

Meeting Date: October 28, 2015 AGENDA ITEM # 5

Authorize installation of traffic signals at the intersection of San Gabriel Parkway with northbound and southbound 183A frontage roads.

Strategic Plan Relevance: Regional Mobility

Department: Engineering

Contact: Wesley M. Burford, P.E., Director of Engineering

Associated Costs: approximately \$150,000

Funding Source: Operating Fund

Action Requested: Consider and act on draft resolution

Summary:

The intersection of 183A and San Gabriel Parkway is currently stop-controlled. A Traffic Signal Warrant Analysis was performed on June 16, 2015. Traffic counts were performed on September 16, 2015, and the results indicate that a signal is warranted.

The results of the warrant are based on the data collected in accordance with the TxDOT standard process for signals. The peak hour criteria (Warrant 3 - Peak Hour) was met. The Executive Director recommends installation of a traffic signal at this intersection.

Backup provided: Traffic Signal Warrant

Support Letters

Draft Resolution for Board Consideration

Traffic Signal Warrant 183A Frontage Road And San Gabriel Parkway





October 2015

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I. PROJECT DESCRIPTION

This report presents a summary of findings for a Traffic Signal Warrant Analysis performed by HNTB Corporation, Inc. for the intersection of 183A Frontage Road and San Gabriel Parkway in Leander, Williamson County, Texas. A Site Location Map has been included in the Appendix of this report as *Exhibit 1*.

To conduct the signal warrant analysis, 24-hour traffic counts were collected for each of the approaches to intersection of 183A and San Gabriel Parkway on September 15, 2015. Analysis was conducted for both the 183A Northbound Frontage Road intersection and the 183A Southbound Frontage Road intersection. The intersection of 183A Southbound Frontage Road and San Gabriel Parkway was found to have both the highest traffic volumes and number of crashes. Traffic volume data and most recent available crash data can be found in the Appendix of this report as *Exhibit 2*. A site visit was also conducted to observe the geometric configuration of the intersection as well as any unique characteristics about the approaches.

The speed limit on the northbound and southbound frontage roads is 60 mph and San Gabriel Parkway Approach is 45 mph. San Gabriel Parkway Approach is currently stop-controlled, both eastbound and westbound, at both intersections.

II. ANALYSIS

The 2011 Texas Manual on Uniform Traffic Control Devices (TMUTCD) requires that certain warrants be met prior to the installation of a traffic signal. These warrants are summarized at follows:

1 Eight-Hour Vehicular Volume 5. **School Crossing** Four-Hour Vehicular Volume 2. 6. Coordinated Signal System Crash Experience 3. Peak Hour 7. Roadway Network 4. Pedestrian Volume 8. 9 Intersection Near a Grade Crossing

Below are the TMUTCD descriptions of the Traffic Signal Warrants. In addition to the descriptions, TMUTCD also considers sound engineering judgment and recommendations as enough evidence to warrant the necessity of a traffic signal.

A. Warrant 1 – Eight-Hour Vehicular Volume

This warrant involves three (3) conditions (A, B, or a combination of A and B) which can individually satisfy the conditions of Warrant 1. Condition A is the Minimum Vehicular Volume which is intended for application at locations where a large volume of intersecting traffic is the principal reason to consider installing a traffic control signal. Condition B is the Interruption of Continuous Traffic which

is intended for application where the traffic volume on a major street is so heavy that traffic on a minor street suffers excessively.

B. Warrant 2 – Four-Hour Vehicular Volume

This warrant is intended to be applied where the volumes of intersecting traffic is the principal reason to consider installing a traffic control signal.

C. Warrant 3 – Peak Hour

This warrant is intended for use at a location where traffic conditions are such that for a minimum of one (1) hour of an average day, the minor-street traffic suffers undue delay when entering or crossing the major street.

D. Warrant 4 – Pedestrian Volume

This warrant is intended for application where the traffic volume on a major street is so heavy that pedestrians experience excessive delay in crossing the major street.

E. Warrant 5 – School Crossing

This warrant is intended for application where the fact that school children cross the major street is the principal reason to consider installing a traffic control signal.

F. Warrant 6 – Coordinated Signal System

This warrant is when progressive movement in a coordinated signal system sometimes necessitates installing traffic control signals at intersections where they would not otherwise be needed in order to maintain proper platooning of vehicles.

G. Warrant 7 – Crash Experience

This warrant is intended for application where the severity and frequency of crashes are the principal reasons to consider installing a traffic control signal. Requests for crash data have been submitted to TxDOT and we have yet to receive them.

H. Warrant 8 – Roadway Network

This warrant is analyzed when installing a traffic control signal at some intersections might be justified to encourage concentration and organization of traffic flow on a roadway.

I. Warrant 9 – Intersection Near a Grade Crossing

This warrant is analyzed when installing a traffic control signal at some intersections might be justified to encourage concentration and organization of traffic flow on a roadway.

