KCI

TRAFFIC IMPACT AND MOBILITY STUDY

BELLE MEADE DEVELOPMENTS

NASHVILLE, TENNESSEE

PREPARED FOR:

H.G. HILL REALTY COMPANY, SOUTHEASTERN COMPANY, AND AJ CAPITAL PARTNERS

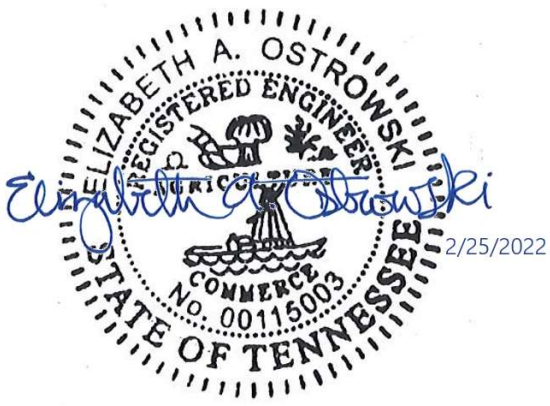
FEBRUARY 2023

KCI TECHNOLOGIES, INC. // 500 11TH AVENUE NORTH, NASHVILLE, TN 37203 // KCI.COM

TRAFFIC IMPACT AND MOBILITY STUDY
BELLE MEADE DEVELOPMENTS
NASHVILLE, TENNESSEE

PREPARED FOR:

H.G. HILL REALTY COMPANY
SOUTHEASTERN COMPANY
AJ CAPITAL PARTNERS



PREPARED BY:

KCI TECHNOLOGIES, INC
500 11th Avenue North, Suite 290
Nashville, TN 37203
615.370.8410 office 615.370.8455 fax
www.kci.com

TABLE OF CONTENTS

1. INTRODUCTION AND PROJECT DESCRIPTIONS 1
1.1 Harding Town Center (HTC) 3
1.2 4416 Ridgefield Way (RW) 3
1.3 Belle Meade Plaza (BMP) 4
2. EXISTING CONDITIONS 5
2.1 Existing Roadway Network 5
2.2 Existing Pedestrian Infrastructure 7
2.3 Existing Bicycle Facilities 9
2.4 Existing Transit Services and Facilities 10
2.5 Existing Traffic Volumes 11
2.6 Existing Traffic Operations 14
3. BACKGROUND TRAFFIC VOLUMES 18
3.1 Establishing Background Volumes 18
3.2 Background Traffic Operations 21
4. IMPACTS 26
4.1 Trip Generation 26
4.2 Harding Town Center - Trip Generation 26
4.3 4416 Ridgefield Way - Trip Generation 28
4.4 Belle Meade Plaza - Trip Generation 29
4.5 Trip Distribution and Traffic Assignment 30
4.6 Capacity / Level of Service Analyses 33
4.7 Queue Length Analysis 42
4.8 Signal Warrant Analysis 52
5. MULTIMODAL INFRASTRUCTURE AND OPERATIONS 58
5.1 Street Network 58
5.2 Traffic Signals 58

5.3 Pedestrian Infrastructure Plan 59
5.4 Bicycle Facilities Plan 62
5.5 Trails and Greenways 64
5.6 Transit Services and Facilities Plan 66
6. RECOMMENDATIONS 68
6.1 Harding Town Center 68
6.2 4416 Ridgefield Way 70
6.3 Belle Meade Plaza 72
APPENDICES 74

LIST OF FIGURES

FIGURE 1. LOCATION OF THE PROJECT SITES 2
FIGURE 2. EXISTING LANEAGE 6
FIGURE 3. EXISTING PEAK HOUR TRAFFIC VOLUMES 13
FIGURE 4. BACKGROUND 2027 PEAK HOUR TRAFFIC VOLUMES 19
FIGURE 5. BACKGROUND 2032 PEAK HOUR TRAFFIC VOLUMES 20
FIGURE 6. 2027 ASSIGNMENT OF TRAFFIC GENERATED BY THE PROJECT SITES 31
FIGURE 7. 2032 ASSIGNMENT OF TRAFFIC GENERATED BY THE PROJECT SITES 32
FIGURE 8. TOTAL PROJECTED 2027 PEAK HOUR TRAFFIC VOLUMES 36
FIGURE 9. TOTAL PROJECTED 2032 PEAK HOUR TRAFFIC VOLUMES 37
FIGURE 10. WARRANT 2, FOUR-HOUR VEHICULAR VOLUME – PROJECTED 2032 54
FIGURE 11. WARRANT 3, PEAK-HOUR VEHICULAR VOLUME – PROJECTED 2032 55
FIGURE 12. SIDEWALK INVENTORY 61
FIGURE 13. BICYCLE INVENTORY 63
FIGURE 14. GREENWAY INVENTORY 65
FIGURE 15. TRANSIT INVENTORY 67

LIST OF TABLES

TABLE 1. DESCRIPTION OF STUDY ROADWAYS 5
TABLE 2A. PEDESTRIAN INFRASTRUCTURE INVENTORY – CORNER 8
TABLE 2B. PEDESTRIAN INFRASTRUCTURE INVENTORY – LEG 9
TABLE 3. WEGO BUS ROUTE SUMMARY 10
TABLE 4. TRANSIT STOP INVENTORY 10
TABLE 5. TDOT COUNT STATION DATA 12
TABLE 6. DESCRIPTIONS OF LEVEL OF SERVICE 14
TABLE 7. EXISTING PEAK HOUR LEVELS OF SERVICE 16
TABLE 7. EXISTING PEAK HOUR LEVELS OF SERVICE CONT. 17
TABLE 8A. BACKGROUND AM PEAK HOUR LEVELS OF SERVICE 22
TABLE 8A. BACKGROUND AM PEAK HOUR LEVELS OF SERVICE CONT. 23
TABLE 8B. BACKGROUND PM PEAK HOUR LEVELS OF SERVICE 24
TABLE 8B. BACKGROUND PM PEAK HOUR LEVELS OF SERVICE CONT. 25
TABLE 9. DEVELOPMENT TRIP GENERATION – HARDING TOWN CENTER 27
TABLE 10. DEVELOPMENT TRIP GENERATION – 4416 RIDGEFIELD WAY 29
TABLE 11. DEVELOPMENT TRIP GENERATION – BELLE MEADE PLAZA 30
TABLE 12A. PROJECTED AM PEAK HOUR LEVELS OF SERVICE 38
TABLE 12A. PROJECTED AM PEAK HOUR LEVELS OF SERVICE CONT. 39
TABLE 12B. PROJECTED PM PEAK HOUR LEVELS OF SERVICE 40
TABLE 12B. PROJECTED PM PEAK HOUR LEVELS OF SERVICE CONT. 41
TABLE 13A. STUDY INTERSECTIONS 95TH PERCENTILE QUEUE LENGTH (2027) 42
TABLE 13B. STUDY INTERSECTIONS 95TH PERCENTILE QUEUE LENGTH (2032) 47
TABLE 14. MINIMUM VEHICULAR VOLUMES FOR WARRANT 1A 53
TABLE 15. MINIMUM VEHICULAR VOLUMES FOR WARRANT 1B 53
TABLE 16. TRAFFIC SIGNAL WARRANT ANALYSIS – PROJECTED 2027 56
TABLE 17. TRAFFIC SIGNAL WARRANT ANALYSIS – PROJECTED 2032 57

TABLE 18. MCSP WIDTHS.....58

EXECUTIVE SUMMARY

There are three proposed developments located along Harding Pike within the vicinity of the intersection of Harding Pike and White Bridge Pike/Woodmont Boulevard. Since the developments are all located within close proximity to each other, the Nashville Department of Transportation (NDOT) and Metro Planning requested a combined Traffic Impact and Mobility study to determine the effects of all three proposed developments on the roadway network.

