

APPENDIX J:

TRAFFIC STUDY



Traffic Study

for:

Riverside Community Hospital Phase II Brockton Parking Garage

In the City of Riverside

March 2025

Kimley»»Horn

**TRAFFIC STUDY
FOR THE PROPOSED
RIVERSIDE COMMUNITY HOSPITAL
PHASE II BROCKTON PARKING GARAGE
IN THE CITY OF RIVERSIDE**

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March 2025

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**TRAFFIC STUDY
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EXECUTIVE SUMMARY

This traffic study has been prepared to evaluate the project-related traffic effects associated with the proposed Riverside Community Hospital (RCH) Phase II Brockton Parking Garage Project in the City of Riverside. This traffic study has been conducted in coordination with the City of Riverside and in accordance with the City of Riverside *Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment* (July 2020).

The certified Final Environmental Impact Report (FEIR) for the Riverside Community Hospital Specific Plan Expansion Project (RCHSP) concluded that implementation of the RCHSP would result in significant impacts from Phases I, IIA, IIB, IIC related to traffic affecting the level of service (LOS) at certain intersections and roadway segments within the study area. Given these significant impacts, MM TRA-1 through MM TRA-8 were incorporated.

Phase I of the RCHSP has been completed and subsequently, MM TRA-1 through MM TRA-4 and MM TRA-7 through MM TRA-8 have been implemented. MM TRA-5 through MM TRA-6 are anticipated to be implemented as part of Phase II completion.

The proposed Phase II project has been evaluated during the weekday morning and evening peak hour for the following conditions:

- Existing Conditions
- Opening Year 2026
- Opening Year 2026 Plus Project
- Build-Out 2035 Plus Project

Under Existing Conditions, the study intersections currently operate at an acceptable Level of Service (LOS).

Under Existing Conditions, the study roadway segments currently operate at an acceptable Level of Service (LOS).

An annual ambient growth rate of 2% was added to Existing Conditions to develop Opening Year 2026 forecasts.

Under Opening Year 2026 conditions, the study intersections would continue to operate at an acceptable LOS.

Under Opening Year 2026 conditions, the study roadway segments would continue to operate at an acceptable LOS.

After applying internal capture, the project is estimated to generate 3,654 net new vehicle trips on a daily basis, with 266 trips during the morning peak hour, and 333 trips during the evening peak hour.

Project-related traffic volumes were added to Opening Year 2026 conditions to establish the conditions for the Opening Year 2026 Plus Project scenario. With the addition of project traffic, the study intersections would continue to operate at an acceptable LOS.

Under Opening Year 2026 Plus Project conditions, the study roadway segments would continue to operate at an acceptable LOS.

Consistent with the previously approved traffic study, under Build-Out 2035 Plus Project Conditions, the following study intersection would operate at an unacceptable LOS:

- #4 – Market Street/Magnolia Avenue at 14th Street – PM: LOS E

Consistent with the Certified FEIR, mitigation measure MM TRA-5 is recommended to address the project's effect at this intersection.

All other study intersections would continue to operate at an acceptable LOS.

Consistent with the previously approved traffic study, under Build-Out 2035 Plus Project conditions, the following study roadway segments would operate at an unacceptable LOS:

- Brockton Avenue: South of Existing South RCH Driveway
- Brockton Avenue: Existing South Driveway to New North RCH Driveway
- Brockton Avenue: New North RCH Driveway to New Garage Egress
- Brockton Avenue: New Garage Egress to 14th Street

As identified in the Certified FEIR, mitigation measures MM TRA-5 through MM TRA-6, are expected to be completed during the proposed development phases under the RCHSP.

Based on discussion with the City staff, the project will be conditioned to provide the following proposed lane configuration along Brockton Avenue:

- A 10' two-way left-turn lane between 14th Street and Driveway 3 (New Parking Garage Egress Driveway)
- A 10' refuge lane serving westbound left-turn movements at Driveway 3 (New Parking Garage Egress)
- An exclusive 10' southbound left-turn lane, and a 10' refuge lane serving westbound left-turn movements at Driveway 2 (New North RCH Driveway)
- A painted median at Driveway 1 (Existing South Driveway) to prohibit southbound and westbound left-turn movements
- A 5' dedicated southbound bike lane
- Northbound Sharrow striping
- Extend the southbound left-turn pocket at Tequesquite Avenue to be 165'

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INTRODUCTION

Purpose and Study Objectives

This traffic study has been prepared to evaluate the project-related traffic effects associated with the proposed Riverside Community Hospital (RCH) Phase II Brockton Parking Garage Project (“Project”) in the City of Riverside.

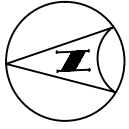
This study has been conducted in accordance with the traffic study requirements of the City of Riverside *Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment* (July 2020). This study includes an evaluation of project-related effects on the surrounding roadway system. Where necessary, circulation system improvements have been identified to address project-related deficiencies at the study locations.

Project Description

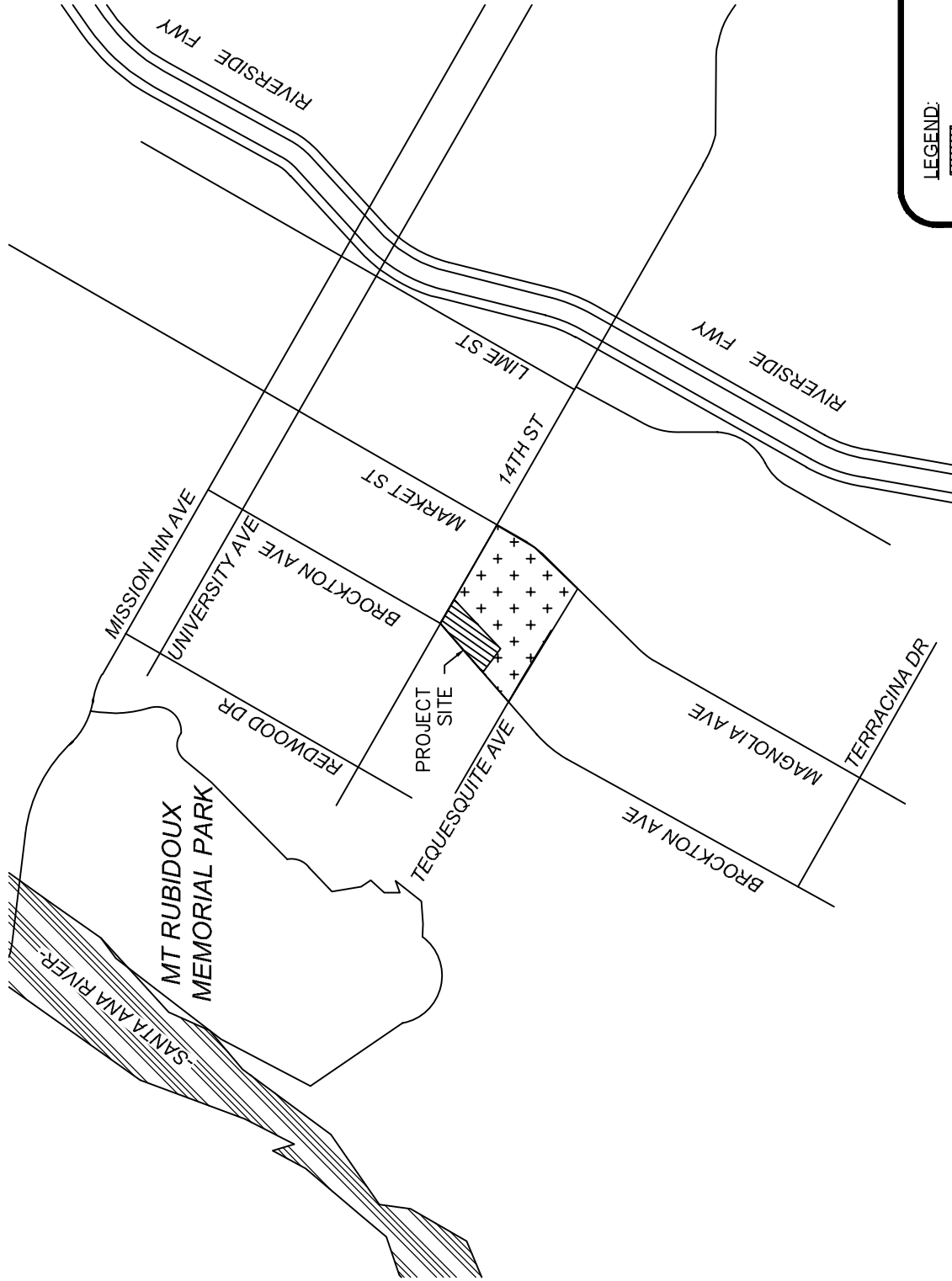
Background Information

The Riverside Community Hospital campus currently occupies approximately 22.5 acres bordered by 14th Street on the north, Magnolia Avenue to the east, Tequesquite Avenue and the Calvary Presbyterian Church to the south, and Brockton Avenue to the west. The project site is shown in its regional setting in **Figure 1**.

A traffic impact study was prepared (“previously approved traffic study”) as part of the “Final Environmental Impact Report for the Riverside Community Hospital Specific Plan Expansion Project” (“EIR” or “FEIR” or “certified FEIR”) (May 2014), to evaluate the impacts associated with a campus expansion. Specifically, the previously approved traffic study analyzed the impacts of the new patient tower. The certified FEIR concluded that implementation of the Riverside Community Hospital Specific Plan (RCHSP) would result in significant impacts from Phases I, IIA, IIB, IIC related to traffic affecting the level of service (LOS) at certain intersections and roadway segments within the study area. Given these significant impacts, MM TRA-1 through MM TRA-8 were incorporated per **Table 1**.



NOT TO SCALE



LEGEND:

-  = Project Area
-  = RCH Campus

FIGURE 1
VICINITY MAP

Table 1 – Mitigation Measure Summary

Mitigation Measure No.	Mitigation Measure	Timing of Implementation Based on the FEIR	Status
MM TRA-1	Brockton Avenue and 14th Street: Prior to the completion of Phase I, Riverside Community Hospital (RCH) shall convert the number one westbound through lane to a second left-turn lane.	Phase I Pre-Operation	Completed.
MM TRA-2	14th Street and Magnolia Avenue/Market Street: Prior to the completion of Phase I, RCH shall modify the signal operation at 14th Street and Magnolia Avenue / Market Street to provide right-turn overlap for the northbound approach.	Phase I Pre-Operation	Completed.
MM TRA-3	Brockton Avenue and RCH Entrance: Prior to the completion of Phase I, the driveway at the RCH entrance off Brockton Avenue shall be modified to prohibit westbound (outbound) left-turn movements to reduce delay. As a condition of approval, southbound left turns into the driveway at the RCH entrance off Brockton Avenue shall be restricted. This measure will also address level of service during Phases IIa, IIb, and IIc.	Phase I Pre-Operation	Completed. ¹
MM TRA-4	Brockton Avenue and 14th Street: Prior to issuance of certificate of occupancy for Phase IIa, the intersection of Brockton Avenue and 14th Street shall be modified by converting one westbound through lane to a second left-turn lane.	Phase IIa Pre-Operation	Completed.
MM TRA-5	14th Street and Magnolia Avenue/ Market Street: Prior to issuance of certificate of occupancy for Phase IIa, a second westbound left-turn lane shall be provided at the intersection of 14th Street and Magnolia Avenue / Market Street, as well as signal operation modification to provide right-turn overlap for the northbound approach. Additional right-of-way shall be dedicated on 14th Street at Market Street to accommodate the proposed turn lanes. If acquisition of off-site right-of-way is necessary, the applicant shall make a good faith effort to acquire the right-of-way needed to accomplish the improvement.	Phase IIa Pre-Operation	To be implemented as part of Phase IIa completion.

Mitigation Measure No.	Mitigation Measure	Timing of Implementation Based on the FEIR	Status
MM TRA-6	14th Street and Lime Street: Prior to issuance of a certificate of occupancy for Phase IIa, the northbound through/right-turn lane at the intersection of 14th Street and Lime Street shall be converted into an exclusive right-turn lane to accommodate heavy right-turn movement toward the freeway. Signal operation shall be modified to provide right-turn overlap for the northbound approach.	Phase IIa Pre-Operation	To be implemented as part of Phase IIa completion.
MM TRA-7	Brockton Avenue roadway segment from Tequesquite to Ramona: During Phase I, modification of the traffic signal at the intersection of Brockton Avenue and Tequesquite Avenue shall provide protected/permissive left-turn phasing in all directions.	Phase I Construction	Completed.
MM TRA-8	Brockton Avenue roadway segment from 14th Street to Tequesquite Avenue: During Phase I, Brockton Avenue south of 14th Street shall be restriped to provide a northbound right-turn lane and the traffic signal at the intersection of Brockton Avenue and 14th Street shall be modified to provide right-turn overlap for the northbound approach.	Phase I Construction	Completed.
¹ The right-turn overlap was implemented as part of Phase I, however, as part of a paving project, the City reverted the intersection back to its original operation.			

Proposed Phase II

Since the completion of the RCH Specific Plan, there have been some modifications to the plans for Phase II. The new plans for Phase II include the construction of a bed tower with 374 beds¹ in Building S, 319 of these beds will be relocated from Buildings B and D. The two existing medical office buildings on the northwest corner of the site will be demolished and a 587-stall parking garage will be constructed as Building T.

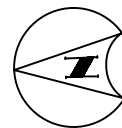
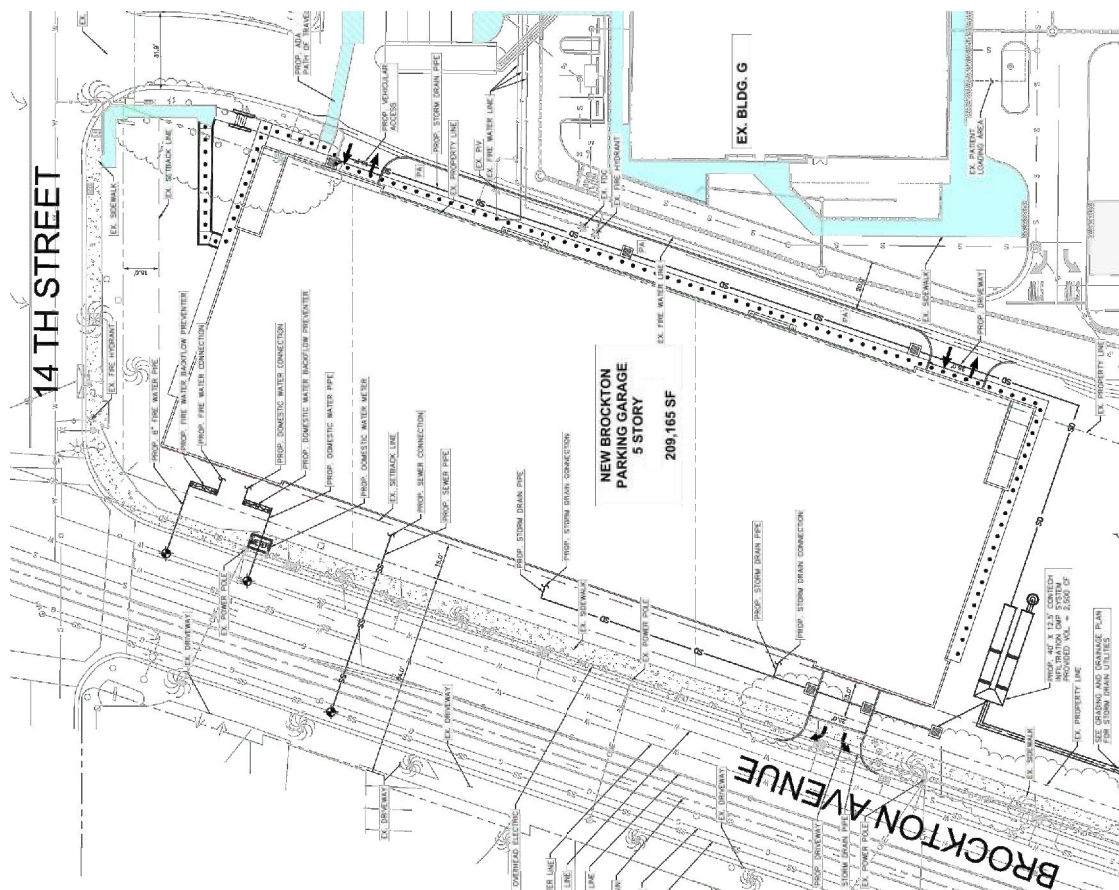
Consistent with the previously approved traffic study, Buildings B and D will be re-used as one or more medical campus functions, such as Hospital Administrative Support for the Bed Towers, Skilled Nursing, UCR Resident Facilities, Outpatient, etc. Building A will be demolished and replaced with a new 100,000 square-foot Medical Office Building. The proposed garage site plan is provided in **Figure 2A** and the overall Phase II project site plan is provided in **Figure 2B**. This traffic study is being prepared to evaluate traffic circulation effects due to the proposed relocation of the parking garage from its current location at the center of the site to the new location along Brockton Avenue. The existing garage will be demolished, and the new bed tower will be constructed in its place. The new garage location will replace the loss of the existing parking garage. Additionally, this study will analyze the operations of the two proposed driveways (Driveway 2 and Driveway 3), as part of the proposed Phase II site plan.

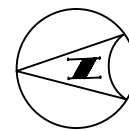
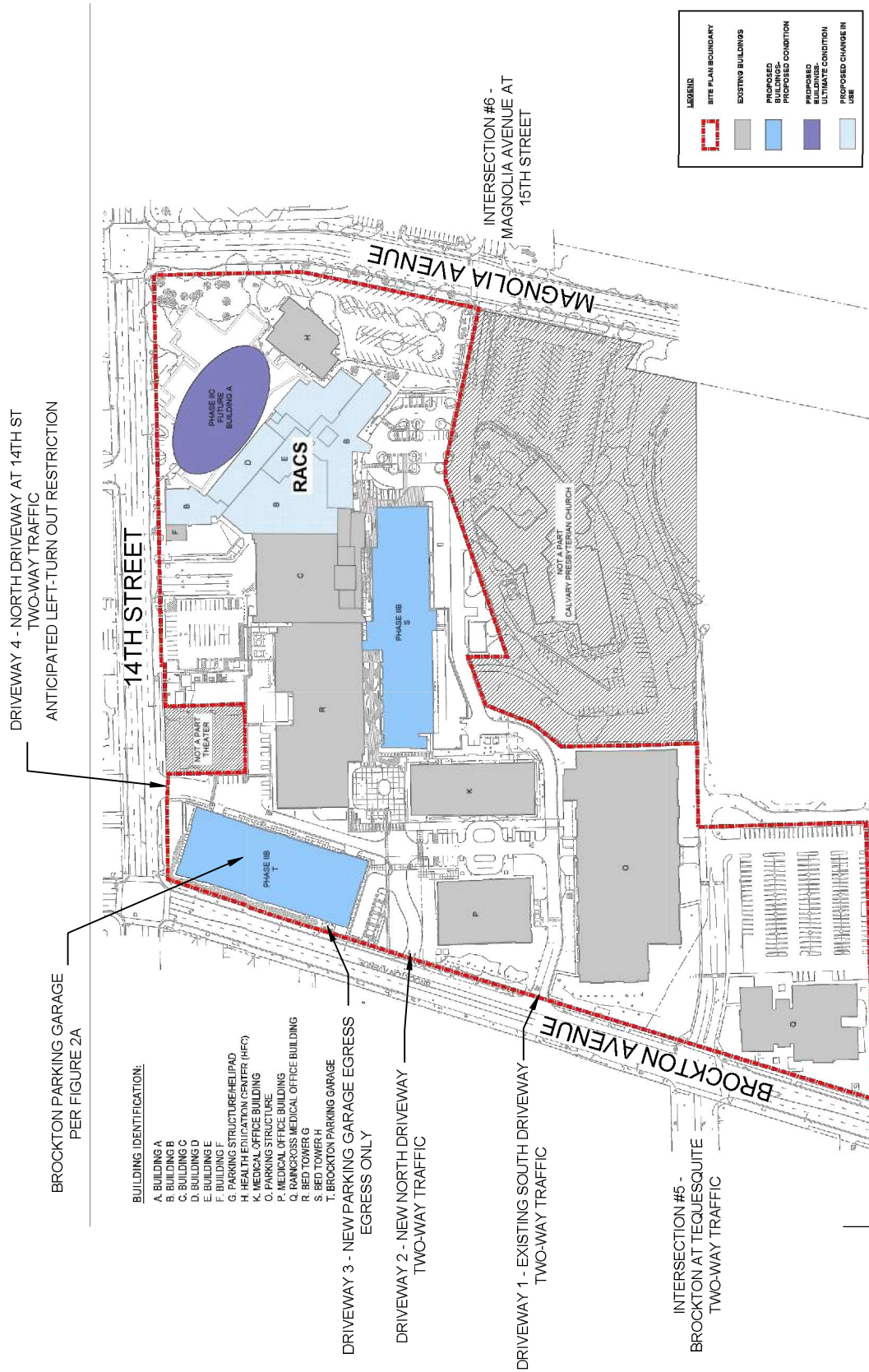
Site Access and Circulation

Vehicular access provisions for the project site would be provided via one existing right-in / right-out (RIRO) driveway on Brockton Avenue (Driveway 1), one proposed full-movement driveway on Brockton Avenue (Driveway 2), one proposed parking garage egress only driveway on Brockton Avenue (Driveway 3), and one existing driveway on 14th Street with proposed left-out restricted access (Driveway 4). All driveways would be unsignalized. Additionally, access to the site would be provided via the signalized intersection of Magnolia Avenue and 15th Street (Intersection 6).

On-site operations at the project campus are structured to accommodate patient drop-off and pick-up at the porte-cochere between Building B and Building S (the new bed tower). These patients, typically in wheelchairs, are dropped off and picked up by family members and caregivers in this designated area, and will consequently enter and exit the site via Intersection 6. An internal drive aisle is proposed to connect Intersection 6 with the porte-cochere and the new Brockton parking garage, where caregivers would park before and after dropping off or picking up patients at the porte-cochere.

¹ The "Final Environmental Impact Report for the Riverside Community Hospital Specific Plan Expansion Project" (May 2014) originally approved 377 beds as part of the new bed tower. The revised project plans are proposing 374 beds in the new bed tower.





NOT TO SCALE

FIGURE 2B
OVERALL PHASE II PROJECT SITE PLAN

ANALYSIS SCENARIOS AND METHODOLOGY

This Level of Service (LOS) analysis has been prepared in coordination with the City of Riverside and in accordance with the City of Riverside *Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment* (July 2020).

Analysis Scenarios

The project was evaluated for the following conditions:

- Existing Conditions
- Opening Year 2026 (Existing + Ambient Growth)
- Opening Year 2026 Plus Project
- Build-Out 2035 Plus Project

Intersection Analysis - HCM Methodology

Peak hour intersection operations at the study intersections were evaluated using the methods prescribed in the Highway Capacity Manual (HCM) 7th Edition, consistent with the City of Riverside *Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment* (July 2020).

The intersection analysis for the proposed project has been accomplished using the SYNCHRO software program and using the specified input parameters outlined in the City of Riverside *Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment* (July 2020).

For signalized intersections, the HCM methodology estimates the average delay (in average seconds per vehicle) for each of the movements through the intersection, considering a number of factors, including number of lanes, volume of traffic, cycle length, and signal timing and phasing.

For unsignalized intersections, the HCM methodology analysis determines the average total delay for each vehicle making any movement from the stop-controlled minor street, as well as left turns from the major street. Delay values are calculated based on the relationship between traffic on the major street and the availability of acceptable gaps in the traffic stream through which conflicting traffic movements can be made.

The HCM delay forecast translates to a LOS designation, ranging from LOS A to LOS F. A summary description of each LOS and the corresponding delay is provided in the following charts.

LEVEL OF SERVICE DEFINITIONS	
Level of Service	Description
A	No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turns are made easily and nearly all drivers find freedom of operation.
B	This service level represents stable operation, where an occasional approach phase is fully utilized, and a substantial number are approaching full use. Many drivers begin to feel restricted within platoons of vehicles.
C	This level still represents stable operating conditions. Occasionally drivers may have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted but not objectionably so.
D	This level encompasses a zone of increasing restriction, approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
E	Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is seldom attained no matter how great the demand.
F	This level describes forced flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially, and stoppages may occur for short or long periods of time due to the congestion. In the extreme case, both speed and volume can drop to zero.

LEVEL OF SERVICE CRITERIA FOR SIGNALIZED AND UNSIGNALIZED INTERSECTIONS		
Level of Service	Signalized Intersection (Average delay per vehicle, in seconds) ¹	Unsignalized Intersections (Average delay per vehicle, in seconds) ²
A	≤ 10	0 – 10
B	> 10 – 20	> 10 – 15
C	> 20 – 35	> 15 – 25
D	> 35 – 55	> 25 – 35
E	> 55 – 80	> 35 – 50
F	> 80	> 50

¹ Source: Highway Capacity Manual (HCM 7th Edition), Exhibit 19-8.

² Source: Highway Capacity Manual (HCM 7th Edition), Exhibit 20-2.

Level of Service Standards

The City of Riverside General Plan includes the following policies regarding minimum acceptable LOS:

- a) LOS C** is to be maintained at all street intersections
- b) LOS D** is to be maintained at intersections of Collector or higher Classification. See *General Plan Policy CCM – 2.3*

For projects that propose intensities above that contained in the General Plan:

Operational improvements are required when the addition of project related trips causes either peak hour LOS to degrade the acceptable (A through D) to unacceptable levels (E or F) or the peak hour delay to increase as follows:

- LOS A/B – By 10 seconds
- LOS C – By 8 seconds
- LOS D – By 5 seconds
- LOS E – By 2 seconds
- LOS F – By 1 second

Study Area

This traffic study includes documentation of existing conditions, future conditions, and identification of project-related deficiencies at the following study intersections:

1. Brockton Avenue at University Avenue
2. Market Street at University Avenue
3. Brockton Street at 14th Street
4. Market Avenue/Magnolia Avenue at 14th Street
5. Brockton Avenue at Tequesquite Avenue
6. Magnolia Avenue at 15th Street
7. Brockton Avenue at Terracina Avenue
8. Magnolia Avenue at Terracina Avenue
- D1. Brockton Avenue at Existing South RCH Driveway
- D2. Brockton Avenue at New North RCH Driveway
- D3. Brockton Avenue at New Garage Egress
- D4. 14th Street at RCH Driveway

The study locations were established in consultation with City of Riverside staff through the Scoping Agreement process. A copy of the approved Scoping Agreement is provided in **Appendix A**.

AREA CONDITIONS

Existing Street System

Regional access to the site is provided primarily by State Route 91 (SR-91), located approximately 3,000 feet east of the project site. Local access to the project area is provided primarily via 14th Street, Market Street/Magnolia Avenue, and Brockton Avenue. Existing lane configurations and intersection controls at the study intersections are shown on **Figure 3**. The following provides a description of the roadways providing access to the project area.

Brockton Avenue is a north-south roadway with one to two lanes in each direction within the project vicinity. The posted speed limit is 35 miles per hour (mph), and on-street parking is prohibited on both sides within the project vicinity. In the City of Riverside General Plan, Brockton Avenue is designated as an 88-Foot Arterial.

Market Street/Magnolia Avenue is a north-south roadway with two lanes in each direction with a center two-way left-turn lane (TWLTL) in the project vicinity. The posted speed limit is 35 mph, and on-street parking is prohibited on both sides within the project vicinity. In the City of Riverside General Plan, Market Street/Magnolia Avenue is generally designated as a 120-Foot Arterial.

University Avenue is an east-west roadway with two lanes in each direction in the project vicinity. The posted speed limit is 35 mph and on-street parking is prohibited on both sides within the project vicinity. In the City of Riverside General Plan, Magnolia Avenue is generally designated as a 100-Foot Arterial.

14th Street is an east-west roadway with one to two lanes in each direction with a center TWLTL in the project vicinity. The posted speed limit is 35 mph and on-street parking is prohibited on both sides within the project vicinity. In the City of Riverside General Plan, 14th Street is a 66-Foot Collector west of Brockton Avenue and a 100-Foot Arterial east of Brockton Avenue in the project vicinity.

Tequesquite Avenue is an east-west roadway with one lane in each direction that provides access to an existing RCH parking structure (Building O). On-street parking is prohibited on both sides within the project vicinity.

15th Street is an east-west roadway with one lane in each direction that provides access to the RCH campus. On-street parking is prohibited on both sides within the project vicinity.

Terracina Drive is an east-west roadway with one lane in each direction. The posted speed limit is 25 mph and on-street parking is prohibited on both sides within the project vicinity.

Existing Transit Service

Transit service to the project area is provided by the Riverside Transit Agency (RTA), which serves Riverside County. The RTA bus stops closest to the project site are located along the project frontage on Brockton Avenue and Magnolia Avenue. A description of the bus routes serving the project area is provided below.

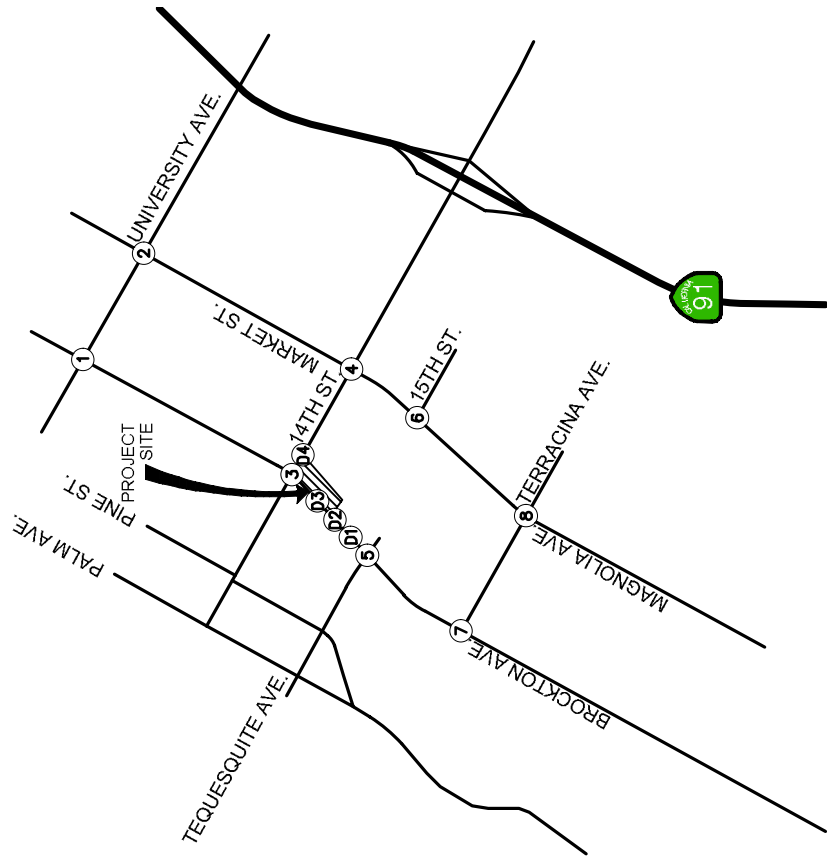
RTA Route 1 operates through the Cities of Riverside and Corona, traveling along Magnolia Avenue in the project vicinity. Route 1 operates weekdays from approximately 3:20 AM to 12:25 AM with approximately 30-minute headways, and on weekends from approximately 5:45 AM to 10:30 PM with approximately 30-minute headways.

RTA Route 13 operates through the City of Riverside, traveling along Magnolia Avenue in the project vicinity. Route 13 operates weekdays from approximately 6:30 AM to 7:40 PM with approximately 60-minute headways, and on weekends from approximately 6:30 AM to 6:40 PM with approximately 60-minute headways.

RTA Route 14 operates through the Cities of Riverside, Loma Linda, and Grand Terrace, traveling along Brockton Avenue in the project vicinity. Route 14 operates weekdays from approximately 4:55 AM to 8:55 PM with approximately 60-minute headways, and on weekends from approximately 8:00 AM to 6:30 PM with approximately 60-minute headways.

RTA Route 15 operates through the City of Riverside, traveling along Magnolia Avenue in the project vicinity. Route 15 operates weekdays from approximately 4:00 AM to 9:55 PM with approximately 30-minute headways, and on weekends from approximately 6:15 AM to 8:35 PM with approximately 60-minute headways.

1. Brockton Ave at University Ave	2. Market St at University Ave	3. Brockton Ave at 14th St
4. Market St / Magnolia Ave at 14th St	5. Brockton Ave at Tequesquite Ave	6. Market St / Magnolia Ave at 15th St
7. Brockton Ave at Terracina Dr	8. Magnolia Ave at Terracina Dr	D1. Brockton Ave at EX South RCH Dwy
D2. Brockton Ave at New North RCH Dwy	D3. Brockton Ave at New Garage Egress	D4. 14th Street at RCH Dwy
FUTURE INTERSECTION	FUTURE INTERSECTION	



LEGEND:

- = Study Intersection
- = Signal
- = Stop Sign
- = Defacto Right Turn

NOT TO SCALE

**FIGURE 3
EXISTING LANE CONFIGURATION
AND TRAFFIC CONTROL**

EXISTING OPERATING CONDITIONS

Existing Traffic Volumes

Existing morning peak period (7:00 to 9:00 AM) and evening peak period (4:00 to 6:00 PM) turning movement counts for the study intersections were collected in May 2024, while schools were in session. Existing morning and evening peak hour intersection volumes are presented on **Figure 4**. Peak hour intersection traffic count worksheets are provided in **Appendix B**.

Peak Hour Intersection Operations

Intersection Level of Service analysis was conducted for the AM peak hours (7:00 to 9:00 AM) and PM peak hours (4:00 to 6:00 PM) using the analysis procedures and assumptions described previously in this report. The results of the intersection analysis for Existing Conditions are shown on **Table 2**.

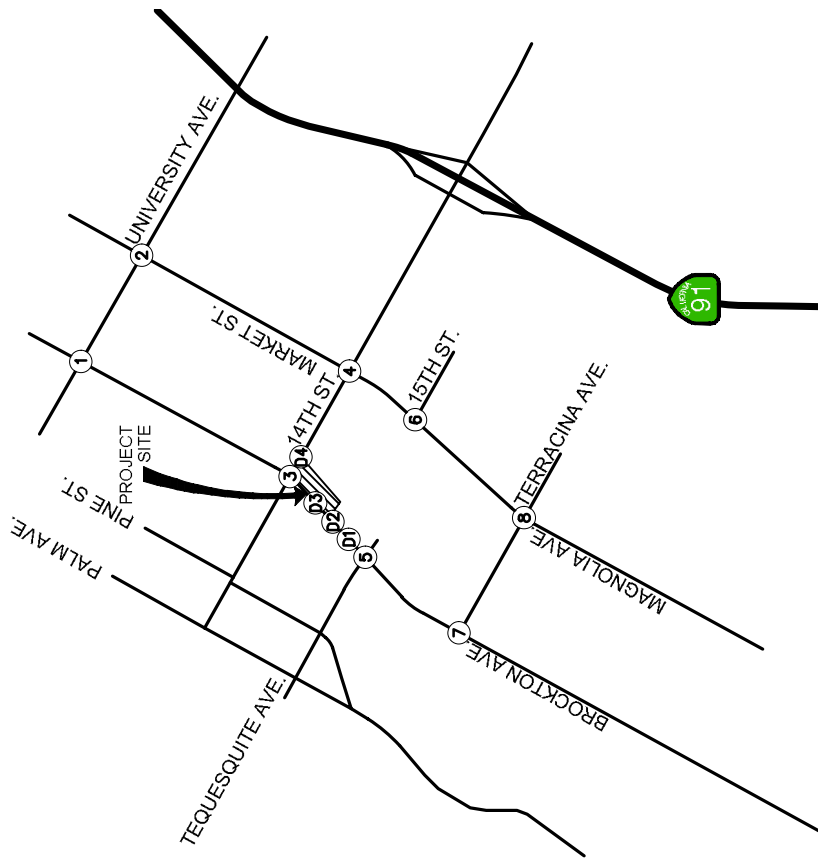
Review of this table indicates the study intersections currently operate at an acceptable Level of Service. Intersection analysis worksheets are provided in **Appendix C**.

Daily Roadway Operating Conditions

Roadway Level of Service analysis was conducted based on the roadway capacities presented previously in this report. The results of the roadway analysis for Existing Conditions are shown on **Table 3**. Review of this table indicates that the study roadway segments currently operate at an acceptable LOS.

1. Brockton Ave at University Ave	2. Market St at University Ave	3. Brockton Ave at 14th St
4. Market St / Magnolia Ave at 14th St	5. Brockton Ave at Tequesquite Ave	6. Market St / Magnolia Ave at 15th St
7. Brockton Ave at Terracina Dr	8. Magnolia Ave at Terracina Dr	D1. Brockton Ave at EX South RCH Dwy
D2. Brockton Ave at New North RCH Dwy	D3. Brockton Ave at New Garage Egress	D4. 14th Street at RCH Dwy
FUTURE INTERSECTION	FUTURE INTERSECTION	

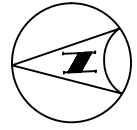
FIGURE 4
EXISTING PEAK HOUR
TRAFFIC VOLUMES



LEGEND:

⊗ = Study Intersection

xx/yy = AM/PM Peak Hour Turning Movement Volumes



NOT TO SCALE

**TABLE 2
SUMMARY OF INTERSECTION OPERATION
EXISTING CONDITIONS**

Int. #	Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Brockton Ave at University Ave	S	21.2	C	21.2	C
2	Market St at University Ave	S	20.9	C	30.5	C
3	Brockton Ave at 14th St	S	24.4	C	24.3	C
4	Market St/Magnolia Ave at 14th St	S	29.1	C	30.6	C
5	Brockton Ave at Tequesquite Ave	S	17.4	B	15.5	B
6	Magnolia Ave at 15th St	S	9.3	A	9.7	A
7	Brockton Ave at Terracina Ave	S	6.4	A	3.4	A
8	Magnolia Ave at Terracina Ave	S	19.1	B	14.5	B
D1	Brockton Ave at EX South RCH Dwy	U	9.0	A	9.1	A
D2	Brockton Ave at New North RCH Dwy	FUTURE INTERSECTION				
D3	Brockton Ave at New Garage Egress	FUTURE INTERSECTION				
D4	14th Street at RCH Dwy	U	9.2	A	9.1	A

Notes:

- **Bold** values indicate intersections operating at an unacceptable Level of Service
- Delay values for unsignalized intersections represent the average vehicle delay on the worst (highest delay) intersection approach.

TABLE 3
SUMMARY OF ROADWAY SEGMENT ANALYSIS
EXISTING CONDITIONS

Roadway	Segment	Existing Configuration	Existing ADT	LOS E Capacity ¹	V/C	LOS
Brockton Avenue	South of Existing South RCH Driveway	Arterial (88')	17,322	22,000	0.787	C
	Existing South Driveway to New North RCH Driveway	Arterial (88')	17,322	22,000	0.787	C
	New North RCH Driveway to New Garage Egress	Arterial (88')	17,322	22,000	0.787	C
	New Garage Egress to 14th Street	Arterial (88')	17,322	22,000	0.787	C
14th Street	West of RCH Driveway	Arterial (100')	13,618	33,000	0.413	A
	East of RCH Driveway	Arterial (100')	13,618	33,000	0.413	A
Notes: ¹ Source: City of Riverside Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment (July 2020) - Bold and shaded values indicate intersections operating at an unacceptable Level of Service LOS = Level of Service ADT = Average Daily Traffic V / C = Volume to Capacity						

FUTURE CONDITIONS

Opening Year 2026

The project Opening Year is anticipated to be Year 2026. Based on consultation with City staff, an ambient annual growth rate of 2.0% per year was applied to existing traffic volumes to develop Opening Year 2026 traffic forecasts. The resulting traffic volumes are shown on **Figure 5**.

Peak Hour Intersection Operations

Intersection Level of Service analysis was conducted for the AM and PM peak hours using the analysis procedures and assumptions described previously in this report. The results of the intersection analysis for Opening Year 2026 conditions are shown on **Table 4**. Copies of Opening Year 2026 intersection analysis worksheets are provided in **Appendix C**.

Review of this table indicates that all study intersections would continue to operate at an acceptable Level of Service.

Daily Roadway Operating Conditions

Roadway Level of Service analysis was conducted based on the roadway capacities presented previously in this report. The results of the roadway analysis for Opening Year 2026 conditions are shown on **Table 5**. Review of this table indicates that the study roadway segments would continue to operate at an acceptable LOS.

TABLE 4
SUMMARY OF INTERSECTION OPERATION
OPENING YEAR 2026 CONDITIONS

Int. #	Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Brockton Ave at University Ave	S	21.7	C	21.7	C
2	Market St at University Ave	S	21.4	C	32.0	C
3	Brockton Ave at 14th St	S	25.5	C	25.5	C
4	Market St/Magnolia Ave at 14th St	S	30.4	C	31.7	C
5	Brockton Ave at Tequesquite Ave	S	18.1	B	16.0	B
6	Magnolia Ave at 15th St	S	9.6	A	10.0	A
7	Brockton Ave at Terracina Ave	S	6.7	A	3.5	A
8	Magnolia Ave at Terracina Ave	S	19.7	B	14.9	B
D1	Brockton Ave at EX South RCH Dwy	U	9.1	A	9.1	A
D2	Brockton Ave at New North RCH Dwy	FUTURE INTERSECTION				
D3	Brockton Ave at New Garage Egress	FUTURE INTERSECTION				
D4	14th Street at RCH Dwy	U	9.2	A	9.1	A

Notes:

- **Bold** values indicate intersections operating at an unacceptable Level of Service
- Delay values for unsignalized intersections represent the average vehicle delay on the worst (highest delay) intersection approach.

