

# Texas A&M University Quiet Zone College Station, Texas

# **Public Authority Application**

Submitted by Texas A&M University Transportation Services College Station, Texas

April 13, 2021

as STATE OF TEHANS GARY W. SCHATZ BONG C/CENSED C/CENSED SON C/CENSED SON C/CENSED SON C/CENSED SON C/CENSED SON C/CENSED MARCHINE

Mobility Planning & Engineering, LLC TBPE Firm No. 19852

## Texas A&M University Quiet Zone College Station, Texas

## **Public Authority Application - Project Summary**

April 13, 2021

The "Texas A&M University Quiet Zone" is being established on the basis of "Public Authority Application to FRA" in accordance with §222.39 (b)(1).

The intent of the project is to restrict the use of train horns within the project limits for 24 hours per day, all days of the week.

The project incorporates four public at-grade crossings of Union Pacific Railroad along the Navasota Subdivision. The total length of the project is approximately 1.7 miles. There are no exclusive cyclist or pedestrian crossings within the project limits. There is one grade-separated crossing within the project limits. These crossing are listed below.

DOT No.	Location	Type of Cr	ossing	Jurisdiction
				City of Bryan
743209X	UPRR at F&B Road	At-Grade	Public	Texas A&M University
		Grade		City of College Station
743210S	UPRR at FM 60 / University Drive	Separated	Public	Texas Department of Transportation
743211Y	UPRR at Old Main Drive	At-Grade	Public	Texas A&M University
743212F	UPRR at John Kimbrough Boulevard	At-Grade	Public	Texas A&M University
				City of College Station
743215B	UPRR at FM 2347 / W. George Bush Drive	At-Grade	Public	Texas Department of Transportation

#### Texas A&M University Quiet Zone College Station, Texas Railroad Crossing Location Summary

The quiet zone will be established by implementing Supplemental Safety Measures (SSMs), Alternative Safety Measures (ASMs), or Wayside Horns at all crossings to reduce the Quiet Zone Risk Index (QZRI) to at or below the Risk Index with Horns (RIWH).

Other required information may be found in the following appendices:

Appendix A – Grade Crossing Inventory Forms Appendix B – Diagnostic Team Reviews Appendix C – Notice of Intent Responses and Comments Appendix D – Presentation and Discussion of Mitigation Strategies Appendix E – Quiet Zone Calculations

The Public Authority for the project is Texas A&M University. The Point of Contact for the project is:

Peter Lange, Associate Vice President Transportation Services Texas A&M University 1250 TAMU College Station, Texas 77843-1250 979.845.9700 plange@tamu.edu

## Appendix A

## **Grade Crossing Inventory Forms**

Information currently on file and correct is shown in **BLUE** 

New, revised or updated information is presented in RED

#### **DEPARTMENT OF TRANSPORTATION**

FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Form. For private hig pedestrian station gra Parts I and II, and the	hway-rail gr ade crossing Submission Information	ade crossin s), complet Information n section. F	gs, complete t e the Header, section. For g for changes to	the Header, Parts I and rade-separa existing da	, Parts I and II, and the S ated highway ata, complete	II, and the Submission Inf rail or pathw the Header,	ubmission Information ormation section. For ay crossings (including Part I Items 1-3, and	n section. For p r Private pathwa g pedestrian stat d the Submissio	ublic pathway g ay grade crossing tion crossings), c n Information so	lete the entire inventory grade crossings (including gs, complete the Header, omplete the Header, Part ection, in addition to the lenotes an optional field.
A. Revision Date	B. R	eporting A	gency	C. Reaso	on for Update	e (Select only	one)		1	D. DOT Crossing
(MM/DD/YYY)		ailroad	□ Transit	Chan	-		Closed	No Train	Quiet	Inventory Number
		tate	Other	Data	pen 🗆 D		Change in Primary Operating RR	Traffic Admin. Correction	Zone Update	743209X
			Pa	rt I: Loca			tion Information			
1. Primary Operating	Railroad	ROAD		3	2. State	TEXA		3 County	3RAZO-	5
4. City / Municipality					& Block Num	nber .		6. Highway Ty	pe & No.	
Near Br	RYAN	0	(Street/Re	ad Name)	A.U	I I* /Blo	ck Number)	57	0000	
7. Do Other Railroad	other state in case of the local division in which the local division in the local divis	Contraction of the local division			1 No		Railroads Operate Ov	ver Your Track a	t Crossing?	/es El No
If Yes, Specify RR	-					If Yes, Spe	The second se		-	
9. Railroad Division o			10. Railroad Su				inch or Line Name		12. RR Milepos	1.380
None HOU	USTON			VASO	TA SU	BINON	e		(prefix)   (nnn	
13. Line Segment			est RR Timetal	le	15. Parent I	RR (if applica	ble)	16. Crossin	g Owner (if appl	icable)
•		Station	•		N/A				OP	
17. Crossing Type	18. Crossin	g Purpose	19. Crossing		20. Public	c Access	21. Type of Train			22. Average Passenger
Public	Highway		At Grade			e Crossing)	Freight	Transit		Train Count Per Day
	Pathway Station,		RR Unde	r	I Yes		Intercity Passeng     Commuter	ger 🗆 Shared	and the second sec	Less Than One Per Day Number Per Day
23. Type of Land Use	3. Type of Land Use									
Open Space	Farm	C Resi	and the second se	Commerc	the state of the s	Industrial		C Recreatio	nal 🗆 RR	Yard
24. Is there an Adjac	ent Crossing	with a Sep	arate Number	2	25. Q	uiet Zone (F	RA provided)			
□ Yes D No If	Yes, Provide						Partial     Chicage		Date Establish	ned
26. HSR Corridor ID		27. Latit	ide in decimal	degrees			de in decimal degrees	5	29. Lat	t/Long Source
	N/A	(WGS84	24330 std: nn.nnnnn	nn		WGS84 sto	3568163 :-nnn.nnnnnn)		Act	ual 🗆 Estimated
30.A. Railroad Use	*	1 1		,			State Use *			
30.B. Railroad Use	*					31.B.	State Use *			
30.C. Railroad Use	*	anan an tana tana ana an				31.C.	State Use *	ROATEN	DATE UP	DATTO:08-16
30.D. Railroad Use	\$					31.D.	State Use *	( JATIL)	J410 12	1111111111111
32.A. Narrative (Ra	ilroad Use) ។					32.B.	Narrative (State Use)	•		
33. Emergency Notif	ication Telep	phone No. (	posted)	34. Railroa	ad Contact (	Telephone No	.)	1.000	tact (Telephone	
800-84	8-87	15			and the second s	3721		512-	416-26	35
1. Estimated Numbe	r of Daily Tra	in Moveme	nts	P	art II: Rai	Iroad Info	rmation			
1.A. Total Day Thru	and the second se	1.B. To	otal Night Thru	Trains 1	L.C. Total Swi	tching Trains	1.D. Total Transit	Trains	1.E. Check if Le	
(6 AM to 6 PM)		(6 PM	to 6 AM) 7		0		0		One Movemer How many tra	
2. Year of Train Cour 2020	t Data (YYYY	)	3.A	. Maximum	ain at Crossin Timetable S		30 mahl Emm 15	to 30		
4. Type and Count of	Tracks		3.0	- Typical Sp	Con nalige O	ter erossing (		w		
Contraction of the local division of the loc	Siding(		ard O	Transit	0	Industry	0			
5. Train Detection (A			Detection			Other [	] None			
6. Is Track Signaled?					A. Event Rec	corder				Health Monitoring
	Yes 🗆 No 🔅 🖾 Yes 🖾 No									

FORM FRA F 6180.71 (Rev. 08/03/2016)

OMB approval expires 11/30/2022

Page 1 OF 2

A. Revision Date (/	Revision Date (MM/DD/YYYY) 01/15/2021         PAGE 2         D. Crossing Inventory Number (7 char.) 7/3209 x           Part III: Highway or Pathway Traffic Control Device Information														
			Part III:	Highway	or Pathy	way T	raffic C	ontrol D	evice l	Inform	nation				
1. Are there	2. Types	of Passive T	affic Cont	ol Devices as	sociated with	th the	Crossing								
Signs or Signals?	2.A. Cro Assemb	ssbuck lies ( <i>count)</i> 7	2.B. STO (count)	P Signs (R1-1)	2.C. YIE (count)		ns ( <i>R1-2</i> )	2.D. Adva W10-1 W10-2	4	ning Sigi	ns <i>(Check all</i> W10-3 W10-4			0-11	
2.E. Low Ground C (W10-5) □ Yes (count ₩ No		I St	avement N op Lines Xing Syml	□Dy	namic Envel	lope	2.G. Chan Devices/M All App One App	roaches	Medi Mone	lian	2.H. EXEMPT ( <i>R15-3)</i> □ Yes ☑ No	-	2.1. ENS S Displaye Yes	Sign <i>(I-13)</i> d	
2.J. Other MUTCD	Signs		Yes N					te Crossing			anced Signs (	List types)			
Specify Type Specify Type Specify Type		Co Co	unt 2 unt				Signs (if p	□ No							
3. Types of Train A 3.A. Gate Arms (count) Roadway <u>4</u> Pedestrian		e Configuration ad 🗆 Ful ad Resist	on I <i>(Barrier)</i>	3.C. Can Structur Over Tra	g ( <i>specify co</i> tilevered ( <i>o</i> es ( <i>count</i> ) affic Lane r Traffic Lan	or Bridge	ed) Flashir	ig Light candescent	3.D. (coui □ In	Mast M Int of mo candeso	cent ts included	Lights	0	3.E. Total Coun Flashing Light P	
3.F. Installation Da Active Warning De	vices: (MA	Not Re	quired	3.G. Wayside	e Horn Istalled on (	(MM/Y)	nn)	]		Crossin	No			(count) 4	
3.J. Non-Train Acti			d Signals [	Watchman	Floodlig	hting [	None			Other F	lashing Light Sp	s or Warnir becify type		S	
4.A. Does nearby Hwy       4.B. Hwy Traffic Signal       4.C. Hwy Traffic Signal Preemption       5. Highway Traffic Pre-Signals       6. Highway Monitoring Devices         Intersection have       Interconnection       Interconnection       9       Yes       No         Traffic Signals?       Not Interconnected       Simultaneous       Storage Distance *       0       1/26 - Vehicle Presence Detection         Yes       No       For Warning Signs       Advance       Stop Line Distance *       1/2 None															
Market M				the second second second	Part IV: F	Physi	cal Cha	racteristi	· · · · · · · · · · · · · · · · · · ·				Y. Mar		
1. Traffic Lanes Cru Number of Lanes 5. Crossing Surfac	3	Tw Div	o-way Trai	ffic c <i>llowed)</i> Inst	2. Is Road Paved?	es [ te * (Mi	No M/YYYY)		🗆 Yes	Widt	th *	lights wit nearest r	thin appr rail)	ninated? (Stree ox. 50 feet from es □ No (04	
1 Timber 8 Unconsolida	2 Asphal	t 🗆 3 Asp	halt and T	mber 🕒 4	Concrete	5	Concrete	and Rubber	□ 6	Rubber	🗆 7 Me	tal			
6. Intersecting Ro					adjest with the		7. Smalle	est Crossing	Angle			8. Is Cor	mmercia	Power Available	e? *
Yes 🗆 No	If Yes, Ap	proximate Di	stance (fee	et) 45	-		□ 0°-2	9° 🗆 30	)° – 59°		60° - 90°		Yes	🗆 No	
	_			Pa	rt V: Pu	blic H	lighway	Informa	tion						
1. Highway System		way System		Functional Cla (1) Interstate	🗆 (0) Rura		1) Urban	ng r Collector	Sys	stem?	ing on State I	Highway		lighway Speed L 30 MPH Posted 🗆 Statu	1
□ (02) Othe □ (03) Fede ☑ (08) Non	eral AID, N			(2) Other Fre (3) Other Pri (4) Minor Ar	ncipal Arter	rial 🗆		r Collector		Linear R LRS Mile	eferencing S	ystem (LRS	S Route IL	)) *	
7. Annual Averag Year 2019 A	ADT 7	306			_ %	Yes		d by School Average N	lumber f			- DY	les 🛛	ncy Services Rou No	ite
Subn	nission	Informatio	on - This	informatio	n is used	for ac	ministra	ntive purp	oses ai	nd is n	ot availabl	le on the	public	website.	
Submitted by	PETER	CANO	3ã	Organ	ization T	Ex	45 A	the u	NIN	v.	Phone 92	9-845	· 970	Re 1/15	hor
Public reporting b sources, gatherin agency may not c displays a current other aspect of th Washington, DC 2	g and mair onduct or ly valid ON his collectio 20590.	ntaining the d sponsor, and AB control nu on, including f	ata needeo a person is mber. The or reducin	I and complet not required valid OMB co g this burden	ing and revi to, nor shal ontrol numb to: Informa	iewing II a pers per for i ation Co	the collect son be sub nformatio ollection O	ion of inforr ject to a per n collection fficer, Feder	nation. haity for is 2130-( ral Railro	Accordin failure t 0017. Se ad Adm	ng to the Pap to comply wit end commen inistration, 1	erwork Re th, a collect ts regardir	duction A tion of in ng this bu	Act of 1995, a fe formation unles rden estimate o e. SE, MS-25	deral is it or any
FORM FRAF	DRM FRA F 6180.71 (Rev. 08/03/2016) OMB approval expires 11/30/2022 Page 2 OF 2									0/202	2			Page 2	

#### DEPARTMENT OF TRANSPORTATION

FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

	-	-								
	ctions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including trian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pathway crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part									
										<b>0</b> 1 <b>0</b>
	+									
										ection, in addition to the
					and the second se	and the second	ed unless otherwise n	oted.	An asterisk * d	enotes an optional field.
A. Revision Date	B.R	eporting A	gency	C. Reas	on for Update	e (Select only o	one)		-	D. DOT Crossing
(MM/DD/YYYY)		ailroad	Transit	Char	nge in 🗆 N	ew [	Closed	🗆 No Train	Quiet	Inventory Number
0115120	41		-	Data	Cros	sing		Traffic	Zone Update	7432105
		tate	🕒 Other	Re-C	Dpen 🗆 D	ate [	Change in Primary	Admin.		(ISAID )
					Cha	nge Only C	perating RR	Correction		
			Pa	rt I: Loc	ation and	Classificat	tion Information	1		
1. Primary Operating	Railroad	and the state of the second		()	2. State		T	3. County	8012	
VPION PAC	IFIC R	ALRO.	40 co	(UP)		TEX	A)		BR420	5
4. City / Municipality			5. Street/F	load Name	& Block Num	nber		6. Highway Ty	pe & No.	
971n			Eh lon	11/11/1	1+125175	DRIVE			-	
Near COC	LEGE	STATI	(Street/Re	ad Name)			k Number)	M	0060	
7. Do Other Railroad					No	8. Do Other	Railroads Operate Ov	er Your Track a	at Crossing?	es DNo
If Yes, Specify RR						If Yes, Spe				
9. Railroad Division of	or Region		10. Railroad S	ubdivision	or District	11. Bra	nch or Line Name		12. RR Milepost	
110	1000		17	11000	0-1 1.	100			Q67.	3.590
None HU	USTON	0		VA30	14 30	25 ENon	e		(prefix)   (nnni	n.nnn)   (suffix)
13. Line Segment		14. Near	est RR Timetal	ole	15. Parent	RR (if applical	ble)	16. Crossin	g Owner (if appli	icable)
*		Station	*							
					□ N/A			□ N/A		
17. Crossing Type	18. Crossin	g Purpose	19. Crossin	g Position	20. Public	c Access	21. Type of Train		1	22. Average Passenger
	Highway	1	At Grade		(if Private	Crossing)	Freight	Transit	: 1	Train Count Per Day
Public	D Pathway	, Ped.	RR Unde	r	□ Yes		Intercity Passeng	er 🗌 Shared	Use Transit	Less Than One Per Day
Private	□ Station,	Ped.	RR Over		🗆 No		Commuter	Tourist	t/Other	Number Per Day
23. Type of Land Use										
Open Space										
24. Is there an Adjac	ent Crossing	with a Sep	arate Number	?	25.0	uiet Zone (F	RA provided)			
□ Yes I No If	Yes, Provide	Crossing N	umber		IPNO	□ 24 Hr	Dential Chicag	go Excused	Date Establish	ned
26. HSR Corridor ID		27. Latit	ude in decimal	degrees		28. Longitu	de in decimal degrees		29. Lat	t/Long Source
	/	30	.61551	95		-96.	3487769			
	N/A		std: nn.nnnnr			(WGS84 std	: -nnn.nnnnnnn)		PAct	ual 🗌 Estimated
30.A. Railroad Use	*					31.A.	State Use *			
30.B. Railroad Use	*					31.B.	State Use *			
30.C. Railroad Use	*					31.C.	State Use *			
						5747	E PHONE II V	PRATED-1	DATE OPP	4720 2018 08-16
30.D. Railroad Use	*					31.D.	State Use *			
32.A. Narrative (Ro	ilroad Use) *	•				32.B.	Narrative (State Use)	*		
33. Emergency Notif	fication Telep	phone No.	(posted)	34. Railro	ad Contact (	Telephone No	.)	35. State Con	ntact (Telephone	No.)
ann Qu	a 07	15		40	7-544	-3721		512 -1	416-263	25
800-84	0-01	12		10	2711	210		JIL	110-26-	37
	and the contract of the				Part II: Rai	ilroad Info	rmation			
1. Estimated Numbe	r of Daily Tra	in Movem	ants	and the second	a de Casada		and a substantial for the standard	and all all a shift a stress have	and a simple for the second second	and a first of the second s
1.A. Total Day Thru	windows and the second s	and the second se	otal Night Thru	Trains	1.C. Total Swi	itching Trains	1.D. Total Transit	Trains	1.E. Check if Le	ass Than
(6 AM to 6 PM)	Trains	1	to 6 AM)	TIGHTS		itering rians		Trains	One Movemen	
(O AIVI TO O FIVI)		IO PIVI	TO D ANI		0		0		How many tra	
2 Very of Train Cours	+ Data (MAA	1	12	Encod of T	rain at Craccin		I and the stand is a second se		1 How many tra	Ins per week:
2. Year of Train Cour	nt Data (rrri	0			rain at Crossir m Timetable S		30			
2020								to 30		
4. Type and Count o	Tracks		3.1	s. Typical S	peeu kange O	ver Crossing (	mpny rioin i	10		
4. Type and Count o	TIPACKS									
Main 1	Siding	2 v	ard O	Transit	0	Industry	0			
Main /	Jung		ard O	Transit		muustry				
5. Train Detection (A			Detection		TC DC	C Other	None			
Constant War			Detection L	and the second se	7.A. Event Re	Contraction of the local division of the loc	a none		TR Bomete	Health Monitoring
6. Is Track Signaled										
	Yes No Yes KNo									