Project Description – Harding Town Center (HTC)

The proposed Harding Town Center development is located north of the intersection of Harding Pike and Kenner Avenue. According to the developer, the proposed development includes approximately 332 multi-family residential units, 30,000 square feet of a high-turnover (sit-down) restaurant, 5,000 square feet of a coffee/donut shop without a drive-through, 9,000 square feet of a day care center, 9,000 square feet of a walk-in bank, 9,000 square feet of a health/fitness club, 40,000 square feet of office space, 160,000 square feet of a medical-dental office building, and a 125-room hotel. The Harding Town Center development will have two internal roadways. Access to the development is planned to be provided by four driveways, one on the central access road, two on the connector road, and one on Bosley Springs Road. Additional access is planned to also be provided off Bosley Springs Road north of the connector road.

Project Description – 4416 Ridgefield Way (RW)

The proposed 4416 Ridgefield Way development is located east of the intersection of Harding Pike and Ridgefield Way. According to the developer, the proposed development includes approximately 60,000 square feet of grocery store and 250 new multi-family units. It should be noted that there are currently 54 multi-family units on the project site. Access to the development is planned to be provided by three existing driveways, one on Harding Pike, one on Ridgefield Way, and one on Ridgefield Drive.

Project Description – Belle Meade Plaza (BMP)

The proposed Belle Meade Plaza development is located west of the intersection of Harding Pike and White Bridge Pike/Woodmont Boulevard. According to the developer, the proposed development includes approximately 70,000 square feet of retail, 440 multifamily housing units, and a 150-room hotel. Access to the development is planned to be provided by two driveways on Harding Pike. Additional access will be provided by an access easement under White Bridge Pike.

The purpose of this study is to analyze the access plan and the traffic impacts associated with these proposed developments.

Data Collection

In order to provide data for the traffic impact analysis, manual traffic counts were conducted at the following intersections:

1. Harding Pike and White Bridge Pike/Woodmont Boulevard (signalized)
2. Harding Pike and Kenner Avenue (signalized)
3. Harding Pike and HTC Access/Ridgefield Way (unsignalized)
4. Harding Pike and Bosley Springs Road/Woodlawn Drive (signalized)
5. Harding Pike and Saint Thomas Drive (signalized)
6. Kenner Avenue and Ridgefield Drive (unsignalized)
7. Ridgefield Drive and Ridgefield Way (unsignalized)
8. Woodlawn Drive and Ridgefield Drive (unsignalized)
9. Harding Pike and BMP Eastern Access (unsignalized)
10. Harding Pike and BMP Central Access (signalized)
11. Harding Pike and BMP Western Access (unsignalized)

Specifically, KCI Technologies, Inc. and Marr Traffic Data Collection conducted the traffic counts from 7:00 – 9:00 AM and 4:00 – 6:00 PM on a typical weekday in May 2022 and November 2022, respectively, while local schools were in session.

Projection of Future Traffic Volumes

In order to account for the traffic growth prior to the completion of the proposed project, background traffic volumes were established. Then, the estimated total project-generated traffic volumes for the proposed development were added to the background peak hour traffic volumes in order to obtain the total projected peak hour traffic volumes for the study area intersections.

Conclusions and Recommendations

The analyses presented in this study indicate that the impacts of the proposed project on the existing street network will be manageable by providing the recommendations below. These specific recommendations will provide safe and efficient traffic operations within the study area following the completion of the proposed project. The recommendations are as follows:

Harding Town Center

Site Driveways

- All site driveways should be stop-controlled, and a stop bar should be installed on the egress approach.
- All site driveways should be designed to include sufficient width for a minimum of one entering lane and one exiting lane.

Harding Pike and White Bridge Pike/Woodmont Boulevard

- Convert the side street split phasing to concurrent phasing with protected-permissive left-turn phasing on the northbound approach of Woodmont Boulevard and protected-only left-turn phasing on the southbound approach of White Bridge Pike. Stripe the left-turn movements on the northbound and southbound approaches.
- Install advanced warning signs for a crosswalk (W11-2) on the westbound and southbound channelized, right-turns.

Harding Pike and Kenner Avenue

- Remove the signal.
- Convert the northbound and southbound approaches of Kenner Avenue to right-in/right-out only with a center median.

Harding Pike and HTC Access/Ridgefield Way

- Install a traffic signal at the intersection. Provide protected-permissive left-turn phasing on all approaches.

Woodlawn Drive and Ridgefield Drive

- Upon completion of the proposed development, the intersection should be analyzed for the need to convert the intersection for all-way stop operation to a roundabout.

Signal Timing Optimization and Coordination

- Signal timings at all the signalized study intersections should be optimized upon completion of the development. Furthermore, after providing a traffic signal at the intersection of Harding Pike and HTC Access/Ridgefield Way, signal timing coordination should be conducted between the signalized intersections.

Parking, Valet, and Rideshare Accommodations

- Parking should be developed per code.

- All rideshare operations should take place on-site and not block traffic on Harding Pike.
- Signage should be place near the project site to direct rideshare drivers to the designated drop-off areas.

Travel Demand Management

- It is recommended that the development provide employees, residents, and customers extensive information about area transit service including routes, nearby stops, and schedules. This information may be provided by an informational kiosk, maps, or posters at prominent locations.
- Parking/storage options should be provided for bicycles on-site.
- Off-peak loading and deliveries for the development should be encouraged to minimize impacts to traffic operations.

Pedestrian, Bicycle, and Transit Information

- Provide and/or improve crosswalks, detectable warning mats, and curb ramps at the study intersections.
- Leading pedestrian intervals (LPI) should be taken into consideration at the signalized study intersections.
- Coordinate with WeGo and NDOT on transit improvements in the study area.
- Provide a protected pedestrian intersection at the intersection of Harding Pike and HTC Access/Ridgefield Way.
- Provide a protected pedestrian and bicycle intersection at the intersection of Harding Pike and Bosley Springs Road/Woodlawn Drive.
- A 10-foot-wide sidewalk with a 12.5-foot-wide planting strip should be constructed along the property frontage.

Additional Recommendations

- As part of the construction of the project, all internal and external driveway connections should be designed such that the departure sight triangles, as specified by AASHTO, will be clear of all sight obstructions, including landscaping, existing vegetation, monument signs/walls, fences, etc.
- Final design of internal roadways and parking should meet all Metro Nashville standards and the latest version of "A Policy of Geometric Design of Highways and Streets" published by AASHTO. Any parking lots and streets associated with the development should ensure that passenger cars and emergency vehicles are capable of making all turning movements. Internal intersections should be two-way stop-controlled unless all-way stop control warrants are met.

4416 Ridgefield Way

Site Driveways

- All site driveways should be stop-controlled, and a stop bar should be installed on the egress approach.
- All site driveways should be designed to include sufficient width for one entering lane and one exiting lane.

Harding Pike and White Bridge Pike/Woodmont Boulevard

- Convert the side street split phasing to concurrent phasing with protected-permissive left-turn phasing on the northbound approach of Woodmont Boulevard and protected-only left-turn phasing on the southbound approach of White Bridge Pike. Stripe the left-turn movements on the northbound and southbound approaches.
- Install advanced warning signs for a crosswalk (W11-2) on the westbound and southbound channelized, right-turns.

Harding Pike and Kenner Avenue

- Remove the signal.
- Convert the northbound and southbound approached of Kenner Avenue to right-in/right-out only with a center median island.

Harding Pike and HTC Access/Ridgefield Way

- Install a traffic signal at this intersection. Provide protected-permissive left-turn phasing on all approaches.
- If feasible, additional right-of-way should be provided along the Ridgefield Way frontage for an additional northbound left-turn lane.

Woodlawn Drive and Ridgefield Drive

- Upon completion of the proposed development, the intersection should be analyzed for the need to convert the intersection for all-way stop operation to a roundabout.

Signal Timing Optimization and Coordination

- Signal timings at all the signalized study intersections should be optimized upon completion of the development. Furthermore, after providing a traffic signal at the intersection of Harding Pike and HTC Access/Ridgefield Way, signal timing coordination should be conducted between the signalized intersections.

Parking, Valet, and Rideshare Accommodations

- Parking should be developed per code.
- All rideshare operations should take place on-site and not block traffic on Harding Pike, Ridgefield Way, or Ridgefield Drive.
- Signage should be place near the project site to direct rideshare drivers to the designated drop-off areas.