III. RESULTS AND RECOMMENDATIONS

The following results and recommendations are based on data that has been collected and standards set by the TMUTCD. Traffic Signal Warrant Analysis was completed for both the 183A Northbound Frontage Road and 183A Southbound Frontage Road, but only the 183A Southbound Frontage Road intersection was found to satisfy any of the TMUTCD Warrants. The peak hour volume criteria for Warrant 3 were satisfied. Due to the crash history at the site, the Crash Experience Warrant, Warrant 7, was also analyzed. It was determined that the intersection with the southbound frontage road also met the volume criteria outlined by Condition B of Warrant 7 and therefore Warrant 7 was also satisfied. Since Warrants 3 and 7 are each met, installation of a traffic signal is recommended. Please refer to *Exhibit 3* within the Appendix of this report for the detailed Signal Warrant Worksheets.

APPENDIX

EXHIBIT 1 SITE LOCATION MAP

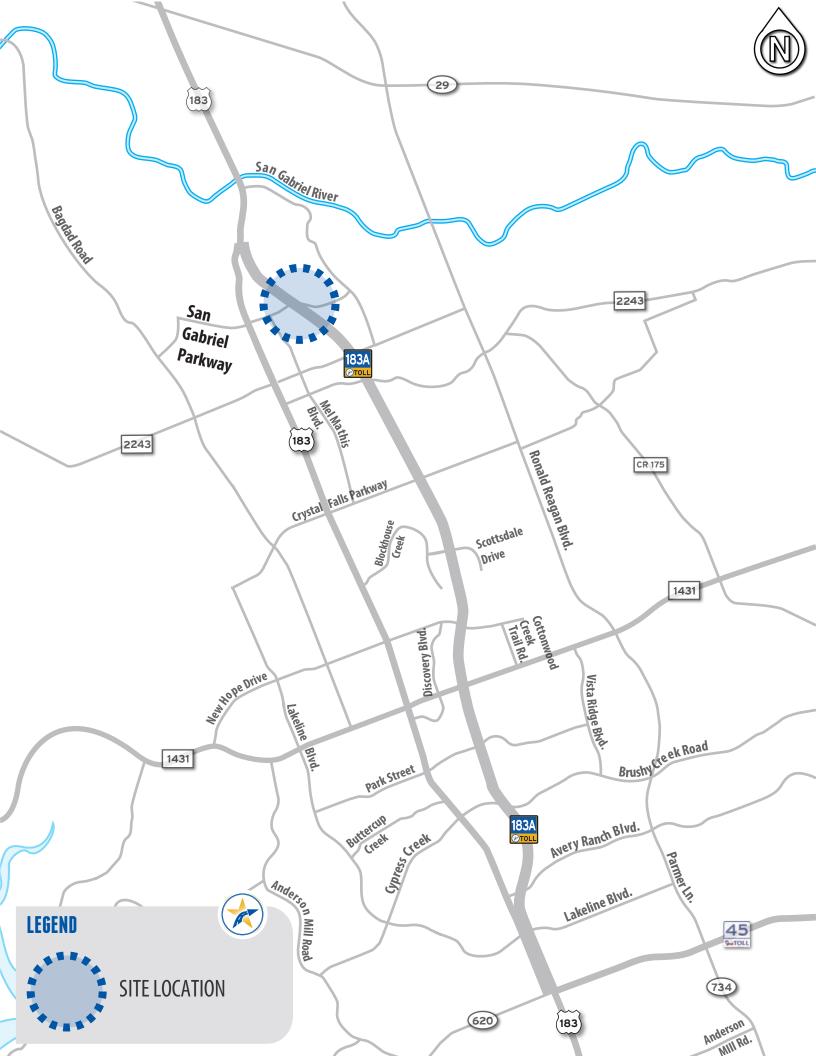


EXHIBIT 2

24-HOUR TRAFFIC COUNTS/ACCIDENT DATA

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	10:30		13	6			5									
	10:45		14	3		31	3			9	72	40				
	11:00		9	4	0 1	- 01	7	2		J	· -					
	11:15		21	3			11	0								
	11:30		26	5			9									
	11:45		19	4		16	2			4	104	20				
	Total		450				149					1339				
	Percen	t		69.9%				66.5%				69.1%				
62				1043		1043		296	149	296	599	1339				
	Grand ⁻			2077				588				2665				
	Percen			69.0%				64.9%				68.1%				

	Α	В	С	D	Е	F	G	Н	1	K	1	М	N	0	Р
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2				3751 FI									i age i		
				George											
3				George	town, i.	A. 700							Site Co	do: Loo	75
4				-									Station		13
5															ana Namibbarad
6															age - Northbound
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11	10.00	Tue	•	Afterno	Mornin	Afterno	on								
	12:00		2	42											
13	12:15		3												
14	12:30		8	33		4.40									
	12:45		3		16	146									
	01:00		4	38											
	01:15		3												
18	01:30		1	34											
19	01:45		3	30	11	151									
	02:00		3												
21	02:15		3												
	02:30		1	41	_										
	02:45		0	48	7	174									
24	03:00		3	46											
25	03:15		2	46											
	03:30		3	52											
	03:45		1	73	9	217									
	04:00		3	66											
29	04:15		2	89											
30	04:30		2	81											
31	04:45		3		10	315									
32	05:00		3	89											
	05:15		5	89											
	05:30		6	122											
	05:45		9	68	23	368									
	06:00		12	84											
	06:15		24	69											
	06:30		29	77											
	06:45		24	58	89	288									
40	07:00		24												
	07:15		31	46											
	07:30		31	41											
	07:45		29	44	115	199									
	08:00		34	41											
	08:15		43	40											
	08:30		43	45											
	08:45		38	47	158	173									
	09:00		34	43											
	09:15		14	25											
	09:30		21	20											
	09:45		27	20	96	108									
	10:00		35	18											
	10:15		31	20											
	10:30		31	18											
	10:45		30	13	127	69									
	11:00		25												
	11:15		47	12											
	11:30		39	7											
	11:45		31	4		30									
	Total		803												
61	Percent			73.6%											
62		0	803	2238	803	2238									