FORM FRA F 6180.71 (Rev. 08/03/2016)

OMB approval expires 11/30/2022

Page 1 OF 2

A. Revision Date (A	Revision Date (MM/DD/YYYY) 01/15 (2021)     PAGE 2     D. Crossing Inventory Number (7 char.) 71/3 2/0 5       Part III: Highway or Pathway Traffic Control Device Information											
		the second second					ontrol De	the second s	the second s		1.250	
1. Are there	2. Types	and a state day in as you	and a second a second	A CALLER AND A CALL	sociated with the	in the second second					in the second second	and and an and a start of the
Signs or Signals?	2.A. Cros	ssbuck	2.B. STO	P Signs (R1-1)	2.C. YIELD Sig	ans (R1-2)	2.D. Advar	ce Warning S	igns (Check all	that apply: i	include c	ount)
🗆 Yes 🖬 No	Assembl	ies (count)	(count)	0	(count)		□ W10-1 □ W10-2	0				-11
2.E. Low Ground Cl	earance Sig	gn 2.F. P	avement M	Markings		2.G. Char	nelization		2.H. EXEMPT	Sign 2		ign (l-13)
(W10-5)						Devices/			(R15-3)	D	isplayed	
Yes (count No	)		p Lines		mamic Envelope			Median	Ves No		Ves No	
2.J. Other MUTCD	Signs		Xing Sym		ne	2 K Priva	te Crossing	None	nhanced Signs		NO	
La. other moreo	516113			-		Signs (if p	-	Z.L. LED EI	inanceu signs	(List types)		
Specify Type		Co	unt									
Specify Type Specify Type		Co	unt			Yes [	No					
					a lan anifer anount a	f a rah day		1				
3. Types of Train A 3.A. Gate Arms	1	e Configuratio		the second se	tilevered (or Brid	the second se	Second		Mounted Flash		1 3	3.E. Total Count of
(count)	5.0. 000	e comgarata	211	1	es (count)	geur rasinn	ig ugin		masts)	ing lights		Flashing Light Pairs
0	🗆 2 Qua	ad 🗆 Full	(Barrier)	1	ffic Lane	<u>2</u> □ In	candescent	Incande				Lasting Egitt and
Roadway	🗆 3 Qua					2		🗆 Back Li	ghts included	🗆 Side Li	ghts	0
Pedestrian	4 Qua	ad 🗆 Me	dian Gates	Not Ove	r Traffic Lane 🧕 🤇		D			Included		5
3.F. Installation Dat	te of Curre	nt		3.G. Wayside	Horn		1.1. 1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	3.H.	Highway Traffi	c Signals Con	trolling	3.I. Bells
Active Warning Dev	vices: (MM					(1000)	,	Cross		0		(count)
		Not Red	quired	Ves In	stalled on (MM/)	((())		— □ Ye	es 🖌 No			0
3.J. Non-Train Activ	ve Warning	g			·····	/		3.K. Other	Flashing Light	s or Warning	Devices	
Flagging/Flagma	Flagging/Flagman  Manually Operated Signals  Watchman  Floodlighting  Kone Count  O Specify type											
4.A. Does nearby Hwy 4.B. Hwy Traffic Signal 4.C. Hwy Traffic Signal Preemption 5. Highway Traffic Pre-Signals 6. Highway Monitoring Devices												
Intersection have												
Traffic Signals?		Not Intercon For Traffic Sig		Simultan	a cura		Storage Dist	anca #				eo Recording esence Detection
□Yes □No	1	For Warning	-		eous		Stop Line Dis			□ None	chicle rh	esence Detection
					Part IV: Phys	ical Cha						
1. Traffic Lanes Cro	ssing Railr	oad 🗆 One	-way Traff	ìc	2. Is Roadway/F	Pathway	3. Does T	rack Run Dov	vn a Street?			inated? (Street
Number of Lance	0		o-way Traf		Paved?	No			No			x. 50 feet from
Number of Lanes 5. Crossing Surface	e Ion Main	transferration and the second s	ided Traffi	and the second se	de la constante				idth *	nearest rai		
1 Timber					Concrete 0 5						-ingen _	
🗆 8 Unconsolidat	ted 🗆 9	Composite	🗆 10 O	ther (specify)					16-4-4-1	-		
6. Intersecting Roa	adway with	nin 500 feet?			and a subdate the first second second	7. Smalle	est Crossing A	Ingle		8. Is Com	mercial F	Power Available? *
									60° - 90°			1
Ves No	If Yes, Ap	proximate Dis	stance (fee			0°-2		September 1999 - States - States	1 60° - 90°	1	□ Yes	No
					rt V: Public I							
1. Highway System	n		2.		ssification of Roa		ng	1	ssing on State	Highway		ghway Speed Limit
🗆 (01) Inters	state Highv	way System		(1) interstate	🗆 (0) Rural 😿	(1) Urban (5) Majo	r Collector	System? Ves	□ No			osted  Statutory
🗆 (02) Othe	r Nat Hwy	System (NHS)		(2) Other Fre	eways and Expres	ssways			Referencing S	ystem (LRS A	1	
103) Fede						(6) Mino		-	lilepost *			
<ul> <li>7. Annual Average</li> </ul>			and the second second	(4) Minor Art	the state of the s	(7) Local			mepost	10.5		Conviens Doute
Year 2016 A			8. Estin	5.0	% Ye		d by School B Average N	Buses? umber per Da	y 10	10. E Yes		cy Services Route No
Subm	ission l	nformatio	n - This	informatio	n is used for a	dministra	tive purpo	oses and is	not availab	le on the p	ublic w	vebsite.
			. <u>1 </u>									and the second
Submitted by	THR	LANO	6E	Organ	ization TEXA	5 A+	AUN	IV.	979. Phone	845.9	700 Da	te 1/15/21
Public reporting bu		and the second se					the second s		me for reviewin	ng instruction	ns, searc	hing existing data
		+										t of 1995, a federal
agency may not co		•										
other aspect of thi												den estimate or any SE, MS-25
Washington, DC 2											.,	
FORM FRA F 6	ORM FRA F 6180.71 (Rev. 08/03/2016) OMB approval expires 11/30/2022 Page 2 OF 2											

#### DEPARTMENT OF TRANSPORTATION

FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Form. For private hig pedestrian station gra Parts I and II, and the	hway-rail grad de crossings), Submission In Information	de crossir , complet formation section.	ngs, complete the Head rection. For For change	ete the Head ler, Parts I an or grade-sep s to existing	er, Parts I nd II, and th arated high data, comp	and II, a he Subm way-rail plete the	nd the Su ission Info or pathwa Header,	bmission Information prmation section. For ay crossings (including Part 1 Items 1-3, and	section. For p Private pathw pedestrian sta the Submissio	public pathway ay grade crossir ation crossings), on information s	plete the entire inventory grade crossings (including ngs, complete the Header, complete the Header, Part section, in addition to the denotes an optional field.
A. Revision Date	B. Re	porting A	gency	C. Rea	ason for Up	date (Se	lect only a	ine)		/	D. DOT Crossing
(MM/DD/YYY)	🗆 Rai	ilroad	🗆 Trar	1	0	🗆 New		Closed	🗆 No Train	Quiet	Inventory Number
0111000	□ Sta	***	Oth	Data		Crossing		Change in Primary	Traffic	Zone Update	7432114
		ite	in our			Change (		perating RR	Correction		
				Part I: Lo	cation a	nd Cla		ion Information			
1. Primary Operating	Railroad	AIL RO	40 C	0. (01	o) 2. St	ate .	TEX	45	3. County	RAZOS	5
4. City / Municipality				t/Road Nam					6. Highway Ty	pe & No.	
Den COL	UBE 5	TATI	DO IStree	LD M	TIN UI	ave	1 # (Bloc	k Number)	ST	0000	
7. Do Other Railroads						8.1		Railroads Operate Ove	er Your Track	at Crossing?	Yes No
If Yes, Specify RR						1	f Yes, Spe		,		
9. Railroad Division of				d Subdivision			-	nch or Line Name		12. RR Milepo	st 3.300
- Hone I	NUN	And the second second		AVAS			1	the second s		(prefix)   (nnr	
13. Line Segment		14. Near Station	est RR Tim	etable	15. Pare	ent RR (	if applicab	le)	16. Crossin	ng Owner (if app	licable)
					DIN/A				□ N/A	UP	
17. Crossing Type	18. Crossing	Purpose		sing Position		ublic Acc		21. Type of Train			22. Average Passenger
Public	Highway	Pad	At Gr		(if Pri □ Ye	vate Cro	ssing)	Freight	Transi	t d Use Transit	Train Count Per Day Less Than One Per Day
Private	Station, Pr		RRO								□ Less man One Per Day
23. Type of Land Use											
	🗆 Farm	C Resi		Comme	the second se	Indus		Institutional	C Recreation	onal 🗌 R	R Yard
24. Is there an Adjace	ent Crossing w	vith a Sep	arate Num	ber?	2	5. Quiet	Zone (FA	A provided)			
Yes No If	es, Provide C	rossing N	umber		8	No E	24 Hr	Partial Chicago	Excused	Date Establis	hed
26. HSR Corridor ID				mal degrees		28		e in decimal degrees		29. La	it/Long Source
	IN/A		6123 std: nn.nn			114		3458556 -nnn.nnnnnn)		Ac	tual 🔲 Estimated
30.A. Railroad Use	*	(990364	sta: nn.nn	nannn)		1.(00		tate Use *		E AC	
30.B. Railroad Use	*						31.8. 5	itate Use *		- and the second second	an a
30.C. Railroad Use	*						31.C. S	tate Use *			
									DATED-	DATEUP	DATED 2018-08-41
30.D. Railroad Use	*						31.D. 5	State Use *			
32.A. Narrative (Rail	lroad Use) *						32.B. M	Narrative (State Use) *			
33. Emergency Notifi	cation Teleph	one No.	(posted)	34. Rail	road Conta	ct (Telep	hone No.	)	35. State Co	ntact (Telephon	e No.)
800-846-8715 402-544-3721 512-416-2635											
					Part II: I	and the second	In the second of the second	rmation			
1. Estimated Number			The second s	Tala	107.01	C	Tradicio				
1.A. Total Day Thru T (6 AM to 6 PM)	rains		otal Night T to 6 AM)	nru Trains	1.C. Total	Switchin	ig i rains	1.D. Total Transit T	rains	1.E. Check if L One Moveme	nt Per Day
2. Year of Train Count	t Data (YYYY)	-		3. Speed of	Train at Cro	ssing				How many tra	ains per week?
2020	,			3.A. Maximu	um Timetab	le Speed	(mph)	50 15	to 30		
4. Type and Count of	Tracks			3.B. Typical	Speed Rang	ge Over C	rossing (n	nph) From //	to		
1	Siding 0	Y	ard O	Trans	it O	Inc	dustry	0			
5. Train Detection (M	lain Track only	()									
Constant Warr		Motion	Detection		And the owner of the owner own			None		7 D Derest	Llookh Monitarian
6. Is Track Signaled? Yes 🗆 No					7.A. Event						e Health Monitoring
the second s											Page 1 OF 2

A. Revision Date (A	Revision Date (MM/DD/YYYY) 01/15/2021 PAGE 2 D. Crossing Inventory Number (7 char.) 7432/19 Part III: Highway or Pathway Traffic Control Device Information											
			Part III	Highway	or Pathway	Traffic (	Control De	the second s			yetety.	
1. Are there	2. Types	s of Passive T	raffic Cont	rol Devices ass	ociated with th	e Crossing	and a fact of the safe factor					
Signs or Signals?	2.A. Cro Assemb	lies (count)	2.B. STO (count)	P Signs (R1-1)	2.C. YIELD S (count)	gns (R1-2)	W10-1			de	🗆 W10	-11
2.E. Low Ground Cl	earance Si	ign 2 F	Pavement I	Varkings		12G Cha	W10-2	L	2.H. EXEMP	and the second designed as a second designed as a second designed as a second designed as a second designed as	2.I. ENS SI	and the second se
(W10-5)	ediance of			AIGI KILIB2			Medians		(R15-3)		Displayed	
Yes (count No	)	R	top Lines R Xing Sym	ools 🗌 No	namic Envelope ne	All Ap		Median	Yes No	[	Yes No	
2.J. Other MUTCD	Signs	<u> </u>	Yes IN	0			ate Crossing	2.L LED E	nhanced Signs	(List types)		
Specify Type		Co	ount			Signs (if	private)					
Specify Type Specify Type			ount			🗆 Yes	🗆 No					
3. Types of Train A	ctivated V			Grade Crossing	(specify count	of each dev	ice for all the	(t apply)		· · · · · · · · · · · · · · · · · · ·		
3.A. Gate Arms		te Configurat	and the second sec		ilevered (or Brid	the second se	A DESCRIPTION OF THE OWNER OWNER OF THE OWNER OWNER OWNER OWNER OWNER OWNER		t Mounted Flasi	ning Lights	3	B.E. Total Count of
(count)	2 Qua				es (count)	2		(count of			F	lashing Light Pairs
Roadway 2	2 Qua		II (Barrier) tance	Over Tra	fic Lane	L !r	candescent	Incand Back i	lescent ights Included	LED Side L	ights	ч
Pedestrian	4 Qua		edian Gates	Not Over	Traffic Lane	2 01	D	De Duck L	Burgaria	Included	-	(
3.F. Installation Da	te of Curre	ent	1	3.G. Wayside	Horn			3.H.	Highway Traffi	c Signals Cor	ntrolling	3.I. Bells
Active Warning De		A/YYYY]			stalled on (MM/	VVVVI	,	Cros	ssing	o olBridio Col	in only	(count)
/		Not Re	equired	No	staneu on (iviivi)			- DY	es 🖬 No			2
3.J. Non-Train Activ		Ŷ	d Cimenta I	14/	D Flood Bob Good	-			er Flashing Light		g Devices	
	Image: Flagging/Flagging / Flagging											
4.A. Does nearby F												
Traffic Signals?	Traffic Signals? Divide Recording											
Yes 🗆 No		For Traffic S For Warning	-	Advance	ous		Storage Dist Stop Line Dis			None	ehicle Pre	esence Detection
		T OF TTGETHING	, JIBIIS 1		art IV: Phy	sical Cha						
1. Traffic Lanes Cro	ossing Railr	road 🗆 On	e-way Traff	and the second se	2. Is Roadway/	and a second in the second second	and the second second second	and the second state of the second state	wn a Street?	4. Is Cross	sing Illum	inated? (Street
Number of Longo	3		vo-way Tra	1	Paved? Yes	[] N.			No			k. 50 feet from
Number of Lanes 5. Crossing Surface			vided Traffi			MO M/YYYY)	1		lidth *	nearest ra	ength * _	
🛛 1 Timber 🛛	2 Asphalt	t 🗆 3 Asp	bhalt and Ti	mber 🖬 4	Concrete		and Rubber			tal		
8 Unconsolidat				ther (specify)					······································	-		
6. Intersecting Roa	adway with	hin 500 feet?				7. Small	est Crossing A	Ingle		8. Is Com	nmercial P	ower Available? *
Yes 🗆 No	If Yes, Ap	proximate D	istance (fee	t) 60		0°-2	9° 🗆 30°	° 59°	E 60° - 90°		Ves	🗆 No
				Pa	rt V: Public	Highway	Informat	tion				
1. Highway System	1		2.		sification of Ro		ng		ossing on State	Highway		hway Speed Limit
(01) Inter-	state High	way System		(1) Interstate	] (0) Rural 🕑	(1) Urban	r Collector	System	No			sted Statutory
🗆 (02) Othe	r Nat Hwy	System (NHS			eways and Expre	ssways			r Referencing S	ystem (LRS )		and the second s
(03) Fede (08) Non-			1	(3) Other Prin (4) Minor Art		(6) Mind (7) Local		6. LRS N	Ailepost *			in a second s
7. Annual Average Year 2019 A	Daily Traf	ffic (AADT)	8. Estin	nated Percent	and a second sec	egularly Use	ed by School I	Buses?		10. E		y Services Route
					n is used for a				7			
Jubin	115510111	mormati		mjormutior	i is used jor i	ummstr	uive purpu	ses ana is	not availab	e on the p	oudlic w	epsite.
Submitted by P	ETER	RCAN	IGE	Organi	zation TEXA	SA+1	4 UNI	N.	979. Phone	845-	9700 Dat	te 1/15/21
Public reporting be					-			-		+		
sources, gathering agency may not co												t of 1995, a federal
												len estimate or any
other aspect of thi	is collectio									• •		1
	Washington, DC 20590. ORM FRA F 6180.71 (Rev. 08/03/2016) OMB approval expires 11/30/2022 Page 2 OF 2											

