade <input type="checkbox"/> RR Under <input type="checkbox"/> RR Over	
20. Public Access (if Private Crossing) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		21. Type of Train <input checked="" type="checkbox"/> Freight <input type="checkbox"/> Intercity Passenger <input type="checkbox"/> Commuter		22. Average Passenger Train Count Per Day <input type="checkbox"/> Transit <input type="checkbox"/> Shared Use Transit <input type="checkbox"/> Tourist/Other <input type="checkbox"/> Less Than One Per Day <input type="checkbox"/> Number Per Day 0	
23. Type of Land Use <input type="checkbox"/> Open Space <input type="checkbox"/> Farm <input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Institutional <input type="checkbox"/> Recreational <input type="checkbox"/> RR Yard					
24. Is there an Adjacent Crossing with a Separate Number? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Provide Crossing Number 743209X			25. Quiet Zone (FRA provided) <input type="checkbox"/> No <input type="checkbox"/> 24 Hr <input type="checkbox"/> Partial <input type="checkbox"/> Chicago Excused Date Established		
26. HSR Corridor ID <input checked="" type="checkbox"/> N/A		27. Latitude in decimal degrees (WGS84 std: nn.nnnnnnn) 30.6245080		28. Longitude in decimal degrees (WGS84 std: -nnn.nnnnnnn) -96.3565780	
29. Lat/Long Source <input checked="" type="checkbox"/> Actual <input type="checkbox"/> Estimated		30.A. Railroad Use *			
30.B. Railroad Use *		30.C. Railroad Use *			
30.D. Railroad Use *		30.E. Railroad Use *			
31.A. State Use *			31.B. State Use *		
31.C. State Use *			31.D. State Use *		
32.A. Narrative (Railroad Use) *			32.B. Narrative (State Use) *		
33. Emergency Notification Telephone No. (posted) 800-848-8715		34. Railroad Contact (Telephone No.) 402-544-3721		35. State Contact (Telephone No.) 512-416-2635	

Part II: Railroad Information

1. Estimated Number of Daily Train Movements				
1.A. Total Day Thru Trains (6 AM to 6 PM) 8		1.B. Total Night Thru Trains (6 PM to 6 AM) 7		1.C. Total Switching Trains 0
1.D. Total Transit Trains 0		1.E. Check if Less Than One Movement Per Day <input type="checkbox"/> How many trains per week? _____		
2. Year of Train Count Data (YYYY) 2020		3. Speed of Train at Crossing 3.A. Maximum Timetable Speed (mph) 30 3.B. Typical Speed Range Over Crossing (mph) From 15 to 30		
4. Type and Count of Tracks Main 1 Siding 0 Yard 0 Transit 0 Industry 0				
5. Train Detection (Main Track only) <input checked="" type="checkbox"/> Constant Warning Time <input type="checkbox"/> Motion Detection <input type="checkbox"/> AFO <input type="checkbox"/> PTC <input type="checkbox"/> DC <input type="checkbox"/> Other <input type="checkbox"/> None				
6. Is Track Signaled? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		7.A. Event Recorder <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		7.B. Remote Health Monitoring <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