Travel Demand Management

- It is recommended that the development provide employees, residents, and customers extensive information about area transit service including routes, nearby stops, and schedules. This information may be provided by an informational kiosk, maps, or posters at prominent locations.
- Parking/storage options should be provided for bicycles on-site.
- Off-peak loading and deliveries for the development should be encouraged to minimize impacts to traffic operations.

Pedestrian, Bicycle, and Transit Information

- Provide and/or improve crosswalks, detectable warning mats, and curb ramps at the study intersections.
- Leading pedestrian intervals (LPI) should be taken into consideration at the signalized study intersections.
- Coordinate with WeGo and NDOT on transit improvements in the study area.
- Provide a protected pedestrian intersection at the intersection of Harding Pike and HTC Access/Ridgefield Way.
- Provide a protected pedestrian and bicycle intersection at the intersection of Harding Pike and Bosley Springs Road/Woodlawn Drive.
- A 10-foot-wide sidewalk with a 12.5-foot-wide planting strip should be constructed along the property frontage.

Additional Recommendations

- As part of the construction of the project, all internal and external driveway connections should be designed such that the departure sight triangles, as specified by AASHTO, will be clear of all sight obstructions, including landscaping, existing vegetation, monument signs/walls, fences, etc.
- Final design of internal roadways and parking should meet all Metro Nashville standards and the latest version of "A Policy of Geometric Design of Highways and Streets" published by AASHTO. Any parking lots and streets associated with the development should ensure that passenger cars and emergency vehicles are capable of making all turning movements. Internal intersections should be two-way stop-controlled unless all-way stop control warrants are met.

Belle Meade Plaza

Harding Pike and White Bridge Pike/Woodmont Boulevard

- Convert the side street split phasing to concurrent phasing with protected-permissive left-turn phasing on the northbound approach of Woodmont Boulevard and protected-only left-turn phasing on the southbound approach of White Bridge Pike.
- Install advanced warning signs for a crosswalk (W11-2) on the westbound and southbound channelized, right-turns.

Harding Pike and Eastern Driveway

- Remove the existing curb cut.

Harding Pike and Middle Driveway

- Modify the signal to include protected-permissive left-turn phasing on the southbound approach.
- If feasible with the adjacent intersection, make the intersection a protected intersection for pedestrians.

Harding Pike and Western Driveway

- Modify the southbound approach to restrict turning movements to right-in/right-out only.

Signal Timing Optimization and Coordination

- Signal timings at all the signalized study intersections should be optimized upon completion of the development.

Parking, Valet, and Rideshare Accommodations

- Parking should be developed per code.
- All rideshare operations should take place on-site and not block traffic on Harding Pike.
- Signage should be place near the project site to direct rideshare drivers to the designated drop-off areas.

Travel Demand Management

- It is recommended that the development provide employees, residents, and customers extensive information about area transit service including routes, nearby stops, and schedules. This information may be provided by an informational kiosk, maps, or posters at prominent locations.
- Parking/storage options should be provided for bicycles on-site.

- Off-peak loading and deliveries for the development should be encouraged to minimize impacts to traffic operations.

Pedestrian, Bicycle, and Transit Information

- Provide and/or improve crosswalks, detectable warning mats, and curb ramps at the study intersections.
- Leading pedestrian intervals (LPI) should be taken into consideration at the signalized study intersections.
- Coordinate with WeGo and NDOT on transit improvements in the study area.
- A 10-foot-wide sidewalk with a 4-foot-wide planting strip should be constructed from the Middle Driveway to the western property line.
- An 8-foot-wide sidewalk with a 4-foot-wide planting strip should be constructed from the Middle Driveway to the eastern property line.

Additional Recommendations

- Approximately 12 feet of right-of-way should be dedicated along White Bridge Pike to accommodate the potential future widening of the bridge.
- As part of the construction of the project, all internal and external driveway connections should be designed such that the departure sight triangles, as specified by AASHTO, will be clear of all sight obstructions, including landscaping, existing vegetation, monument signs/walls, fences, etc.
- Final design of internal roadways and parking should meet all Metro Nashville standards and the latest version of "A Policy of Geometric Design of Highways and Streets" published by AASHTO. Any parking lots and streets associated with the development should ensure that passenger cars and emergency vehicles are capable of making all turning movements. Internal intersections should be two-way stop-controlled unless all-way stop control warrants are met.

In summary, based on the analyses conducted, no further recommendations are presented for the proposed Belle Meade developments.

1. INTRODUCTION AND PROJECT DESCRIPTIONS

The purpose of this study is to analyze the traffic impacts and access plan associated with three proposed developments located in the Belle Meade area of Nashville, Tennessee. The projects included in the analyses are the Harding Town Center (HTC), 4416 Ridgefield Way (RW), and Belle Meade Plaza (BMP) developments. The current site plans for the developments are shown in Appendix A. Figure 1 shows the location of the project sites.

In this study, the current operating characteristics of the adjacent roadways and intersections in the vicinity of the project site are evaluated. The expected trips generated by the proposed development are determined and distributed to the roadway network. The adjacent roadways and intersections are then reevaluated to determine the anticipated traffic impacts of the project. Finally, recommendations are presented, including roadway improvements and/or traffic control improvements that are needed to accommodate the expected traffic.

The scope of work for this study, as described above, was determined via scoping meetings and emails between KCI Technologies and Nashville Department of Transportation (NDOT). The scoping notes are included in Appendix B.

FIGURE 1. LOCATION OF THE PROJECT SITES

N

Location of the Project Site
(Not to Scale)

Figure 1.

1.1 Harding Town Center (HTC)

The proposed Harding Town Center development includes approximately 332 multi-family residential units, 30,000 square feet of a high-turnover (sit-down) restaurant, 5,000 square feet of a coffee/donut shop without a drive-through, 9,000 square feet of a day care center, 9,000 square feet of a walk-in bank, 9,000 square feet of a health/fitness club, 40,000 square feet of office space, 160,000 square feet of a medical-dental office building, and a 125-room hotel.

As shown by Figure 1, the property is located along Harding Pike north of the intersection of Harding Pike and Kenner Avenue. The property is generally bounded on the north by Richland Creek, on the west by commercial development, on the south by Harding Pike, and on the east by Bosley Springs Road.

The Harding Town Center development will have two internal roadways (central access road and connector road). Access to the development is planned to be provided by four driveways, one on the central access road, two on the connector road, and one on Bosley Springs Road. Surface parking and structured parking are planned to accommodate the proposed development.

1.2 4416 Ridgefield Way (RW)

The proposed 4416 Ridgefield Way development includes approximately 60,000 square feet of grocery store space and 250 new multi-family units. It should be noted that there are currently 54 multi-family units already on the project site.

As shown by Figure 1, the property is located along Harding Pike east of the intersection of Harding Pike and Ridgefield Way. The property is currently zoned MUL (Mixed-Use Limited) but is intended to be rezoned to SP (Specific Plan). The property is generally bounded on the north by Harding Pike, on the west by Ridgefield Way, on the south by Ridgefield Drive, and on the east by residential development.

Based on current site plan, proposed vehicular access for the development is planned to be provided by three existing driveways, one on Harding Pike, one on Ridgefield Way, and one on Ridgefield Drive. Structured parking is planned to accommodate the proposed development.

1.3 Belle Meade Plaza (BMP)

The proposed Belle Meade Plaza development includes approximately 70,000 square feet of retail, 440 multifamily housing units, and a 150-room hotel.

As shown by Figure 1, the property is located along Harding Pike west of the intersection of Harding Pike and White Bridge Pike/Woodmont Boulevard. The property is currently zoned MUL (Mixed-Use Limited) but is intended to be rezoned to SP (Specific Plan). The property is generally bounded on the north by a CSX rail line, on the west by a vacant parcel, on the south by Harding Pike, and on the east by White Bridge Pike.

Based on current site plan, proposed vehicular access for the development is planned to be provided by two driveways on Harding Pike. The existing eastern curb cut is planned to be removed and the existing western curb cut will be restricted to right-in/right-out only. Additional access will be provided by an access easement under White Bridge Pike. Structured parking and surface parking are planned to accommodate the proposed development.