TABLE 5
SUMMARY OF ROADWAY SEGMENT ANALYSIS
OPENING YEAR 2026

Roadway	Segment	Existing ADT w/ PCE	Opening Year 2026 ADT	LOS E Capacity ¹	V/C	LOS
Brockton Avenue	South of Existing South RCH Driveway	17,322	18,010	22,000	0.819	D
	Existing South Driveway to New North RCH Driveway	17,322	18,010	22,000	0.819	D
	New North RCH Driveway to New Garage Egress	17,322	18,010	22,000	0.819	D
	New Garage Egress to 14th Street	17,322	18,010	22,000	0.819	D
14th Street	West of RCH Driveway	13,618	14,160	33,000	0.429	A
	East of RCH Driveway	13,618	14,160	33,000	0.429	A
Notes: ¹ Source: City of Riverside Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment (July 2020) ADT = Average Daily Traffic V / C = Volume to Capacity LOS = Level of Service						

PROJECT TRAFFIC

Trip Generation

For consistency with the approved EIR “Final Environmental Impact Report for the Riverside Community Hospital Specific Plan Expansion Project” (May 2014), trip generation estimates for the existing and proposed uses are based on the Institute of Transportation Engineers (ITE) Trip Generation Manual (9th Edition) average rates for Hospital (ITE Land Use 610) and Medical-Dental Office Building (ITE Land Use 720). It should be noted that the trip rates for “Hospital – trips per 1000 square feet” (ITE Code 610) are higher in the 9th edition of the ITE Trip Generation Manual compared to the current 11th edition of the ITE Trip Generation Manual. As a result, the Project’s trip generation is higher using the trip generation rates from the 9th edition. As such, trip generation assumptions for the proposed project would be considered more conservative.

Not all trips from the project are anticipated to be new. Some trips are expected to be captured by the internal land uses, or from the existing flow of traffic passing the site. Internal capture trips are captured on-site as medical staff, resident physicians, students, and patients circulate on-site between the hospital, outpatient, medical offices, lab facilities and learning facilities on the campus. ITE trip generation rates are based on surveys of stand-alone uses not located in a medical campus environment. Based on conversations with Hospital representatives, a substantial number of trip purposes for each of the individual uses are and will continue to be captured on site as a result of the proximity of buildings and the walkability of the campus. As discussed with Hospital representatives and City staff, a 30% on-site capture was determined to be reasonable and conservative.

The trip generation rates, and the resulting trip generation estimates for the proposed project are summarized on **Table 6**. After applying internal capture, the project is estimated to generate 3,654 net new vehicle trips on a daily basis, with 266 trips (193 inbound and 73 outbound) during the morning peak hour, and 333 trips (104 inbound and 229 outbound) during the evening peak hour.

Trip Distribution and Assignment

Trip distribution assumptions for the project were based on the proposed site use and proximity to regional and local roadways and existing travel patterns. Trip distribution percentages at each study intersection were applied to the project trip generation to determine the project trips through each intersection. The project trip distribution and resulting project-related peak hour trips to be added to the surrounding street system are shown on **Figures 6 and 7**, respectively.

**TABLE 6
SUMMARY OF PROJECT TRIP GENERATION
RIVERSIDE COMMUNITY HOSPITAL EXPANSION PROJECT - PHASE II**

Land Use	ITE Code ²	Trips per	Trip Generation Rates ¹						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Hospital - Trips per KSF	610	KSF	13.22	0.599	0.352	0.950	0.353	0.577	0.930
Hospital - Trips per Bed	610	Beds	12.94	0.950	0.370	1.320	0.469	0.951	1.420
Medical-Dental Office Building	720	KSF	36.13	1.89	0.50	2.39	1.00	2.57	3.57
Land Use	Quantity	Unit	Trip Generation Estimates						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Hospital - New Bed Tower	377	Beds	4,878	358	139	497	177	359	536
Hospital - Bldg B and D beds relocated to Tower	-319	Beds	-4,128	-303	-118	-421	-150	-303	-453
Hospital - Existing Bldg A to be demolished	-58.705	KSF	-776	-35	-21	-56	-21	-34	-55
Medical-Dental Office Building - New Bldg A	100.00	KSF	3,613	189	50	239	100	257	357
Hospital - Bldg B and D Re-use **	187.53	KSF	2,479	112	66	178	66	108	174
Medical-Dental Office Building - Existing MOB Bldg to be demolished	-21.50	KSF	-777	-41	-11	-52	-21	-55	-76
Medical-Dental Office Building - Existing Women's Services Bldg to be demolished	-1.90	KSF	-69	-4	-1	-5	-2	-5	-7
Total Phase II Trips			5,220	276	104	380	149	327	476
Internal Capture ³	30%		1,566	83	31	114	45	98	143
Net New Project Trips			3,654	193	73	266	104	229	333

Note: Phase II project trips represent future trip generation for the build-out of the hospital specific plan. The approved MOB and parking structure that were under construction at the time this traffic study was undertaken are assumed as part of the Pre-EIR Baseline, and are not included in the project trip generation.

¹ Source: Institute of Transportation Engineers Trip Generation Manual, 9th Edition

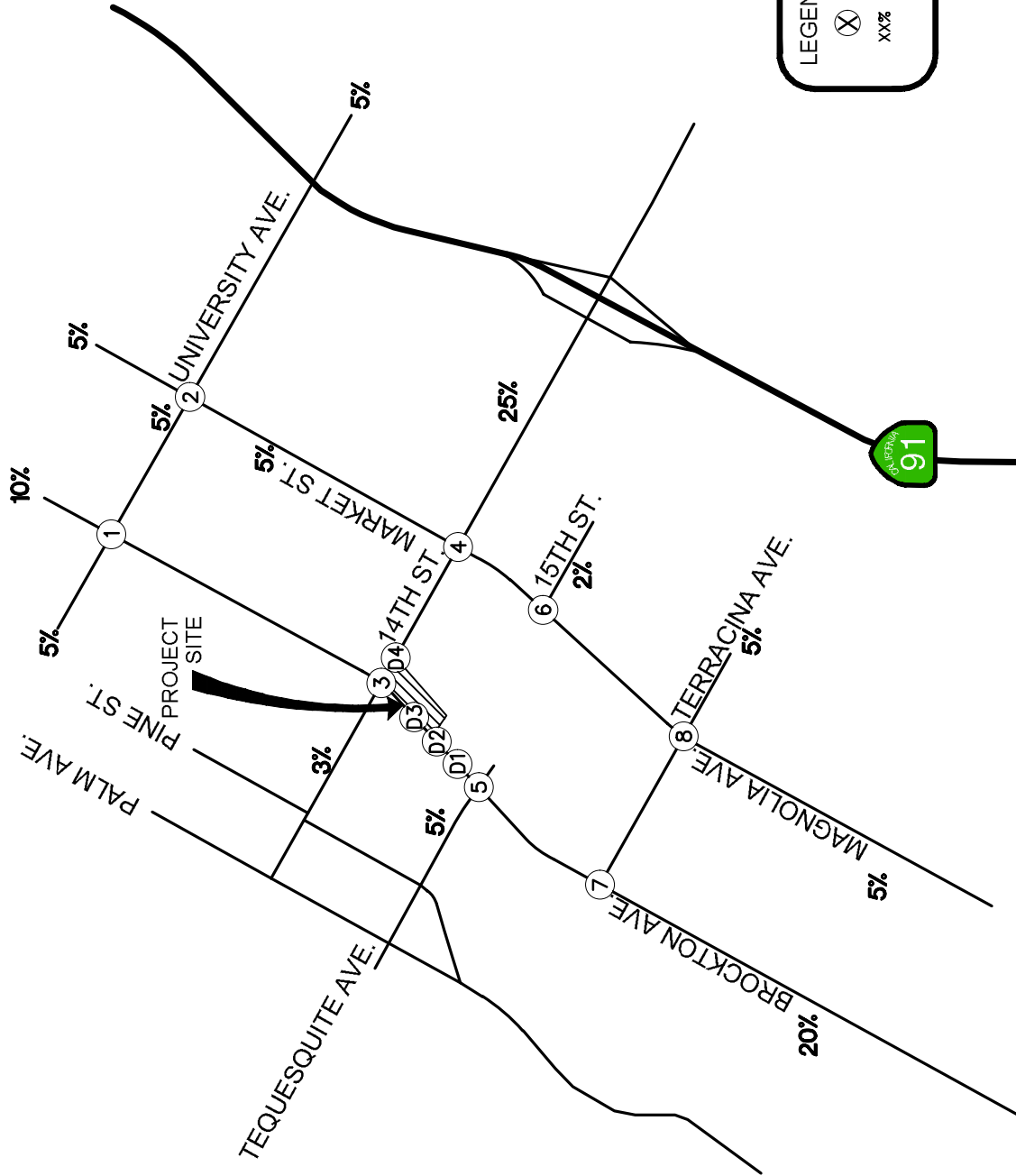
² The ITE Trip Generation Manual provides trip rates for the independent variables of "Beds" and "1,000 Square Feet". For uses associated with providing direct support for the hospital bed tower, the trip rates for "Beds" was used. For the remaining hospital areas associated with other site functions not directly related to the hospital beds, the trip rates for "1,000 Square Feet" was used.

³ Internal Capture trips are trips captured on-site as medical staff, resident physicians, students, and patients circulate on-site between the hospital, outpatient, medical offices, lab facilities and learning facilities on the campus. ITE trip generation rates are based on surveys of stand-alone uses not located in a medical campus environment. Based on conversations with Hospital representatives, a substantial number of trip purposes for each of the individual uses are and will continue to be captured on site as a result of the proximity of buildings and the walkability of the campus. As discussed with Hospital representatives and City staff, a 30% on-site capture was determined to be reasonable and conservative.

* For consistency with the approved EIR "Final Environmental Impact Report for the Riverside Community Hospital Specific Plan Expansion Project"(May 2014), 9th Edition ITE Trip Rates were used.

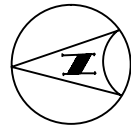
* It should be noted that the trip rates for "Hospital - trips per 1000 Square Feet" (ITE Code 610) are higher in the 9th edition of the ITE Trip Generation Manual compared to the current 11th edition of the ITE trip generation manual. As a result, the project's trip generation is higher using trip generation rates from the 9th edition. As such, trip generation assumptions for the proposed project would be considered more conservative.

** Buildings B and D will be re-used as one or more medical campus functions, such as Hospital Administrative Support for the Bed Towers, Skilled Nursing, UCR Resident Facilities, Outpatient, etc.
 - Trips for the Hospital Administrative Support uses (29,941 SF) are assumed to be included in the Bed Tower per-bed trips.
 - Trips for the remaining uses are calculated based on the Hospital per-KSF rates.



LEGEND:

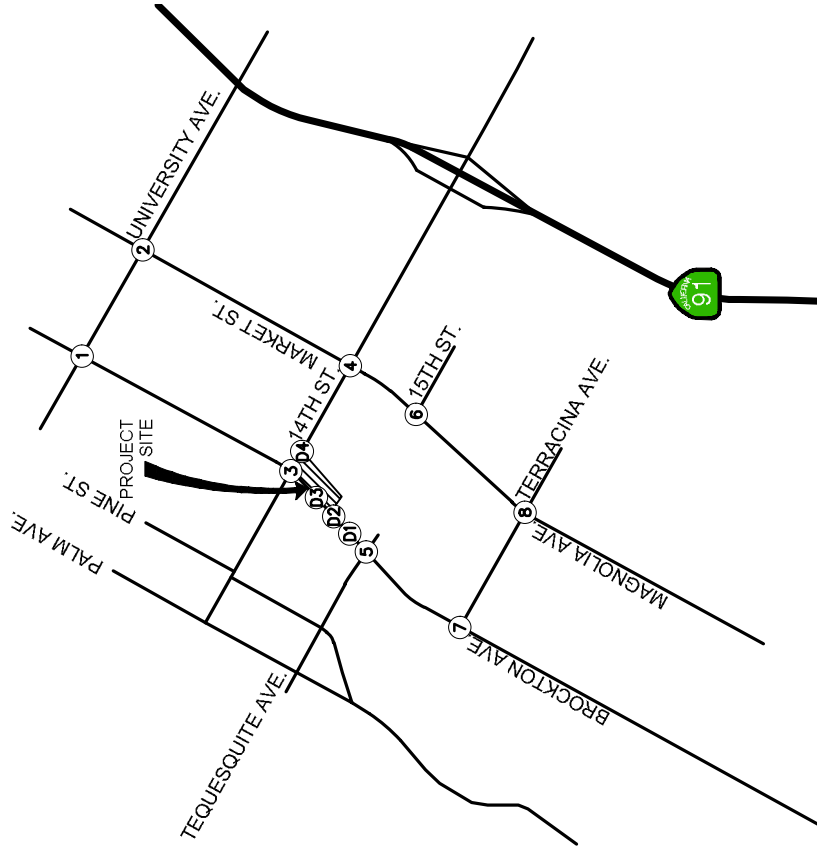
- ⊗ = Study Intersection
- xx% = Percent Trip Distribution



NOT TO SCALE

FIGURE 6A
OVERALL PROJECT TRIP DISTRIBUTION

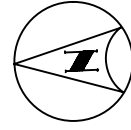
1. Brockton Ave at University Ave	2. Market Street at University Ave	3. Brockton Ave at 14th St	4. Market Ave/Magnolia Ave at 14th St
5. Brockton Ave at Tequesquite Ave	6. Magnolia Ave at 15th St	7. Brockton Ave at Terracina Ave	8. Magnolia Ave at Terracina Ave
D1. Brockton Ave at EX South RCH Driveway	D2. Brockton Ave at New North RCH Driveway	D3. Brockton Ave at New Garage Egress	D4. 14th Street at RCH Driveway



LEGEND:

⊗ = Study Intersection

xx/(yy) = In/Out Trip Distribution Percentages



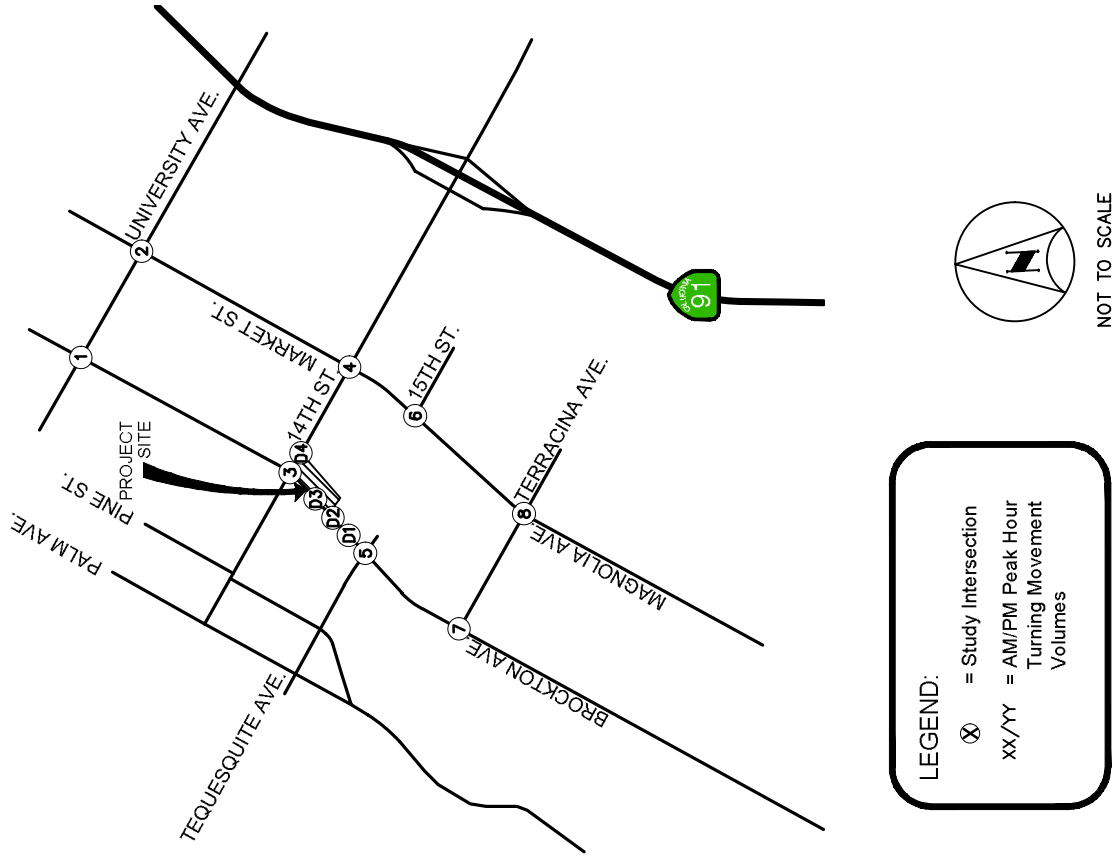
NOT TO SCALE

Kimley»Horn

**FIGURE 6B
PROJECT TRIP DISTRIBUTION BY
TURNING MOVEMENT**

1. Brockton Ave at University Ave	2. Market St at University Ave	3. Brockton Ave at 14th St
4. Market St / Magnolia Ave at 14th St	5. Brockton Ave at Tequesquite Ave	6. Market St / Magnolia Ave at 15th St
7. Brockton Ave at Terracina Dr	8. Magnolia Ave at Terracina Dr	D1. Brockton Ave at EX South RCH Dwy
D2. Brockton Ave at New North RCH Dwy	D3. Brockton Ave at New Garage Egress	D4. 14th Street at RCH Dwy

FIGURE 7
PROJECT-RELATED
TRAFFIC VOLUMES



FUTURE CONDITIONS PLUS PROJECT

Opening Year 2026 Plus Project

Project-related traffic was added to the Opening Year 2026 traffic volumes. Opening Year 2026 Plus Project traffic volumes at the study intersections are shown on **Figure 8**.

Peak Hour Intersection Operations

Intersection Level of Service Analysis was conducted for the AM and PM peak hours for the Opening Year 2026 Plus Project condition. The scenario results of the intersection analysis are shown on **Table 7**. Review of this table indicates the study intersections would continue to operate at an acceptable Level of Service.

Daily Roadway Operating Conditions

Roadway Level of Service analysis was conducted based on the roadway capacities presented previously in this report. The results of the roadway analysis for Opening Year 2026 Plus Project conditions are shown on **Table 8**. Review of this table indicates that the study roadway segments would continue to operate at an acceptable LOS.

TABLE 7														
SUMMARY OF INTERSECTION OPERATION														
OPENING YEAR 2026 PLUS PROJECT CONDITIONS														
Int. #	Intersection	Traffic Control	AM Peak Hour						PM Peak Hour					
			Without Project		With Project		Change in Delay	Sig Effect?	Without Project		With Project		Change in Delay	Sig Effect?
			Delay	LOS	Delay	LOS			Delay	LOS	Delay	LOS		
1	Brockton Ave at University Ave	S	21.7	C	22.1	C	0.4	No	21.7	C	21.8	C	0.1	No
2	Market St at University Ave	S	21.4	C	22.1	C	0.7	No	32.0	C	32.5	C	0.5	No
3	Brockton Ave at 14th St	S	25.5	C	35.6	D	10.1	No	25.5	C	28.9	C	3.4	No
4	Market St/Magnolia Ave at 14th St	S	30.4	C	32.1	C	1.7	No	31.7	C	33.1	C	1.4	No
5	Brockton Ave at Tequesquite Ave	S	18.1	B	19.6	B	1.5	No	16.0	B	17.4	B	1.4	No
6	Magnolia Ave at 15th St	S	9.6	A	10.6	B	1.0	No	10.0	A	11.4	B	1.4	No
7	Brockton Ave at Terracina Ave	S	6.7	A	7.6	A	0.9	No	3.5	A	4.6	A	1.1	No
8	Magnolia Ave at Terracina Ave	S	19.7	B	22.1	C	2.4	No	14.9	B	15.3	B	0.4	No
D1	Brockton Ave at EX South RCH Dwy	U	9.1	A	9.2	A	0.0	No	9.1	A	9.4	A	0.3	No
D2	Brockton Ave at New North RCH Dwy	U	--	--	16.5	C	--	No	--	--	17.9	C	--	No
D3	Brockton Ave at New Garage Egress	U	--	--	17.0	C	--	No	--	--	18.4	C	--	No
D4	14th Street at RCH Dwy	U	9.2	A	9.2	A	0.0	No	9.1	A	9.3	A	0.3	No
Notes:														
- Bold values indicate intersections operating at an unacceptable Level of Service														
- Delay values for unsignalized intersections represent the average vehicle delay on the worst (highest delay) intersection approach.														

TABLE 8
SUMMARY OF ROADWAY SEGMENT ANALYSIS
OPENING YEAR 2026 PLUS PROJECT

Roadway	Segment	Opening Year 2026 ADT	Project ADT	Opening Year 2026 Plus Project ADT	LOS E Capacity ¹	V/C	LOS
Brockton Avenue	South of Existing South RCH Driveway	18,010	1,096	19,106	22,000	0.868	D
	Existing South Driveway to New North RCH Driveway	18,010	1,188	19,198	22,000	0.873	D
	New North RCH Driveway to New Garage Egress	18,010	1,370	19,380	22,000	0.881	D
	New Garage Egress to 14th Street	18,010	1,370	19,380	22,000	0.881	D
14th Street	West of RCH Driveway	14,160	1,260	15,420	33,000	0.467	A
	East of RCH Driveway	14,160	1,352	15,512	33,000	0.470	A
Notes: ¹ Source: City of Riverside Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment (July 2020) - Bold and shaded values indicate intersections operating at an unacceptable Level of Service LOS = Level of Service ADT = Average Daily Traffic V / C = Volume to Capacity							

BUILD-OUT 2035 PLUS PROJECT

Build-Out Year 2035 Plus Project

The Build-Out scenario was analyzed to evaluate the consistency with the previously approved traffic study. Build-Out 2035 volumes were utilized from the “Traffic Impact Analysis for the Riverside Community Hospital Specific Plan Expansion Project” (2014 RCH TIA, January 2014) that was prepared as part of the RCH Specific Plan FEIR. Since Phase I has been completed, Phase I traffic volumes were added to forecast Build-Out baseline volumes.

Project-related traffic was added to the Build-Out baseline volumes to generate Build-Out 2035 Plus Project traffic volumes. Build-Out 2035 Plus Project traffic volumes at the study intersections are shown on **Figure 9**.

The Build-Out 2035 scenario is analyzed based on the existing implemented mitigation measures when traffic counts were collected in May 2024. Phase I of RCHSP was completed before 2024. Therefore, the Build-Out 2035 scenario analysis includes MM TRA-1, MM TRA-3, MM TRA-4, MM TRA-7, and MM TRA-8.

As part of Phase I, RCH modified the signal operation at 14th Street and Magnolia Avenue / Market Street to provide right-turn overlap for the northbound approach, complying with MM TRA-2. However, as part of a local pavement project, the City of Riverside removed this mitigation measure prior to count collection in 2024, reverting the intersection back to its original operation. Thus, the Build-Out 2035 scenario does not include this mitigation measure in its analysis, consistent with Existing scenario signalization.

MM TRA-5 and MM TRA-6 are not included in the Build-Out 2035 scenario analysis as the mitigation measures are anticipated to be implemented with Phase II and were not existing in 2024. MM TRA-5 is offered as an improvement and analyzed as such in the recommended improvements section. It is worth noting that MM TRA-6 is not within the study area and therefore is not applicable to the analysis.

Peak Hour Intersection Operations

Intersection Level of Service Analysis was conducted for the AM and PM peak hours for the Build-Out 2035 Plus Project condition. The scenario results of the intersection analysis are shown on **Table 9**. Review of this table indicates the following study intersection would operate at an unacceptable Level of Service:

- #4 – Market Street/Magnolia Avenue at 14th Street: PM – LOS E

The deficiency at intersection #4 (Market Street/Magnolia Avenue at 14th Street) is consistent with the conclusions of the previously approved traffic study. Recommended improvements at the study intersection are defined later in this report.

Daily Roadway Operating Conditions

Roadway Level of Service analysis was conducted based on the roadway capacities presented previously in this report. The results of the roadway analysis for Built-Out 2035 and Build-Out 2035 Plus Project conditions are shown on **Table 10**. Review of this table indicates that the following study roadway segments would operate at an unacceptable LOS:

- Brockton Avenue: South of Existing South RCH Driveway
- Brockton Avenue: Existing South Driveway to New North RCH Driveway
- Brockton Avenue: New North RCH Driveway to New Garage Egress
- Brockton Avenue: New Garage Egress to 14th Street

These roadways were expected to be over capacity in the conclusions of the approved study. In addition, these roadways are constructed to their ultimate General Plan configurations and are not planned to be widened beyond their current classification.

1. Brockton Ave at University Ave	2. Market St at University Ave	3. Brockton Ave at 14th St
42/54 230/374 45/115 57/257 27/55 326/739 13/10 248/403 269/408 52/91 506/584 26/26 26/26	29/57 240/312 157/114 161/217 119/220 547/1479 31/139 218/499 169/211 25/136 1392/1450 29/105 29/105	118/229 69/48 302/436 18/17 671/661 222/177 46/59 127/192 27/52 17/6 606/794 240/395 671/661
4. Market St / Magnolia Ave at 14th St	5. Brockton Ave at Tequesquite Ave	6. Market St / Magnolia Ave at 15th St
84/195 639/614 454/434 77/211 77/211 167/178 110/207 450/646 114/112 83/95 236/352 786/1194 536/1439 536/1439 167/178	28/165 7/28 49/144 112/65 771/932 105/42 194/171 21/10 76/74 118/69 520/1248 78/193 78/193 520/1248 78/193	64/174 24/9 101/388 78/50 102/313 115/161 51/88 97/270 125/89 1084/1550 97/270 125/89 1084/1550 97/270 125/89
7. Brockton Ave at Terracina Dr	8. Magnolia Ave at Terracina Dr	D1. Brockton Ave at EX South RCH Dwy
91/33 66/28 66/64 584/1176 834/939 135/37 66/28 91/33	27/143 21/36 21/51 98/153 961/723 104/121 128/49 21/51 115/38 203/388 926/809 104/121 72/40 961/723 98/153	45/91 842/1462 847/1101 90/24 847/1101 90/24
D2. Brockton Ave at New North RCH Dwy	D3. Brockton Ave at New Garage Egress	D4. 14th Street at RCH Dwy
11/35 7/22 29/16 910/1278 19/10 914/1026 29/16 910/1278	4/11 4/11 935/1282 925/1062 935/1282	17/58 40/25 999/1354 75/24 819/1370 40/25 999/1354 75/24

FIGURE 9
BUILD-OUT 2035 PLUS PROJECT
TRAFFIC VOLUMES

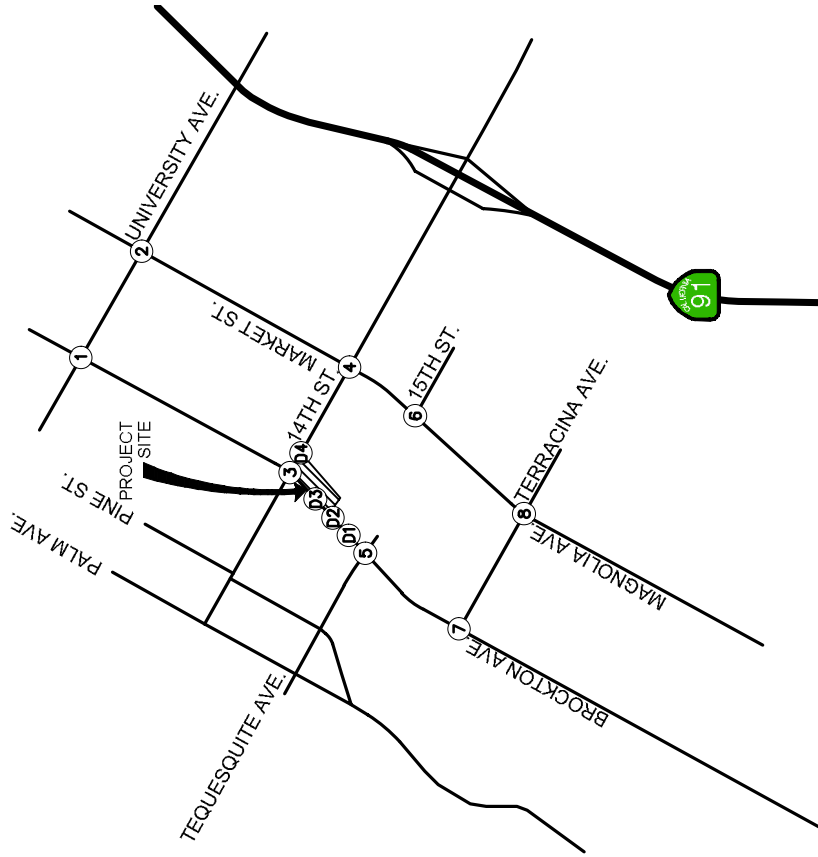


TABLE 9
SUMMARY OF INTERSECTION OPERATION
BUILD-OUT 2035 PLUS PROJECT CONDITIONS

Int. #	Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Brockton Ave at University Ave	S	20.4	C	48.3	D
2	Market St at University Ave	S	34.6	C	45.9	D
3	Brockton Ave at 14th St	S	37.8	D	41.9	D
4	Market St/Magnolia Ave at 14th St	S	41.3	D	74.0	E
5	Brockton Ave at Tequesquite Ave	S	16.7	B	27.8	C
6	Magnolia Ave at 15th St	S	13.6	B	46.7	D
7	Brockton Ave at Terracina Ave	S	9.2	A	5.9	A
8	Magnolia Ave at Terracina Ave	S	22.0	C	22.6	C
D1	Brockton Ave at EX South RCH Dwy	U	9.5	A	10.2	B
D2	Brockton Ave at New North RCH Dwy	U	15.1	C	34.1	D
D3	Brockton Ave at New Garage Egress	U	11.3	B	33.2	D
D4	14th Street at RCH Dwy	U	9.5	A	10.3	B

Notes:

- **Bold** values indicate intersections operating at an unacceptable Level of Service
- Delay values for unsignalized intersections represent the average vehicle delay on the worst (highest delay) intersection approach.

TABLE 10 SUMMARY OF ROADWAY SEGMENT ANALYSIS BUILD-OUT 2035 PLUS PROJECT										
Roadway	Segment	Existing Configuration	Build-Out 2035 ADT	LOS E Capacity ¹	Build-Out 2035 V/C	Build-Out 2035 LOS	Project ADT	Build-Out 2035 Plus Project ADT	Build-Out 2035 Plus Project V/C	Build-Out 2035 Plus Project LOS
Brockton Avenue	South of Existing South RCH Driveway	Arterial (88')	29,189	22,000	1.327	F	1,096	30,285	1.377	F
	Existing South Driveway to New North RCH Driveway	Arterial (88')	29,250	22,000	1.330	F	1,188	30,438	1.384	F
	New North RCH Driveway to New Garage Egress	Arterial (88')	29,373	22,000	1.335	F	1,370	30,743	1.397	F
	New Garage Egress to 14th Street	Arterial (88')	29,372	22,000	1.335	F	1,370	30,742	1.397	F
14th Street	West of RCH Driveway	Arterial (100')	13,344	33,000	0.404	A	1,260	14,604	0.443	A
	East of RCH Driveway	Arterial (100')	19,652	33,000	0.596	A	1,352	21,004	0.636	B
Notes: ¹ Source: City of Riverside Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment (July 2020) - Bold and shaded values indicate intersections operating at an unacceptable Level of Service LOS = Level of Service ADT = Average Daily Traffic V / C = Volume to Capacity										

RECOMMENDED MITIGATION MEASURE IMPROVEMENTS

Based on the LOS standards and requirements for improvements noted earlier in the report, under Build-Out 2035 Plus Project conditions, there would be a project-related effect at the following intersection:

- #4 – Market Street/Magnolia Avenue at 14th Street

A project-related effect was also identified at this intersection in the previously approved traffic study. Consistent with the Certified FEIR, the following mitigation measure improvements are recommended to address the project's effect at the study intersection:

- #4 – Market Street/Magnolia Avenue at 14th Street (MM TRA-5)
 - Provide a second westbound left-turn lane
 - Modify signal operation to provide right-turn overlap for the northbound approach

A summary of the intersection operation before and after implementation of the recommended improvements is provided on **Table 11**. Copies of intersection analysis worksheets with improvements are provided in **Appendix C**.

As discussed in the Project Background section, mitigation measure MM TRA-5, as identified in the Certified FEIR, is expected to be completed during the proposed development phases under the RCHSP. As such, the signal modification is included in the analysis as an improvement only.

BROCKTON AVENUE STRIPING CONCEPT

City staff has requested that the feasibility of the following be evaluated:

- A two-way left-turn lane along Brockton Avenue between 14th Street and Driveway 1 (Existing South Driveway)
- An exclusive southbound left-turn lane, an exclusive northbound right-turn lane, and an exclusive southbound refuge lane along Brockton Avenue at Driveway 2 (New North RCH Driveway)
- An exclusive southbound left-turn refuge lane along Brockton Avenue at Driveway 3 (New Parking Garage Egress)

A conceptual striping plan of these access evaluations is provided in **Figure 10**.

Based on review of the conceptual striping plan, there would be adequate roadway width to accommodate a two-way left-turn lane along Brockton Avenue at Driveway 1 and Driveway 3. Additionally, there would be adequate roadway width along Brockton Avenue to accommodate a dedicated southbound left-turn lane at Driveway 2. These evaluations would require removal of approximately 355 feet, or fifteen spaces, of on-street parking along Brockton Avenue and reduction in travel lane widths. The roadway width would not be adequate to accommodate an exclusive northbound right-turn lane along Brockton Avenue at Driveway 2.

TABLE 11 SUMMARY OF INTERSECTION OPERATION RECOMMENDED IMPROVEMENTS									
Int. #	Intersection	Improvements	Peak Hour	Traffic Control	Build Out 2035			Delay	LOS
					With Project	With Improvements	Delay		
4	Market St/Magnolia Ave at 14th St	- Provide a second westbound left-turn lane - Modify signal operation to Provide right-turn overlap for the northbound approach	PM	S			74.0	E	D
Notes: - Bold values indicate intersections operating at an unacceptable Level of Service									

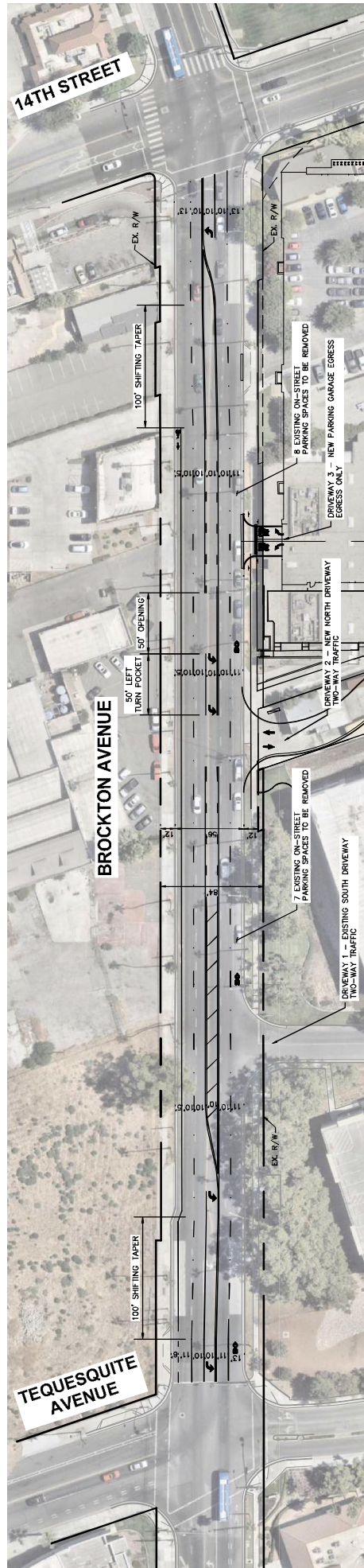


FIGURE 10
BROCKTON AVENUE STRIPING CONCEPT



NOT TO SCALE

STORAGE CAPACITY AT INTERSECTIONS

Queue lengths were assessed at the following movements:

- Brockton Avenue at 14th Street
 - Northbound Left
 - Northbound Right
 - Southbound Left
 - Westbound Left
- Brockton Avenue at Tequesquite Avenue
 - Northbound Through Right
 - Southbound Left
 - Eastbound Left
 - Westbound Left
 - Westbound Through Right
- Brockton Avenue at Existing South Driveway
 - Westbound Right
- Brockton Avenue at New North RCH Driveway
 - Northbound Through Right
 - Southbound Through Left
 - Westbound Left Right
- Brockton Avenue at New Garage Egress
 - Westbound Right
- RCH Driveway at 14th Street
 - Northbound Right
 - Westbound Left

A summary of the intersection storage capacity, as well 95th percentile queue lengths at the locations noted above are summarized on **Table 12**. The table shows that all left-turn pockets would have enough storage capacity for 95th percentile queues under all scenarios, except for the following:

- Brockton Avenue at Tequesquite Avenue
 - Westbound Left

Although Tequesquite Avenue east of Brockton Avenue is a public roadway, it should be noted that any queuing that occurs at the westbound left-turn pocket at the intersection of Brockton Avenue at Tequesquite Avenue is primarily due to outbound traffic from the RCH parking garage on Tequesquite. As such, the extended queue will be contained within the minor roadway, which is primarily accessed by the project, and would not affect traffic progression along Brockton Avenue. The left-turn pocket queue lengths are provided in the intersection analysis worksheets in **Appendix C** of this report.

TABLE 12
SUMMARY OF INTERSECTION STORAGE CAPACITY
RIVERSIDE COMMUNITY HOSPITAL EXPANSION PROJECT

Intersection	Movement	Storage Capacity (ft/ln)	Peak Hour	Queue Length (ft/ln)			
				Existing	Opening Year 2026	Opening Year 2026 Plus Project	Build-Out 2035 Plus Project
				95th Percentile	95th Percentile	95th Percentile	95th Percentile
Brockton Avenue at 14th Street	NBL	50	AM	33	34	36	52
			PM	28	31	44	42
	NBR	-- ¹	AM	85	81	87	72
			PM	64	69	84	217
	SBL	50 ³	AM	80	88	85	78
			PM	82	88	85	81
	WBL	400 ²	AM	230	231	278	315
			PM	216	211	233	319
Brockton Avenue at Tequesquite Avenue	NBTR	-- ¹	AM	236	307	317	634
			PM	141	140	172	906
	SBL	100	AM	59	54	80	80
			PM	16	19	48	166 ⁵
	EBL	100 ⁴	AM	132	79	141	143
			PM	89	99	101	146
	WBL	100	AM	51	55	51	71
			PM	85	92	94	151
	WBTR	-- ¹	AM	67	74	80	55
			PM	102	113	127	479
Brockton Avenue at Existing South Driveway	WBR	100	AM	38	41	46	54
			PM	47	49	55	109 ⁶
Brockton Avenue at New North RCH Driveway	NBTR	-- ¹	AM	-	-	9	104
			PM	-	-	17	190
	SBTL	-- ¹	AM	-	-	64	68
			PM	-	-	42	51
	WBLR	-- ¹	AM	-	-	38	40
			PM	-	-	55	135
Brockton Avenue at New Garage Egress	WBLR	-- ¹	AM	-	-	29	34
			PM	-	-	41	106
RCH Driveway at 14th Street	NBR	-- ¹	AM	59	58	61	34
			PM	56	58	56	139
	WBL	-- ¹	AM	74	14	96	21
			PM	46	14	53	80

Notes:

* Queue length not reported

¹ There is no striped storage capacity. Queue lengths are provided for informational purposes.

² Dual left-turn lane.

³ There is an additional 75 feet of queuing capacity north of the intersection in the two-way-left-turn lane that can accommodate the 95th percentile queue.

⁴ There is an additional 65 feet of queuing capacity north of the intersection in the two-way-left-turn lane that can accommodate the 95th percentile queue.

⁵ The storage capacity would be exceeded only 5% of the time.

⁶ The queue would be over capacity by less than one car length (25 feet).

IMPROVEMENTS SUMMARY

Based on the Recommended Mitigation Measure Improvements, the following improvements are recommended:

- #4 – Market Street/Magnolia Avenue at 14th Street (MM TRA-5)
 - Provide a second westbound left-turn lane
 - Modify signal operation to provide right-turn overlap for the northbound approach

Based on discussion with the City staff on the Brockton Avenue Striping Concept, the project will be conditioned to provide the following proposed lane configuration along Brockton Avenue:

- A 10' two-way left-turn lane between 14th Street and Driveway 3 (New Parking Garage Egress Driveway)
- A 10' refuge lane serving westbound left-turn movements at Driveway 3 (New Parking Garage Egress)
- An exclusive 10' southbound left-turn lane, and a 10' refuge lane serving westbound left-turn movements at Driveway 2 (New North RCH Driveway)
- A painted median at Driveway 1 (Existing South Driveway) to prohibit southbound and westbound left-turn movements
- A 5' dedicated southbound bike lane
- Northbound Sharrow striping
- Extend the southbound left-turn pocket at Tequesquite Avenue to be 165'

The proposed improvements will require removal of approximately 15 on-street parking spaces along the east side of Brockton Avenue.

VEHICLE MILES TRAVELED (VMT) CONSIDERATION

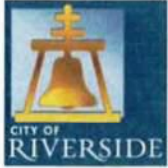
Senate Bill (SB) 743 was approved by the California legislature in September 2013, requiring changes to the California Environmental Quality Act (CEQA) methodology, specifically directing the Governor's Office of Planning and Research (OPR) to develop alternative metrics to the use of vehicular "level of service" (LOS) for evaluating transportation projects. OPR published the Technical Advisory on Evaluating Transportation Impacts in CEQA (Technical Advisory) in December 2018 providing recommendations for the preparation of transportation impact analysis under SB 743, suggesting Vehicle Miles Traveled (VMT) to replace LOS as the primary measure of transportation impacts.

Level of Service was the applicable threshold when the 2014 Riverside Community Hospital Specific Plan Expansion Project EIR was approved. The mandate requiring lead agencies to use VMT as a threshold for evaluating traffic impacts was adopted in 2018 and effective in 2020. VMT does not constitute as "new information" requiring additional environmental review nor does it affect the assessment of project transportation impacts or mitigation measures compared to those analyzed in the original EIR. Therefore, a VMT analysis is not required.