U. S. DOT CROSSING INVENTORY FORM

A. Revision Date (MM/DD/YYYY) 05/10/2021	PAGE 2	D. Crossing Inventory Number (7 char.) 978312L
Part III: Highway or Pathway Traffic Control Device Information		
1. Are there Signs or Signals?		
2. Types of Passive Traffic Control Devices associated with the Crossing		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.A. Crossbuck Assemblies (count) 0	2.B. STOP Signs (R1-1) (count) 0
	2.C. YIELD Signs (R1-2) (count) 0	2.D. Advance Warning Signs (Check all that apply; include count) <input type="checkbox"/> None <input checked="" type="checkbox"/> W10-1 2 <input type="checkbox"/> W10-3 _____ <input type="checkbox"/> W10-11 _____ <input checked="" type="checkbox"/> W10-2 1 <input type="checkbox"/> W10-4 _____ <input type="checkbox"/> W10-12 _____
2.E. Low Ground Clearance Sign (W10-5) <input type="checkbox"/> Yes (count 0) <input checked="" type="checkbox"/> No	2.F. Pavement Markings <input checked="" type="checkbox"/> Stop Lines <input type="checkbox"/> Dynamic Envelope <input checked="" type="checkbox"/> RR Xing Symbols <input type="checkbox"/> None	2.G. Channelization Devices/Medians <input type="checkbox"/> All Approaches <input type="checkbox"/> Median <input type="checkbox"/> One Approach <input checked="" type="checkbox"/> None
	2.H. EXEMPT Sign (R15-3) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2.I. ENS Sign (I-13) Displayed <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2.J. Other MUTCD Signs <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Specify Type _____ Count _____ Specify Type _____ Count _____ Specify Type _____ Count _____		2.K. Private Crossing Signs (if private) <input type="checkbox"/> Yes <input type="checkbox"/> No
2.L. LED Enhanced Signs (List types)		
3. Types of Train Activated Warning Devices at the Grade Crossing (specify count of each device for all that apply)		
3.A. Gate Arms (count) Roadway 2 Pedestrian 0	3.B. Gate Configuration <input checked="" type="checkbox"/> 2 Quad <input type="checkbox"/> Full (Barrier) Resistance <input type="checkbox"/> 3 Quad <input type="checkbox"/> Median Gates	3.C. Cantilevered (or Bridged) Flashing Light Structures (count) Over Traffic Lane 0 <input type="checkbox"/> Incandescent Not Over Traffic Lane 0 <input type="checkbox"/> LED
		3.D. Mast Mounted Flashing Lights (count of masts) 2 <input type="checkbox"/> Incandescent <input checked="" type="checkbox"/> LED <input checked="" type="checkbox"/> Back Lights Included <input checked="" type="checkbox"/> Side Lights Included
		3.E. Total Count of Flashing Light Pairs 5
3.F. Installation Date of Current Active Warning Devices: (MM/YYYY) ____/____/____ <input checked="" type="checkbox"/> Not Required		3.G. Wayside Horn <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Installed on (MM/YYYY) ____/____/____
3.H. Highway Traffic Signals Controlling Crossing <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		3.I. Bells (count) 2
3.J. Non-Train Active Warning <input type="checkbox"/> Flagging/Flagman <input type="checkbox"/> Manually Operated Signals <input type="checkbox"/> Watchman <input type="checkbox"/> Floodlighting <input checked="" type="checkbox"/> None		3.K. Other Flashing Lights or Warning Devices Count 0 Specify type _____
4.A. Does nearby Hwy Intersection have Traffic Signals? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4.B. Hwy Traffic Signal Interconnection <input type="checkbox"/> Not Interconnected <input checked="" type="checkbox"/> For Traffic Signals <input type="checkbox"/> For Warning Signs	4.C. Hwy Traffic Signal Preemption <input type="checkbox"/> Simultaneous <input checked="" type="checkbox"/> Advance
		5. Highway Traffic Pre-Signals <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Storage Distance * _____ Stop Line Distance * _____
		6. Highway Monitoring Devices (Check all that apply) <input type="checkbox"/> Yes - Photo/Video Recording <input type="checkbox"/> Yes - Vehicle Presence Detection <input checked="" type="checkbox"/> None
Part IV: Physical Characteristics		
1. Traffic Lanes Crossing Railroad Number of Lanes 3	<input type="checkbox"/> One-way Traffic <input checked="" type="checkbox"/> Two-way Traffic <input type="checkbox"/> Divided Traffic	2. Is Roadway/Pathway Paved? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		3. Does Track Run Down a Street? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
4. Is Crossing Illuminated? (Street lights within approx. 50 feet from nearest rail) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
5. Crossing Surface (on Main Track, multiple types allowed) Installation Date * (MM/YYYY) ____/____/____ Width * 10 Length * 40 <input type="checkbox"/> 1 Timber <input type="checkbox"/> 2 Asphalt <input type="checkbox"/> 3 Asphalt and Timber <input checked="" type="checkbox"/> 4 Concrete <input type="checkbox"/> 5 Concrete and Rubber <input type="checkbox"/> 6 Rubber <input type="checkbox"/> 7 Metal <input type="checkbox"/> 8 Unconsolidated <input type="checkbox"/> 9 Composite <input type="checkbox"/> 10 Other (specify) _____		
6. Intersecting Roadway within 500 feet? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Approximate Distance (feet) 45		7. Smallest Crossing Angle <input type="checkbox"/> 0° - 29° <input type="checkbox"/> 30° - 59° <input checked="" type="checkbox"/> 60° - 90°
8. Is Commercial Power Available? * <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Part V: Public Highway Information		
1. Highway System <input type="checkbox"/> (01) Interstate Highway System <input type="checkbox"/> (02) Other Nat Hwy System (NHS) <input checked="" type="checkbox"/> (03) Federal AID, Not NHS <input type="checkbox"/> (08) Non-Federal Aid	2. Functional Classification of Road at Crossing <input type="checkbox"/> (0) Rural <input checked="" type="checkbox"/> (1) Urban <input type="checkbox"/> (1) Interstate <input type="checkbox"/> (5) Major Collector <input type="checkbox"/> (2) Other Freeways and Expressways <input type="checkbox"/> (3) Other Principal Arterial <input type="checkbox"/> (6) Minor Collector <input checked="" type="checkbox"/> (4) Minor Arterial <input type="checkbox"/> (7) Local	3. Is Crossing on State Highway System? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		4. Highway Speed Limit 30 MPH <input checked="" type="checkbox"/> Posted <input type="checkbox"/> Statutory
		5. Linear Referencing System (LRS Route ID) *
		6. LRS Milepost *
7. Annual Average Daily Traffic (AADT) Year 2019 AADT 7306	8. Estimated Percent Trucks 03 %	9. Regularly Used by School Buses? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Average Number per Day 10
		10. Emergency Services Route <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Submission Information - This information is used for administrative purposes and is not available on the public website.		
Submitted by _____ Organization _____ Phone _____ Date _____		
Public reporting burden for this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. According to the Paperwork Reduction Act of 1995, a federal agency may not conduct or sponsor, and a person is not required to, nor shall a person be subject to a penalty for failure to comply with, a collection of information unless it displays a currently valid OMB control number. The valid OMB control number for information collection is 2130-0017. Send comments regarding this burden estimate or any other aspect of this collection, including for reducing this burden to: Information Collection Officer, Federal Railroad Administration, 1200 New Jersey Ave. SE, MS-25 Washington, DC 20590.		

