

TECHNICAL MEMORANDUM

To: Barbara Russell, P.E.
TxDOT Houston District – Traffic Engineering
713-802-5177

From: Vivek Deshpande, P.E.
Kimley-Horn and Associates, Inc.
Firm Number F-928

Date: March 5, 2025

Subject: WA#2; Contract No. 12-3IDP5004
Traffic Signal Warrant Analysis
Technical Memorandum

3/5/2025



INTRODUCTION

Kimley-Horn has prepared this memorandum for the Texas Department of Transportation (TxDOT) to perform a traffic signal warrant analysis (TSWA) and a traffic engineering study to evaluate appropriate intersection traffic control to improve pedestrian and vehicular movements at the intersection of Wayside Drive (US 90A) and the Walmart driveway. The study intersection is within the city limits of Houston, north (or east) of Interstate 45 (IH-45) and in front of the Walmart Supercenter. This technical memorandum presents a summary of findings and documents the methodology, existing conditions, data collection, analysis results and recommendations.

STUDY AREA

The Walmart Supercenter has three driveways on Wayside Drive, this study focuses on the middle driveway (see **Figure 1**). The study intersection of Wayside Drive and Walmart driveway operates as two-way stop-controlled intersection. Wayside Drive falls under City of Houston limits but since the roadway is also called US 90A, it is maintained by TxDOT. Wayside Drive (US 90A) generally runs in north-south direction in the project vicinity and is a four-lane roadway classified as a 'Principal Thoroughfare' on the City of Houston's Major Thoroughfare and Freeway Plan (MTFP) and as a 'Principal Arterial' on TxDOT's Statewide Planning Map. At the study intersection, Wayside Drive (US 90A) widens to a five-lane section to include left-turn bay. The study corridor has a posted speed limit of 40 miles-per-hour (mph).

The minor street is a driveway to a Walmart Supercenter on the east leg and a TitleMax Title Loans and commercial strip mall center driveway on the west leg. The land uses surrounding the study intersection include commercial and hotel. Metro has two transit stops at the study intersection: one on the southbound side and the second on the northbound side of Wayside Drive (US 90A).

The nearest designated pedestrian crossings are at two existing traffic signals along Wayside Drive: one at IH-45 northbound frontage road that is approximately 550 feet south of the study intersection, and the second at Eskridge Street/Sylvan Road that is approximately 780 feet to the north.

As part of a recent construction project on Wayside Drive (US 90A) by TxDOT, raised center median was removed and replaced with pavement markings. An intersection layout of the existing conditions is provided in **Attachment A** (It should be noted that the aerial imagery shown was taken on January 2024, during the construction process).

Figure 1 – Site Location (Source: Image Provided by Nearmap)



(Source: Image Provided by Nearmap)

METHODOLOGY

The methodology used for this study follows the guidelines outlined in the 2011 Texas Manual on Uniform Traffic Control Devices (TMUTCD). Traffic volume data, pedestrian volume data, field observation, crash data, and generally available information about the study intersection formed the basis for this traffic study.

DATA COLLECTION

Traffic Volumes

Existing turning movement counts were collected at the study intersection of Wayside Drive (US 90A) and Walmart Driveway for a 12-hour period from 7:00 AM to 7:00 PM on Saturday, August 10, 2024, and Wednesday, August 14, 2024. Due to proximity of the study intersection to a major retail center, weekend traffic and pedestrian counts were obtained in addition to a typical weekday. Additionally, Saturday, August 10 was chosen since it was a ‘tax-free’ weekend for school supplies ahead of first day of school for Houston Independent School District (HISD) that started on August 12, 2024.

In addition to turning movement counts, historical 24-hour counts along Wayside Drive (US 90A) was obtained using TxDOT’s TCDS system. Based on 2023 data, the Average Daily Traffic (ADT) along the corridor just to the north of the study intersection was reported to be 31,554 vehicles. Traffic volume data is provided in **Attachment B**.

Pedestrian Crossing Volumes

Pedestrian counts were also collected at the intersection of Wayside Drive (US 90A) and Walmart Driveway for a 12-hour period from 7:00 AM to 7:00 PM on Saturday, August 10, 2024, and Wednesday, August 14, 2024. A summary of pedestrians crossing Wayside Drive (US 90A) is provided in **Table 1**. Pedestrian volume data is provided in **Attachment B**.

Table 1: Pedestrian Counts Summary – Wayside Drive (US 90A) at Walmart Driveway

Saturday, August 10, 2024						
	7:00 am - 7:00 pm			Ped Peak Hour (1:00 - 2:00 PM)		
	East to West	West to East	Total	East to West	West to East	Total
North Leg	100	49	149	12	11	23
South Leg	16	46	62	1	8	9
Wednesday, August 14, 2024						
	7:00 am - 7:00 pm			Ped Peak Hour (2:00 - 3:00 PM)		
	East to West	West to East	Total	East to West	West to East	Total
North Leg	93	62	155	13	13	26
South Leg	18	32	50	1	0	1

Transit Stop

There are currently two bus stops at the study intersection, both providing service to Metro Route 028. One bus stop (Stop Number 9823) is located along southbound Wayside Drive (US 90A) on the northwest corner of Wayside Drive and Walmart Driveway/TitleMax Title Loans Driveway. The other bus stop (Stop Number 813) is located along northbound Wayside Drive approximately 100 feet north of the Walmart Driveway, which was recently relocated from the south side of the driveway. The bus stops have a service frequency of 20 minutes during peak hours and 30 minutes during off-peak hours. The bus route schedule is included in **Attachment D**.

Ridership data was collected as part of traffic count collection and was collected for a 12-hour period from 7:00 AM to 7:00 PM on Saturday, August 10, 2024, and Wednesday, August 14, 2024. For Route 028 going southbound, the bus stop had 214 riders on Wednesday with 95 'on' and 119 'off' the bus; and a total of 223 riders on Saturday with 96 'on' and 127 'off' the bus. Similarly, for Route 028 going northbound, the bus stop had a total ridership of 239 riders on Wednesday with 119 'on' and 120 'off' the bus; and a total ridership of 254 riders on Saturday with 141 'on' and 113 'off' the bus. Ridership data collected by the data collection firm is included in **Attachment E**.

Field Visit

A field visit was conducted on Friday, August 16, 2024, from 3:30 PM to 4:30 PM. During field observations, high pedestrian activity was observed at the study intersection. Below is a summary of field observations:

- With the recently completed roadway construction along the corridor, existing pedestrian ramps and crosswalk markings on the Walmart Driveway are in good condition. There is no crosswalk on the TitleMax Title Loans Driveway on the west side. The study intersection also has new pavement markings for left-turn bays in the median in the northbound and southbound directions and the right-turn bay in the northbound direction.
- There are two covered transit stops with benches for riders to wait for the bus: one in each on the east and west side of Wayside Drive (US 90A).
- A higher proportion of pedestrians was observed to walk across Wayside Drive on the north leg of the intersection than the south leg (as shown in **Table 1**). Majority of the pedestrians crossing the road get down from the bus stop headed southbound on Wayside Drive and then cross the road towards Walmart Supercenter.
- On the west side of Wayside Drive (US 90A), there is an existing driveway approximately 70 feet to the north of the TitleMax Title Loans Driveway which solely serves the retail strip center on the west side. No traffic was noticed to enter or exit the driveway.
- On several instances, the pedestrians were observed to cross the road in two stages. With a traffic signal both to the north and south of the study intersection, there are gaps in traffic platoons heading in the northbound and southbound directions. Pedestrians cross half the road during a gap in traffic, wait in the left turn bay for an acceptable gap in traffic in other direction, and then proceed to cross the second half of the road. This creates an unsafe situation for pedestrians waiting in the middle of the roadway with through traffic passing in both directions. Field observation photographs are in **Attachment C**.
- Within the vicinity of the study intersection, there are multiple closely spaced driveways which create multiple conflict points. During the field visit, several near misses were observed to occur between the vehicles exiting the Walmart Driveway making a left turn and vehicles going southbound through towards IH-45. Due to heavy through traffic volume on Wayside Drive (US 90A), exiting vehicles out of the Walmart Driveway have to wait for a long time to find acceptable gaps in traffic before they can safely enter the flow of traffic. It was observed that vehicles would drive across the northbound direction of traffic and wait in the northbound left turn bay until they can safely enter the southbound flow of traffic.

Crash Data

Crash data was obtained from TxDOT's Crash Records Information System (C.R.I.S) for the most recent five-year period (2020-2024). The intersection crashes include those on both the major and minor street of the study intersection during the five-year analysis period. As shown in **Table 2**, a total of 17 crashes were recorded within 150 feet of the study intersection in the most recent five-year period. Those 17 crashes resulted in seven (7) injury crashes and no fatal crashes. There was one (1) pedestrian related crash that resulted in a 'Possible Injury' and was caused due to the pedestrian failing to yield right of way to vehicle. A summary of the crash data is included in **Attachment F**.

In the last 12-month period (January – December, 2024), there have been six crashes within a 150-feet of the study driveway. There were five crashes that were left-turn or angle crashes and may be mitigated with a traffic signal at the driveway while maintaining existing access conditions. However, due to close proximity of multiple driveways along Wayside Drive (US 90A), detailed crash reports may be needed to confirm if all the crashes occurred at the study Walmart Driveway. It is important to note that there was ongoing roadway construction on Wayside Drive (US 90A) during at least part of 2023 and 2024.

Table 2: Crash Data Summary from CRIS

2020 - 2024						
Intersection	Total Crashes	Crash Severity			Pedestrian Crash	
		Fatal (K)	Injury (A/B)	Possible Injury (C)	Count & Severity	Reason
Wayside Dr @ Walmart Dwy	17	-	2	5	1 (C)	Ped failed to yield to vehicle
January – December, 2024						
Wayside Dr @ Walmart Dwy	6	-	1	1	-	-

TRAFFIC SIGNAL WARRANT ANALYSIS

Kimley-Horn performed a traffic signal warrant analysis for the study intersection of Wayside Drive (US 90A) and Walmart Driveway. The approach lane configuration used for this TSWA was two or more lanes on Wayside Drive and one lane for Walmart Driveway. The westbound approach coming out the Walmart Driveway has two lanes – one (1) left-turn lane and one (1) right-turn lane. Since there is a dedicated right-turn lane coming out of the Walmart Driveway, the right-turning traffic volume was removed from the westbound approach. A summary of TSWA results is shown in **Table 3**. Based on the results of the TSWA using actual traffic data collected, none of the warrants were met at the intersection.

Detailed TSWA worksheets for the traffic volumes, including warrant curves are included as **Attachment G**. For *Warrant 7 – Crash Experience*, CRIS data showed five crashes in the last 12-months that may be mitigated with a traffic signal. However, per TMUTCD criteria, other trial alternatives at the intersection have not been implemented or enforced. As a result, the study intersection does not meet Warrant 7.

Table 3 – TSWA Results – Wayside Dr and Walmart Dwy

Warrant	Description	Warrant Met?
1	Eight-Hour Volume	NOT SATISFIED
2	Four-Hour Volume	NOT SATISFIED
3	Peak Hour Volume	NOT SATISFIED
4	Pedestrian Volume	NOT SATISFIED
5	School Crossing	NOT SATISFIED
6	Coordinated Signal System	N/A
7	Crash Experience	NOT SATISFIED
8	Roadway Network	N/A
9	Intersection Near a Grade Crossing	NOT SATISFIED

PEDESTRIAN CROSSING EVALUATION

Based on vehicular, pedestrian counts (**Table 1**) and field observations, there are multiple pedestrians crossing Wayside Drive (US 90A) to/from the Walmart Driveway on the east side. With none of the traffic signal warrants, countermeasures were evaluated to improve pedestrian safety at the intersection of Walmart Driveway and Wayside Drive (US 90A). Based on TxDOT's current *Roadway Design Manual*, the recommended countermeasures for an uncontrolled pedestrian crossing on a five lane roadway section without raised median, 40 mph posted speed limit, and an annual average daily traffic (AADT) of greater than 15,000 vehicles per day is summarized as follows:

- High-Visibility crossing markings with adequate nighttime lighting levels, and crossing warning signs;
- Advance signage for pedestrians in crossing
- Curb Extension
- Pedestrian Refuge Island
- Pedestrian Hybrid Beacons (PHB)

At the intersection of Walmart Driveway and Wayside Drive (US 90A), curb extension or a pedestrian refuge island may not be feasible due to constrained roadway width and high traffic volumes. Per TxDOT's *Roadway Design Manual Figure 19-24B*, a Rectangular Rapid-Flashing Beacon (RRFB) may be considered where there is insufficient separation from traffic.

Based on above guidance, it is recommended to install a new pedestrian crossing on Wayside Drive (US 90A) at the Walmart Driveway on the north side of the intersection. To increase pedestrian safety at the proposed crosswalk, it is recommended to install highway visibility crossing markings, advanced signage, and an RRFB. The recommended conceptual layout is provided in **Attachment H**.

Table 4 – Pedestrian Safety Countermeasures

(Source: TxDOT Roadway Design Manual; Figure 19-24A – Pedestrian Safety Countermeasures Based on Roadway Configuration and Posted Speed Limits and Annual Average Daily Traffic).

Roadway Configuration	Posted Speed Limit and AADT								
	Vehicle AADT <9,000			Vehicle AADT 9,000–15,000			Vehicle AADT >15,000		
	≤30 mph	35mph	≥40 mph	≤30 mph	35mph	≥40 mph	≤30 mph	35mph	≥40 mph
2 lanes (1 lane in each direction)	1 2 4 5 6 7	1 5 6 7	1 5 6 7	1 4 5 6 7	1 5 6 7	1 5 6 7	1 4 5 6 7	1 5 6 7	1 5 6 7
3 lanes with raised median (1 lane in each direction)	1 2 3 4 5 7	1 3 5 7	1 3 5 7	1 3 4 5 7	1 3 5 7	1 3 5 7	1 3 4 5 7	1 3 5 7	1 3 5 7
3 lanes w/o raised median (1 lane in each direction with a two-way left-turn lane)	1 2 3 4 5 6 7	1 3 5 6 7	1 3 5 6 7	1 3 4 5 6 7	1 3 5 6 7	1 3 5 6 7	1 3 4 5 6 7	1 3 5 6 7	1 3 5 6 7
4+ lanes with raised median (2 or more lanes in each direction)	1 3 5 7 8	1 3 5 7 8	1 3 5 8	1 3 5 7 8	1 3 5 7 8	1 3 5 8	1 3 5 7 8	1 3 5 8	1 3 5 8
4+ lanes w/o raised median (2 or more lanes in each direction)	1 3 5 6 7 8	1 3 5 6 7 8	1 3 5 6 8	1 3 5 6 7 8	1 3 5 6 7 8	1 3 5 6 8	1 3 5 6 7 8	1 3 5 6 8	1 3 5 6 8

Figure 19-24A should be used with Figure 19-24B.

- # Signifies that the countermeasure is a candidate treatment at a marked uncontrolled crossing location.
- Signifies that the countermeasure should always be considered, but not mandated or required, based upon engineering judgment at a marked uncontrolled crossing location.
- Signifies that crosswalk visibility enhancements should always occur in conjunction with other identified countermeasures.

- 1 High-visibility crosswalk markings, parking restrictions on crosswalk approach, adequate nighttime lighting levels, and crossing warning signs
- 2 Raised crosswalk
- 3 Advance Yield Here To (Stop Here For) Pedestrians sign and yield (stop) line
- 4 In-Street Pedestrian Crossing sign
- 5 Curb extension
- 6 Pedestrian refuge island
- 7 Rectangular Rapid-Flashing Beacon (RRFB)**
- 8 Pedestrian hybrid beacon (PHB)**

The absence of a number signifies that the countermeasure is generally not an appropriate treatment, but exceptions may be considered following engineering judgment.

**It should be noted that the PHB and RRFB are not both installed at the same crossing location.

This table was developed using information from: Zegeer, C.V., J.R. Stewart, H.H. Huang, P.A. Lagerwey, J. Feaganes, and B.J. Campbell. (2005). Safety effects of marked versus unmarked crosswalks at uncontrolled locations: Final report and recommended guidelines. FHWA, No. FHWA-HRT-04-100, Washington, D.C.; FHWA. Manual on Uniform Traffic Control Devices, 2009 Edition. (revised 2012). Chapter 4F, Pedestrian Hybrid Beacons. FHWA, Washington, D.C.; FHWA. Crash Modification Factors (CMF) Clearinghouse. <http://www.cmfclearinghouse.org/>; FHWA. Pedestrian Safety Guide and Countermeasure Selection System (PEDSAFE). <http://www.pedbikesafe.org/PEDSAFE/>; Zegeer, C., R. Srinivasan, B. Lan, D. Carter, S. Smith, C. Sundstrom, N.J. Thirsk, J. Zegeer, C. Lyon, E. Ferguson, and R. Van Houten. (2017). NCHRP Report 841: Development of Crash Modification Factors for Uncontrolled Pedestrian Crossing Treatments. Transportation Research Board, Washington, D.C.; Thomas, Thirsk, and Zegeer. (2016). NCHRP Synthesis 498: Application of Pedestrian Crossing Treatments for Streets and Highways. Transportation Research Board, Washington, D.C.; and personal interviews with selected pedestrian safety practitioners.

CONCLUSION

The results of the TSWA for the intersection of Wayside Drive (US 90A) and the Walmart driveway indicate that a traffic signal control is not warranted at this intersection.

Due to heavy pedestrian movements, it is recommended to install a pedestrian crosswalk on Wayside Drive (US 90A) at Walmart Driveway on the north side of the intersection. Below countermeasures are recommended to improve pedestrian safety at the proposed crossing:

- High-Visibility crossing markings with adequate nighttime lighting levels, and crossing warning signs;
- Advance signage for pedestrians in crossing
- Rectangular Rapid Flashing Beacon

Sincerely,



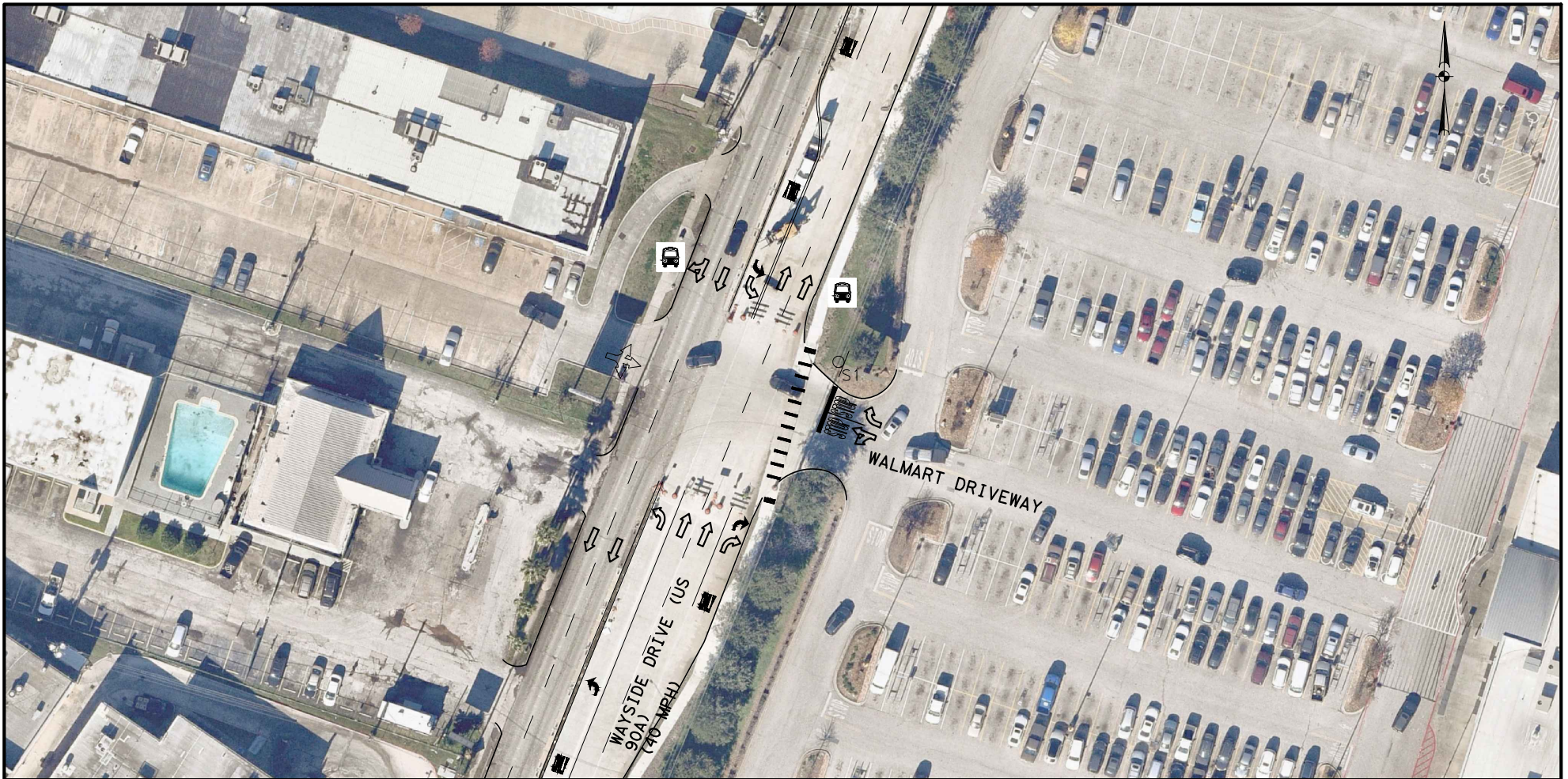
Vivek Deshpande, PE
Kimley-Horn and Associates, Inc.
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Attachments:

- A. Existing Conditions Layout
- B. Traffic Count Data
- C. Field Observation Photographs
- D. Bus Route Schedule
- E. Bus Ridership Data
- F. Crash Data
- G. Traffic Signal Warrant Analysis
- H. Proposed Conditions Layout



A. EXISTING CONDITIONS LAYOUT



EXISTING SIGN TO REMAIN



S1

LEGEND

-  SIGN
-  DIRECTION OF TRAVEL
-  BUS STOP

Note:
THE LOCATIONS OF ALL ITEMS SHOWN IN THIS EXHIBIT ARE APPROXIMATE. THIS EXHIBIT IS NOT INTENDED FOR ANY CONSTRUCTION USE.