Furthermore, the new location of the parking garage does not propose additional trips beyond those already accounted for in the approved EIR. Therefore, the parking garage is not subject to new traffic analysis for CEQA purposes, and VMT screening is not applicable for this study.

APPENDIX A

APPROVED SCOPING AGREEMENT



City of Arts & Innovation

Public Works Department

APPROVED

Vital Patel

10/21/2024

Traffic Analysis Scoping Form

This scoping form shall be submitted to the City of Riverside Traffic Engineering Division

Project Identification:

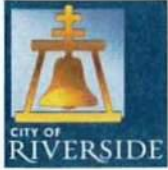
Case Number:	DP-2024-00789
Related Cases:	P13-0207 (EIR), P13-0208 (General Plan Amendment), P13-0209 (Rezoning), P13-0210 (Plot Plan and Design Review), P13-0211 (Specific Plan)
SP No.	
EIR No.	
GPA No.	
CZ No.	
Project Name:	Phase II Brockton Parking Garage
Project Address:	4445 Magnolia Avenue, Riverside, CA 92501
Project Opening Year:	2026
Project Description:	209,165 Square Foot (SF) "open" parking garage designed to accommodate 593 parking spaces (See Attachment A-1 and A-2 for site plan)

	Consultant:	Developer:
Name:	Kimley-Horn and Associates, Inc.	Hospital Corporation of America (HCA)
Address:	3801 University Ave #300 Riverside, CA 92501	One Park Plaza, III-2 Nashville, TN 37203
Telephone:	(951) 543-9869	(214) 802-9016
Fax/Email:	jason.melchor@kimley-horn.com	zach.wideman@hcahealthcare.com

Scoping & Study Fees:

Fees to be made payable to "City of Riverside" and delivered to Land Development.
City Hall 3rd Floor, 3900 Main Street, Riverside, CA 92522

- 1) Scoping Agreement Fee (For all projects not screened from analysis): **\$271.00**
- 2) TIA Review (For projects with both LOS & VMT analysis of any scale, or standalone LOS analyses with over 100 vehicle trips per hour): **\$2671.02**
- 3) TIA Review (For standalone VMT analysis, or standalone LOS analyses with under 100 vehicle trips per hour): **\$1288.20**



Public Works Department

City of Arts & Innovation

Trip Generation Information:

Trip Generation Data Source: ITE Trip Generation Manual, 9th Edition* (See Attachment B)

Current General Plan Land Use:

Riverside Community Hospital
Specific Plan

Proposed General Plan Land Use:

Riverside Community Hospital
Specific Plan

Current Zoning:

Riverside Community Hospital
Specific Plan

Proposed Zoning:

Riverside Community Hospital
Specific Plan

* The ITE Trip Generation Manual does not include a Trip Generation Land Use code for parking garages since they are not considered to generate trips in themselves. Trips associated with the RCH Phase IIB Brockton Parking Garage would be a result of the land uses in RCH.

This scoping agreement proposes studying the traffic circulation effects due to the proposed relocation of the parking garage from its current location at the center of the site to the new location along Brockton Ave. The existing parking garage will be demolished and the new bed tower will be constructed in its place. The new garage location will replace the loss of the existing parking garage. The Trip Generation Information provided is based on the approved EIR "Final Environmental Impact Report for the Riverside Community Hospital Specific Plan Expansion Project" (May 2014), which originally approved 377 beds as part of the new bed tower. The revised project plans are proposing 374 beds in the new bed tower.

	Existing Trip Generation			Proposed Trip Generation		
	In	Out	Total	In	Out	Total
AM Trips	211	76	287	193	73	226
PM Trips	114	258	372	104	229	333

Trip Internalization: ☒ Yes ☐ No (30 % Trip Discount)

Pass-By Allowance: ☐ Yes ☒ No (% Trip Discount)

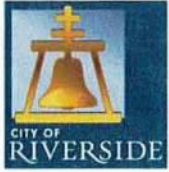
Potential Screening Checks

Is your project screened from specific analyses in accordance with City Guidelines?

Is the project screened from LOS assessment?

☐ Yes

☒ No



Public Works Department

City of Arts & Innovation

LOS screening justification (see Page 6 of the guidelines):

Is the project screened from VMT assessment? ☐ Yes ☐ No ☒ Not Applicable

Level of Service was the applicable threshold when the 2014 Riverside Community Hospital Specific Plan Expansion Project EIR was approved. The mandate requiring lead agencies to use VMT as a threshold for evaluating traffic impacts was adopted in 2018 and effective in 2020. VMT does not constitute as “new information” requiring additional environmental review nor does it affect the assessment of project transportation impacts or mitigation measures compared to those analyzed in the original EIR. Therefore, a VMT analysis is not required.

Furthermore, the new location of the parking garage does not propose additional trips beyond those already accounted for in the approved EIR. Therefore, the parking garage is not subject to new traffic analysis for CEQA purposes, and VMT screening is not applicable for this study.

Level of Service Scoping

- Proposed Trip Distribution (Attach Graphic for Detailed Distribution): (See Attachments C-1, C-2, and C-3A-B)

North	South	East	West
25 %	25 %	37 %	13 %

- Attach list of Approved and Pending Projects that need to be considered (provided by the lead agency and adjacent agencies)
- Attach list of study intersections/roadway segments
- Attach legible site plan
- Note other specific items to be addressed:
 - Site access
 - On-site circulation
 - Parking
 - Consistency with Plans supporting Bikes/Peds/Transit
 - Other
- Date of Traffic Counts May 14, 2024
- Attach proposed analysis scenarios (years plus proposed forecasting approach)(Attachment C-1)
- Attach proposed phasing approach (if the project is phased)



Public Works Department

City of Arts & Innovation

VMT Scoping NOT APPLICABLE

For projects that are not screened, identify the following:

- Travel Demand Forecasting Model _____
- Attach WRCOG Screening VMT Assessment output or describe why it is not appropriate for use
- Attach proposed Model Land Use Inputs and Assumed Conversion Factors (attach)

Specific Issues to be addressed in the Study (in addition to the standard analysis described in the Guidelines) (To be filled out by the Public Works Traffic Engineering Division)

In addition to studying the traffic circulation effects as described above, the traffic study will do the following:

1. Assess the feasibility of a two-way left turn lane along Brockton Avenue between 14th Street to Driveway 1 (Existing South Driveway);
2. Evaluate the feasibility of an exclusive southbound left turn lane, an exclusive northbound right turn lane, and an exclusive southbound refuge lane along Brockton Avenue and Driveway 2 (New North Driveway);
3. Evaluate the feasibility of an exclusive southbound left turn lane refuge lane along Brockton Avenue and Driveway 3 (New Parking Garage Egress);
4. Analyze roadway segment volume to capacity ratios on the project street frontages along Brockton Avenue and along 14th Street;
5. Include traffic signal warrant analysis for the proposed intersection of Brockton and the Driveway 2 (New North Driveway) if intersection LOS is unacceptable under the study scenario; and
6. Provide a queuing analysis at the study intersections 3, 5, D1, D2, D3, and D4.

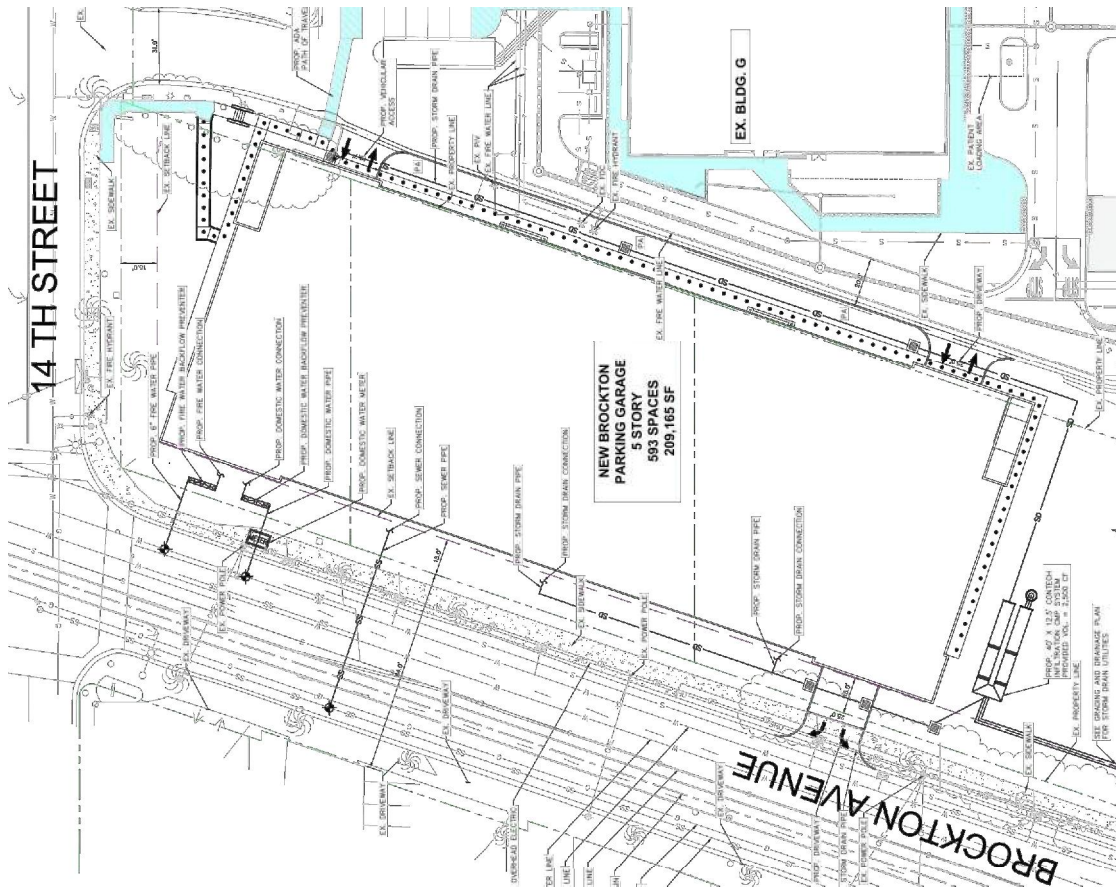
Study Scenarios:

Local Traffic Circulation Analysis of Project Operation Scenarios:

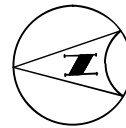
- Existing Conditions
- Opening Year (Existing Plus Ambient Growth Plus Project)

EIR Traffic Study Comparison Scenario:

- Build Out Plus Project

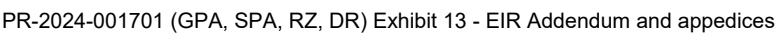
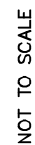


ATTACHMENT A-1 PROJECT SITE PLAN



NOT TO SCALE

Kimley»Horn



ATTACHMENT B

TABLE 1
SUMMARY OF PROJECT TRIP GENERATION*
RIVERSIDE COMMUNITY HOSPITAL EXPANSION PROJECT - PHASE II

Land Use	ITE Code ²	Trips per	Trip Generation Rates ¹						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Hospital - Trips per KSF	610	KSF	13.22	0.599	0.352	0.950	0.353	0.577	0.930
Hospital - Trips per Bed	610	Beds	12.94	0.950	0.370	1.320	0.469	0.951	1.420
Medical-Dental Office Building	720	KSF	36.13	1.89	0.50	2.39	1.00	2.57	3.57
Land Use	Quantity	Unit	Trip Generation Estimates						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Hospital - New Bed Tower	377	Beds	4,878	358	139	497	177	359	536
Hospital - Bldg B and D beds relocated to Tower	-319	Beds	-4,128	-303	-118	-421	-150	-303	-453
Hospital - Existing Bldg A to be demolished	-58.705	KSF	-776	-35	-21	-56	-21	-34	-55
Medical-Dental Office Building - New Bldg A	100.00	KSF	3,613	189	50	239	100	257	357
Hospital - Bldg B and D Re-use **	187.53	KSF	2,479	112	66	178	66	108	174
Medical-Dental Office Building - Existing MOB Bldg to be demolished	-21.50	KSF	-777	-41	-11	-52	-21	-55	-76
Medical-Dental Office Building - Existing Women's Services Bldg to be demolished	-1.90	KSF	-69	-4	-1	-5	-2	-5	-7
Total Phase II Trips			5,220	276	104	380	149	327	476
Internal Capture ³	30%		1,566	83	31	114	45	98	143
Net New Project Trips			3,654	193	73	266	104	229	333

Note: Phase II project trips represent future trip generation for the build-out of the hospital specific plan. The approved MOB and parking structure that were under construction at the time this traffic study was undertaken are assumed as part of the Pre-EIR Baseline, and are not included in the project trip generation.

¹ Source: Institute of Transportation Engineers Trip Generation Manual, 9th Edition

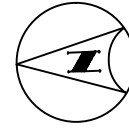
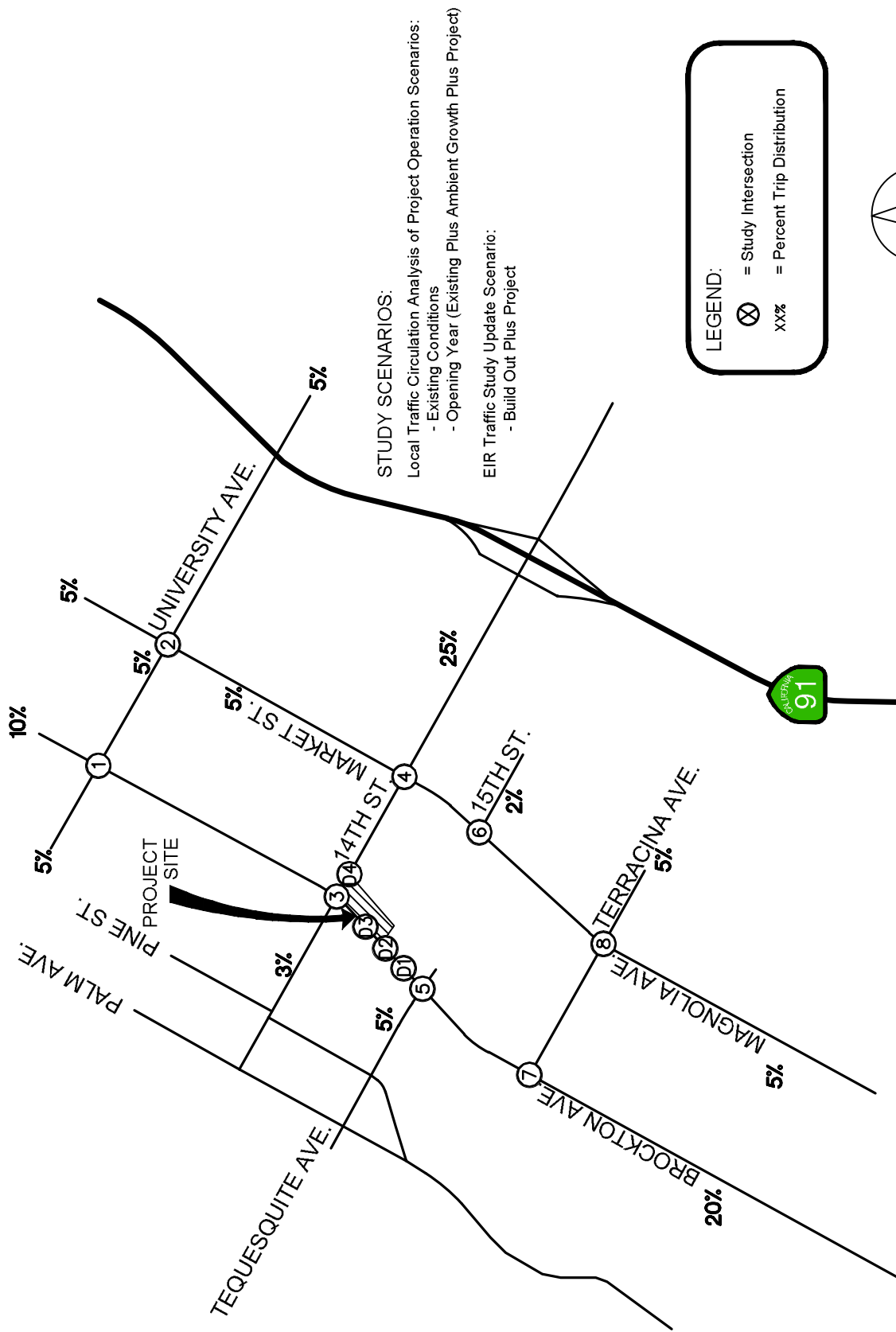
² The ITE Trip Generation Manual provides trip rates for the independent variables of "Beds" and "1,000 Square Feet". For uses associated with providing direct support for the hospital bed tower, the trip rates for "Beds" was used. For the remaining hospital areas associated with other site functions not directly related to the hospital beds, the trip rates for "1,000 Square Feet" was used.

³ Internal Capture trips are trips captured on-site as medical staff, resident physicians, students, and patients circulate on-site between the hospital, outpatient, medical offices, lab facilities and learning facilities on the campus. ITE trip generation rates are based on surveys of stand-alone uses not located in a medical campus environment. Based on conversations with Hospital representatives, a substantial number of trip purposes for each of the individual uses are and will continue to be captured on site as a result of the proximity of buildings and the walkability of the campus. As discussed with Hospital representatives and City staff, a 30% on-site capture was determined to be reasonable and conservative.

* For consistency with the approved EIR "Final Environmental Impact Report for the Riverside Community Hospital Specific Plan Expansion Project"(May 2014), 9th Edition ITE Trip Rates were used.

* It should be noted that the trip rates for "Hospital - trips per 1000 Square Feet" (ITE Code 610) are higher in the 9th edition of the ITE Trip Generation Manual compared to the current 11th edition of the ITE trip generation manual. As a result, the project's trip generation is higher using trip generation rates from the 9th edition. As such, trip generation assumptions for the proposed project would be considered more conservative.

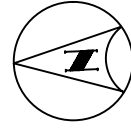
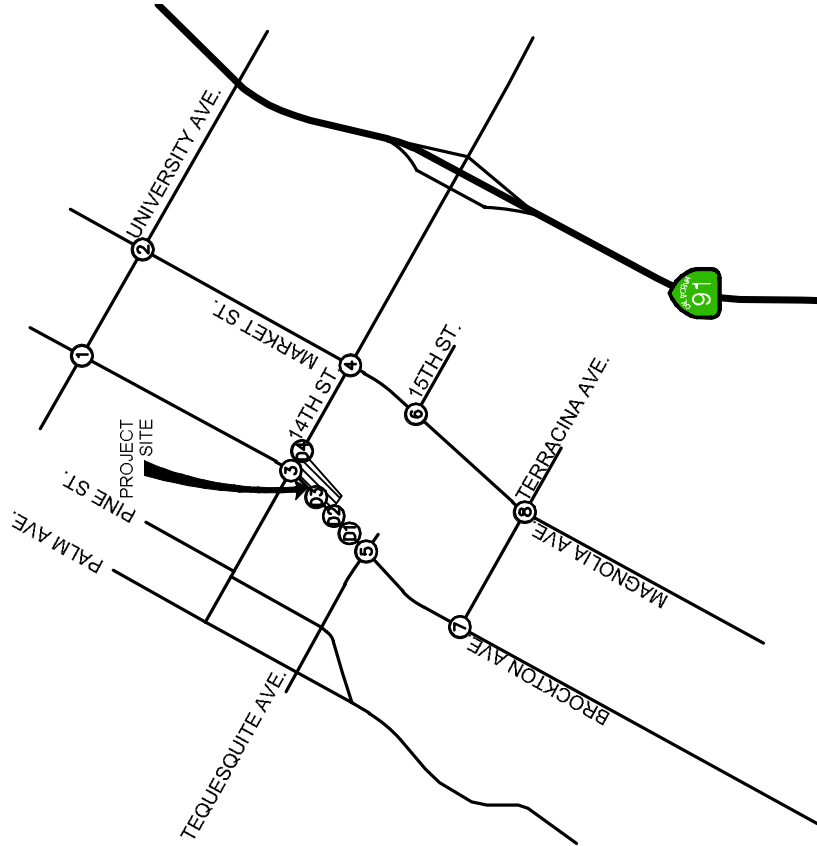
** Buildings B and D will be re-used as one or more medical campus functions, such as Hospital Administrative Support for the Bed Towers, Skilled Nursing, UCR Resident Facilities, Outpatient, etc.
 - Trips for the Hospital Administrative Support uses (29,941 SF) are assumed to be included in the Bed Tower per-bed trips.
 - Trips for the remaining uses are calculated based on the Hospital per-KSF rates.



NOT TO SCALE

ATTACHMENT C-1 STUDY AREA/SCENARIO AND OVERALL PROJECT TRIP DISTRIBUTION

1. Brockton Ave at University Ave	2. Market Street at University Ave	3. Brockton Ave at 14th St	4. Market Ave/Magnolia Ave at 14th St
5. Brockton Ave at Tequesquite Ave	6. Magnolia Ave at 15th St	7. Brockton Ave at Terracina Ave	8. Magnolia Ave at Terracina Ave
D1. Brockton Ave at EX South RCH Driveway	D2. Brockton Ave at New North RCH Driveway	D3. Brockton Ave at New Garage Egress	D4. 14th Street at RCH Driveway



NOT TO SCALE

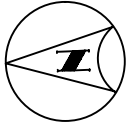
LEGEND:

⊗ = Study Intersection

xx/(yy) = In/Out Trip Distribution Percentages

ATTACHMENT C-2 PROJECT TRIP DISTRIBUTION PERCENTAGES BY TURNING MOVEMENT

1. Brockton Ave at University Ave		2. Market Street at University Ave		3. Brockton Ave at 14th St		4. Market Ave/Magnolia Ave at 14th St	
5. Brockton Ave at Tequesquite Ave		6. Magnolia Ave at 15th St		7. Brockton Ave at Terracina Ave		8. Magnolia Ave at Terracina Ave	
D1. Brockton Ave at EX South RCH Driveway		D2. Brockton Ave at New North RCH Driveway		D3. Brockton Ave at New Garage Egress		D4. 14th Street at RCH Driveway	



NOT TO SCALE

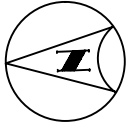
LEGEND:

- ⊗ = Study Intersection
- xx/(yy) = In/Out Trip Assignment Volumes - AM

ATTACHMENT C-3A
PROJECT TRIP ASSIGNMENT
VOLUMES BY TURNING MOVEMENT - AM



1. Brockton Ave at University Ave	2. Market Street at University Ave	3. Brockton Ave at 14th St	4. Market Ave/Magnolia Ave at 14th St
5. Brockton Ave at Tequesquite Ave	6. Magnolia Ave at 15th St	7. Brockton Ave at Terracina Ave	8. Magnolia Ave at Terracina Ave
D1. Brockton Ave at EX South RCH Driveway	D2. Brockton Ave at New North RCH Driveway	D3. Brockton Ave at New Garage Egress	D4. 14th Street at RCH Driveway



NOT TO SCALE

LEGEND:

= Study Intersection

$xx/(yy)$

= In/Out Trip Assignment Volumes - PM

ATTACHMENT C-3B
PROJECT TRIP ASSIGNMENT
VOLUMES BY TURNING MOVEMENT - PM



APPENDIX B

TRAFFIC DATA COLLECTION SHEETS

City of Riverside
N/S: Market Street/Magnolia Avenue
E/W: 14th Street
Weather: Clear

File Name : 05_RIV_Mag_14th AM
Site Code : 10824442
Start Date : 5/14/2024
Page No : 1

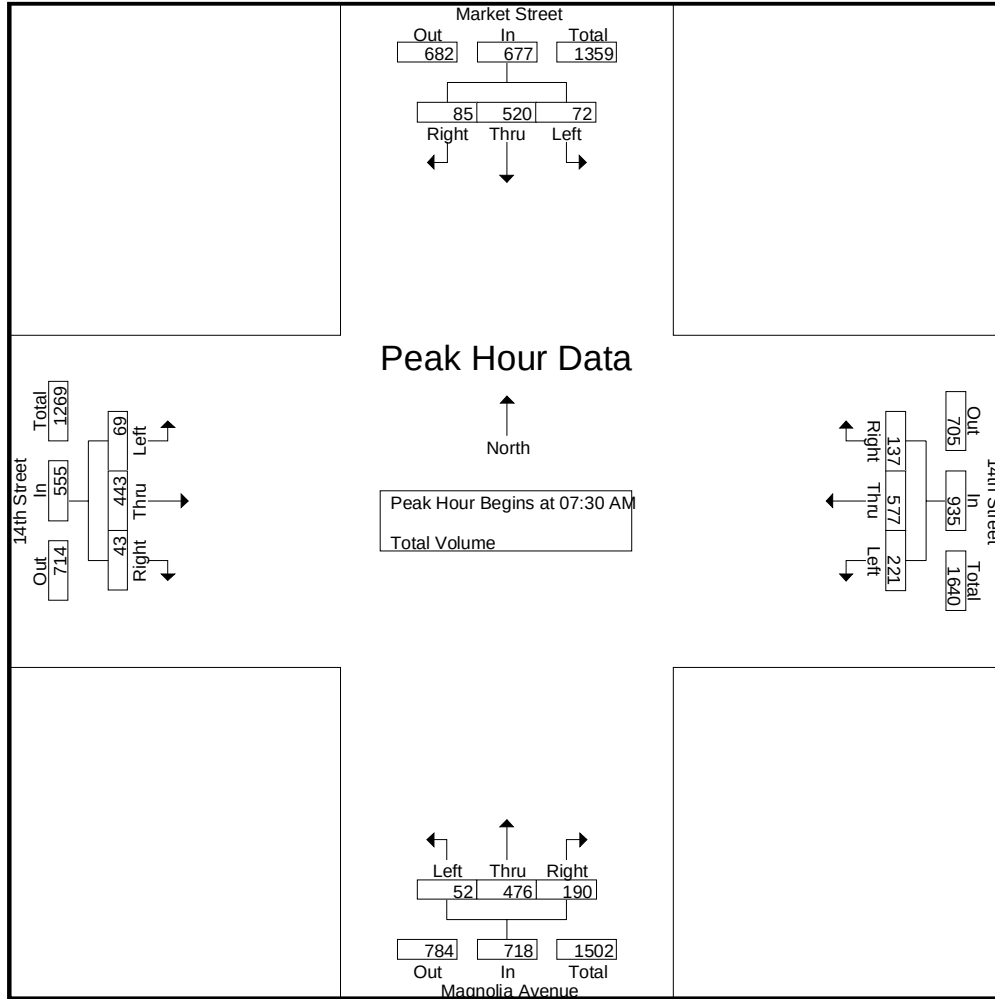
Groups Printed- Total Volume

	Market Street Southbound				14th Street Westbound				Magnolia Avenue Northbound				14th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	13	60	11	84	50	122	13	185	6	67	32	105	8	75	5	88	462
07:15 AM	12	92	12	116	47	96	33	176	6	97	29	132	14	95	5	114	538
07:30 AM	19	145	18	182	57	135	17	209	11	144	55	210	26	149	7	182	783
07:45 AM	20	158	14	192	56	148	41	245	14	116	59	189	21	142	13	176	802
Total	64	455	55	574	210	501	104	815	37	424	175	636	69	461	30	560	2585
08:00 AM	15	118	25	158	68	143	43	254	16	126	43	185	16	70	12	98	695
08:15 AM	18	99	28	145	40	151	36	227	11	90	33	134	6	82	11	99	605
08:30 AM	12	79	17	108	52	145	27	224	3	94	35	132	11	97	7	115	579
08:45 AM	17	97	19	133	42	153	36	231	16	76	30	122	14	90	16	120	606
Total	62	393	89	544	202	592	142	936	46	386	141	573	47	339	46	432	2485
Grand Total	126	848	144	1118	412	1093	246	1751	83	810	316	1209	116	800	76	992	5070
Apprch %	11.3	75.8	12.9		23.5	62.4	14		6.9	67	26.1		11.7	80.6	7.7		
Total %	2.5	16.7	2.8	22.1	8.1	21.6	4.9	34.5	1.6	16	6.2	23.8	2.3	15.8	1.5	19.6	

	Market Street Southbound				14th Street Westbound				Magnolia Avenue Northbound				14th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	19	145	18	182	57	135	17	209	11	144	55	210	26	149	7	182	783
07:45 AM	20	158	14	192	56	148	41	245	14	116	59	189	21	142	13	176	802
08:00 AM	15	118	25	158	68	143	43	254	16	126	43	185	16	70	12	98	695
08:15 AM	18	99	28	145	40	151	36	227	11	90	33	134	6	82	11	99	605
Total Volume	72	520	85	677	221	577	137	935	52	476	190	718	69	443	43	555	2885
% App. Total	10.6	76.8	12.6		23.6	61.7	14.7		7.2	66.3	26.5		12.4	79.8	7.7		
PHF	.900	.823	.759	.882	.813	.955	.797	.920	.813	.826	.805	.855	.663	.743	.827	.762	.899

City of Riverside
N/S: Market Street/Magnolia Avenue
E/W: 14th Street
Weather: Clear

File Name : 05_RIV_Mag_14th AM
Site Code : 10824442
Start Date : 5/14/2024
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:45 AM				07:30 AM				07:15 AM			
+0 mins.	19	145	18	182	56	148	41	245	11	144	55	210	14	95	5	114
+15 mins.	20	158	14	192	68	143	43	254	14	116	59	189	26	149	7	182
+30 mins.	15	118	25	158	40	151	36	227	16	126	43	185	21	142	13	176
+45 mins.	18	99	28	145	52	145	27	224	11	90	33	134	16	70	12	98
Total Volume	72	520	85	677	216	587	147	950	52	476	190	718	77	456	37	570
% App. Total	10.6	76.8	12.6		22.7	61.8	15.5		7.2	66.3	26.5		13.5	80	6.5	
PHF	.900	.823	.759	.882	.794	.972	.855	.935	.813	.826	.805	.855	.740	.765	.712	.783

City of Riverside
N/S: Market Street/Magnolia Avenue
E/W: 14th Street
Weather: Clear

File Name : 05_RIV_Mag_14th PM
Site Code : 10824442
Start Date : 5/14/2024
Page No : 1

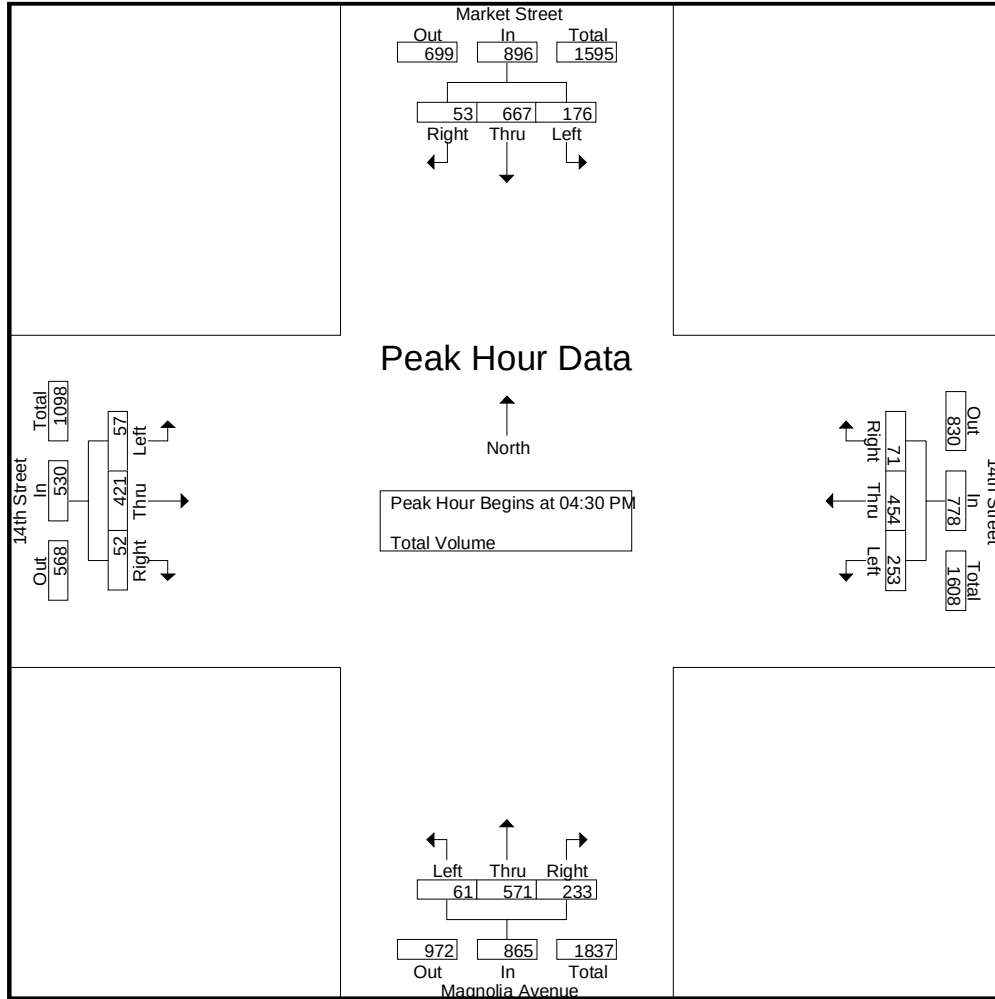
Groups Printed- Total Volume

	Market Street Southbound				14th Street Westbound				Magnolia Avenue Northbound				14th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	59	156	13	228	47	98	22	167	15	138	68	221	19	140	15	174	790
04:15 PM	32	146	6	184	39	97	25	161	16	110	44	170	15	122	12	149	664
04:30 PM	45	164	10	219	60	106	15	181	17	144	68	229	16	127	20	163	792
04:45 PM	41	152	12	205	56	109	19	184	9	145	62	216	17	103	11	131	736
Total	177	618	41	836	202	410	81	693	57	537	242	836	67	492	58	617	2982
05:00 PM	50	185	14	249	67	95	19	181	15	127	52	194	15	110	12	137	761
05:15 PM	40	166	17	223	70	144	18	232	20	155	51	226	9	81	9	99	780
05:30 PM	49	143	14	206	40	96	19	155	14	116	45	175	16	92	7	115	651
05:45 PM	36	123	11	170	54	124	21	199	8	117	32	157	7	77	7	91	617
Total	175	617	56	848	231	459	77	767	57	515	180	752	47	360	35	442	2809
Grand Total	352	1235	97	1684	433	869	158	1460	114	1052	422	1588	114	852	93	1059	5791
Apprch %	20.9	73.3	5.8		29.7	59.5	10.8		7.2	66.2	26.6		10.8	80.5	8.8		
Total %	6.1	21.3	1.7	29.1	7.5	15	2.7	25.2	2	18.2	7.3	27.4	2	14.7	1.6	18.3	

	Market Street Southbound				14th Street Westbound				Magnolia Avenue Northbound				14th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	45	164	10	219	60	106	15	181	17	144	68	229	16	127	20	163	792
04:45 PM	41	152	12	205	56	109	19	184	9	145	62	216	17	103	11	131	736
05:00 PM	50	185	14	249	67	95	19	181	15	127	52	194	15	110	12	137	761
05:15 PM	40	166	17	223	70	144	18	232	20	155	51	226	9	81	9	99	780
Total Volume	176	667	53	896	253	454	71	778	61	571	233	865	57	421	52	530	3069
% App. Total	19.6	74.4	5.9		32.5	58.4	9.1		7.1	66	26.9		10.8	79.4	9.8		
PHF	.880	.901	.779	.900	.904	.788	.934	.838	.763	.921	.857	.944	.838	.829	.650	.813	.969

City of Riverside
N/S: Market Street/Magnolia Avenue
E/W: 14th Street
Weather: Clear

File Name : 05_RIV_Mag_14th PM
Site Code : 10824442
Start Date : 5/14/2024
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:00 PM			
+0 mins.	45	164	10	219	60	106	15	181	17	144	68	229	19	140	15	174
+15 mins.	41	152	12	205	56	109	19	184	9	145	62	216	15	122	12	149
+30 mins.	50	185	14	249	67	95	19	181	15	127	52	194	16	127	20	163
+45 mins.	40	166	17	223	70	144	18	232	20	155	51	226	17	103	11	131
Total Volume	176	667	53	896	253	454	71	778	61	571	233	865	67	492	58	617
% App. Total	19.6	74.4	5.9		32.5	58.4	9.1		7.1	66	26.9		10.9	79.7	9.4	
PHF	.880	.901	.779	.900	.904	.788	.934	.838	.763	.921	.857	.944	.882	.879	.725	.886

City of Riverside
N/S: Brockton Avenue
E/W: Riverside Community Hospital DW
Weather: Clear

File Name : 09_RIV_Brock_RCH AM
Site Code : 10824442
Start Date : 5/14/2024
Page No : 1

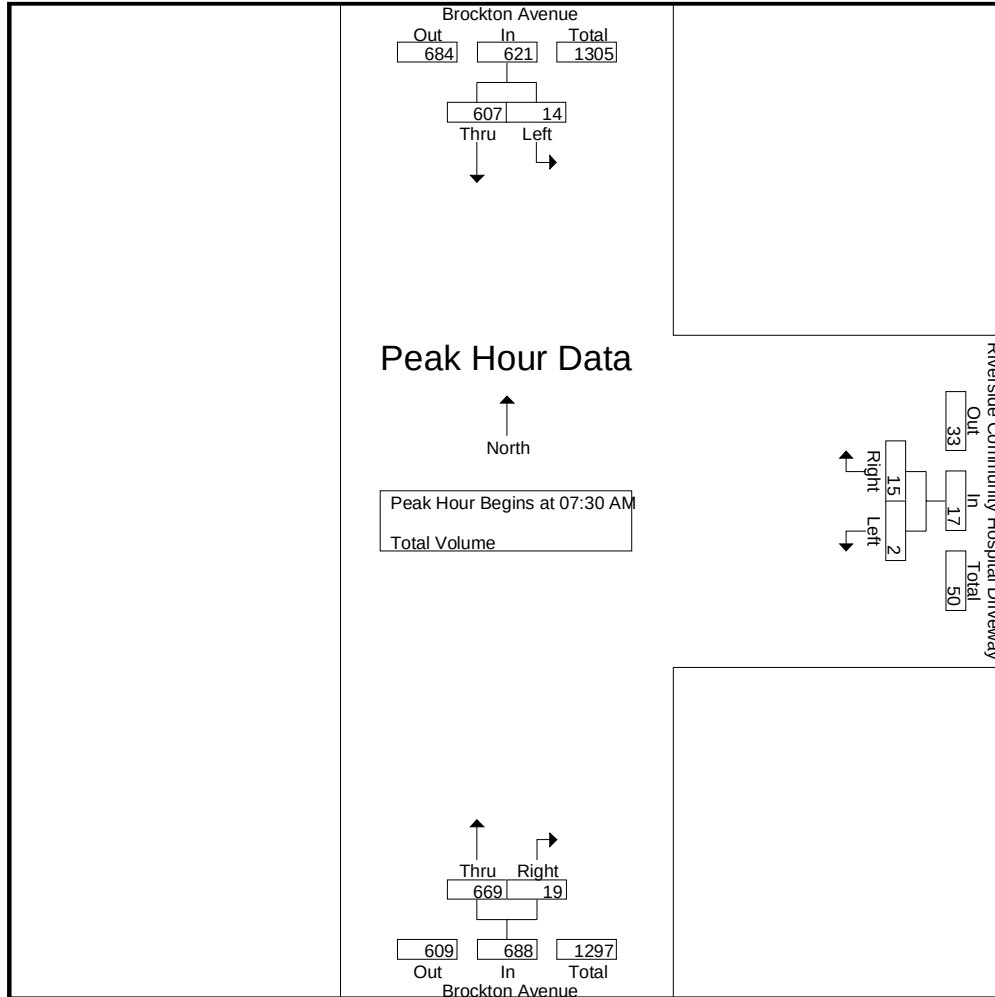
Groups Printed- Total Volume

	Brockton Avenue Southbound			Riverside Community Hospital Driveway Westbound			Brockton Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	1	75	76	0	2	2	87	1	88	166
07:15 AM	0	95	95	1	1	2	131	6	137	234
07:30 AM	3	129	132	1	2	3	186	2	188	323
07:45 AM	6	160	166	1	6	7	209	3	212	385
Total	10	459	469	3	11	14	613	12	625	1108
08:00 AM	0	158	158	0	2	2	122	7	129	289
08:15 AM	5	160	165	0	5	5	152	7	159	329
08:30 AM	7	128	135	1	2	3	113	3	116	254
08:45 AM	7	130	137	0	2	2	115	4	119	258
Total	19	576	595	1	11	12	502	21	523	1130
Grand Total	29	1035	1064	4	22	26	1115	33	1148	2238
Apprch %	2.7	97.3		15.4	84.6		97.1	2.9		
Total %	1.3	46.2	47.5	0.2	1	1.2	49.8	1.5	51.3	

	Brockton Avenue Southbound			Riverside Community Hospital Driveway Westbound			Brockton Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	3	129	132	1	2	3	186	2	188	323
07:45 AM	6	160	166	1	6	7	209	3	212	385
08:00 AM	0	158	158	0	2	2	122	7	129	289
08:15 AM	5	160	165	0	5	5	152	7	159	329
Total Volume	14	607	621	2	15	17	669	19	688	1326
% App. Total	2.3	97.7		11.8	88.2		97.2	2.8		
PHF	.583	.948	.935	.500	.625	.607	.800	.679	.811	.861

City of Riverside
N/S: Brockton Avenue
E/W: Riverside Community Hospital DW
Weather: Clear

File Name : 09_RIV_Brock_RCH AM
Site Code : 10824442
Start Date : 5/14/2024
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM			07:30 AM			07:30 AM		
+0 mins.	6	160	166	1	2	3	186	2	188
+15 mins.	0	158	158	1	6	7	209	3	212
+30 mins.	5	160	165	0	2	2	122	7	129
+45 mins.	7	128	135	0	5	5	152	7	159
Total Volume	18	606	624	2	15	17	669	19	688
% App. Total	2.9	97.1		11.8	88.2		97.2	2.8	
PHF	.643	.947	.940	.500	.625	.607	.800	.679	.811