#### DEPARTMENT OF TRANSPORTATION

FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Form. For private high pedestrian station gra Parts I and II, and the S I, and the Submission	hway-rail grad de crossings), Submission Inf Information :	le crossin , complete formation section. F	gs, comple e the Head section. Fo or change	ete the Head ler, Parts I ar or grade-sepa s to existing	er, Parts I and nd II, and the arated highwa data, comple	d II, an Submis iy-rail o te the	nd the Su ssion Info or pathwa Header,	bmission Information rmation section. For y crossings (including Part I Items 1-3, and	n section. For p r Private pathw g pedestrian sta d the Submissio	public pathway g ay grade crossing ation crossings), c	olete the entire inventory grade crossings (including gs, complete the Header, complete the Header, Part ection, in addition to the
updated data fields. No	ote: For privat	te crossin	gs only, Par	t I Item 20 a	nd Part III Iten	1 2.K. a	re require	ed unless otherwise r	noted.		lenotes an optional field.
A. Revision Date		porting Ag			ason for Upda					1	D. DOT Crossing
(MM/DD/YYYY)	□ Rai		🗆 Tran			New		Closed	🗆 No Train	C Quiet	Inventory Number
0115202	-/		/	Data	•	ossing			Traffic	Zone Update	
	🗆 Sta	te	Oth	er 🗌 Re-		Date		Change in Primary	🗆 Admin.		743212F
				Dentili		ange O		perating RR	Correction		
	Section 3			Part I: Lo	the second providence and	Wards	ssificat	ion Information	and the second second second second		
1. Primary Operating	Railroad	ANNO	PADC	o (UP	2. State		TEX.	45	3. County	BRAZO	25
4. City / Municipality	1 1			t/Road Nam	e & Block Nu	mber			6. Highway Ty	and the second sec	
Near COLL	2557	TATIO	JOH	U HIMT	Block Nu	BO				0000	
7. Do Other Railroads				t/Road Name		100		k Number)			Vac the
If Yes, Specify RR	operate a se	parate In	atk at CIOS	onig: L fes			Yes, Spec	Railroads Operate Ov	ver rour Track		
9. Railroad Division of			10. Railroa	d Subdivision	n or District		11. Bran	ch or Line Name		12. RR Milepos	3.100
None HOU	STON		🗆 None 🗡	JAVA50	TA SU	B	None			(prefix)   (nnn	
13. Line Segment	the second s		est RR Time		15. Parent			A CONTRACTOR OF A CONTRACTOR O	16. Crossin	ng Owner (if appl	the second se
*	1	Station	*			.,				UP	
17 Crossing Tune	18. Crossing	Durnasa	10 0	sing Decisio	A N/A	lie Ace	T	21 Turo of Tasta	□ N/A		22 August D.
17. Crossing Type	Highway	rurpose	19. Cros	sing Position ade	20. Publ		1	21. Type of Train		1	22. Average Passenger Train Count Per Dav
Public	Pathway, F	Ped.			I Yes	C CIUS	July/	Intercity Passeng			Less Than One Per Day
Private	Station, Pe		RRO								Number Per Day
23. Type of Land Use											
	🗆 Farm	🗆 Resid	dential		ercial	Indust	trial	Institutional	Recreatie	onal 🗆 RR	Yard
24. Is there an Adjace	nt Crossing w	ith a Sepa	arate Numi	ber?	25.	Quiet 2	Zone (FR	A provided)		1	
						-				-	
to contain the second s	es, Provide Cr			maldance			and state is a second state of the second	Partial Chicag		Date Establist	and the second se
26. HSR Corridor ID				mal degrees $9430$		28.	23	e in decimal degrees	2	29. La	t/Long Source
	MN/A		std: nn.nn			(WO	GS84 std:	-nnn.nnnnnnn)	<u> </u>	Act	ual 🖸 Estimated
30.A. Railroad Use							31.A. S	tate Use *		and the second sec	
30.B. Railroad Use *							31.B. S	tate Use *			
30.C. Railroad Use *	l						31.C. S	tate Use *	1.00	0 D	2018-02
								E PHONE #	PDATE	D-DARE C	1PDA163 -16
30.D. Railroad Use							31.D. S	tate Use *			
32.A. Narrative (Rail	road Use) *						32.B. N	ar <b>rative</b> (State Use)	*		
33. Emergency Notifie	cation Telepho	one No. (	posted)	34. Rail	road Contact	(Telept	hone No.)		35. State Con	ntact (Telephone	No.)
800-8	48-8	715		40	12-54	4-	372	4	512-	416-26	35
					Part II: Ra	-	and the second division of the second				
1. Estimated Number									· · · · · · · · · · · · · · · · · · ·		
1.A. Total Day Thru Th	rains		tal Night T	hru Trains	1.C. Total Sw	vitching	gTrains	1.D. Total Transit	Trains	1.E. Check if Le	
(6 AM to 6 PM)		(6 PM 1	to 6 AM)		0	7		0		One Movemer How many trai	
2. Year of Train Count	Data (YYYY)			3. Speed of	Train at Crossi	ng		20		a start and	
2020				3.A. Maximu	Im Timetable Speed Range (	Speed (	(mph)	ph) From 15	to 30		
4. Type and Count of	Tracks			S.D. Typical	speen Nalige (	over cr	uossing (n		10		
Main ( s	iding O	Ya	rd 0	Trans	it 0	Inde	ustry	0			
5. Train Detection (M	ain Track only	)					usuy_			· · · · · · · · · · · · · · · · · · ·	
Constant Warn	ing Time	Motion	Detection		PTC DC			None		1	
6. Is Track Signaled?					7.A. Event Re Yes		r				Health Monitoring
	Image: Pres         No         Image: Pres         No         Image: Pres         No           FORM FRA F 6180.71 (Rev. 08/03/2016)         OMB approval expires 11/30/2022         Page 1 OF 2										

A-7

A. Revision Date (A	MM/DD/YYYY)	01/15	1202	r	I	PAGE 2			D.	Crossing Inve	ntory Num	ber (7 cho	Ir.)7432/2F
			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	· ····································	or Pathway	Traffic (	Control De	evice	And the second second				
1. Are there	2. Types of	Passive T	raffic Cont	rol Devices ass	ociated with th	e Crossing	Manager and Construction of Co	aparent a data		tay ita ang takat ang tang ta			
Signs or Signals?	2.A. Crossbu			P Signs (R1-1)	2.C. YIELD S	igns (R1-2)			rning Si	igns (Check all			
Yes 🗆 No	Assemblies	(count)	(count)	0	(count)		W10-1 W10-2			□ W10-3 □ W10-4			0-11
2.E. Low Ground Cl	earance Sign	2.F. F	Pavement	Markings			nnelization			2.H. EXEMPT	" Sign		Sign (l-13)
(W10-5)	1		op Lines		amic Envelope	1 / '	Medians	Med	dian	(R15-3)		Displayed Yes	d
No		RE	R Xing Sym	bols 🗋 No			proach			No			
2.J. Other MUTCD	Signs		Yes 🗆 N				ate Crossing	2.L.	LED En	hanced Signs	(List types)		
Specify Type 🥂	8-8	Co	ount	(		Signs (if	private)						
Specify Type		Co	ount			🗆 Yes	🗆 No						
Specify Type			ount			1							
3. Types of Train A 3.A. Gate Arms							and the second sec			A sumber of Files			25 7.1.10
(count)	3.B. Gate Co	nngurati	on	1	ilevered (or Brides (count)	igea) Flashi	ng Light			Mounted Flash masts) 2			3.E. Total Count of Flashing Light Pairs
	2 Quad		l (Barrier)	Over Tra		2 🗆 11	ncandescent		ncande	scent	LED		
Roadway Pedestrian	□ 3 Quad □ 4 Quad	Resist	ance dian Gate	Not Ovo	Traffic Lane	י סו	ED.		ack Lig	hts Included	Side     Include		4
			eulan Gale				ED						
3.F. installation Da Active Warning De				3.G. Wayside	Horn				3.H. H Cross	lighway Traffie	c Signals Co	ontrolling	
Active Warning De		Not Re	quired		stalled on (MM,	YYYY)	_/			s No			(count)
3.J. Non-Train Activ	Warning			No No	b			134	Other	Flashing Light	s or Warning	na Device	
Flagging/Flagma		Operate	d Signals	U Watchman	Floodlighting	None			int		pecify type		5
4.A. Does nearby Hwy 4.B. Hwy Traffic Signal 4.C. Hwy Traffic Signal Preemption 5. Highway Traffic Pre-Signals 6. Highway Monitoring Devices													
Intersection have													
Trame Signals?	Traffic Signals?  Vot Interconnected For Traffic Signals Simultaneous Storage Distance* Yes - Photo/Video Recording (es - Vehicle Presence Detection												
🛛 Yes 🗆 No	1	Warning	-	Advance			Stop Line Di		*		None		
				ſ	art IV: Phy	sical Cha	racteristi	CS					
1. Traffic Lanes Cro	ssing Railroad				2. Is Roadway,	Pathway	3. Does T	Frack Ru	In Dow	n a Street?		-	ninated? (Street
Number of Lanes	5		vo-way Tra		Paved? Yes	🗆 No		🗆 Yes		No			ox. 50 feet from s □ No
5. Crossing Surface		ick, multip	ole types a	llowed) Insta	llation Date * (	MM/YYYY)	1		Wi	dth *		Length *	
□ 1 Timber □ □ 8 Unconsolidat					Concrete 🗌	5 Concrete	and Rubber	6	Rubbe	er 🗌 7 Me	tal		
6. Intersecting Roa				(iner (specify)		7 Small	est Crossing A	Angla				mmoroiol	Power Available? *
					-			Angle			a. is co	mmercial	Power Available?
🕑 Yes 🗆 No	If Yes, Appro	ximate Di	stance (fe		the second s	0°-3	And a second sec		E.	60° - 90°		Yes	🗆 No
				and the second second second	rt V: Public			- i proved					
1. Highway System	1		2.		sification of Ro		ng			sing on State	lighway	4. Hi	ighway Speed Limit
(01) inter-	□ (0) Rural 12 (1) Urban System? 30 MPH □ (01) Interstate Highway System □ (1) Interstate 12 (5) Major Collector □ Yes 12 No 12 Posted □ Statutory												
🗆 (02) Othe	r Nat Hwy Sys	tem (NHS			eways and Expre	essways		5.	Linear	Referencing S	ystem (LRS	Route ID	
<ul> <li>(03) Fede</li> <li>(08) Non-</li> </ul>	ral AID, Not N Federal Aid	HS		(3) Other Prin (4) Minor Art		(6) Mino (7) Loca		6.	LRS M	ilepost *			
7. Annual Average	Daily Traffic	(AADT)		mated Percent	Trucks 9. R	egularly Us	ed by School			10			cy Services Route
Year 2019 A			nn - This		- % PY		o Average N						No
Jubin	13310H HIR	/////	011. 1111.3	mjormanor	i is used jui	ummasu	unve parpo	1363 U	110 13 1		e on the	public 1	WEDSILE.
Submitted by	FTER	LA	WGE	Organi	ation TEXA	ts At	MUL	IN.		979- Phone	845.	9700 Da	ate 1/15/21
Public reporting b								-			-		
					-	-				-			ct of 1995, a federal ormation unless it
	-												den 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 20	and the second se		02/204	c)	~	Dans	al averter	1110	0/20	22			D 2 05 0
FORM FRAF6	180./1 (R	ev. 08/	03/201	6)	OM	B approv	al expires	11/3	0/20	22			Page 2 OF 2

#### DEPARTMENT OF TRANSPORTATION

FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

		-			-		-				
Form. For private hig pedestrian station gra Parts I and II, and the	hway-rail grad ade crossings) Submission In	de crossin , complete formation	gs, complete the Header, section. For g	the Heade Parts I an rade-sepa	er, Parts I and II, and the rated highw	nd II, a Subm ay-rail	nd the Su ission Info or pathwa	bmission Information rmation section. For y crossings (including	Private pathw pedestrian sta	public pathway ay grade crossin ation crossings), a	plete the entire inventory grade crossings (including ngs, complete the Header, complete the Header, Part section, in addition to the
updated data fields. N											denotes an optional field.
A. Revision Date		porting Ag			son for Upd				loted.	Andstensk	D. DOT Crossing
(MM/DD/YYYY)	🗆 Ra	ilroad	Transit	Cha		New	,	Closed	🗆 No Train	Quiet	Inventory Number
011151202	21	-		Data	0	rossing			Traffic	Zone Update	
	🗆 Sta	ate	Other	Re-0		Date		Change in Primary perating RR	□ Admin. Correction		7432/5B
			Pa	rt I: Loo	cation an	d Cla	the second s	ion Information	n		
1. Primary Operating	Railroad	ANROA	0 00	(UP)	2. Stat	<sup>e</sup> 7	TEXA	-5	3. County	RAZO	2
4. City / Municipality		- Andrew	5. Street/F	load Name	e & Block Ni	umber			6. Highway Ty	pe & No.	
Near COULE	7E 97	ATTRA	EDRO		SA DK	IVE		Alumation	EL	2347	
7. Do Other Railroad		and the second se	the second se	oad Name		1.8		(Number) Tailroads Operate Ov	and the second se	and the second se	Yes Who
If Yes, Specify RR	operate a Se	-porose rite		5. Lites			f Yes, Spec			ar ei ossnikt	
9. Railroad Division o			10. Railroad S			100	11. Bran	ch or Line Name		12. RR Milepo	st .630
	STON	the second se			The second second second second	and in case of the local division of the loc	None	town of the second s		(prefix)   (nnr	the second se
13. Line Segment		14. Neare Station	st RR Timeta	ble	15. Parer	nt RR (i	if applicab	le)	16. Crossi	ng Owner (if app	licable)
		Station			US N/A				□ N/A	UP	
17. Crossing Type	18. Crossing	Purpose	19. Crossin	g Position	20. Pu	olic Acc	ess	21. Type of Train			22. Average Passenger
	Fighway		At Grade		(if Prive			Freight	🗆 Transi		Train Count Per Day
Public	Deathway,		RR Unde	r	□ Yes			Intercity Passeng		d Use Transit	Less Than One Per Day
Private	Station, P	ed.	RR Over		□ No			Commuter		t/Other	Number Per Day 0
23. Type of Land Use	Farm	Resid	ential	Comme	rcial	Indu	strial	institutional	C Recreati	nal 🗆 P	R Yard
24. Is there an Adjac		And and a state of the state of						A provided)	L Reciedu		
						-					
Contraction of the local division of the loc	Yes, Provide C							Partial Chicag		Date Establis	Contract of the second s
26. HSR Corridor ID			de in decima			28	Longitud	e in decimal degrees		29. La	it/Long Source
	EN/A		6045 std: nn.nnnn			m	GS84 std	3393146 -nnn.nnnnnn)		Ac	tual Estimated
30.A. Railroad Use	*							tate Use *			
30.B. Railroad Use	*						31.B. S	tate Use *			
30.C. Railroad Use	*						31.C. S	tate Use *	PDATED-	DATE UPD	ATED -16
30.D. Railroad Use	*						31.D. S	tate Use *			
32.A. Narrative (Ra	ilroad Use) *						32.B. N	larrative (State Use)	*		···· ···· ··· ··· ···
33. Emergency Notif	ication Teleph	hone No. (	posted)	34. Railr	oad Contact	(Teler	phone No.		35. State Co	ntact (Telephon	e No.)
800-8					02-5					416-26	
	Part II: Railroad Information										
1. Estimated Numbe				Trate	10 7.1.10		Terior	LADT	Tasias		Then
1.A. Total Day Thru (6 AM to 6 PM)	rains	1	tal Night Thru to 6 AM)	rains	1.C. Total S	witchin <i>O</i>	ig Frains	1.D. Total Transit	Trains	1.E. Check if L One Moveme	nt Per Day
2. Year of Train Cour	t Data (YYYY)		3	Speed of T	rain at Cros	~				How many tra	ains per week?
2020			3./	. Maximu	m Timetable	Speed	- (p.i.)	30 (aph) From 15	to 30	2	
4. Type and Count of	Tracks		3.0	. Typicai S	Peea nange	over c	- 03311g [11	pay tront			
Main (	Siding 0	Ya Ya	rd O	Transi	t 0	Inc	dustry	0			
5. Train Detection (A	,		Detestion				Other -	Need			
6. Is Track Signaled?	and the second se	Motion			7.A. Event F	Recorde	er	None		7.B. Remote	e Health Monitoring
Yes 🗆 No		_			Yes	□ No					
FORM FRA F 63	180.71 (Re	Image: Wes in No         Image: Wes in No         Image: Wes in No           ORM FRA F 6180.71 (Rev. 08/03/2016)         OMB approval expires 11/30/2022         Page 1 OF 2									