	А	В	С	D	E	F	G	Н	ı	1	K	I	М	N	0	Р	
H		D		D		1		Gram Tra	affic Inc	<u>.</u>	IX.		IVI	Page 2		'	
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10			Northbo	ound	Hour To												
11	10.00	Wed			Mornin	Afterno	on										
	12:00		6														
	12:15		8														
	12:30		4	39													
	12:45		3	33	21	147											
	01:00		1	55													
	01:15		2	45													
	01:30		1	61													
	01:45		5	50	9	211											
	02:00		1	54													
	02:15		2	51													
	02:30		4	59													
23	02:45		3		10	227											
	03:00		3	50													
	03:15		1	43													
	03:30		1	47													
	03:45		0		5	207											
	04:00		3														
	04:15		0	53													
	04:30		3														
	04:45		4	88	10	257											
31	05:00		2	67	10	201											
	05:00		7	101													
	05:30		6	70													
	05:45		11	67	26	305							-	-			
	06:00		23	87	20	305											
	06:15		18	70													
	06:30		16	53	25	074											
	06:45		28	64	85	274											
	07:00		19														
	07:15		23														
	07:30		31	40		4											
	07:45		31	38		176											
	08:00		33	55													
	08:15		30														
	08:30		61	35													
	08:45		29	32		169											
	09:00		22	36													
49	09:15		22	33													
	09:30		29	54													
	09:45		31	27	104	150											
	10:00		23	13													
	10:15		35														
	10:30		35														
	10:45		24			58											
	11:00		22	10													
	44 4-		40														
	11:30		38														
	11:45		42			37											
	Total		786			37											
		<u> </u>		73.8%													
	Percen					2240											
62		0 Total		2218		2218											
	Grand 7			4456													
64	Percen	τ	26.3%	73.7%													

EXHIBIT 3

SIGNAL WARRANT WORKSHEETS



Traffic Survey — Count Analysis

Form Revised 2/2	7/2012			2011 1	MUICD	warrants	8				
County:		Williamson					District:		Waco		
City:	I	Leander		,	Population	on:	N/A	Surv	vey Date:	9/1	15/15
		Name					Contro	l Se	ction	85%	Speed
Major	183A SBFR										MPH
Minor	San Gabriel										
Eight Highest	Hours: Includ	e the same 8 l	hours for	the Ma	jor and M	Iinor St. vo	olumes.				
Time	Major St	Both App.	Minor	St Hi.	Vol. App	o. Co	mments:			,	,
Ends	Veh. Total	Ped. Total	Veh.	Total	Ped. Tot	al					
8:00 AM	1,071		2	13							
6:00 PM	558		1′	71							
5:00 PM	545		10	53							
7:00 AM	875 157										
9:00 AM	771		14	19							
7:00 PM	492		12	26							
4:00 PM	527		9	7							
10:00 AM	588		8	8							
Warrant 1. E	ight Hour Veh	icular Volun	ie								
Yes	✓ No	Meets 70% ^c	and mai	or-stree	t speed ex	ceeds 40 r	nph or po	pulation	less than 1	0.000) 01	r 100% ^a
		(regardless o			-		r - r	T		-,,-	
 		- or -	1 /								
☐ Yes		Meets 70% ^c			-	ceeds 40 r	nph or po	pulation	less than 1	0,000) or	r 100%ª
		(regardless of - or -	f speed)	of Cond	lition B.						
\square_{Yes}		- <i>or</i> - Meets 80% ^b	of Condi	tions A	and B						
1 es			or Condi	tions A	and D.						
l		- or -									
Yes		Meets 56% ^d		tions A	and B (ar	id major-st	reet spee	d exceed	s 40 mph o	r populat	ion less
		than 10,000).									
Condition A -	Minimum Vel						1				
3.7	CI	\		L	r on Majo				er hour on h	_	
	er of Lanes		`		Approache		Minor St approach (One Direction O				
Major	Minor	1000/8				Existing	1000/a		quired	5.00/d	Existing
Street	Street	100% ^a 500	80% ^b	70% ^c 350	56% ^d	98.0%	100% ^a	80% ^b	70% ^c	56% ^d	44.0%
1	1	300	400	330	280		150	120	105	84	

2 or more **Condition B - Interruption of Continuous Traffic**

2 or more

		Vehicles per hour on Major St						Vehicles per hour on higher-volume				
Numb	Number of Lanes			f Both A	pproach	es)	Minor St approach (One Direction Only)					
Major	Minor		Requ	uired		Existing		Re	quired		Existing	
Street	Street	100% ^a	80% ^b	70% ^c	56% ^d	<u>65.3%</u>	100% ^a	80% ^b	70% ^c	56% ^d	<u>88.0%</u>	
1	1	750	600	525	420		75	60	53	42		
2 or more	1	900	720	630	504		75	60	53	42		
2 or more	2 or more	900	720	630	504	588	100	80	70	56	88	
1	2 or more	750	600	525	420		100	80	70	56		

2 or more

2 or more

^aBasic minimum hourly volume.