City of Riverside
N/S: Brockton Avenue
E/W: Riverside Community Hospital DW
Weather: Clear

File Name : 09_RIV_Brock_RCH PM
Site Code : 10824442
Start Date : 5/14/2024
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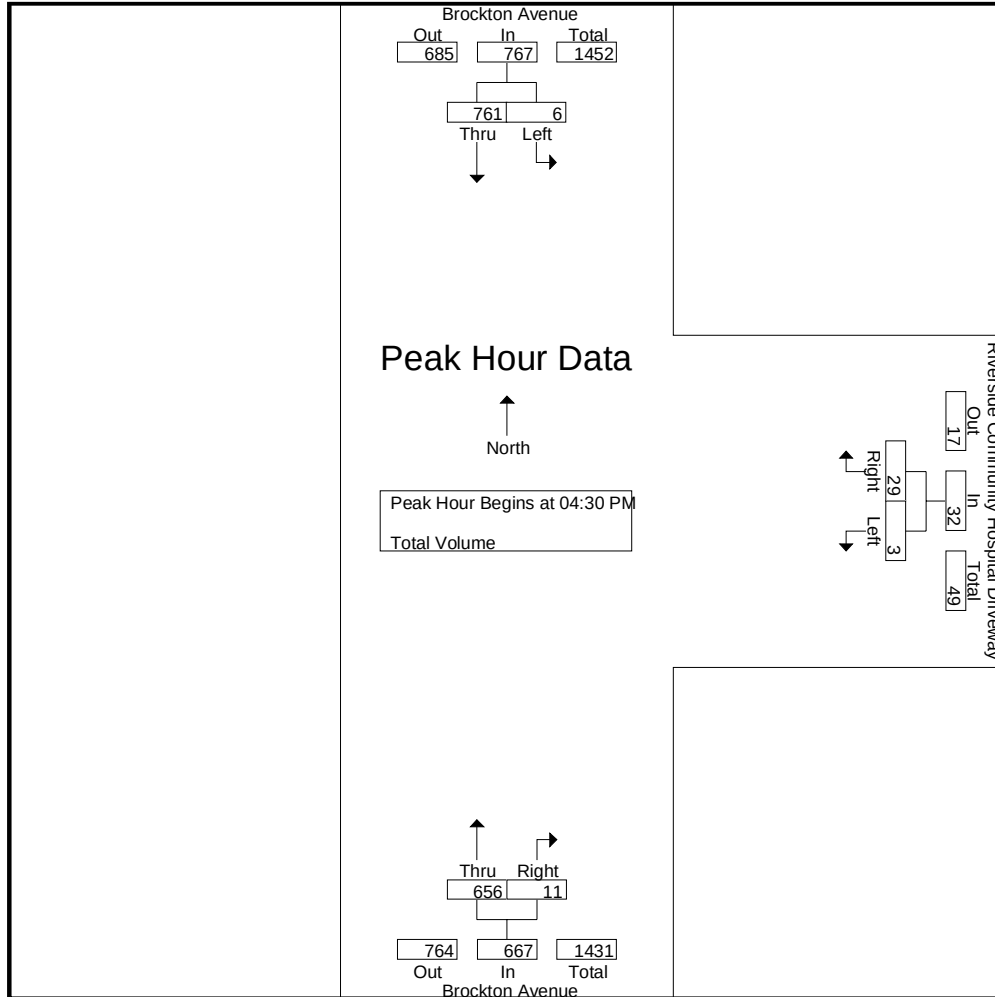
Groups Printed- Total Volume

	Brockton Avenue Southbound			Riverside Community Hospital Driveway Westbound			Brockton Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	144	144	0	1	1	157	0	157	302
04:15 PM	0	148	148	1	1	2	132	1	133	283
04:30 PM	1	166	167	0	10	10	177	3	180	357
04:45 PM	4	214	218	1	3	4	168	1	169	391
Total	5	672	677	2	15	17	634	5	639	1333
05:00 PM	0	187	187	0	10	10	155	4	159	356
05:15 PM	1	194	195	2	6	8	156	3	159	362
05:30 PM	0	180	180	1	4	5	133	5	138	323
05:45 PM	0	175	175	2	1	3	114	1	115	293
Total	1	736	737	5	21	26	558	13	571	1334
Grand Total	6	1408	1414	7	36	43	1192	18	1210	2667
Apprch %	0.4	99.6		16.3	83.7		98.5	1.5		
Total %	0.2	52.8	53	0.3	1.3	1.6	44.7	0.7	45.4	

	Brockton Avenue Southbound			Riverside Community Hospital Driveway Westbound			Brockton Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	1	166	167	0	10	10	177	3	180	357
04:45 PM	4	214	218	1	3	4	168	1	169	391
05:00 PM	0	187	187	0	10	10	155	4	159	356
05:15 PM	1	194	195	2	6	8	156	3	159	362
Total Volume	6	761	767	3	29	32	656	11	667	1466
% App. Total	0.8	99.2		9.4	90.6		98.4	1.6		
PHF	.375	.889	.880	.375	.725	.800	.927	.688	.926	.937

City of Riverside
N/S: Brockton Avenue
E/W: Riverside Community Hospital DW
Weather: Clear

File Name : 09_RIV_Brock_RCH PM
Site Code : 10824442
Start Date : 5/14/2024
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:30 PM			04:30 PM		
+0 mins.	4	214	218	0	10	10	177	3	180
+15 mins.	0	187	187	1	3	4	168	1	169
+30 mins.	1	194	195	0	10	10	155	4	159
+45 mins.	0	180	180	2	6	8	156	3	159
Total Volume	5	775	780	3	29	32	656	11	667
% App. Total	0.6	99.4		9.4	90.6		98.4	1.6	
PHF	.313	.905	.894	.375	.725	.800	.927	.688	.926

City of Riverside
N/S: Magnolia Avenue
E/W: RCC Entrance/15th Street
Weather: Clear

File Name : 10_RIV_Mag_15th AM
Site Code : 10824442
Start Date : 5/14/2024
Page No : 1

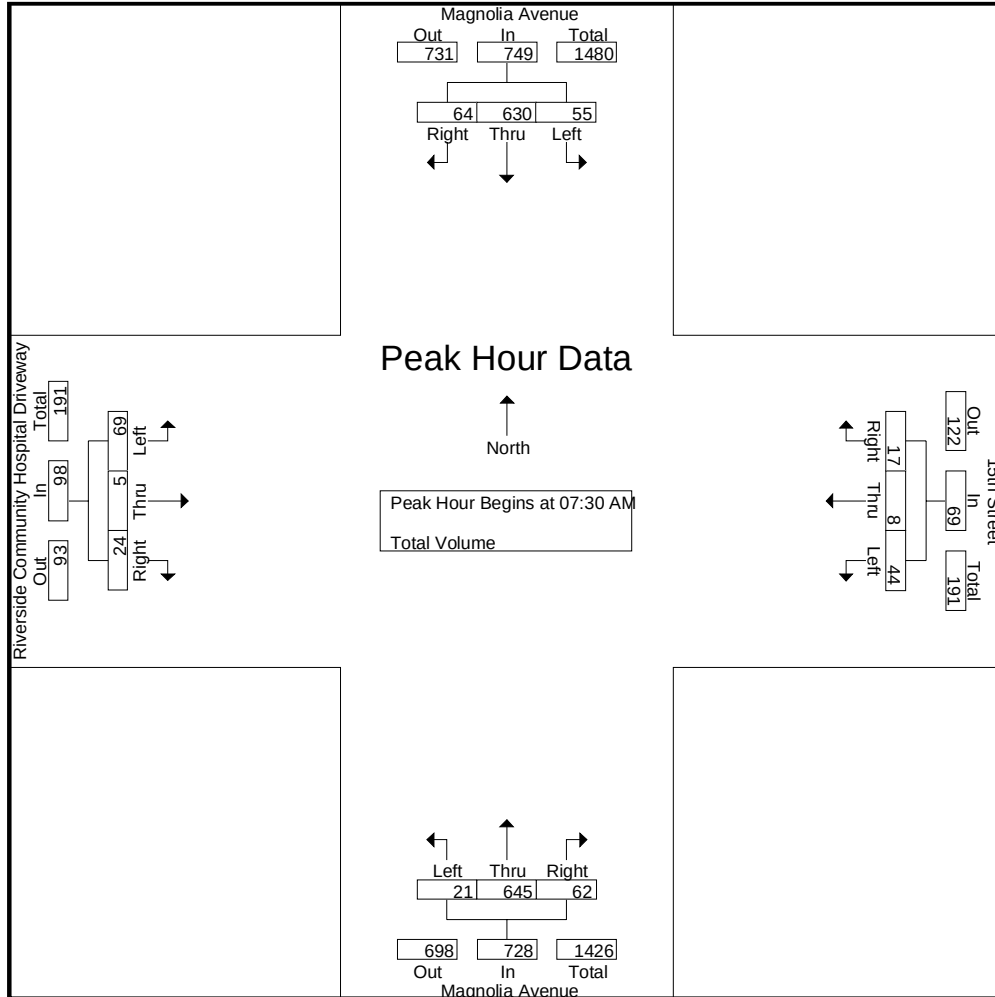
Groups Printed- Total Volume

	Magnolia Avenue Southbound				15th Street Westbound				Magnolia Avenue Northbound				Riverside Community Hospital Driveway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	2	85	32	119	5	3	4	12	7	95	8	110	12	1	1	14	255
07:15 AM	9	104	10	123	5	0	3	8	3	112	3	118	12	1	3	16	265
07:30 AM	8	176	11	195	10	2	3	15	4	173	8	185	30	3	7	40	435
07:45 AM	18	192	10	220	20	4	8	32	5	179	19	203	18	1	8	27	482
Total	37	557	63	657	40	9	18	67	19	559	38	616	72	6	19	97	1437
08:00 AM	16	159	24	199	8	1	4	13	7	174	29	210	13	1	5	19	441
08:15 AM	13	103	19	135	6	1	2	9	5	119	6	130	8	0	4	12	286
08:30 AM	9	121	18	148	3	4	4	11	6	115	13	134	8	1	3	12	305
08:45 AM	8	109	28	145	2	3	8	13	6	117	13	136	6	2	5	13	307
Total	46	492	89	627	19	9	18	46	24	525	61	610	35	4	17	56	1339
Grand Total	83	1049	152	1284	59	18	36	113	43	1084	99	1226	107	10	36	153	2776
Apprch %	6.5	81.7	11.8		52.2	15.9	31.9		3.5	88.4	8.1		69.9	6.5	23.5		
Total %	3	37.8	5.5	46.3	2.1	0.6	1.3	4.1	1.5	39	3.6	44.2	3.9	0.4	1.3	5.5	

	Magnolia Avenue Southbound				15th Street Westbound				Magnolia Avenue Northbound				Riverside Community Hospital Driveway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	8	176	11	195	10	2	3	15	4	173	8	185	30	3	7	40	435
07:45 AM	18	192	10	220	20	4	8	32	5	179	19	203	18	1	8	27	482
08:00 AM	16	159	24	199	8	1	4	13	7	174	29	210	13	1	5	19	441
08:15 AM	13	103	19	135	6	1	2	9	5	119	6	130	8	0	4	12	286
Total Volume	55	630	64	749	44	8	17	69	21	645	62	728	69	5	24	98	1644
% App. Total	7.3	84.1	8.5		63.8	11.6	24.6		2.9	88.6	8.5		70.4	5.1	24.5		
PHF	.764	.820	.667	.851	.550	.500	.531	.539	.750	.901	.534	.867	.575	.417	.750	.613	.853

City of Riverside
N/S: Magnolia Avenue
E/W: RCC Entrance/15th Street
Weather: Clear

File Name : 10_RIV_Mag_15th AM
Site Code : 10824442
Start Date : 5/14/2024
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:15 AM			
+0 mins.	8	176	11	195	10	2	3	15	4	173	8	185	12	1	3	16
+15 mins.	18	192	10	220	20	4	8	32	5	179	19	203	30	3	7	40
+30 mins.	16	159	24	199	8	1	4	13	7	174	29	210	18	1	8	27
+45 mins.	13	103	19	135	6	1	2	9	5	119	6	130	13	1	5	19
Total Volume	55	630	64	749	44	8	17	69	21	645	62	728	73	6	23	102
% App. Total	7.3	84.1	8.5		63.8	11.6	24.6		2.9	88.6	8.5		71.6	5.9	22.5	
PHF	.764	.820	.667	.851	.550	.500	.531	.539	.750	.901	.534	.867	.608	.500	.719	.638

City of Riverside
N/S: Magnolia Avenue
E/W: RCC Entrance/15th Street
Weather: Clear

File Name : 10_RIV_Mag_15th PM
Site Code : 10824442
Start Date : 5/14/2024
Page No : 1

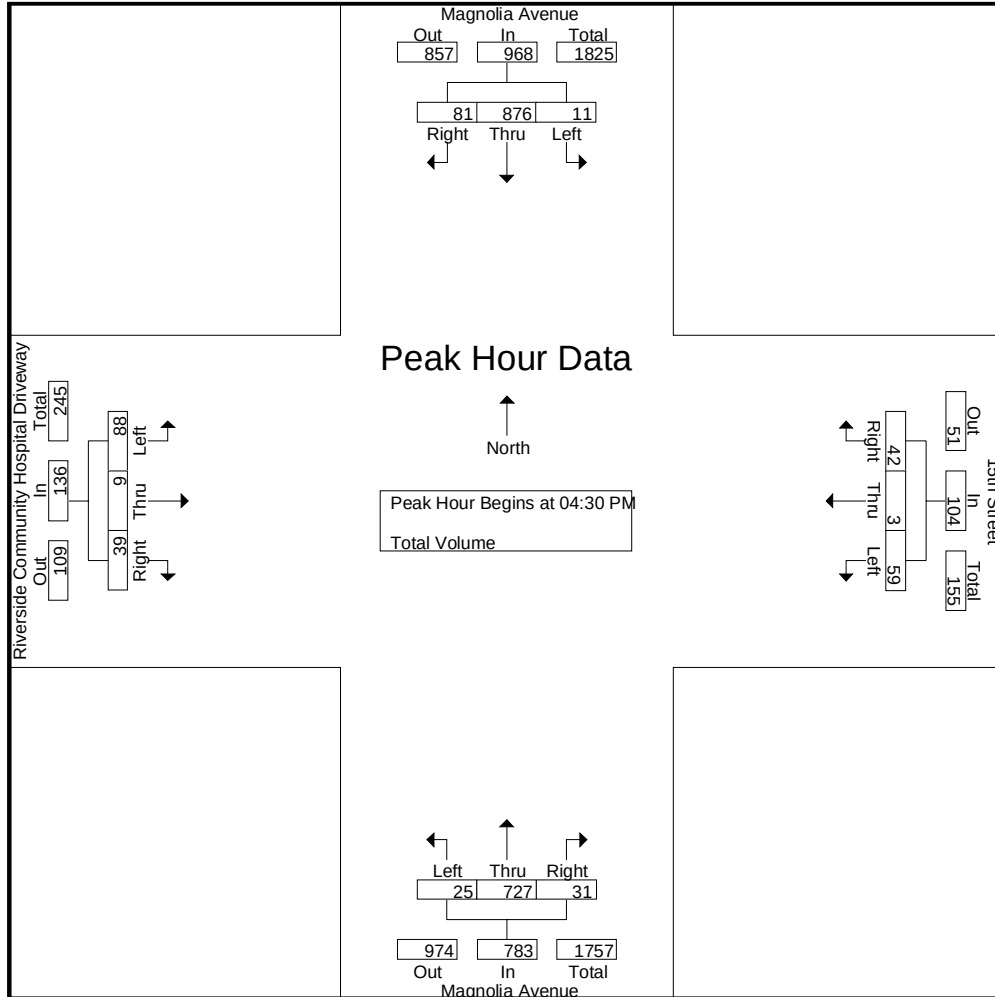
Groups Printed- Total Volume

	Magnolia Avenue Southbound				15th Street Westbound				Magnolia Avenue Northbound				Riverside Community Hospital Driveway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	7	188	19	214	7	3	10	20	11	182	7	200	18	5	11	34	468
04:15 PM	3	183	12	198	12	3	11	26	3	145	6	154	17	4	11	32	410
04:30 PM	3	210	20	233	15	0	13	28	3	203	13	219	25	6	10	41	521
04:45 PM	3	190	21	214	11	0	10	21	6	169	6	181	13	0	8	21	437
Total	16	771	72	859	45	6	44	95	23	699	32	754	73	15	40	128	1836
05:00 PM	2	243	15	260	19	2	11	32	6	143	5	154	30	1	16	47	493
05:15 PM	3	233	25	261	14	1	8	23	10	212	7	229	20	2	5	27	540
05:30 PM	3	158	20	181	9	2	12	23	6	145	3	154	22	2	12	36	394
05:45 PM	11	158	16	185	6	0	5	11	2	116	6	124	17	0	4	21	341
Total	19	792	76	887	48	5	36	89	24	616	21	661	89	5	37	131	1768
Grand Total	35	1563	148	1746	93	11	80	184	47	1315	53	1415	162	20	77	259	3604
Apprch %	2	89.5	8.5		50.5	6	43.5		3.3	92.9	3.7		62.5	7.7	29.7		
Total %	1	43.4	4.1	48.4	2.6	0.3	2.2	5.1	1.3	36.5	1.5	39.3	4.5	0.6	2.1	7.2	

	Magnolia Avenue Southbound				15th Street Westbound				Magnolia Avenue Northbound				Riverside Community Hospital Driveway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	3	210	20	233	15	0	13	28	3	203	13	219	25	6	10	41	521
04:45 PM	3	190	21	214	11	0	10	21	6	169	6	181	13	0	8	21	437
05:00 PM	2	243	15	260	19	2	11	32	6	143	5	154	30	1	16	47	493
05:15 PM	3	233	25	261	14	1	8	23	10	212	7	229	20	2	5	27	540
Total Volume	11	876	81	968	59	3	42	104	25	727	31	783	88	9	39	136	1991
% App. Total	1.1	90.5	8.4		56.7	2.9	40.4		3.2	92.8	4		64.7	6.6	28.7		
PHF	.917	.901	.810	.927	.776	.375	.808	.813	.625	.857	.596	.855	.733	.375	.609	.723	.922

City of Riverside
N/S: Magnolia Avenue
E/W: RCC Entrance/15th Street
Weather: Clear

File Name : 10_RIV_Mag_15th PM
Site Code : 10824442
Start Date : 5/14/2024
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:15 PM				04:30 PM				04:15 PM			
+0 mins.	3	210	20	233	12	3	11	26	3	203	13	219	17	4	11	32
+15 mins.	3	190	21	214	15	0	13	28	6	169	6	181	25	6	10	41
+30 mins.	2	243	15	260	11	0	10	21	6	143	5	154	13	0	8	21
+45 mins.	3	233	25	261	19	2	11	32	10	212	7	229	30	1	16	47
Total Volume	11	876	81	968	57	5	45	107	25	727	31	783	85	11	45	141
% App. Total	1.1	90.5	8.4		53.3	4.7	42.1		3.2	92.8	4		60.3	7.8	31.9	
PHF	.917	.901	.810	.927	.750	.417	.865	.836	.625	.857	.596	.855	.708	.458	.703	.750

City of Riverside
N/S: Brockton Avenue
E/W: Tequesquite Avenue
Weather: Clear

File Name : 11_RIV_Brock_Teq AM
Site Code : 10824442
Start Date : 5/14/2024
Page No : 1

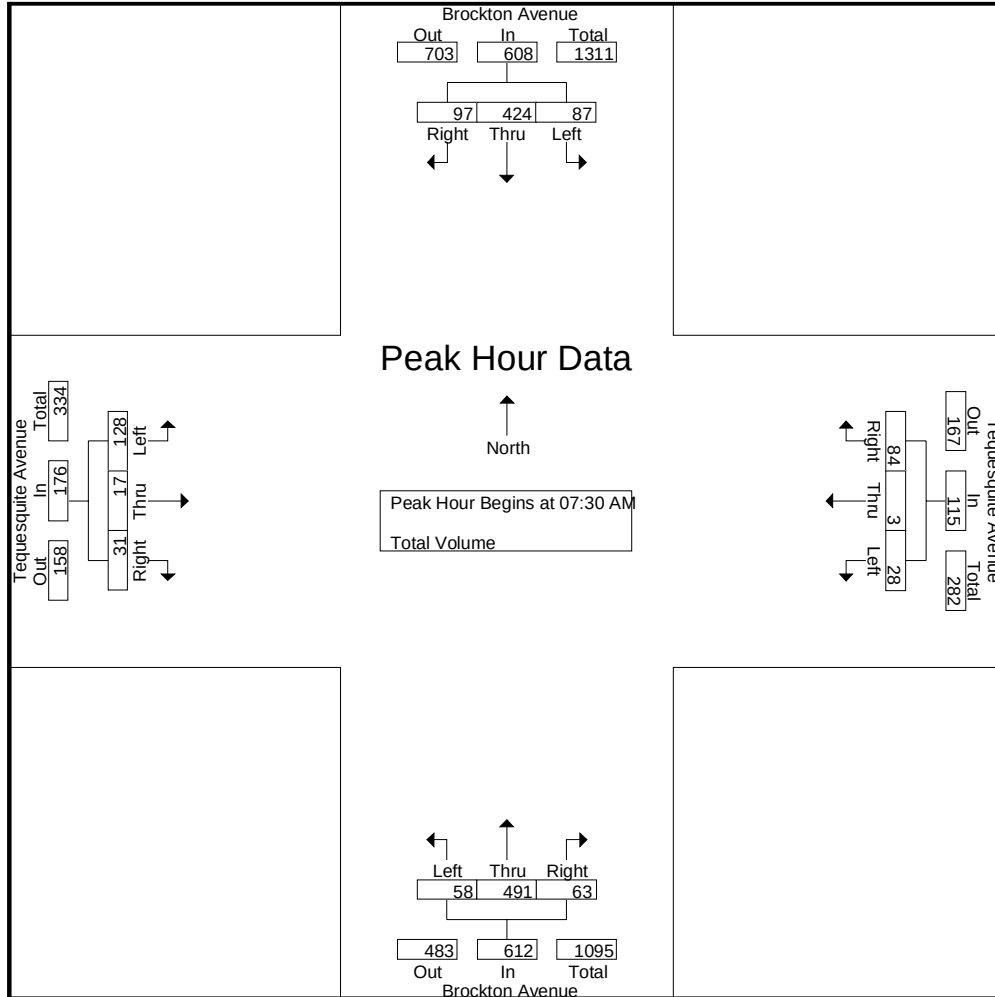
Groups Printed- Total Volume

	Brockton Avenue Southbound				Tequesquite Avenue Westbound				Brockton Avenue Northbound				Tequesquite Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	10	64	12	86	1	0	1	2	7	76	5	88	18	1	2	21	197
07:15 AM	9	65	11	85	1	0	8	9	6	104	8	118	38	1	2	41	253
07:30 AM	19	98	15	132	12	1	27	40	9	128	13	150	28	3	8	39	361
07:45 AM	28	132	23	183	6	2	30	38	18	149	19	186	48	7	12	67	474
Total	66	359	61	486	20	3	66	89	40	457	45	542	132	12	24	168	1285
08:00 AM	18	99	32	149	5	0	13	18	15	125	12	152	27	2	7	36	355
08:15 AM	22	95	27	144	5	0	14	19	16	89	19	124	25	5	4	34	321
08:30 AM	17	90	29	136	9	1	11	21	11	76	10	97	40	1	6	47	301
08:45 AM	29	76	30	135	7	0	16	23	9	80	14	103	37	4	10	51	312
Total	86	360	118	564	26	1	54	81	51	370	55	476	129	12	27	168	1289
Grand Total	152	719	179	1050	46	4	120	170	91	827	100	1018	261	24	51	336	2574
Apprch %	14.5	68.5	17		27.1	2.4	70.6		8.9	81.2	9.8		77.7	7.1	15.2		
Total %	5.9	27.9	7	40.8	1.8	0.2	4.7	6.6	3.5	32.1	3.9	39.5	10.1	0.9	2	13.1	

	Brockton Avenue Southbound				Tequesquite Avenue Westbound				Brockton Avenue Northbound				Tequesquite Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	19	98	15	132	12	1	27	40	9	128	13	150	28	3	8	39	361
07:45 AM	28	132	23	183	6	2	30	38	18	149	19	186	48	7	12	67	474
08:00 AM	18	99	32	149	5	0	13	18	15	125	12	152	27	2	7	36	355
08:15 AM	22	95	27	144	5	0	14	19	16	89	19	124	25	5	4	34	321
Total Volume	87	424	97	608	28	3	84	115	58	491	63	612	128	17	31	176	1511
% App. Total	14.3	69.7	16		24.3	2.6	73		9.5	80.2	10.3		72.7	9.7	17.6		
PHF	.777	.803	.758	.831	.583	.375	.700	.719	.806	.824	.829	.823	.667	.607	.646	.657	.797

City of Riverside
N/S: Brockton Avenue
E/W: Tequesquite Avenue
Weather: Clear

File Name : 11_RIV_Brock_Teq AM
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:30 AM				07:30 AM				07:45 AM			
+0 mins.	28	132	23	183	12	1	27	40	9	128	13	150	48	7	12	67
+15 mins.	18	99	32	149	6	2	30	38	18	149	19	186	27	2	7	36
+30 mins.	22	95	27	144	5	0	13	18	15	125	12	152	25	5	4	34
+45 mins.	17	90	29	136	5	0	14	19	16	89	19	124	40	1	6	47
Total Volume	85	416	111	612	28	3	84	115	58	491	63	612	140	15	29	184
% App. Total	13.9	68	18.1		24.3	2.6	73		9.5	80.2	10.3		76.1	8.2	15.8	
PHF	.759	.788	.867	.836	.583	.375	.700	.719	.806	.824	.829	.823	.729	.536	.604	.687

City of Riverside
N/S: Brockton Avenue
E/W: Tequesquite Avenue
Weather: Clear

File Name : 11_RIV_Brock_Teq PM
Site Code : 10824442
Start Date : 5/14/2024
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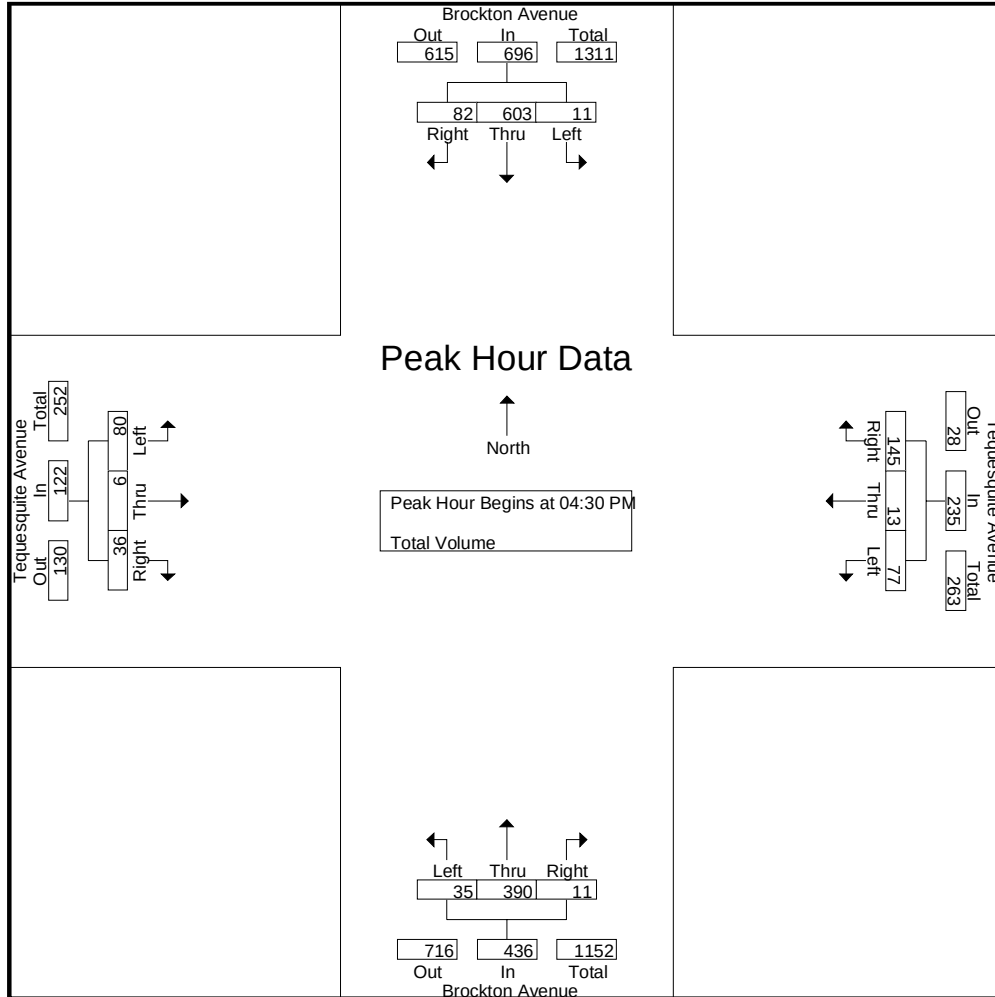
Groups Printed- Total Volume

	Brockton Avenue Southbound				Tequesquite Avenue Westbound				Brockton Avenue Northbound				Tequesquite Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	9	120	32	161	17	1	34	52	4	68	6	78	32	1	19	52	343
04:15 PM	5	110	21	136	10	1	33	44	14	92	4	110	23	1	7	31	321
04:30 PM	6	132	18	156	30	7	54	91	13	109	2	124	16	0	8	24	395
04:45 PM	2	172	17	191	16	1	32	49	5	95	3	103	21	2	12	35	378
Total	22	534	88	644	73	10	153	236	36	364	15	415	92	4	46	142	1437
05:00 PM	1	144	21	166	23	5	37	65	9	101	3	113	23	2	7	32	376
05:15 PM	2	155	26	183	8	0	22	30	8	85	3	96	20	2	9	31	340
05:30 PM	3	155	39	197	6	1	20	27	12	80	2	94	19	0	10	29	347
05:45 PM	5	131	30	166	7	1	13	21	8	72	4	84	13	1	11	25	296
Total	11	585	116	712	44	7	92	143	37	338	12	387	75	5	37	117	1359
Grand Total	33	1119	204	1356	117	17	245	379	73	702	27	802	167	9	83	259	2796
Apprch %	2.4	82.5	15		30.9	4.5	64.6		9.1	87.5	3.4		64.5	3.5	32		
Total %	1.2	40	7.3	48.5	4.2	0.6	8.8	13.6	2.6	25.1	1	28.7	6	0.3	3	9.3	

	Brockton Avenue Southbound				Tequesquite Avenue Westbound				Brockton Avenue Northbound				Tequesquite Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	6	132	18	156	30	7	54	91	13	109	2	124	16	0	8	24	395
04:45 PM	2	172	17	191	16	1	32	49	5	95	3	103	21	2	12	35	378
05:00 PM	1	144	21	166	23	5	37	65	9	101	3	113	23	2	7	32	376
05:15 PM	2	155	26	183	8	0	22	30	8	85	3	96	20	2	9	31	340
Total Volume	11	603	82	696	77	13	145	235	35	390	11	436	80	6	36	122	1489
% App. Total	1.6	86.6	11.8		32.8	5.5	61.7		8	89.4	2.5		65.6	4.9	29.5		
PHF	.458	.876	.788	.911	.642	.464	.671	.646	.673	.894	.917	.879	.870	.750	.750	.871	.942

City of Riverside
N/S: Brockton Avenue
E/W: Tequesquite Avenue
Weather: Clear

File Name : 11_RIV_Brock_Teq PM
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:15 PM				04:15 PM				04:00 PM			
+0 mins.	2	172	17	191	10	1	33	44	14	92	4	110	32	1	19	52
+15 mins.	1	144	21	166	30	7	54	91	13	109	2	124	23	1	7	31
+30 mins.	2	155	26	183	16	1	32	49	5	95	3	103	16	0	8	24
+45 mins.	3	155	39	197	23	5	37	65	9	101	3	113	21	2	12	35
Total Volume	8	626	103	737	79	14	156	249	41	397	12	450	92	4	46	142
% App. Total	1.1	84.9	14		31.7	5.6	62.7		9.1	88.2	2.7		64.8	2.8	32.4	
PHF	.667	.910	.660	.935	.658	.500	.722	.684	.732	.911	.750	.907	.719	.500	.605	.683

City of Riverside
N/S: Brockton Avenue
E/W: Terracina Drive
Weather: Clear

File Name : 12_RIV_Brock_Terra AM
Site Code : 10824442
Start Date : 5/14/2024
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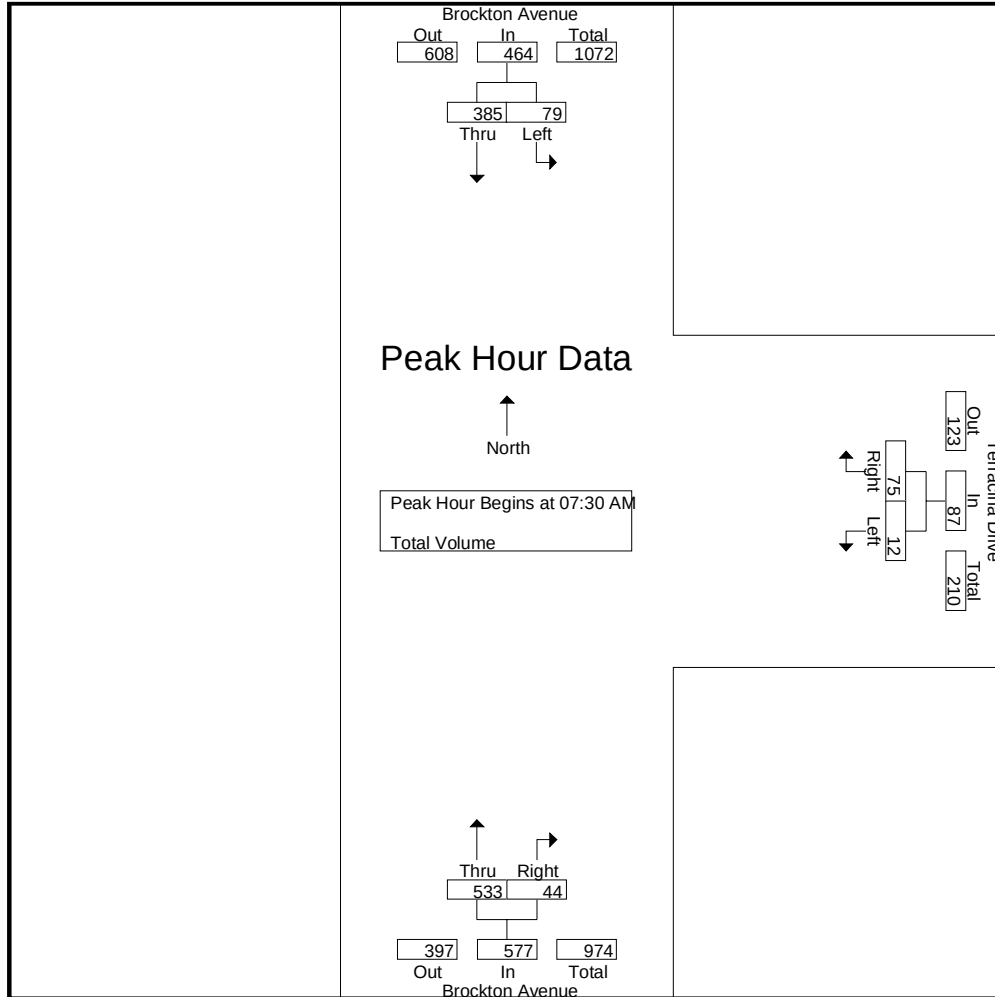
Groups Printed- Total Volume

	Brockton Avenue Southbound			Terracina Drive Westbound			Brockton Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	3	54	57	0	2	2	88	0	88	147
07:15 AM	5	63	68	1	2	3	108	0	108	179
07:30 AM	15	100	115	2	12	14	135	15	150	279
07:45 AM	50	90	140	7	36	43	156	22	178	361
Total	73	307	380	10	52	62	487	37	524	966
08:00 AM	11	96	107	3	26	29	121	4	125	261
08:15 AM	3	99	102	0	1	1	121	3	124	227
08:30 AM	4	94	98	0	2	2	96	2	98	198
08:45 AM	6	79	85	0	3	3	101	2	103	191
Total	24	368	392	3	32	35	439	11	450	877
Grand Total	97	675	772	13	84	97	926	48	974	1843
Apprch %	12.6	87.4		13.4	86.6		95.1	4.9		
Total %	5.3	36.6	41.9	0.7	4.6	5.3	50.2	2.6	52.8	

	Brockton Avenue Southbound			Terracina Drive Westbound			Brockton Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	15	100	115	2	12	14	135	15	150	279
07:45 AM	50	90	140	7	36	43	156	22	178	361
08:00 AM	11	96	107	3	26	29	121	4	125	261
08:15 AM	3	99	102	0	1	1	121	3	124	227
Total Volume	79	385	464	12	75	87	533	44	577	1128
% App. Total	17	83		13.8	86.2		92.4	7.6		
PHF	.395	.963	.829	.429	.521	.506	.854	.500	.810	.781

City of Riverside
N/S: Brockton Avenue
E/W: Terracina Drive
Weather: Clear

File Name : 12_RIV_Brock_Terra AM
Site Code : 10824442
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM			07:15 AM			07:30 AM		
+0 mins.	15	100	115	1	2	3	135	15	150
+15 mins.	50	90	140	2	12	14	156	22	178
+30 mins.	11	96	107	7	36	43	121	4	125
+45 mins.	3	99	102	3	26	29	121	3	124
Total Volume	79	385	464	13	76	89	533	44	577
% App. Total	17	83		14.6	85.4		92.4	7.6	
PHF	.395	.963	.829	.464	.528	.517	.854	.500	.810

City of Riverside
N/S: Brockton Avenue
E/W: Terracina Drive
Weather: Clear

File Name : 12_RIV_Brock_Terra PM
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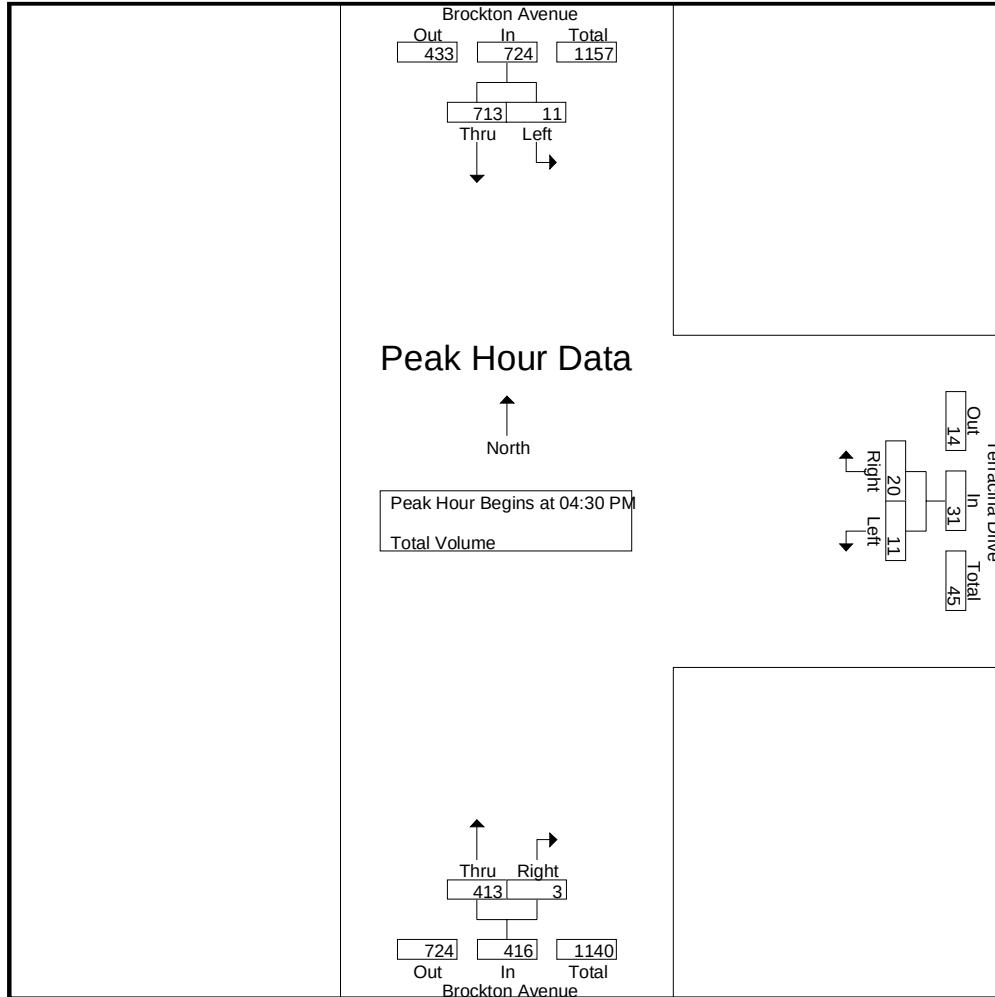
Groups Printed- Total Volume

	Brockton Avenue Southbound			Terracina Drive Westbound			Brockton Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	2	153	155	6	3	9	69	1	70	234
04:15 PM	3	128	131	2	6	8	106	2	108	247
04:30 PM	1	168	169	3	8	11	115	0	115	295
04:45 PM	4	201	205	2	5	7	94	3	97	309
Total	10	650	660	13	22	35	384	6	390	1085
05:00 PM	2	173	175	3	3	6	110	0	110	291
05:15 PM	4	171	175	3	4	7	94	0	94	276
05:30 PM	3	164	167	4	2	6	98	1	99	272
05:45 PM	4	152	156	0	3	3	73	4	77	236
Total	13	660	673	10	12	22	375	5	380	1075
Grand Total	23	1310	1333	23	34	57	759	11	770	2160
Apprch %	1.7	98.3		40.4	59.6		98.6	1.4		
Total %	1.1	60.6	61.7	1.1	1.6	2.6	35.1	0.5	35.6	