A. Revision Date (/	MM/DD/Y	YYY)OI	/15/	202	1	P	AGE 2	And Annual An	D	. Crossing Inve	ntory Num	nber (7 cha	I.)743215B
	1.11		Concession of the second	And the Real Property lies in the Party of t	and the second second second	or Pathway	Traffic	Control De	the second s	and the second se			
1. Are there	2. Type	s of Pass	sive Tra	ffic Cont	rol Devices as	sociated with the	e Crossing	a second a constant of the		ten nan ten an de an de Ten estant est	ile data de la constitu		and the second
Signs or Signals?		ossbuck			P Signs (R1-1)		gns (R1-2)	2.D. Advan	ce Warning	Signs (Check all			
🖬 Yes 🗆 No		olies (cou	int)	(count)	0	(count)	•	W10-1		🗆 W10-4		□ W1	0-11
2.E. Low Ground Cl (W10-5)	earance S	Sign	2.F. Pa	vement I	Markings		1	innelization		2.H. EXEMP	T Sign		ign (l-13)
□ Yes (count	)		Stop	Lines	Dy	namic Envelope		/Medians oproaches	Median	(R15-3)		Displayed Yes	3
No			RRX	(ing Sym	bols 🗆 N		1		🗆 None	No		□ No	
2.J. Other MUTCD	0		EY.	es 🗆 N	0			ate Crossing	2.L. LED E	inhanced Signs	(List types)	)	
Specify Type 🥂				nt2			Signs (ij	private)					
Specify Type Specify Type				nt			🗆 Yes	🗆 No					
3. Types of Train A		Warning			Grade Crossin	s Isnocifu count	of each de	vice for all the	t annlu)				
3.A. Gate Arms		te Config				tilevered (or Brid		Contraction of the local division of the loc		Mounted Flas	hing Lights		3.E. Total Count of
(count)					Structur	es (count)	2		(count of	masts) 4	- /		Flashing Light Pairs
Roadway 4	2 Qu		🗆 Fuli (i Resistan	Barrier)	Over Tra	affic Lane		ncandescent	incand	escent ghts included	LED Side		0
Pedestrian	□ 4 Qu			ian Gates	Not Ove	r Traffic Lane	2 01	.ÉD	Dack L	gnts included	Include	-	9
3.F. Installation Da	te of Curr	ent			3.G. Wayside	Horn			121	Highway Traffi	- Signals C	ontrolling	3.I. Bells
Active Warning De			-				and		Cros		C SIGNAIS C	ontrolling	(count)
/		N	lot Requ	uired	Ves in	istalled on (MM/	YYYY)		- DY	es 🖬 No			2
3.J. Non-Train Actin		-				and the second of		4	3.K. Othe	r Flashing Light	s or Warni	ing Devices	5
	Flagging/Flagman												
	4.A. Does nearby Hwy       4.B. Hwy Traffic Signal       4.C. Hwy Traffic Signal Preemption       5. Highway Traffic Pre-Signals       6. Highway Monitoring Devices         Intersection have       Interconnection       Interconnection       10 Yes       No       10 (Check all that apply)												
Traffic Signals?													
Yes 🗆 No		For Trai			Simultan	eous		Storage Dist			tes-	Vehicle Pr	esence Detection
Yes 🗌 No		For Wa	irning Si	igns	Advance			Stop Line Dis	the second s		None		
1 7					and the second se	Part IV: Phys	the second second	and the state of the second	a second se				
1. Traffic Lanes Cro	ossing Rail			way Traff -way Traf		2. Is Roadway/ Paved?	Pathway	3. Does f	rack Run Dov	wn a Street?		-	ninated? (Street px. 50 feet from
Number of Lanes	7		Divid	led Traffi	c	TYes Yes	🗆 No		🗆 Yes 🛛 🔽	No	nearest	rail) EYe	s 🗆 No
5. Crossing Surface						Concrete				/idth *		Length *	156
B Unconsolidat							5 COncrete						
6. Intersecting Roa	adway wit	thin 500 f	feet?				7. Smal	est Crossing A	ngle		8. Is Co	mmercial	Power Available? *
				15	40	2						/	
🕑 Yes 🗌 No	If Yes, Ap	pproxima	ate Dista	ance (fee		P				60° - 90°	1	Yes	□ No
1 Wahway System		and in such	de parte a se	12	the second s	rt V: Public	-	and the strength of the second se		Circle 1		Lin	1
1. Highway System	1			2.		ssification of Roa			3. is Cro System	0	Highway	4. Hi	ghway Speed Limit MPH
	🗆 (01) Interstate Highway System 🗆 (1) Interstate 📄 (5) Major Collector 📝 Yes 🗋 No 🗌 Posted 🗋 Statutory												
(02) Othe (03) Fede			(NHS)			eways and Expre		or Collector	S. Linea	r Referencing S	ystem (LR.	S Route ID)	
🗆 (08) Non-					(4) Minor Art		□ (7) Loca		6. LRS N	filepost *			
7. Annual Average Year 2019 A				8. Estin	0.78	Trucks 9. Re	-	ed by School B o Average Nu		ay 13	10.		cy Services Route No
Subm	ission	Inform	natior	1 - This	informatio	n is used for a	dministr	ative purpo	ses and is	not availab	le on the	public v	vebsite.
Submitted by 🦰	ETER	ec.	AN	GE	Organ	ization TEXA	IS A	the U	DIV.	979- Phone	845.	9700 Da	ate 1/15/21
Public reporting by							-		-		-		
sources, gathering agency may not co													ct of 1995, a federal prmation unless it
displays a current	y valid ON	MB contro	ol numb	ber. The	valid OMB co	ntrol number for	informatio	n collection is	2130-0017.	Send commen	ts regardir	ng this bur	den 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												
And the second sec		(Rev	08/0	3/2014	5)	OM	approv	al evnirer	11/30/20	22			Page 2 OE 2
	ron, DC 20590. FRA F 6180.71 (Rev. 08/03/2016) OMB approval expires 11/30/2022 Page 2 OF 2												

## Appendix B

Diagnostic Team Review (Diagnostic Inspection)

## Appendix B Texas A&M University Quiet Zone College Station, Texas

## Diagnostic Team Review (Diagnostic Inspection)

April 13, 2021

A diagnostic inspection overview and discussion was conducted on August 13, 2019 at the Doug Pitcock '49 Texas A&M Hotel and Conference Center, located on Texas A&M University's campus in College Station, Texas. This day-long event brought together representatives from these organizations and entities:

Union Pacific Railroad Company (UP) Federal Railroad Administration, Region V Texas Department of Transportation Texas A&M University (TAMU) Texas A&M Transportation Institute City of Bryan, TX City of College Station, TX Brazos County, TX Bryan/College Station Metropolitan Planning Organization Alfred Benesch & Company (UP contractor) CTC Incorporated (UP contractor) Mobility Planning & Engineering, LLC (TAMU quiet zone consultant)

The following day, August 14, 2019, participants conducted a field review of the five crossings under consideration.

Presentation materials, handouts, sign-in sheets, notes and recommendations were compiled and shared with all attendees following the conclusion of the diagnostic inspection. Additionally, a summary of discussions and agreements was prepared and submitted to all stakeholders for review and comment.

A consensus of comments was compiled and shared with all participants and is presented in the following pages.



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

Date: October 22, 2019

By: Gary W. Schatz, P.E., PTOE, PTP

- Project: TAMU Railroad Quiet Zone MP&E Project No. 2019-010
- Subject: Quiet Zone Diagnostic Inspection Summary of Discussions and Agreements

Attachments: As Stated

A quiet zone diagnostic inspection was held August 13-14, 2019. The first day was held at the Texas A&M Hotel and Conference Center, College Station, TX. The second day was in the field at each crossing being considered for inclusion in the quiet zone.

W. Ad

Entities represented included:

Texas A&M University (TAMU) Union Pacific Railroad (UP) Federal Railroad Administration (FRA) City of College Station (COCS) City of Bryan (COB) Texas Department of Transportation (TxDOT) Brazos County Mobility Planning & Engineering, LLC CTC, Inc. Alfred Benesch & Co.

Copies of the sign-in sheets are attached.

The intent of the project is to restrict the use of train horns within the project limits for 24 hours per day, all days of the week. The quiet zone will be established by implementing Supplemental Safety Measures (SSMs), Alternative Safety Measures (ASMs), or Wayside Horns at all crossings to reduce the Quiet Zone Risk Index (QZRI) to at or below the Risk Index with Horns (RIWH).

The project incorporates four public at-grade crossings of Union Pacific Railroad along the Navasota Subdivision. The total length of the project is approximately 1.7 miles. There are no pedestrian or cyclist only crossings within the project limits. There is one grade-separated crossing within the project limits.

RE: TAMU Railroad Quiet Zone Diagnostic Inspection Summary of Discussion and Agreements



Page 2

General Information:

- Only UP has trackage rights.
- Texas A&M University will be the Public Authority for the quiet zone. TAMU has been granted authority to fund all necessary improvements. Negotiation of shared funding will be considered on a per crossing basis.
- Melinda DuBay with UP will develop and provide updated grade crossing inventory forms to TAMU for all crossings for inclusion in the NOI.
- Originally, the project was to include a fifth crossing, Holleman Drive (DOT No. 745037Y). As a TxDOT-sponsored crossing safety project is in the design stages, the diagnostic inspection team decided to remove the crossing from the project and allow it to proceed separately by COCS following completion of the safety project.
- While not necessarily shown on the attached conceptual designs, all crossings will be upgraded with required pavement markings and signage, to include W10-9p ("No Train Horn") plaques that will be installed below W10-1 (Grade Crossing Advance Warning) signs following issuance of the Notice of Establishment.
- As part of due diligence for safety, each entity responsible for operations and maintenance of the traffic signals along Wellborn Road will develop updated railroad preemption worksheets in accordance with TxDOT's Form 2304 - *Guide For Determining Time Requirements For Traffic Signal Preemption At Highway-Rail Grade Crossings*. These forms will be submitted to TxDOT and UP for review. Once approved, traffic signal timing and phasing will be revised accordingly by the owning agency. Copies will be provided to TAMU for inclusion in the Notice of Establishment.
- Where provided, sidewalks are to cross the tracks as close to 90 degrees as possible. Install detectable warnings a minimum of 12 feet from near rail on all sidewalk approaches to the crossing. Edge of sidewalks must be a minimum of 2 feet from edge of railroad panel on both sides.
- Edge of street must be a minimum of 2 feet from edge of railroad panels on both sides of street.
- Robert Travis with TxDOT's Rail Highway Section indicated any updated crossing inventory information should be sent to him and he will forward it to FRA. Additionally, Mr. Travis advised that any improvements for the quiet zone along TxDOT's roads are the cost of the local agency and not TxDOT.

RE: TAMU Railroad Quiet Zone Diagnostic Inspection Summary of Discussion and Agreements



Page 3

Specific Crossings:

DOT No. 743215B – UPRR @ FM 2347 / W. George Bush Drive Train Horn Mitigation Strategy: Wayside Horns

The crossing protection equipment includes bells, flashing lights and gates, a GCP 3000 controller with constant warning time devices, and power-out indicators.

Construction of a grade-separated crossing is in preliminary engineering with construction anticipated to begin within the next four to six years. As an interim measure, wayside horns will be installed to replace the locomotive horns. Due to curvature of the track and trees along the inside of the curve north of the crossing, train crews may not be able to see at an adequate distance the wayside horn's status indicator; thus, an auxiliary wayside horn status indicator located north of the crossing may be required. This issue will be assessed during the design phase of the project and its resolution will be included in the Public Authority Application (PAA).

To address documented instances of cyclists and pedestrians using the existing crossing surface as a crosswalk, track panels will be reconfigured to present significant gaps in the planking in order to strongly discourage this behavior. To encourage better travel choices by cyclists and pedestrians, sidewalks, shared use paths, cross walks, curb ramps, pedestrian signals, signal timing and phasing, intersection geometry, and signing and markings will be revised to better facilitate accessible, safer, and more efficient crossing of Wellborn Road and the eastern leg of FM 2347 / W. George Bush Drive.

Bells will be added to the existing median gate assemblies to provide a more audible warning above ambient traffic noise levels to cyclists and pedestrians of an approaching train. All required signage and pavement markings will be installed.

A conceptual design of the proposed crossing improvements is attached.

TAMU Work to be completed:

- Fund the design and implementation of all trackside improvements.
- Fund the design and implementation of all street side improvements.
- Fund the design, procurement, installation, and maintenance of wayside horn equipment.

UP Work to be completed:

- Collaborate on design and implementation of crossing improvements.
- Remove and reset existing track panels.
- Install new track panels for new pedestrian crossings outside of gate assemblies.
- Install wayside horn interconnection circuit.
- Install bells on existing median gate assemblies.

RE: TAMU Railroad Quiet Zone Diagnostic Inspection Summary of Discussion and Agreements



Page 4

TxDOT Work to be completed:

• Collaborate on design and implementation of crossing improvements.

COCS Work to be completed:

- Collaborate on design and implementation of crossing improvements.
- Develop and implement revised signal timing and phasing plans to support pedestrian improvements.
- Implement revised railroad preemption timing and phasing plans as determined by reviewed and approved TxDOT Form 2304.

DOT No. 743212F – UPRR @ John Kimbrough Boulevard Train Horn Mitigation Strategy: SSM – Gates with Channelization

The crossing protection equipment includes bells, flashing lights and gates, a GCP 3000 controller with constant warning time devices, and power-out indicators.

This concept of mitigation includes reconfiguration of John Kimbrough to provide an 11 ft. wide median and 11 ft. wide vehicular travel lanes. A median greater than ten feet in width measured face of curb to face of curb is required to accommodate the installation of median island gates. Median gates will be installed within the new median, eliminating the need for excessively long gate arms for the eastbound approach. UP may participate in funding some percentage of the improvements as they allow for the installation of the necessary median island gates. What results is a Supplemental Safety Measure (SSM) as the median between the gates and Wellborn Road will be 60 feet long.

All pedestrian crossings of the tracks will be eliminated and fencing installed along the edge of the adjacent parking lot (Lot 61) to mitigate possible scofflaw behavior. This fence will tie into the existing fence running parallel to the tracks. Cyclists and pedestrians will be rerouted to the existing underpass located south of John Kimbrough Boulevard. Sidewalks, shared use paths, curb ramps, cross walks, pedestrian signals, and signs and markings will be removed or modified to implement this concept. Landscaping will be installed to further discourage travel by cyclists and pedestrians along the former sidewalk areas.

A conceptual design of the proposed crossing improvements is attached.

TAMU Work to be completed:

- Fund the design and implementation of all street side improvements.
- Possibly through partnering agreement, fund the design and implementation of all trackside improvements.

UP Work to be completed:

- Collaborate on design and implementation of crossing improvements.
- Design and implement all trackside improvements.

RE: TAMU Railroad Quiet Zone Diagnostic Inspection Summary of Discussion and Agreements



Page 5

TxDOT Work to be completed:

• Collaborate on design and implementation of crossing improvements.

COCS Work to be completed:

- Collaborate on design and implementation of crossing improvements.
- Develop and implement revised signal timing and phasing plans to support pedestrian improvements.
- Implement revised railroad preemption timing and phasing plans as determined by reviewed and approved TxDOT Form 2304.