^bUsed for combination of Conditions A and B after adequate trial of other remedial measures.

^cMay be used when the major-street speed exceeds 40 mph or in a community with a population of less than 10,000.

^dMay be used for combination of Conditions A and B after adequat trial of other remedial measures when major street exceeds

⁴⁰ mph or in an isolated community with a population of less than 10,000.

Warrant	5. School	Crossin	g
Yes	✓	No	Is the number of adequate gaps in traffic stream during the period when the children are using
	N/A		the crossing less than the number of minutes in the same period? - and -
☐ Yes	✓	No	Is there a minimum of 20 students during the highest crossing hour? - and -
✓ Yes		No	Is the nearest signal located more than 300 feet away?
	_		(This warrant may be applied, if the proposed signal is less than 300 feet and does not restrict
			the progressive movement of traffic.)
Warrant	6. Coordi	inated Si	ignal System
Yes	4	No	On a one-way street or a street with traffic predominantly in one direction, are the adjacent
	N/A		signals far enough apart that the necessary degree of vehicle platooning does not occur? $-or$ –
☐ Yes	✓	No	On a two-way street, are the adjacent signals far enough appart that the necessary degree of
			vehicle platooning does not occur and would the proposed and adjacent traffic control signal
			provide a progressive operation?
	7. Crash		
✓ Yes		No	Is one of the following conditions met?:
			♦ 80% of Condition A or Condition B in Warrant 1
			♦ 56% of Condition A or B in Warrant 1 (major-street speed exceeding 40 mph or
			population less than 10,000)
			♦ 80 % or more of Warrant 4 met?
□ Vaa		Ma	- and -
✓ Yes		No	Have there been 5 or more reportable crashes susceptible to correction by a traffic signal within a 12 month period?
Warrant	8. Roadw	av Netw	· · · · · · · · · · · · · · · · · · ·
Yes	[J]	No	Is the total existing, or immediately projected, entering volume on all approaches greater
			than 1000 vehicles for each of any 5 hours of a Saturday and/or Sunday.
			- or -
☐ Yes	7	No	Is the total existing, or immediately projected, entering volume greater than 1000 vehicles for
		110	the peak hour of a typical weekday, and do the 5 year projected traffic volumes meet one or
			more of Warrants 1, 2, and 3 during an average weekday?
Check ap	plicable c	haracteris	stics of each route:
Major	Min	or	
Street	Stre	<u>eet</u>	
			It is part of street or highway system that serves as the principal roadway network for through traffic flow.
			It includes rural or suburban highways outside, entering, or traversing a city.
			It appears as a major route on an official plan such as a major street plan in an urban area
			traffic and transportation study.

Remarks:

Warrant 2. Four Hour Volumes (70% Factor)

☐ Yes × No	Meets each of 4 Highest Hours (Warrant 2 — see Figure 1).
------------	---

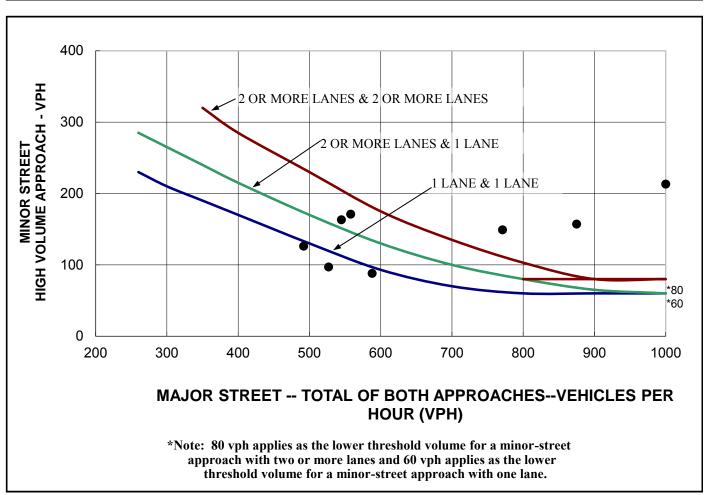


Figure 1. Four-hour volume warrant (community less than 10,000 population or above 40 MPH on major street). (Warrant 2.)

Warrant 3. Peak Hour (70% Factor)

☐ Yes ☐ No	Are all of the following conditions true for any four consecutive 15 minute periods?
	1. The total stopped time delay experienced by the traffic on one minor street approach (one direction only) controlled by a stop sign equals or exceeds 4 vehicle-hours for a one-lane approach and 5 vehicle-hours for a two-lane approach, <i>and</i>
	2. The volume of the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes, <i>and</i>
	3. The total entering volume serviced during the hour equals or exceeds 650 vph for intersections with three approaches or 800 vph for intersections with four (or more) approaches.
	- or -
✓ Yes No	Meets one High Hour (Warrant 3 — see Figure 2).