	Brockton Avenue Southbound			Terracina Drive Westbound			Brockton Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	1	168	169	3	8	11	115	0	115	295
04:45 PM	4	201	205	2	5	7	94	3	97	309
05:00 PM	2	173	175	3	3	6	110	0	110	291
05:15 PM	4	171	175	3	4	7	94	0	94	276
Total Volume	11	713	724	11	20	31	413	3	416	1171
% App. Total	1.5	98.5		35.5	64.5		99.3	0.7		
PHF	.688	.887	.883	.917	.625	.705	.898	.250	.904	.947

City of Riverside
N/S: Brockton Avenue
E/W: Terracina Drive
Weather: Clear

File Name : 12_RIV_Brock_Terra PM
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:00 PM			04:15 PM		
+0 mins.	1	168	169	6	3	9	106	2	108
+15 mins.	4	201	205	2	6	8	115	0	115
+30 mins.	2	173	175	3	8	11	94	3	97
+45 mins.	4	171	175	2	5	7	110	0	110
Total Volume	11	713	724	13	22	35	425	5	430
% App. Total	1.5	98.5		37.1	62.9		98.8	1.2	
PHF	.688	.887	.883	.542	.688	.795	.924	.417	.935

City of Riverside
N/S: Magnolia Avenue
E/W: Terracina Drive
Weather: Clear

File Name : 13_RIV_Mag_Terra AM
Site Code : 10824442
Start Date : 5/14/2024
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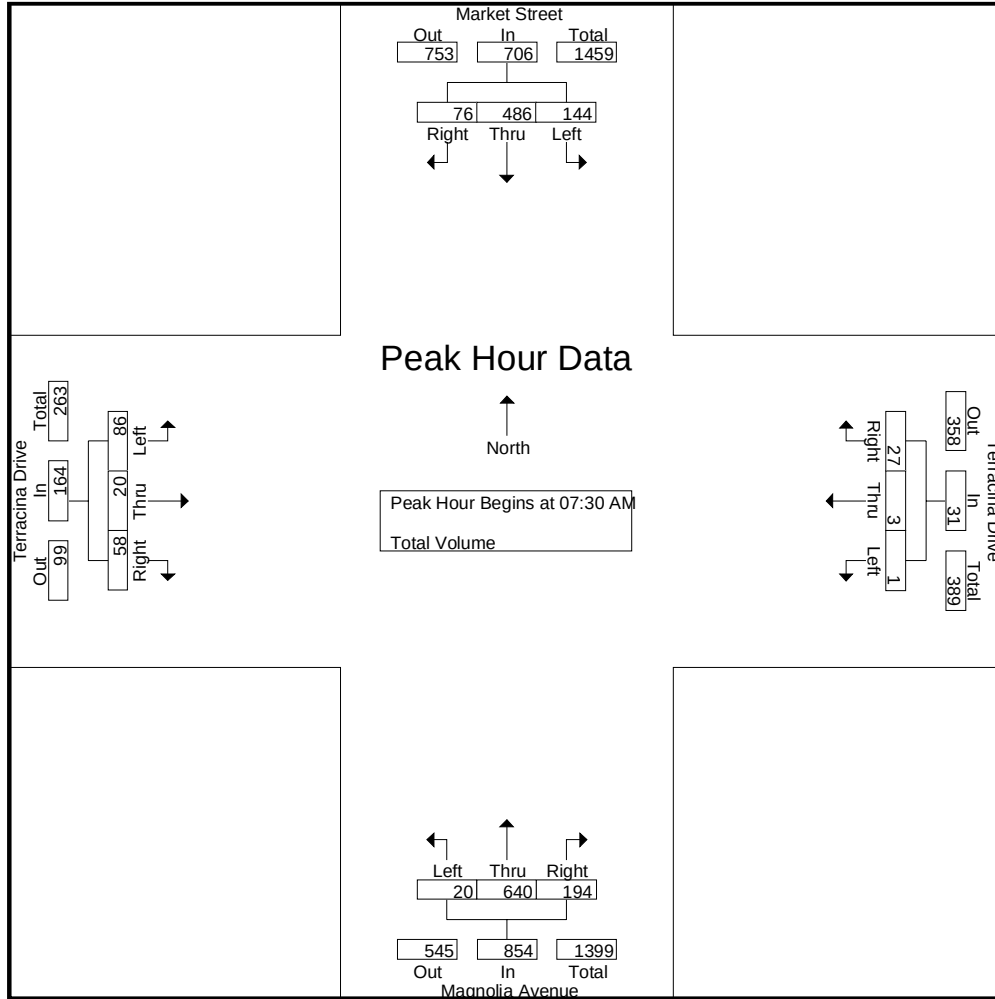
Groups Printed- Total Volume

	Market Street Southbound				Terracina Drive Westbound				Magnolia Avenue Northbound				Terracina Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	26	66	2	94	0	0	2	2	0	96	15	111	1	0	2	3	210
07:15 AM	23	86	2	111	2	0	0	2	1	129	27	157	3	2	2	7	277
07:30 AM	39	133	15	187	0	0	3	3	5	169	40	214	23	4	20	47	451
07:45 AM	54	133	39	226	0	2	7	9	8	188	71	267	51	11	27	89	591
Total	142	418	58	618	2	2	12	16	14	582	153	749	78	17	51	146	1529
08:00 AM	37	119	20	176	1	1	13	15	7	164	48	219	10	3	10	23	433
08:15 AM	14	101	2	117	0	0	4	4	0	119	35	154	2	2	1	5	280
08:30 AM	25	95	2	122	3	0	2	5	1	138	17	156	1	3	2	6	289
08:45 AM	19	93	2	114	1	0	3	4	0	117	44	161	3	3	1	7	286
Total	95	408	26	529	5	1	22	28	8	538	144	690	16	11	14	41	1288
Grand Total	237	826	84	1147	7	3	34	44	22	1120	297	1439	94	28	65	187	2817
Apprch %	20.7	72	7.3		15.9	6.8	77.3		1.5	77.8	20.6		50.3	15	34.8		
Total %	8.4	29.3	3	40.7	0.2	0.1	1.2	1.6	0.8	39.8	10.5	51.1	3.3	1	2.3	6.6	

	Market Street Southbound				Terracina Drive Westbound				Magnolia Avenue Northbound				Terracina Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	39	133	15	187	0	0	3	3	5	169	40	214	23	4	20	47	451
07:45 AM	54	133	39	226	0	2	7	9	8	188	71	267	51	11	27	89	591
08:00 AM	37	119	20	176	1	1	13	15	7	164	48	219	10	3	10	23	433
08:15 AM	14	101	2	117	0	0	4	4	0	119	35	154	2	2	1	5	280
Total Volume	144	486	76	706	1	3	27	31	20	640	194	854	86	20	58	164	1755
% App. Total	20.4	68.8	10.8		3.2	9.7	87.1		2.3	74.9	22.7		52.4	12.2	35.4		
PHF	.667	.914	.487	.781	.250	.375	.519	.517	.625	.851	.683	.800	.422	.455	.537	.461	.742

City of Riverside
N/S: Magnolia Avenue
E/W: Terracina Drive
Weather: Clear

File Name : 13_RIV_Mag_Terra AM
Site Code : 10824442
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:45 AM				07:15 AM				07:15 AM			
+0 mins.	39	133	15	187	0	2	7	9	1	129	27	157	3	2	2	7
+15 mins.	54	133	39	226	1	1	13	15	5	169	40	214	23	4	20	47
+30 mins.	37	119	20	176	0	0	4	4	8	188	71	267	51	11	27	89
+45 mins.	14	101	2	117	3	0	2	5	7	164	48	219	10	3	10	23
Total Volume	144	486	76	706	4	3	26	33	21	650	186	857	87	20	59	166
% App. Total	20.4	68.8	10.8		12.1	9.1	78.8		2.5	75.8	21.7		52.4	12	35.5	
PHF	.667	.914	.487	.781	.333	.375	.500	.550	.656	.864	.655	.802	.426	.455	.546	.466

City of Riverside
N/S: Magnolia Avenue
E/W: Terracina Drive
Weather: Clear

File Name : 13_RIV_Mag_Terra PM
Site Code : 10824442
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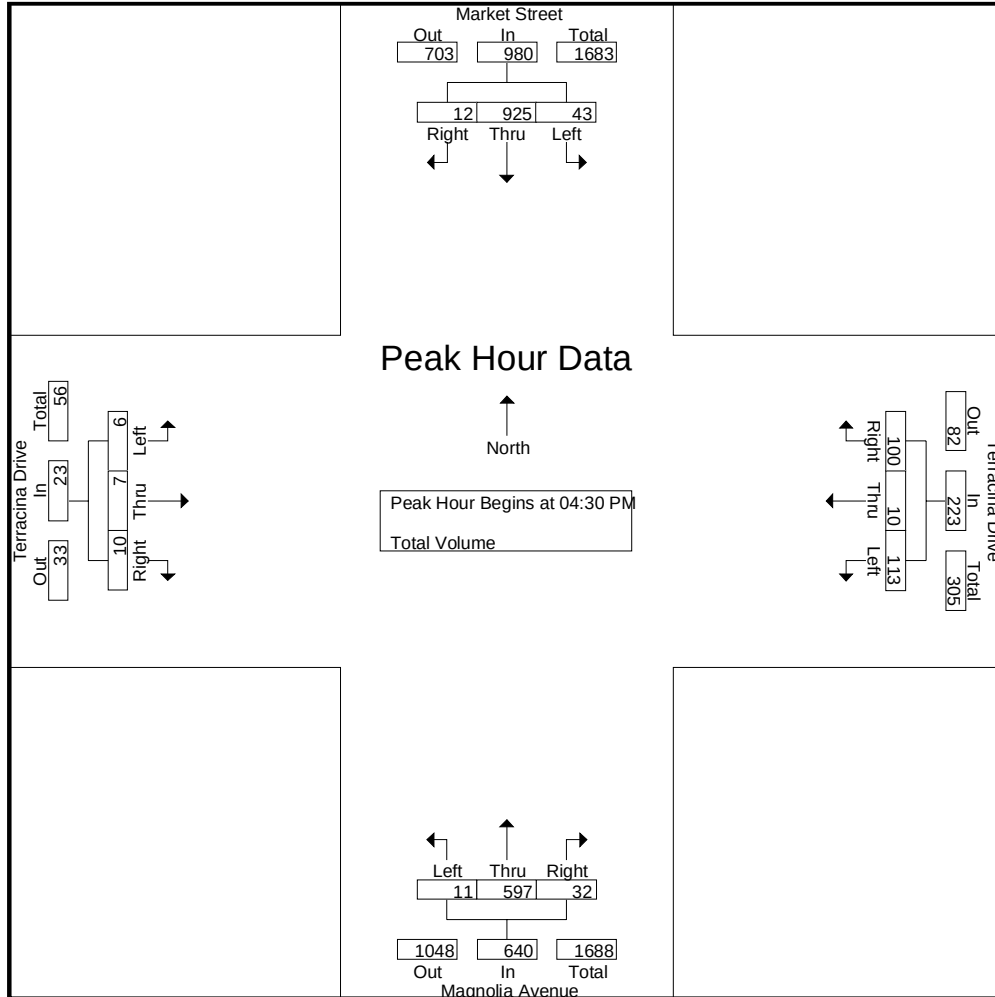
Groups Printed- Total Volume

	Market Street Southbound				Terracina Drive Westbound				Magnolia Avenue Northbound				Terracina Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	10	203	3	216	24	5	17	46	2	169	8	179	2	2	1	5	446
04:15 PM	9	183	3	195	24	3	18	45	3	120	4	127	2	3	3	8	375
04:30 PM	12	226	3	241	45	3	26	74	2	165	8	175	0	1	2	3	493
04:45 PM	10	199	1	210	20	2	22	44	3	134	13	150	4	1	3	8	412
Total	41	811	10	862	113	13	83	209	10	588	33	631	8	7	9	24	1726
05:00 PM	11	254	4	269	29	3	24	56	4	139	2	145	1	2	3	6	476
05:15 PM	10	246	4	260	19	2	28	49	2	159	9	170	1	3	2	6	485
05:30 PM	7	176	5	188	11	0	11	22	3	133	13	149	0	1	3	4	363
05:45 PM	12	148	3	163	5	0	2	7	4	135	13	152	2	5	1	8	330
Total	40	824	16	880	64	5	65	134	13	566	37	616	4	11	9	24	1654
Grand Total	81	1635	26	1742	177	18	148	343	23	1154	70	1247	12	18	18	48	3380
Apprch %	4.6	93.9	1.5		51.6	5.2	43.1		1.8	92.5	5.6		25	37.5	37.5		
Total %	2.4	48.4	0.8	51.5	5.2	0.5	4.4	10.1	0.7	34.1	2.1	36.9	0.4	0.5	0.5	1.4	

	Market Street Southbound				Terracina Drive Westbound				Magnolia Avenue Northbound				Terracina Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	12	226	3	241	45	3	26	74	2	165	8	175	0	1	2	3	493
04:45 PM	10	199	1	210	20	2	22	44	3	134	13	150	4	1	3	8	412
05:00 PM	11	254	4	269	29	3	24	56	4	139	2	145	1	2	3	6	476
05:15 PM	10	246	4	260	19	2	28	49	2	159	9	170	1	3	2	6	485
Total Volume	43	925	12	980	113	10	100	223	11	597	32	640	6	7	10	23	1866
% App. Total	4.4	94.4	1.2		50.7	4.5	44.8		1.7	93.3	5		26.1	30.4	43.5		
PHF	.896	.910	.750	.911	.628	.833	.893	.753	.688	.905	.615	.914	.375	.583	.833	.719	.946

City of Riverside
N/S: Magnolia Avenue
E/W: Terracina Drive
Weather: Clear

File Name : 13_RIV_Mag_Terra PM
Site Code : 10824442
Start Date : 5/14/2024
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:15 PM			
+0 mins.	12	226	3	241	45	3	26	74	2	165	8	175	2	3	3	8
+15 mins.	10	199	1	210	20	2	22	44	3	134	13	150	0	1	2	3
+30 mins.	11	254	4	269	29	3	24	56	4	139	2	145	4	1	3	8
+45 mins.	10	246	4	260	19	2	28	49	2	159	9	170	1	2	3	6
Total Volume	43	925	12	980	113	10	100	223	11	597	32	640	7	7	11	25
% App. Total	4.4	94.4	1.2		50.7	4.5	44.8		1.7	93.3	5		28	28	44	
PHF	.896	.910	.750	.911	.628	.833	.893	.753	.688	.905	.615	.914	.438	.583	.917	.781

City of Riverside
N/S: Riverside Community Hospital ER DW
E/W: 14th Street
Weather: Clear

File Name : 18_RIV_ER DW_14th St AM
Site Code : 10824442
Start Date : 5/14/2024
Page No : 1

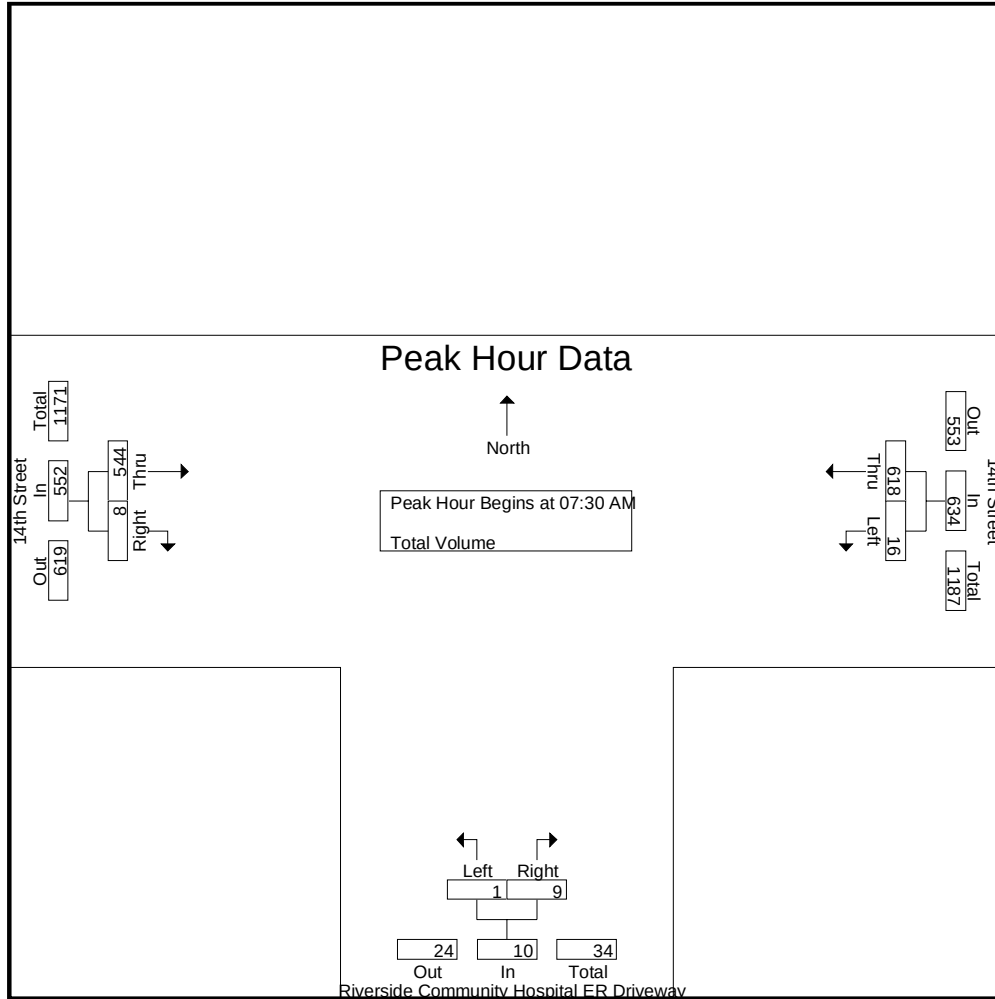
Groups Printed- Total Volume

	14th Street Westbound			Riverside Community Hospital ER Driveway Northbound			14th Street Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	3	114	117	3	2	5	88	1	89	211
07:15 AM	2	95	97	1	4	5	122	1	123	225
07:30 AM	5	121	126	0	1	1	179	0	179	306
07:45 AM	2	147	149	0	2	2	145	2	147	298
Total	12	477	489	4	9	13	534	4	538	1040
08:00 AM	5	182	187	1	2	3	103	1	104	294
08:15 AM	4	168	172	0	4	4	117	5	122	298
08:30 AM	4	149	153	3	0	3	94	3	97	253
08:45 AM	4	160	164	5	2	7	82	0	82	253
Total	17	659	676	9	8	17	396	9	405	1098
Grand Total	29	1136	1165	13	17	30	930	13	943	2138
Apprch %	2.5	97.5		43.3	56.7		98.6	1.4		
Total %	1.4	53.1	54.5	0.6	0.8	1.4	43.5	0.6	44.1	

	14th Street Westbound			Riverside Community Hospital ER Driveway Northbound			14th Street Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	5	121	126	0	1	1	179	0	179	306
07:45 AM	2	147	149	0	2	2	145	2	147	298
08:00 AM	5	182	187	1	2	3	103	1	104	294
08:15 AM	4	168	172	0	4	4	117	5	122	298
Total Volume	16	618	634	1	9	10	544	8	552	1196
% App. Total	2.5	97.5		10	90		98.6	1.4		
PHF	.800	.849	.848	.250	.563	.625	.760	.400	.771	.977

City of Riverside
N/S: Riverside Community Hospital ER DW
E/W: 14th Street
Weather: Clear

File Name : 18_RIV_ER DW_14th St AM
Site Code : 10824442
Start Date : 5/14/2024
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM			08:00 AM			07:15 AM		
+0 mins.	5	182	187	1	2	3	122	1	123
+15 mins.	4	168	172	0	4	4	179	0	179
+30 mins.	4	149	153	3	0	3	145	2	147
+45 mins.	4	160	164	5	2	7	103	1	104
Total Volume	17	659	676	9	8	17	549	4	553
% App. Total	2.5	97.5		52.9	47.1		99.3	0.7	
PHF	.850	.905	.904	.450	.500	.607	.767	.500	.772

City of Riverside
N/S: Riverside Community Hospital ER DW
E/W: 14th Street
Weather: Clear

File Name : 18_RIV_ER DW_14th St PM
Site Code : 10824442
Start Date : 5/14/2024
Page No : 1

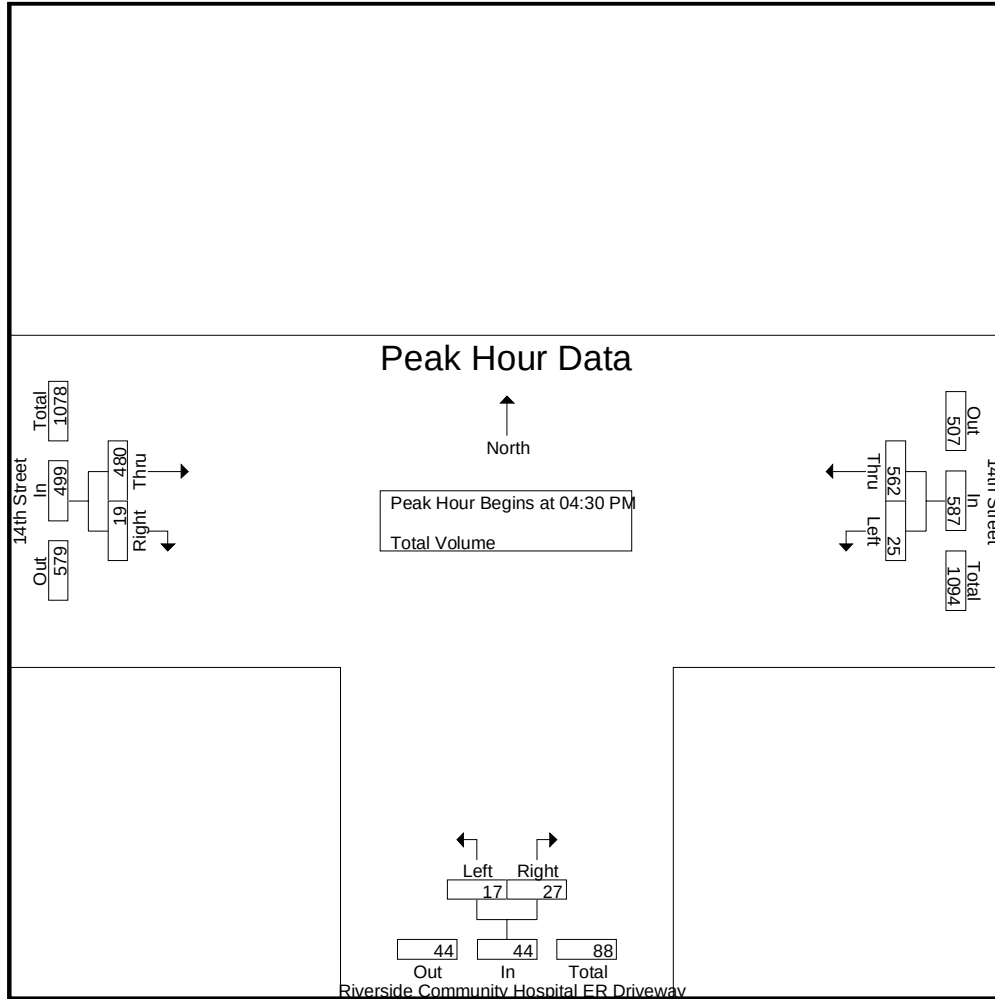
Groups Printed- Total Volume

	14th Street Westbound			Riverside Community Hospital ER Driveway Northbound			14th Street Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	5	131	136	1	5	6	153	3	156	298
04:15 PM	13	110	123	3	7	10	135	2	137	270
04:30 PM	1	131	132	4	5	9	144	7	151	292
04:45 PM	7	135	142	3	6	9	115	1	116	267
Total	26	507	533	11	23	34	547	13	560	1127
05:00 PM	11	124	135	4	8	12	114	5	119	266
05:15 PM	6	172	178	6	8	14	107	6	113	305
05:30 PM	5	144	149	1	6	7	99	4	103	259
05:45 PM	3	128	131	3	5	8	91	4	95	234
Total	25	568	593	14	27	41	411	19	430	1064
Grand Total	51	1075	1126	25	50	75	958	32	990	2191
Apprch %	4.5	95.5		33.3	66.7		96.8	3.2		
Total %	2.3	49.1	51.4	1.1	2.3	3.4	43.7	1.5	45.2	

	14th Street Westbound			Riverside Community Hospital ER Driveway Northbound			14th Street Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	1	131	132	4	5	9	144	7	151	292
04:45 PM	7	135	142	3	6	9	115	1	116	267
05:00 PM	11	124	135	4	8	12	114	5	119	266
05:15 PM	6	172	178	6	8	14	107	6	113	305
Total Volume	25	562	587	17	27	44	480	19	499	1130
% App. Total	4.3	95.7		38.6	61.4		96.2	3.8		
PHF	.568	.817	.824	.708	.844	.786	.833	.679	.826	.926

City of Riverside
N/S: Riverside Community Hospital ER DW
E/W: 14th Street
Weather: Clear

File Name : 18_RIV_ER DW_14th St PM
Site Code : 10824442
Start Date : 5/14/2024
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:30 PM			04:00 PM		
+0 mins.	7	135	142	4	5	9	153	3	156
+15 mins.	11	124	135	3	6	9	135	2	137
+30 mins.	6	172	178	4	8	12	144	7	151
+45 mins.	5	144	149	6	8	14	115	1	116
Total Volume	29	575	604	17	27	44	547	13	560
% App. Total	4.8	95.2		38.6	61.4		97.7	2.3	
PHF	.659	.836	.848	.708	.844	.786	.894	.464	.897

City of Riverside
N/S: Brockton Avenue
E/W: University Avenue
Weather: Clear

File Name : 01_RIV_Brock_Uni AM
Site Code : 10824442
Start Date : 5/14/2024
Page No : 1

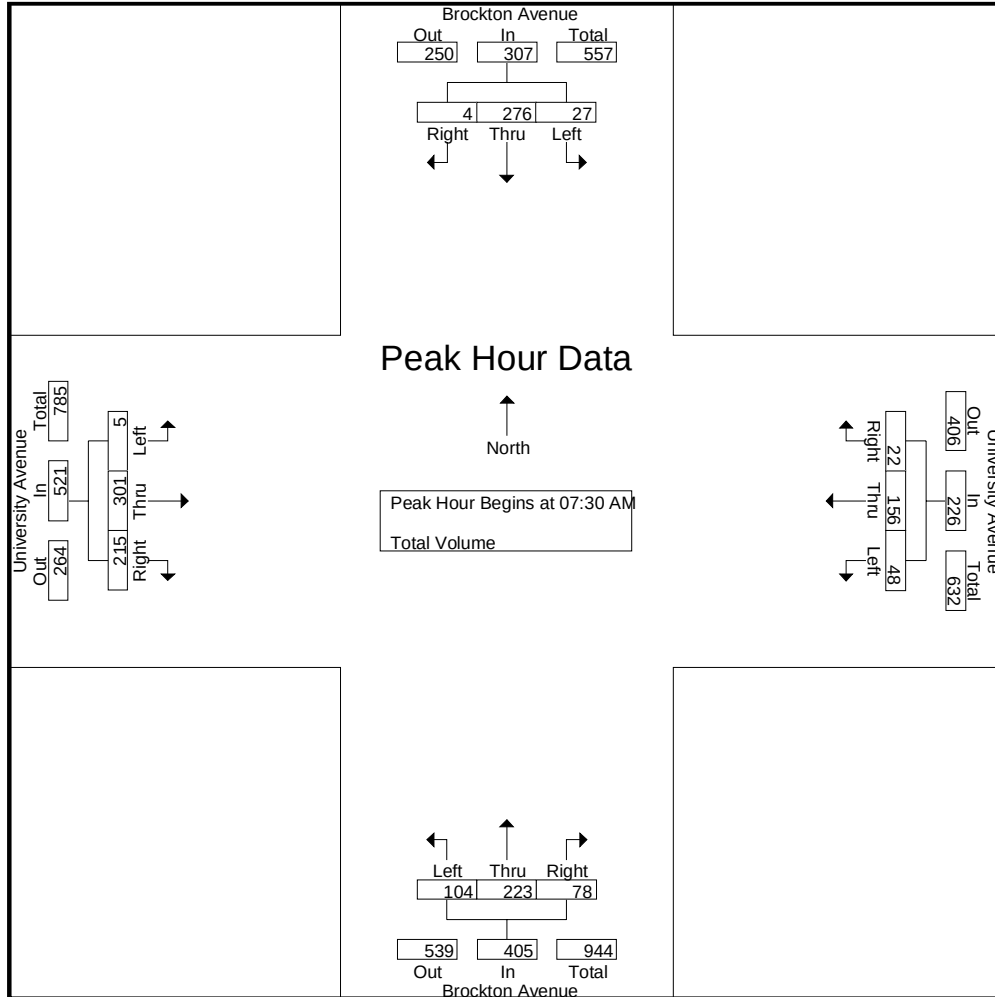
Groups Printed- Total Volume

	Brockton Avenue Southbound				University Avenue Westbound				Brockton Avenue Northbound				University Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	7	36	1	44	5	38	6	49	13	27	13	53	0	40	39	79	225
07:15 AM	9	36	1	46	8	31	5	44	12	39	25	76	0	58	45	103	269
07:30 AM	5	56	1	62	10	35	2	47	19	51	20	90	3	94	54	151	350
07:45 AM	8	92	0	100	14	37	8	59	26	76	27	129	1	85	65	151	439
Total	29	220	3	252	37	141	21	199	70	193	85	348	4	277	203	484	1283
08:00 AM	10	84	1	95	15	44	7	66	31	52	20	103	1	71	46	118	382
08:15 AM	4	44	2	50	9	40	5	54	28	44	11	83	0	51	50	101	288
08:30 AM	4	54	0	58	16	37	3	56	18	30	11	59	2	49	51	102	275
08:45 AM	5	48	2	55	18	28	9	55	11	41	18	70	0	47	45	92	272
Total	23	230	5	258	58	149	24	231	88	167	60	315	3	218	192	413	1217
Grand Total	52	450	8	510	95	290	45	430	158	360	145	663	7	495	395	897	2500
Apprch %	10.2	88.2	1.6		22.1	67.4	10.5		23.8	54.3	21.9		0.8	55.2	44		
Total %	2.1	18	0.3	20.4	3.8	11.6	1.8	17.2	6.3	14.4	5.8	26.5	0.3	19.8	15.8	35.9	

	Brockton Avenue Southbound				University Avenue Westbound				Brockton Avenue Northbound				University Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	5	56	1	62	10	35	2	47	19	51	20	90	3	94	54	151	350
07:45 AM	8	92	0	100	14	37	8	59	26	76	27	129	1	85	65	151	439
08:00 AM	10	84	1	95	15	44	7	66	31	52	20	103	1	71	46	118	382
08:15 AM	4	44	2	50	9	40	5	54	28	44	11	83	0	51	50	101	288
Total Volume	27	276	4	307	48	156	22	226	104	223	78	405	5	301	215	521	1459
% App. Total	8.8	89.9	1.3		21.2	69	9.7		25.7	55.1	19.3		1	57.8	41.3		
PHF	.675	.750	.500	.768	.800	.886	.688	.856	.839	.734	.722	.785	.417	.801	.827	.863	.831

City of Riverside
N/S: Brockton Avenue
E/W: University Avenue
Weather: Clear

File Name : 01_RIV_Brock_Uni AM
Site Code : 10824442
Start Date : 5/14/2024
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:45 AM				07:30 AM				07:15 AM			
+0 mins.	5	56	1	62	14	37	8	59	19	51	20	90	0	58	45	103
+15 mins.	8	92	0	100	15	44	7	66	26	76	27	129	3	94	54	151
+30 mins.	10	84	1	95	9	40	5	54	31	52	20	103	1	85	65	151
+45 mins.	4	44	2	50	16	37	3	56	28	44	11	83	1	71	46	118
Total Volume	27	276	4	307	54	158	23	235	104	223	78	405	5	308	210	523
% App. Total	8.8	89.9	1.3		23	67.2	9.8		25.7	55.1	19.3		1	58.9	40.2	
PHF	.675	.750	.500	.768	.844	.898	.719	.890	.839	.734	.722	.785	.417	.819	.808	.866

City of Riverside
N/S: Brockton Avenue
E/W: University Avenue
Weather: Clear

File Name : 01_RIV_Brock_Uni PM
Site Code : 10824442
Start Date : 5/14/2024
Page No : 1

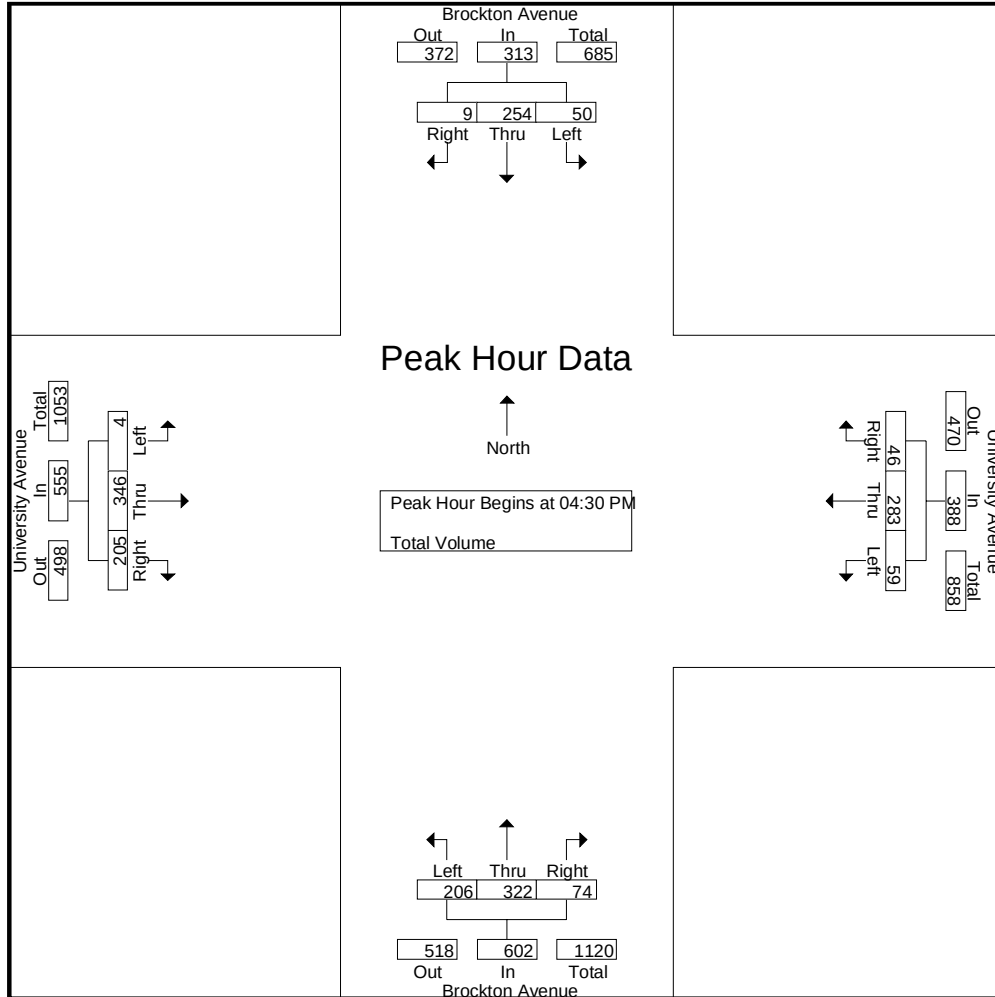
Groups Printed- Total Volume

	Brockton Avenue Southbound				University Avenue Westbound				Brockton Avenue Northbound				University Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	17	64	1	82	11	58	5	74	37	52	18	107	0	100	57	157	420
04:15 PM	9	53	1	63	13	54	14	81	43	72	32	147	1	94	51	146	437
04:30 PM	10	53	1	64	13	65	9	87	54	81	19	154	1	90	54	145	450
04:45 PM	9	58	3	70	15	72	8	95	45	71	23	139	2	88	59	149	453
Total	45	228	6	279	52	249	36	337	179	276	92	547	4	372	221	597	1760
05:00 PM	15	69	1	85	16	74	10	100	67	95	20	182	0	83	44	127	494
05:15 PM	16	74	4	94	15	72	19	106	40	75	12	127	1	85	48	134	461
05:30 PM	13	71	1	85	17	62	6	85	39	55	14	108	1	91	64	156	434
05:45 PM	16	80	2	98	12	61	5	78	31	55	11	97	0	86	49	135	408
Total	60	294	8	362	60	269	40	369	177	280	57	514	2	345	205	552	1797
Grand Total	105	522	14	641	112	518	76	706	356	556	149	1061	6	717	426	1149	3557
Apprch %	16.4	81.4	2.2		15.9	73.4	10.8		33.6	52.4	14		0.5	62.4	37.1		
Total %	3	14.7	0.4	18	3.1	14.6	2.1	19.8	10	15.6	4.2	29.8	0.2	20.2	12	32.3	

	Brockton Avenue Southbound				University Avenue Westbound				Brockton Avenue Northbound				University Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	10	53	1	64	13	65	9	87	54	81	19	154	1	90	54	145	450
04:45 PM	9	58	3	70	15	72	8	95	45	71	23	139	2	88	59	149	453
05:00 PM	15	69	1	85	16	74	10	100	67	95	20	182	0	83	44	127	494
05:15 PM	16	74	4	94	15	72	19	106	40	75	12	127	1	85	48	134	461
Total Volume	50	254	9	313	59	283	46	388	206	322	74	602	4	346	205	555	1858
% App. Total	16	81.2	2.9		15.2	72.9	11.9		34.2	53.5	12.3		0.7	62.3	36.9		
PHF	.781	.858	.563	.832	.922	.956	.605	.915	.769	.847	.804	.827	.500	.961	.869	.931	.940

City of Riverside
N/S: Brockton Avenue
E/W: University Avenue
Weather: Clear

File Name : 01_RIV_Brock_Uni PM
Site Code : 10824442
Start Date : 5/14/2024
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				04:30 PM				04:15 PM				04:00 PM			
+0 mins.	15	69	1	85	13	65	9	87	43	72	32	147	0	100	57	157
+15 mins.	16	74	4	94	15	72	8	95	54	81	19	154	1	94	51	146
+30 mins.	13	71	1	85	16	74	10	100	45	71	23	139	1	90	54	145
+45 mins.	16	80	2	98	15	72	19	106	67	95	20	182	2	88	59	149
Total Volume	60	294	8	362	59	283	46	388	209	319	94	622	4	372	221	597
% App. Total	16.6	81.2	2.2		15.2	72.9	11.9		33.6	51.3	15.1		0.7	62.3	37	
PHF	.938	.919	.500	.923	.922	.956	.605	.915	.780	.839	.734	.854	.500	.930	.936	.951

City of Riverside
N/S: Market Street
E/W: University Avenue
Weather: Clear

File Name : 02_RIV_Mark_Uni AM
Site Code : 10824442
Start Date : 5/14/2024
Page No : 1

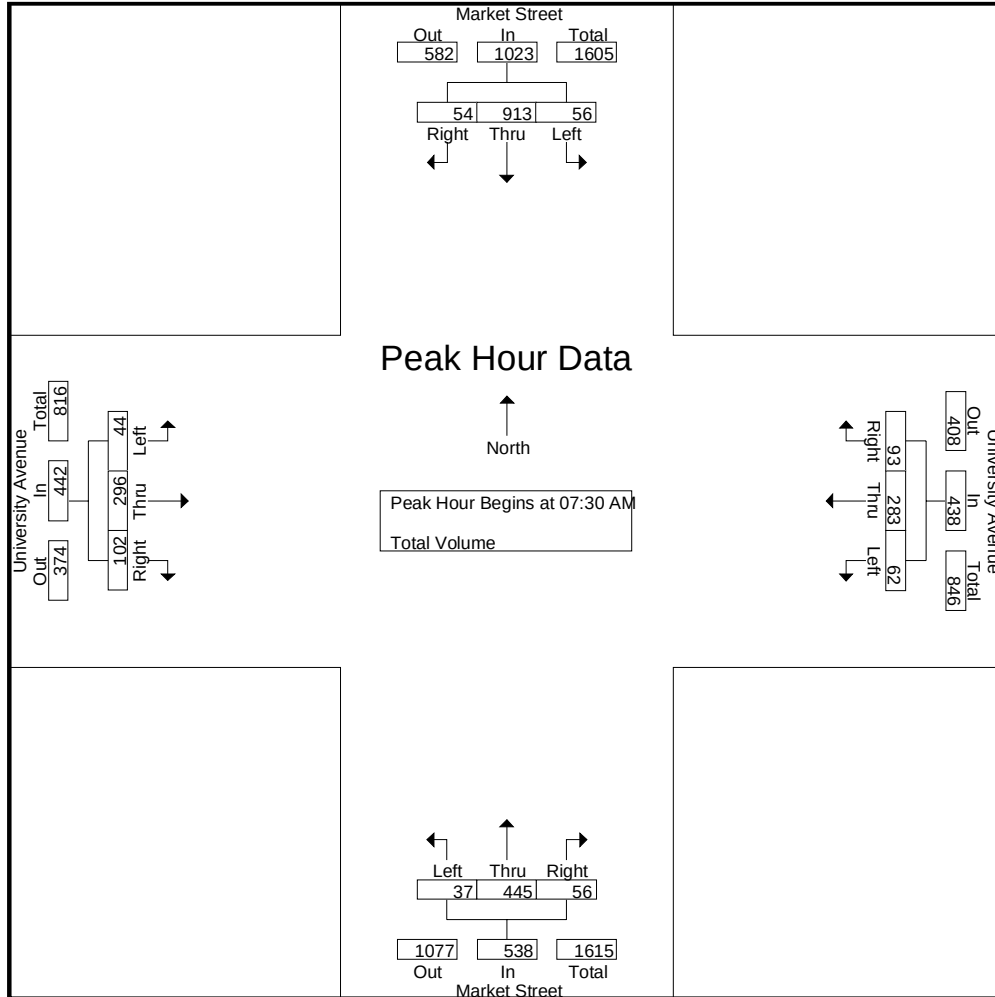
Groups Printed- Total Volume

	Market Street Southbound				University Avenue Westbound				Market Street Northbound				University Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	7	163	9	179	6	49	17	72	6	64	5	75	6	40	13	59	385
07:15 AM	7	223	12	242	10	60	10	80	6	60	4	70	3	65	15	83	475
07:30 AM	18	249	17	284	15	62	18	95	6	132	5	143	9	83	19	111	633
07:45 AM	11	262	11	284	15	83	24	122	8	125	19	152	16	80	27	123	681
Total	43	897	49	989	46	254	69	369	26	381	33	440	34	268	74	376	2174
08:00 AM	14	232	13	259	16	78	28	122	15	102	15	132	10	86	27	123	636
08:15 AM	13	170	13	196	16	60	23	99	8	86	17	111	9	47	29	85	491
08:30 AM	13	160	20	193	13	44	13	70	8	89	12	109	5	63	12	80	452
08:45 AM	20	158	13	191	15	56	17	88	13	100	18	131	6	59	9	74	484
Total	60	720	59	839	60	238	81	379	44	377	62	483	30	255	77	362	2063
Grand Total	103	1617	108	1828	106	492	150	748	70	758	95	923	64	523	151	738	4237
Apprch %	5.6	88.5	5.9		14.2	65.8	20.1		7.6	82.1	10.3		8.7	70.9	20.5		
Total %	2.4	38.2	2.5	43.1	2.5	11.6	3.5	17.7	1.7	17.9	2.2	21.8	1.5	12.3	3.6	17.4	