Update and Verify Crossing Information

CONTINUE

Create New Zone

Zone:

Manage Existing Zones

Quiet Zone Type : **New 24-hour Quiet Zone**

Log Off

743209X F AND B ROAD

743209X F AND B ROAD
 743211Y OLD MAIN DRIVE
 743212F JOHN KIMBROUGH BOULEVARD
 743215B GEORGE BUSH DRIVE
 978312L F and B Road

Crossing Updated!

Present warn device: Gates

Number of highway vehicles per day: 007306

Total trains: 15

Day through trains : 8

Total Switching Trains : 0

Number of main tracks: 1

Number of other tracks: 0

Urban(U.)/Rural(R.): U.Minor Arterial

Highways paved: Yes

Maximum timetable speed mph: 30

Number of highway lanes: 3

Number of years accident data: 5

Number of accidents in accident data years: 0

Wayside horn:

Pre-Existing SSM:

Step by Step Instructions:

Step 1: To add more crossings to the zone Click the ADD CROSSING.

Step 2: To Make changes to the default information, select the crossing from list. Enter the changes in the appropriate box, then click the UPDATE button.

Step 3: To permanently remove a crossing from the zone, select Crossing from list. Click the DELETE CROSSING button.

Step 4: Verify All Crossing Information Provided is correct. Then Click the Check Box, then CONTINUE button .

*** Note:** To see a list of SSMs, click on "Pre-Existing SSM".

* = Not Public At Grade Crossing
** = Closed Crossing

To verify ALL CROSSING INFORMATION PROVIDED is correct, click on the check box here.

ADD CROSSING

DELETE CROSSING

UPDATE

Note: Updating Crossing information on the Quiet Zone Calculator **DOES NOT** update the crossing inventory. Be sure that an updated current and accurate inventory form is also submitted.

Update and Verify Crossing Information

CONTINUE

Create New Zone

Zone:

Manage Existing Zones

Quiet Zone Type : **New 24-hour Quiet Zone**

Log Off

978312L F and B Road

- 743209X F AND B ROAD
- 743211Y OLD MAIN DRIVE
- 743212F JOHN KIMBROUGH BOULEVARD
- 743215B GEORGE BUSH DRIVE
- 978312L F and B Road

Step by Step Instructions:

Step 1: To add more crossings to the zone Click the ADD CROSSING.

Step 2: To Make changes to the default information, select the crossing from list. Enter the changes in the appropriate box, then click the UPDATE button.

Step 3: To permanently remove a crossing from the zone, select Crossing from list. Click the DELETE CROSSING button.

Step 4: Verify All Crossing Information Provided is correct. Then Click the Check Box, then CONTINUE button .