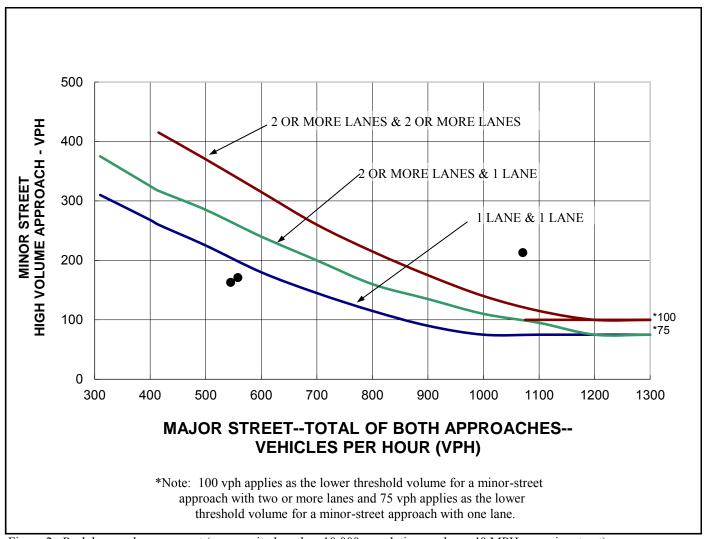


Figure 2. Peak hour volume warrant (community less than 10,000 population or above 40 MPH on major street). (Warrant 3.)

Warrant 4. Four Hour Pedestrian Volumes (70% Factor)



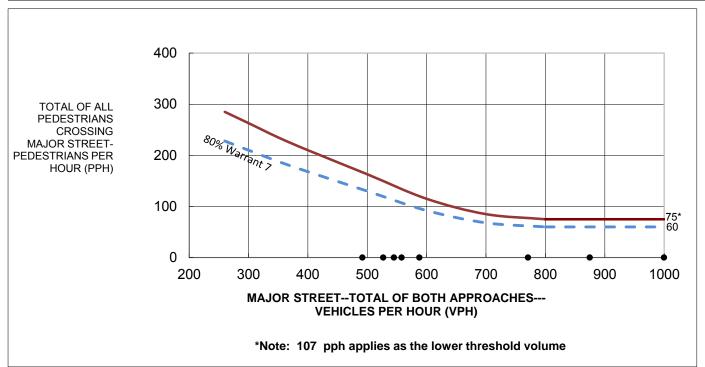


Figure 3. Four-hour pedestrian warrant (community less than 10,000 population or above 35 MPH on major street). (Warrant 4.)

Meets Peak Hour Pedestrian (Warrant4 — see Figure 4).

Warrant 4. Peak Hour Pedestrian Volumes (70% Factor)

No

Yes



400 80% Warrant > TOTAL OF ALL **PEDESTRIANS** 300 **CROSSING** MAJOR STREET-PEDESTRIANS PER HOUR (PPH) 200 100 0 200 800 300 400 500 600 700 900 1000 1100 1200 MAJOR STREET--TOTAL OF BOTH APPROACHES---**VEHICLES PER HOUR (VPH)** *Note: 93 pph applies as the lower threshold volume

Figure 4. Peak hour pedestrian warrant (community less than 10,000 population or above 35 MPH on major street). (Warrant 4.)

Warrant 9. Intersection Near a Grade Crossing (One Approach Lane at the Track Crossing)

☐ Yes ☐ No ☐ Meets one High Hour (Warrant 9 — see Figure 5).

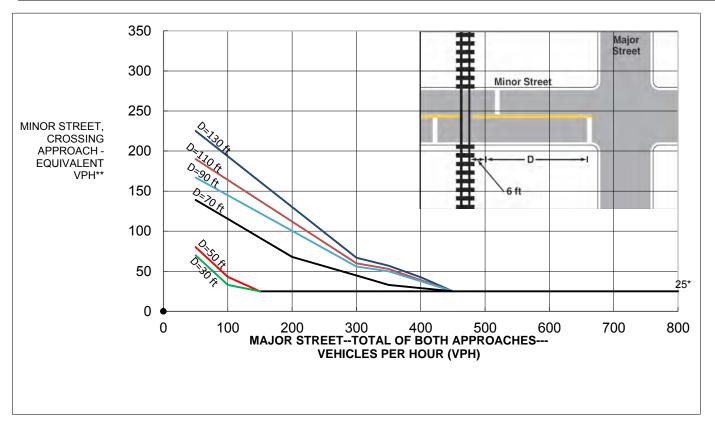


Figure 5. Railroad Grade Crossing (One Approach Lane at the Track Crossing). (Warrant 9.)

*25 vph applies as the lower threshold volume ** VPH after applying the adjustment factors in Tables 4C-2, 4C-3, and/or 4C-4, if appropriate



Traffic Survey — Count Analysis

2011 TMUTCD Warrants

TOTAL TREVISED 2/2	772012		ZOTT TIME TOD WAT	I telles		
County:		Williamson		District:	Austin	
City:]	Leander	Population:	N/A	Survey Date:	9/15/15
		Name		Control	Section	85% Speed
Major	183A NBFR					60 MPH
Minor	San Gabriel					

Eight Highest Hours: Include the same 8 hours for the Major and Minor St. volumes.