Kimley»Horn

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Pearland, Texas 77564

Tel. No. (281) 895-1210

TRAFFIC ENGINEERING STUDY

EXISTING CONDITIONS LAYOUT
WAYSIDE DRIVE (US 90A) AND
WALMART DRIVEWAY

PROJECT NUMBER: 064627202

SCALE: 1" = 70' (APPROX.)

Attachment

A

B. TRAFFIC COUNT DATA

Record	1	of 1	Goto Record	go
Location ID	102H129	MPO ID	15	
Type	SPOT	HPMS ID	ASSIGNED	
SF Group	HOUSTON FC 3 (2024)	Route Type	UA	
AF Group	M1207 (2024)	Route	0090	
GF Group	HOUSTON FC 3 (2016)	Active	Yes	
Class Dist Grp	M1207 (2017)	Category	ANNUAL ACR	
Seas Class Grp	HOUSTON (2016)			
WIM Group	Statewide (2017)			
QC Group	Volume Group 4			
Funct'l Class	(3)Principal Arterial-Other			
Located On	UA0090			
Loc On Alias	UA0090-KG			
More Detail				

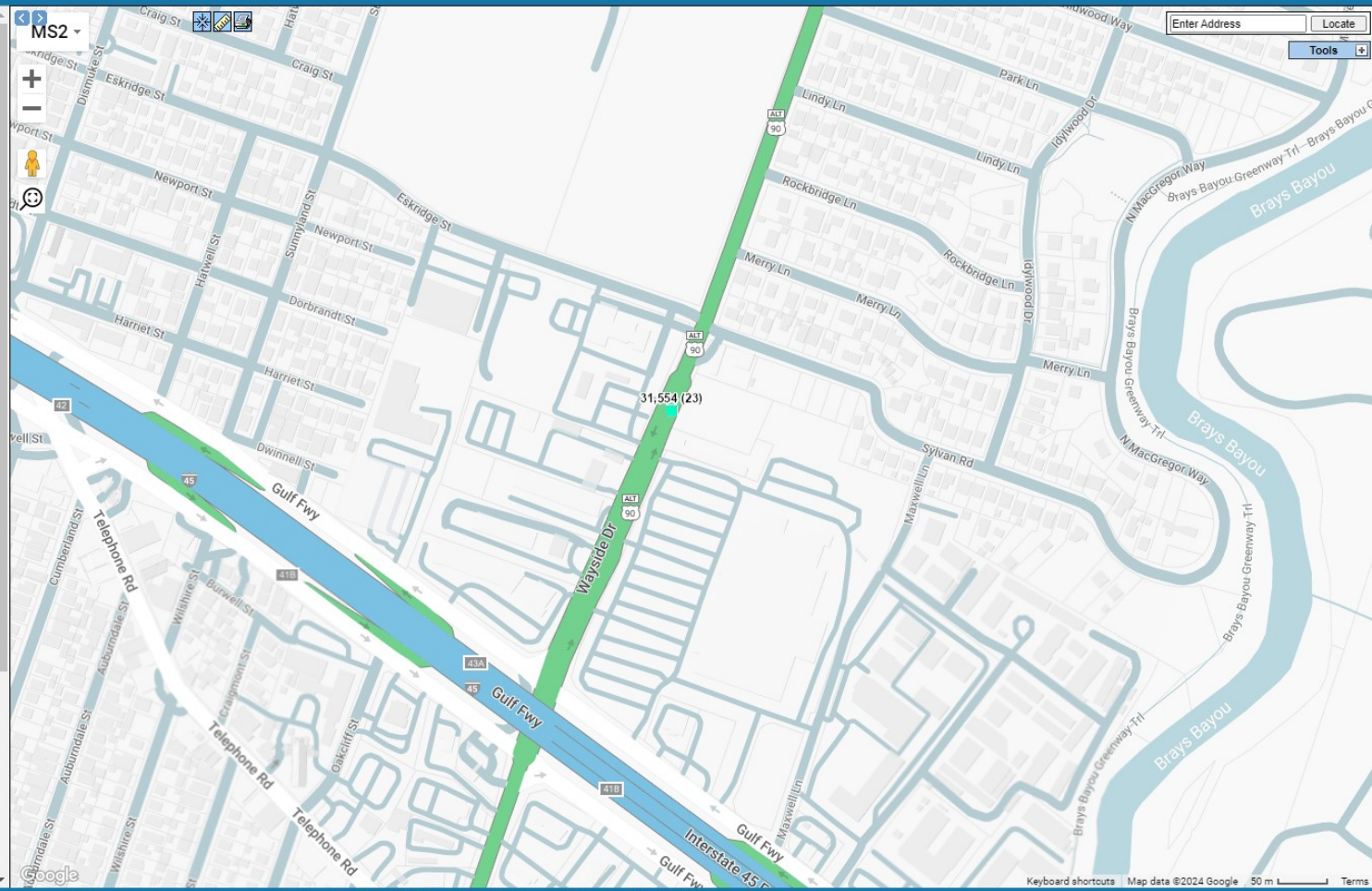
STATION DATA				
Directions:	2-WAY	NB	SB	

AADT	Year	AADT	DHV-30	K %	D %	PA	BC	Src
	2023	31,554	2,548	8	52	30,791 (98%)	763 (2%)	
	2022	27,700 ²				26,958 (97%)	742 (3%)	AGO
	2021	27,157	2,339	9	52	26,426 (97%)	731 (3%)	
	2020	28,726	2,546	9	51	28,036 (98%)	690 (2%)	
	2019	33,000 ²				32,257 (98%)	743 (2%)	

Travel Demand Model				
Model Year	Model AADT	AM PHV	AM PPV	MD PHV
				MD PPV
				PM PHV
				PM PPV
				NT PHV
				NT PPV

VOLUME COUNT			
	Date	Int	Total
	Wed 2/22/2023	15	33,511
	Mon 6/6/2022	-	
	Mon 3/8/2021	15	30,708
	Mon 6/1/2020	15	30,288
	Mon 3/18/2019	-	
	Wed 2/14/2018	15	33,651
	Mon 5/22/2017	15	34,169
	Mon 2/8/2016	15	35,525
	Wed 6/3/2015	15	35,687
	Tue 3/4/2014	15	29,016

VOLUME TREND	
Year	Annual Growth
2023	14%
2022	2%
2021	-5%
2020	-13%
2019	5%
2018	-7%
2017	1%
2016	0%
2015	39%
2014	-2%



National Data & Surveying Services

Intersection Turning Movement Count

Location: Wayside Dr/Hwy 90 ALT & Walmart Supercenter Dwy/TitleMax Title Loans Dwy
City: Houston
Control: 1-Way Stop(WB)

Project ID: 24-450142-001
Date: 8/10/2024

Data - Total

NS/EW Streets:	Wayside Dr/Hwy 90 ALT				Wayside Dr/Hwy 90 ALT				Walmart Supercenter Dwy/TitleMax Title Loans Dwy				Walmart Supercenter Dwy/TitleMax Title Loans Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
7:00 AM	1	55	3	0	8	89	0	0	0	0	1	0	4	0	6	0	167
7:15 AM	0	63	1	0	6	80	0	0	0	0	0	0	7	0	7	0	164
7:30 AM	0	79	2	0	3	72	0	0	0	0	0	0	7	0	4	0	167
7:45 AM	0	95	7	0	10	97	0	0	0	0	0	0	10	0	10	0	229
8:00 AM	1	92	6	0	14	107	0	0	0	0	0	0	16	0	11	0	247
8:15 AM	0	96	10	0	13	118	0	0	0	0	0	0	9	0	9	0	255
8:30 AM	0	111	7	0	16	112	1	0	0	0	0	0	14	0	12	0	273
8:45 AM	2	100	11	0	14	120	0	0	0	0	0	0	10	0	11	0	268
9:00 AM	1	110	6	1	13	107	0	0	0	0	0	0	13	1	7	0	259
9:15 AM	2	113	3	0	12	129	2	0	2	0	1	0	21	0	5	0	290
9:30 AM	0	120	5	0	21	154	0	0	0	0	0	0	14	0	11	0	325
9:45 AM	0	140	7	0	20	141	0	0	0	0	0	0	17	0	8	0	333
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	7	1174	68	1	150	1326	3	0	2	0	2	0	142	1	101	0	2977
	0.56%	93.92%	5.44%	0.08%	10.14%	89.66%	0.20%	0.00%	50.00%	0.00%	50.00%	0.00%	58.20%	0.41%	41.39%	0.00%	
PEAK HR :	09:00 AM - 10:00 AM																TOTAL
PEAK HR VOL :	3	483	21	1	66	531	2	0	2	0	1	0	65	1	31	0	1207
PEAK HR FACTOR :	0.375	0.863	0.750	0.250	0.786	0.862	0.250	0.000	0.250	0.000	0.250	0.000	0.774	0.250	0.705	0.000	0.906
		0.864				0.856				0.250				0.933			

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
10:00 AM	0	126	7	0	19	150	0	0	0	0	0	0	19	0	11	0	332
10:15 AM	2	146	4	0	25	142	0	0	1	0	0	0	17	1	13	0	351
10:30 AM	3	123	4	0	14	181	2	0	1	0	2	0	23	1	10	0	364
10:45 AM	0	117	8	0	16	161	0	0	2	0	4	0	23	0	13	0	344
11:00 AM	2	151	5	0	20	172	0	0	1	0	0	0	21	0	14	0	386
11:15 AM	3	148	7	0	19	161	2	0	1	0	3	0	16	0	16	0	376
11:30 AM	1	112	9	0	23	188	0	0	0	0	2	0	23	0	12	0	370
11:45 AM	2	139	3	0	20	183	2	0	0	0	1	0	30	0	13	0	393
12:00 PM	0	135	12	0	22	157	0	0	0	0	1	0	26	0	7	0	360
12:15 PM	0	169	9	0	16	175	1	0	2	0	0	0	22	0	14	0	408
12:30 PM	1	146	11	0	22	185	2	0	1	0	0	0	20	0	12	0	400
12:45 PM	0	152	8	0	28	166	0	0	2	0	0	0	25	0	21	0	402
1:00 PM	2	141	16	0	26	224	1	0	1	2	3	0	26	0	14	0	456
1:15 PM	2	169	10	0	24	174	0	0	0	0	3	0	20	2	15	0	419
1:30 PM	0	154	5	1	19	193	0	0	0	0	0	0	20	0	18	0	410
1:45 PM	0	153	9	0	22	181	0	0	0	0	0	0	28	0	12	0	405
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	18	2281	127	1	335	2793	10	0	12	2	19	0	359	4	215	0	6176
	0.74%	93.98%	5.23%	0.04%	10.68%	89.01%	0.32%	0.00%	36.36%	6.06%	57.58%	0.00%	62.11%	0.69%	37.20%	0.00%	
PEAK HR :	01:00 PM - 02:00 PM																TOTAL
PEAK HR VOL :	4	617	40	1	91	772	1	0	1	2	6	0	94	2	59	0	1690
PEAK HR FACTOR :	0.500	0.913	0.625	0.250	0.875	0.862	0.250	0.000	0.250	0.250	0.500	0.000	0.839	0.250	0.819	0.000	0.927
		0.914				0.861				0.375				0.969			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
2:00 PM	1	161	10	0	21	191	0	0	0	0	2	0	31	0	9	0	426
2:15 PM	1	118	6	1	30	174	0	0	1	0	1	0	31	0	16	0	379
2:30 PM	0	142	7	0	32	176	0	1	0	0	1	0	22	0	12	0	393
2:45 PM	1	139	13	1	32	161	0	0	0	0	0	0	27	0	9	0	383
3:00 PM	0	155	11	0	29	170	0	0	0	0	2	0	32	0	8	0	407
3:15 PM	1	162	8	0	18	186	2	0	0	0	4	0	26	0	18	0	425
3:30 PM	0	144	5	0	20	175	0	0	0	0	1	0	32	0	12	0	389
3:45 PM	1	122	7	0	19	196	0	0	0	0	1	0	26	0	15	0	387
4:00 PM	1	167	7	0	20	156	0	1	1	0	0	0	21	0	12	0	386
4:15 PM	1	142	12	1	11	171	0	0	0	0	1	0	26	0	15	0	380
4:30 PM	1	148	9	0	19	201	3	0	0	0	2	0	32	0	10	0	425
4:45 PM	0	141	6	0	13	179	1	0	0	0	4	0	25	0	11	0	380
5:00 PM	0	141	12	0	19	152	0	0	0	0	0	0	27	0	10	0	361
5:15 PM	0	148	8	0	21	171	1	0	1	0	0	0	14	0	19	0	383
5:30 PM	0	149	11	0	14	172	0	0	0	0	0	0	23	0	12	0	381
5:45 PM	2	138	12	0	14	162	2	0	0	0	2	0	25	0	13	0	370
6:00 PM	0	126	19	0	21	171	1	0	2	0	1	0	29	0	16	0	386
6:15 PM	0	131	37	0	12	148	0	1	0	0	0	0	20	0	16	0	365
6:30 PM	0	138	40	0	21	187	0	0	0	0	0	0	24	0	16	0	426
6:45 PM	0	125	46	0	21	127	0	0	0	0	0	0	35	0	14	0	368
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	10	2837	286	3	407	3426	10	3	5	0	22	0	528	0	263	0	7800
	0.32%	90.47%	9.12%	0.10%	10.58%	89.08%	0.26%	0.08%	18.52%	0.00%	81.48%	0.00%	66.75%	0.00%	33.25%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	2	583	31	0	86	727	2	0	0	0	8	0	116	0	53	0	1608
PEAK HR FACTOR :	0.500	0.900	0.705	0.000	0.741	0.927	0.250	0.000	0.000	0.000	0.500	0.000	0.906	0.000	0.736	0.000	0.946
		0.901				0.948				0.500				0.960			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Wayside Dr/Hwy 90 ALT & Walmart Supercenter Dwy/TitleMax Title Loans Dwy
City: Houston
Control: 1-Way Stop(WB)

Project ID: 24-450142-001
Date: 8/10/2024

Data - Cars

NS/EW Streets:	Wayside Dr/Hwy 90 ALT				Wayside Dr/Hwy 90 ALT				Walmart Supercenter Dwy/TitleMax Title Loans Dwy				Walmart Supercenter Dwy/TitleMax Title Loans Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
7:00 AM	1	52	3	0	7	86	0	0	0	0	1	0	4	0	6	0	160
7:15 AM	0	56	1	0	6	77	0	0	0	0	0	0	6	0	7	0	153
7:30 AM	0	75	2	0	3	70	0	0	0	0	0	0	7	0	4	0	161
7:45 AM	0	92	7	0	10	92	0	0	0	0	0	0	10	0	10	0	221
8:00 AM	1	88	6	0	14	101	0	0	0	0	0	0	16	0	11	0	237
8:15 AM	0	89	10	0	13	115	0	0	0	0	0	0	9	0	9	0	245
8:30 AM	0	105	7	0	16	106	1	0	0	0	0	0	14	0	12	0	261
8:45 AM	2	95	11	0	14	112	0	0	0	0	0	0	10	0	11	0	255
9:00 AM	1	107	6	1	13	104	0	0	0	0	0	0	13	1	7	0	253
9:15 AM	2	113	3	0	12	126	2	0	0	0	1	0	21	0	5	0	287
9:30 AM	0	117	5	0	21	147	0	0	0	0	0	0	14	0	11	0	315
9:45 AM	0	135	7	0	20	138	0	0	0	0	0	0	17	0	8	0	325
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	7	1124	68	1	149	1274	3	0	2	0	2	0	141	1	101	0	2873
	0.58%	93.67%	5.67%	0.08%	10.45%	89.34%	0.21%	0.00%	50.00%	0.00%	50.00%	0.00%	58.02%	0.41%	41.56%	0.00%	
PEAK HR :	09:00 AM - 10:00 AM																TOTAL
PEAK HR VOL :	3	472	21	1	66	515	2	0	2	0	1	0	65	1	31	0	1180
PEAK HR FACTOR :	0.375	0.874	0.750	0.250	0.786	0.876	0.250	0.000	0.250	0.000	0.250	0.000	0.774	0.250	0.705	0.000	0.908
		0.875				0.868			0.250		0.250			0.933			

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
10:00 AM	0	123	7	0	19	148	0	0	0	0	0	0	19	0	11	0	327
10:15 AM	2	145	4	0	25	140	0	0	1	0	0	0	17	1	13	0	348
10:30 AM	3	122	4	0	14	180	2	0	1	0	2	0	23	1	10	0	362
10:45 AM	0	116	8	0	16	158	0	0	2	0	4	0	23	0	13	0	340
11:00 AM	2	147	5	0	20	169	0	0	1	0	0	0	21	0	14	0	379
11:15 AM	3	143	7	0	19	157	2	0	1	0	3	0	16	0	16	0	367
11:30 AM	1	111	9	0	23	186	0	0	0	0	2	0	23	0	12	0	367
11:45 AM	2	135	3	0	20	182	2	0	0	0	1	0	30	0	13	0	388
12:00 PM	0	130	12	0	21	153	0	0	0	0	1	0	25	0	7	0	349
12:15 PM	0	166	9	0	16	173	1	0	2	0	0	0	21	0	14	0	402
12:30 PM	1	146	11	0	22	180	2	0	1	0	0	0	20	0	12	0	395
12:45 PM	0	149	8	0	28	163	0	0	2	0	0	0	25	0	21	0	396
1:00 PM	2	137	15	0	26	222	1	0	1	2	3	0	26	0	14	0	449
1:15 PM	2	166	10	0	24	172	0	0	0	0	3	0	20	2	15	0	414
1:30 PM	0	151	5	1	19	185	0	0	0	0	0	0	20	0	18	0	399
1:45 PM	0	150	9	0	22	179	0	0	0	0	0	0	28	0	12	0	400
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	18	2237	126	1	334	2747	10	0	12	2	19	0	357	4	215	0	6082
	0.76%	93.91%	5.29%	0.04%	10.81%	88.87%	0.32%	0.00%	36.36%	6.06%	57.58%	0.00%	61.98%	0.69%	37.33%	0.00%	
PEAK HR :	01:00 PM - 02:00 PM																TOTAL
PEAK HR VOL :	4	604	39	1	91	758	1	0	1	2	6	0	94	2	59	0	1662
PEAK HR FACTOR :	0.500	0.910	0.650	0.250	0.875	0.854	0.250	0.000	0.250	0.250	0.500	0.000	0.839	0.250	0.819	0.000	0.925
		0.910				0.853			0.375		0.375			0.969			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
2:00 PM	1	157	9	0	21	186	0	0	0	0	2	0	31	0	9	0	416
2:15 PM	1	116	6	1	30	168	0	0	1	0	1	0	30	0	15	0	369
2:30 PM	0	141	7	0	32	170	0	0	0	0	1	0	22	0	12	0	385
2:45 PM	1	135	13	1	32	157	0	0	0	0	0	0	27	0	9	0	375
3:00 PM	0	152	11	0	29	167	0	0	0	0	2	0	31	0	8	0	400
3:15 PM	1	160	8	0	18	184	2	0	0	0	4	0	26	0	18	0	421
3:30 PM	0	138	5	0	20	174	0	0	0	0	1	0	32	0	12	0	382
3:45 PM	1	120	7	0	19	193	0	0	0	0	1	0	26	0	15	0	382
4:00 PM	1	165	7	0	20	155	0	1	1	0	0	0	21	0	12	0	383
4:15 PM	1	142	12	1	11	169	0	0	0	0	1	0	26	0	15	0	378
4:30 PM	1	144	9	0	19	200	3	0	0	0	2	0	32	0	10	0	420
4:45 PM	0	139	6	0	13	177	1	0	0	0	4	0	25	0	11	0	376
5:00 PM	0	136	12	0	19	150	0	0	0	0	0	0	27	0	10	0	354
5:15 PM	0	145	8	0	21	168	1	0	1	0	0	0	14	0	19	0	377
5:30 PM	0	146	10	0	14	168	0	0	0	0	0	0	23	0	12	0	373
5:45 PM	1	136	12	0	14	161	2	0	0	0	1	0	25	0	13	0	365
6:00 PM	0	124	19	0	21	169	1	0	2	0	1	0	28	0	16	0	381
6:15 PM	0	130	37	0	12	145	0	1	0	0	0	0	20	0	16	0	361
6:30 PM	0	132	40	0	21	185	0	0	0	0	0	0	24	0	16	0	418
6:45 PM	0	124	45	0	21	126	0	0	0	0	0	0	35	0	14	0	365
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	9	2782	283	3	407	3372	10	2	5	0	21	0	525	0	262	0	7681
	0.29%	90.41%	9.20%	0.10%	10.74%	88.95%	0.26%	0.05%	19.23%	0.00%	80.77%	0.00%	66.71%	0.00%	33.29%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	2	570	31	0	86	718	2	0	0	0	8	0	115	0	53	0	1585
PEAK HR FACTOR :	0.500	0.891	0.705	0.000	0.741	0.930	0.250	0.000	0.000	0.000	0.500	0.000	0.898	0.000	0.736	0.000	0.941
		0.892				0.950					0.500			0.955			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Wayside Dr/Hwy 90 ALT & Walmart Supercenter Dwy/TitleMax Title Loans Dwy
City: Houston
Control: 1-Way Stop(WB)