	Market Street Southbound				University Avenue Westbound				Market Street Northbound				University Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	18	249	17	284	15	62	18	95	6	132	5	143	9	83	19	111	633
07:45 AM	11	262	11	284	15	83	24	122	8	125	19	152	16	80	27	123	681
08:00 AM	14	232	13	259	16	78	28	122	15	102	15	132	10	86	27	123	636
08:15 AM	13	170	13	196	16	60	23	99	8	86	17	111	9	47	29	85	491
Total Volume	56	913	54	1023	62	283	93	438	37	445	56	538	44	296	102	442	2441
% App. Total	5.5	89.2	5.3		14.2	64.6	21.2		6.9	82.7	10.4		10	67	23.1		
PHF	.778	.871	.794	.901	.969	.852	.830	.898	.617	.843	.737	.885	.688	.860	.879	.898	.896

City of Riverside
N/S: Market Street
E/W: University Avenue
Weather: Clear

File Name : 02_RIV_Mark_Uni AM
Site Code : 10824442
Start Date : 5/14/2024
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	7	223	12	242	15	62	18	95	6	132	5	143	9	83	19	111
+15 mins.	18	249	17	284	15	83	24	122	8	125	19	152	16	80	27	123
+30 mins.	11	262	11	284	16	78	28	122	15	102	15	132	10	86	27	123
+45 mins.	14	232	13	259	16	60	23	99	8	86	17	111	9	47	29	85
Total Volume	50	966	53	1069	62	283	93	438	37	445	56	538	44	296	102	442
% App. Total	4.7	90.4	5		14.2	64.6	21.2		6.9	82.7	10.4		10	67	23.1	
PHF	.694	.922	.779	.941	.969	.852	.830	.898	.617	.843	.737	.885	.688	.860	.879	.898

City of Riverside
N/S: Market Street
E/W: University Avenue
Weather: Clear

File Name : 02_RIV_Mark_Uni PM
Site Code : 10824442
Start Date : 5/14/2024
Page No : 1

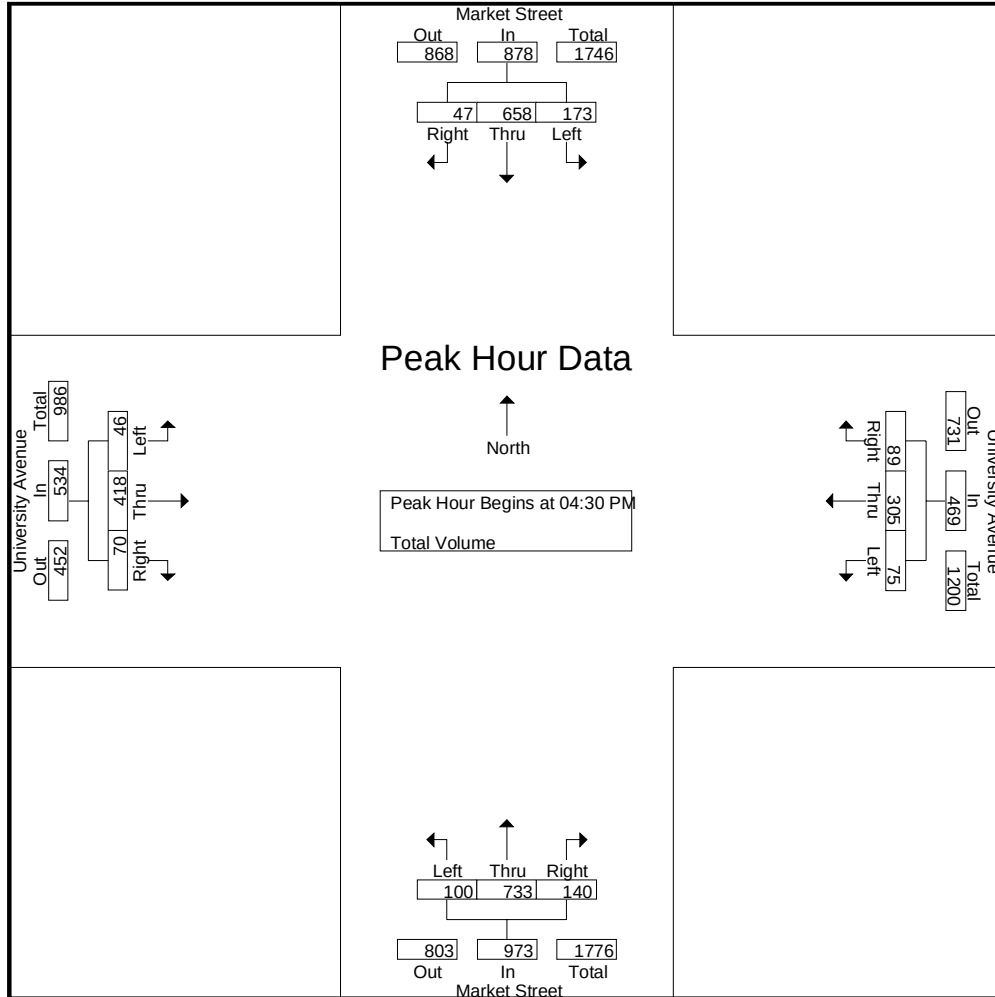
Groups Printed- Total Volume

	Market Street Southbound				University Avenue Westbound				Market Street Northbound				University Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	41	161	12	214	17	69	21	107	10	134	38	182	16	118	28	162	665
04:15 PM	50	181	8	239	16	73	27	116	10	165	29	204	21	111	20	152	711
04:30 PM	45	148	11	204	15	62	22	99	27	190	37	254	10	110	20	140	697
04:45 PM	40	184	12	236	23	77	21	121	20	179	35	234	12	109	16	137	728
Total	176	674	43	893	71	281	91	443	67	668	139	874	59	448	84	591	2801
05:00 PM	46	148	11	205	20	87	27	134	24	168	34	226	15	109	16	140	705
05:15 PM	42	178	13	233	17	79	19	115	29	196	34	259	9	90	18	117	724
05:30 PM	48	160	10	218	16	71	15	102	18	156	27	201	14	107	16	137	658
05:45 PM	39	153	18	210	7	67	23	97	16	119	31	166	6	98	24	128	601
Total	175	639	52	866	60	304	84	448	87	639	126	852	44	404	74	522	2688
Grand Total	351	1313	95	1759	131	585	175	891	154	1307	265	1726	103	852	158	1113	5489
Apprch %	20	74.6	5.4		14.7	65.7	19.6		8.9	75.7	15.4		9.3	76.5	14.2		
Total %	6.4	23.9	1.7	32	2.4	10.7	3.2	16.2	2.8	23.8	4.8	31.4	1.9	15.5	2.9	20.3	

	Market Street Southbound				University Avenue Westbound				Market Street Northbound				University Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	45	148	11	204	15	62	22	99	27	190	37	254	10	110	20	140	697
04:45 PM	40	184	12	236	23	77	21	121	20	179	35	234	12	109	16	137	728
05:00 PM	46	148	11	205	20	87	27	134	24	168	34	226	15	109	16	140	705
05:15 PM	42	178	13	233	17	79	19	115	29	196	34	259	9	90	18	117	724
Total Volume	173	658	47	878	75	305	89	469	100	733	140	973	46	418	70	534	2854
% App. Total	19.7	74.9	5.4		16	65	19		10.3	75.3	14.4		8.6	78.3	13.1		
PHF	.940	.894	.904	.930	.815	.876	.824	.875	.862	.935	.946	.939	.767	.950	.875	.954	.980

City of Riverside
N/S: Market Street
E/W: University Avenue
Weather: Clear

File Name : 02_RIV_Mark_Uni PM
Site Code : 10824442
Start Date : 5/14/2024
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:45 PM				04:30 PM				04:00 PM			
+0 mins.	41	161	12	214	23	77	21	121	27	190	37	254	16	118	28	162
+15 mins.	50	181	8	239	20	87	27	134	20	179	35	234	21	111	20	152
+30 mins.	45	148	11	204	17	79	19	115	24	168	34	226	10	110	20	140
+45 mins.	40	184	12	236	16	71	15	102	29	196	34	259	12	109	16	137
Total Volume	176	674	43	893	76	314	82	472	100	733	140	973	59	448	84	591
% App. Total	19.7	75.5	4.8		16.1	66.5	17.4		10.3	75.3	14.4		10	75.8	14.2	
PHF	.880	.916	.896	.934	.826	.902	.759	.881	.862	.935	.946	.939	.702	.949	.750	.912

City of Riverside
N/S: Brockton Avenue
E/W: 14th Street
Weather: Clear

File Name : 03_RIV_Brock_14th St AM
Site Code : 10824442
Start Date : 5/14/2024
Page No : 1

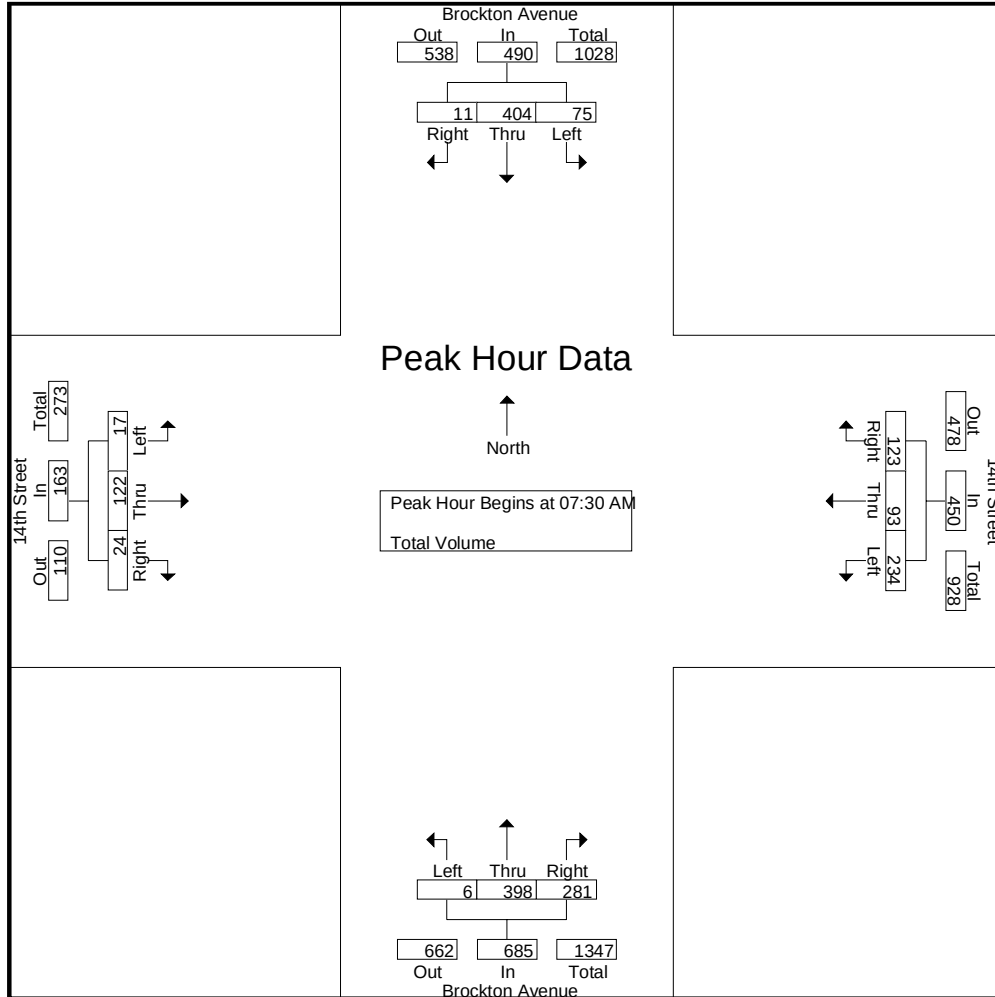
Groups Printed- Total Volume

	Brockton Avenue Southbound				14th Street Westbound				Brockton Avenue Northbound				14th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	14	56	1	71	30	21	11	62	0	54	40	94	6	29	2	37	264
07:15 AM	12	55	2	69	30	19	18	67	1	66	72	139	4	24	3	31	306
07:30 AM	16	90	4	110	51	17	20	88	0	96	78	174	3	26	5	34	406
07:45 AM	17	136	3	156	51	20	25	96	2	124	106	232	5	32	9	46	530
Total	59	337	10	406	162	77	74	313	3	340	296	639	18	111	19	148	1506
08:00 AM	19	108	4	131	54	27	35	116	2	104	53	159	5	31	4	40	446
08:15 AM	23	70	0	93	78	29	43	150	2	74	44	120	4	33	6	43	406
08:30 AM	23	92	5	120	58	33	30	121	2	61	63	126	1	24	2	27	394
08:45 AM	22	67	2	91	75	38	35	148	1	67	61	129	2	19	2	23	391
Total	87	337	11	435	265	127	143	535	7	306	221	534	12	107	14	133	1637
Grand Total	146	674	21	841	427	204	217	848	10	646	517	1173	30	218	33	281	3143
Apprch %	17.4	80.1	2.5		50.4	24.1	25.6		0.9	55.1	44.1		10.7	77.6	11.7		
Total %	4.6	21.4	0.7	26.8	13.6	6.5	6.9	27	0.3	20.6	16.4	37.3	1	6.9	1	8.9	

	Brockton Avenue Southbound				14th Street Westbound				Brockton Avenue Northbound				14th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	16	90	4	110	51	17	20	88	0	96	78	174	3	26	5	34	406
07:45 AM	17	136	3	156	51	20	25	96	2	124	106	232	5	32	9	46	530
08:00 AM	19	108	4	131	54	27	35	116	2	104	53	159	5	31	4	40	446
08:15 AM	23	70	0	93	78	29	43	150	2	74	44	120	4	33	6	43	406
Total Volume	75	404	11	490	234	93	123	450	6	398	281	685	17	122	24	163	1788
% App. Total	15.3	82.4	2.2		52	20.7	27.3		0.9	58.1	41		10.4	74.8	14.7		
PHF	.815	.743	.688	.785	.750	.802	.715	.750	.750	.802	.663	.738	.850	.924	.667	.886	.843

City of Riverside
N/S: Brockton Avenue
E/W: 14th Street
Weather: Clear

File Name : 03_RIV_Brock_14th St AM
Site Code : 10824442
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				08:00 AM				07:15 AM				07:30 AM			
+0 mins.	17	136	3	156	54	27	35	116	1	66	72	139	3	26	5	34
+15 mins.	19	108	4	131	78	29	43	150	0	96	78	174	5	32	9	46
+30 mins.	23	70	0	93	58	33	30	121	2	124	106	232	5	31	4	40
+45 mins.	23	92	5	120	75	38	35	148	2	104	53	159	4	33	6	43
Total Volume	82	406	12	500	265	127	143	535	5	390	309	704	17	122	24	163
% App. Total	16.4	81.2	2.4		49.5	23.7	26.7		0.7	55.4	43.9		10.4	74.8	14.7	
PHF	.891	.746	.600	.801	.849	.836	.831	.892	.625	.786	.729	.759	.850	.924	.667	.886

City of Riverside
N/S: Brockton Avenue
E/W: 14th Street
Weather: Clear

File Name : 03_RIV_Brock_14th St PM
Site Code : 10824442
Start Date : 5/14/2024
Page No : 1

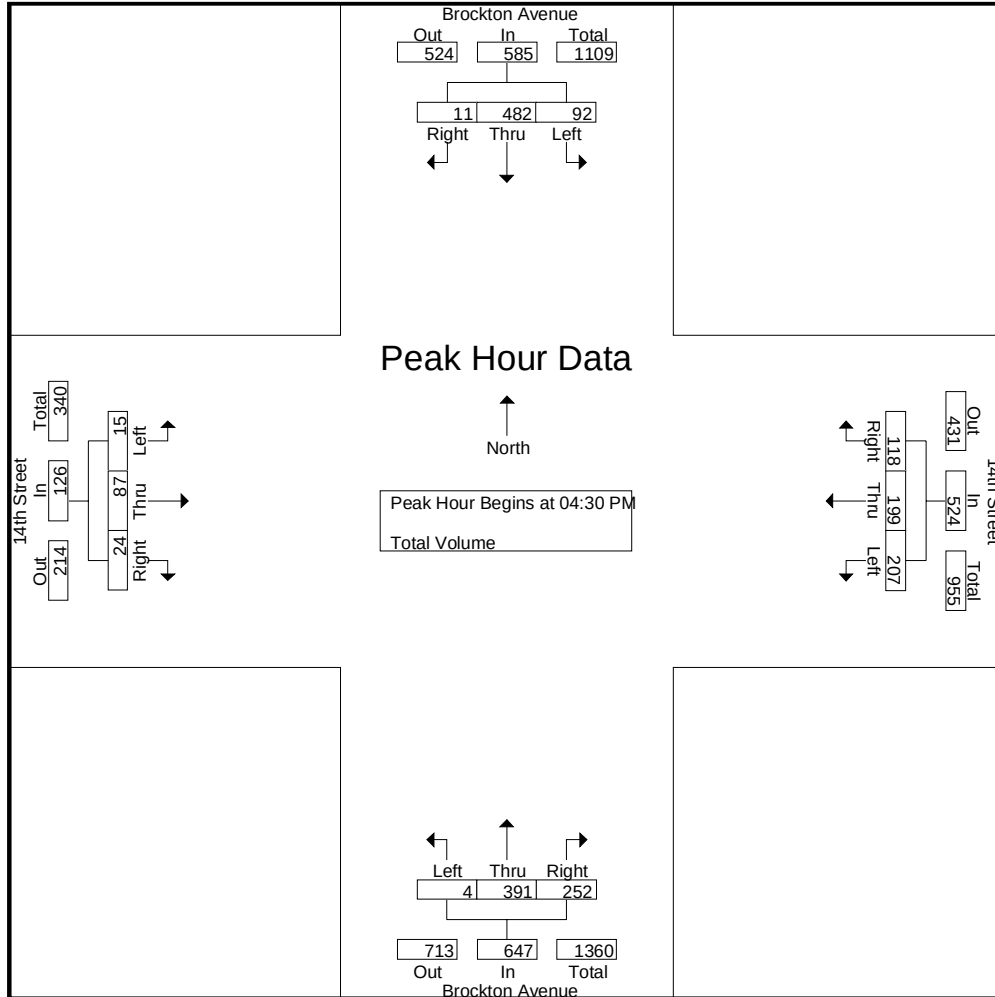
Groups Printed- Total Volume

	Brockton Avenue Southbound				14th Street Westbound				Brockton Avenue Northbound				14th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	34	110	4	148	56	28	37	121	0	79	74	153	5	36	5	46	468
04:15 PM	32	92	5	129	44	35	35	114	2	73	78	153	6	24	4	34	430
04:30 PM	20	117	1	138	49	36	33	118	0	110	80	190	3	25	6	34	480
04:45 PM	27	122	2	151	56	53	35	144	1	88	59	148	2	20	3	25	468
Total	113	441	12	566	205	152	140	497	3	350	291	644	16	105	18	139	1846
05:00 PM	28	137	7	172	34	41	25	100	1	119	63	183	4	19	5	28	483
05:15 PM	17	106	1	124	68	69	25	162	2	74	50	126	6	23	10	39	451
05:30 PM	28	134	3	165	67	42	22	131	0	83	42	125	2	21	4	27	448
05:45 PM	22	109	0	131	58	51	17	126	0	63	37	100	2	17	5	24	381
Total	95	486	11	592	227	203	89	519	3	339	192	534	14	80	24	118	1763
Grand Total	208	927	23	1158	432	355	229	1016	6	689	483	1178	30	185	42	257	3609
Apprch %	18	80.1	2		42.5	34.9	22.5		0.5	58.5	41		11.7	72	16.3		
Total %	5.8	25.7	0.6	32.1	12	9.8	6.3	28.2	0.2	19.1	13.4	32.6	0.8	5.1	1.2	7.1	

	Brockton Avenue Southbound				14th Street Westbound				Brockton Avenue Northbound				14th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	20	117	1	138	49	36	33	118	0	110	80	190	3	25	6	34	480
04:45 PM	27	122	2	151	56	53	35	144	1	88	59	148	2	20	3	25	468
05:00 PM	28	137	7	172	34	41	25	100	1	119	63	183	4	19	5	28	483
05:15 PM	17	106	1	124	68	69	25	162	2	74	50	126	6	23	10	39	451
Total Volume	92	482	11	585	207	199	118	524	4	391	252	647	15	87	24	126	1882
% App. Total	15.7	82.4	1.9		39.5	38	22.5		0.6	60.4	38.9		11.9	69	19		
PHF	.821	.880	.393	.850	.761	.721	.843	.809	.500	.821	.788	.851	.625	.870	.600	.808	.974

City of Riverside
N/S: Brockton Avenue
E/W: 14th Street
Weather: Clear

File Name : 03_RIV_Brock_14th St PM
Site Code : 10824442
Start Date : 5/14/2024
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:15 PM				04:00 PM			
+0 mins.	27	122	2	151	56	53	35	144	2	73	78	153
+15 mins.	28	137	7	172	34	41	25	100	0	110	80	190
+30 mins.	17	106	1	124	68	69	25	162	1	88	59	148
+45 mins.	28	134	3	165	67	42	22	131	1	119	63	183
Total Volume	100	499	13	612	225	205	107	537	4	390	280	674
% App. Total	16.3	81.5	2.1		41.9	38.2	19.9		0.6	57.9	41.5	
PHF	.893	.911	.464	.890	.827	.743	.764	.829	.500	.819	.875	.887
									.667	.729	.750	.755

City of Riverside
N/S: Riverside Community Hospital DW
E/W: 14th Street
Weather: Clear

File Name : 04_RIV_RCH DW_14th St AM
Site Code : 10824442
Start Date : 5/14/2024
Page No : 1

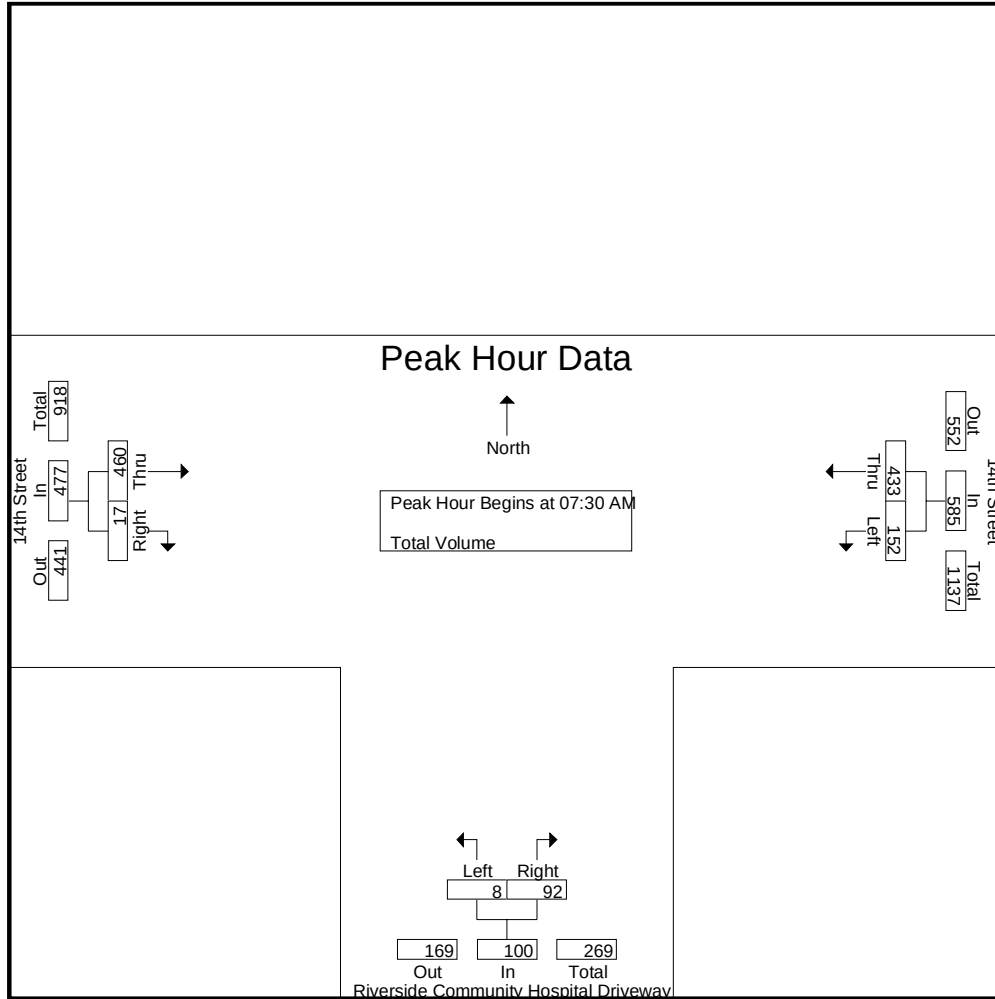
Groups Printed- Total Volume

	14th Street Westbound			Riverside Community Hospital Driveway Northbound			14th Street Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	45	61	106	2	14	16	79	2	81	203
07:15 AM	29	73	102	2	14	16	109	0	109	227
07:30 AM	38	78	116	2	56	58	116	3	119	293
07:45 AM	43	99	142	1	18	19	151	5	156	317
Total	155	311	466	7	102	109	455	10	465	1040
08:00 AM	42	113	155	2	12	14	97	4	101	270
08:15 AM	29	143	172	3	6	9	96	5	101	282
08:30 AM	30	128	158	0	7	7	106	3	109	274
08:45 AM	39	139	178	0	12	12	95	8	103	293
Total	140	523	663	5	37	42	394	20	414	1119
Grand Total	295	834	1129	12	139	151	849	30	879	2159
Apprch %	26.1	73.9		7.9	92.1		96.6	3.4		
Total %	13.7	38.6	52.3	0.6	6.4	7	39.3	1.4	40.7	

	14th Street Westbound			Riverside Community Hospital Driveway Northbound			14th Street Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	38	78	116	2	56	58	116	3	119	293
07:45 AM	43	99	142	1	18	19	151	5	156	317
08:00 AM	42	113	155	2	12	14	97	4	101	270
08:15 AM	29	143	172	3	6	9	96	5	101	282
Total Volume	152	433	585	8	92	100	460	17	477	1162
% App. Total	26	74		8	92		96.4	3.6		
PHF	.884	.757	.850	.667	.411	.431	.762	.850	.764	.916

City of Riverside
N/S: Riverside Community Hospital DW
E/W: 14th Street
Weather: Clear

File Name : 04_RIV_RCH DW_14th St AM
Site Code : 10824442
Start Date : 5/14/2024
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM			07:00 AM			07:15 AM		
+0 mins.	42	113	155	2	14	16	109	0	109
+15 mins.	29	143	172	2	14	16	116	3	119
+30 mins.	30	128	158	2	56	58	151	5	156
+45 mins.	39	139	178	1	18	19	97	4	101
Total Volume	140	523	663	7	102	109	473	12	485
% App. Total	21.1	78.9		6.4	93.6		97.5	2.5	
PHF	.833	.914	.931	.875	.455	.470	.783	.600	.777

City of Riverside
N/S: Riverside Community Hospital DW
E/W: 14th Street
Weather: Clear

File Name : 04_RIV_RCH DW_14th St PM
Site Code : 10824442
Start Date : 5/14/2024
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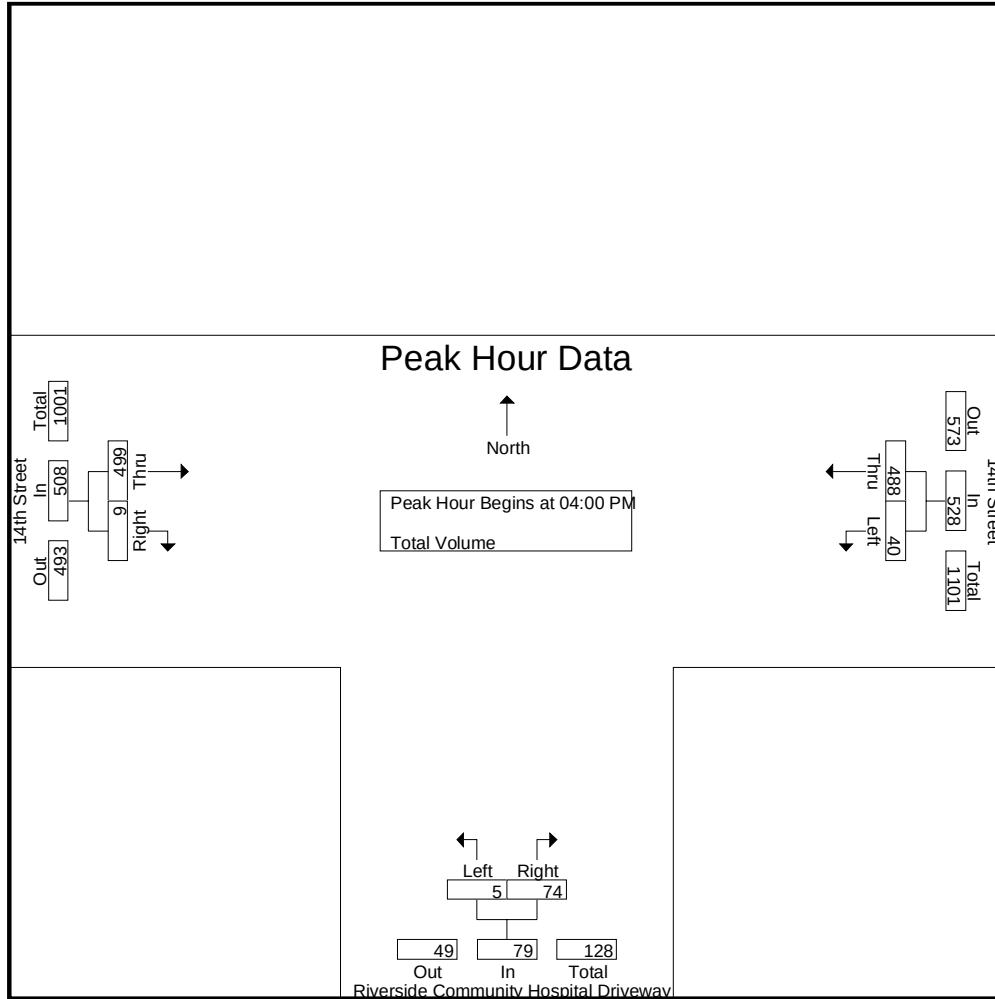
Groups Printed- Total Volume

	14th Street Westbound			Riverside Community Hospital Driveway Northbound			14th Street Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	10	125	135	2	23	25	143	2	145	305
04:15 PM	8	109	117	1	11	12	128	4	132	261
04:30 PM	9	118	127	1	26	27	124	1	125	279
04:45 PM	13	136	149	1	14	15	104	2	106	270
Total	40	488	528	5	74	79	499	9	508	1115
05:00 PM	2	109	111	1	17	18	108	1	109	238
05:15 PM	7	151	158	4	11	15	89	1	90	263
05:30 PM	7	128	135	1	11	12	87	3	90	237
05:45 PM	11	125	136	0	10	10	70	4	74	220
Total	27	513	540	6	49	55	354	9	363	958
Grand Total	67	1001	1068	11	123	134	853	18	871	2073
Apprch %	6.3	93.7		8.2	91.8		97.9	2.1		
Total %	3.2	48.3	51.5	0.5	5.9	6.5	41.1	0.9	42	

	14th Street Westbound			Riverside Community Hospital Driveway Northbound			14th Street Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	10	125	135	2	23	25	143	2	145	305
04:15 PM	8	109	117	1	11	12	128	4	132	261
04:30 PM	9	118	127	1	26	27	124	1	125	279
04:45 PM	13	136	149	1	14	15	104	2	106	270
Total Volume	40	488	528	5	74	79	499	9	508	1115
% App. Total	7.6	92.4		6.3	93.7		98.2	1.8		
PHF	.769	.897	.886	.625	.712	.731	.872	.563	.876	.914

City of Riverside
N/S: Riverside Community Hospital DW
E/W: 14th Street
Weather: Clear

File Name : 04_RIV_RCH DW_14th St PM
Site Code : 10824442
Start Date : 5/14/2024
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:00 PM			04:00 PM		
+0 mins.	13	136	149	2	23	25	143	2	145
+15 mins.	2	109	111	1	11	12	128	4	132
+30 mins.	7	151	158	1	26	27	124	1	125
+45 mins.	7	128	135	1	14	15	104	2	106
Total Volume	29	524	553	5	74	79	499	9	508
% App. Total	5.2	94.8		6.3	93.7		98.2	1.8	
PHF	.558	.868	.875	.625	.712	.731	.872	.563	.876

Counts Unlimited, Inc.

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City of Riverside
14th Street
B/ Brockton Avenue - Market Street
24 Hour Directional Volume Count

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

RIV001
Site Code: 108-24442

Start Time	5/14/2024 Tue	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		12	122			11	116				
12:15		17	119			21	100				
12:30		6	102			8	104				
12:45		6	103	41	446	7	119	47	439	88	885
01:00		3	117			7	111				
01:15		9	83			6	129				
01:30		8	107			11	101				
01:45		3	131	23	438	6	93	30	434	53	872
02:00		4	94			9	100				
02:15		4	108			8	113				
02:30		4	153			7	100				
02:45		5	138	17	493	5	145	29	458	46	951
03:00		3	124			6	126				
03:15		7	107			2	106				
03:30		15	105			10	132				
03:45		11	134	36	470	7	128	25	492	61	962
04:00		11	144			3	120				
04:15		10	133			5	112				
04:30		11	125			11	117				
04:45		19	106	51	508	20	144	39	493	90	1001
05:00		18	110			19	100				
05:15		19	90			24	162				
05:30		24	91			25	132				
05:45		29	76	90	367	26	126	94	520	184	887
06:00		35	107			27	117				
06:15		59	72			55	136				
06:30		61	80			56	124				
06:45		77	96	232	355	62	103	200	480	432	835
07:00		83	100			62	99				
07:15		108	77			66	112				
07:30		120	131			88	79				
07:45		155	100	466	408	96	69	312	359	778	767
08:00		104	81			116	73				
08:15		100	57			149	59				
08:30		110	91			121	67				
08:45		102	67	416	296	151	39	537	238	953	534
09:00		105	47			97	67				
09:15		95	69			106	45				
09:30		102	47			98	49				
09:45		84	39	386	202	122	39	423	200	809	402
10:00		100	34			98	32				
10:15		76	30			112	34				
10:30		92	33			99	21				
10:45		109	18	377	115	98	22	407	109	784	224
11:00		101	10			103	17				
11:15		114	21			102	22				
11:30		104	18			116	15				
11:45		123	16	442	65	125	13	446	67	888	132
Total		2577	4163	2577	4163	2589	4289	2589	4289	5166	8452
Combined Total		6740		6740		6878		6878		13618	
AM Peak	-	07:15	-	-	-	08:00	-	-	-	-	-
Vol.	-	487	-	-	-	537	-	-	-	-	-
P.H.F.		0.785				0.889					
PM Peak	-	-	03:45	-	-	-	04:45	-	-	-	-
Vol.	-	-	536	-	-	-	538	-	-	-	-
P.H.F.			0.876				0.830				
Percentage		38.2%	61.8%			37.6%	62.4%				
ADT/AADT		ADT 13,618	AADT 13,618								

Counts Unlimited, Inc.

Page 1

City of Riverside
Brockton Avenue
B/ 14th Street - Tequesquite Avenue
24 Hour Directional Volume Count

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

RIV002
Site Code: 108-24442

Start Time	5/14/2024 Tue	Northbound		Hour Totals		Southbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		14	160			10	148				
12:15		10	139			14	138				
12:30		11	142			7	139				
12:45		2	136	37	577	9	131	40	556	77	1133
01:00		4	144			6	119				
01:15		7	107			9	157				
01:30		5	129			8	142				
01:45		5	163	21	543	7	149	30	567	51	1110
02:00		3	130			6	152				
02:15		3	142			6	181				
02:30		7	251			6	177				
02:45		5	196	18	719	1	181	19	691	37	1410
03:00		2	183			5	158				
03:15		7	141			4	183				
03:30		12	167			10	178				
03:45		11	169	32	660	8	175	27	694	59	1354
04:00		11	154			4	171				
04:15		11	152			6	140				
04:30		15	190			14	173				
04:45		19	148	56	644	30	188	54	672	110	1316
05:00		18	184			17	175				
05:15		25	127			18	185				
05:30		29	126			23	207				
05:45		31	100	103	537	29	172	87	739	190	1276
06:00		30	134			23	166				
06:15		44	90			45	135				
06:30		53	109			72	115				
06:45		70	116	197	449	84	114	224	530	421	979
07:00		94	102			88	128				
07:15		138	93			87	106				
07:30		174	162			146	87				
07:45		233	125	639	482	197	90	518	411	1157	893
08:00		160	88			166	63				
08:15		120	68			153	78				
08:30		126	103			152	57				
08:45		130	76	536	335	148	60	619	258	1155	593
09:00		122	63			163	54				
09:15		126	67			138	44				
09:30		132	35			151	47				
09:45		117	37	497	202	156	42	608	187	1105	389
10:00		126	47			120	30				
10:15		121	20			138	30				
10:30		104	39			137	17				
10:45		155	15	506	121	134	21	529	98	1035	219
11:00		113	15			139	18				
11:15		138	27			131	19				
11:30		137	16			155	14				
11:45		163	13	551	71	142	13	567	64	1118	135
Total		3193	5340	3193	5340	3322	5467	3322	5467	6515	10807
Combined Total		8533		8533		8789		8789		17322	
AM Peak	-	07:15	-	-	-	07:45	-	-	-	-	-
Vol.	-	705	-	-	-	668	-	-	-	-	-
P.H.F.		0.756				0.848					
PM Peak	-	-	02:15	-	-	-	04:45	-	-	-	-
Vol.	-	-	772	-	-	-	755	-	-	-	-
P.H.F.			0.769				0.912				
Percentage		37.4%	62.6%			37.8%	62.2%				
ADT/AADT		ADT 17,322	AADT 17,322								

APPENDIX C

INTERSECTION ANALYSIS WORKSHEETS

APPENDIX C-1

INTERSECTION ANALYSIS WORKSHEETS – EXISTING

Timings

1: Brockton Avenue & University Avenue

02/10/2025

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	5	301	48	156	104	223	78	27	276	4
Future Volume (vph)	5	301	48	156	104	223	78	27	276	4
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+ov	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2	3	1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	3	8	5	2	3	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	9.5	9.5	22.5	22.5
Total Split (s)	9.5	22.5	9.5	22.5	9.5	23.5	9.5	9.5	23.5	23.5
Total Split (%)	14.6%	34.6%	14.6%	34.6%	14.6%	36.2%	14.6%	14.6%	36.2%	36.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	None	C-Max	C-Max
Act Effect Green (s)	17.6	13.6	20.3	19.3	33.0	30.7	40.2	30.6	25.9	25.9
Actuated g/C Ratio	0.27	0.21	0.31	0.30	0.51	0.47	0.62	0.47	0.40	0.40
v/c Ratio	0.02	0.69	0.25	0.21	0.28	0.31	0.09	0.06	0.45	0.01
Control Delay (s/veh)	11.8	17.3	23.4	24.0	11.7	15.7	2.9	10.2	20.2	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	11.8	17.3	23.4	24.0	11.7	15.7	2.9	10.2	20.2	0.0
LOS	B	B	C	C	B	B	A	B	C	A
Approach Delay (s/veh)		17.3		23.9		12.2			19.1	
Approach LOS		B		C		B			B	

Intersection Summary

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.69

Intersection Signal Delay (s/veh): 17.3

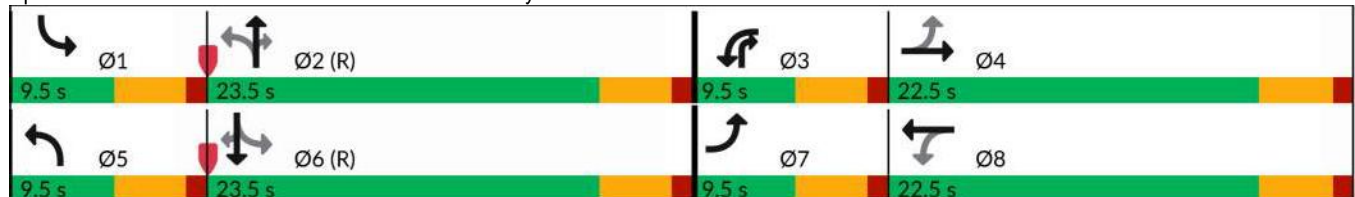
Intersection LOS: B

Intersection Capacity Utilization 54.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: Brockton Avenue & University Avenue



HCM 7th Signalized Intersection Summary

1: Brockton Avenue & University Avenue

02/10/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	301	215	48	156	22	104	223	78	27	276	4
Future Volume (veh/h)	5	301	215	48	156	22	104	223	78	27	276	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	6	363	259	58	188	27	125	269	94	33	333	5
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	388	460	323	245	852	121	481	763	726	487	699	592
Arrive On Green	0.01	0.23	0.23	0.05	0.27	0.27	0.07	0.41	0.41	0.03	0.37	0.37
Sat Flow, veh/h	1781	1994	1401	1781	3125	442	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	6	323	299	58	106	109	125	269	94	33	333	5
Grp Sat Flow(s),veh/h/ln	1781	1777	1618	1781	1777	1791	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.2	11.1	11.3	1.6	3.0	3.1	2.7	6.5	2.2	0.7	8.8	0.1
Cycle Q Clear(g_c), s	0.2	11.1	11.3	1.6	3.0	3.1	2.7	6.5	2.2	0.7	8.8	0.1
Prop In Lane	1.00		0.87	1.00		0.25	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	388	410	373	245	484	488	481	763	726	487	699	592
V/C Ratio(X)	0.02	0.79	0.80	0.24	0.22	0.22	0.26	0.35	0.13	0.07	0.48	0.01
Avail Cap(c_a), veh/h	511	492	448	293	492	496	496	763	726	562	699	592
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.87	0.87	0.87	0.74	0.74	0.74	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.9	23.5	23.6	18.3	18.3	18.3	11.5	13.3	10.2	11.7	15.5	12.8
Incr Delay (d2), s/veh	0.0	7.0	8.5	0.4	0.2	0.2	0.2	0.9	0.3	0.1	2.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	5.1	4.9	0.6	1.2	1.2	1.0	2.7	0.7	0.3	3.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.9	30.5	32.1	18.8	18.5	18.5	11.8	14.3	10.4	11.8	17.8	12.8
LnGrp LOS	B	C	C	B	B	B	B	B	B	B	B	B
Approach Vol, veh/h	628			273			488			371		
Approach Delay, s/veh	31.2			18.5			12.9			17.2		
Approach LOS	C			B			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.7	31.0	7.7	19.5	9.0	28.8	5.0	22.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	19.0	5.0	18.0	5.0	19.0	5.0	18.0				
Max Q Clear Time (g_c+1), s	2.7	8.5	3.6	13.3	4.7	10.8	2.2	5.1				
Green Ext Time (p_c), s	0.0	1.4	0.0	1.6	0.0	1.2	0.0	0.9				
Intersection Summary												
HCM 7th Control Delay, s/veh				21.2								
HCM 7th LOS				C								
Notes												
User approved changes to right turn type.												