Time	Major St	Both App.	Minor St Hi.	Vol. App.		
Ends	Veh. Total	Ped. Total	Veh. Total	Ped. Total		
8:00 PM	398		41			
8:00 AM	230		41			
7:00 PM	576		37			
12 NOON	284		36			
1:00 PM	292		33			
11:00 AM	254		31			
6:00 PM	736		30			
5:00 PM	630		30			

The signal warrant is for the intersection of 183A Northbound Frontage Road and San Gabriel Parkway.

Warrant 1. Eight Hour Vehicular Volume

viairant i.	Light H	tour , c	theulai Volume
Yes	✓	No	Meets 70% ^c (and major-street speed exceeds 40 mph or population less than 10,000) or $100\%^a$ (regardless of speed) of Condition A.
Yes	✓	No	Meets 70% ^c (and major-street speed exceeds 40 mph or population less than 10,000) or 100% ^a (regardless of speed) of Condition B. $-or$
□Yes	✓	No	Meets 80% of Conditions A and B.
Yes	J	No	Meets 56% ^d of Conditions A and B (and major-street speed exceeds 40 mph or population less than 10,000).

Condition A - Minimum Vehicle Volume

		Vehicles per hour on Major St						Vehicles per hour on higher-volume					
Numb	Number of Lanes			f Both A	pproach	es)	Minor St approach (One Direction Only)						
Major	Minor		Requ	uired		Existing		Red		Existing			
Street	Street	100% ^a	80% ^b	70% ^c	56% ^d	<u>38.3%</u>	100% ^a	80% ^b	70% ^c	56% ^d	<u>15.0%</u>		
1	1	500	400	350	280		150	120	105	84			
2 or more	1	600	480	420	336		150	120	105	84			
2 or more	2 or more	600	480	420	336	230	200	160	140	112	30		
1	2 or more	500	400	350	280		200	160	140	112			

Condition B - Interruption of Continuous Traffic

		Vehicles per hour on Major St						Vehicles per hour on higher-volume				
Numb	er of Lanes	(Total of Both Approaches)						Minor St approach (One Direction Only)				
Major	Minor		Requ	uired		Existing		Re	quired		Existing	
Street	Street	100% ^a	80% ^b	70% ^c	56% ^d	<u>25.6%</u>	100% ^a	80% ^b	70% ^c	56% ^d	<u>30.0%</u>	
1	1	750	600	525	420		75	60	53	42		
2 or more	1	900	720	630	504		75	60	53	42		
2 or more	2 or more	900	720	630	504	230	100	80	70	56	30	
1	2 or more	750	600	525	420		100	80	70	56		

^aBasic minimum hourly volume.

^bUsed for combination of Conditions A and B after adequate trial of other remedial measures.

^cMay be used when the major-street speed exceeds 40 mph or in a community with a population of less than 10,000.

^dMay be used for combination of Conditions A and B after adequat trial of other remedial measures when major street exceeds

⁴⁰ mph or in an isolated community with a population of less than 10,000.

Warrant 2. Four Hour Volumes (70% Factor)

☐ Yes ☑ No	Meets each of 4 Highest Hours (Warrant 2 — see Figure 1).
------------	---

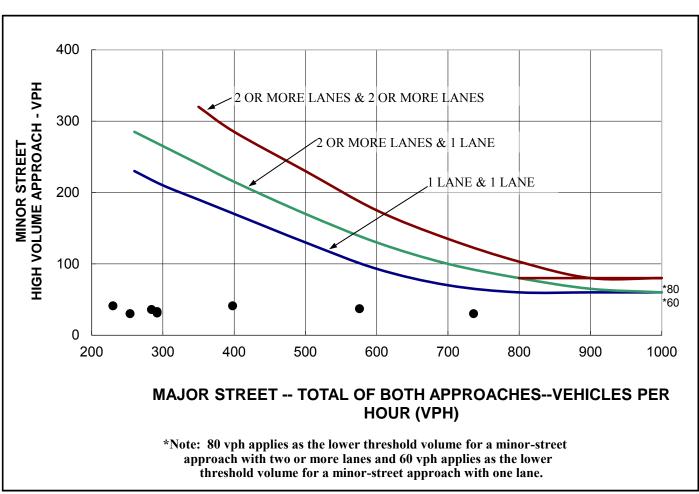


Figure 1. Four-hour volume warrant (community less than 10,000 population or above 40 MPH on major street). (Warrant 2.)

Warrant 3. Peak Hour (70% Factor)

☐ Yes ✓ No	Are all of the following conditions true for any four consecutive 15 minute periods?
	1. The total stopped time delay experienced by the traffic on one minor street approach (one direction only) controlled by a stop sign equals or exceeds 4 vehicle-hours for a one-lane approach and 5 vehicle-hours for a two-lane approach, <i>and</i>
	2. The volume of the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes, <i>and</i>
	3. The total entering volume serviced during the hour equals or exceeds 650 vph for intersections with three approaches or 800 vph for intersections with four (or more) approaches.
	- or -
☐ Yes ✓ No	Meets one High Hour (Warrant 3 — see Figure 2).