Project ID: 24-450142-001
Date: 8/10/2024

Data - HT

NS/EW Streets:	Wayside Dr/Hwy 90 ALT				Wayside Dr/Hwy 90 ALT				Walmart Supercenter Dwy/TitleMax Title Loans Dwy				Walmart Supercenter Dwy/TitleMax Title Loans Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
7:00 AM	0	3	0	0	1	3	0	0	0	0	0	0	0	0	0	0	7
7:15 AM	0	7	0	0	0	3	0	0	0	0	0	0	1	0	0	0	11
7:30 AM	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0	0	6
7:45 AM	0	3	0	0	0	5	0	0	0	0	0	0	0	0	0	0	8
8:00 AM	0	4	0	0	0	6	0	0	0	0	0	0	0	0	0	0	10
8:15 AM	0	7	0	0	0	3	0	0	0	0	0	0	0	0	0	0	10
8:30 AM	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	12
8:45 AM	0	5	0	0	0	8	0	0	0	0	0	0	0	0	0	0	13
9:00 AM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	6
9:15 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3
9:30 AM	0	3	0	0	0	7	0	0	0	0	0	0	0	0	0	0	10
9:45 AM	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	0	8
TOTAL VOLUMES :	0	11	0	0	0	16	0	0	0	0	0	0	0	0	0	0	27
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	1.89%	98.11%	0.00%	0.00%	0	0	0	0	100.00%	0.00%	0.00%	0.00%	104
PEAK HR :	09:00 AM - 10:00 AM																27
PEAK HR VOL :	0	11	0	0	0	16	0	0	0	0	0	0	0	0	0	0	27
PEAK HR FACTOR :	0.000	0.550	0.000	0.000	0.000	0.571	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.675
	0.550				0.571												

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
10:00 AM	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	0	5
10:15 AM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
10:30 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
10:45 AM	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	4
11:00 AM	0	4	0	0	0	3	0	0	0	0	0	0	0	0	0	0	7
11:15 AM	0	5	0	0	0	4	0	0	0	0	0	0	0	0	0	0	9
11:30 AM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
11:45 AM	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5
12:00 PM	0	5	0	0	1	4	0	0	0	0	0	0	1	0	0	0	11
12:15 PM	0	3	0	0	0	2	0	0	0	0	0	0	1	0	0	0	6
12:30 PM	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	5
12:45 PM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	6
1:00 PM	0	4	1	0	0	2	0	0	0	0	0	0	0	0	0	0	7
1:15 PM	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	0	5
1:30 PM	0	3	0	0	0	8	0	0	0	0	0	0	0	0	0	0	11
1:45 PM	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	0	5
TOTAL VOLUMES :	0	44	1	0	1	46	0	0	0	0	0	0	2	0	0	0	94
APPROACH %'s :	0.00%	97.78%	2.22%	0.00%	2.13%	97.87%	0.00%	0.00%	0	0	0	0	100.00%	0.00%	0.00%	0.00%	
PEAK HR :	01:00 PM - 02:00 PM																28
PEAK HR VOL :	0	13	1	0	0	14	0	0	0	0	0	0	0	0	0	0	28
PEAK HR FACTOR :	0.000	0.813	0.250	0.000	0.000	0.438	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.636
	0.700				0.438												

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
2:00 PM	0	4	1	0	0	5	0	0	0	0	0	0	0	0	0	0	10
2:15 PM	0	2	0	0	0	6	0	0	0	0	0	0	1	0	1	0	10
2:30 PM	0	1	0	0	0	6	0	1	0	0	0	0	0	0	0	0	8
2:45 PM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	8
3:00 PM	0	3	0	0	0	3	0	0	0	0	0	0	1	0	0	0	7
3:15 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4
3:30 PM	0	6	0	0	0	1	0	0	0	0	0	0	0	0	0	0	7
3:45 PM	0	2	0	0	0	3	0	0	0	0	0	0	0	0	0	0	5
4:00 PM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
4:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
4:30 PM	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5
4:45 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4
5:00 PM	0	5	0	0	0	2	0	0	0	0	0	0	0	0	0	0	7
5:15 PM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	6
5:30 PM	0	3	1	0	0	4	0	0	0	0	0	0	0	0	0	0	8
5:45 PM	1	2	0	0	0	1	0	0	0	0	1	0	0	0	0	0	5
6:00 PM	0	2	0	0	0	2	0	0	0	0	0	0	1	0	0	0	5
6:15 PM	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	4
6:30 PM	0	6	0	0	0	2	0	0	0	0	0	0	0	0	0	0	8
6:45 PM	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
TOTAL VOLUMES :	1	55	3	0	0	54	0	1	0	0	1	0	3	0	1	0	119
APPROACH %'s :	1.69%	93.22%	5.08%	0.00%	0.00%	98.18%	0.00%	1.82%	0.00%	0.00%	100.00%	0.00%	75.00%	0.00%	25.00%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																23
PEAK HR VOL :	0	13	0	0	0	9	0	0	0	0	0	0	1	0	0	0	23
PEAK HR FACTOR :	0.000	0.542	0.000	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.821
	0.542				0.750								0.250				

Project ID: 24-450142-001
Date: 8/10/2024

NS/ EW Streets:		Wayside Dr/Hwy 90 ALT				Wayside Dr/Hwy 90 ALT				Walmart Supercenter Dwy/TitleMax Title Loans Dwy				Walmart Supercenter Dwy/TitleMax Title Loans Dwy				
AM		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1	2	0	0	0	0	1	0	0	0	0	2	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2
TOTAL VOLUMES : APPROACH %'s :	NL 0.00%	NT 100.00%	NR 0.00%	NU 0.00%	SL 0.00%	ST 100.00%	SR 0.00%	SU 0.00%	EL 0	ET 0	ER 0	EU 0	WL 100.00%	WT 0.00%	WR 0.00%	WU 0.00%		TOTAL 3
PEAK HR :	09:00 AM - 10:00 AM																	TOTAL 3
PEAK HR VOL : PEAK HR FACTOR :	0 0.000	1 0.250	0 0.000	0 0.000	0 0.000	1 0.250	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	1 0.250	0 0.000	0 0.000	0 0.000	0 0.000	0.375
NOON		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1	2	0	0	0	0	1	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		TOTAL
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	1	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	8
10:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0														

National Data & Surveying Services

Intersection Turning Movement Count

Location: Wayside Dr/Hwy 90 ALT & Walmart Supercenter Dwy/TitleMax Title | **Project ID:** 24-450142-001
City: Houston **Date:** 8/10/2024

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Wayside Dr/Hwy 90 ALT		Wayside Dr/Hwy 90 ALT		Walmart Supercenter Dwy/TitleMax Title Loans		Walmart Supercenter Dwy/TitleMax Title Loans		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
7:00 AM	2	0	1	1	1	1	1	0	7
7:15 AM	2	0	0	0	0	0	3	0	5
7:30 AM	0	0	1	0	0	0	0	2	3
7:45 AM	0	1	0	1	0	0	1	0	3
8:00 AM	3	2	0	0	1	0	0	0	6
8:15 AM	0	0	0	1	0	0	2	0	3
8:30 AM	4	0	0	0	0	0	2	1	7
8:45 AM	0	0	0	2	0	1	1	1	5
9:00 AM	3	2	0	0	1	0	0	0	6
9:15 AM	3	0	0	0	0	1	0	0	4
9:30 AM	1	0	1	0	0	0	0	0	2
9:45 AM	2	1	0	2	1	0	1	0	7
TOTAL VOLUMES :	EB 20	WB 6	EB 3	WB 7	NB 4	SB 3	NB 11	SB 4	TOTAL 58
APPROACH %'s :	76.92%	23.08%	30.00%	70.00%	57.14%	42.86%	73.33%	26.67%	
PEAK HR :	09:00 AM - 10:00 AM								TOTAL 19
PEAK HR VOL :	9	3	1	2	2	1	1	0	
PEAK HR FACTOR :	0.750	0.375	0.250	0.250	0.500	0.250	0.250	0.250	0.679
	0.600		0.375		0.750		0.250		

NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
10:00 AM	4	1	0	0	1	1	1	0	8
10:15 AM	0	0	0	2	0	0	2	2	6
10:30 AM	9	1	0	0	0	1	1	0	12
10:45 AM	1	0	0	1	0	1	1	1	5
11:00 AM	4	0	2	2	0	0	0	3	11
11:15 AM	0	1	1	0	1	1	0	0	4
11:30 AM	4	0	0	2	0	1	3	0	10
11:45 AM	5	3	1	2	0	0	0	0	11
12:00 PM	4	0	0	2	1	6	2	0	15
12:15 PM	3	0	0	0	3	0	0	0	6
12:30 PM	2	2	3	0	0	0	0	0	7
12:45 PM	0	0	0	0	0	0	0	0	0
1:00 PM	6	1	1	0	0	0	0	1	9
1:15 PM	0	5	0	2	0	1	5	0	13
1:30 PM	6	5	0	4	0	0	1	0	16
1:45 PM	0	0	0	2	0	0	2	0	4
TOTAL VOLUMES :	EB 48	WB 19	EB 8	WB 19	NB 6	SB 12	NB 18	SB 7	TOTAL 137
APPROACH %'s :	71.64%	28.36%	29.63%	70.37%	33.33%	66.67%	72.00%	28.00%	
PEAK HR :	01:00 PM - 02:00 PM								TOTAL 42
PEAK HR VOL :	12	11	1	8	0	1	8	1	
PEAK HR FACTOR :	0.500	0.550	0.250	0.500		0.250	0.400	0.250	0.656
	0.523		0.563		0.250		0.450		

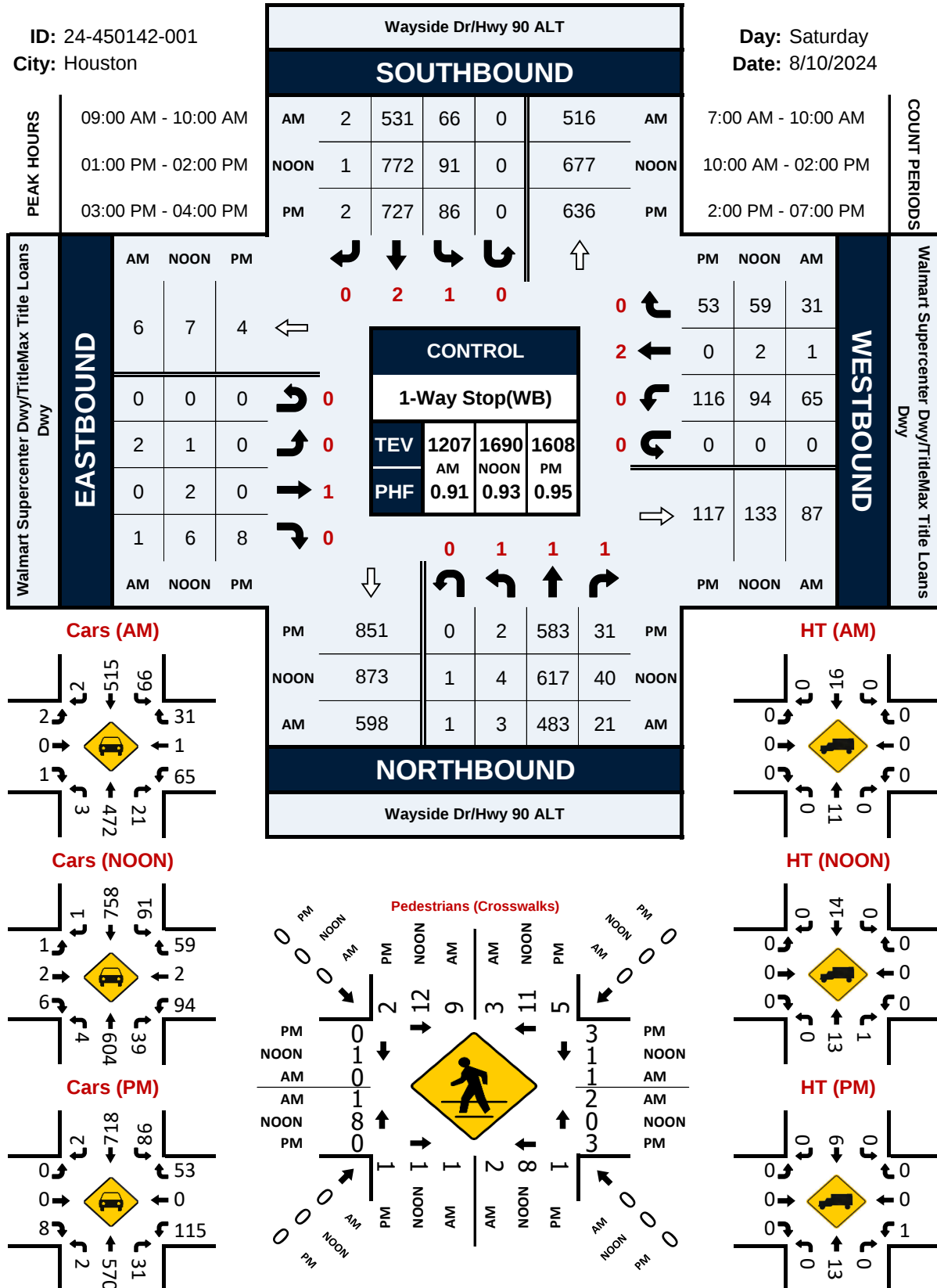
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
2:00 PM	4	1	0	0	2	1	0	0	8
2:15 PM	3	2	0	1	0	0	0	0	6
2:30 PM	1	1	0	0	3	0	0	0	5
2:45 PM	2	0	0	3	1	0	0	0	6
3:00 PM	1	0	0	1	1	0	0	0	3
3:15 PM	0	2	0	0	0	1	0	0	3
3:30 PM	1	3	0	0	1	2	0	0	7
3:45 PM	0	0	1	0	1	0	0	0	2
4:00 PM	0	0	1	3	0	0	1	1	6
4:15 PM	1	1	0	0	0	0	0	0	2
4:30 PM	0	0	0	2	0	1	0	0	3
4:45 PM	1	5	0	0	2	0	0	0	8
5:00 PM	8	1	0	2	0	0	1	0	12
5:15 PM	2	1	1	3	1	1	1	0	10
5:30 PM	5	0	0	0	2	0	0	1	8
5:45 PM	0	0	0	0	0	0	1	0	1
6:00 PM	1	2	2	1	0	1	4	3	14
6:15 PM	2	3	0	1	2	0	2	0	10
6:30 PM	0	1	0	2	0	1	0	0	4
6:45 PM	0	1	0	1	1	0	1	0	4
TOTAL VOLUMES :	EB 32	WB 24	EB 5	WB 20	NB 17	SB 8	NB 11	SB 5	TOTAL 122
APPROACH %'s :	57.14%	42.86%	20.00%	80.00%	68.00%	32.00%	68.75%	31.25%	
PEAK HR :	03:00 PM - 04:00 PM								TOTAL 15
PEAK HR VOL :	2	5	1	1	3	3	0	0	
PEAK HR FACTOR :	0.500	0.417	0.250	0.250	0.750	0.375			0.536
	0.438		0.500		0.500				

Wayside Dr/Hwy 90 ALT & Walmart Supercenter Dwy/TitleMax Title Loans Dwy

Peak Hour Turning Movement Count

ID: 24-450142-001
City: Houston

Day: Saturday
Date: 8/10/2024



National Data & Surveying Services

Intersection Turning Movement Count

Location: Wayside Dr/Hwy 90 ALT & Walmart Supercenter Dwy/TitleMax Title Loans Dwy
City: Houston
Control: 1-Way Stop(WB)

Project ID: 24-450142-001
Date: 8/14/2024

Data - Total

NS/EW Streets:	Wayside Dr/Hwy 90 ALT				Wayside Dr/Hwy 90 ALT				Walmart Supercenter Dwy/TitleMax Title Loans Dwy				Walmart Supercenter Dwy/TitleMax Title Loans Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
7:00 AM	0	119	2	0	11	223	0	0	0	0	0	0	9	0	10	0	374
7:15 AM	0	121	1	0	7	243	0	0	0	0	0	0	1	0	6	0	379
7:30 AM	0	115	1	0	13	262	0	0	0	0	0	0	3	0	4	0	398
7:45 AM	0	117	2	0	11	241	0	0	0	0	0	0	6	0	6	0	383
8:00 AM	0	98	3	0	9	219	2	0	1	0	0	0	6	0	9	0	347
8:15 AM	1	128	2	0	19	225	0	0	0	0	0	0	6	0	7	0	388
8:30 AM	0	101	8	0	14	182	0	0	0	0	0	0	12	0	8	0	325
8:45 AM	2	114	7	0	7	174	1	0	1	0	1	0	6	1	7	0	321
9:00 AM	1	112	9	0	18	160	3	0	0	0	2	0	18	0	3	0	326
9:15 AM	1	101	4	0	14	146	0	0	1	0	0	0	17	0	9	0	293
9:30 AM	2	114	6	0	17	146	0	0	0	0	2	0	18	0	10	0	315
9:45 AM	1	143	5	1	12	130	1	0	0	0	0	0	14	0	9	0	316
TOTAL VOLUMES :	8	1383	50	1	152	2351	7	0	3	0	5	0	116	1	88	0	4165
APPROACH %'s :	0.55%	95.91%	3.47%	0.07%	6.06%	93.67%	0.28%	0.00%	37.50%	0.00%	62.50%	0.00%	56.59%	0.49%	42.93%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	472	6	0	42	969	0	0	0	0	0	0	19	0	26	0	1534
PEAK HR FACTOR :	0.000	0.975	0.750	0.000	0.808	0.925	0.000	0.000	0.000	0.000	0.000	0.000	0.528	0.000	0.650	0.000	0.964
	0.980				0.919								0.592				

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
10:00 AM	1	127	6	0	14	155	0	0	0	0	0	0	9	0	9	0	321
10:15 AM	2	131	8	0	7	155	1	0	0	0	1	0	16	0	13	0	334
10:30 AM	1	113	7	0	14	158	2	0	1	1	4	0	17	0	12	0	330
10:45 AM	3	113	6	0	6	133	0	0	0	0	2	0	17	0	10	0	290
11:00 AM	0	130	9	0	10	155	3	0	0	0	2	0	15	0	8	0	332
11:15 AM	1	132	7	0	15	134	2	0	1	0	4	0	21	0	6	0	323
11:30 AM	0	116	8	0	15	136	3	0	0	0	1	0	14	0	11	0	304
11:45 AM	2	133	2	0	13	149	0	0	2	0	1	0	14	0	8	0	324
12:00 PM	3	136	9	0	19	162	0	0	0	1	0	0	8	0	13	0	351
12:15 PM	2	120	10	0	16	160	1	0	1	0	2	0	16	0	11	0	339
12:30 PM	4	147	9	0	10	158	1	0	0	0	2	0	24	0	13	0	368
12:45 PM	1	130	6	0	6	123	1	0	2	0	2	0	22	0	10	0	303
1:00 PM	0	121	6	0	15	145	1	0	0	0	5	0	25	0	16	0	334
1:15 PM	2	133	11	1	14	142	0	0	0	0	0	0	16	0	11	0	330
1:30 PM	4	136	6	0	16	135	0	1	3	0	2	0	16	0	14	0	333
1:45 PM	0	120	12	0	12	156	0	0	0	0	1	0	22	0	10	0	333
TOTAL VOLUMES :	26	2038	122	1	202	2356	15	1	10	2	29	0	272	0	175	0	5249
APPROACH %'s :	1.19%	93.19%	5.58%	0.05%	7.85%	91.53%	0.58%	0.04%	24.39%	4.88%	70.73%	0.00%	60.85%	0.00%	39.15%	0.00%	
PEAK HR :	11:45 AM - 12:45 PM																TOTAL
PEAK HR VOL :	11	536	30	0	58	629	2	0	3	1	5	0	62	0	45	0	1382
PEAK HR FACTOR :	0.688	0.912	0.750	0.000	0.763	0.971	0.500	0.000	0.375	0.250	0.625	0.000	0.646	0.000	0.865	0.000	0.939
	0.902				0.952				0.750				0.723				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
2:00 PM	1	136	11	0	17	152	0	0	0	0	0	0	23	0	8	0	348
2:15 PM	2	126	9	0	10	127	0	0	1	0	0	0	22	0	14	0	311
2:30 PM	2	152	9	1	16	147	0	0	0	0	0	0	15	0	13	0	355
2:45 PM	1	152	11	1	21	147	0	0	1	0	0	0	16	0	9	0	359
3:00 PM	1	119	9	0	15	186	0	0	0	0	1	0	26	0	10	0	367
3:15 PM	1	161	8	0	17	146	1	0	1	0	2	0	16	1	9	0	363
3:30 PM	2	143	5	0	10	153	0	0	0	0	2	0	20	0	15	0	350
3:45 PM	0	173	7	0	11	147	0	0	1	0	2	0	24	1	10	0	376
4:00 PM	2	137	8	1	13	161	0	0	0	1	2	0	18	0	14	0	357
4:15 PM	1	203	8	0	14	172	0	0	0	0	0	0	22	0	17	0	437
4:30 PM	2	178	10	1	13	174	2	0	1	0	3	0	28	0	3	0	415
4:45 PM	2	194	8	0	17	167	1	0	1	0	4	0	16	0	5	0	415
5:00 PM	1	166	3	0	15	180	0	0	0	0	3	0	15	0	17	0	400
5:15 PM	0	195	12	0	21	174	0	0	0	0	3	0	20	1	9	0	435
5:30 PM	2	161	6	0	10	190	0	0	0	0	0	0	24	0	12	0	405
5:45 PM	0	191	16	0	19	177	0	0	0	0	0	0	17	0	11	0	431
6:00 PM	0	138	20	0	13	186	0	0	0	0	2	0	23	0	11	0	393
6:15 PM	2	174	8	0	21	155	0	0	0	0	1	0	27	0	10	0	398
6:30 PM	1	149	5	0	13	169	1	0	0	0	3	0	23	0	9	0	373
6:45 PM	1	156	11	0	17	147	0	0	0	0	3	0	19	0	7	0	361
TOTAL VOLUMES :	24	3204	184	4	303	3257	5	0	6	1	31	0	414	3	213	0	7649
APPROACH %'s :	0.70%	93.79%	5.39%	0.12%	8.50%	91.36%	0.14%	0.00%	15.79%	2.63%	81.58%	0.00%	65.71%	0.48%	33.81%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	3	713	37	0	65	721	0	0	0	0	6	0	76	1	49	0	1671
PEAK HR FACTOR :	0.375	0.914	0.578	0.000	0.774	0.949	0.000	0.000	0.000	0.000	0.500	0.000	0.792	0.250	0.721	0.000	0.960
	0.909				0.983				0.500				0.875				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Wayside Dr/Hwy 90 ALT & Walmart Supercenter Dwy/TitleMax Title Loans Dwy
City: Houston
Control: 1-Way Stop(WB)