2. EXISTING CONDITIONS

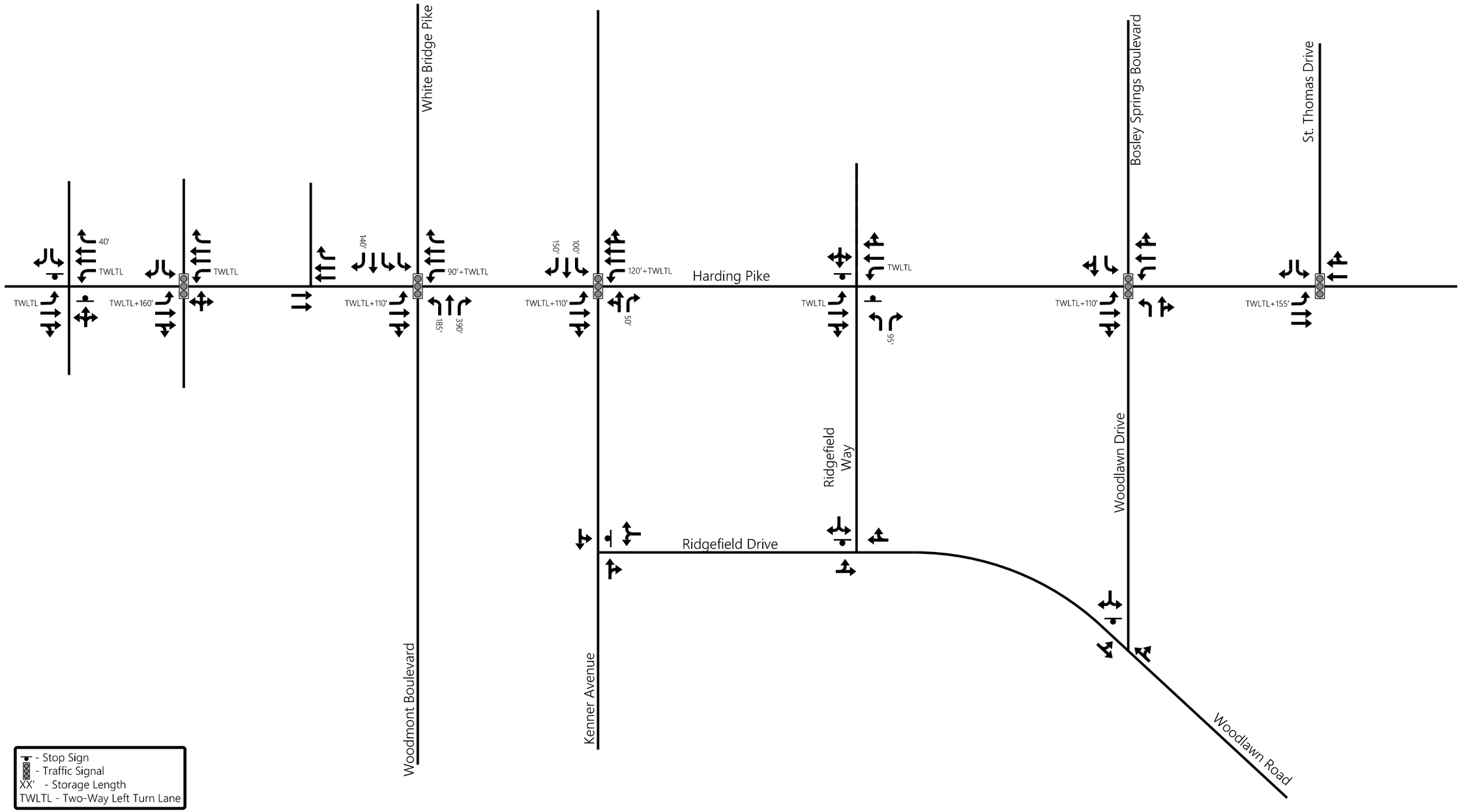
2.1 Existing Roadway Network

Local access to the site will be provided by Harding Pike, White Bridge Pike, Woodmont Boulevard, Kenner Avenue, Ridgefield Way, Woodlawn Drive, Bosley Springs Road, South Thomas Drive, and Ridgefield Drive. A field inventory of the study network was conducted. The roadway classifications were obtained from Metro Nashville's *Major and Collector Street Plan* (MCSP). If no speed limit is posted, Nashville's current *Code of Ordinances* sets the maximum speed limit for a road in an urban district as 25 mph in the absence of a posted speed limit. A description of these roadways within the project vicinity is presented in Table 1.

TABLE 1. DESCRIPTION OF STUDY ROADWAYS

ROADWAY NAME	DIRECTION	NUMBER OF LANES			MCSP CLASSIFICATION	POSTED SPEED LIMIT (mph)
		EB/NB	WB/SB	TWLTL		
Harding Pike	East-West	2	2	1	Arterial Boulevard (T5-M-AB6-IM)	40
White Bridge Pike	North-South	2	2	1	Arterial Boulevard (T4-R-AB5-IM)	40
Woodmont Boulevard	North-South	1	1	--	Arterial Boulevard (T5-M-AB3-LM)	40
Kenner Avenue	North-South	1	1	--	Collector Avenue (T5-M-CA2)	25
Ridgefield Way	North-South	1	1	--	Planned Collector Avenue (T5-M-PCA2)	Not Posted
Woodlawn Drive	North-South	1	1	--	Collector Avenue (T4-R-CA2)	30
Bosley Springs Road	North-South	1	1	--	Local	Not Posted
South Thomas Drive	North-South	1	1	--	Local	Not Posted
Ridgefield Drive	East-West	1	1	--	Collector Avenue (T3-R-CA2)	30

The study area includes eleven existing intersections. The existing laneage at the study intersections is illustrated in Figure 2.



Existing Laneage
(Not to Scale)

Figure 2.

2.2 Existing Pedestrian Infrastructure

Sidewalk is currently provided on the south side of Harding Pike, the west side of Woodmont Boulevard, the east side of Ridgefield Way, and the east side of Bosley Springs Road. Additionally, intermittent sidewalk is currently provided on the north side of Harding Pike, both sides of Kenner Avenue, the west side of Ridgefield Way, and both sides of Ridgefield Drive. No sidewalk is currently provided on Woodlawn Drive.

A detailed inventory of the pedestrian infrastructure at the study intersections is presented in Table 2A and Table 2B.

A map detailing the existing and needed pedestrian infrastructure as well as recommended improvements for pedestrian infrastructure within the study area are provided in Chapter 5 – Multimodal Infrastructure and Operations.

TABLE 2A. PEDESTRIAN INFRASTRUCTURE INVENTORY – CORNER

INTERSECTION	INFRASTRUCTURE	North Leg East Side	North Leg West Side	South Leg East Side	South Leg West Side	East Leg North Side	East Leg South Side	West Leg North Side	West Leg South Side
Harding Pike and White Bridge Pike/Woodmont Boulevard	Detectable Warning Mat	✓	✓		✓	✓	✓	✓	✓
	ADA Ramp	✓	✓	✓	✓	✓	✓	✓	✓
Harding Pike and Kenner Avenue	Detectable Warning Mat	✓				✓			
	ADA Ramp	✓	✓	✓	✓	✓	✓	✓	✓
Harding Pike and HTC Access/Ridgefield Way	Detectable Warning Mat			✓	✓				
	ADA Ramp		✓	✓	✓				
Harding Pike and Bosley Springs Road/Woodlawn Drive	Detectable Warning Mat		✓					✓	
	ADA Ramp	✓	✓	✓	✓	✓	✓	✓	✓
Harding Pike and Saint Thomas Drive	Detectable Warning Mat			--	--				
	ADA Ramp			--	--				
Kenner Avenue and Ridgefield Drive	Detectable Warning Mat	✓				✓			
	ADA Ramp	✓				✓			
Ridgefield Drive and Ridgefield Way	Detectable Warning Mat	✓	✓	--	--				
	ADA Ramp	✓	✓	--	--				
Woodlawn Drive and Ridgefield Drive	Detectable Warning Mat								
	ADA Ramp								
Harding Pike and BMP Eastern Driveway	Detectable Warning Mat								
	ADA Ramp								
Harding Pike and BMP Central Driveway	Detectable Warning Mat						✓		
	ADA Ramp						✓		
Harding Pike and BMP Western Driveway	Detectable Warning Mat								
	ADA Ramp								