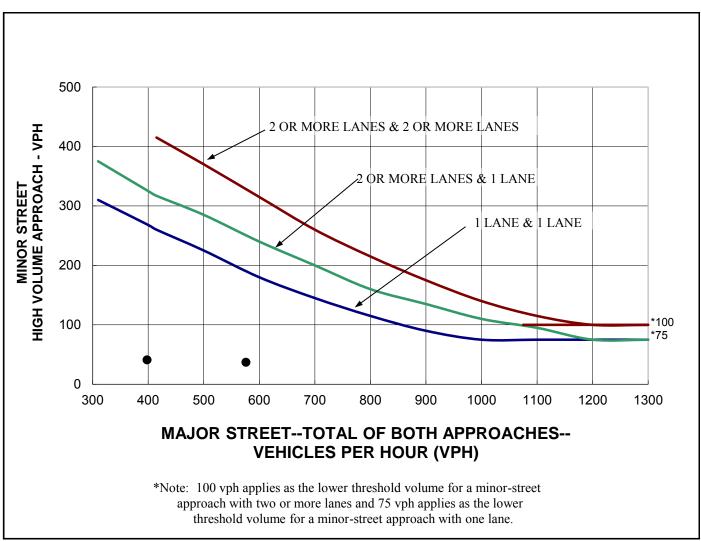
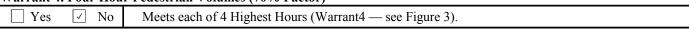


Figure 2. Peak hour volume warrant (community less than 10,000 population or above 40 MPH on major street). (Warrant 3.)

Warrant 4. Four Hour Pedestrian Volumes (70% Factor)



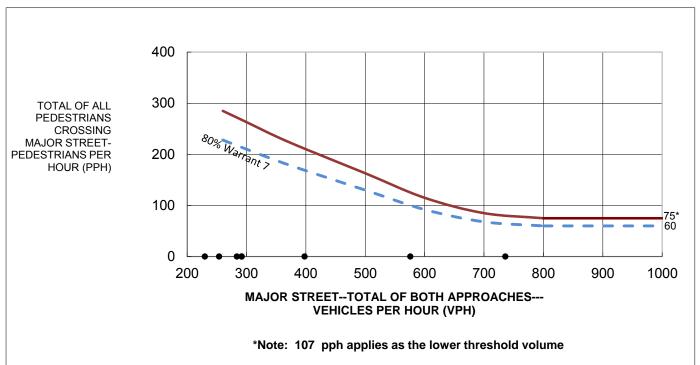


Figure 3. Four-hour pedestrian warrant (community less than 10,000 population or above 35 MPH on major street). (Warrant 4.)

Meets Peak Hour Pedestrian (Warrant4 — see Figure 4).

Warrant 4. Peak Hour Pedestrian Volumes (70% Factor)

No

100

0 - 200

300

400

Yes



Figure 4. Peak hour pedestrian warrant (community less than 10,000 population or above 35 MPH on major street). (Warrant 4.)

500

600

700

*Note: 93 pph applies as the lower threshold volume

MAJOR STREET--TOTAL OF BOTH APPROACHES---VEHICLES PER HOUR (VPH)

800

900

1000

1100

1200

warrant	5. School	Crossing	g	
Yes	J	No	Is the number of adequate gaps in traffic stream during the period when the children are using	
	N/A		the crossing less than the number of minutes in the same period? - and -	
☐ Yes	✓	No	Is there a minimum of 20 students during the highest crossing hour? - and -	
✓ Yes		No	Is the nearest signal located more than 300 feet away?	
	_		(This warrant may be applied, if the proposed signal is less than 300 feet and does not restrict	
			the progressive movement of traffic.)	
Warrant	6. Coordi	nated Si	gnal System	
Yes	J	No	On a one-way street or a street with traffic predominantly in one direction, are the adjacent	
	N/A		signals far enough apart that the necessary degree of vehicle platooning does not occur? $-or-$	
☐ Yes	✓	No	On a two-way street, are the adjacent signals far enough appart that the necessary degree of	
			vehicle platooning does not occur and would the proposed and adjacent traffic control signal	
			provide a progressive operation?	
	7. Crash	_		
Yes	✓	No	Is one of the following conditions met?:	
			80% of Condition A or Condition B in Warrant 1	
			♦ 56% of Condition A or B in Warrant 1 (major-street speed exceeding 40 mph or population less than 10,000)	
			♦ 80 % or more of Warrant 4 met?	
			- and -	
✓ Yes		No	Have there been 5 or more reportable crashes susceptible to correction by a traffic	
			signal within a 12 month period?	
Warrant	8. Roadw	ay Netw	ork	
☐ Yes	J	No	Is the total existing, or immediately projected, entering volume on all approaches greater	
			than 1000 vehicles for each of any 5 hours of a Saturday and/or Sunday.	
			- or -	
☐ Yes	J	No	Is the total existing, or immediately projected, entering volume greater than 1000 vehicles for	
			the peak hour of a typical weekday, and do the 5 year projected traffic volumes meet one or	
			more of Warrants 1, 2, and 3 during an average weekday?	
Check applicable characteristics of each route:				
Major	Min	or		
Street	Stre	<u>et</u>		
			It is part of street or highway system that serves as the principal roadway network for through traffic flow.	
			It includes rural or suburban highways outside, entering, or traversing a city.	
			It appears as a major route on an official plan such as a major street plan in an urban area traffic and transportation study.	