Project ID: 24-450142-001
Date: 8/14/2024

Data - Cars

NS/EW Streets:		Wayside Dr/Hwy 90 ALT				Wayside Dr/Hwy 90 ALT				Walmart Supercenter Dwy/TitleMax Title Loans Dwy				Walmart Supercenter Dwy/TitleMax Title Loans Dwy				
AM		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
		1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
	7:00 AM	0	115	2	0	11	217	0	0	0	0	0	0	9	0	10	0	364
	7:15 AM	0	119	1	0	7	229	0	0	0	0	0	0	1	0	6	0	363
	7:30 AM	0	112	1	0	13	252	0	0	0	0	0	0	3	0	4	0	385
	7:45 AM	0	111	2	0	11	230	0	0	0	0	0	0	6	0	6	0	366
	8:00 AM	0	91	3	0	9	202	2	0	1	0	0	0	6	0	9	0	323
	8:15 AM	1	117	2	0	19	209	0	0	0	0	0	0	5	0	7	0	360
	8:30 AM	0	92	8	0	14	169	0	0	0	0	0	0	12	0	7	0	303
	8:45 AM	2	101	7	0	7	160	1	0	1	0	1	0	6	1	7	0	294
	9:00 AM	1	104	9	0	18	146	3	0	0	0	2	0	18	0	3	0	304
	9:15 AM	1	88	4	0	14	135	0	0	1	0	0	0	17	0	9	0	269
	9:30 AM	2	110	6	0	17	136	0	0	0	0	2	0	18	0	10	0	301
	9:45 AM	1	137	5	1	12	121	1	0	0	0	0	0	14	0	9	0	301
TOTAL VOLUMES :		8	1297	50	1	152	2206	7	0	3	0	5	0	115	1	88	0	3933
APPROACH %'s :		0.59%	95.65%	3.69%	0.07%	6.43%	93.28%	0.30%	0.00%	37.50%	0.00%	62.50%	0.00%	56.37%	0.49%	43.14%	0.00%	
PEAK HR :		07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :		0	457	6	0	42	928	0	0	0	0	0	0	19	0	26	0	1478
PEAK HR FACTOR :		0.000	0.960	0.750	0.000	0.808	0.921	0.000	0.000	0.000	0.000	0.000	0.000	0.528	0.000	0.650	0.000	0.960
		0.965				0.915								0.592				

NOON		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
		1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
	10:00 AM	1	110	6	0	14	144	0	0	0	0	0	0	9	0	9	0	293
	10:15 AM	2	122	8	0	6	143	0	0	0	0	1	0	16	0	12	0	310
	10:30 AM	1	104	7	0	14	142	1	0	0	1	3	0	17	0	11	0	301
	10:45 AM	3	105	6	0	6	124	0	0	0	0	2	0	17	0	10	0	273
	11:00 AM	0	120	9	0	10	148	3	0	0	0	2	0	15	0	8	0	315
	11:15 AM	1	120	7	0	15	126	2	0	1	0	4	0	21	0	6	0	303
	11:30 AM	0	104	8	0	15	125	3	0	0	0	1	0	14	0	11	0	281
	11:45 AM	2	120	2	0	12	141	0	0	2	0	1	0	14	0	8	0	302
	12:00 PM	3	129	9	0	19	152	0	0	0	1	0	0	8	0	13	0	334
	12:15 PM	2	119	9	0	16	154	1	0	1	0	2	0	16	0	11	0	331
	12:30 PM	4	138	9	0	10	148	1	0	0	0	2	0	24	0	13	0	349
	12:45 PM	0	122	6	0	6	117	1	0	2	0	1	0	22	0	10	0	287
	1:00 PM	0	115	6	0	15	136	1	0	0	0	5	0	25	0	16	0	319
	1:15 PM	2	127	11	1	14	135	0	0	0	0	0	0	16	0	11	0	317
	1:30 PM	4	126	6	0	16	124	0	1	3	0	2	0	16	0	14	0	312
	1:45 PM	0	114	12	0	12	147	0	0	0	0	1	0	21	0	10	0	317
TOTAL VOLUMES :		25	1895	121	1	200	2206	13	1	9	2	27	0	271	0	173	0	4944
APPROACH %'s :		1.22%	92.80%	5.93%	0.05%	8.26%	91.16%	0.54%	0.04%	23.68%	5.26%	71.05%	0.00%	61.04%	0.00%	38.96%	0.00%	
PEAK HR :		11:45 AM - 12:45 PM																TOTAL
PEAK HR VOL :		11	506	29	0	57	595	2	0	3	1	5	0	62	0	45	0	1316
PEAK HR FACTOR :		0.688	0.917	0.806	0.000	0.750	0.966	0.500	0.000	0.375	0.250	0.625	0.000	0.646	0.000	0.865	0.000	0.943
		0.904				0.956				0.750				0.723				

PM		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
		1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
	2:00 PM	1	125	11	0	17	144	0	0	0	0	0	0	22	0	8	0	328
	2:15 PM	2	121	9	0	10	118	0	0	1	0	0	0	21	0	14	0	296
	2:30 PM	2	143	9	1	16	139	0	0	0	0	0	0	15	0	13	0	338
	2:45 PM	1	141	11	0	21	143	0	0	1	0	0	0	15	0	9	0	342
	3:00 PM	1	113	9	0	15	178	0	0	0	0	1	0	26	0	10	0	353
	3:15 PM	1	156	8	0	17	136	1	0	1	0	2	0	16	1	9	0	348
	3:30 PM	2	135	4	0	10	145	0	0	0	0	2	0	20	0	15	0	333
	3:45 PM	0	162	7	0	11	136	0	0	1	0	2	0	24	1	10	0	354
	4:00 PM	2	129	8	1	13	155	0	0	0	1	2	0	18	0	13	0	342
	4:15 PM	1	197	8	0	14	167	0	0	0	0	0	0	21	0	17	0	425
	4:30 PM	2	168	10	1	13	169	2	0	1	0	3	0	28	0	3	0	400
	4:45 PM	2	183	8	0	17	164	1	0	1	0	4	0	16	0	5	0	401
	5:00 PM	1	163	3	0	15	175	0	0	0	0	3	0	15	0	17	0	392
	5:15 PM	0	191	12	0	21	162	0	0	0	0	3	0	20	1	9	0	419
	5:30 PM	2	158	6	0	10	189	0	0	0	0	0	0	24	0	12	0	401
	5:45 PM	0	183	16	0	18	170	0	0	0	0	0	0	17	0	10	0	414
	6:00 PM	0	135	17	0	13	176	0	0	0	0	2	0	23	0	11	0	377
	6:15 PM	2	170	8	0	21	148	0	0	0	0	1	0	26	0	10	0	386
	6:30 PM	1	146	4	0	13	162	1	0	0	0	3	0	23	0	9	0	362
	6:45 PM	1	147	11	0	17	145	0	0	0	0	3	0	19	0	7	0	350
TOTAL VOLUMES :		24	3066	179	3	302	3121	5	0	6	1	31	0	409	3	211	0	7361
APPROACH %'s :		0.73%	93.70%	5.47%	0.09%	8.81%	91.04%	0.15%	0.00%	15.79%	2.63%	81.58%	0.00%	65.65%	0.48%	33.87%	0.00%	
PEAK HR :		05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :		3	695	37	0	64	696	0	0	0	0	6	0	76	1	48	0	1626
PEAK HR FACTOR :		0.375	0.910	0.578	0.000	0.762	0.921	0.000	0.000	0.000	0.000	0.500	0.000	0.792	0.250	0.706	0.000	0.970
		0.905				0.955				0.500				0.868				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Wayside Dr/Hwy 90 ALT & Walmart Supercenter Dwy/TitleMax Title Loans Dwy
City: Houston
Control: 1-Way Stop(WB)

Project ID: 24-450142-001
Date: 8/14/2024

Data - HT

NS/EW Streets:	Wayside Dr/Hwy 90 ALT				Wayside Dr/Hwy 90 ALT				Walmart Supercenter Dwy/TitleMax Title Loans Dwy				Walmart Supercenter Dwy/TitleMax Title Loans Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
7:00 AM	0	4	0	0	0	6	0	0	0	0	0	0	0	0	0	0	10
7:15 AM	0	2	0	0	0	14	0	0	0	0	0	0	0	0	0	0	16
7:30 AM	0	3	0	0	0	10	0	0	0	0	0	0	0	0	0	0	13
7:45 AM	0	6	0	0	0	11	0	0	0	0	0	0	0	0	0	0	17
8:00 AM	0	7	0	0	0	17	0	0	0	0	0	0	0	0	0	0	24
8:15 AM	0	11	0	0	0	16	0	0	0	0	0	0	1	0	0	0	28
8:30 AM	0	9	0	0	0	13	0	0	0	0	0	0	0	0	0	0	22
8:45 AM	0	13	0	0	0	14	0	0	0	0	0	0	0	0	0	0	27
9:00 AM	0	8	0	0	0	14	0	0	0	0	0	0	0	0	0	0	22
9:15 AM	0	13	0	0	0	11	0	0	0	0	0	0	0	0	0	0	24
9:30 AM	0	4	0	0	0	10	0	0	0	0	0	0	0	0	0	0	14
9:45 AM	0	6	0	0	0	9	0	0	0	0	0	0	0	0	0	0	15
TOTAL VOLUMES :	0	86	0	0	0	145	0	0	0	0	0	0	1	0	0	0	232
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%					100.00%	0.00%	0.00%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	15	0	0	0	41	0	0	0	0	0	0	0	0	0	0	56
PEAK HR FACTOR :	0.000	0.625	0.000	0.000	0.000	0.732	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.824
	0.625				0.732												
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
10:00 AM	0	17	0	0	0	11	0	0	0	0	0	0	0	0	0	0	28
10:15 AM	0	9	0	0	1	12	1	0	0	0	0	0	0	0	1	0	24
10:30 AM	0	9	0	0	0	16	1	0	1	0	1	0	0	0	1	0	29
10:45 AM	0	8	0	0	0	9	0	0	0	0	0	0	0	0	0	0	17
11:00 AM	0	10	0	0	0	7	0	0	0	0	0	0	0	0	0	0	17
11:15 AM	0	12	0	0	0	8	0	0	0	0	0	0	0	0	0	0	20
11:30 AM	0	12	0	0	0	11	0	0	0	0	0	0	0	0	0	0	23
11:45 AM	0	13	0	0	1	8	0	0	0	0	0	0	0	0	0	0	22
12:00 PM	0	7	0	0	0	10	0	0	0	0	0	0	0	0	0	0	17
12:15 PM	0	1	1	0	0	6	0	0	0	0	0	0	0	0	0	0	8
12:30 PM	0	9	0	0	0	10	0	0	0	0	0	0	0	0	0	0	19
12:45 PM	1	8	0	0	0	6	0	0	0	0	1	0	0	0	0	0	16
1:00 PM	0	6	0	0	0	9	0	0	0	0	0	0	0	0	0	0	15
1:15 PM	0	6	0	0	0	7	0	0	0	0	0	0	0	0	0	0	13
1:30 PM	0	10	0	0	0	11	0	0	0	0	0	0	0	0	0	0	21
1:45 PM	0	6	0	0	0	9	0	0	0	0	0	0	1	0	0	0	16
TOTAL VOLUMES :	1	143	1	0	2	150	2	0	1	0	2	0	1	0	2	0	305
APPROACH %'s :	0.69%	98.62%	0.69%	0.00%	1.30%	97.40%	1.30%	0.00%	33.33%	0.00%	66.67%	0.00%	33.33%	0.00%	66.67%	0.00%	
PEAK HR :	11:45 AM - 12:45 PM																TOTAL
PEAK HR VOL :	0	30	1	0	1	34	0	0	0	0	0	0	0	0	0	0	66
PEAK HR FACTOR :	0.000	0.577	0.250	0.000	0.250	0.850	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750
	0.596				0.875												
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
2:00 PM	0	11	0	0	0	8	0	0	0	0	0	0	1	0	0	0	20
2:15 PM	0	5	0	0	0	9	0	0	0	0	0	0	1	0	0	0	15
2:30 PM	0	9	0	0	0	8	0	0	0	0	0	0	0	0	0	0	17
2:45 PM	0	11	0	1	0	4	0	0	0	0	0	0	1	0	0	0	17
3:00 PM	0	6	0	0	0	8	0	0	0	0	0	0	0	0	0	0	14
3:15 PM	0	5	0	0	0	10	0	0	0	0	0	0	0	0	0	0	15
3:30 PM	0	8	1	0	0	8	0	0	0	0	0	0	0	0	0	0	17
3:45 PM	0	11	0	0	0	11	0	0	0	0	0	0	0	0	0	0	22
4:00 PM	0	8	0	0	0	6	0	0	0	0	0	0	0	0	1	0	15
4:15 PM	0	6	0	0	0	5	0	0	0	0	0	0	1	0	0	0	12
4:30 PM	0	10	0	0	0	5	0	0	0	0	0	0	0	0	0	0	15
4:45 PM	0	11	0	0	0	3	0	0	0	0	0	0	0	0	0	0	14
5:00 PM	0	3	0	0	0	5	0	0	0	0	0	0	0	0	0	0	8
5:15 PM	0	4	0	0	0	12	0	0	0	0	0	0	0	0	0	0	16
5:30 PM	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4
5:45 PM	0	8	0	0	1	7	0	0	0	0	0	0	0	0	1	0	17
6:00 PM	0	3	3	0	0	10	0	0	0	0	0	0	0	0	0	0	16
6:15 PM	0	4	0	0	0	7	0	0	0	0	0	0	1	0	0	0	12
6:30 PM	0	3	1	0	0	7	0	0	0	0	0	0	0	0	0	0	11
6:45 PM	0	9	0	0	0	2	0	0	0	0	0	0	0	0	0	0	11
TOTAL VOLUMES :	0	138	5	1	1	136	0	0	0	0	0	0	5	0	2	0	288
APPROACH %'s :	0.00%	95.83%	3.47%	0.69%	0.73%	99.27%	0.00%	0.00%					71.43%	0.00%	28.57%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	18	0	0	1	25	0	0	0	0	0	0	0	0	1	0	45
PEAK HR FACTOR :	0.000	0.563	0.000	0.000	0.250	0.521	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.662
	0.563				0.542												

Project ID: 24-450142-001
Date: 8/14/2024

[illegible]

National Data & Surveying Services

Intersection Turning Movement Count

Location: Wayside Dr/Hwy 90 ALT & Walmart Supercenter Dwy/TitleMax Title Loans Dwy
City: Houston **Project ID:** 24-450142-001
Date: 8/14/2024

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Wayside Dr/Hwy 90 ALT		Wayside Dr/Hwy 90 ALT		Walmart Supercenter Dwy/TitleMax Title Loans		Walmart Supercenter Dwy/TitleMax Title Loans		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
7:00 AM	1	1	0	2	1	1	2	1	9
7:15 AM	2	0	0	1	0	0	2	0	5
7:30 AM	6	0	0	0	0	1	2	1	10
7:45 AM	2	0	0	0	0	0	3	3	8
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	4	0	1	0	0	0	0	0	5
8:30 AM	0	3	0	0	0	0	0	0	3
8:45 AM	5	1	0	1	0	0	1	0	8
9:00 AM	0	1	0	0	0	0	1	1	3
9:15 AM	1	0	0	0	0	0	1	1	3
9:30 AM	4	0	1	0	0	0	1	0	6
9:45 AM	1	1	0	1	2	0	1	0	6
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	26	7	2	5	3	2	14	7	66
	78.79%	21.21%	28.57%	71.43%	60.00%	40.00%	66.67%	33.33%	
PEAK HR :	07:00 AM - 08:00 AM								TOTAL
PEAK HR VOL :	11	1	0	3	1	2	9	5	32
PEAK HR FACTOR :	0.458	0.250		0.375	0.250	0.500	0.750	0.417	0.800
	0.500		0.375		0.375		0.583		

NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
10:00 AM	1	1	0	0	1	2	0	0	5
10:15 AM	3	0	0	0	0	1	0	1	5
10:30 AM	3	2	0	0	2	1	0	0	8
10:45 AM	1	1	2	0	1	0	0	1	6
11:00 AM	3	1	0	2	0	1	2	0	9
11:15 AM	4	0	0	0	0	0	0	0	4
11:30 AM	0	2	0	0	2	2	0	0	6
11:45 AM	5	1	0	0	0	0	1	0	7
12:00 PM	2	0	0	0	1	1	0	0	4
12:15 PM	0	1	1	0	0	0	0	0	2
12:30 PM	6	1	0	2	0	1	2	2	14
12:45 PM	0	2	2	2	0	0	1	1	8
1:00 PM	5	0	0	2	0	0	1	0	8
1:15 PM	1	3	0	2	0	0	2	2	10
1:30 PM	0	2	1	0	2	0	0	1	6
1:45 PM	0	1	0	0	0	0	0	0	1
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	34	18	6	10	9	9	9	8	103
	65.38%	34.62%	37.50%	62.50%	50.00%	50.00%	52.94%	47.06%	
PEAK HR :	11:45 AM - 12:45 PM								TOTAL
PEAK HR VOL :	13	3	1	2	1	2	3	2	27
PEAK HR FACTOR :	0.542	0.750	0.250	0.250	0.250	0.500	0.375	0.250	0.482
	0.571		0.375		0.375		0.313		

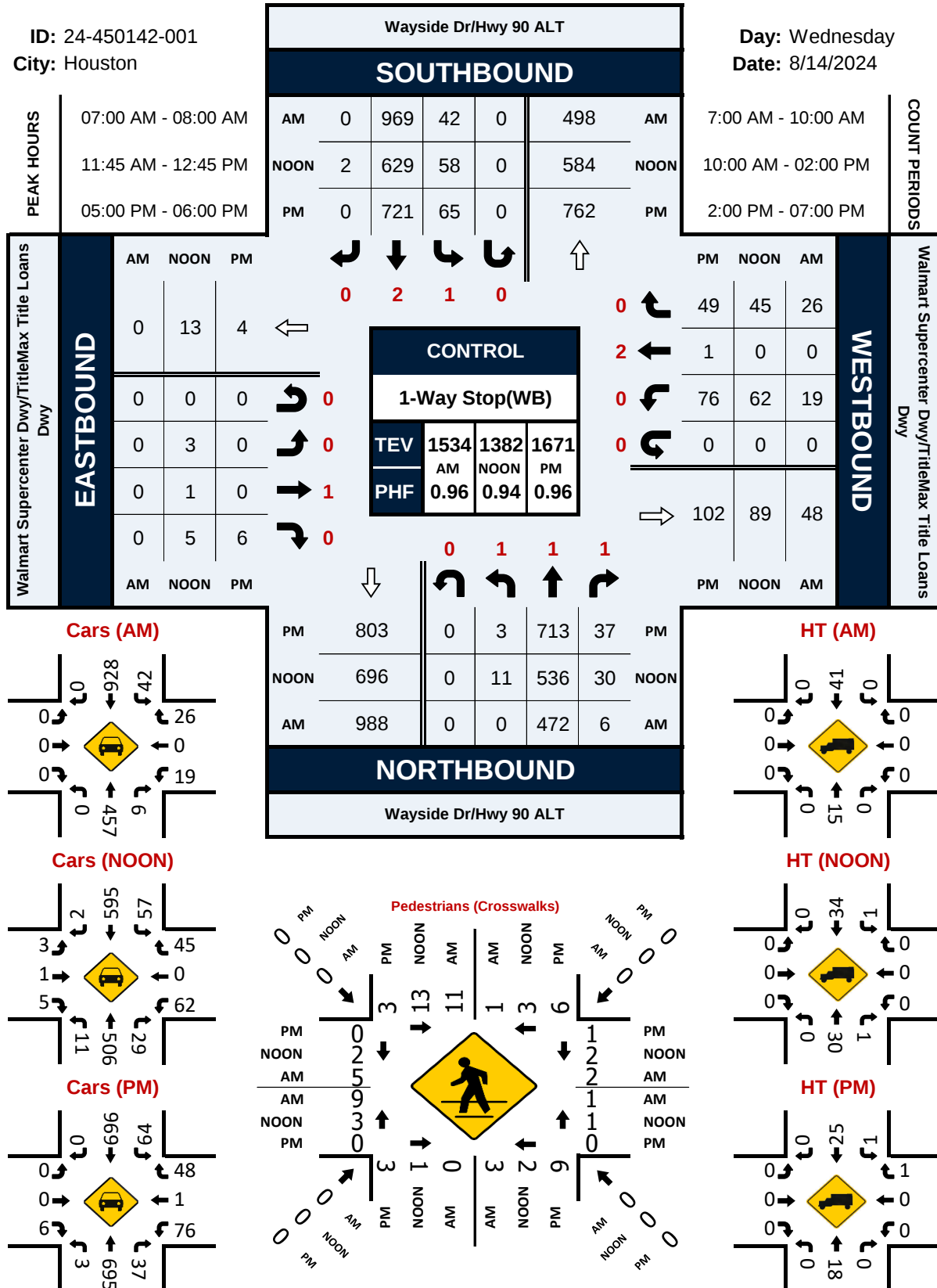
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
2:00 PM	6	6	0	0	0	0	1	1	14
2:15 PM	3	2	1	0	0	0	0	0	6
2:30 PM	0	2	0	0	0	0	1	0	3
2:45 PM	4	3	0	0	0	0	0	2	9
3:00 PM	1	0	1	2	0	0	2	3	9
3:15 PM	2	1	0	2	0	0	0	0	5
3:30 PM	0	6	1	1	0	0	0	0	8
3:45 PM	1	3	0	0	0	0	0	1	5
4:00 PM	1	0	2	1	0	0	1	3	8
4:15 PM	0	0	0	0	0	0	0	1	1
4:30 PM	2	5	1	0	0	0	0	1	9
4:45 PM	6	3	0	1	0	0	0	0	10
5:00 PM	0	3	1	0	0	0	0	0	4
5:15 PM	0	1	1	2	0	1	0	0	5
5:30 PM	0	1	0	2	0	0	0	0	3
5:45 PM	3	1	1	2	0	0	0	0	7
6:00 PM	0	0	0	1	1	0	1	2	5
6:15 PM	0	0	0	1	1	0	2	0	4
6:30 PM	4	0	1	1	0	0	2	1	9
6:45 PM	0	0	0	1	0	0	0	0	1
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	33	37	10	17	2	1	10	15	125
	47.14%	52.86%	37.04%	62.96%	66.67%	33.33%	40.00%	60.00%	
PEAK HR :	05:00 PM - 06:00 PM								TOTAL
PEAK HR VOL :	3	6	3	6	0	1	0	0	19
PEAK HR FACTOR :	0.250	0.500	0.750	0.750		0.250			0.679
	0.563		0.750		0.250				