Timings

2: Market Street & University Avenue

02/10/2025

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	44	296	62	283	37	445	56	56	913	54
Future Volume (vph)	44	296	62	283	37	445	56	56	913	54
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	9.5	22.5	9.5	22.5	9.5	23.5	23.5	9.5	23.5	23.5
Total Split (%)	14.6%	34.6%	14.6%	34.6%	14.6%	36.2%	36.2%	14.6%	36.2%	36.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effect Green (s)	5.0	12.9	5.0	12.9	6.3	30.5	30.5	6.6	33.0	33.0
Actuated g/C Ratio	0.08	0.20	0.08	0.20	0.10	0.47	0.47	0.10	0.51	0.51
v/c Ratio	0.36	0.60	0.51	0.57	0.24	0.30	0.07	0.34	0.56	0.07
Control Delay (s/veh)	33.2	27.2	43.3	22.2	30.9	15.0	0.2	32.9	18.2	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	33.2	27.2	43.3	22.2	30.9	15.0	0.2	32.9	18.2	0.1
LOS	C	C	D	C	C	B	A	C	B	A
Approach Delay (s/veh)		27.8		25.2		14.6			18.1	
Approach LOS		C		C		B			B	

Intersection Summary

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.60

Intersection Signal Delay (s/veh): 20.3

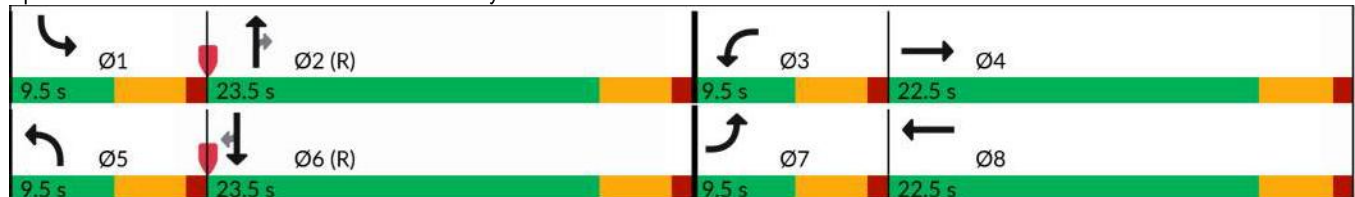
Intersection LOS: C

Intersection Capacity Utilization 60.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 2: Market Street & University Avenue



HCM 7th Signalized Intersection Summary

2: Market Street & University Avenue

02/10/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	296	102	62	283	93	37	445	56	56	913	54
Future Volume (veh/h)	44	296	102	62	283	93	37	445	56	56	913	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	329	113	69	314	103	41	494	62	62	1014	60
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	80	474	160	98	505	163	72	1545	689	92	1587	708
Arrive On Green	0.01	0.06	0.06	0.05	0.19	0.19	0.04	0.43	0.43	0.05	0.45	0.45
Sat Flow, veh/h	1781	2608	880	1781	2643	851	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	49	222	220	69	209	208	41	494	62	62	1014	60
Grp Sat Flow(s),veh/h/ln	1781	1777	1712	1781	1777	1717	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.8	8.0	8.2	2.5	7.0	7.2	1.5	5.9	1.5	2.2	14.4	1.4
Cycle Q Clear(g_c), s	1.8	8.0	8.2	2.5	7.0	7.2	1.5	5.9	1.5	2.2	14.4	1.4
Prop In Lane	1.00		0.51	1.00		0.50	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	80	323	311	98	340	328	72	1545	689	92	1587	708
V/C Ratio(X)	0.61	0.69	0.71	0.71	0.62	0.63	0.57	0.32	0.09	0.67	0.64	0.08
Avail Cap(c_a), veh/h	137	492	474	137	492	476	137	1545	689	137	1587	708
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.78	0.78	0.78	1.00	1.00	1.00	0.86	0.86	0.86	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.4	28.8	28.9	30.2	24.1	24.2	30.6	12.1	10.8	30.3	13.9	10.3
Incr Delay (d2), s/veh	5.7	2.1	2.3	9.2	1.8	2.0	6.0	0.5	0.2	8.2	2.0	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	3.7	3.7	1.3	2.9	3.0	0.7	2.2	0.5	1.1	5.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.1	30.8	31.2	39.4	25.9	26.2	36.7	12.5	11.0	38.4	15.9	10.6
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	B	B
Approach Vol, veh/h	491			486			597			1136		
Approach Delay, s/veh	31.6			28.0			14.0			16.9		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.9	32.8	8.1	16.3	7.1	33.5	7.4	16.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	19.0	5.0	18.0	5.0	19.0	5.0	18.0				
Max Q Clear Time (g_c+1), s	4.2	7.9	4.5	10.2	3.5	16.4	3.8	9.2				
Green Ext Time (p_c), s	0.0	2.6	0.0	1.6	0.0	1.7	0.0	1.6				
Intersection Summary												
HCM 7th Control Delay, s/veh	20.9											
HCM 7th LOS	C											

Timings

3: Brockton Avenue & 14th Street

02/10/2025



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	17	136	234	93	6	398	281	75	404	11
Future Volume (vph)	17	136	234	93	6	398	281	75	404	11
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	3	1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	3	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	9.5	9.5	22.5	22.5
Total Split (s)	9.5	22.5	11.4	24.4	9.5	26.6	11.4	9.5	26.6	26.6
Total Split (%)	13.6%	32.1%	16.3%	34.9%	13.6%	38.0%	16.3%	13.6%	38.0%	38.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	None	C-Max	C-Max
Act Effect Green (s)	5.0	11.7	6.9	21.2	5.9	27.5	38.9	8.0	35.7	35.7
Actuated g/C Ratio	0.07	0.17	0.10	0.30	0.08	0.39	0.56	0.11	0.51	0.51
v/c Ratio	0.16	0.56	0.83	0.44	0.05	0.65	0.33	0.44	0.51	0.01
Control Delay (s/veh)	33.6	32.1	50.2	25.9	30.0	25.5	2.4	37.1	17.0	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	33.6	32.1	50.2	25.9	30.0	25.5	2.4	37.1	17.0	0.0
LOS	C	C	D	C	C	C	A	D	B	A
Approach Delay (s/veh)		32.3		38.5		16.0			19.7	
Approach LOS		C		D		B			B	

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay (s/veh): 24.2

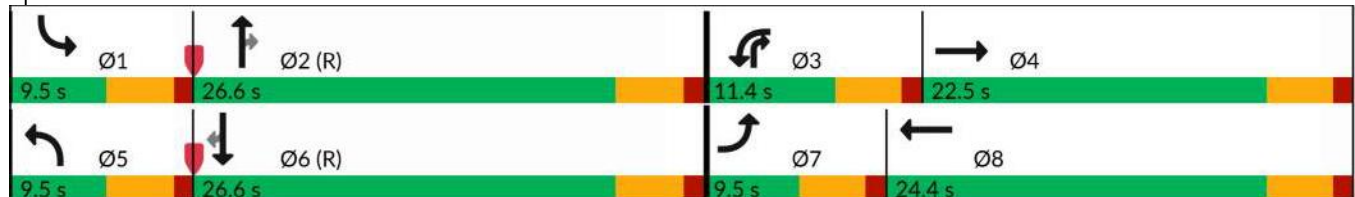
Intersection LOS: C

Intersection Capacity Utilization 57.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 3: Brockton Avenue & 14th Street



HCM 7th Signalized Intersection Summary

3: Brockton Avenue & 14th Street

02/10/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	136	10	234	93	123	6	398	281	75	404	11
Future Volume (veh/h)	17	136	10	234	93	123	6	398	281	75	404	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	20	162	12	279	111	146	7	474	335	89	481	13
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	41	219	16	341	149	196	16	847	874	114	949	805
Arrive On Green	0.02	0.13	0.13	0.03	0.07	0.07	0.01	0.45	0.45	0.06	0.51	0.51
Sat Flow, veh/h	1781	1720	127	3456	733	964	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	20	0	174	279	0	257	7	474	335	89	481	13
Grp Sat Flow(s),veh/h/ln	1781	0	1847	1728	0	1697	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.8	0.0	6.4	5.6	0.0	10.4	0.3	13.0	8.4	3.4	11.9	0.3
Cycle Q Clear(g_c), s	0.8	0.0	6.4	5.6	0.0	10.4	0.3	13.0	8.4	3.4	11.9	0.3
Prop In Lane	1.00		0.07	1.00		0.57	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	41	0	236	341	0	345	16	847	874	114	949	805
V/C Ratio(X)	0.49	0.00	0.74	0.82	0.00	0.75	0.43	0.56	0.38	0.78	0.51	0.02
Avail Cap(c_a), veh/h	127	0	475	341	0	482	127	847	874	127	949	805
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91
Uniform Delay (d), s/veh	33.8	0.0	29.4	33.2	0.0	30.9	34.5	14.0	8.9	32.3	11.4	8.6
Incr Delay (d2), s/veh	8.7	0.0	4.5	14.5	0.0	4.0	17.1	2.7	1.3	22.1	1.8	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	3.0	3.1	0.0	5.0	0.2	5.6	2.8	2.1	4.8	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	42.5	0.0	33.9	47.8	0.0	34.8	51.6	16.7	10.2	54.4	13.2	8.6
LnGrp LOS	D		C	D		C	D	B	B	D	B	A
Approach Vol, veh/h	194				536				816			
Approach Delay, s/veh	34.8				41.6				14.3			
Approach LOS	C				D				B			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	36.2	11.4	13.4	5.1	40.0	6.1	18.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	22.1	6.9	18.0	5.0	22.1	5.0	19.9				
Max Q Clear Time (g_c+I1), s	5.4	15.0	7.6	8.4	2.3	13.9	2.8	12.4				
Green Ext Time (p_c), s	0.0	2.5	0.0	0.6	0.0	1.9	0.0	0.9				
Intersection Summary												
HCM 7th Control Delay, s/veh	24.4											
HCM 7th LOS	C											
Notes												
User approved changes to right turn type.												

Timings

4: Market Street & 14th Street

02/10/2025

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	69	443	221	577	52	476	190	72	520	85
Future Volume (vph)	69	443	221	577	52	476	190	72	520	85
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	9.9	22.5	15.2	27.8	9.5	22.8	22.8	9.5	22.8	22.8
Total Split (%)	14.1%	32.1%	21.7%	39.7%	13.6%	32.6%	32.6%	13.6%	32.6%	32.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effect Green (s)	5.4	15.9	10.7	23.2	5.6	21.7	21.7	5.8	24.1	24.1
Actuated g/C Ratio	0.08	0.23	0.15	0.33	0.08	0.31	0.31	0.08	0.34	0.34
v/c Ratio	0.57	0.67	0.91	0.68	0.41	0.48	0.32	0.55	0.48	0.13
Control Delay (s/veh)	46.4	32.2	68.8	22.7	40.5	22.9	4.1	48.0	21.5	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	46.4	32.2	68.8	22.7	40.5	22.9	4.1	48.0	21.5	0.4
LOS	D	C	E	C	D	C	A	D	C	A
Approach Delay (s/veh)		34.0		33.6		19.2			21.7	
Approach LOS		C		C		B			C	

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay (s/veh): 27.3

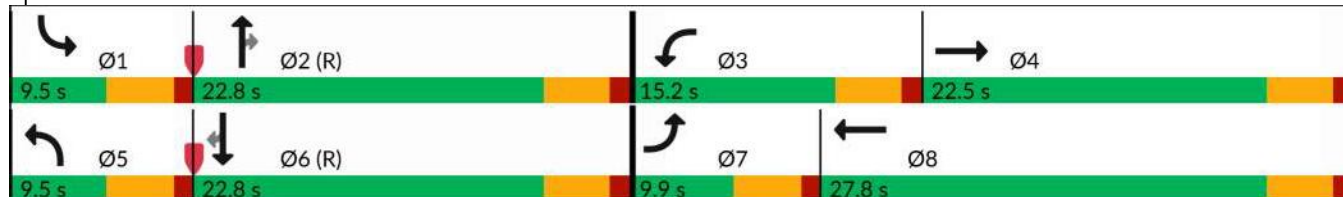
Intersection LOS: C

Intersection Capacity Utilization 59.4%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 4: Market Street & 14th Street



HCM 7th Signalized Intersection Summary

4: Market Street & 14th Street

02/10/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	443	43	221	577	137	52	476	190	72	520	85
Future Volume (veh/h)	69	443	43	221	577	137	52	476	190	72	520	85
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	492	48	246	641	152	58	529	211	80	578	94
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	99	653	63	272	846	200	86	1183	528	102	1216	542
Arrive On Green	0.02	0.07	0.07	0.15	0.30	0.30	0.05	0.33	0.33	0.06	0.34	0.34
Sat Flow, veh/h	1781	3272	318	1781	2851	675	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	77	266	274	246	399	394	58	529	211	80	578	94
Grp Sat Flow(s),veh/h/ln	1781	1777	1813	1781	1777	1749	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	3.0	10.3	10.4	9.5	14.3	14.3	2.2	8.2	7.2	3.1	8.9	2.9
Cycle Q Clear(g_c), s	3.0	10.3	10.4	9.5	14.3	14.3	2.2	8.2	7.2	3.1	8.9	2.9
Prop In Lane	1.00		0.18	1.00		0.39	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	99	354	362	272	527	519	86	1183	528	102	1216	542
V/C Ratio(X)	0.78	0.75	0.76	0.90	0.76	0.76	0.67	0.45	0.40	0.78	0.48	0.17
Avail Cap(c_a), veh/h	137	457	466	272	591	582	127	1183	528	127	1216	542
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92	0.81	0.81	0.81
Uniform Delay (d), s/veh	33.9	31.0	31.0	29.1	22.3	22.3	32.8	18.3	18.0	32.6	18.1	16.1
Incr Delay (d2), s/veh	16.8	5.1	5.2	30.7	5.0	5.1	8.1	1.1	2.1	17.9	1.1	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	5.3	5.4	6.2	6.3	6.2	1.1	3.3	2.8	1.8	3.6	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	50.7	36.1	36.2	59.9	27.3	27.5	40.9	19.4	20.0	50.5	19.2	16.7
LnGrp LOS	D	D	D	E	C	C	D	B	C	D	B	B
Approach Vol, veh/h	617		1039			798			752			
Approach Delay, s/veh	38.0		35.1			21.1			22.2			
Approach LOS	D		D			C			C			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.5	27.8	15.2	18.5	7.9	28.5	8.4	25.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.3	10.7	18.0	5.0	18.3	5.4	23.3				
Max Q Clear Time (g_c+I1), s	5.1	10.2	11.5	12.4	4.2	10.9	5.0	16.3				
Green Ext Time (p_c), s	0.0	2.7	0.0	1.6	0.0	2.5	0.0	2.8				
Intersection Summary												
HCM 7th Control Delay, s/veh	29.1											
HCM 7th LOS	C											

Timings

5: Brockton Avenue & Tequesquite Avenue

02/10/2025



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	128	17	28	3	58	491	87	424
Future Volume (vph)	128	17	28	3	58	491	87	424
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	9.8	22.8	9.5	22.5	9.8	38.1	9.6	37.9
Total Split (%)	12.3%	28.5%	11.9%	28.1%	12.3%	47.6%	12.0%	47.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)	12.3	9.1	10.9	7.0	51.9	46.3	53.2	47.0
Actuated g/C Ratio	0.15	0.11	0.14	0.09	0.65	0.58	0.67	0.59
v/c Ratio	0.81	0.27	0.17	0.46	0.13	0.65	0.27	0.32
Control Delay (s/veh)	59.1	19.5	26.6	14.8	5.6	18.1	6.5	9.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	59.1	19.5	26.6	14.8	5.6	18.1	6.5	9.9
LOS	E	B	C	B	A	B	A	A
Approach Delay (s/veh)		48.3		17.7		16.9		9.5
Approach LOS		D		B		B		A

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay (s/veh): 17.6

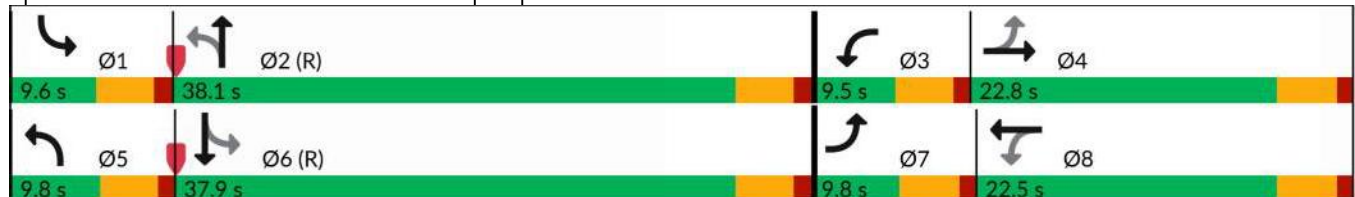
Intersection LOS: B

Intersection Capacity Utilization 59.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 5: Brockton Avenue & Tequesquite Avenue



HCM 7th Signalized Intersection Summary

5: Brockton Avenue & Tequesquite Avenue

02/10/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	128	17	31	28	3	84	58	491	63	87	424	97
Future Volume (veh/h)	128	17	31	28	3	84	58	491	63	87	424	97
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	160	21	39	35	4	105	72	614	79	109	530	121
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	245	75	139	278	6	146	542	904	116	407	1622	369
Arrive On Green	0.07	0.13	0.13	0.03	0.09	0.09	0.05	0.56	0.56	0.06	0.56	0.56
Sat Flow, veh/h	1781	586	1088	1781	58	1535	1781	1624	209	1781	2876	654
Grp Volume(v), veh/h	160	0	60	35	0	109	72	0	693	109	327	324
Grp Sat Flow(s),veh/h/ln	1781	0	1674	1781	0	1594	1781	0	1833	1781	1777	1753
Q Serve(g_s), s	5.3	0.0	2.6	1.4	0.0	5.3	1.3	0.0	21.6	2.0	7.9	7.9
Cycle Q Clear(g_c), s	5.3	0.0	2.6	1.4	0.0	5.3	1.3	0.0	21.6	2.0	7.9	7.9
Prop In Lane	1.00		0.65	1.00		0.96	1.00		0.11	1.00		0.37
Lane Grp Cap(c), veh/h	245	0	213	278	0	151	542	0	1021	407	1002	988
V/C Ratio(X)	0.65	0.00	0.28	0.13	0.00	0.72	0.13	0.00	0.68	0.27	0.33	0.33
Avail Cap(c_a), veh/h	245	0	383	329	0	359	571	0	1021	419	1002	988
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.85	0.00	0.85	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.1	0.0	31.6	31.0	0.0	35.2	6.8	0.0	12.6	9.8	9.3	9.3
Incr Delay (d2), s/veh	6.1	0.0	0.7	0.2	0.0	6.3	0.1	0.0	3.1	0.3	0.9	0.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	1.1	0.6	0.0	2.3	0.5	0.0	8.6	0.7	3.0	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	38.2	0.0	32.3	31.2	0.0	41.5	6.9	0.0	15.7	10.1	10.2	10.2
LnGrp LOS	D		C	C		D	A		B	B	B	B
Approach Vol, veh/h	220					144		765		760		
Approach Delay, s/veh	36.6					39.0		14.9		10.2		
Approach LOS	D					D		B		B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	49.0	7.2	14.7	8.5	49.6	9.8	12.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.1	33.6	5.0	18.3	5.3	33.4	5.3	18.0				
Max Q Clear Time (g_c+I1), s	4.0	23.6	3.4	4.6	3.3	9.9	7.3	7.3				
Green Ext Time (p_c), s	0.0	3.5	0.0	0.2	0.0	4.2	0.0	0.4				
Intersection Summary												
HCM 7th Control Delay, s/veh			17.4									
HCM 7th LOS			B									

Timings

6: Market Street & 15th Street

02/10/2025



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	69	5	44	8	21	645	55	630
Future Volume (vph)	69	5	44	8	21	645	55	630
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	9.5	22.9	9.6	23.0
Total Split (%)	40.9%	40.9%	40.9%	40.9%	17.3%	41.6%	17.5%	41.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)	8.7	8.7	8.7	8.7	6.4	32.4	7.5	37.8
Actuated g/C Ratio	0.16	0.16	0.16	0.16	0.12	0.59	0.14	0.69
v/c Ratio	0.37	0.12	0.24	0.10	0.12	0.40	0.27	0.34
Control Delay (s/veh)	24.8	10.3	21.9	11.8	22.7	10.4	23.6	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	24.8	10.3	21.9	11.8	22.7	10.4	23.6	6.5
LOS	C	B	C	B	C	B	C	A
Approach Delay (s/veh)		20.5		18.3		10.8		7.8
Approach LOS		C		B		B		A

Intersection Summary

Cycle Length: 55

Actuated Cycle Length: 55

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.40

Intersection Signal Delay (s/veh): 10.3

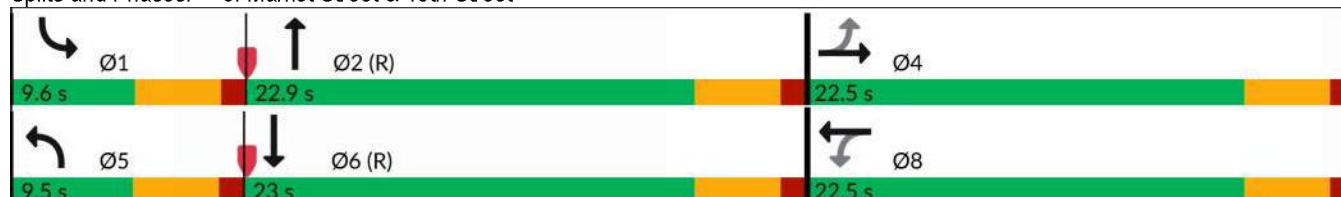
Intersection LOS: B

Intersection Capacity Utilization 45.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 6: Market Street & 15th Street



HCM 7th Signalized Intersection Summary

6: Market Street & 15th Street

02/10/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	5	24	44	8	17	21	645	62	55	630	64
Future Volume (veh/h)	69	5	24	44	8	17	21	645	62	55	630	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	81	6	28	52	9	20	25	759	73	65	741	75
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	258	31	145	253	56	124	51	1931	186	102	2013	204
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.03	0.59	0.59	0.06	0.62	0.62
Sat Flow, veh/h	1381	287	1341	1375	516	1147	1781	3276	315	1781	3258	330
Grp Volume(v), veh/h	81	0	34	52	0	29	25	412	420	65	404	412
Grp Sat Flow(s),veh/h/ln	1381	0	1629	1375	0	1664	1781	1777	1814	1781	1777	1811
Q Serve(g_s), s	3.1	0.0	1.0	2.0	0.0	0.9	0.8	6.8	6.8	2.0	6.2	6.2
Cycle Q Clear(g_c), s	4.0	0.0	1.0	3.0	0.0	0.9	0.8	6.8	6.8	2.0	6.2	6.2
Prop In Lane	1.00		0.82	1.00		0.69	1.00		0.17	1.00		0.18
Lane Grp Cap(c), veh/h	258	0	176	253	0	179	51	1048	1069	102	1098	1119
V/C Ratio(X)	0.31	0.00	0.19	0.21	0.00	0.16	0.49	0.39	0.39	0.64	0.37	0.37
Avail Cap(c_a), veh/h	561	0	533	555	0	545	162	1048	1069	165	1098	1119
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.82	0.82	0.82	0.76	0.76	0.76
Uniform Delay (d), s/veh	24.1	0.0	22.4	23.7	0.0	22.3	26.3	6.0	6.0	25.4	5.2	5.2
Incr Delay (d2), s/veh	0.7	0.0	0.5	0.4	0.0	0.4	5.7	0.9	0.9	5.0	0.7	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.4	0.6	0.0	0.3	0.4	2.1	2.1	0.9	1.8	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	24.8	0.0	22.9	24.1	0.0	22.7	32.0	6.9	6.9	30.3	5.9	5.9
LnGrp LOS	C		C	C		C	C	A	A	C	A	A
Approach Vol, veh/h	115			81			857			881		
Approach Delay, s/veh	24.2			23.6			7.7			7.7		
Approach LOS	C			C			A			A		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.6	36.9		10.4	6.1	38.5		10.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	18.4		18.0	5.0	18.5		18.0				
Max Q Clear Time (g_c+1), s	4.0	8.8		6.0	2.8	8.2		5.0				
Green Ext Time (p_c), s	0.0	3.7		0.3	0.0	3.8		0.2				
Intersection Summary												
HCM 7th Control Delay, s/veh				9.3								
HCM 7th LOS				A								

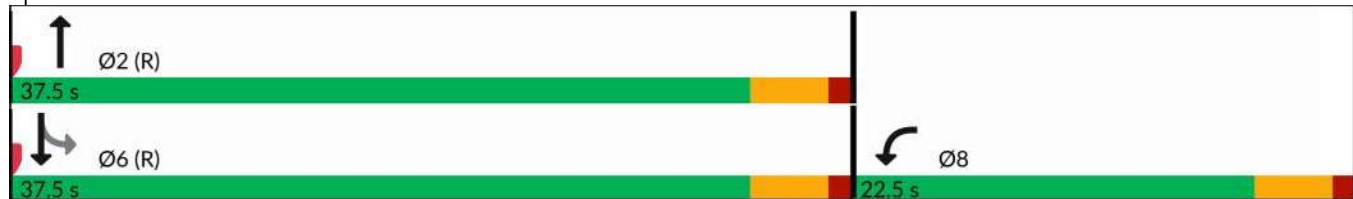
Timings

7: Brockton Avenue & Terracina Drive

02/10/2025

				
Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	12	533	79	385
Future Volume (vph)	12	533	79	385
Turn Type	Prot	NA	Perm	NA
Protected Phases	8	2		6
Permitted Phases			6	
Detector Phase	8	2	6	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5
Total Split (s)	22.5	37.5	37.5	37.5
Total Split (%)	37.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	C-Max	C-Max	C-Max
Act Effct Green (s)	6.9	47.0	47.0	47.0
Actuated g/C Ratio	0.12	0.78	0.78	0.78
v/c Ratio	0.41	0.51	0.21	0.34
Control Delay (s/veh)	12.5	5.1	4.2	3.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	12.5	5.1	4.2	3.7
LOS	B	A	A	A
Approach Delay (s/veh)	12.5	5.1		3.8
Approach LOS	B	A		A
Intersection Summary				
Cycle Length: 60				
Actuated Cycle Length: 60				
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green				
Natural Cycle: 60				
Control Type: Actuated-Coordinated				
Maximum v/c Ratio: 0.51				
Intersection Signal Delay (s/veh): 5.1			Intersection LOS: A	
Intersection Capacity Utilization 51.6%			ICU Level of Service A	
Analysis Period (min) 15				

Splits and Phases: 7: Brockton Avenue & Terracina Drive



HCM 7th Signalized Intersection Summary

7: Brockton Avenue & Terracina Drive

02/10/2025



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	12	75	533	44	79	385
Future Volume (veh/h)	12	75	533	44	79	385
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	15	96	683	56	101	494
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	19	123	1298	106	553	1424
Arrive On Green	0.09	0.09	0.76	0.76	0.76	0.76
Sat Flow, veh/h	216	1381	1705	140	720	1870
Grp Volume(v), veh/h	112	0	0	739	101	494
Grp Sat Flow(s),veh/h/ln	1611	0	0	1845	720	1870
Q Serve(g_s), s	4.1	0.0	0.0	9.6	3.9	5.1
Cycle Q Clear(g_c), s	4.1	0.0	0.0	9.6	13.5	5.1
Prop In Lane	0.13	0.86		0.08	1.00	
Lane Grp Cap(c), veh/h	143	0	0	1405	553	1424
V/C Ratio(X)	0.78	0.00	0.00	0.53	0.18	0.35
Avail Cap(c_a), veh/h	483	0	0	1405	553	1424
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.00	0.00	1.00	0.96	0.96
Uniform Delay (d), s/veh	26.8	0.0	0.0	2.9	5.5	2.3
Incr Delay (d2), s/veh	8.9	0.0	0.0	1.4	0.7	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	0.0	1.9	0.5	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	35.7	0.0	0.0	4.3	6.2	3.0
LnGrp LOS	D			A	A	A
Approach Vol, veh/h	112		739		595	
Approach Delay, s/veh	35.7		4.3		3.5	
Approach LOS	D		A		A	
Timer - Assigned Phs	2				6	8
Phs Duration (G+Y+Rc), s	50.2				50.2	9.8
Change Period (Y+Rc), s	4.5				4.5	4.5
Max Green Setting (Gmax), s	33.0				33.0	18.0
Max Q Clear Time (g_c+I1), s	11.6				15.5	6.1
Green Ext Time (p_c), s	5.5				3.8	0.2
Intersection Summary						
HCM 7th Control Delay, s/veh			6.4			
HCM 7th LOS			A			

Timings

8: Market Street & Terracina Drive

02/10/2025

										
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	86	20	1	3	27	20	640	194	144	486
Future Volume (vph)	86	20	1	3	27	20	640	194	144	486
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	11.0	24.0	9.5	22.5	22.5	9.9	26.5	26.5	15.0	31.6
Total Split (%)	14.7%	32.0%	12.7%	30.0%	30.0%	13.2%	35.3%	35.3%	20.0%	42.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effect Green (s)	6.5	11.5	5.0	6.4	6.4	6.7	34.1	34.1	14.0	47.7
Actuated g/C Ratio	0.09	0.15	0.07	0.09	0.09	0.09	0.45	0.45	0.19	0.64
v/c Ratio	0.76	0.33	0.01	0.03	0.11	0.17	0.54	0.31	0.59	0.34
Control Delay (s/veh)	65.6	13.4	33.0	30.7	0.7	33.6	18.8	5.7	34.8	9.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	65.6	13.4	33.0	30.7	0.7	33.6	18.8	5.7	34.8	9.1
LOS	E	B	C	C	A	C	B	A	C	A
Approach Delay (s/veh)		40.8		4.4			16.2			14.4
Approach LOS		D		A			B			B

Intersection Summary

Cycle Length: 75

Actuated Cycle Length: 75

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay (s/veh): 17.5

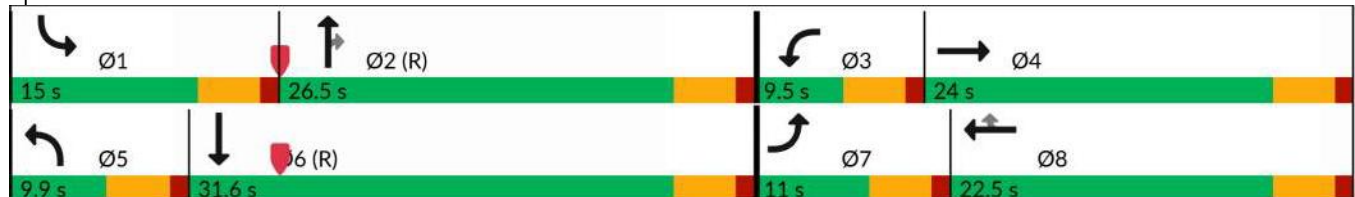
Intersection LOS: B

Intersection Capacity Utilization 48.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 8: Market Street & Terracina Drive



HCM 7th Signalized Intersection Summary

8: Market Street & Terracina Drive

02/10/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	20	58	1	3	27	20	640	194	144	486	76
Future Volume (veh/h)	86	20	58	1	3	27	20	640	194	144	486	76
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	116	27	78	1	4	36	27	865	262	195	657	103
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	147	61	177	2	119	101	51	1715	765	234	1802	282
Arrive On Green	0.08	0.14	0.14	0.00	0.06	0.06	0.03	0.48	0.48	0.13	0.59	0.59
Sat Flow, veh/h	1781	424	1226	1781	1870	1585	1781	3554	1585	1781	3078	482
Grp Volume(v), veh/h	116	0	105	1	4	36	27	865	262	195	379	381
Grp Sat Flow(s),veh/h/ln	1781	0	1650	1781	1870	1585	1781	1777	1585	1781	1777	1784
Q Serve(g_s), s	4.8	0.0	4.4	0.0	0.2	1.6	1.1	12.5	7.7	8.0	8.4	8.5
Cycle Q Clear(g_c), s	4.8	0.0	4.4	0.0	0.2	1.6	1.1	12.5	7.7	8.0	8.4	8.5
Prop In Lane	1.00		0.74	1.00		1.00	1.00		1.00	1.00		0.27
Lane Grp Cap(c), veh/h	147	0	239	2	119	101	51	1715	765	234	1040	1044
V/C Ratio(X)	0.79	0.00	0.44	0.41	0.03	0.36	0.53	0.50	0.34	0.83	0.36	0.37
Avail Cap(c_a), veh/h	154	0	429	119	449	380	128	1715	765	249	1040	1044
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.00	0.99	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Uniform Delay (d), s/veh	33.8	0.0	29.3	37.4	33.0	33.7	35.9	13.3	12.0	31.8	8.2	8.2
Incr Delay (d2), s/veh	22.4	0.0	1.3	83.5	0.1	2.1	8.2	1.1	1.2	19.1	0.9	0.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	1.8	0.1	0.1	0.7	0.6	4.8	2.7	4.6	3.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	56.2	0.0	30.6	120.9	33.1	35.8	44.1	14.3	13.3	50.8	9.1	9.1
LnGrp LOS	E		C	F	C	D	D	B	B	D	A	A
Approach Vol, veh/h	221					41		1154		955		
Approach Delay, s/veh	44.0					37.6		14.8		17.6		
Approach LOS	D					D		B		B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.4	40.7	4.6	15.3	6.7	48.4	10.7	9.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.5	22.0	5.0	19.5	5.4	27.1	6.5	18.0				
Max Q Clear Time (g_c+1), s	10.0	14.5	2.0	6.4	3.1	10.5	6.8	3.6				
Green Ext Time (p_c), s	0.0	4.0	0.0	0.4	0.0	4.5	0.0	0.1				
Intersection Summary												
HCM 7th Control Delay, s/veh	19.1											
HCM 7th LOS	B											

HCM 7th TWSC
101: Brockton Avenue & EX South RCH Driveway

02/10/2025

Intersection

Int Delay, s/veh 0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗			↗↗
Traffic Vol, veh/h	0	15	669	19	0	607
Future Vol, veh/h	0	15	669	19	0	607
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	25	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	17	778	22	0	706

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	400	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	*917	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	0	-
Mov Cap-1 Maneuver	-	*917	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	917
HCM Lane V/C Ratio	-	-	0.019
HCM Control Delay (s/veh)	-	-	9
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0.1

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 7th TWSC
104: RCH Driveway & 14th Street

02/10/2025

Intersection						
Int Delay, s/veh	1.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↑	↑↑		↑
Traffic Vol, veh/h	460	31	152	433	0	92
Future Vol, veh/h	460	31	152	433	0	92
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	120	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	500	34	165	471	0	100
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	534	0	-	267
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	-	3.32
Pot Cap-1 Maneuver	-	-	1185	-	0	*968
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-	0	-	-	0
Mov Cap-1 Maneuver	-	-	1185	-	-	*968
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s/v	0		2.22		9.15	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	968	-	-	1185	-	
HCM Lane V/C Ratio	0.103	-	-	0.139	-	
HCM Control Delay (s/veh)	9.1	-	-	8.5	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0.3	-	-	0.5	-	
Notes						
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon						

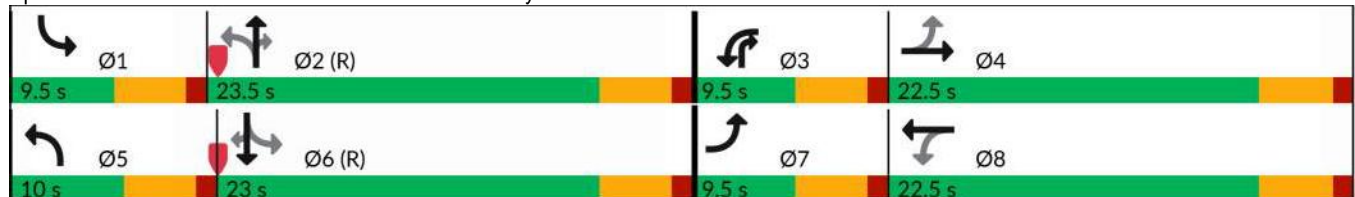
Timings

1: Brockton Avenue & University Avenue

02/10/2025

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	4	346	59	283	206	322	74	50	254	9
Future Volume (vph)	4	346	59	283	206	322	74	50	254	9
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+ov	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2	3	1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	3	8	5	2	3	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	9.5	9.5	22.5	22.5
Total Split (s)	9.5	22.5	9.5	22.5	10.0	23.5	9.5	9.5	23.0	23.0
Total Split (%)	14.6%	34.6%	14.6%	34.6%	15.4%	36.2%	14.6%	14.6%	35.4%	35.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	None	C-Max	C-Max
Act Effot Green (s)	18.1	14.1	20.8	19.8	32.4	28.1	37.6	28.4	22.6	22.6
Actuated g/C Ratio	0.28	0.22	0.32	0.30	0.50	0.43	0.58	0.44	0.35	0.35
v/c Ratio	0.01	0.67	0.26	0.33	0.45	0.43	0.08	0.11	0.42	0.02
Control Delay (s/veh)	11.5	19.3	21.3	24.2	14.5	18.8	2.2	10.7	20.8	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	11.5	19.3	21.3	24.2	14.5	18.8	2.2	10.7	20.8	0.0
LOS	B	B	C	C	B	B	A	B	C	A
Approach Delay (s/veh)		19.3		23.7		15.3			18.6	
Approach LOS		B		C		B			B	
Intersection Summary										
Cycle Length: 65										
Actuated Cycle Length: 65										
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green										
Natural Cycle: 65										
Control Type: Actuated-Coordinated										
Maximum v/c Ratio: 0.67										
Intersection Signal Delay (s/veh): 18.8					Intersection LOS: B					
Intersection Capacity Utilization 60.1%					ICU Level of Service B					
Analysis Period (min) 15										

Splits and Phases: 1: Brockton Avenue & University Avenue



HCM 7th Signalized Intersection Summary

1: Brockton Avenue & University Avenue

02/10/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	346	205	59	283	46	206	322	74	50	254	9
Future Volume (veh/h)	4	346	205	59	283	46	206	322	74	50	254	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	368	218	63	301	49	219	343	79	53	270	10
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	299	476	278	251	819	132	546	754	722	455	684	580
Arrive On Green	0.01	0.22	0.22	0.02	0.09	0.09	0.08	0.40	0.40	0.05	0.37	0.37
Sat Flow, veh/h	1781	2161	1260	1781	3065	493	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	4	302	284	63	173	177	219	343	79	53	270	10
Grp Sat Flow(s),veh/h/ln	1781	1777	1644	1781	1777	1782	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.1	10.4	10.6	1.7	6.0	6.1	5.0	8.7	1.9	1.2	7.0	0.3
Cycle Q Clear(g_c), s	0.1	10.4	10.6	1.7	6.0	6.1	5.0	8.7	1.9	1.2	7.0	0.3
Prop In Lane	1.00		0.77	1.00		0.28	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	299	392	362	251	475	476	546	754	722	455	684	580
V/C Ratio(X)	0.01	0.77	0.78	0.25	0.36	0.37	0.40	0.46	0.11	0.12	0.39	0.02
Avail Cap(c_a), veh/h	427	492	455	295	492	493	546	754	722	507	684	580
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.90	0.90	0.90	0.88	0.88	0.88	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.6	23.8	23.9	19.1	24.4	24.5	11.7	14.2	10.2	11.9	15.3	13.2
Incr Delay (d2), s/veh	0.0	5.7	7.0	0.5	0.4	0.4	0.4	1.7	0.3	0.1	1.7	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.7	4.5	0.7	2.6	2.7	1.8	3.7	0.6	0.4	3.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	19.6	29.5	30.9	19.6	24.9	24.9	12.1	15.9	10.4	12.0	17.0	13.2
LnGrp LOS	B	C	C	B	C	C	B	B	B	B	B	B
Approach Vol, veh/h	590			413			641			333		
Approach Delay, s/veh	30.1			24.1			13.9			16.1		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.6	30.7	7.9	18.8	10.0	28.3	4.8	21.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	19.0	5.0	18.0	5.5	18.5	5.0	18.0				
Max Q Clear Time (g_c+1), s	3.2	10.7	3.7	12.6	7.0	9.0	2.1	8.1				
Green Ext Time (p_c), s	0.0	1.5	0.0	1.7	0.0	1.0	0.0	1.4				
Intersection Summary												
HCM 7th Control Delay, s/veh	21.2											
HCM 7th LOS	C											
Notes												
User approved changes to right turn type.												