*** Note:** To see a list of SSMs, click on "Pre-Existing SSM".

* = Not Public At Grade Crossing
** = Closed Crossing

To verify ALL CROSSING INFORMATION PROVIDED is correct, click on the check box here.

ADD CROSSING

DELETE CROSSING

Crossing Updated!

Present warn device: **Gates**

Gates

Number of highway vehicles per day: **7306**

7306

Total trains: **15**

8

Day through trains : **8**

4

Total Switching Trains : **0**

0

Number of main tracks: **1**

1

Number of other tracks: **0**

0

Urban(U.)/Rural(R.): **U.Minor Arterial**

U.Minor Arter

Highways paved: **Yes**

Yes

Maximum timetable speed mph: **30**

30

Number of highway lanes: **3**

3

Number of years accident data: **5**

5

Number of accidents in accident data years: **0**

0

Wayside horn:

No

Pre-Existing SSM:

No

UPDATE

Note: Updating Crossing information on the Quiet Zone Calculator **DOES NOT** update the crossing inventory. Be sure that an updated current and accurate inventory form is also submitted.

Cancel

Change Scenario: TAMU_QZ_20_64738

Continue

Create New Zone
 Manage Existing Zones
 Log Off

Crossing	Street	Traffic	Warning Device	Pre-SSM	SSM	Risk	
743209X	F AND B ROAD	7306	Gates	0	0	25,338.70	MODIFY
743211Y	OLD MAIN DRIVE	4104	Gates	0	0	29,329.82	MODIFY
743212F	JOHN KIMBROUGH BOULEVARD	12651	Gates	0	0	45,687.76	MODIFY
743215B	GEORGE BUSH DRIVE	27146	Gates	0	0	52,635.58	MODIFY
978312L	F and B Road	7306	Gates	0	0	26,189.08	MODIFY

Step by Step Instructions:

Step 1: To specify New Warning Device (For Pre-Rule Quiet Zone Only) and/or SSM, click the [MODIFY](#) Button

Step 2: Select proposed warning device or SSM. Then click the [UPDATE](#) button. To generate a spreadsheet of the values on this page, click on [ASM](#) button—This spreadsheet can then be used for ASM calculations.

Step 3: Repeat Step (2) until the SELECT button is shown at the bottom right side of this page. Note that the SELECT button is shown ONLY when the Quiet Zone Risk Index falls below the NSRT or the Risk Index with Horn.

Step 4: To save the scenario and continue, click the SELECT button

* Only Public At Grade Crossings are listed.

Click for [Supplementary Safety Measures \[SSM\]](#)

Click for ASM spreadsheet: [ASM](#) * Note: The use of ASMs requires an application to and approval from the FRA.

Summary	
Proposed Quiet Zone:	TAMU_QZ_20210701
Type:	New 24-hour QZ
Scenario:	TAMU_QZ_20_64738
Estimated Total Cost:	\$0.00
Nationwide Significant Risk Threshold:	15488 .00
Risk Index with Horns:	21484.53
Quiet Zone Risk Index:	35836.19

**Texas A&M University Quiet Zone
Railroad Crossing Risk Index Calculations**

July 13, 2021

DOT No.	Location	Type of Crossing		Risk Index w/out Horns (1)	Risk Index w/ Horns (2)	Classification of Treatment	Proposed SSM or ASM Effectiveness Rates (3)	Quiet Zone Risk Indices
743209X	UPRR at F&B Road	At-Grade	Public	25,338.70	15,191.07	ASM: Gates + Channelization	0.71	7,348.22
978312L	UPRR at F&B Road	At-Grade	Public	26,189.08	15,700.89	ASM: Gates + Channelization	0.40	15,713.45
743211Y	UPRR at Old Main Drive	At-Grade	Public	29,329.82	17,583.82	ASM: Gates + Channelization	0.70	8,798.95
743212F	UPRR at John Kimbrough Drive	At-Grade	Public	45,687.76	27,390.74	SSM: Gates + Channelization	0.80	9,137.55
				31,636.34	18,966.63			10,249.54

Risk Index Without Horns 31,636.34

Risk Index with Horns 18,966.63

Quiet Zone Risk Index 10,249.54

Nationwide Significant Risk Threshold (a/o 01/08/2021) 15,488.00

Notes:

(1) From FRA's online Quiet Zone Calculator

(2) Equals Risk Index w/out Horns multiplied by 66.8%

(3) SSM values taken from FRA Quiet Zone Rules. See Appendix D for discussion of ASM values