Wayside Dr/Hwy 90 ALT & Walmart Supercenter Dwy/TitleMax Title Loans Dwy

Peak Hour Turning Movement Count

ID: 24-450142-001
City: Houston

Day: Wednesday
Date: 8/14/2024





C.FIELD OBSERVATION PHOTOGRAPHS

Photograph 1 - Pedestrian Crossing EB on North Leg



Photograph 2 - Pedestrian Waiting in SB Left Turn Bay to Cross EB on North Leg



Photograph 3 - Pedestrian Crossing WB on North Leg



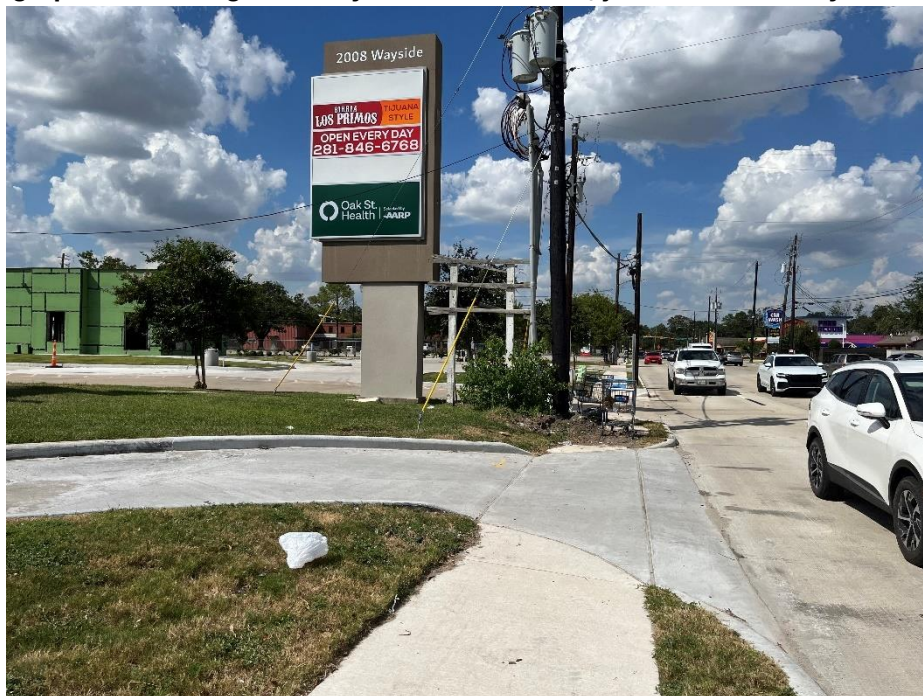
Photograph 4 – Pedestrians Waiting in NB Left Turn Bay to Cross WB on South Leg



Photograph 5 – Exiting Vehicle from Walmart Dwy waiting in NB Left Turn Bay



Photograph 6 – Existing Driveway on the West Side, just North of Study Intersection

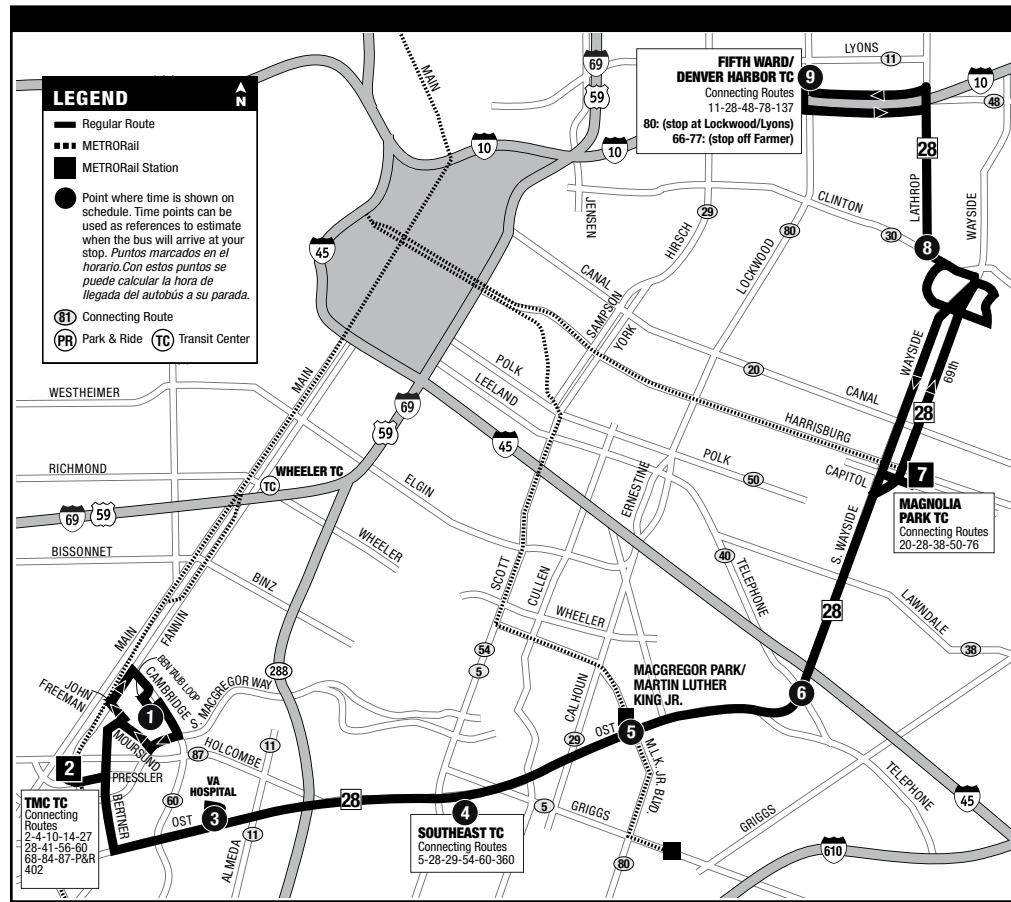


Photograph 7 – Recently Relocated Bus Stop on the East Side, north of the Walmart Driveway





D.BUS ROUTE SCHEDULE



Destination Signs / Letreros Direccionales

Eastbound Hacia el este	28 OST - Wayside Fifth Ward / Denver Harbor Transit Center
Westbound Hacia el oeste	28 OST - Wayside Ben Taub Hospital

The Fare/Pasaje / Local

Fare Type Tipo de Pasaje	Full Fare* Pasaje Completo*	Discounted** Descontado**	Transfer*** Transbordo***
Cash/Efectivo	\$1.25*	none/ ninguno	none/ ninguno
METRO Q® Fare Card***	\$1.25*	\$0.60**	3 hours/horas
METRO Day Pass****	Unlimited Service/Servicio ilimitado \$3.00 a day	\$1.50 a day	3 hours/horas

*Full fare, one-way. *Pasaje completo, sólo de ida.
Children ages five and under ride free.
Los niños menores de cinco años viajan gratis.

****Seniors, disabled persons, Medicare cardholders, as well as college and university students require a discounted **METRO Q® Fare Card** or **METRO Day Pass** to receive the reduced fare. Middle and high school students may pay the discounted fare in cash (bus only) by showing their current student ID card.**

Personas Mayores, personas con discapacidad, los titulares de tarjetas de Medicare, así como estudiantes de colegios y universidades requieren una tarjeta de tarifa **METRO Q® Fare Card** o **METRO Day Pass** para recibir la tarifa reducida. Los estudiantes de secundaria y preparatoria pueden pagar la tarifa con descuento en efectivo (sólo bus) al mostrar su tarjeta de identificación de estudiante actual.

***Transfers are free and automatic for three hours with the **METRO Q® Fare Card** or **METRO Day Pass**. Transfers are automatically added to the card with the first tap. When transferring to a service of greater cost, the difference will be deducted from the card aboard the next bus. Park and Ride paid fares do not count toward the **METRO Day Pass** benefit.

Transferencias son gratuitas y válidas por tres horas con las tarjetas **METRO Q® Fare Card** o **METRO Day Pass**. Las transferencias se agregan automáticamente a la tarjeta con la primera pasada. Cuando realice una combinación a un servicio de mayor costo, la diferencia será debitada de la tarjeta a bordo del siguiente autobús. Las tarifas pagas de Park and Ride no se acumulan al beneficio del **METRO Day Pass**.

******METRO Q® Fare Card** – Best value for riders using local bus, rail or commuter service just once or twice daily. Cardholders earn **5 FREE rides for every 50 paid rides.**

METRO Q® Fare Card – ofrece la opción más económica para los pasajeros que usan el autobús local, el tren o el servicio de viajes sólo una o dos veces por día. Los titulares de la tarjeta obtienen **5 viajes GRATIS por cada 50 viajes pagos.**

**Peak / Off-Peak Frequency /
Pico / Frecuencia Fuera de Pico**

Peak = 6:01 a.m. – 9:00 a.m.; 3:01 p.m. – 6:00 p.m.
Off-Peak = Start of service – 6:00 a.m.; 9:01 a.m. – 3:00 p.m.,
 6:01 p.m. – End of service
Weekend service runs at Off-Peak frequency.

Horarios pico = 6:01 a.m. – 9:00 a.m.; 3:01 p.m. – 6:00 p.m.
Horas fuera de pico = Inicio de servicio – 6:00 a.m.;
 9:01 a.m. – 3:00 p.m.; 6:01 p.m. – Final del servicio
Servicio el fin de semana opera con frecuencia fuera de horas pico

Reading a Bus Schedule

1. On the top of each timetable, look for names like “Weekday Inbound” or “Saturday Westbound” to determine which timetable to use.
2. Then look at the numbered dots, called time points, with names of places where buses stop. The listing does not include all bus stops, but buses will stop at all stops along your route.
3. Find the time points closest to where you are and where you want to go.
4. Check the column of times under your destination to find the time you want to arrive.
5. Find the time point nearest the place you want to board the bus. There will be a stop along the route within two blocks of that location — just look for your route number on the bus stop signs at each corner.
6. Then move your finger left along that line to your origin to determine your departure time. If you’re not catching the bus at the time point listed, refer to the time point before your stop.

Cómo leer el horario

1. En la parte superior de cada horario, busque los nombres tales como “Llegadas los días de la semana” o “Salida hacia el oeste los sábados” para determinar cuál horario usar.
2. Después busque los puntos numerados, con los nombres de los lugares donde paran los autobuses. La lista no incluye todas las paradas de los autobuses, pero los autobuses pararán en todas las paradas a lo largo de la ruta.
3. Encuentre el punto más cercano a donde usted está y a donde quiere ir.
4. Revise la columna de las horas según su destino para encontrar la hora a la que desea llegar.
5. Encuentre el punto numerado más cercano al lugar donde desea abordar el autobús. Habrá una parada a lo largo de la ruta dentro de dos cuadras de esa ubicación — simplemente busque el número de su ruta y los letreros de parada del autobús en cada esquina.
6. Después siga la línea hacia la izquierda de su origen para determinar su hora de salida. Si no puede tomar el autobús desde el punto numerado, refiérase al punto numerado antes de su parada.

OST - Wayside



\$1.25

28

January 2024

Frequent Connections / Conexiones Frecuentes

- 2 Bellaire
- 4 Beechnut
- 27 Shepherd
- 50 Broadway
- 54 Scott
- 56 Airline / Montrose
- 80 MLK / Lockwood
- 137 Northshore
- 402 Bellaire Quickline
- METRORail Red Line
- METRORail Purple Line
- METRORail Green Line



Peak
20 min.
frequency

Off-Peak
30 min.
frequency

METRO  **RideMETRO.org**  
713-635-4000

**Get Your / Obtenga su METRO Q®
Fare Card / METRO Day Pass**

METRO Q® Fare Card and **METRO Day Pass** are available at the METRO RideStore and at numerous retailers across the region. Call 713-635-4000 or visit RideMETRO.org for the location nearest you.

METRO Q® Fare Card y el **METRO Day Pass** están disponibles en las tiendas RideStore de METRO y en diversas tiendas de la región. Llame al 713-635-4000 o visite RideMETRO.org para ubicar la tienda más cercana.

Don't Throw It – Reload It / No la tire – Recárguela

Add money to your reloadable **METRO Q® Fare Card** or **METRO Day Pass** at the METRO RideStore, retailers, TVMs, CVMs, on board local buses and through our website, RideMETRO.org. Always register your card to protect your balance from loss or theft.

Agregue dinero a su **METRO Q® Fare Card** y a su **METRO Day Pass**, ya que ambos son recargables en las tiendas RideStore de METRO, en tiendas, en máquinas expendedoras de boletos, máquinas expendedoras de crédito, a bordo de autobuses locales y a través de nuestro sitio web, RideMETRO.org. Siempre registre su tarjeta para proteger su saldo del robo o pérdida.

Customer Information
Información para el Cliente

**Route, Schedule, METRO Q® Fare Card and
METRO Day Pass**
**Información de Rutas, Horarios, METRO Q® Fare Card y
METRO Day Pass**

Information/Información 713-635-4000

**Public Comments/
Comentarios Públicos**713-658-0180

Lost and Found/Objetos Perdidos.....713-658-0854
Telecommunication Device for the Deaf (TDD)

Dispositivo de Telecomunicación
para Sordos (TDD)..... 713-635-6993

METRO Police/Policia713-224-COPS (2677)

METRO Hardware
1900 Main: Mon.-Fri./Lun-Vie 8 a.m.-5 p.m.
1001 Travis: Mon.-Fri./Lun-Vie 8 a.m.-5 p.m.

METRO Lost and Found/METRO Objetos Perdidos
1900 Main: Mon.-Fri./Lun.-Vie.....8 a.m.-5 p.m.

For METRO information in additional languages, please call 713-635-4000.

Para información de METRO en lenguajes adicionales, por favor llame al 713-635-4000.

Để có thông tin về METRO bằng nhiều ngôn ngữ phụ, xin gọi 713-635-4000.

28 OST - Wayside Weekday Eastbound /								
Día de semana hacia el este								
Ben Taub Hospital	Leave TMC Transit Center	VA Hospital	Southeast Transit Center	O.S.T. & MLK Blvd.	Wayside & Telephone	Magnolia Park Transit Center	Lathrop & Clinton	Fifth Ward / Denver Harbor Transit Center
1	2	3	4	5	6	7	8	9
	5:10am	5:19am	5:30am	5:35am	5:40am	5:51am	6:00am	6:08am
	5:40	5:49	6:00	6:05	6:10	6:21	6:30	6:38
	6:05	6:15	6:26	6:31	6:36	6:48	6:57	7:05
6:05am	6:30	6:40	6:51	6:56	7:01	7:13	7:22	7:30
6:25	6:50	7:00	7:11	7:16	7:21	7:33	7:42	7:50
6:45	7:10	7:20	7:31	7:37	7:42	7:54	8:03	8:12
7:05	7:30	7:40	7:51	7:57	8:02	8:14	8:23	8:32
7:30	7:50	8:00	8:11	8:17	8:22	8:34	8:44	8:53
7:50	8:10	8:20	8:31	8:37	8:42	8:54	9:04	9:13
8:10	8:35	8:45	8:56	9:02	9:07	9:19	9:29	9:38
8:40	9:00	9:10	9:21	9:27	9:32	9:44	9:54	10:03
9:05	9:25	9:35	9:46	9:51	9:56	10:09	10:19	10:27
9:35	9:55	10:05	10:16	10:21	10:26	10:39	10:49	10:57
10:05	10:25	10:35	10:46	10:51	10:56	11:09	11:19	11:27
10:30	10:55	11:05	11:16	11:21	11:26	11:39	11:49	11:57
11:00	11:25	11:35	11:46	11:51	11:56	12:09pm	12:19pm	
11:30	11:55	12:05pm	12:17pm	12:23pm	12:28pm	12:42	12:52	1:00
12:00pm	12:25pm	12:35	12:47	12:53	12:58	1:12	1:22	1:30
12:30	12:55	1:05	1:17	1:23	1:28	1:42	1:52	2:00
1:05	1:25	1:35	1:47	1:53	1:58	2:12	2:22	2:30
1:35	1:55	2:06	2:19	2:25	2:30	2:45	2:56	3:05
2:05	2:25	2:36	2:49	2:55	3:00	3:15	3:26	3:35
2:35	2:55	3:06	3:19	3:25	3:30	3:45	3:56	4:05
3:00	3:25	3:36	3:50	3:56	4:01	4:15	4:26	4:34
3:25	3:50	4:01	4:15	4:21	4:26	4:40	4:51	4:59
3:45	4:10	4:21	4:35	4:41	4:46	5:00	5:11	5:19
4:05	4:30	4:41	4:55	5:01	5:06	5:20	5:31	5:39
4:25	4:50	5:01	5:15	5:21	5:26	5:40	5:51	5:59
4:45	5:10	5:21	5:35	5:41	5:46	6:00	6:11	6:19
5:05	5:30	5:41	5:55	6:01	6:06	6:20	6:31	6:39
5:25	5:50	6:00	6:13	6:18	6:23	6:36	6:46	6:53
5:45	6:10	6:20	6:33	6:38	6:43	6:56	7:06	7:13
6:05	6:30	6:40	6:53	6:58	7:03	7:16	7:26	7:33
6:20	6:50	6:59	7:11	7:16	7:21	7:33	7:43	7:50
6:40	7:10	7:19	7:31	7:36	7:41	7:53	8:03	8:10
7:20	7:40	7:48	7:59	8:04	8:09	8:21	8:30	8:37
7:50	8:10	8:18	8:29	8:34	8:39	8:51	9:00	9:07
8:15	8:40	8:48	8:58	9:03	9:08	9:19	9:28	9:34
8:45	9:10	9:18	9:28	9:33	9:38	9:49	9:58	10:04
9:15	9:40	9:48	9:58	10:03	10:08	10:19	10:28	10:34

28 OST - Wayside Saturday Eastbound /

Sábado hacia el este

Ben Taub Hospital	Leave TMC Transit Center	VA Hospital	Southeast Transit Center	O.S.T. & MLK Blvd.	Wayside & Telephone	Magnolia Park Transit Center	Lathrop & Clinton	Fifth Ward / Denver Harbor Transit Center
1	2	3	4	5	6	7	8	9
	5:00am	5:08am	5:17am	5:21am	5:25am	5:33am	5:41am	5:48am
	5:30	5:38	5:47	5:51	5:55	6:03	6:11	6:18
	6:00	6:08	6:17	6:21	6:25	6:33	6:41	6:48
6:15am	6:32	6:40	6:50	6:54	6:58	7:07	7:15	7:22
6:45	7:02	7:10	7:20	7:24	7:28	7:37	7:45	7:52
7:15	7:32	7:40	7:50	7:55	7:59	8:09	8:17	8:25
7:45	8:02	8:10	8:20	8:25	8:29	8:39	8:47	8:55
8:15	8:32	8:40	8:50	8:55	8:59	9:09	9:17	9:25
8:45	9:02	9:10	9:20	9:25	9:29	9:39	9:47	9:55
9:15	9:32	9:41	9:51	9:57	10:01	10:11	10:20	10:28
9:45	10:02	10:11	10:21	10:27	10:31	10:41	10:50	10:58
10:15	10:32	10:41	10:51	10:57	11:01	11:11	11:20	11:28
10:45	11:02	11:11	11:21	11:27	11:31	11:41	11:50	11:58
11:15	11:32	11:41	11:51	11:57	12:01pm	12:11pm	12:20pm	12:28pm
11:45	12:02pm	12:11pm	12:21pm	12:27pm	12:31	12:41	12:50	12:58
12:15pm	12:32	12:40	12:50	12:56	1:00	1:11	1:20	1:28
12:45	1:02	1:10	1:20	1:26	1:30	1:41	1:50	1:58
1:15	1:32	1:40	1:50	1:56	2:00	2:11	2:20	2:28
1:45	2:02	2:10	2:20	2:26	2:30	2:41	2:50	2:58
2:15	2:32	2:40	2:50	2:56	3:00	3:11	3:20	3:28
2:45	3:02	3:10	3:20	3:26	3:30	3:41	3:50	3:58
3:15	3:32	3:40	3:50	3:56	4:00	4:11	4:20	4:28
3:45	4:02	4:10	4:20	4:26	4:30	4:41	4:50	4:58
4:15	4:32	4:40	4:50	4:56	5:00	5:11	5:20	5:28
4:45	5:02	5:10	5:21	5:27	5:31	5:41	5:49	5:57
5:15	5:32	5:40	5:51	5:57	6:01	6:11	6:19	6:27
5:45	6:02	6:10	6:21	6:27	6:31	6:41	6:49	6:57
6:15	6:32	6:39	6:50	6:55	6:59	7:09	7:17	7:24
6:45	7:02	7:09	7:20	7:25	7:29	7:39	7:47	7:54
7:15	7:32	7:39	7:50	7:55	7:59	8:09	8:17	8:24
7:45	8:02	8:09	8:20	8:25	8:29	8:39	8:47	8:54
8:15	8:32	8:39	8:49	8:54	8:58	9:07	9:15	9:22
8:45	9:02	9:09	9:19	9:24	9:28	9:37	9:45	9:52
9:15	9:32	9:39	9:49	9:54	9:58	10:07	10:15	10:22