✓ – Pedestrian Infrastructure Currently Available
-- – Not Applicable

TABLE 2B. PEDESTRIAN INFRASTRUCTURE INVENTORY – LEG

INTERSECTION	INFRASTRUCTURE	North	South	East	West
Harding Pike and White Bridge Pike/Woodmont Boulevard	Crosswalk	✓	✓	✓	✓
	Signal Head	✓	✓	✓	✓
Harding Pike and Kenner Avenue	Crosswalk	✓	✓	✓	
	Signal Head			✓	
Harding Pike and HTC Access/Ridgefield Way	Crosswalk		✓		
	Signal Head				
Harding Pike and Bosley Springs Road/Woodlawn Drive	Crosswalk	✓	✓	✓	
	Signal Head	✓	✓	✓	
Harding Pike and Saint Thomas Drive	Crosswalk		--	✓	
	Signal Head		--	✓	
Kenner Avenue and Ridgefield Drive	Crosswalk				
	Signal Head				
Ridgefield Drive and Ridgefield Way	Crosswalk	✓	--		
	Signal Head		--		
Woodlawn Drive and Ridgefield Drive	Crosswalk				
	Signal Head				
Harding Pike and BMP Eastern Driveway	Crosswalk				
	Signal Head				
Harding Pike and BMP Central Driveway	Crosswalk			✓	
	Signal Head			✓	
Harding Pike and BMP Western Driveway	Crosswalk				
	Signal Head				

✓ – Pedestrian Infrastructure Currently Available
-- – Not Applicable

2.3 Existing Bicycle Facilities

Within the study area, Woodlawn Drive is a shared roadway. Bicycle lanes are provided on both sides of Woodmont Boulevard but terminate approximately 500 feet south of the intersection.

Additionally, the Richland Creek Greenway terminates onto Kenner Avenue to the east of White Bridge Pike. This greenway is accessible from the project site via an easement

that travels under White Bridge Pike. This greenway provides connections to bike routes in Sylvan Park, the Nations, and Midtown.

According to the MCSP, bike lanes are planned on Harding Pike, Woodmont Boulevard, and Woodlawn Drive between Harding Pike and Ridgefield Drive.

A map detailing the existing and planned bicycle improvements within the study area is included in Chapter 5 – Multimodal Infrastructure and Operations.

2.4 Existing Transit Services and Facilities

The study area has access to WeGo Route #3 (West End). A summary of the bus routes is included in Table 3.

TABLE 3. WEGO BUS ROUTE SUMMARY

TRANSIT ROUTE		TERMINAL 1	TERMINAL 2	WEEKDAY INTERVAL	WEEKEND INTERVAL
#	Name				
3	West End	Central Station	Coley Davis Rd Shelter Park-N-Ride	10-15	20-30

An inventory of the transit stops located within the study area is included in Table 4. All transit stops within the study area should include at least a sign and a concrete landing. Benches and bus shelters should be considered to enhance the facilities and encourage ridership.

TABLE 4. TRANSIT STOP INVENTORY

TRANSIT ROUTE	STOP NAME	DIRECTION	TRANSIT SIGN	CONCRETE LANDING	BENCH	SHELTER
#3 (West End)	Harding Pike and White Bridge	Westbound	✓	✓		
	Harding Pike & Woodmont Blvd	Eastbound	✓	✓	✓	
	West End Ave & Kenner Ave	Eastbound	✓	✓	✓	
	Harding Pike & Bosley Springs Rd	Westbound	✓			
	Harding Pike and Woodlawn Dr	Eastbound	✓	✓	✓	
	Harding Pike and Bosley Springs Rd	Westbound	✓	✓	✓	

A map detailing the existing transit services and infrastructure as well as the transit infrastructure within the study area are provided in Chapter 5 – Multimodal Infrastructure and Operations.

2.5 Existing Traffic Volumes

In order to provide data for the traffic impact analysis, traffic counts were conducted at the following intersections:

1. Harding Pike and White Bridge Pike/Woodmont Boulevard (signalized)
2. Harding Pike and Kenner Avenue (signalized)
3. Harding Pike and HTC Access/Ridgefield Way (unsignalized)
4. Harding Pike and Bosley Springs Road/Woodlawn Drive (signalized)
5. Harding Pike and Saint Thomas Drive (signalized)
6. Kenner Avenue and Ridgefield Drive (unsignalized)
7. Ridgefield Drive and Ridgefield Way (unsignalized)
8. Woodlawn Drive and Ridgefield Drive (unsignalized)
9. Harding Pike and BMP Eastern Access (unsignalized)
10. Harding Pike and BMP Central Access (signalized)
11. Harding Pike and BMP Western Access (unsignalized)

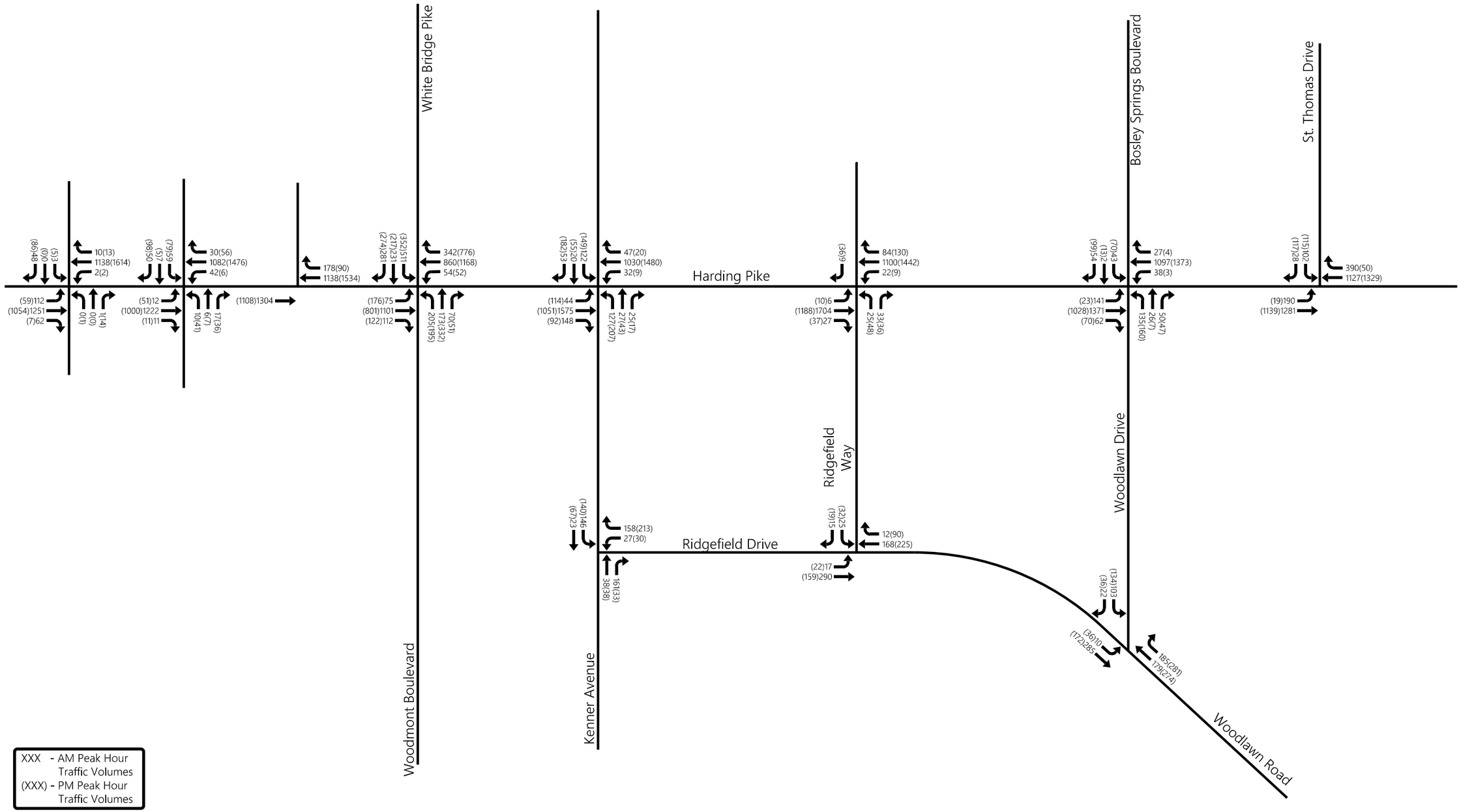
Specifically, KCI Technologies, Inc. and Marr Traffic Data Collection conducted the traffic counts from 7:00 – 9:00 AM and 4:00 – 6:00 PM on a typical weekday in May 2022 and November 2022, respectively, while local schools were in session.