Timings

2: Market Street & University Avenue

02/10/2025

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	46	418	75	305	100	733	140	173	658	47
Future Volume (vph)	46	418	75	305	100	733	140	173	658	47
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	9.5	22.5	9.5	22.5	9.5	23.0	23.0	10.0	23.5	23.5
Total Split (%)	14.6%	34.6%	14.6%	34.6%	14.6%	35.4%	35.4%	15.4%	36.2%	36.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effect Green (s)	5.0	14.4	5.0	16.3	6.9	19.9	19.9	9.7	24.8	24.8
Actuated g/C Ratio	0.08	0.22	0.08	0.25	0.11	0.31	0.31	0.15	0.38	0.38
v/c Ratio	0.35	0.63	0.57	0.45	0.54	0.69	0.24	0.67	0.50	0.07
Control Delay (s/veh)	32.3	30.8	47.3	18.9	42.6	24.4	3.2	47.2	19.5	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	32.3	30.8	47.3	18.9	42.6	24.4	3.2	47.2	19.5	0.2
LOS	C	C	D	B	D	C	A	D	B	A
Approach Delay (s/veh)		30.9		23.5		23.2			23.9	
Approach LOS		C		C		C			C	

Intersection Summary

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.69

Intersection Signal Delay (s/veh): 24.9

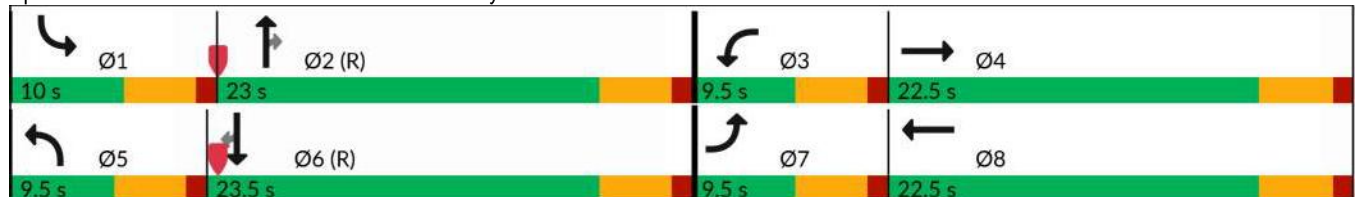
Intersection LOS: C

Intersection Capacity Utilization 62.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 2: Market Street & University Avenue



HCM 7th Signalized Intersection Summary

2: Market Street & University Avenue

02/10/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	418	70	75	305	89	100	733	140	173	658	47
Future Volume (veh/h)	46	418	70	75	305	89	100	733	140	173	658	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	47	427	71	77	311	91	102	748	143	177	671	48
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	78	596	98	103	569	164	130	1370	611	151	1410	629
Arrive On Green	0.01	0.06	0.06	0.06	0.21	0.21	0.07	0.39	0.39	0.08	0.40	0.40
Sat Flow, veh/h	1781	3052	504	1781	2723	783	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	47	247	251	77	201	201	102	748	143	177	671	48
Grp Sat Flow(s),veh/h/ln	1781	1777	1780	1781	1777	1729	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.7	8.9	9.0	2.8	6.6	6.8	3.7	10.6	4.0	5.5	9.1	1.2
Cycle Q Clear(g_c), s	1.7	8.9	9.0	2.8	6.6	6.8	3.7	10.6	4.0	5.5	9.1	1.2
Prop In Lane	1.00		0.28	1.00		0.45	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	78	347	347	103	371	361	130	1370	611	151	1410	629
V/C Ratio(X)	0.60	0.71	0.72	0.75	0.54	0.56	0.78	0.55	0.23	1.17	0.48	0.08
Avail Cap(c_a), veh/h	137	492	493	137	492	479	137	1370	611	151	1410	629
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.80	0.80	0.80	1.00	1.00	1.00	0.77	0.77	0.77	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.5	28.6	28.7	30.2	22.9	23.0	29.6	15.5	13.5	29.7	14.6	12.2
Incr Delay (d2), s/veh	5.8	2.2	2.4	14.4	1.2	1.3	19.1	1.2	0.7	127.8	1.2	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	4.2	4.3	1.5	2.7	2.7	2.2	4.1	1.4	7.6	3.5	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.2	30.9	31.1	44.6	24.2	24.4	48.7	16.8	14.2	157.6	15.7	12.4
LnGrp LOS	D	C	C	D	C	C	D	B	B	F	B	B
Approach Vol, veh/h	545			479			993			896		
Approach Delay, s/veh	31.5			27.5			19.7			43.6		
Approach LOS	C			C			B			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	29.6	8.3	17.2	9.3	30.3	7.4	18.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.5	18.5	5.0	18.0	5.0	19.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	7.5	12.6	4.8	11.0	5.7	11.1	3.7	8.8				
Green Ext Time (p_c), s	0.0	2.7	0.0	1.7	0.0	2.9	0.0	1.6				
Intersection Summary												
HCM 7th Control Delay, s/veh	30.5											
HCM 7th LOS	C											

Timings

3: Brockton Avenue & 14th Street

02/10/2025

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	15	93	207	199	4	391	252	92	482	11
Future Volume (vph)	15	93	207	199	4	391	252	92	482	11
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	3	1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	3	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	9.5	9.5	22.5	22.5
Total Split (s)	9.5	22.5	10.0	23.0	9.5	26.5	10.0	11.0	28.0	28.0
Total Split (%)	13.6%	32.1%	14.3%	32.9%	13.6%	37.9%	14.3%	15.7%	40.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	None	C-Max	C-Max
Act Effect Green (s)	5.0	10.2	6.4	17.2	5.5	31.4	43.2	8.0	40.0	40.0
Actuated g/C Ratio	0.07	0.15	0.09	0.25	0.08	0.45	0.62	0.11	0.57	0.57
v/c Ratio	0.12	0.42	0.68	0.70	0.03	0.48	0.24	0.47	0.47	0.01
Control Delay (s/veh)	32.7	26.8	44.7	29.3	30.5	19.3	2.3	38.2	14.3	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	32.7	26.8	44.7	29.3	30.5	19.3	2.3	38.2	14.3	0.0
LOS	C	C	D	C	C	B	A	D	B	A
Approach Delay (s/veh)		27.5		35.4		12.7			17.8	
Approach LOS		C		D		B			B	

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay (s/veh): 21.6

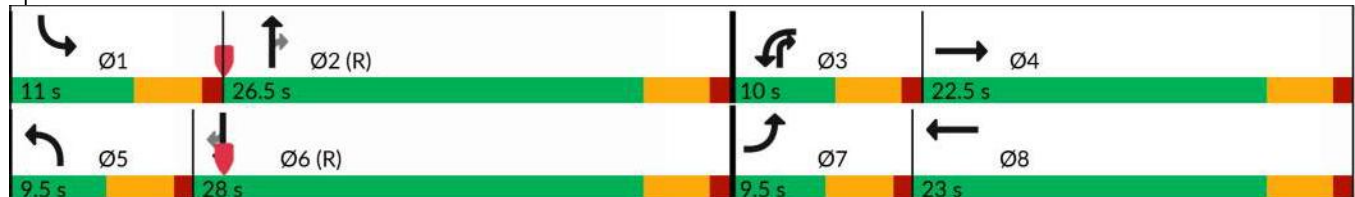
Intersection LOS: C

Intersection Capacity Utilization 58.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 3: Brockton Avenue & 14th Street



HCM 7th Signalized Intersection Summary

3: Brockton Avenue & 14th Street

02/10/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	93	18	207	199	118	4	391	252	92	482	11
Future Volume (veh/h)	15	93	18	207	199	118	4	391	252	92	482	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	15	96	19	213	205	122	4	403	260	95	497	11
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	32	239	47	272	240	143	10	820	819	122	938	795
Arrive On Green	0.02	0.16	0.16	0.08	0.22	0.22	0.01	0.44	0.44	0.07	0.50	0.50
Sat Flow, veh/h	1781	1516	300	3456	1099	654	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	15	0	115	213	0	327	4	403	260	95	497	11
Grp Sat Flow(s),veh/h/ln	1781	0	1816	1728	0	1753	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.6	0.0	4.0	4.2	0.0	12.6	0.2	10.8	6.6	3.7	12.6	0.2
Cycle Q Clear(g_c), s	0.6	0.0	4.0	4.2	0.0	12.6	0.2	10.8	6.6	3.7	12.6	0.2
Prop In Lane	1.00		0.17	1.00		0.37	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	32	0	286	272	0	382	10	820	819	122	938	795
V/C Ratio(X)	0.47	0.00	0.40	0.78	0.00	0.86	0.42	0.49	0.32	0.78	0.53	0.01
Avail Cap(c_a), veh/h	127	0	467	272	0	463	127	820	819	165	938	795
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93
Uniform Delay (d), s/veh	34.0	0.0	26.5	31.7	0.0	26.3	34.7	14.1	9.8	32.1	11.8	8.8
Incr Delay (d2), s/veh	10.1	0.0	0.9	14.0	0.0	12.6	26.8	2.1	1.0	14.1	2.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	1.7	2.2	0.0	6.3	0.1	4.6	2.2	2.0	5.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	44.2	0.0	27.4	45.6	0.0	38.9	61.5	16.2	10.8	46.2	13.8	8.8
LnGrp LOS	D		C	D		D	E	B	B	D	B	A
Approach Vol, veh/h	130				540				667			
Approach Delay, s/veh	29.4				41.6				14.3			
Approach LOS	C				D				B			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.3	35.2	10.0	15.5	4.9	39.6	5.8	19.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	6.5	22.0	5.5	18.0	5.0	23.5	5.0	18.5				
Max Q Clear Time (g_c+I1), s	5.7	12.8	6.2	6.0	2.2	14.6	2.6	14.6				
Green Ext Time (p_c), s	0.0	2.4	0.0	0.4	0.0	2.1	0.0	0.7				
Intersection Summary												
HCM 7th Control Delay, s/veh			24.3									
HCM 7th LOS			C									
Notes												
User approved changes to right turn type.												

1 EX PM 11:19 am 11/18/2024 Baseline

Synchro 12 Report

Page 6

Timings

4: Market Street & 14th Street

02/10/2025

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	57	421	253	454	61	571	233	176	667	53
Future Volume (vph)	57	421	253	454	61	571	233	176	667	53
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	11.4	22.5	19.0	30.1	9.6	23.5	23.5	15.0	28.9	28.9
Total Split (%)	14.3%	28.1%	23.8%	37.6%	12.0%	29.4%	29.4%	18.8%	36.1%	36.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effect Green (s)	6.6	15.8	14.0	27.5	5.9	21.4	21.4	10.8	28.4	28.4
Actuated g/C Ratio	0.08	0.20	0.18	0.34	0.07	0.27	0.27	0.14	0.36	0.36
v/c Ratio	0.41	0.70	0.84	0.45	0.49	0.62	0.39	0.76	0.55	0.08
Control Delay (s/veh)	43.4	34.4	57.2	21.4	50.4	30.0	4.7	55.4	24.2	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	43.4	34.4	57.2	21.4	50.4	30.0	4.7	55.4	24.2	0.2
LOS	D	C	E	C	D	C	A	E	C	A
Approach Delay (s/veh)		35.4		33.1		24.7			28.9	
Approach LOS		D		C		C			C	

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay (s/veh): 29.9

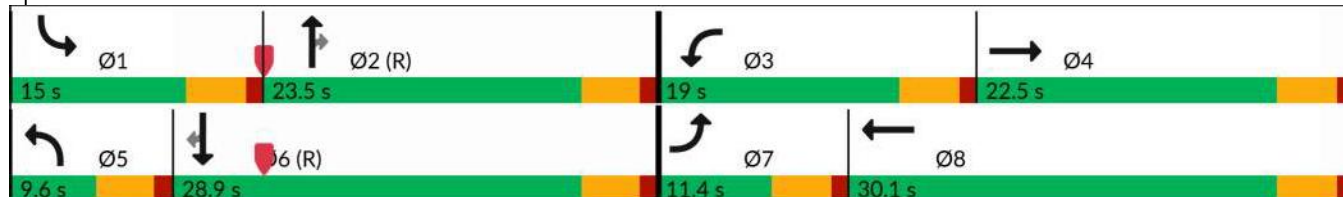
Intersection LOS: C

Intersection Capacity Utilization 67.8%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 4: Market Street & 14th Street



HCM 7th Signalized Intersection Summary

4: Market Street & 14th Street

02/10/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	421	52	253	454	71	61	571	233	176	667	53
Future Volume (veh/h)	57	421	52	253	454	71	61	571	233	176	667	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	434	54	261	468	73	63	589	240	181	688	55
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	553	68	300	914	142	84	1104	492	218	1371	612
Arrive On Green	0.05	0.17	0.17	0.17	0.30	0.30	0.05	0.31	0.31	0.12	0.39	0.39
Sat Flow, veh/h	1781	3182	394	1781	3083	478	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	59	241	247	261	269	272	63	589	240	181	688	55
Grp Sat Flow(s),veh/h/ln	1781	1777	1799	1781	1777	1784	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.6	10.4	10.5	11.4	10.0	10.1	2.8	11.0	9.8	7.9	11.8	1.8
Cycle Q Clear(g_c), s	2.6	10.4	10.5	11.4	10.0	10.1	2.8	11.0	9.8	7.9	11.8	1.8
Prop In Lane	1.00		0.22	1.00		0.27	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	81	309	312	300	527	529	84	1104	492	218	1371	612
V/C Ratio(X)	0.73	0.78	0.79	0.87	0.51	0.51	0.75	0.53	0.49	0.83	0.50	0.09
Avail Cap(c_a), veh/h	154	400	405	323	569	571	114	1104	492	234	1371	612
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.85	0.85	0.85
Uniform Delay (d), s/veh	37.7	31.6	31.7	32.4	23.3	23.4	37.7	22.8	22.4	34.3	18.7	15.6
Incr Delay (d2), s/veh	11.6	7.4	7.7	20.8	0.8	0.8	16.2	1.8	3.3	18.0	1.1	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	5.0	5.1	6.5	4.1	4.2	1.6	4.7	4.0	4.4	4.8	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	49.2	39.0	39.4	53.2	24.1	24.1	53.9	24.5	25.7	52.3	19.8	15.9
LnGrp LOS	D	D	D	D	C	C	D	C	C	D	B	B
Approach Vol, veh/h	547			802			892			924		
Approach Delay, s/veh	40.3			33.6			26.9			25.9		
Approach LOS	D			C			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.3	29.3	18.0	18.4	8.3	35.4	8.2	28.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.5	19.0	14.5	18.0	5.1	24.4	6.9	25.6				
Max Q Clear Time (g_c+I1), s	9.9	13.0	13.4	12.5	4.8	13.8	4.6	12.1				
Green Ext Time (p_c), s	0.0	2.5	0.1	1.4	0.0	3.6	0.0	2.8				
Intersection Summary												
HCM 7th Control Delay, s/veh	30.6											
HCM 7th LOS	C											

Timings

5: Brockton Avenue & Tequesquite Avenue

02/10/2025



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	80	6	77	13	35	390	11	603
Future Volume (vph)	80	6	77	13	35	390	11	603
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	9.6	22.5	9.6	22.5	9.5	23.4	9.5	23.4
Total Split (%)	14.8%	34.6%	14.8%	34.6%	14.6%	36.0%	14.6%	36.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)	12.3	9.2	11.4	7.3	40.3	38.9	38.9	36.5
Actuated g/C Ratio	0.19	0.14	0.18	0.11	0.62	0.60	0.60	0.56
v/c Ratio	0.36	0.17	0.30	0.53	0.08	0.39	0.02	0.37
Control Delay (s/veh)	22.3	12.1	21.0	12.7	6.6	10.7	6.5	10.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.3	12.1	21.0	12.7	6.6	10.7	6.5	10.9
LOS	C	B	C	B	A	B	A	B
Approach Delay (s/veh)		18.8		15.4		10.3		10.8
Approach LOS		B		B		B		B

Intersection Summary

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.53

Intersection Signal Delay (s/veh): 12.0

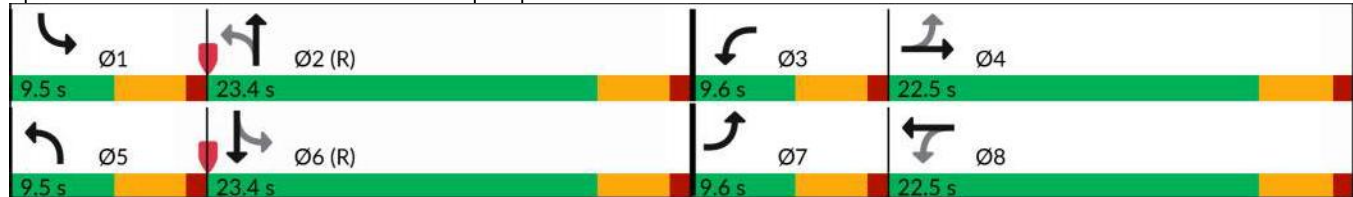
Intersection LOS: B

Intersection Capacity Utilization 54.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 5: Brockton Avenue & Tequesquite Avenue



HCM 7th Signalized Intersection Summary

5: Brockton Avenue & Tequesquite Avenue

02/10/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	6	36	77	13	145	35	390	11	11	603	82
Future Volume (veh/h)	80	6	36	77	13	145	35	390	11	11	603	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	85	6	38	82	14	154	37	415	12	12	641	87
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	266	31	197	376	19	206	434	919	27	485	1526	207
Arrive On Green	0.06	0.14	0.14	0.06	0.14	0.14	0.04	0.51	0.51	0.01	0.49	0.49
Sat Flow, veh/h	1781	221	1398	1781	134	1472	1781	1809	52	1781	3144	426
Grp Volume(v), veh/h	85	0	44	82	0	168	37	0	427	12	362	366
Grp Sat Flow(s),veh/h/ln	1781	0	1619	1781	0	1605	1781	0	1861	1781	1777	1794
Q Serve(g_s), s	2.6	0.0	1.6	2.5	0.0	6.5	0.7	0.0	9.5	0.2	8.6	8.6
Cycle Q Clear(g_c), s	2.6	0.0	1.6	2.5	0.0	6.5	0.7	0.0	9.5	0.2	8.6	8.6
Prop In Lane	1.00		0.86	1.00		0.92	1.00		0.03	1.00		0.24
Lane Grp Cap(c), veh/h	266	0	228	376	0	225	434	0	945	485	862	871
V/C Ratio(X)	0.32	0.00	0.19	0.22	0.00	0.75	0.09	0.00	0.45	0.02	0.42	0.42
Avail Cap(c_a), veh/h	298	0	448	410	0	445	505	0	945	595	862	871
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.97	0.00	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.2	0.0	24.7	21.9	0.0	26.9	8.2	0.0	10.2	8.7	10.8	10.8
Incr Delay (d2), s/veh	0.7	0.0	0.4	0.3	0.0	4.9	0.1	0.0	1.5	0.0	1.5	1.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.6	1.0	0.0	2.7	0.2	0.0	3.7	0.1	3.3	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	22.9	0.0	25.1	22.2	0.0	31.8	8.2	0.0	11.7	8.7	12.3	12.3
LnGrp LOS	C		C	C		C	A		B	A	B	B
Approach Vol, veh/h	129			250			464			740		
Approach Delay, s/veh	23.6			28.6			11.4			12.2		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.5	37.5	8.4	13.7	6.9	36.1	8.4	13.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.9	5.1	18.0	5.0	18.9	5.1	18.0				
Max Q Clear Time (g_c+I1), s	2.2	11.5	4.5	3.6	2.7	10.6	4.6	8.5				
Green Ext Time (p_c), s	0.0	1.5	0.0	0.1	0.0	2.9	0.0	0.6				
Intersection Summary												
HCM 7th Control Delay, s/veh	15.5											
HCM 7th LOS	B											

Timings

6: Market Street & 15th Street

02/10/2025



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	88	9	59	3	25	727	11	876
Future Volume (vph)	88	9	59	3	25	727	11	876
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	22.6	22.6	22.6	22.6	9.6	27.8	9.6	27.8
Total Split (%)	37.7%	37.7%	37.7%	37.7%	16.0%	46.3%	16.0%	46.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)	9.6	9.6	9.6	9.6	6.5	42.0	6.0	39.5
Actuated g/C Ratio	0.16	0.16	0.16	0.16	0.11	0.70	0.10	0.66
v/c Ratio	0.45	0.18	0.30	0.17	0.14	0.33	0.07	0.45
Control Delay (s/veh)	28.4	10.4	24.6	9.0	25.4	6.4	25.0	9.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.4	10.4	24.6	9.0	25.4	6.4	25.0	9.1
LOS	C	B	C	A	C	A	C	A
Approach Delay (s/veh)		22.1		17.8		7.0		9.3
Approach LOS		C		B		A		A

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.45

Intersection Signal Delay (s/veh): 9.7

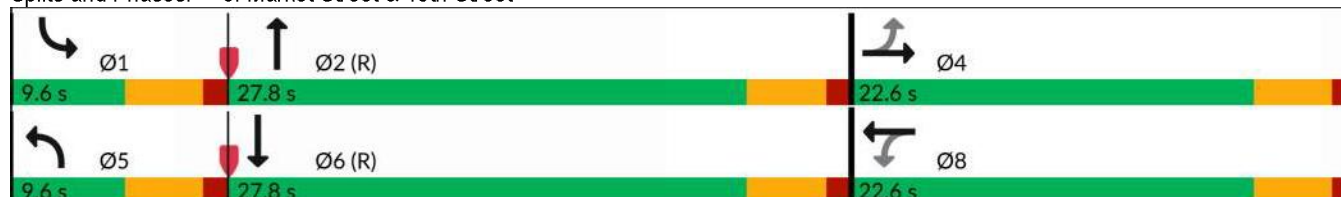
Intersection LOS: A

Intersection Capacity Utilization 45.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 6: Market Street & 15th Street



HCM 7th Signalized Intersection Summary

6: Market Street & 15th Street

02/10/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	9	39	59	3	42	25	727	31	11	876	81
Future Volume (veh/h)	88	9	39	59	3	42	25	727	31	11	876	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	96	10	42	64	3	46	27	790	34	12	952	88
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	263	42	175	261	13	200	54	2176	94	27	2012	186
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.03	0.63	0.63	0.02	0.61	0.61
Sat Flow, veh/h	1356	314	1319	1352	98	1502	1781	3471	149	1781	3289	304
Grp Volume(v), veh/h	96	0	52	64	0	49	27	404	420	12	514	526
Grp Sat Flow(s),veh/h/ln	1356	0	1633	1352	0	1600	1781	1777	1843	1781	1777	1816
Q Serve(g_s), s	4.1	0.0	1.7	2.7	0.0	1.6	0.9	6.6	6.6	0.4	9.5	9.5
Cycle Q Clear(g_c), s	5.7	0.0	1.7	4.4	0.0	1.6	0.9	6.6	6.6	0.4	9.5	9.5
Prop In Lane	1.00		0.81	1.00		0.94	1.00		0.08	1.00		0.17
Lane Grp Cap(c), veh/h	263	0	217	261	0	213	54	1114	1156	27	1087	1111
V/C Ratio(X)	0.36	0.00	0.24	0.25	0.00	0.23	0.50	0.36	0.36	0.45	0.47	0.47
Avail Cap(c_a), veh/h	492	0	493	489	0	483	151	1114	1156	151	1087	1111
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.97	0.97	0.97	0.74	0.74	0.74
Uniform Delay (d), s/veh	25.8	0.0	23.3	25.3	0.0	23.3	28.6	5.4	5.4	29.3	6.4	6.4
Incr Delay (d2), s/veh	0.8	0.0	0.6	0.5	0.0	0.5	6.9	0.9	0.9	8.3	1.1	1.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	0.7	0.8	0.0	0.6	0.5	2.0	2.1	0.2	2.9	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	26.7	0.0	23.9	25.7	0.0	23.8	35.5	6.3	6.3	37.6	7.5	7.4
LnGrp LOS	C		C	C		C	D	A	A	D	A	A
Approach Vol, veh/h	148			113			851			1052		
Approach Delay, s/veh	25.7			24.9			7.2			7.8		
Approach LOS	C			C			A			A		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	42.1		12.5	6.3	41.2		12.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	23.3		18.1	5.1	23.3		18.1				
Max Q Clear Time (g_c+1), s	2.4	8.6		7.7	2.9	11.5		6.4				
Green Ext Time (p_c), s	0.0	4.6		0.3	0.0	5.3		0.3				
Intersection Summary												
HCM 7th Control Delay, s/veh				9.7								
HCM 7th LOS				A								

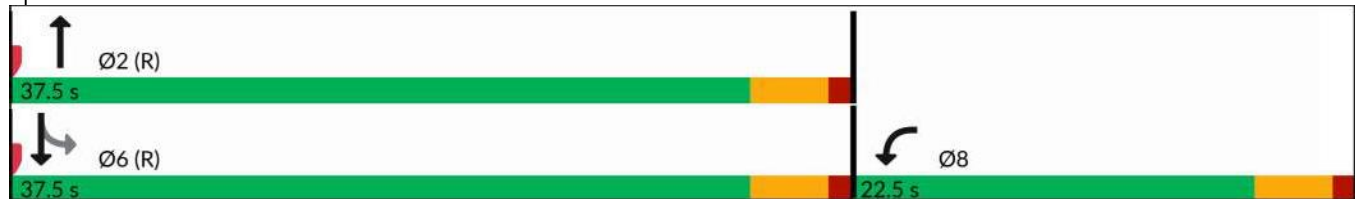
Timings

7: Brockton Avenue & Terracina Drive

02/10/2025

				
Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	11	413	11	713
Future Volume (vph)	11	413	11	713
Turn Type	Prot	NA	Perm	NA
Protected Phases	8	2		6
Permitted Phases			6	
Detector Phase	8	2	6	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5
Total Split (s)	22.5	37.5	37.5	37.5
Total Split (%)	37.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	C-Max	C-Max	C-Max
Act Effct Green (s)	6.3	53.5	53.5	53.5
Actuated g/C Ratio	0.11	0.89	0.89	0.89
v/c Ratio	0.17	0.26	0.01	0.45
Control Delay (s/veh)	16.5	2.1	2.1	3.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	16.5	2.1	2.1	3.2
LOS	B	A	A	A
Approach Delay (s/veh)	16.5	2.1		3.2
Approach LOS	B	A		A
Intersection Summary				
Cycle Length: 60				
Actuated Cycle Length: 60				
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green				
Natural Cycle: 60				
Control Type: Actuated-Coordinated				
Maximum v/c Ratio: 0.45				
Intersection Signal Delay (s/veh): 3.2			Intersection LOS: A	
Intersection Capacity Utilization 49.2%			ICU Level of Service A	
Analysis Period (min) 15				

Splits and Phases: 7: Brockton Avenue & Terracina Drive



HCM 7th Signalized Intersection Summary

7: Brockton Avenue & Terracina Drive

02/10/2025

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	11	20	413	3	11	713
Future Volume (veh/h)	11	20	413	3	11	713
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	12	21	435	3	12	751
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	21	37	1510	10	840	1522
Arrive On Green	0.04	0.04	0.81	0.81	0.81	0.81
Sat Flow, veh/h	585	1023	1855	13	951	1870
Grp Volume(v), veh/h	34	0	0	438	12	751
Grp Sat Flow(s),veh/h/ln	1657	0	0	1868	951	1870
Q Serve(g_s), s	1.2	0.0	0.0	3.4	0.2	7.5
Cycle Q Clear(g_c), s	1.2	0.0	0.0	3.4	3.6	7.5
Prop In Lane	0.35	0.62		0.01	1.00	
Lane Grp Cap(c), veh/h	60	0	0	1521	840	1522
V/C Ratio(X)	0.57	0.00	0.00	0.29	0.01	0.49
Avail Cap(c_a), veh/h	497	0	0	1521	840	1522
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.94	0.94
Uniform Delay (d), s/veh	28.5	0.0	0.0	1.4	1.8	1.7
Incr Delay (d2), s/veh	8.3	0.0	0.0	0.5	0.0	1.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	0.3	0.0	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	36.7	0.0	0.0	1.8	1.8	2.8
LnGrp LOS	D			A	A	A
Approach Vol, veh/h	34		438			763
Approach Delay, s/veh	36.7		1.8			2.8
Approach LOS	D		A			A
Timer - Assigned Phs	2		6		8	
Phs Duration (G+Y+Rc), s	53.3		53.3		6.7	
Change Period (Y+Rc), s	4.5		4.5		4.5	
Max Green Setting (Gmax), s	33.0		33.0		18.0	
Max Q Clear Time (g_c+I1), s	5.4		9.5		3.2	
Green Ext Time (p_c), s	2.9		5.9		0.0	
Intersection Summary						
HCM 7th Control Delay, s/veh			3.4			
HCM 7th LOS			A			

Timings

8: Market Street & Terracina Drive

02/10/2025

										
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	6	7	113	10	100	11	597	32	43	925
Future Volume (vph)	6	7	113	10	100	11	597	32	43	925
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	9.5	22.5	11.0	24.0	24.0	9.5	26.1	26.1	10.4	27.0
Total Split (%)	13.6%	32.1%	15.7%	34.3%	34.3%	13.6%	37.3%	37.3%	14.9%	38.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effect Green (s)	5.0	6.1	6.5	6.8	6.8	6.1	47.6	47.6	7.3	52.9
Actuated g/C Ratio	0.07	0.09	0.09	0.10	0.10	0.09	0.68	0.68	0.10	0.76
v/c Ratio	0.05	0.11	0.73	0.06	0.35	0.08	0.26	0.03	0.24	0.37
Control Delay (s/veh)	31.3	21.4	58.1	28.8	5.0	30.2	7.9	0.1	31.4	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	31.3	21.4	58.1	28.8	5.0	30.2	7.9	0.1	31.4	6.2
LOS	C	C	E	C	A	C	A	A	C	A
Approach Delay (s/veh)		23.8		33.0			7.9			7.3
Approach LOS		C		C			A			A

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay (s/veh): 10.8

Intersection LOS: B

Intersection Capacity Utilization 54.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 8: Market Street & Terracina Drive



HCM 7th Signalized Intersection Summary

8: Market Street & Terracina Drive

02/10/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	7	10	113	10	100	11	597	32	43	925	12
Future Volume (veh/h)	6	7	10	113	10	100	11	597	32	43	925	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	6	7	11	119	11	105	12	628	34	45	974	13
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	14	44	69	151	269	228	26	1953	871	74	2070	28
Arrive On Green	0.01	0.07	0.07	0.08	0.14	0.14	0.01	0.55	0.55	0.04	0.58	0.58
Sat Flow, veh/h	1781	655	1030	1781	1870	1585	1781	3554	1585	1781	3591	48
Grp Volume(v), veh/h	6	0	18	119	11	105	12	628	34	45	482	505
Grp Sat Flow(s),veh/h/ln	1781	0	1685	1781	1870	1585	1781	1777	1585	1781	1777	1862
Q Serve(g_s), s	0.2	0.0	0.7	4.6	0.4	4.3	0.5	6.8	0.7	1.7	11.0	11.0
Cycle Q Clear(g_c), s	0.2	0.0	0.7	4.6	0.4	4.3	0.5	6.8	0.7	1.7	11.0	11.0
Prop In Lane	1.00		0.61	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	14	0	112	151	269	228	26	1953	871	74	1024	1073
V/C Ratio(X)	0.43	0.00	0.16	0.79	0.04	0.46	0.45	0.32	0.04	0.61	0.47	0.47
Avail Cap(c_a), veh/h	127	0	433	165	521	442	127	1953	871	150	1024	1073
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	0.90	0.90
Uniform Delay (d), s/veh	34.6	0.0	30.8	31.4	25.8	27.5	34.2	8.6	7.3	33.0	8.6	8.6
Incr Delay (d2), s/veh	19.3	0.0	0.7	20.4	0.1	1.5	11.6	0.4	0.1	7.0	1.4	1.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.3	2.8	0.2	1.6	0.3	2.4	0.2	0.9	3.9	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	53.9	0.0	31.5	51.8	25.9	28.9	45.8	9.1	7.3	40.0	10.0	9.9
LnGrp LOS	D		C	D	C	C	D	A	A	D	B	A
Approach Vol, veh/h	24			235			674			1032		
Approach Delay, s/veh	37.1			40.4			9.6			11.3		
Approach LOS	D			D			A			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.4	43.0	10.4	9.2	5.5	44.9	5.1	14.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.9	21.6	6.5	18.0	5.0	22.5	5.0	19.5				
Max Q Clear Time (g_c+I1), s	3.7	8.8	6.6	2.7	2.5	13.0	2.2	6.3				
Green Ext Time (p_c), s	0.0	3.6	0.0	0.0	0.0	4.3	0.0	0.3				
Intersection Summary												
HCM 7th Control Delay, s/veh	14.5											
HCM 7th LOS	B											

HCM 7th TWSC
101: Brockton Avenue & EX South RCH Driveway

02/10/2025

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	29	656	11	0	761
Future Vol, veh/h	0	29	656	11	0	761
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	25	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	31	698	12	0	810
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	355	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	*911	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		0	-	-		-
Mov Cap-1 Maneuver	-	*911	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s/v	9.09		0		0	
HCM LOS	A					
Minor Lane/Major Mvmt	NBT		NBRWBLn1		SBT	
Capacity (veh/h)	-		- 911		-	
HCM Lane V/C Ratio	-		0.034		-	
HCM Control Delay (s/veh)	-		9.1		-	
HCM Lane LOS	-		A		-	
HCM 95th %tile Q(veh)	-		0.1		-	
Notes						
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon						

HCM 7th TWSC
104: RCH Driveway & 14th Street

02/10/2025

Intersection						
Int Delay, s/veh	0.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↑	↑↑		↑
Traffic Vol, veh/h	499	15	40	488	0	74
Future Vol, veh/h	499	15	40	488	0	74
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	120	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	548	16	44	536	0	81
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	565	0	-	282
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	-	3.32
Pot Cap-1 Maneuver	-	-	1150	-	0	*968
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-	0	-	-	0
Mov Cap-1 Maneuver	-	-	1150	-	-	*968
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		NB		
HCM Control Delay, s/v	0	0.63		9.06		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	968	-	-	1150	-	
HCM Lane V/C Ratio	0.084	-	-	0.038	-	
HCM Control Delay (s/veh)	9.1	-	-	8.3	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-	
Notes						
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon						

Queuing and Blocking Report

Baseline

02/11/2025

Intersection: 1: Brockton Avenue & University Avenue

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	48	151	192	79	77	95	75	182	122	74	193	30
Average Queue (ft)	5	84	94	29	36	52	44	73	25	14	84	4
95th Queue (ft)	26	132	166	61	69	89	80	150	84	48	156	20
Link Distance (ft)		823	823		1114	1114		2322			397	397
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	95			100			50		100	50		
Storage Blk Time (%)		5		0	0		6	12	0	0	20	
Queuing Penalty (veh)		0		0	0		17	22	0	1	5	

Intersection: 2: Market Street & University Avenue

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	T	R	L	T
Maximum Queue (ft)	84	139	174	86	146	149	74	161	173	96	74	319
Average Queue (ft)	42	83	105	34	79	54	29	68	81	25	40	189
95th Queue (ft)	89	126	153	70	132	108	68	130	143	68	78	281
Link Distance (ft)		1114	1114		869	869		2312	2312	2312		404
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	60			195			50				50	
Storage Blk Time (%)	3	16			0		6	12			12	37
Queuing Penalty (veh)	4	7			0		14	5			56	21

Intersection: 2: Market Street & University Avenue

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	271	62
Average Queue (ft)	139	21
95th Queue (ft)	240	49
Link Distance (ft)	404	404
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Queuing and Blocking Report

Baseline

02/11/2025

Intersection: 3: Brockton Avenue & 14th Street

Movement	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	L	TR	L	T	R	L	T	R
Maximum Queue (ft)	67	177	125	134	140	55	196	107	74	268	67
Average Queue (ft)	17	80	68	76	97	6	114	42	47	126	4
95th Queue (ft)	53	141	112	118	150	33	191	85	80	232	31
Link Distance (ft)		353	132	132	132		180	180		2322	
Upstream Blk Time (%)			0	0	3		1				
Queuing Penalty (veh)			0	1	5		5				
Storage Bay Dist (ft)	70					50			50		100
Storage Blk Time (%)	0	15				0	27		18	18	0
Queuing Penalty (veh)	0	3				1	2		76	16	0

Intersection: 4: Market Street & 14th Street

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	T	R	L	T
Maximum Queue (ft)	115	176	183	160	328	320	104	158	183	135	124	178
Average Queue (ft)	51	98	114	120	157	158	39	88	99	57	55	96
95th Queue (ft)	110	157	167	178	309	281	78	142	161	104	109	163
Link Distance (ft)		924	924		364	364		646	646	646		2312
Upstream Blk Time (%)					4	0						
Queuing Penalty (veh)					0	0						
Storage Bay Dist (ft)	90			135			150				100	
Storage Blk Time (%)	4	9		16	4			0			2	8
Queuing Penalty (veh)	9	7		47	8			0			6	6

Intersection: 4: Market Street & 14th Street

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	185	78
Average Queue (ft)	104	33
95th Queue (ft)	165	66
Link Distance (ft)	2312	2312
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Queuing and Blocking Report

Baseline

02/11/2025

Intersection: 5: Brockton Avenue & Tequesquite Avenue

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	T	TR
Maximum Queue (ft)	123	231	71	79	79	310	78	96	103
Average Queue (ft)	80	50	19	36	26	97	27	30	35
95th Queue (ft)	132	153	51	67	65	236	59	74	85
Link Distance (ft)		559		432		917		272	272
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	100		100		55		100		
Storage Blk Time (%)	14	0	0	0	0	12	0	0	
Queuing Penalty (veh)	7	0	0	0	3	7	0	0	

Intersection: 6: Market Street & 15th Street

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	96	66	54	48	51	184	206	86	140	166
Average Queue (ft)	43	23	24	17	14	61	80	36	45	62
95th Queue (ft)	79	55	53	43	40	131	163	70	103	129
Link Distance (ft)		222		358		1220	1220		646	646
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	90		95		105			80		
Storage Blk Time (%)	1	0				1		0	2	
Queuing Penalty (veh)	0	0				0		1	1	

Intersection: 7: Brockton Avenue & Terracina Drive

Movement	WB	NB	SB	SB
Directions Served	LR	TR	L	T
Maximum Queue (ft)	94	157	54	167
Average Queue (ft)	43	34	28	33
95th Queue (ft)	79	105	56	108
Link Distance (ft)	1280	543		917
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			30	
Storage Blk Time (%)			9	3
Queuing Penalty (veh)			36	3

Queuing and Blocking Report

Baseline

02/11/2025

Intersection: 8: Market Street & Terracina Drive

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	R	L	T	T	R	L	T	TR
Maximum Queue (ft)	74	154	17	22	44	58	192	197	80	146	164	155
Average Queue (ft)	40	44	1	1	18	10	62	45	12	74	34	46
95th Queue (ft)	74	101	9	13	43	38	142	127	54	132	106	116
Link Distance (ft)		1280		391			567	567			1220	1220
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	50		175		100	100			55	125		
Storage Blk Time (%)	9	6				0	2	4	0	2	0	
Queuing Penalty (veh)	7	5				0	1	9	1	6	1	

Intersection: 101: Brockton Avenue & EX South RCH Driveway

Movement	WB	SB
Directions Served	R	T
Maximum Queue (ft)	35	10
Average Queue (ft)	13	0
95th Queue (ft)	38	7
Link Distance (ft)	121	211
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 102: Brockton Avenue & New North RCH Driveway

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Queuing and Blocking Report

Baseline

02/11/2025

Intersection: 103: Brockton Avenue & New Garage Egress

Movement	NB
Directions Served	T
Maximum Queue (ft)	51
Average Queue (ft)	3
95th Queue (ft)	23
Link Distance (ft)	170
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 104: RCH Driveway & 14th Street

Movement	EB	EB	WB	WB	WB	NB
Directions Served	T	TR	L	T	T	R
Maximum Queue (ft)	6	12	89	6	66	80
Average Queue (ft)	0	1	39	0	5	35
95th Queue (ft)	4	7	74	5	30	59
Link Distance (ft)	132	132		924	924	99
Upstream Blk Time (%)						0
Queuing Penalty (veh)						0
Storage Bay Dist (ft)			120			
Storage Blk Time (%)			0			
Queuing Penalty (veh)			0			

Network Summary

Network wide Queuing Penalty: 433