28 OST - Wayside Sunday Eastbound /

Domingo hacia el este

Ben Taub Hospital	Leave TMC Transit Center	VA Hospital	Southeast Transit Center	O.S.T. & MLK Blvd.	Wayside & Telephone	Magnolia Park Transit Center	Lathrop & Clinton	Fifth Ward / Denver Harbor Transit Center
1	2	3	4	5	6	7	8	9
	5:00am	5:08am	5:17am	5:21am	5:25am	5:33am	5:41am	5:48am
	5:30	5:38	5:47	5:51	5:55	6:03	6:11	6:18
	6:00	6:08	6:17	6:21	6:25	6:33	6:41	6:48
6:15am	6:32	6:40	6:50	6:54	6:58	7:07	7:15	7:22
6:45	7:02	7:10	7:20	7:24	7:28	7:37	7:45	7:52
7:15	7:32	7:40	7:50	7:55	7:59	8:09	8:17	8:25
7:45	8:02	8:10	8:20	8:25	8:29	8:39	8:47	8:55
8:15	8:32	8:40	8:50	8:55	8:59	9:09	9:17	9:25
8:45	9:02	9:10	9:20	9:25	9:29	9:39	9:47	9:55
9:15	9:32	9:41	9:51	9:57	10:01	10:11	10:20	10:28
9:45	10:02	10:11	10:21	10:27	10:31	10:41	10:50	10:58
10:15	10:32	10:41	10:51	10:57	11:01	11:11	11:20	11:28
10:45	11:02	11:11	11:21	11:27	11:31	11:41	11:50	11:58
11:15	11:32	11:41	11:51	11:57	12:01pm	12:11pm	12:20pm	12:28pm
11:45	12:02pm	12:11pm	12:21pm	12:27pm	12:31	12:41	12:50	12:58
12:15pm	12:32	12:40	12:50	12:56	1:00	1:11	1:20	1:28
12:45	1:02	1:10	1:20	1:26	1:30	1:41	1:50	1:58
1:15	1:32	1:40	1:50	1:56	2:00	2:11	2:20	2:28
1:45	2:02	2:10	2:20	2:26	2:30	2:41	2:50	2:58
2:15	2:32	2:40	2:50	2:56	3:00	3:11	3:20	3:28
2:45	3:02	3:10	3:20	3:26	3:30	3:41	3:50	3:58
3:15	3:32	3:40	3:50	3:56	4:00	4:11	4:20	4:28
3:45	4:02	4:10	4:20	4:26	4:30	4:41	4:50	4:58
4:15	4:32	4:40	4:50	4:56	5:00	5:11	5:20	5:28
4:45	5:02	5:10	5:21	5:27	5:31	5:41	5:49	5:57
5:15	5:32	5:40	5:51	5:57	6:01	6:11	6:19	6:27
5:45	6:02	6:10	6:21	6:27	6:31	6:41	6:49	6:57
6:15	6:32	6:39	6:50	6:55	6:59	7:09	7:17	7:24
6:45	7:02	7:09	7:20	7:25	7:29	7:39	7:47	7:54
7:15	7:32	7:39	7:50	7:55	7:59	8:09	8:17	8:24
7:45	8:02	8:09	8:20	8:25	8:29	8:39	8:47	8:54
8:15	8:32	8:39	8:49	8:54	8:58	9:07	9:15	9:22
8:45	9:02	9:09	9:19	9:24	9:28	9:37	9:45	9:52
9:15	9:32	9:39	9:49	9:54	9:58	10:07	10:15	10:22

28 OST - Wayside Weekday Westbound /

Día de semana hacia el oeste

Fifth Ward / Denver Harbor Transit Center	Lathrop & Clinton	Magnolia Park Transit Center	Wayside & Telephone	O.S.T. & MLK Blvd.	Southeast Transit Center	VA Hospital	TMC Transit Center	Ben Taub Hospital
9	8	7	6	5	4	3	2	1
4:55am	5:02am	5:11am	5:22am	5:26am	5:31am	5:42am	5:50am	6:03am
5:15	5:22	5:31	5:42	5:46	5:51	6:02	6:10	6:23
5:35	5:42	5:51	6:02	6:06	6:11	6:22	6:30	6:43
5:55	6:02	6:11	6:22	6:26	6:31	6:42	6:50	7:03
6:15	6:22	6:32	6:43	6:48	6:54	7:06	7:14	7:28
6:35	6:42	6:52	7:03	7:08	7:14	7:26	7:34	7:48
6:55	7:02	7:12	7:23	7:28	7:34	7:46	7:54	8:08
7:20	7:28	7:39	7:51	7:56	8:03	8:16	8:25	8:39
7:45	7:53	8:04	8:16	8:21	8:28	8:41	8:50	9:04
8:15	8:22	8:33	8:45	8:50	8:57	9:09	9:18	9:32
8:45	8:52	9:03	9:15	9:20	9:27	9:39	9:48	10:02
9:15	9:22	9:32	9:43	9:47	9:54	10:06	10:15	10:29
9:45	9:52	10:02	10:13	10:17	10:24	10:36	10:45	10:59
10:15	10:22	10:32	10:43	10:47	10:54	11:06	11:15	11:29
10:45	10:52	11:02	11:13	11:17	11:24	11:36	11:45	11:59
11:15	11:22	11:32	11:43	11:47	11:54	12:06pm	12:15pm	12:29pm
12:15pm	12:22pm	12:33pm	12:45pm	12:50pm	12:57pm	1:10pm	1:19pm	1:33pm
12:45	12:52	1:03	1:15	1:20	1:27	1:40	1:49	2:03
1:15	1:22	1:33	1:45	1:50	1:57	2:10	2:19	2:33
1:40	1:47	1:58	2:10	2:15	2:22	2:35	2:44	2:58
2:00	2:08	2:19	2:32	2:37	2:45	2:58	3:08	3:23
2:20	2:28	2:39	2:52	2:57	3:05	3:18	3:28	3:43
2:40	2:48	2:59	3:12	3:17	3:25	3:38	3:48	4:03
3:00	3:08	3:19	3:32	3:37	3:45	3:58	4:08	4:23
3:20	3:28	3:39	3:52	3:57	4:05	4:18	4:28	4:43
3:40	3:47	3:58	4:11	4:15	4:23	4:36	4:46	5:01
4:00	4:07	4:18	4:31	4:35	4:43	4:56	5:05	5:21
4:20	4:27	4:38	4:51	4:55	5:03	5:16	5:25	5:41
4:40	4:47	4:58	5:11	5:15	5:23	5:36	5:45	6:01
5:00	5:07	5:18	5:31	5:35	5:42	5:54	6:03	6:18
5:20	5:27	5:38	5:51	5:55	6:02	6:14	6:23	6:38
5:40	5:47	5:58	6:11	6:15	6:22	6:34	6:43	6:58
6:05	6:12	6:22	6:34	6:38	6:44	6:56	7:04	7:18
6:35	6:42	6:52	7:04	7:08	7:14	7:26	7:34	7:48
7:05	7:12	7:22	7:33	7:37	7:43	7:54	8:02	8:15
7:35	7:42	7:52	8:03	8:07	8:13	8:24	8:32	8:45
8:05	8:12	8:22	8:33	8:37	8:43	8:54	9:02	9:15
8:35	8:41	8:50	9:00	9:04	9:09	9:20	9:27	9:40
9:05	9:11	9:20	9:30	9:34	9:39	9:50	9:57	10:10

E. BUS RIDERSHIP DATA

Pedestrian Study

Location: Wayside Dr/Hwy 90 ALT & Walmart Supercenter Dwy/TitleMax Title L

City: Houston

Date 8/14/2024

Day Wednesday

TIME	Pedestrian Getting On/Off the Metro Bus					
	East Side Bus Stop			West Side Bus Stop		
	On	Off	Totals	On	Off	Totals
7:00 AM	3	3	6	0	0	0
7:15 AM	0	2	2	2	2	4
7:30 AM	0	0	0	0	7	7
7:45 AM	0	5	5	4	4	8
8:00 AM	4	0	4	0	0	0
8:15 AM	2	0	2	1	5	6
8:30 AM	1	4	5	0	0	0
8:45 AM	0	0	0	3	7	10
9:00 AM	3	3	6	0	0	0
9:15 AM	3	1	4	4	4	8
9:30 AM	1	0	1	1	6	7
9:45 AM	0	0	0	4	3	7
10:00 AM	4	6	10	0	0	0
10:15 AM	0	0	0	0	4	4
10:30 AM	7	5	12	2	2	4
10:45 AM	0	0	0	0	0	0
11:00 AM	7	4	11	0	2	2
11:15 AM	2	0	2	3	4	7
11:30 AM	6	1	7	0	0	0
11:45 AM	0	2	2	4	7	11
12:00 PM	3	1	4	0	2	2
12:15 PM	0	0	0	0	0	0
12:30 PM	1	2	3	6	7	13
12:45 PM	11	7	18	0	0	0
1:00 PM	2	2	4	3	6	9
1:15 PM	1	0	1	4	2	6
1:30 PM	1	2	3	2	0	2
1:45 PM	0	0	0	0	0	0
2:00 PM	8	3	11	7	5	12
2:15 PM	0	0	0	2	3	5
2:30 PM	2	8	10	0	0	0
2:45 PM	1	1	2	2	6	8
3:00 PM	5	5	10	5	4	9
3:15 PM	2	5	7	3	2	5
3:30 PM	0	2	2	0	0	0
3:45 PM	0	0	0	8	2	10
4:00 PM	9	8	17	7	4	11
4:15 PM	0	0	0	0	0	0
4:30 PM	2	3	5	0	3	3
4:45 PM	6	6	12	8	6	14
5:00 PM	0	0	0	1	0	1
5:15 PM	4	17	21	2	0	2
5:30 PM	0	0	0	0	0	0
5:45 PM	7	1	8	3	3	6
6:00 PM	5	2	7	0	2	2
6:15 PM	2	6	8	0	0	0
6:30 PM	0	0	0	4	5	9
6:45 PM	4	3	7	0	0	0
Grand Totals	119	120	239	95	119	214

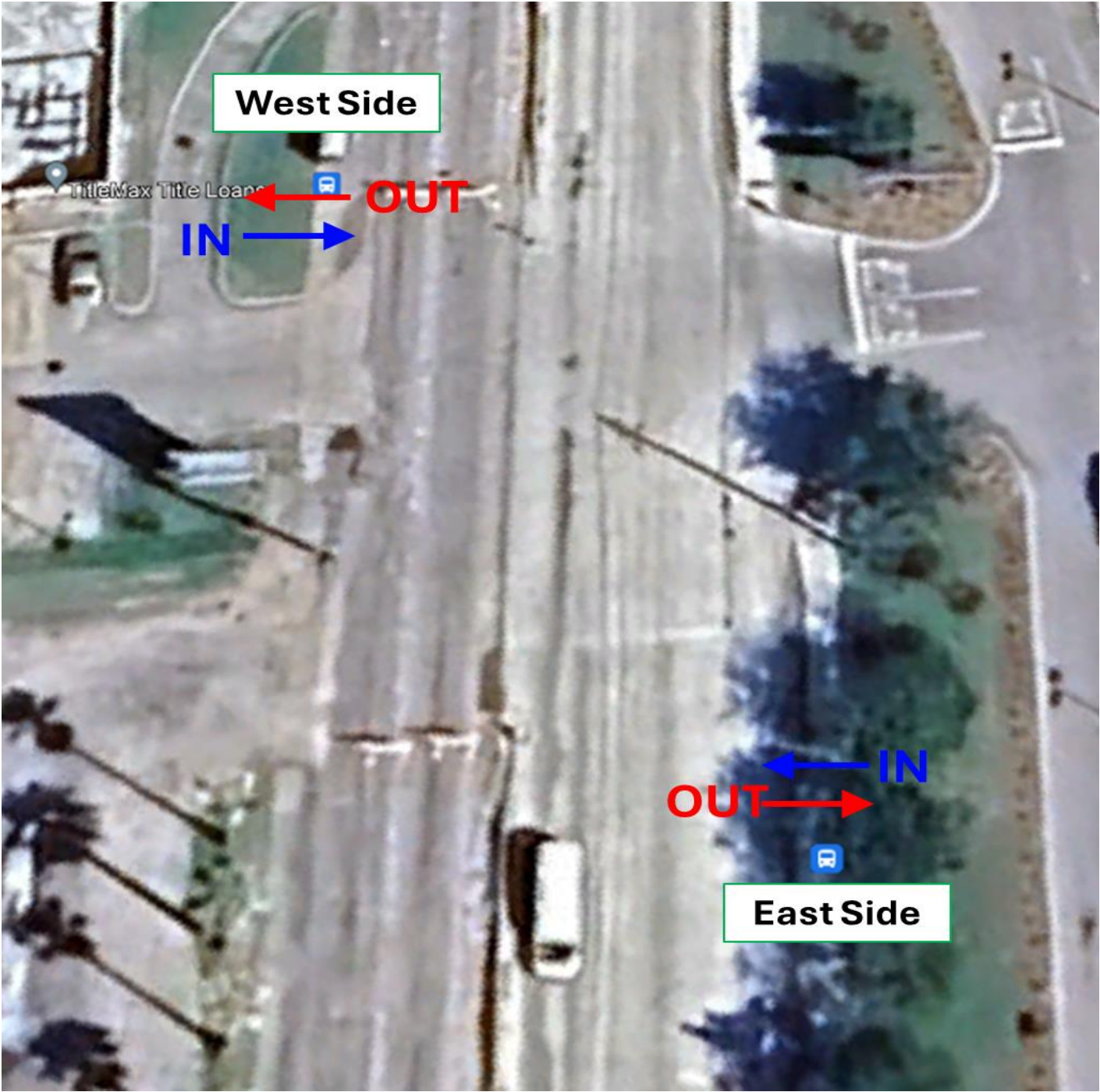


Pedestrian Study

Location: Wayside Dr/Hwy 90 ALT & Walmart Supercenter Dwy/TitleMax Title Lo
City: Houston

Date 8/10/2024
Day Saturday

TIME	Pedestrian Getting On/Off the Metro Bus					
	East Side Bus Stop			West Side Bus Stop		
	On	Off	Totals	On	Off	Totals
7:00 AM	0	3	3	0	3	3
7:15 AM	0	0	0	3	2	5
7:30 AM	2	2	4	0	1	1
7:45 AM	0	0	0	0	0	0
8:00 AM	5	2	7	1	3	4
8:15 AM	1	3	4	0	0	0
8:30 AM	1	1	2	4	2	6
8:45 AM	6	0	6	0	0	0
9:00 AM	2	1	3	2	6	8
9:15 AM	0	0	0	2	4	6
9:30 AM	3	0	3	0	1	1
9:45 AM	0	0	0	1	2	3
10:00 AM	5	6	11	1	5	6
10:15 AM	0	0	0	0	0	0
10:30 AM	9	10	19	5	8	13
10:45 AM	0	1	1	0	0	0
11:00 AM	2	7	9	2	6	8
11:15 AM	0	2	2	0	0	0
11:30 AM	5	4	9	3	5	8
11:45 AM	0	0	0	3	6	9
12:00 PM	3	6	9	2	3	5
12:15 PM	0	0	0	0	3	3
12:30 PM	9	3	12	1	2	3
12:45 PM	1	3	4	0	0	0
1:00 PM	3	0	3	5	14	19
1:15 PM	3	3	6	0	0	0
1:30 PM	9	3	12	19	10	29
1:45 PM	4	2	6	0	0	0
2:00 PM	12	3	15	3	6	9
2:15 PM	0	0	0	3	5	8
2:30 PM	6	7	13	1	2	3
2:45 PM	5	0	5	3	3	6
3:00 PM	8	1	9	5	1	6
3:15 PM	3	2	5	0	0	0
3:30 PM	5	2	7	5	6	11
3:45 PM	0	0	0	0	0	0
4:00 PM	6	6	12	0	0	0
4:15 PM	0	0	0	2	1	3
4:30 PM	7	11	18	1	0	1
4:45 PM	0	0	0	0	0	0
5:00 PM	2	5	7	8	8	16
5:15 PM	0	0	0	0	0	0
5:30 PM	1	7	8	2	6	8
5:45 PM	4	2	6	0	0	0
6:00 PM	2	1	3	3	0	3
6:15 PM	0	0	0	4	2	6
6:30 PM	7	4	11	0	1	1
6:45 PM	0	0	0	2	0	2
Grand Totals	141	113	254	96	127	223



F. CRASH DATA

All crash data available using this tool represents reportable data collected from Texas Peace Officer's Crash Reports (CR-3) received and processed by the Texas Department of Transportation (Department) as of 01/06/2025. The Department makes no warranty, representation or guaranty as to the content, accuracy, timeliness or completeness of any of the information provided as a result of your query. Any opinions and conclusions resulting from analysis performed on the crash data must be represented as your own and not those of the State of Texas or the Department.

Query Result Counts:

Your query returned a total of 17 Crashes containing 32 Units and 44 Persons

Filters Applied to current Query:

Crash Year is in 2020 or 2021 or 2022 or 2023 or 2024

Crash ID	Contributing Factors	Crash Date	Crash Severity	Crash Total Injury	Crash Year	First Harmful Event	Intersecting Stree	Intersection Related	Light Condition	Manner of Collision	Street Name	Surface Condition	Weather Condition
17675781	CHANGED LANE WHEN UNSAFE	5/1/2020	C - POSSIBLE INJURY	1		2020 MOTOR VEHICLE IN TRANSPORT	N/A	NON INTERSECTION	1 - DAYLIGHT	SAME DIRECTION - BOTH GOING STRAIGHT-SIDESWIPE	UA0090	1 - DRY	1 - CLEAR
17733048	TURNED IMPROPERLY - WIDE RIGHT	6/16/2020	C - POSSIBLE INJURY	1		2020 MOTOR VEHICLE IN TRANSPORT	I#0045	INTERSECTION	1 - DAYLIGHT	SAME DIRECTION - ONE STRAIGHT-ONE RIGHT TURN	UA0090	1 - DRY	1 - CLEAR
17854387	CHANGED LANE WHEN UNSAFE	9/8/2020	N - NOT INJURED	0		2020 MOTOR VEHICLE IN TRANSPORT	N/A	NON INTERSECTION	3 - DARK, LIGHTED	SAME DIRECTION - ONE STRAIGHT-ONE LEFT TURN	UA0090	1 - DRY	2 - CLOUDY
18068983	DRIVER INATTENTION;FAILED TO YIELD RIGHT OF WAY - OPEN INTERSECTION	12/16/2020	N - NOT INJURED	0		2020 MOTOR VEHICLE IN TRANSPORT	I#0045	INTERSECTION	1 - DAYLIGHT	ANGLE - BOTH GOING STRAIGHT	UA0090	1 - DRY	1 - CLEAR
18401973	FAILED TO CONTROL SPEED	7/31/2021	99 - UNKNOWN	0		2021 FIXED OBJECT	N/A	NON INTERSECTION	1 - DAYLIGHT	ONE MOTOR VEHICLE - GOING STRAIGHT	UA0090	1 - DRY	1 - CLEAR
18826996	FAILED TO CONTROL SPEED;OTHER (EXPLAIN IN NARRATIVE)	3/4/2022	N - NOT INJURED	0		2022 MOTOR VEHICLE IN TRANSPORT	GULF FWY	INTERSECTION-RELATED	3 - DARK, LIGHTED	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED	5 WAYSIDE DR	1 - DRY	1 - CLEAR
19541839	FAILED TO YIELD RIGHT OF WAY - PRIVATE DRIVE	5/5/2023	N - NOT INJURED	0		2023 MOTOR VEHICLE IN TRANSPORT	N/A	DRIVEWAY ACCESS	1 - DAYLIGHT	ANGLE - ONE STRAIGHT-ONE LEFT TURN	UA0090	1 - DRY	1 - CLEAR
19594607	FAILED TO YIELD RIGHT OF WAY - TURNING LEFT	6/7/2023	C - POSSIBLE INJURY	1		2023 MOTOR VEHICLE IN TRANSPORT	I#0045	INTERSECTION	1 - DAYLIGHT	OPPOSITE DIRECTION - ONE STRAIGHT-ONE LEFT TURN	UA0090	1 - DRY	1 - CLEAR
19853851	OTHER (EXPLAIN IN NARRATIVE)	10/11/2023	N - NOT INJURED	0		2023 FIXED OBJECT	N/A	NON INTERSECTION	1 - DAYLIGHT	ONE MOTOR VEHICLE - GOING STRAIGHT	UA0090	2 - WET	2 - CLOUDY
19851781	PEDESTRIAN FAILED TO YIELD RIGHT OF WAY TO VEHICLE	11/3/2023	C - POSSIBLE INJURY	1		2023 PEDESTRIAN	N/A	NON INTERSECTION	5 - DAWN	ONE MOTOR VEHICLE - GOING STRAIGHT	UA0090	1 - DRY	1 - CLEAR
19876798	FAILED TO CONTROL SPEED	11/19/2023	A - SUSPECTED SERIOUS INJ.	1		2023 OVERTURNED	N/A	NON INTERSECTION	3 - DARK, LIGHTED	ONE MOTOR VEHICLE - GOING STRAIGHT	UA0090	1 - DRY	1 - CLEAR
20048661	FAILED TO PASS TO LEFT SAFELY	2/26/2024	N - NOT INJURED	0		2024 MOTOR VEHICLE IN TRANSPORT	N/A	NON INTERSECTION	3 - DARK, LIGHTED	SAME DIRECTION - BOTH GOING STRAIGHT-SIDESWIPE	UA0090	1 - DRY	1 - CLEAR
20221368	FAILED TO YIELD RIGHT OF WAY - STOP SIGN	6/4/2024	B - SUSPECTED MINOR INJUR	1		2024 MOTOR VEHICLE IN TRANSPORT	I#0045	INTERSECTION	1 - DAYLIGHT	ANGLE - BOTH GOING STRAIGHT	UA0090	1 - DRY	1 - CLEAR
20315624	FAILED TO YIELD RIGHT OF WAY - STOP SIGN	7/17/2024	N - NOT INJURED	0		2024 MOTOR VEHICLE IN TRANSPORT	I#0045	INTERSECTION	1 - DAYLIGHT	ANGLE - BOTH GOING STRAIGHT	UA0090	1 - DRY	1 - CLEAR
20523360	FAILED TO YIELD RIGHT OF WAY - PRIVATE DRIVE	11/18/2024	N - NOT INJURED	0		2024 MOTOR VEHICLE IN TRANSPORT	N/A	DRIVEWAY ACCESS	1 - DAYLIGHT	ANGLE - ONE STRAIGHT-ONE LEFT TURN	UA0090	1 - DRY	2 - CLOUDY
20534872	FAILED TO YIELD RIGHT OF WAY - PRIVATE DRIVE	12/2/2024	N - NOT INJURED	0		2024 MOTOR VEHICLE IN TRANSPORT	I#0045	INTERSECTION	1 - DAYLIGHT	ANGLE - BOTH GOING STRAIGHT	UA0090	1 - DRY	1 - CLEAR
20542447	FAILED TO YIELD RIGHT OF WAY - TURNING LEFT	12/5/2024	C - POSSIBLE INJURY	2		2024 MOTOR VEHICLE IN TRANSPORT	N/A	DRIVEWAY ACCESS	4 - DARK, UNKNOWN	ANGLE - ONE STRAIGHT-ONE LEFT TURN	UA0090	2 - WET	1 - CLEAR



G.TRAFFIC SIGNAL WARRANT ANALYSIS



Traffic Survey - Count Analysis

2011 TMUTCD Warrants

Form TFF-TSCA
(Rev. 11/21)
Page 1 of 8

County: Harris

District: Houston

City: Houston, TX

Population: 2,319,119 (2024)

Survey Date: 12/24/2024

	Route #	Name	Control	Section	85% Speed
Major		Wayside Drive			40
Minor		Private Driveway			

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

Time Ends	Major St. - Both App.		Minor St. - Hi. Vol. App.	
	Veh. Total	Ped. Total	Veh. Total	Ped. Total
11am	1163	14	59	8
1pm	1234	19	70	6
2pm	1189	17	79	6
3pm	1251	27	76	5
4pm	1315	21	88	6
5pm	1489	22	84	6
6pm	1539	18	77	1
7pm	1387	9	92	8

Comments:

Analysis hours based on minor street volumes

Warrant 1. Eight Hour Vehicular Volume (Warrant NOT Met)

- ☐ Yes ☒ No Meets 70%^c (major-street speed exceeds 40 mph or population less than 10,000) or 100%^a (regardless of speed) of Condition A.
- or -
- ☐ Yes ☒ No Meets 70%^c (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%^b of Conditions A and B.
- or -
- ☐ Yes ☒ No Meets 56%^d of Conditions A and B (major-street speed exceeds 40 mph or population less than 10,000).