DOT No. 743210S - UPRR over SH 60 / University Drive Train Horn Mitigation Strategy: Not Applicable – Grade Separated

This crossing is being included in the inventory of all crossings within the limits of the quiet zone; however, it is not included in any quiet zone calculations and no work by any parties is required.

DOT No. 743211Y - UPRR @ Old Main Drive Train Horn Mitigation Strategy: ASM – Channelization with Gates

The crossing protection equipment includes bells, flashing lights and gates, a GCP 4000 controller with constant warning time devices, and power-out indicators.

The diagnostic inspection revealed that the existing conditions will support implementation of a quiet zone via an Alternative Safety Measure (ASM). Curb heights are adequate; however, the median between the gate arms and Wellborn Road is only 46 feet long, which is shorter than the minimum required length of 60 feet. Thus the only work needed is the design and installation of the required signing and pavement markings.

A conceptual design of the proposed crossing improvements is attached.

TAMU Work to be completed:

• Fund the design and implementation of all street side improvements (signing and pavement markings).

UP Work to be completed:

• None.

COCS Work to be completed:

• Implement revised railroad preemption timing and phasing plans as determined by reviewed and approved TxDOT Form 2304.

RE: TAMU Railroad Quiet Zone Diagnostic Inspection Summary of Discussion and Agreements



Page 6

DOT No. 743209X - UPRR @ F&B Road Train Horn Mitigation Strategy: ASM – Gates with Channelization

The crossing protection equipment includes bells, flashing lights and gates, a GCP 4000 controller with constant warning time devices, and power-out indicators.

The diagnostic inspection revealed the existing roadway has adequate width to implement raised medians up to three feet wide. Thus the method of quiet zone implementation will be via an Alternative Safety Measure (ASM). The median between the gate arms of Track 2 and Wellborn Road can be at most 20 feet long, shorter than the minimum required length of 60 feet.

The existing speed limit along F&B Road is 45 MPH. A field traffic engineering assessment suggests the speed limit should be no more than 30 MPH. TAMU committed to lowering the speed limit along F&B Road to 30 MPH so as to comply with 49 CFR §222.9 which limits the use of non-mountable medians to roadways with speed limits equal to or less than 40 MPH.

Conversations with other entities within TAMU revealed that the roadway serving the fuel tanks can be fully closed at F&B Road, and access provided by extending the northern end of the roadway to Finfeather Road. This detail is not included in the conceptual design due to limited space.

A continuous median will extend westward from the gates of Track 1 a distance of 120 feet. A median will extend between the gates of Track 1 and Track 2. The existing driveway serving UP's maintenance-of-way area will be maintained; however, it will become right in/right out access only due to the raised median.

All crossing of the tracks by cyclists and pedestrians will occur along a new shared use path on the south side of F&B Road. This shared use path will eventually extend to Agronomy Road under a separate effort. Existing sidewalks will be modified so as to not suggest other travel paths.

The diagnostic inspection also revealed the roadway grades approaching the crossings were such that high-centering by low ground clearance vehicles was possible. Installation of W10-5 (Low Ground Clearance Grade Crossing) sign with W10-5p ("Low Ground Clearance") educational plaque and W16-5P or W16-6P (Supplemental Arrow) plaques will be included in the signing and markings plans.

A conceptual design of the proposed crossing improvements is attached.

TAMU Work to be completed:

• Fund the design and implementation of all street side and trackside improvements.

RE: TAMU Railroad Quiet Zone Diagnostic Inspection Summary of Discussion and Agreements



Page 7

UP Work to be completed:

- Collaborate on design and implementation of crossing improvements.
- Install new track panels for new pedestrian crossings outside of gate assemblies.

COB Work to be completed:

- Collaborate on design and implementation of crossing improvements.
- Implement revised railroad preemption timing and phasing plans as determined by reviewed and approved TxDOT Form 2304.

Sign In Sheets

## Texas A&M University and City of Bryan Railroad Quiet Zones Diagnostic Inspection Overview and Discussion

August 13, 2019, 11:00 AM - 5:00 PM

Texas A&M Hotel and Conference Center, Hullabaloo Room

Texas A			Fr, Hullabaloo Koolii
Name	Company	Phone	Email
Douglas Williams	TAMU	979 BHS-970	dg-willions @ James. eda
ANDREW HUDANISM	BENESCIA	832-702-0449	AHUDANISH C BENESCIT. COM.
Pieter Lange	TAMU	845-9700	PLange @ tumu.ed v
Jane Schneder	TAM	845.6917	Jane schneider e tanuredu
GARY SCHATZ	MPTE	713. 591.5626	indilitzalannityhattes.con
Tim Oster	CTC	817-713-5899	toster@etcinc.cm
JOHN JENNINGS	UES	979-229-0760	Jennings 2 tamuedu
DAN RUDGE	BCSMPO	979-260-5298	drudge @ besmpo.org
Jery Stranjer	TAMU	979-862-777	JSTRAWJER @ TAMU.EDU
Karen Bigley	TAMU	979-845-4453	bigleyk@tame.edu
DOUGLAS WOODS	UPRR	352 350 7609	DGWCODS@UP.Com
Maurice Maness	TX DOT	979-778-9654	Maurice. Maness@-fxdot.gov
Chris Meyer	JAMU	979-845-136	- c-m-meyer@tamu.edu
JAMES SMITH	Cocs	979-764-3877	jsmith Gestx.gov
Tomas Lindhémer	(escs	977-767-3862	Elidheiner @Cstr. pou
Michael Holmes	Cocs	ų	mee mhdmes@ cstx.gov
Andrew Holick	TXDOT	979-772-9753	and rew. holick @ tedation
Melissattatton	1.4	979728972	9 Melissa. Hatton "

## Texas A&M University and City of Bryan Railroad Quiet Zones Diagnostic Inspection Overview and Discussion

August 13, 2019, 11:00 AM - 5:00 PM

Texas A&M Hotel and Conference Center, Hullabaloo Room

Phone Name Company Email (979) 209-SHEM VERNON SVHENON @ beyAN the gor City of Bryn 5015 979-822baney: @ brazes county tx. gor Prasthana Banapi Brazoelos 2127 817-312-9714 Cavolyu. cook@ dot. gov ARDLYN FR 919 Des CSTX.go-164-3838 281-382 ones a dat. gou ONES 2461 Un.C. FRA 402-544 @ U GB 979-208-5040 any

## Texas A&M University Railroad Quiet Zone Diagnostic Inspection

August 14, 2019, 7:00 AM – 12:30 PM

Texas A&M Hotel and Conference Center, then field

Name	Company	Phone	Email
GART SCHATZ	WP+E	713 591.5626	and e wasiling slawing attars. con
Chris Meyer	TAMU	979 845-1362	c-m-meyer@tamu.edu jsmith Gcstx.gov
JAMES Smith	COLS	979-764-3877	jsmith Gestx. gou
Doch Williams	TAMU	979	Lg-willings @-lame. de
Melissattation	TXDOT	979 9729	Melissa. Hatton @ txdot.gov
RYAJ JONES	FRA	979 7789729 281-382- 2461 832-702-0449	ryan. c. jones @ dot. gov
ANDRED HUDANISA	Benesch	832.702-0449	A HUDANISH & BENESCH. COM.
PoterLarge	TAMJ	845-9700	? Lange @ tame. d )
Austin Morris	TAMU	2104260724	austre storrig Channe. ander
In DuBay	UP	402544-39	52 msdubay Oup. com
DUUG WUODS	UP	28/350760	PG WOODS DUP. COM
Tim Osten	CTC	8177135899	toster & ctaincan
C Coo K	FRA	-	
Marice Maness	TXDOT	979-778-965 Siz 416 2635 Siz 246	4 maurice maness@txdate
Robert Travis	TROOT		solet. t-mis @tx lat gov
Andrew Carmical	UP	217-823 6896	Aj Carmic Qup. com
Tomos Lindheimen	Cocs		Elindheimer @1.5tx. por
CHRIS PROVATER	Cocs		Chprovazeto cstx.gov
Karch Bigley	TAMU		53 bigleyk@tamu.cdu
SAM VORNOW	Co Bey		ors silernon @ beynn tx.gov
Eddie Lorato	COB	979-218-	2362 M. loveto Cbryantx, gov

KEVIN ALSTON UPRR 903-571-8017 KJALSTON @UP.COM

East in places y withows . con 13.52 UNYE . CART 3 CHATE 979 845-1362 e-m-mener @ tamusch Carris Manay MART 2195-112- bl. DAMES SMITH 2005 emilien Nor equillience Chance all an 1-5-54 UMAT -285-182 1216 8126 Melissa. Haliand tradition Melissettetten Jedit Roph of Laves ryan cijanes & dot. gav AJA 892-102-2049 A HUDANISH & BENESCH. COM. nomanu H waare Feb ( scale ? Lange @ taynu. ch w 845-9700 GMAT Jeter-ange augur 2000 orgenviz a tare nda Augur Mores UNAT 10476-02-PM CONT (32) 320 PW DOVG MODIS 9U MODING EDDED DE toster & dicine com Tim Osten 510 SUN-11358499

Andrew Commical Tomae Linducina UHCIS REAMERIC KAVON BIGION SIMM VORDON Eddie Laverto

U.S. 217-823 AjCounterage com Cocs Eludration esserer Cocs Childration esserer Cocs Children esserer Cocs Children estraton TAMM and Elgenset Sierner Counter of Ca Bayer TEL-Bog sore sierner a langer the gou Co Bayer TEL-Bog sore sierner a langer the gou **Conceptual Designs of Proposed Crossing Improvements** 











Purposes Only Gary W. Schatz, P.E., PTOE, PTP TBPE No. 80895 Mobility Planning & Engineering, LLC TBPE Firm No. F-19852 October 15, 2019

## Appendix C

## Notice of Intent (NOI) Responses and Comments

## Appendix C Texas A&M University Quiet Zone College Station, Texas

### Notice of Intent (NOI) Responses and Comments

April 13, 2021

In accordance with §222.43(a)(1), a written Notice of Intent (NOI) to establish a quiet zone along the Navasota Sub was issued on October 25, 2019. The NOI was sent certified mail, return receipt requested, to the following persons or entities:

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

Robert H. Travis, P.E. Rail Highway Section Director Texas Department of Transportation Rail Division 125 E. 11<sup>th</sup> Street Austin, TX 78701-2483 512.416.2635

Prarthana Banerji, P.E. County Engineer Brazos County Road & Bridge 2617 SH 21 W Bryan, TX 77803 979.822.2127

James Smith, P.E. Project Manager, Capital Projects City of College Station PO Box 9960 College Station, TX 77842 979.764.3690 Carolyn E. Cook Regional Manager Federal Railroad Administration – Region V PO Box 152168 Austin, TX 78715-2168 512.282.8412

Lance W. Simmons, P.E. District Engineer Texas Department of Transportation Bryan District 2591 N. Earl Rudder Freeway Bryan, TX 77803 979.778.9611

Melinda S. DuBay Manager I – Engineering / Public Projects Union Pacific Railroad 1400 Douglas St., MS910 Omaha, NE 68179 402.544.3992

W. Paul Kaspar, P.E., CFM City Engineer City of Bryan 300 S. Texas Avenue Bryan, Texas 77803 979.209.5030

A copy of the return receipt received from each entity is available upon request.

Two entities provided comments, Union Pacific Railroad (UP) and Federal Railroad Administration - Region V (FRA-V). A copy of UP's response and a copy of FRA-V's response is presented later in this appendix.

Below is a summary of the comments provided by UP. Texas A&M University's responses to UP's comments are in *bold italics*.

#### Introduction:

"Please recognize that UP is of the opinion that sounding the locomotive horn at highway-rail grade crossings enhances safety whereas QZs increase risk to motorists, pedestrians and trespassers. Train horns are intended to alert the motoring and pedestrian public to train movement."

#### The statement is acknowledged without action.

"At a minimum, safety treatments should be implemented at each crossing which can include supplemental safety measures (SSMs) and/or ASMs."

The request is acknowledged. The quiet zone will be established following the recommendations of the diagnostic inspection team and safety improvements will be made at all at-grade crossings. Additionally, all protocols required by 49 CFR Part 222 for the establishment of a railroad quiet zone will be followed.

#### DOT 743209X F&B Road:

"UP acknowledges the Public Authority's plans to implement non-traversable concrete medians as ASMs at this crossing. The median on the westbound approach is planned to be approximately 20 feet in length and on the eastbound approach the median is planned to be a minimum of 60 feet in length."

#### The statement is accurate and acknowledged.

"There is a driveway cut in the southwest quadrant, but no connecting roadway. The Public Authority is urged to remove this driveway. Any future development to extend the driveway to a roadway will be treated as an intersection which would require amendment to the QZ and potentially compromise continuation of the QZ."

# The request is acknowledged. The driveway cut is being removed as part of the quiet zone safety improvements.
"It is noted that both tracks at this crossing are protected by separate warning devices. The FRA Rule 49 CFR 234 Subpart F, Highway-Rail and Pathway Crossing Inventory Reporting, may treat these tracks as two separate crossings with unique DOT numbers. UP will perform necessary research with the FRA and report back to the Public Authority with any findings that may affect the crossing."

# The statement is acknowledged. As of the date of this document, a second DOT crossing number has not been established. Should one be assigned, appropriate revisions to all future quiet zone documents will occur.

"A shared-use path is planned parallel to the roadway on the south side. The path will cross the tracks as close as possible to 90 degrees and detectable warning will be installed for pedestrians. It was agreed by the diagnostic team that existing flashing lights and bells would be adequate for pedestrian warning with no further pedestrian recommendations."

#### The statement is accurate and acknowledged.

"The NOI references additional revisions to existing sidewalks at the signalized intersection of F&B and Wellborn Roads, but detailed plans were not provided. UP requests the opportunity to review the plans for these revisions and reserves the right to comment further."

## The request is acknowledged. As construction drawings are developed for all crossings, copies will be provided to UP for review and comment.

#### DOT 743211Y Old Main Drive:

"UP acknowledges the existing non-traversable concrete medians at this crossing will be submitted as ASMs in the FRA application. The median on the westbound approach is shown on the NOI plans as 46 feet in length and the median on the eastbound approach is over 100 feet in length. The diagnostic team noted that pedestrian and cyclist activity is minimal at this crossing due to an adjacent underpass that provides grade-separated connectivity. No further pedestrian treatments were recommended by the diagnostic team."

#### The statement is accurate and acknowledged.

#### DOT 743212F John Kimbrough Boulevard:

"UP acknowledges the Public Authority's plans to implement non-traversable concrete medians as SSMs at this crossing. The NOI plans indicate the median on the westbound approach will be 60 feet in length and the existing median on the eastbound approach exceeds 100 feet in length. Median gates are also planned for both approaches."

#### The statement is accurate and acknowledged.

"The Public Authority plans to eliminate or modify all current pedestrian approaches and treatments to the crossing. Fencing along the edge of the adjacent parking lot in the northwest guadrant and landscaping is planned to discourage pedestrians and cyclists from travel along the sidewalk approaches that are removed. Pedestrians and cyclists will be re-routed to the existing underpass on the south side of the crossing."

The statement is accurate and acknowledged.

"Once the final plans are prepared for the safety treatments at this crossing, UP requests a copy and reserves the right to comment further."

The request is acknowledged. As construction drawings are developed for all crossings, copies will be provided to UP for review and comment.

#### DOT 743215B W. George Bush Drive:

"UP acknowledges the Public Authority's plan to install a wayside horn system to provide warning on each approach to the crossing. Current pedestrian and cyclist treatments will be modified and enhanced to encourage safe and proper use of the crossina."

#### The statement is accurate and acknowledged.

"Track curvature and vegetation along the train approaches must be addressed during the wayside horn design phase."

The request is acknowledged. A supplemental trackside signal advising wayside horn functionality to southbound train crews will be installed an appropriate distance to the north of the crossing.

Once the final plans are prepared for the safety treatments at this crossing, UP requests a copy and reserves the right to comment further."

The request is acknowledged. As construction drawings are developed for all crossings, copies will be provided to UP for review and comment.

Other Comments:

"UP affirms all crossings within the proposed QZ are equipped with flashing lights, gates, bells, constant warning time devices and power out indicators."

The information is appreciated and will be included in the quiet zone documentation.

"During the construction process, sufficiency of illumination at each of the crossings should be addressed."

# The request is acknowledged. While each crossing has adequate streetlighting present, the construction contractor will be directed to provide additional site lighting when working at night.

"All traffic signals that are interconnected with the crossing warning devices must be tested for the adequacy of preemption timing."