The existing peak hour turning movement volumes are presented in Figure 3. A detailed summary of the traffic counts is included in Appendix C.

In addition to the above information, average daily traffic volumes were obtained from the Tennessee Department of Transportation (TDOT). There are five TDOT count stations located in the vicinity of the project site. The count station locations and annual average daily traffic (AADT) in 2021 are shown in Table 5. Additional TDOT count station data is included in Appendix D.

TABLE 5. TDOT COUNT STATION DATA

ROADWAY	LOCATION	STATION NO.	2021 AADT (vpd)
Harding Pike	Between Lynnwood Terrace and White Bridge Pike/Woodmont Boulevard	181	33,357
Woodmont Boulevard	Between Park Manor Boulevard and Kenner Avenue	065	12,285
Kenner Avenue	South of the intersection of Harding Pike and Ridgefield Drive	508	3,406
Bosley Springs Road	North of the intersection of Thomas Drive and Harding Pike	632	6,129
Harding Pike	Between Bell Avenue and Cherokee Road	067	36,062



XXX - AM Peak Hour Traffic Volumes
(XXX) - PM Peak Hour Traffic Volumes

Existing Peak Hour Traffic Volumes
(Not to Scale)

Figure 3.

2.6 Existing Traffic Operations

To determine the current operation of the study intersections, capacity analyses were performed for the AM and PM peak hours. The capacity calculations were performed according to the methods outlined in the *Highway Capacity Manual*, 6th Edition. The capacity analyses result in the determination of a Level of Service (LOS) for an intersection. The LOS is a concept used to describe how well an intersection or roadway operates. LOS A is the best, while LOS F is the worst. LOS D is typically considered as the minimum acceptable LOS for an intersection in an urbanized area. For stop-controlled intersections, a LOS is presented for each critical turning movement. For signalized intersections, a LOS is presented for the overall intersection. Table 6 presents the descriptions of LOS for signalized and unsignalized intersections.

TABLE 6. DESCRIPTIONS OF LEVEL OF SERVICE

LEVEL OF SERVICE	DESCRIPTION	UNSIGNALIZED CONTROL DELAY (sec/veh)	SIGNALIZED CONTROL DELAY (sec/veh)
A	Little or no delay	≤ 10.0	≤ 10.0
B	Short traffic delay	>10 and ≤ 15	>10 and ≤ 20
C	Average traffic delay	>15 and ≤ 25	>20 and ≤ 35
D	Long traffic delay	>25 and ≤ 35	>35 and ≤ 55
E	Very long traffic delay	>35 and ≤ 50	>55 and ≤ 80
F	Extreme traffic delay	> 50.0	> 80.0

Source: *Highway Capacity Manual*, 6th Edition

The signal timing and phasing plan for the signalized intersections in the study area were obtained from NDOT and were utilized for the capacity analysis. The signal timing data is included in Appendix E.

It should be noted that BMP Eastern Driveway is a right-turn entrance only. The intersection was not evaluated as part of the capacity analysis as there are no conflicting movements.

The results of the capacity analyses for the existing conditions at the study intersections are presented in Table 7. As shown, all intersections and critical movements operate at LOS D or better in the AM and PM peak hours with the following exceptions:

- Harding Pike and White Bridge Pike/Woodmont Boulevard
    - The overall intersection operates at LOS E in the AM peak hour and LOS F in the PM peak hour.
- Harding Pike and Kenner Avenue
    - The overall intersection operates at LOS E in the PM peak hour.
- Harding Pike and HTC Access/Ridgefield Way
    - The northbound left-turn operates at LOS F in the AM and PM peak hours.
- Harding Pike and BMP Western Driveway
    - The southbound left-turn operates at LOS F in the AM and PM peak hours.

Capacity analyses worksheets are included in Appendix F.

TABLE 7. EXISTING PEAK HOUR LEVELS OF SERVICE

INTERSECTION	TURNING MOVEMENT	LEVEL OF SERVICE (Average Delay in sec/veh)	
		AM PEAK	PM PEAK
Harding Pike and White Bridge Pike/Woodmont Boulevard	Overall Intersection	E (63.5)	F (109.4)
Harding Pike and Kenner Avenue	Overall Intersection	D (35.1)	E (65.4)
Harding Pike and HTC Access/Ridgefield Way	Northbound Left-Turn	F (>300)	F (>300)
	Northbound Right-Turn	C (20.7)	B (14.9)
	Southbound Right-Turn	B (13.8)	C (17.7)
	Eastbound Left-Turn	B (11.8)	C (15.1)
	Westbound Left-Turn	C (17.4)	B (12.1)
Harding Pike and Bosley Springs Road/Woodlawn Drive	Overall Intersection	C (20.2)	C (25.6)
Harding Pike and Saint Thomas Drive	Overall Intersection	C (22.8)	B (14.6)
Kenner Avenue and Ridgefield Drive	Northbound Approach	A (8.5)	A (8.0)
	Southbound Approach	A (9.4)	A (9.8)
	Eastbound Approach	A (8.3)	A (7.6)
	Westbound Approach	A (8.8)	A (9.0)
Ridgefield Drive and Ridgefield Way	Southbound Approach	B (11.6)	B (11.9)
	Eastbound Left-Turn	A (7.7)	A (8.0)
Woodlawn Drive and Ridgefield Drive	Southbound Approach	A (9.4)	A (10.0)
	Eastbound Approach	B (11.2)	B (10.6)
	Westbound Approach	B (11.4)	C (19.1)

TABLE 7. EXISTING PEAK HOUR LEVELS OF SERVICE CONT.

INTERSECTION	TURNING MOVEMENT	LEVEL OF SERVICE (Average Delay in sec/veh)	
		AM PEAK	PM PEAK
Harding Pike and BMP Central Driveway	Overall Intersection	B (11.2)	B (17.1)
Harding Pike and BMP Western Driveway	Northbound Approach	B (14.2)	D (28.9)
	Southbound Left-Turn	F (194.9)	F (>300)
	Southbound Right-Turn	B (14.5)	C (23.0)
	Eastbound Left-Turn	B (13.3)	C (17.6)
	Westbound Left-Turn	B (12.6)	B (11.0)