Condition A - Minimum Vehicle Volume

Number of Lanes		Vehicles per hour on Major St. (Total of both Approaches)					Vehicles per hour on higher-volume Minor St. approach (One Direction Only)				
Major Street	Minor Street	Required				Existing	Required				Existing
		100% ^a	80% ^b	70% ^c	56% ^d		100% ^a	80% ^b	70% ^c	56% ^d	
1	1	500	400	350	280		150	120	105	84	
2 or more	1	600	480	420	336	1163	150	120	105	84	59
2 or more	2 or more	600	480	420	336		200	160	140	112	
1	2 or more	500	400	350	280		200	160	140	112	

Condition B - Interruption of Continuous Traffic

Number of Lanes		Vehicles per hour on Major St. (Total of both Approaches)					Vehicles per hour on higher-volume Minor St. approach (One Direction Only)				
Major Street	Minor Street	Required				Existing	Required				Existing
		100% ^a	80% ^b	70% ^c	56% ^d		100% ^a	80% ^b	70% ^c	56% ^d	
1	1	750	600	525	420		75	60	53	42	
2 or more	1	900	720	630	504	1163	75	60	53	42	59
2 or more	2 or more	900	720	630	504		100	80	70	56	
1	2 or more	750	600	525	420		100	80	70	56	

^a Basic minimum hourly volume.

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

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

^d May be used for combination of Conditions A and B after adequate 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 (Warrant NOT Met)

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

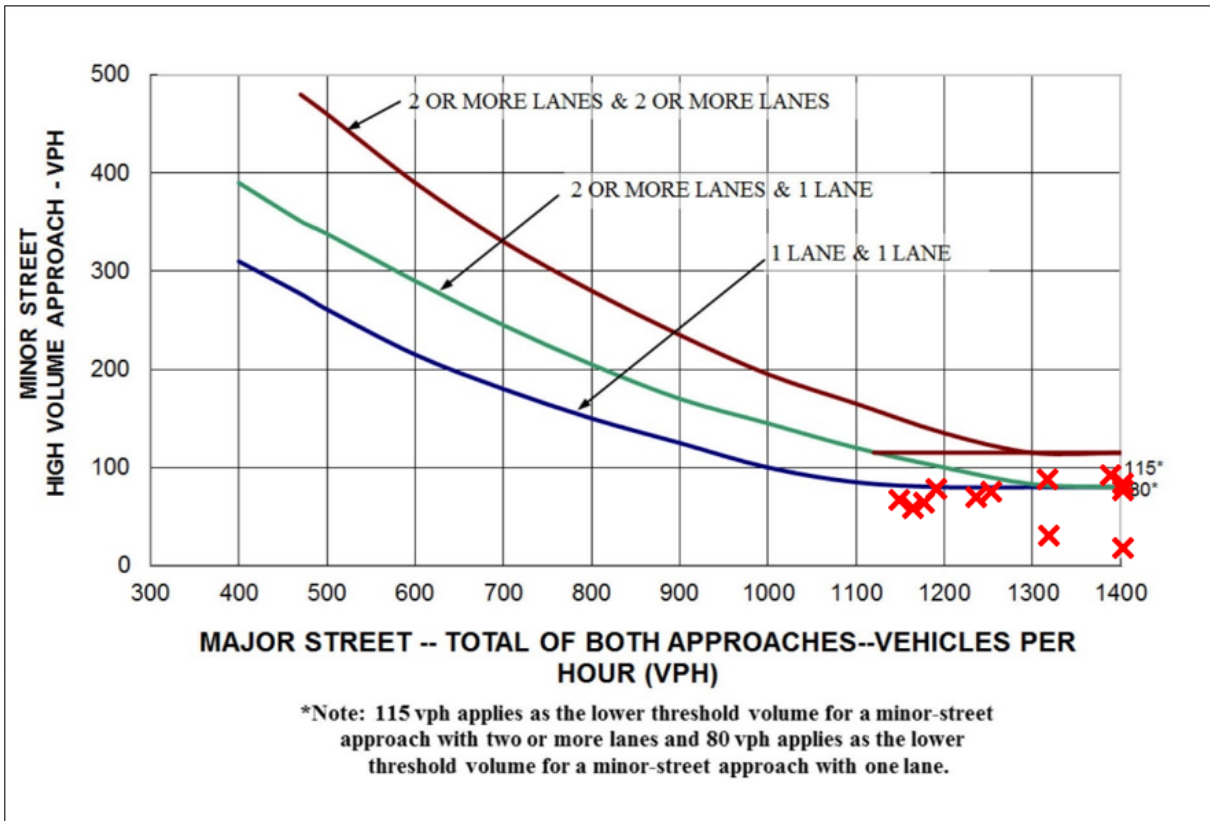


Figure 1. Four-hour volume warrant. (Warrant 2.)

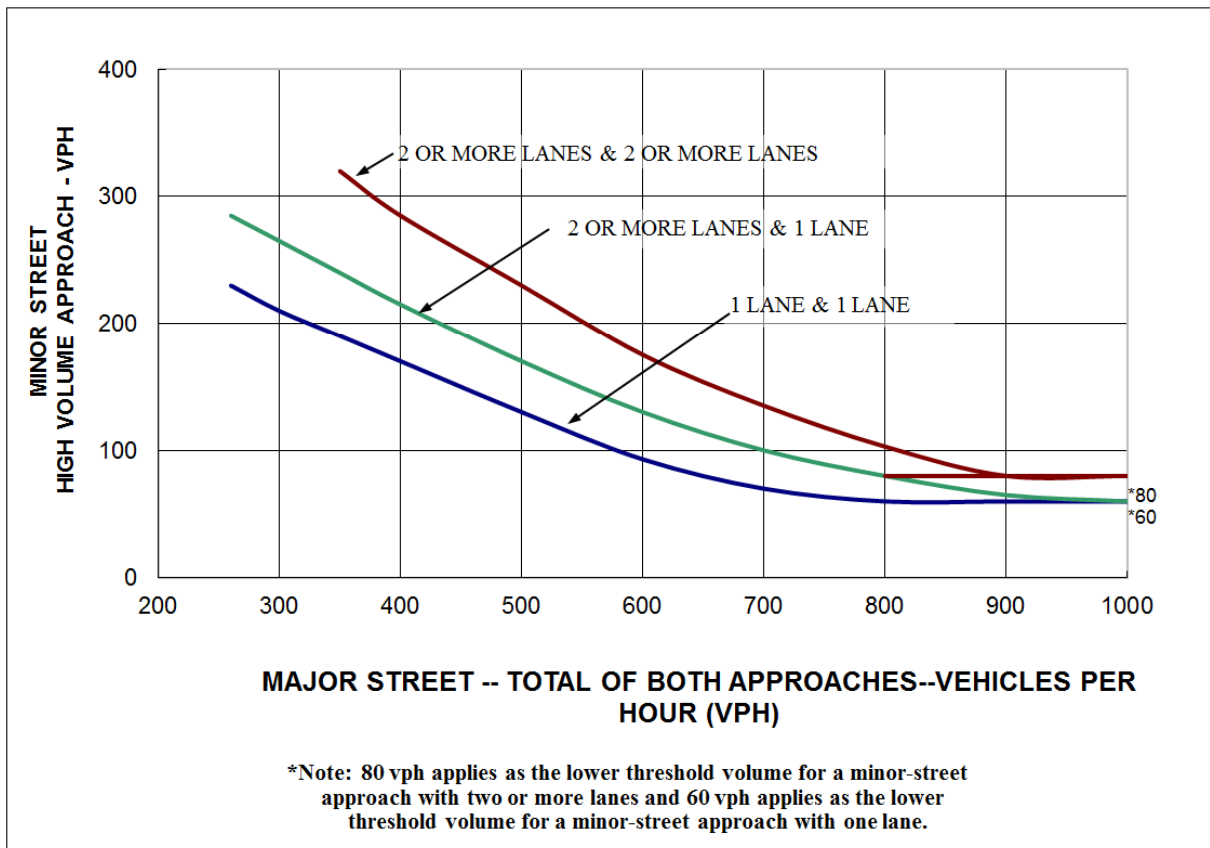


Figure 2. Four-hour volume warrant (70% Factor) (community less than 10,000 population or above 40 MPH on major street). (Warrant 2.)

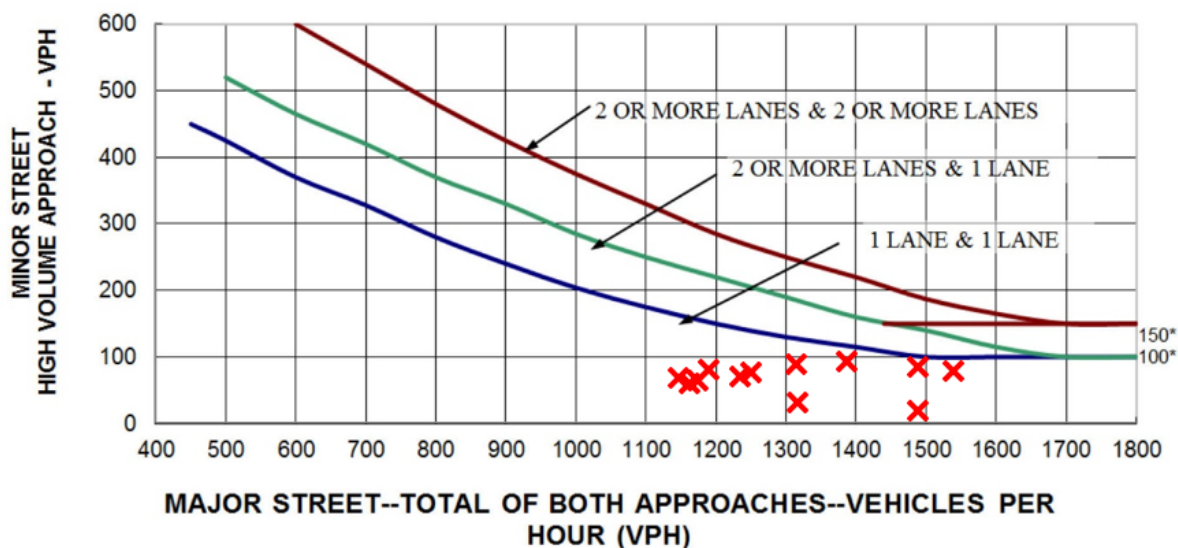
Warrant 3. Peak Hour (Warrant NOT Met)

☐ Yes ☒ No Are all of the following conditions true for the same 1 hour (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 or 5 vehicle-hours for a two-lane approach, *and*
2. The volume on 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, *and*
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 3 and Figure 4).



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 3. Peak hour volume warrant. (Warrant 3.)

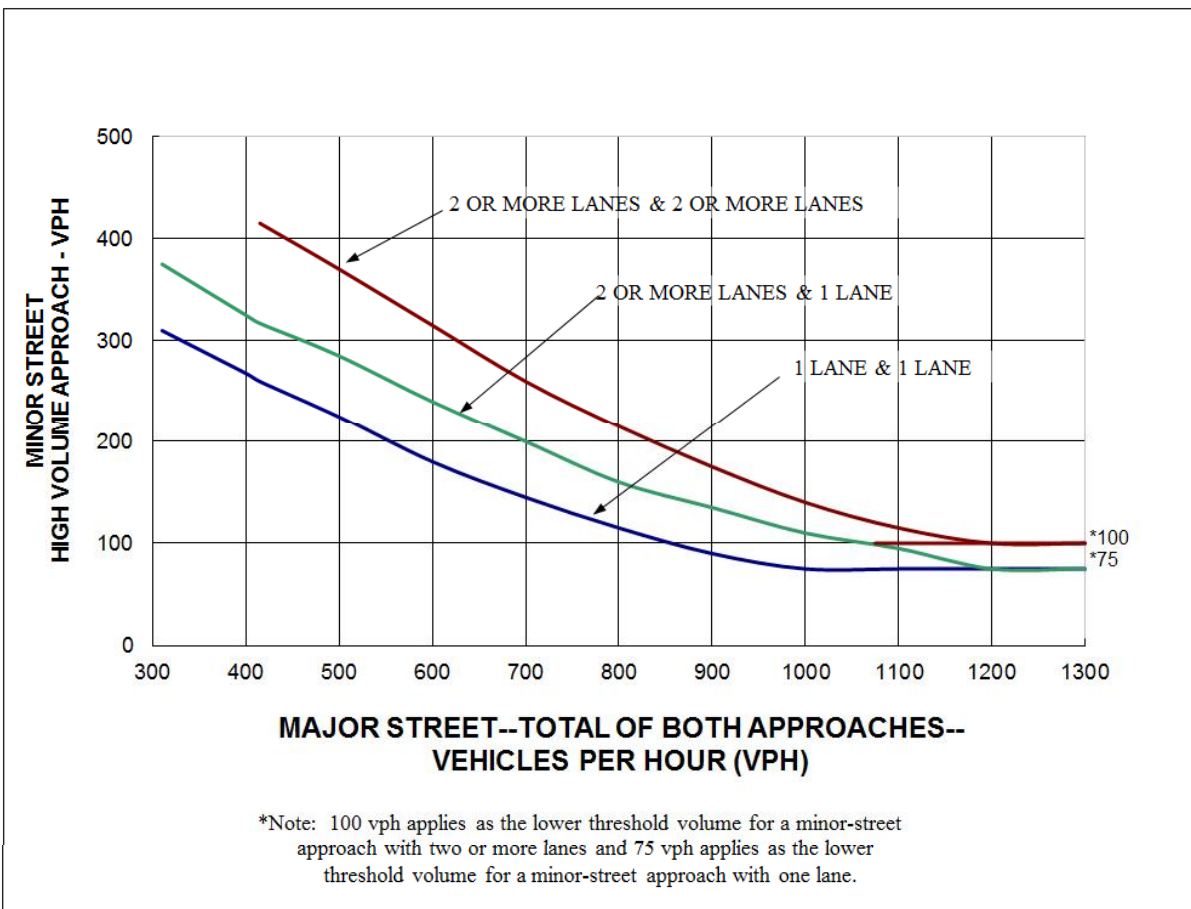


Figure 4. Peak hour volume warrant (**70% Factor**) (community less than 10,000 population or above 40 MPH on major street). (Warrant 3.)

Warrant 4. Four Hour Pedestrian Volume (Warrant NOT Met)

☐ Yes ☒ No Meets each of 4 Highest Hours (Warrant 4 - see Figure 5 and Figure 6.)

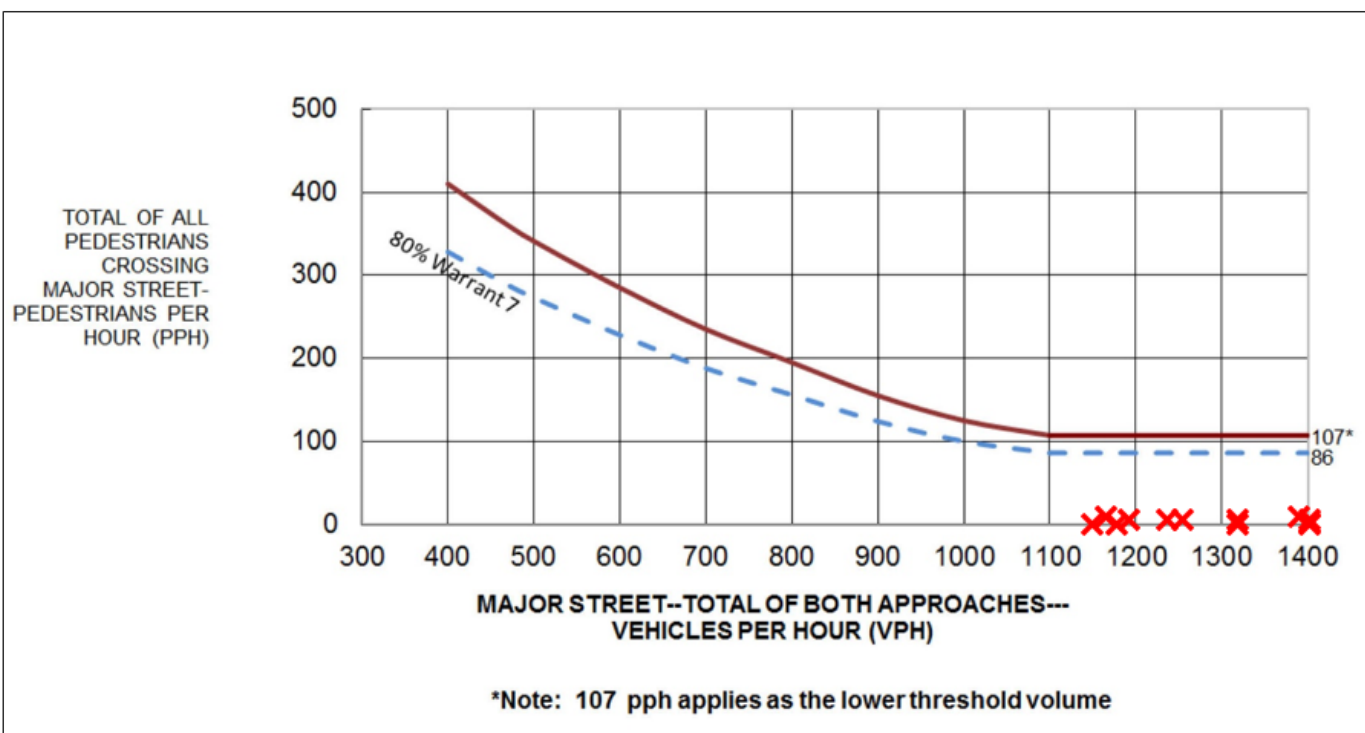
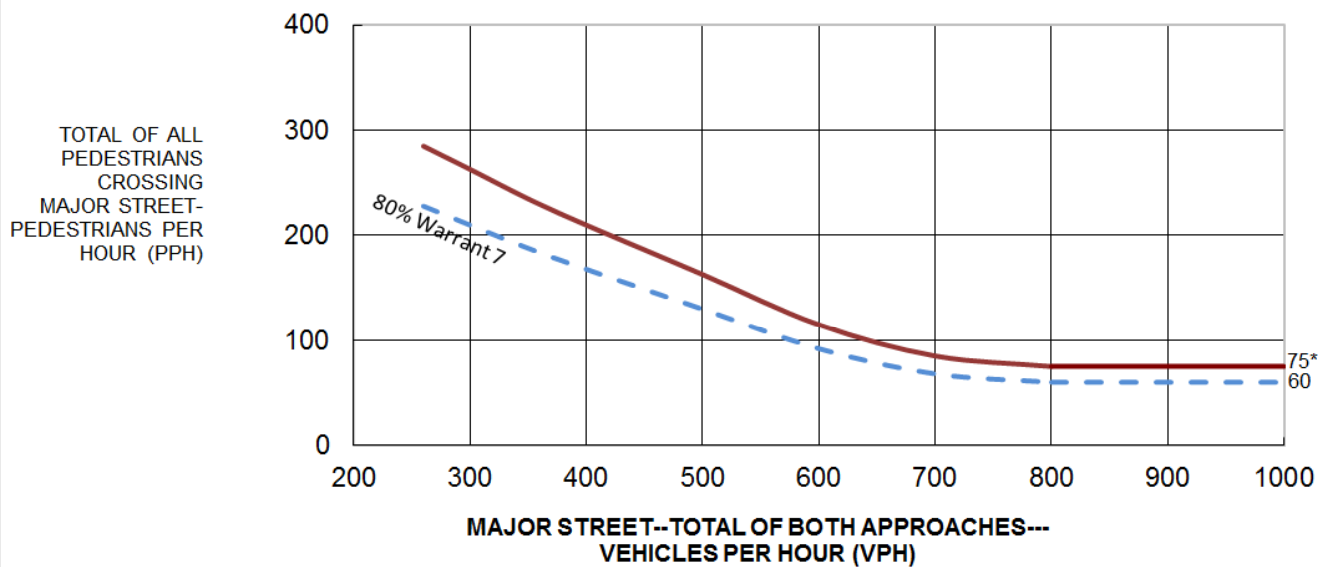


Figure 5. Four hour pedestrian warrant. (Warrant 4.)