The request is acknowledged. The owning entity of the traffic signals will be requested to provide documentation of adequate preemption timing and its implementation prior to the establishment of the quiet zone. Procedures outlined in Texas Department of Transportation (TxDOT) Form 2304 - Guide for Determining Time Requirements for Traffic Signal Preemption at Highway-Rail Grade Crossings (latest version) will be followed and the results presented to the quiet zone pre-establishment diagnostic team for review and comment. Final documentation acceptable to the diagnostic team will be included in the Notice of Establishment.

"Pertaining to medians, the curb face nearest to the crossing should be straight, not rounded, and start ten feet from the center point of the nearest track. The squared-off median face should be parallel to the track for the full width of the median. No taper is necessary if the median curb face starts at 10 feet from center of nearest track. The length of a median is determined by measuring from the gate arm in down position to the end of the median extending away from the crossing and at the last point where the height is a minimum of six inches. The height for the entire length of a non-traversable median must remain a minimum of six inches for the duration of the QZ. Roadway maintenance projects such as resurfacing have the potential to compromise the height of a median. Non-traversable medians may no longer be compliant as an ASM or SSM if the height is less than six inches anywhere along the length of the median. The Railroad(s) could resume sounding of the horn for non-compliant ASMs or SSMs. Please refer to the criteria in Appendix A of the Rule that addresses the requirements for a median to qualify as an SSM."

The statement is acknowledged. The design will incorporate the stated parameters.

"Upon completion of all plans set forth in the NOI and recommendations by the diagnostic team, a Notice of Establishment (NOE) to implement the QZ must be provided by certified mail to:

all railroads operating over the public highway-rail grade crossing(s) within the QZ;

the highway or traffic control or law enforcement authority having jurisdiction over vehicular traffic at grade crossings within the QZ;

the landowner having control over any private crossings within the QZ;

the State agency responsible for highway and road safety;

- the State agency responsible for grade crossing safety; and
- the FRA Associate Administrator.

The NOE will serve as notice that all safety measures comply with the Rule and plans submitted with the NOI have been implemented. A final pre-implementation inspection will be performed prior to issuing the train orders to cease sounding of the horn. Please allow sufficient time for this inspection when designating the QZ start date."

#### The request is acknowledged. Notification will be provided to all named entities. A pre-implementation diagnostic inspection will be scheduled to occur prior to issuance of the Notice of Establishment.

"Qualifying for a new QZ under § 222.39(b) of the Rule will require current Annual Average Daily Traffic Count (AADT) data for use in the QZ Calculator. Please ensure the AADT data in the FRA National Inventory database has been updated within the last three years at the time the Notice of Establishment (NOE) is issued."

#### The request is acknowledged. Updated traffic counts will be conducted prior to the development of the Notice of Intent and the collected data will be included in that document.

"Please be aware the trains operating in the proposed QZ are within the limits of an advanced technology system called Positive Train Control (PTC). To assist with internal notifications and PTC preparation efforts, UP respectfully requests 60 days advance notice of the planned QZ establishment. This communication can be made by email or phone in advance of the NOE mailing."

The request is acknowledged. The quiet zone establishment date will be negotiated with UP as part of the development and issuance of the Notice of Establishment.

"UP encourages an awareness program to educate the community about QZs and what to expect. Although trains will cease routine sounding of the horn at grade crossing(s) within the QZ, there are numerous situations when sounding of the horn will be required. For example, an engineer will exercise discretion to sound the horn for safety purposes when pedestrians or workers are in proximity of the crossing(s) and when necessary to comply with any other train operating rules."

## The request is acknowledged. Texas A&M University will share information to help with education and management of expectations.

"Prior to establishing the new QZ, each approach to the grade crossing(s) must be equipped with an advance warning sign advising users that train horns are not sounded at the crossing(s). These signs must conform to the standards contained in the MUTCD. Additionally, all pavement markings should be inspected to be in good condition for both day and night visibility."

The request is acknowledged. All signing and markings will be in new or like new condition at the beginning of the establishment of the quiet zone. The "No Train Horn" signs will be installed according to 49 CFR 222 and the Texas Manual on Uniform Traffic Control Devices (TMUTCD).

"To insure timely response, please forward all QZ notifications by certified mail to the address below.

Union Pacific Railroad Attn: Engineering Public Projects Quiet Zone Establishment 1400 Douglas Street MS910 Omaha, NE 68179:

## The request is acknowledged. The Notice of Establishment will be forwarded to this address and to all required parties as required by §222.43(a)(1).

"UP encourages notification of any changes to the proposed QZ plan to allow further review and comment. If you have questions, please contact me at (402) 544-3992 or <u>msdubay@up.com</u>."

The request is acknowledged. We are grateful for the proactive and encouraging partnership we have enjoyed while working with Melinda DuBay.

Below is a summary of the comments provided by FRA-V. Texas A&M University's responses to UP's comments are in *bold italics.* 

Introduction:

"I may have missed it but I never saw anywhere and I checked the NOI what the basis for the establishment will be so I assume it is going to be a "Public Authority Application to FRA (222.39 (b)(1)" since it contains ASMs. This Basis reference should be included in future communication."

The request is acknowledged with regret for the oversight. The quiet zone is being established through Public Authority Application. Clarifying language will be included in this document and future documents as appropriate.

"I took the liberty of yellow underlining some things in the UP comments:"

The effort is acknowledged, and the highlighting was helpful to better understanding the comments offered.

F&B Road (DOT 743209X)

"I note that the design graphics don't show closing the driveway pad on the side where the pedestrian pathway is going to be enhanced. It will need to be closed unless an engineering argument is constructed in the request for approval. If this pad is strictly for the purpose of allowing bicycles on the street to access the ped crossing than I think you can make that argument in the project approval plan."

## The request is acknowledged. The driveway pad is being removed as part of the quiet zone safety improvements.

"I see that there should be two DOT numbers for the 2 track crossing here since there are two sets of independent gates and lights. Currently, there is no second DOT number in the FRA Inventory. This is a relatively new guidance for Inventory purposes."

The statement is acknowledged. As of the date of this document, a second DOT crossing number has not been established. Should one be assigned, appropriate revisions to all future quiet zone documents will occur.

Old Main ST (DOT 743211Y) – nothing to add *The review effort is gratefully acknowledged.* 

John Kimbrough RD (DOT 743212F)- nothing to add *The review effort is gratefully acknowledged.* 

George Bush (DOT 743215B) – nothing to add *The review effort is gratefully acknowledged.* 

Other Comments:

"Medians – please note UP's standards mentioned in their comments for median curbs nearest the tracks. We have had a few instances of Cities tapering the median on the approach side and that should not be done unless you have a lot more distance than the required 100 feet or 60 feet with intersection."

The statement is acknowledged. The design will incorporate the stated parameters.

"SUGGESTION: BTW - You are allowed (but not required) to give a quiet zone a name such as:

West Campus or Bryan-College Station or George Bush Quiet Zone.

WHY? A name can help communication about issues in quiet zones when there are multiple QZs in an area."

The suggestion is acknowledged. The name of this quiet zone is Texas A&M University Quiet Zone. We regret that such designation was not clearly made in the NOI. We have included definitive language in this document and will continue to do so in future documents as appropriate. NOI Review Response Received from Union Pacific Railroad (UP)



December 24, 2019

**UP QZ #:** TX041006

Peter Lange Associate Vice President Transportation Services Texas A&M University 1250 TAMU College Station, TX 77843-1250

#### Subject: Notice of Intent to Establish a Quiet Zone Texas A&M University, College Station, Texas – UP Navasota Subdivision

Dear Mr. Lange:

Union Pacific (UP) is in receipt of the Texas A&M University (Public Authority) Notice of Intent (NOI) postmarked October 25, 2019 to create a new quiet zone (QZ) at the crossings listed below. The QZ is proposed to be created in accordance with 49 CFR § 222.39(b), public authority application to the Federal Railroad Administration (FRA) for alternative safety measures (ASMs).

#### Proposed Quiet Zone

DOT	Crossing Type	Milepost	Street Name
743209X	Public	74.38	F&B Road
743211Y	Public	73.30	Old Main Drive
743212F	Public	73.10	John Kimbrough Boulevard
743215B	Public	72.63	FM 2347 (W. George Bush Drive)

Please recognize that UP is of the opinion that sounding the locomotive horn at highway-rail grade crossings enhances safety whereas QZs increase risk to motorists, pedestrians and trespassers. Train horns are intended to alert the motoring and pedestrian public to train movement. At a minimum, safety treatments should be implemented at each crossing which can include supplemental safety measures (SSMs) and/or ASMs.

A diagnostic was performed on August 14, 2019, attended by representatives from the Public Authority, FRA, Texas DOT, City of College Station, Brazos County, UP, CTC and Alfred Benesch & Co. (consultants for UP), and Mobility Planning & Engineering (consultant for the PA). The minutes from this diagnostic were provided to all attendees.

UP has reviewed the NOI per the requirements outlined in the Train Horn Rule 49 CFR Part 222 (Rule) and comments as follows.

#### Page 2

#### 1. DOT 743209X F&B Road

UP acknowledges the Public Authority's plans to implement non-traversable concrete medians as ASMs at this crossing. The median on the westbound approach is planned to be approximately 20 feet in length and on the eastbound approach the median is planned to be a minimum of 60 feet in length.

UP notes that Finfeather Road intersects F&B Road in the northwest quadrant of the crossing and is planned for closure. There is a driveway cut in the southwest quadrant, but no connecting roadway. The Public Authority is urged to remove this driveway. Any future development to extend the driveway to a roadway will be treated as an intersection which would require amendment to the QZ and potentially compromise continuation of the QZ.

It is noted that both tracks at this crossing are protected by separate warning devices. The FRA Rule 49 CFR 234 Subpart F, Highway-Rail and Pathway Crossing Inventory Reporting, may treat these tracks as two separate crossings with unique DOT numbers. UP will perform necessary research with the FRA and report back to the Public Authority with any findings that may affect the crossing.

A shared-use path is planned parallel to the roadway on the south side. The path will cross the tracks as close as possible to 90 degrees and detectable warning will be installed for pedestrians. It was agreed by the diagnostic team that existing flashing lights and bells would be adequate for pedestrian warning with no further pedestrian recommendations.

The NOI references additional revisions to existing sidewalks at the signalized intersection of F&B and Wellborn Roads, but detailed plans were not provided. UP requests the opportunity to review the plans for these revisions and reserves the right to comment further.

#### 2. DOT 743211Y Old Main Drive

UP acknowledges the existing non-traversable concrete medians at this crossing will be submitted as ASMs in the FRA application. The median on the westbound approach is shown on the NOI plans as 46 feet in length and the median on the eastbound approach is over 100 feet in length. The diagnostic team noted that pedestrian and cyclist activity is minimal at this crossing due to an adjacent underpass that provides grade-separated connectivity. No further pedestrian treatments were recommended by the diagnostic team.

#### 3. DOT 743212F John Kimbrough Boulevard

UP acknowledges the Public Authority's plans to implement non-traversable concrete medians as SSMs at this crossing. The NOI plans indicate the median on the westbound approach will be 60 feet in length and the existing median on the eastbound approach exceeds 100 feet in length. Median gates are also planned for both approaches.

The Public Authority plans to eliminate or modify all current pedestrian approaches and treatments to the crossing. Fencing along the edge of the adjacent parking lot in the northwest quadrant and landscaping is planned to discourage pedestrians and cyclists from travel along the sidewalk approaches that are removed. Pedestrians and cyclists will be re-routed to the existing underpass on the south side of the crossing. Once the final plans are prepared for the safety treatments at this crossing, UP requests a copy and reserves the right to comment further.

#### 4. DOT 743215B W. George Bush Drive

UP acknowledges the Public Authority's plan to install a wayside horn system to provide warning on each approach to the crossing. Track curvature and vegetation along the train approaches must be addressed during the wayside horn design phase. Current pedestrian and cyclist treatments will be modified and enhanced to encourage safe and proper use of the crossing. Once the final plans are prepared for the safety treatments at this crossing, UP requests a copy and reserves the right to comment further.

#### 5. Other Comments

- UP affirms all crossings within the proposed QZ are equipped with flashing lights, gates, bells, constant warning time devices and power out indicators.
- During the construction process, sufficiency of illumination at each of the crossings should be addressed.
- All traffic signals that are interconnected with the crossing warning devices must be tested for the adequacy of preemption timing.
- Pertaining to medians, the curb face nearest to the crossing should be straight, not rounded, and start ten feet from the center point of the nearest track. The squared-off median face should be parallel to the track for the full width of the median. No taper is necessary if the median curb face starts at 10 feet from center of nearest track.

The length of a median is determined by measuring from the gate arm in down position to the end of the median extending away from the crossing and at the last point where the height is a minimum of six inches.

The height for the entire length of a non-traversable median must remain a minimum of six inches for the duration of the QZ. Roadway maintenance projects such as resurfacing have the potential to compromise the height of a median. This should be taken into consideration when planning the height of a median. Non-traversable medians may no longer be compliant as an ASM or SSM if the height is less than six inches anywhere along the length of the median. The Railroad(s) could resume sounding of the horn for non-compliant ASMs or SSMs. Please refer to the criteria in Appendix A of the Rule that addresses the requirements for a median to qualify as an SSM.

- Upon completion of all plans set forth in the NOI and recommendations by the diagnostic team), a Notice of Establishment (NOE) to implement the QZ must be provided by certified mail to:
  - all railroads operating over the public highway-rail grade crossing(s) within the QZ;
  - the highway or traffic control or law enforcement authority having jurisdiction over vehicular traffic at grade crossings within the QZ;
  - the landowner having control over any private crossings within the QZ;
  - the State agency responsible for highway and road safety;
  - the State agency responsible for grade crossing safety; and
  - the FRA Associate Administrator.

The NOE will serve as notice that all safety measures comply with the Rule and plans submitted with the NOI have been implemented. A final pre-implementation inspection will be performed prior to issuing the train orders to cease sounding of the horn. Please allow sufficient time for this inspection when designating the QZ start date.

- Qualifying for a new QZ under § 222.39(b) of the Rule will require current Annual Average Daily Traffic Count (AADT) data for use in the QZ Calculator. Please ensure the AADT data in the FRA National Inventory database has been updated within the last three years at the time the Notice of Establishment (NOE) is issued.
- Please be aware the trains operating in the proposed QZ are within the limits of an advanced technology system called Positive Train Control (PTC). To assist with internal notifications and PTC preparation efforts, UP respectfully requests 60 days advance notice of the planned QZ establishment. This communication can be made by email or phone in advance of the NOE mailing. To learn more about PTC, please visit the UP webpage at the address below.

https://www.up.com/media/media\_kit/ptc/about-ptc/index.htm

- UP encourages an awareness program to educate the community about QZs and what to expect. Although trains will cease routine sounding of the horn at grade crossing(s) within the QZ, there are numerous situations when sounding of the horn will be required. For example, an engineer will exercise discretion to sound the horn for safety purposes when pedestrians or workers are in proximity of the crossing(s) and when necessary to comply with any other train operating rules.
- Prior to establishing the new QZ, each approach to the grade crossing(s) must be equipped with an advance warning sign advising users that train horns are not sounded at the crossing(s). These signs must conform to the standards contained in the MUTCD. Additionally, all pavement markings should be inspected to be in good condition for both day and night visibility.

To insure timely response, please forward all QZ notifications by certified mail to the address below.

Union Pacific Railroad Attn: Engineering Public Projects Quiet Zone Establishment 1400 Douglas Street MS910 Omaha, NE 68179

\*\*\* REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK \*\*\*

UP encourages notification of any changes to the proposed QZ plan to allow further review and comment. If you have questions, please contact me at (402) 544-3992 or msdubay@up.com.

Sincerely,

Melinda DuBay Manager I Engineering-Public Projects

cc: Karl Alexy-FRA Associate Administrator for Safety

by email:

Carolyn Cook-FRA Robert Travis-TXDOT Prarthana Banerji-Brazos County James Smith-City of College Station W. Paul Kaspar-City of Bryan Doug Woods-UP Ivan Jaime-UP NOI Review Response Received from Federal Railroad Administration (FRA) – Region V

### RE: TX041006 Texas A&M Notice of Intent to Establish a Quiet Zone

#### Cook, Carolyn (FRA) <carolyn.cook@dot.gov>

Mon 1/6/2020 12:55 PM

To: Melinda S. DuBay <MSDUBAY@UP.COM>; Peter Lange <plange@tamu.edu>

**Cc:** Robert.Travis@txdot.gov <Robert.Travis@txdot.gov>; pbanerji@brazoscountytx.gov <pbanerji@brazoscountytx.gov>; Paul Kaspar <pkaspar@bryantx.gov>; James Smith <jsmith@cstx.gov>; Gary Schatz <gary@mobilityplanningmatters.com>; Paul D. Rathgeber <PAULRATHGEBER@UP.COM>; Douglas G. Woods <DGWOODS@up.com>; IJAIME UP.COM <IJAIME@UP.COM>; toster@ctcinc.com <toster@ctcinc.com>; Rooke Jackson <rjackson@ctcinc.com>; Payne, James (FRA) <James.Payne@dot.gov>; Jones, Ryan C (FRA) <ryan.c.jones@dot.gov>; Toye, Inga (FRA) <inga.toye@dot.gov>; Chappell, Debra (FRA) <Debra.Chappell@dot.gov>

1 attachments (1,014 KB)

UP comments NOI\_College Station\_ 2019-12-24 NOI Resp.pdf;

#### Dear Colleagues,

I just reviewed UP Comments on the NOI for the proposed quiet zone.