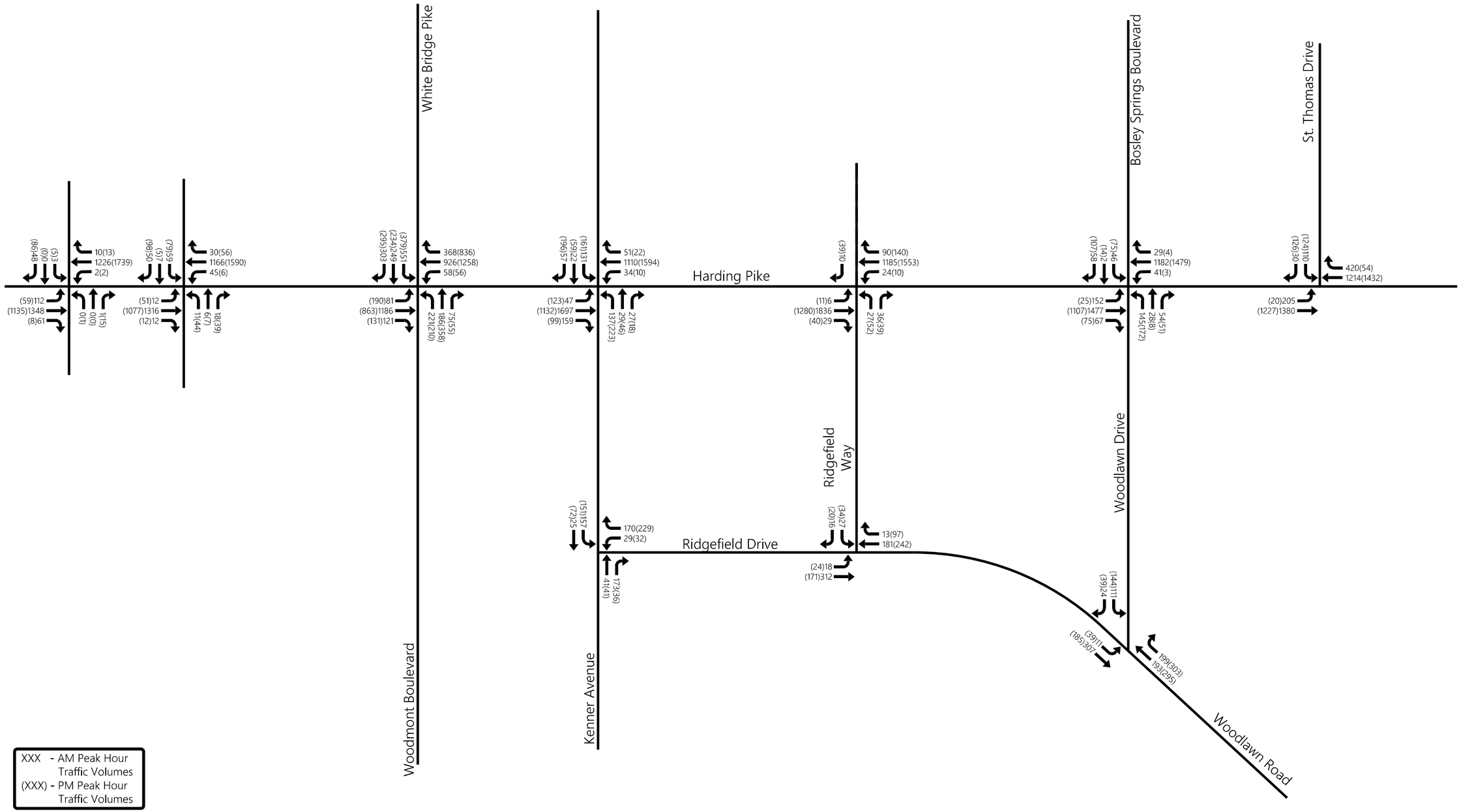
3. BACKGROUND TRAFFIC VOLUMES

3.1 Establishing Background Volumes

In order to account for the traffic growth prior to the completion of the proposed project, background traffic volumes were established for two background scenarios. For the purposes of this traffic study, the proposed 4416 Ridgefield Way and Belle Meade Plaza developments were assumed to be completed by the year 2027, which is a 5-year horizon. Additionally, the proposed Harding Town Center development was assumed to be completed by the year 2032, which is a 10-year horizon. Historical daily traffic volumes were obtained from the five TDOT count stations located in the vicinity of the project site. Since 2011, the combined traffic at these three TDOT count stations has decreased by an average of 0.7% per year. The TDOT count station data is included in Appendix D.

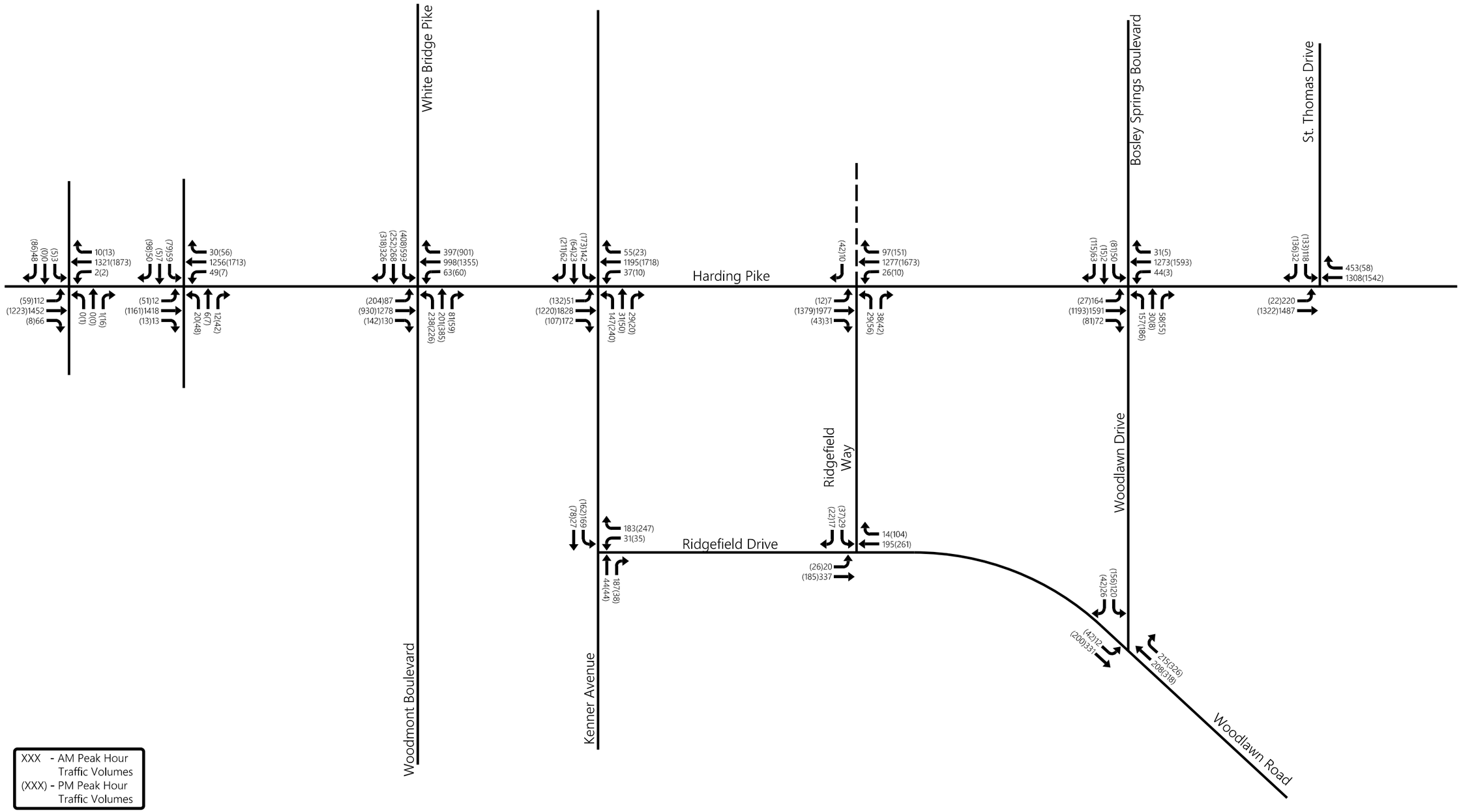
A growth factor was applied to the existing peak hour traffic volumes to account for background growth for the future conditions. Per scoping with NDOT, the existing peak hour traffic volumes at the study intersections were increased by 1.5% per year for five years and ten years to account for anticipated background traffic growth within the study area.

The background peak hour traffic volumes for horizon year 2027 and horizon year 2032 are presented in Figure 4 and Figure 5, respectively. These volumes represent the peak hour traffic that is expected to be on the roadway in 2027 and 2032 even if the proposed Belle Meade developments are not completed.



2027 Background Peak Hour Traffic Volumes
(Not to Scale)

Figure 4.



XXX - AM Peak Hour Traffic Volumes
(XXX) - PM Peak Hour Traffic Volumes

2032 Background Peak Hour Traffic Volumes
(Not to Scale)

Figure 5.