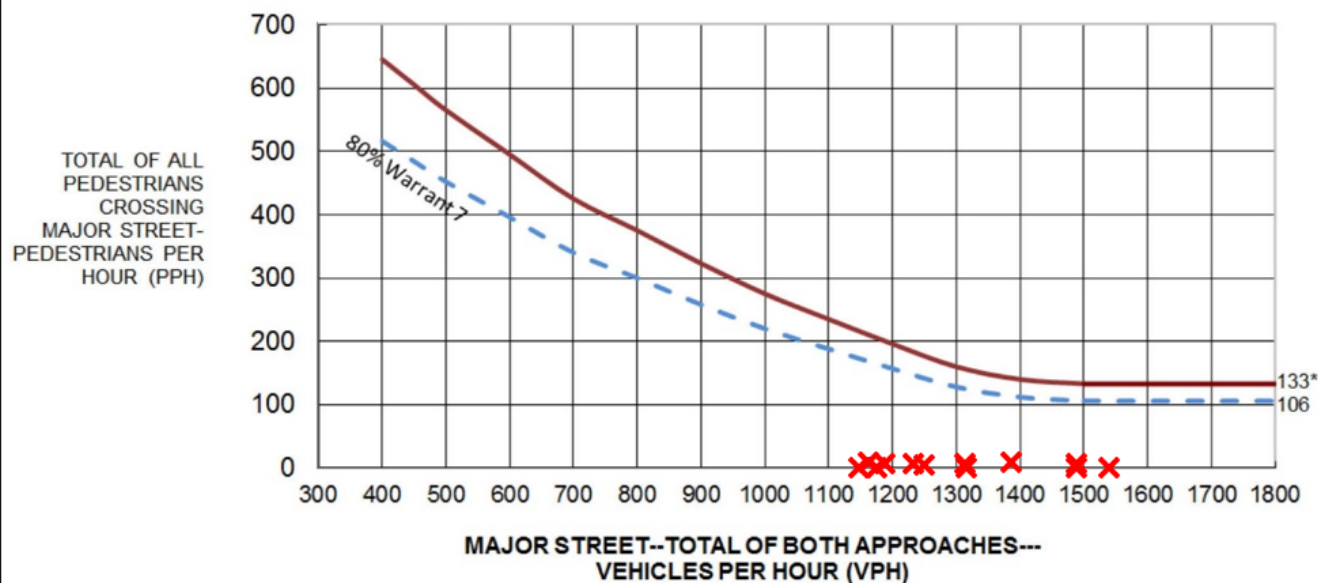


*Note: 75 pph applies as the lower threshold volume

Figure 6. Four hour pedestrian warrant (70% Factor). (community less than 10,000 population or above 35 MPH on major street). (Warrant 4.)

Warrant 4. Peak Hour Pedestrian Volumes

☐ Yes ☒ No Meets Peak Hour Pedestrian (Warrant 4 - see Figure 7 and Figure 8.)



*Note: 133 pph applies as the lower threshold volume

Figure 7. Four hour pedestrian warrant (Warrant 4.)

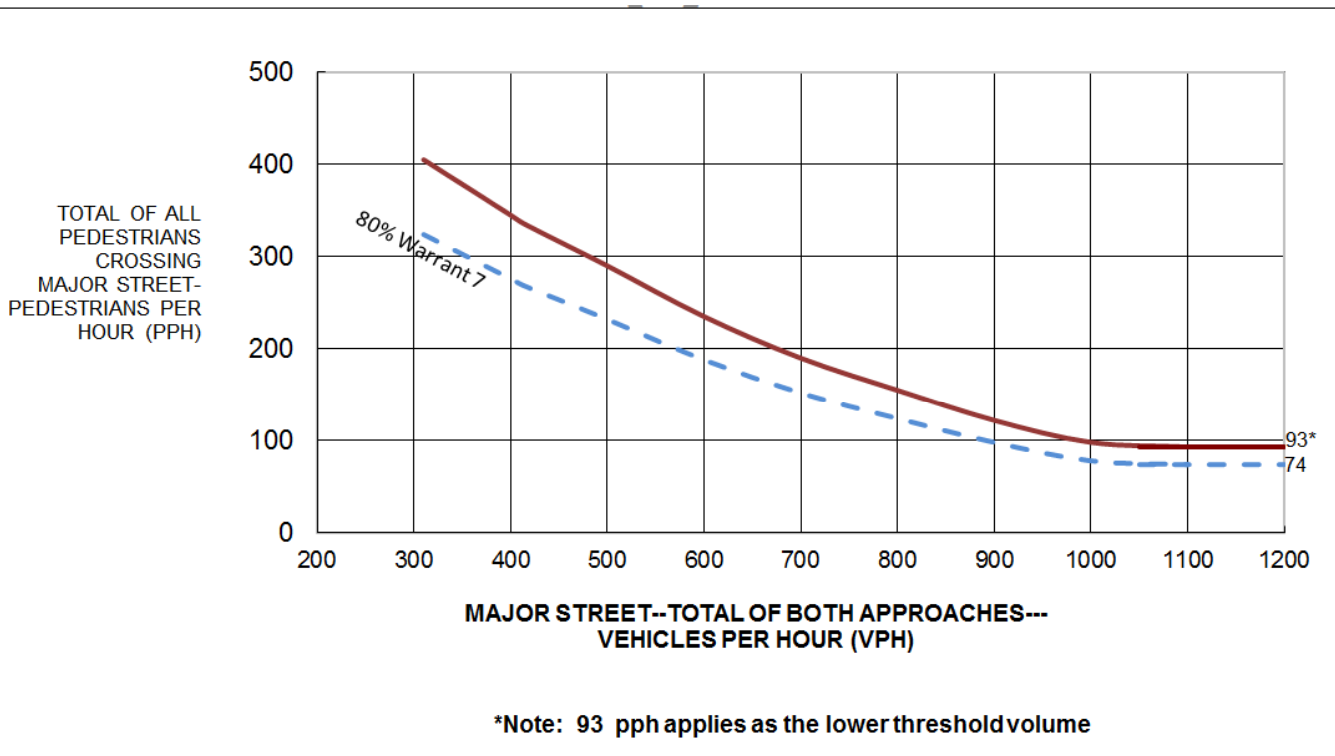


Figure 8. Peak hour pedestrian warrant (**70% Factor**). (community less than 10,000 population or above 40 MPH on major street). (Warrant 4.)

Warrant 5. School Crossing (Not Applicable)

- ☐ Yes ☐ No Is the number of adequate gaps in traffic stream during the period when the children are using the crossing less than the number of minutes in the same period?
- and -
- ☐ Yes ☐ No Are there a minimum of 20 students during the highest crossing hour?
- and -
- ☐ Yes ☐ No Is the nearest signal on the major street 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. Coordinated Signal System (Not Applicable)

- ☐ Yes ☐ No On a one-way street or a street with traffic predominantly in one direction, are the adjacent 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 apart that the necessary degree of vehicle platooning does not occur and would the proposed and adjacent traffic control signal provide a progressive operation?

Warrant 7. Crash Experience (Warrant NOT Met)

- ☒ Yes ☐ No Is one of the following conditions met?:
- ♦ 80% of Condition A or Condition B in Warrant 1
 - ♦ 56% of Conditions A or B in Warrant 1 (major-street speed exceeding 40 mph or population less than 10,000)
 - ♦ 80% or more of Warrant 4
- and -
- ☒ Yes ☐ No Have there been 5 or more reported crashes susceptible to correction by a traffic signal in 12 months?

Warrant 8. Roadway Network (Not Applicable)

- ☐ Yes ☒ 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 ☒ 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 (only 1 needs to be checked):

Major Street ☐ Yes ☐ No
Minor Street ☐ Yes ☐ No

- ☐ Yes ☐ No It is part of street or highway system that serves as the principal roadway network for through traffic flow.
- ☐ Yes ☐ No It includes rural or suburban highways outside, entering, or traversing a city.
- ☐ Yes ☐ No It appears as a major route on an official plan such as a major street plan in an urban area traffic and transportation study.
- ☐ Yes ☐ No It connects areas of principal traffic generation.
- ☐ Yes ☐ No It has surface street freeway or expressway ramp terminals.

Warrant 9. Intersection Near a Grade Crossing (One Approach Lane at the Track Crossing) (Not Applicable)

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

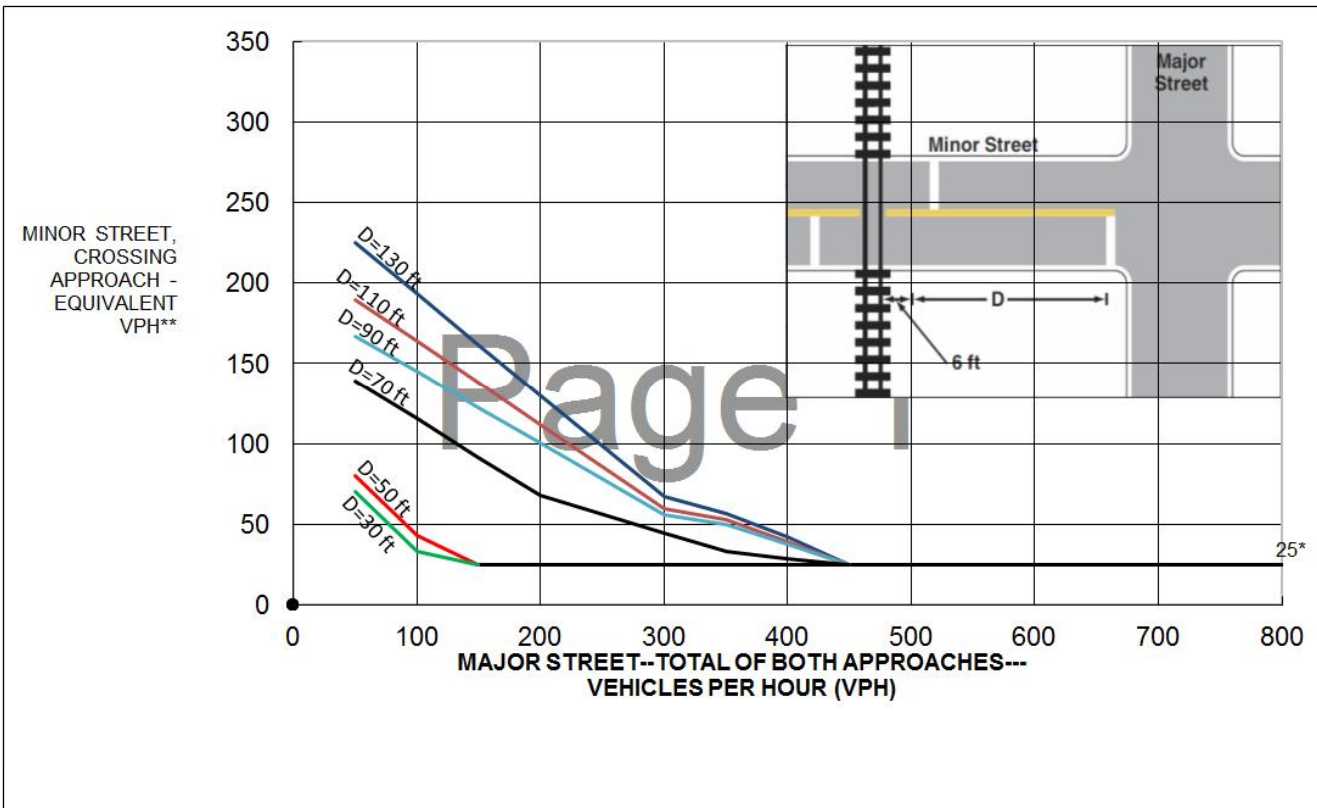


Figure 9. Railroad Grade Crossing (One Approach Lane at the Track Crossing) (Warrant 9.)

Warrant 9. Intersection Near a Grade Crossing (Two or More Approach Lanes at the Track Crossing) (Not Applicable)

☐ Yes ☐ No Meets one High Hour (Warrant 9 - see Figure 10.)

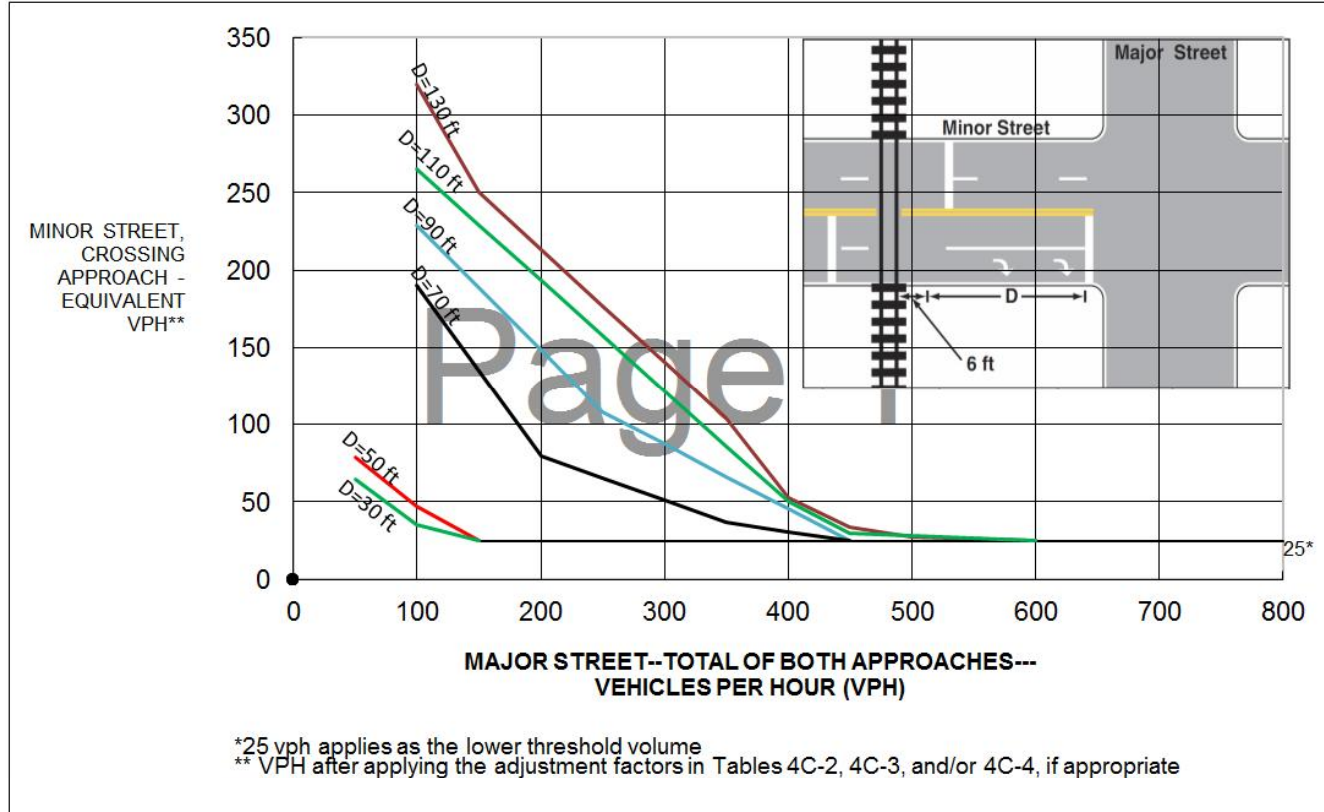


Figure 10. Railroad Grade Crossing (Two or More Approach Lanes at the Track Crossing) (Warrant 9.)

Table 4C-2. Warrant 9, Adjustment Factor for Daily Frequency of Rail Traffic

Rail Traffic per Day	Adjustment Factor
1	0.67
2	0.91
3 to 5	1.00
6 to 8	1.18
9 to 11	1.25
12 or more	1.33

Table 4C-3. Warrant 9, Adjustment Factor for Percentage of High-Occupancy Buses

% of High-Occupancy Buses* on Minor-Street Approach	Adjustment Factor
0%	1.00
2%	1.09
4%	1.19
6% or more	1.32

* A high-occupancy bus is defined as a bus occupied by at least 20 people.

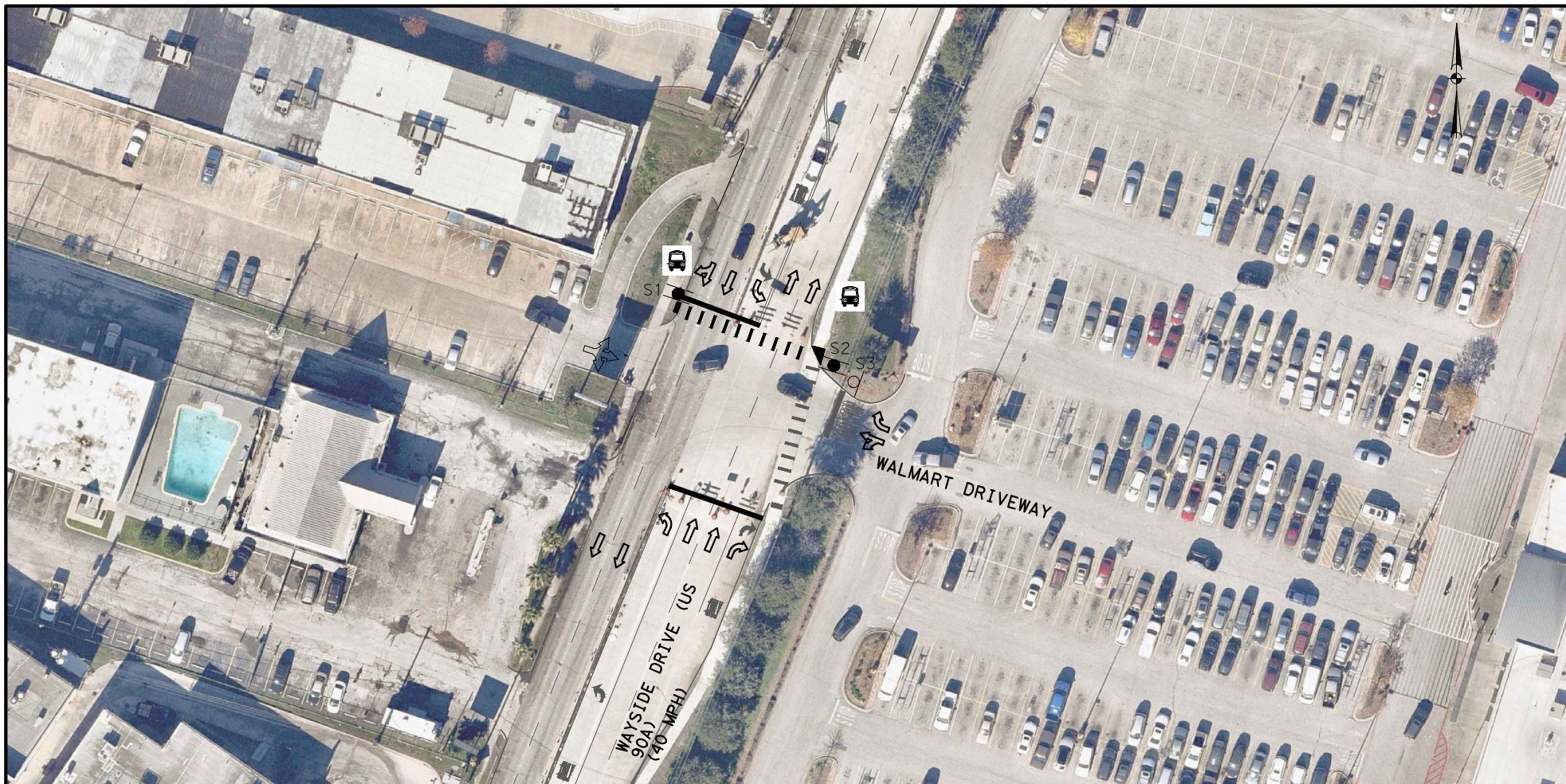
Table 4C-4. Warrant 9, Adjustment Factor for Percentage of Tractor-Trailer Trucks

% of Tractor-Trailer Trucks on Minor-Street Approach	Adjustment Factor	
	D less than 70 feet	D of 70 feet or more
0% to 2.5%	0.50	0.50
2.6% to 7.5%	0.75	0.75
7.6% to 12.5%	1.00	1.00
12.6% to 17.5%	2.30	1.15
17.6% to 22.5%	2.70	1.35
22.6% to 27.5%	3.28	1.64
More than 27.5%	4.18	2.09

Remarks:



H.PROPOSED CONDITIONS LAYOUT



PROPOSED RRFB



S1 & S2

EXISTING SIGN



S3

LEGEND



DIRECTION OF TRAVEL



BUS STOP



RRFB ON PED POLE



EXISTING SIGN

Note:

THE LOCATIONS OF ALL ITEMS SHOWN IN THIS EXHIBIT ARE APPROXIMATE. THIS EXHIBIT IS NOT INTENDED FOR ANY CONSTRUCTION USE.

Kimley»Horn

11233 Shadow Creek Parkway, Suite 450
Pearland, Texas 77564

Tel. No. (281) 895-1210

TRAFFIC ENGINEERING STUDY

RECOMMENDED CONDITIONS LAYOUT
WAYSIDE DRIVE (US 90A) AND
WALMART DRIVEWAY

PROJECT NUMBER: 064627202

SCALE: 1" = 70' (APPROX.)

Attachment

H