Remarks:

Warrant 9. Intersection Near a Grade Crossing (One Approach Lane at the Track Crossing)

☐ Yes ☐ No ☐ Meets one High Hour (Warrant 9 — see Figure 5).

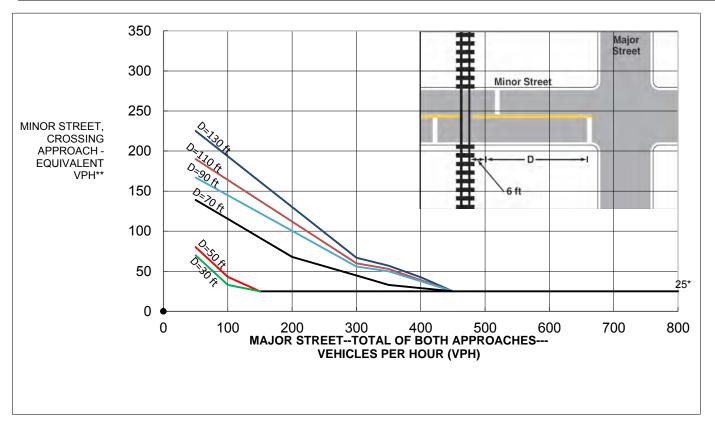


Figure 5. Railroad Grade Crossing (One Approach Lane at the Track Crossing). (Warrant 9.)

*25 vph applies as the lower threshold volume ** VPH after applying the adjustment factors in Tables 4C-2, 4C-3, and/or 4C-4, if appropriate



Leander Fire Department

October 13, 2015

Mr. Wesley Burford Director of Engineering Central Texas Regional Mobility Authority 3300 N. I-35, Suite 300 Austin, Texas 78705

Dear Mr. Burford,

On behalf of the Leander Fire Department, we would like to express our support for the installation of a traffic signal at the intersection of 183A and San Gabriel Parkway.

The installation of a signal will help provide additional safety measures at this increasingly utilized intersection.

Thank you for your time and consideration.

Sincerely,

Bill Gardner

Fire Chief/Emergency Mgmt Coord.

Leander Fire Department



City of Leander, Texas

Police Department





October 12, 2015

Mr. Wesley Burford Director of Engineering Central Texas Regional Mobility Authority 3300 N. I-35, Suite 300 Austin, Texas 78705

Dear Mr. Burford,

On behalf of the Leander Police Department, we would like to express our support for the installation of a traffic signal at the intersection of 183A and San Gabriel Parkway.

The installation of a signal will help provide additional safety measures at this increasingly utilized intersection.

Thank you for your time and consideration.

Sincerely,

Greg Minton
Chief of Police





October 7, 2015

Cynthia Long
COMMISSIONER, PRECINCT 2

Mr. Wesley Burford Director of Engineering Central Texas Regional Mobility Authority 3300 N. I-35, Suite 300 Austin, Texas 78705

Dear Mr. Burford,

On behalf of Williamson County, Precinct 2, I would like to express my support for the installation of a traffic signal at the intersection of 183A and San Gabriel Parkway. As I am sure you are aware, there have been several accidents at this intersection, including the most recent fatality. Constituents that I represent are concerned about the safety of their families when traveling and commuting to work, school and other activities.

It is my understanding that a traffic signal warrant was performed at this intersection and that a signal is now warranted. Traffic signals do not always prevent accidents, but they often lessen their severity. I believe that installation of a signal at this increasingly busy intersection will provide additional safety measures and will hopefully reduce future loss of life.

Thank you for your time and consideration in this important matter.

Sincerely.

Cynthia P. Long

County Commissioner - Precinct 2

GENERAL MEETING OF THE BOARD OF DIRECTORS OF THE CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

RESOLUTION NO. 15-___

AUTHORIZE INSTALLATION OF TRAFFIC SIGNALS AT THE INTERSECTION OF SAN GABRIEL PARKWAY WITH THE NORTHBOUND AND SOUTHBOUND 183A FRONTAGE ROADS.

WHEREAS, the Mobility Authority has recently completed an engineering and traffic study to determine if traffic signals at the intersections are now warranted at the intersection of the 183A frontage roads with San Gabriel Parkway in accordance with applicable standards adopted by the Texas Department of Transportation; and

WHEREAS, based on the results of the engineering and traffic study and the resources now available to the Mobility Authority, the Executive Director recommends the installation of traffic signals at the intersections of the 183A frontage roads and San Gabriel Parkway.

NOW THEREFORE BE IT RESOLVED that the Board hereby approves the installation of traffic signals at the intersection of 183A frontage roads and San Gabriel Parkway, and authorizes and directs the Executive Director to complete the installation of those traffic signals within a reasonable time.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 28th day of October, 2015.

Submitted and reviewed by:	Approved:	
	D. A. MYN	
Andrew Martin, General Counsel	Ray A. Wilkerson Chairman, Board of Directors	