I may have missed it but I never saw anywhere and I checked the NOI what the basis for the establishment will be so I assume it is going to be a "**Public Authority Application to FRA** (222.39 (b)(1)" since it contains ASMs. This **Basis** reference should be included in future communication.

I took the liberty of yellow underlining some things in the UP comments:

#### F&B Road (DOT 743209X)

I note that the design graphics don't show closing the driveway pad on the side where the pedestrian pathway is going to be enhanced. It will need to be closed unless an engineering argument is constructed in the request for approval. If this pad is strictly for the purpose of allowing bicycles on the street to access the ped crossing than I think you can make that argument in the project approval plan.

Also I see that *there should be two DOT numbers for the 2 track crossing* here since there are two sets of independent gates and lights. Currently, there is no second DOT number in the FRA Inventory. This is a relatively new guidance for Inventory purposes.

Old Main ST <u>(DOT 743211Y</u>) – nothing to add John Kimbrough RD <u>(DOT 743212F</u>)- nothing to add George Bush <u>(DOT 743215B</u>) – nothing to add

<u>Medians</u> – please note UP's standards mentioned in their comments for median curbs nearest the tracks. We have had a few instances of Cities tapering the median on the approach side and that should not be done unless you have a lot more distance than the required 100 feet or 60 feet with intersection..

**SUGGESTION:** BTW - You are allowed (but not required) to give a quiet zone a name such as:

- West Campus or
- Bryan-College Station or
- George Bush Quiet Zone.
- WHY?A name can help communication about issues in quiet zones when there are multiple QZs in an area.

From: Melinda S. DuBay [mailto:MSDUBAY@UP.COM]
Sent: Tuesday, December 24, 2019 3:55 PM
To: Peter Lange <plange@tamu.edu>
Cc: Cook, Carolyn (FRA) <carolyn.cook@dot.gov>; Robert.Travis@txdot.gov;
pbanerji@brazoscountytx.gov; Paul Kaspar <pkaspar@bryantx.gov>; James Smith
<jsmith@cstx.gov>; Gary Schatz <gary@mobilityplanningmatters.com>; Paul D. Rathgeber
<PAULRATHGEBER@UP.COM>; Douglas G. Woods <DGWOODS@up.com>; IJAIME UP.COM
<IJAIME@UP.COM>; toster@ctcinc.com; Rooke Jackson <rjackson@ctcinc.com>
Subject: TX041006 Texas A&M Notice of Intent to Establish a Quiet Zone

Good afternoon - attached is Union Pacific's response to Texas A&M's notice of intent to establish a quiet zone. Happy holiday wishes to everyone!

Melinda DuBay   Manager I - Public Proje	ects - Engineering	Union Pacific Railroad	1400 Douglas St	<u>reet - MS910</u>   Oma	aha, NE 68179 USA
🖀 : W 402.544.3992 C 402.598.4981	402.997.4398	: msdubay@up.co	<u>m</u>		

\*\*

This email and any attachments may contain information that is confidential and/or privileged for the sole use of the intended recipient. Any use, review, disclosure, copying, distribution or reliance by others, and any forwarding of this email or its contents, without the express permission of the sender is strictly prohibited by law. If you are not the intended recipient, please contact the sender immediately, delete the e-mail and destroy all copies.

\*\*



December 24, 2019

**UP QZ #:** TX041006

Peter Lange Associate Vice President Transportation Services Texas A&M University 1250 TAMU College Station, TX 77843-1250

#### Subject: Notice of Intent to Establish a Quiet Zone Texas A&M University, College Station, Texas – UP Navasota Subdivision

Dear Mr. Lange:

Union Pacific (UP) is in receipt of the Texas A&M University (Public Authority) Notice of Intent (NOI) postmarked October 25, 2019 to create a new quiet zone (QZ) at the crossings listed below. The QZ is proposed to be created in accordance with 49 CFR § 222.39(b), public authority application to the Federal Railroad Administration (FRA) for alternative safety measures (ASMs).

#### Proposed Quiet Zone

DOT	Crossing Type	Milepost	Street Name
743209X	Public	74.38	F&B Road
743211Y	Public	73.30	Old Main Drive
743212F	Public	73.10	John Kimbrough Boulevard
743215B	Public	72.63	FM 2347 (W. George Bush Drive)

Please recognize that UP is of the opinion that sounding the locomotive horn at highway-rail grade crossings enhances safety whereas QZs increase risk to motorists, pedestrians and trespassers. Train horns are intended to alert the motoring and pedestrian public to train movement. At a minimum, safety treatments should be implemented at each crossing which can include supplemental safety measures (SSMs) and/or ASMs.

A diagnostic was performed on August 14, 2019, attended by representatives from the Public Authority, FRA, Texas DOT, City of College Station, Brazos County, UP, CTC and Alfred Benesch & Co. (consultants for UP), and Mobility Planning & Engineering (consultant for the PA). The minutes from this diagnostic were provided to all attendees.

UP has reviewed the NOI per the requirements outlined in the Train Horn Rule 49 CFR Part 222 (Rule) and comments as follows.

#### Page 2

#### 1. DOT 743209X F&B Road

UP acknowledges the Public Authority's plans to implement non-traversable concrete medians as ASMs at this crossing. The median on the westbound approach is planned to be approximately 20 feet in length and on the eastbound approach the median is planned to be a minimum of 60 feet in length.

UP notes that Finfeather Road intersects F&B Road in the northwest quadrant of the crossing and is planned for closure. There is a driveway cut in the southwest quadrant, but no connecting roadway. The Public Authority is urged to remove this driveway. Any future development to extend the driveway to a roadway will be treated as an intersection which would require amendment to the QZ and potentially compromise continuation of the QZ.

It is noted that both tracks at this crossing are protected by separate warning devices. The FRA Rule 49 CFR 234 Subpart F, Highway-Rail and Pathway Crossing Inventory Reporting, may treat these tracks as two separate crossings with unique DOT numbers. UP will perform necessary research with the FRA and report back to the Public Authority with any findings that may affect the crossing.

A shared-use path is planned parallel to the roadway on the south side. The path will cross the tracks as close as possible to 90 degrees and detectable warning will be installed for pedestrians. It was agreed by the diagnostic team that existing flashing lights and bells would be adequate for pedestrian warning with no further pedestrian recommendations.

The NOI references additional revisions to existing sidewalks at the signalized intersection of F&B and Wellborn Roads, but detailed plans were not provided. UP requests the opportunity to review the plans for these revisions and reserves the right to comment further.

#### 2. DOT 743211Y Old Main Drive

UP acknowledges the existing non-traversable concrete medians at this crossing will be submitted as ASMs in the FRA application. The median on the westbound approach is shown on the NOI plans as 46 feet in length and the median on the eastbound approach is over 100 feet in length. The diagnostic team noted that pedestrian and cyclist activity is minimal at this crossing due to an adjacent underpass that provides grade-separated connectivity. No further pedestrian treatments were recommended by the diagnostic team.

#### 3. DOT 743212F John Kimbrough Boulevard

UP acknowledges the Public Authority's plans to implement non-traversable concrete medians as SSMs at this crossing. The NOI plans indicate the median on the westbound approach will be 60 feet in length and the existing median on the eastbound approach exceeds 100 feet in length. Median gates are also planned for both approaches.

The Public Authority plans to eliminate or modify all current pedestrian approaches and treatments to the crossing. Fencing along the edge of the adjacent parking lot in the northwest quadrant and landscaping is planned to discourage pedestrians and cyclists from travel along the sidewalk approaches that are removed. Pedestrians and cyclists will be re-routed to the existing underpass on the south side of the crossing. Once the final plans are prepared for the safety treatments at this crossing, UP requests a copy and reserves the right to comment further.

#### 4. DOT 743215B W. George Bush Drive

UP acknowledges the Public Authority's plan to install a wayside horn system to provide warning on each approach to the crossing. Track curvature and vegetation along the train approaches must be addressed during the wayside horn design phase. Current pedestrian and cyclist treatments will be modified and enhanced to encourage safe and proper use of the crossing. Once the final plans are prepared for the safety treatments at this crossing, UP requests a copy and reserves the right to comment further.

#### 5. Other Comments

- UP affirms all crossings within the proposed QZ are equipped with flashing lights, gates, bells, constant warning time devices and power out indicators.
- During the construction process, sufficiency of illumination at each of the crossings should be addressed.
- All traffic signals that are interconnected with the crossing warning devices must be tested for the adequacy of preemption timing.
- Pertaining to medians, the curb face nearest to the crossing should be straight, not rounded, and start ten feet from the center point of the nearest track. The squared-off median face should be parallel to the track for the full width of the median. No taper is necessary if the median curb face starts at 10 feet from center of nearest track.

The length of a median is determined by measuring from the gate arm in down position to the end of the median extending away from the crossing and at the last point where the height is a minimum of six inches.

The height for the entire length of a non-traversable median must remain a minimum of six inches for the duration of the QZ. Roadway maintenance projects such as resurfacing have the potential to compromise the height of a median. This should be taken into consideration when planning the height of a median. Non-traversable medians may no longer be compliant as an ASM or SSM if the height is less than six inches anywhere along the length of the median. The Railroad(s) could resume sounding of the horn for non-compliant ASMs or SSMs. Please refer to the criteria in Appendix A of the Rule that addresses the requirements for a median to qualify as an SSM.

- Upon completion of all plans set forth in the NOI and recommendations by the diagnostic team), a Notice of Establishment (NOE) to implement the QZ must be provided by certified mail to:
  - all railroads operating over the public highway-rail grade crossing(s) within the QZ;
  - the highway or traffic control or law enforcement authority having jurisdiction over vehicular traffic at grade crossings within the QZ;
  - the landowner having control over any private crossings within the QZ;
  - the State agency responsible for highway and road safety;
  - the State agency responsible for grade crossing safety; and
  - the FRA Associate Administrator.

The NOE will serve as notice that all safety measures comply with the Rule and plans submitted with the NOI have been implemented. A final pre-implementation inspection will be performed prior to issuing the train orders to cease sounding of the horn. Please allow sufficient time for this inspection when designating the QZ start date.

- Qualifying for a new QZ under § 222.39(b) of the Rule will require current Annual Average Daily Traffic Count (AADT) data for use in the QZ Calculator. Please ensure the AADT data in the FRA National Inventory database has been updated within the last three years at the time the Notice of Establishment (NOE) is issued.
- Please be aware the trains operating in the proposed QZ are within the limits of an advanced technology system called Positive Train Control (PTC). To assist with internal notifications and PTC preparation efforts, UP respectfully requests 60 days advance notice of the planned QZ establishment. This communication can be made by email or phone in advance of the NOE mailing. To learn more about PTC, please visit the UP webpage at the address below.

https://www.up.com/media/media\_kit/ptc/about-ptc/index.htm

- UP encourages an awareness program to educate the community about QZs and what to expect. Although trains will cease routine sounding of the horn at grade crossing(s) within the QZ, there are numerous situations when sounding of the horn will be required. For example, an engineer will exercise discretion to sound the horn for safety purposes when pedestrians or workers are in proximity of the crossing(s) and when necessary to comply with any other train operating rules.
- Prior to establishing the new QZ, each approach to the grade crossing(s) must be equipped with an advance warning sign advising users that train horns are not sounded at the crossing(s). These signs must conform to the standards contained in the MUTCD. Additionally, all pavement markings should be inspected to be in good condition for both day and night visibility.

To insure timely response, please forward all QZ notifications by certified mail to the address below.

Union Pacific Railroad Attn: Engineering Public Projects Quiet Zone Establishment 1400 Douglas Street MS910 Omaha, NE 68179

\*\*\* REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK \*\*\*

UP encourages notification of any changes to the proposed QZ plan to allow further review and comment. If you have questions, please contact me at (402) 544-3992 or msdubay@up.com.

Sincerely,

Melinda DuBay Manager I Engineering-Public Projects

cc: Karl Alexy-FRA Associate Administrator for Safety

by email:

Carolyn Cook-FRA Robert Travis-TXDOT Prarthana Banerji-Brazos County James Smith-City of College Station W. Paul Kaspar-City of Bryan Doug Woods-UP Ivan Jaime-UP

### Appendix D

### **Presentation and Discussion of Mitigation Strategies**

#### Appendix D Texas A&M University Quiet Zone College Station, Texas

#### **Discussion of Mitigation Strategies**

April 13, 2021

The following narratives and drawings document the technical references and engineering judgement used to determine and apply the specified mitigation strategies to the railroad crossings associated with this proposed quiet zone. All references to the quiet zone rules and regulations refer to 49 CFR Parts 222 and 229, *Use of Locomotive Horns at Highway-Rail Grade Crossings; Amended Final Rule* dated September 18, 2006.

In the state of Texas, the implementation of traffic control devices is governed by the *Texas Manual on Uniform Traffic Control Devices* (TMUTCD). This document, which is authorized by Texas Transportation Code §544.001 and issued by the Texas Department of Transportation, is based on and closely parallels the Federal Highway Administration's *Manual on Uniform Traffic Control Devices* (MUTCD).

Where the quiet zone rules and regulations reference the MUTCD, the corresponding reference in the TMUTCD was reviewed to determine whether the traffic control devices proposed for this project were in compliance with both documents. In no case was a conflict or discrepancy noted, thus the proposed traffic control devises comply with both the MUTCD and the TMUTCD. For the purpose of brevity and consistency with the quiet zone rules and regulations, any reference to the MUTCD in this document shall be assumed to also reference the corresponding portion of the TMUTCD.

### Texas A&M University Quiet Zone College Station, Texas

### **Discussion of Mitigation Strategies**

April 13, 2021

DOT No.	Location	Type of Cro	ossing	Treatment	CFR Cite
743209X	UPRR at F&B Road	At-Grade	Public	Alternative Safety Measure (ASM): Gates with Channelization Devices	222, App. B, I.A.
743210S	UPRR at FM 60 / University Drive	Grade Separated	Public	Not Applicable	222, App. C, II.A.2.
743211Y	UPRR at Old Main Drive	At-Grade	Public	Alternative Safety Measure (ASM): Gates with Channelization Devices	222, App. B, I.A.
743212F	UPRR at John Kimbrough Boulevard	At-Grade	Public	Supplemental Safety Measure (SSM): Gates with Channelization Devices	222, App. A, A.3.
743215B	UPRR at FM 2347 / W. George Bush Drive	At-Grade	Public	Wayside Horns	§222.59, 222, App. E

#### Texas A&M University Quiet Zone College Station, Texas

#### **Discussion of Mitigation Strategies**

April 13, 2021

#### Location: UPRR at F&B Road DOT 743209X

Mitigation Strategy:Channelize approaching traffic to prevent gate-end runaroundMitigation Classification:Alternative Safety Measure (ASM)

At the crossing, F&B Road is an existing three lane roadway: two lanes eastbound and one lane westbound. No sidewalks or bike lanes are present. Traffic data was collected via 24-hour video surveillance with the following results:

Date of Count: April 9, 2019 (Tuesday) 24 Hour Volume – 7,306 vehicles School Buses - 10 Trucks - 60 (0.82%) Pedestrians - 54 Cyclists – 78

The existing crossing protection equipment includes bells, flashing lights and gates, a GCP 4000 controller with constant warning time devices, and power-out indicators. The intersection of F&B Road and Wellborn Road is signalized with railroad preemption interconnection.

To reduce the potential for gate-end run around, channelizing devices in the form of traffic islands with non-traversable curbs as prescribed in §222.A.3 will be installed. The method of quiet zone implementation will be via a Modified SSM for two reasons: the proposed median between the gate arms of Track 2 and Wellborn Road is shorter than the minimum required length of 60 feet, and the gate assemblies for the two separate crossings function independently of each other.

Drawings showing the recommended improvements appear at D-6 and D-7.

The existing speed limit along F&B Road is 45 MPH. A field traffic engineering assessment suggests the speed limit should be no more than 30 MPH. TAMU committed to lowering the speed limit along F&B Road to 30 MPH so as to comply with 49 CFR §222.9 which limits the use of non-mountable medians to roadways with speed limits equal to or less than 40 MPH. This reduced speed limit will be implemented in advance of establishment of the quiet zone.

The roadway serving the fuel tanks will be fully closed at F&B Road, and access provided by extending the northern end of the roadway to Finfeather Road. The existing driveway return located just west of Track 1 will be removed and closed with curbing.

A continuous median will extend westward from Track 1 a distance of 106 feet. A median of 80 feet in total length will be constructed between Track 1 and Track 2, beginning 10 feet from the center of each track. A 20 feet long raised median beginning 10 feet from the center of Track 2 will extend eastward towards Wellborn Road. The existing driveway serving UP's maintenance-of-way area will be maintained; however, it will become right in/right out access only due to the raised median.

To provide an alternative travel route for cyclists and pedestrians other than the roadway of F&B Road, a new shared use path will be constructed along the south side of F&B Road and pass behind the existing gate arms and cantilever weights. Separate crossing planking will be installed for the new shared use path, which will eventually extend westward to Agronomy Road under a separate effort. Existing sidewalks at Wellborn Road will be modified so as to not suggest other travel paths. As the new shared use path is located approximately 11.5 feet south of F&B Road, it is not considered to be a separate at-grade crossing.

The diagnostic inspection also revealed the roadway grades approaching the crossings were such that high centering by low ground clearance vehicles was possible. Installation of W10-5 (Low Ground Clearance Grade Crossing) sign with W10-5p ("Low Ground Clearance") educational plaque and W16-5P or W16-6P (Supplemental Arrow) plaques will be included in the signing and markings plans.

While for inventory purposes the two crossings are listed as a single crossing, they are 100 feet apart (measured center of track to center of track) and their gate arms function independently of each other. Thus, the effectiveness rate will be calculated for two separate crossings and then combined to represent a single crossing with two tracks.

#### 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.

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 ft. / 100 ft. x 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).

#### 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 ft. / 100 ft. x 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 ft. / 60 ft. x 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:

$$(0.80 + 0.61 + 0.60 + 0.20) / 4 = 0.55$$

In accordance with §222.35(b)(1) and Part 8 of the MUTCD, all required crossing safety equipment, signing and markings shall be in place prior to the filing of the Notice of Quiet Zone Establishment. In accordance with §222.35(c)(1), the supplemental warning sign "No Train Horn" (W10-9) shall be installed below the advance railroad warning signs (W10-1) immediately prior to the date of the establishment of the quiet zone. In accordance with §222.35(d)(1) the automatic bells shall be maintained in working condition after the quiet zone is established.





### LEGEND



PROPOSED CONCRETE MEDIAN / RR PANEL PROPOSED CONCRETE PAVEMENT PROPOSED CONCRETE SIDEWALK PROPOSED SOD MOW STRIP W/ 6" TOPSOIL (2' TYP

PROPOSED ACCESSIBLE RAMP

30' LIGHT POLE

PROPOSED CURB & GUTTER

Know what's **below.** 

CAUTION!!

<u>CAUTION!!</u>

EXISTING UNDERGROUND UTILITIES IN THE AREA CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY REPAIRS TO EXISTING UTILITIES DUE TO DAMAGE INCURED DURING CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES ON THE PLANS.

Call before you dig.

DETECTABLE WARNING STRIP 2' WIDE



D-6

ZHMMNZ





#### Location: UPRR at FM 60 / University Drive DOT 743210S

Mitigation Strategy:Existing grade-separated crossingMitigation Classification:Not Classified

At the crossing, FM 60 / University Drive is a four-lane highway with a raised non-traversable median.

The crossing is grade-separated with FM 60 / University Drive going under UPRR. As the quiet zone process addresses at-grade crossings, photographs and drawings of the underpass are omitted.

As this is an existing grade-separated crossing, in accordance with App. C.B.3. it is not included in the quiet zone risk mitigation calculations and no risk mitigation factor is offered.

#### Location: UPRR at Old Main Drive DOT 743211Y

Mitigation Strategy:Channelize approaching traffic to prevent gate-end runaroundMitigation Classification:Modified Supplemental Safety Measure (Modified SSM)

At the crossing, Old Main Drive is an existing three lane roadway: two lanes eastbound and one lane westbound. No sidewalks or bike lanes are present. Traffic data was collected via 24-hour video surveillance with the following results:

Date of Count: April 9, 2019 (Tuesday) 24 Hour Volume – 4,104 vehicles School Buses - 10 Trucks - 13 (0.32%) Pedestrians - 8 Cyclists – 4

The existing crossing protection equipment includes bells, flashing lights and gates, a GCP 4000 controller with constant warning time devices, and power-out indicators. The intersection of Old Main Drive and Wellborn Road is signalized with railroad preemption interconnection.

The intersection was reconstructed in 2013 and detailed to be "quiet zone ready". To reduce the potential for gate-end run around, channelizing devices in the form of traffic islands with non-traversable curbs as prescribed in §222.A.3 were installed. The diagnostic inspection found all non-traversable curbing to be at least six inches in height; in fact, most measurements were in the 6  $\frac{1}{2}$ " to 7" range. An underpass immediately south of the crossing is provided for cyclists and pedestrians.

Drawings showing the recommended improvements appear at D-11 and D-12.

For motorists eastbound along Old Main Drive, a non-traversable raised median extends approximately 495 feet westward from the gate arm, which exceeds the minimum requirement for 100 feet and satisfies the requirements for an 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.

For motorists westbound along Old Main Drive, a non-traversable raised median extends eastward 46 feet from the gate arm. 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 46 ft. / 60 ft. x 0.80 = 0.61. 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:

In accordance with §222.35(b)(1) and Part 8 of the MUTCD, all required crossing safety equipment, signing and markings shall be in place prior to the filing of the Notice of Quiet Zone Establishment. In accordance with §222.35(c)(1), the supplemental warning sign "No Train Horn" (W10-9) shall be installed below the advance railroad warning signs (W10-1) immediately prior to the date of the establishment of the quiet zone. In accordance with §222.35(d)(1) the automatic bells shall be maintained in working condition after the quiet zone is established.





Location: UPRR at John Kimbrough Boulevard DOT 743212F

Mitigation Strategy:Channelize approaching traffic to prevent gate-end runaroundMitigation Classification:Supplemental Safety Measure (SSM)

At the crossing, John Kimbrough Boulevard is an existing five lane roadway: three lanes eastbound and two lanes westbound. Sidewalks are present, and striped shoulders serve as ad hoc bike lanes. Traffic data was collected via 24-hour video surveillance with the following results:

Date of Count: April 9, 2019 (Tuesday) 24 Hour Volume – 12,651 vehicles School Buses - 10 Trucks - 39 (0.31%) Pedestrians - 310 Cyclists – 33

The existing crossing protection equipment includes bells, flashing lights and gates, a GCP 3000 controller with constant warning time devices, and power-out indicators. The intersection of John Kimbrough Boulevard and Wellborn Road is signalized with railroad preemption interconnection.

To reduce the potential for gate-end run around, channelizing devices in the form of traffic islands with non-traversable curbs as prescribed in §222.A.3 will be installed. The method of quiet zone implementation will be via an SSM.

Drawings showing the recommended improvements appear at D-15 and D-16.

This concept of mitigation includes reconfiguration of John Kimbrough to provide an 11 ft. wide median, necessary for the installation of median island gates with lights and bells, and 11 ft. wide vehicular travel lanes. The outside curb lines will remain in their existing condition. The striped shoulders will be removed, eliminating the perception of the existence of bike lanes. Median island gates will be installed within the new median, eliminating the need for excessively long gate arms for the eastbound approach and providing additional visual warnings for approaching motorists. The median between the gates and Wellborn Road will be 60 feet long. The median west of the gates will be approximately 380 feet long. All curbing within 100 feet of the gate arms will be non-traversable curbing with a vertical height of seven inches.

The intent of the design is to eliminate to the greatest extent possible instances of cyclists and pedestrians crossing the tracks. Fencing will be installed along the edge of the adjacent parking lot (Lot 61) to mitigate possible scofflaw behavior. This fence will tie into the existing fence running parallel to the tracks. Cyclists and pedestrians will be rerouted to the existing Pickard Pass underpass located south of John Kimbrough Boulevard. Sidewalks, shared use paths, curb ramps, cross walks, pedestrian signals, and signs and markings will be removed or

modified to implement this concept. Landscaping will be installed to further discourage travel by cyclists and pedestrians along the former sidewalk areas. All existing curb cuts and driveway returns will be removed within 100 feet of the gates.

For motorists eastbound along John Kimbrough Boulevard, a non-traversable raised median will extend westward approximately 380 feet from the gate arms, satisfying the requirements for an 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.

For motorists westbound along John Kimbrough Boulevard, a non-traversable raised median will extend 60.7 feet eastward from the gate arms. 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. 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.

Because all of the safety improvements can be classified as SSMs, the safety improvements as a whole are thus considered an SSM with an effectiveness rate of <u>0.80</u>.

In accordance with §222.35(b)(1) and Part 8 of the MUTCD, all required crossing safety equipment, signing and markings shall be in place prior to the filing of the Notice of Quiet Zone Establishment. In accordance with §222.35(c)(1), the supplemental warning sign "No Train Horn" (W10-9) shall be installed below the advance railroad warning signs (W10-1) immediately prior to the date of the establishment of the quiet zone. In accordance with §222.35(d)(1) the automatic bells shall be maintained in working condition after the quiet zone is established.







	PROPOSED CONCRETE MEDIAN PAVERS
	PROPOSED CONCRETE PAVEMENT
	PROPOSED ASPHALT PAVEMENT
►	PROPOSED CONCRETE SIDEWALK
	PROPOSED WALL
	PROPOSED BALLAST ROCK BY RR
	PROPOSED ACCESSIBLE RAMP
5	30' LIGHT POLE
	PROPOSED CURB & GUTTER
	PROPOSED JOINT

### Location: UPRR at FM 2347 / W. George Bush Drive DOT 743215B

Mitigation Strategy:Wayside HornsMitigation Classification:One-For-One Exchange of Train Horns for Wayside Horns

At the crossing, FM 2347 / W. George Bush Drive is an existing five lane roadway: three lanes eastbound and two lanes westbound. Sidewalks are present but there are no bike facilities. Traffic data was collected via 24-hour video surveillance with the following results:

Date of Count: April 9, 2019 (Tuesday) 24 Hour Volume – 27,146 vehicles School Buses - 13 Trucks - 213 (0.78%) Pedestrians - 227 Cyclists – 167

The existing crossing protection equipment includes bells, flashing lights and gates including median island gates, a GCP 3000 controller with constant warning time devices, and powerout indicators. The intersection of FM 2347 / W. George Bush Drive and Wellborn Road is signalized with railroad preemption interconnection.

Construction of a grade-separated crossing is in preliminary engineering with construction anticipated to begin within the next four to six years. As an interim measure, wayside horns complying with Appendix E to Part 222 will be installed to replace the locomotive horns. Due to curvature of the track and trees along the inside of the curve north of the crossing, train crews may not be able to see at an adequate distance the wayside horn's status indicator; thus, an auxiliary wayside horn status indicator located approximately 500 feet north of the crossing will be installed.

Drawings showing the recommended improvements appear at D-19, D-20, and D-21.

To address documented instances of cyclists and pedestrians using the existing crossing surface as a crosswalk, track panels will be reconfigured to present significant gaps in the planking in order to strongly discourage this behavior. To encourage better travel choices by cyclists and pedestrians, sidewalks, shared use paths, cross walks, curb ramps, pedestrian signals, signal timing and phasing, intersection geometry, and signing and markings will be revised to better facilitate accessible, safer, and more efficient crossing of Wellborn Road and the eastern leg of FM 2347 / W. George Bush Drive.

The elevation difference between the eastern edge of the track panels and the western gutter of Wellborn Road is approximately three feet. Considering the location of the proposed curb ramps, the distance from the eastern edge of the track panel to the western gutter of Wellborn Road is about 30 feet. A straight grading of the shared use path from the edge of the track panel to the gutter would result in a running slope of 10-12%, which exceeds the maximum running slope allowed by the American with Disability Act's standards and guidelines. To

provide for the greatest accommodation for people with disabilities, switchback ramps with landings and running slopes of no greater than 5% are provided. For those who can travel steeper and more direct routes, steps with handrails will be installed between the landings located at the beginning of the switchbacks.

Bells will be added to the existing median gate assemblies to provide a more audible warning above ambient traffic noise levels to cyclists and pedestrians of an approaching train.

In accordance with §222.59(a)(2), the length of the quiet zone includes this crossing; however, the crossing shall not be considered in calculating the Quiet Zone Risk Index or Crossing Corridor Risk Index.

In accordance with §222.35(b)(1) and Part 8 of the MUTCD, all required crossing safety equipment, signing and markings shall be in place prior to the filing of the Notice of Quiet Zone Establishment. In accordance with §222.35(d)(1) the automatic bells shall be maintained in working condition after the quiet zone is established.





	B
NORTH	DATE
GRAPHIC SCALE IN FEET 0 5 10 20	REVISIONS
	Kimley Morn Soo kimley-horn and associates, INC. Texas registered engineering firm F-928 2800 South Texas avenue, Suite 201 BRYAN, TX 77802 PHONE: 979-775-9595 WWW.KIMLEY-HORN.COM
	J. CHRIS HARRIS 94859 O. CENSE O. CENSE
	KHA PROJECT 066079319 DATE MARCH 2021 SCALE AS SHOWN DESIGNED BY KHA DRAWN BY KHA CHECKED BY DLS
	PROPOSED QUIET ZONE IMPROVEMENTS UPRR AT FM 2347/W. GEORGE BUSH DRIVE DOT: 743215 B
Know what's below. Call before you dig. Call before you dig. CAUTION!! EXISTING UNDERGROUND UTILITIES IN THE AREA CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY REPAIRS TO EXISTING UTILITIES DUE TO DAMAGE INCURED DURING CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES ON THE PLANS.	DESIGN & CONSTRUCT QUIET ZONES PREPARED FOR TEXAS A&M UNIVERSITY COLLEGE STATION, TEXAS FSP # 2019-07296
Mummun	SHEET NUMBER <b>D-20</b>

GRAPHIC SCALE IN FEET



### Appendix E

**Quiet Zone Calculations** 

#### Texas A&M University Quiet Zone College Station, Texas

#### **Appendix E – Quiet Zone Calculations**

April 13, 2021

The Texas A&M University Quiet Zone will be established by implementing Supplemental Safety Measures (SSMs) and Alternative Safety Measures (ASMs) at all crossings to reduce the Quiet Zone Risk Index to at or below the Risk Index with Horns.

The existing Risk Index without Horns was determined from FRA's Online Quiet Zone Calculator. Current crossing data from the updated crossing inventories presented in Appendix A were used in the calculator. A printout of the online calculator's results is shown on page E-2.

The Risk Index with Horns for each crossing was calculated by multiplying the Risk Index without Horns by 66.8%.

The estimated effectiveness rate for the proposed SSM or ASM for each crossing was determined in Appendix D.

The calculations to determine the Quiet Zone Risk Index for each crossing and for the corridor are shown on page E-3. 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.

In summary, the Quiet Zone Risk Index for F&B Road, Old Main Drive, and John Kimbrough Boulevard, considered both singularly and collectively, is less than the Risk Index with Horns:

DOT No.	Location	Risk Index with Horns	Quiet Zone Risk Index
743209X	UPRR at F&B Road	20,914.66	15,698.55
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	21,963.08	11,211.68

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

	_	Cancel	Change Scenario	: TAMU QZ 20_63020	0	Continue		
	Crossing	Street	Traffic	Warning Device	Pre-SSM	SSM	Risk	
Create New Zone	743209X	F AND B ROAD	7306	Gates	0	0	34,885.66	MODIFY
Managa Fristing Zones	743211Y	OLD MAIN DRIVE	4104	Gates	0	0	29,329.82	MODIFY
Manage Existing Zones	743212F	JOHN KIMBROUGH BOULEVARD	12651	Gates	0	0	45,687.76	MODIFY
Log Off	743215B	GEORGE BUSH DRIV	/E 27146	Gates	0	0	52,635.58	MODIFY

#### Home | Help | Contact | logoff gary@mobilityplanningmatters.com

Step by Step Instructions:

#### \* Only Public At Grade Crossings are listed.

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.	Proposed Quiet Zone:	TAMU QZ 20210127
Click for Supplementary Safety Measures [SSM]	Туре:	New 24-hour QZ
<b>Click</b> for ASM spreadsheet: <b>ASM</b> * Note: The use of ASMs requires an application to and approval from the FRA.	Scenario:	TAMU QZ 20_63020
	Estimated Total Cost:	\$0.00
	Nationwide Significant Risk Threshold:	15488 .00
	Risk Index with Horns:	24361.33
	Quiet Zone Risk Index:	40634.71
	,	

Summary

#### E-2

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

April 13, 2021

DOT No.	Location	Type of Cros	ssing	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	34,885.66	20,914.66	ASM: Gates + Channelization	0.55	15,698.55
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
				36,634.41	21,963.08			11,211.68

Risk Index Without Horns 36,634.41 Risk Index with Horns 21,963.08 Quiet Zone Risk Index 11,211.68

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