3.2 Background Traffic Operations

To determine the operation of the study area intersections under background conditions, capacity analyses were performed for the AM and PM peak hours. The analyses for the background conditions were based on the same lane configurations and signal timings as the existing conditions.

As shown in Tables 8A and 8B, under background conditions, the capacity analyses indicate that the operational performances of the critical movements at the study intersections are generally expected to continue to operate at the same level of service as under existing conditions or continue to operate at LOS D or better in the AM and PM peak hours with the following exceptions:

- Harding Pike and White Bridge Pike/Woodmont Boulevard
    - Between Background 2027 and Background 2032, the overall intersection is expected to deteriorate from LOS E to LOS F in the AM peak hour.
- Harding Pike and Kenner Avenue
    - Between Background 2027 and Background 2032, the overall intersection is expected to deteriorate from LOS D to LOS E in the AM peak hour and from LOS E to LOS F in the PM peak hour.
- Harding Pike and BMP Western Driveway
    - Between Existing and Background 2027, the northbound approach is expected to deteriorate from LOS D to LOS E in the PM peak hour.

Capacity analyses worksheets and 95th percentile queuing tables are included in Appendix F.

TABLE 8A. BACKGROUND AM PEAK HOUR LEVELS OF SERVICE

INTERSECTION	TURNING MOVEMENT	LEVEL OF SERVICE (Average Delay in sec/veh)		
		EXISTING	BACKGROUND	
			2027	2032
Harding Pike and White Bridge Pike/Woodmont Boulevard	Overall Intersection	E (63.5)	E (75.4)	F (91.6)
Harding Pike and Kenner Avenue	Overall Intersection	D (35.1)	D (46.1)	E (64.0)
Harding Pike and HTC Access/Ridgefield Way	Northbound Left-Turn	F (>300)	F (>300)	F (>300)
	Northbound Right-Turn	C (20.7)	C (23.2)	D (26.3)
	Southbound Right-Turn	B (13.8)	B (14.5)	C (15.3)
	Eastbound Left-Turn	B (11.8)	B (12.5)	B (13.2)
	Westbound Left-Turn	C (17.4)	C (19.4)	C (22.0)
Harding Pike and Bosley Springs Road/Woodlawn Drive	Overall Intersection	C (20.2)	C (22.2)	C (25.0)
Harding Pike and Saint Thomas Drive	Overall Intersection	C (22.8)	C (32.2)	D (45.9)
Kenner Avenue and Ridgefield Drive	Northbound Approach	A (8.5)	A (8.8)	A (9.2)
	Southbound Approach	A (9.4)	A (9.7)	B (10.0)
	Eastbound Approach	A (8.3)	A (8.5)	A (8.6)
	Westbound Approach	A (8.8)	A (9.1)	A (9.5)
Ridgefield Drive and Ridgefield Way	Southbound Approach	B (11.6)	B (12.0)	B (12.6)
	Eastbound Left-Turn	A (7.7)	A (7.7)	A (7.7)
Woodlawn Drive and Ridgefield Drive	Southbound Approach	A (9.4)	A (9.7)	B (10.2)
	Eastbound Approach	B (11.2)	B (12.0)	B (13.0)
	Westbound Approach	B (11.4)	B (12.4)	B (13.8)

TABLE 8A. BACKGROUND AM PEAK HOUR LEVELS OF SERVICE CONT.

INTERSECTION	TURNING MOVEMENT	LEVEL OF SERVICE (Average Delay in sec/veh)		
		EXISTING	BACKGROUND	
			2027	2032
Harding Pike and BMP Central Driveway	Overall Intersection	B (11.2)	B (11.6)	B (12.3)
Harding Pike and BMP Western Driveway	Northbound Approach	B (14.2)	B (14.9)	C (15.8)
	Southbound Left-Turn	F (194.9)	F (267.6)	F (>300)
	Southbound Right-Turn	B (14.5)	C (15.3)	C (16.3)
	Eastbound Left-Turn	B (13.3)	B (14.3)	C (15.0)
	Westbound Left-Turn	B (12.6)	B (13.4)	B (14.3)

TABLE 8B. BACKGROUND PM PEAK HOUR LEVELS OF SERVICE

INTERSECTION	TURNING MOVEMENT	LEVEL OF SERVICE (Average Delay in sec/veh)		
		EXISTING	BACKGROUND	
			2027	2032
Harding Pike and White Bridge Pike/Woodmont Boulevard	Overall Intersection	F (109.4)	F (135.4)	F (160.5)
Harding Pike and Kenner Avenue	Overall Intersection	E (65.4)	E (73.2)	F (82.2)
Harding Pike and HTC Access/Ridgefield Way	Northbound Left-Turn	F (>300)	F (>300)	F (>300)
	Northbound Right-Turn	B (14.9)	C (15.9)	C (17.2)
	Southbound Right-Turn	C (17.7)	C (19.3)	C (21.2)
	Eastbound Left-Turn	C (15.1)	C (16.4)	C (18.1)
	Westbound Left-Turn	B (12.1)	B (12.9)	B (13.7)
Harding Pike and Bosley Springs Road/Woodlawn Drive	Overall Intersection	C (25.6)	C (28.4)	C (33.0)
Harding Pike and Saint Thomas Drive	Overall Intersection	B (14.6)	B (15.7)	B (17.2)
Kenner Avenue and Ridgefield Drive	Northbound Approach	A (8.0)	A (8.2)	A (8.3)
	Southbound Approach	A (9.8)	B (10.1)	B (10.6)
	Eastbound Approach	A (7.6)	A (7.7)	A (7.8)
	Westbound Approach	A (9.0)	A (9.4)	A (9.8)
Ridgefield Drive and Ridgefield Way	Southbound Approach	B (11.9)	B (12.3)	B (12.8)
	Eastbound Left-Turn	A (8.0)	A (8.1)	A (8.2)
Woodlawn Drive and Ridgefield Drive	Southbound Approach	A (10.0)	A (10.5)	A (11.2)
	Eastbound Approach	B (10.6)	B (11.3)	B (12.1)
	Westbound Approach	C (19.1)	C (24.7)	D (34.9)

TABLE 8B. BACKGROUND PM PEAK HOUR LEVELS OF SERVICE CONT.

INTERSECTION	TURNING MOVEMENT	LEVEL OF SERVICE (Average Delay in sec/veh)		
		EXISTING	BACKGROUND	
			2027	2032
Harding Pike and BMP Central Driveway	Overall Intersection	B (17.1)	B (18.1)	B (19.5)
Harding Pike and BMP Western Driveway	Northbound Approach	D (28.9)	E (35.9)	E (47.7)
	Southbound Left-Turn	F (>300)	F (>300)	F (>300)
	Southbound Right-Turn	C (23.0)	D (26.0)	D (30.0)
	Eastbound Left-Turn	C (17.6)	C (19.7)	C (22.4)
	Westbound Left-Turn	B (11.0)	B (11.5)	B (12.1)

4. IMPACTS

4.1 Trip Generation

A traffic generation process was used to estimate the amount of traffic expected to be generated by the proposed developments. Factors for the trip generation were taken from ITE's *Trip Generation*, 11th Edition.

Data presented in the ITE publication, *Trip Generation Handbook*, show that developments containing multiple land uses will commonly have internal trips. A process was used to estimate the number of internal trips that can be expected between land uses based on methodology presented in NCHRP Report 684, "Enhancing Internal Trip Capture Estimation for Mixed-Use Developments." The methodology contained in the NCHRP Report expands on ITE's methodology, including additional land uses and supporting data.

Furthermore, the developments are located in an urban setting with access to pedestrian, bicycle, and transit facilities. As such, an 8% reduction in the number of trips generated by the developments was taken to account for trips made by alternative modes. Trip generation calculations for each development are presented in Appendix G.

4.2 Harding Town Center - Trip Generation

According to the developer, the proposed Harding Town Center development includes approximately 332 multi-family residential units, 30,000 square feet of a high-turnover (sit-down) restaurant, 5,000 square feet of a coffee/donut shop without a drive-through, 9,000 square feet of a day care center, 9,000 square feet of a walk-in bank, 9,000 square feet of a health/fitness club, 40,000 square feet of office space, 160,000 square feet of a medical-dental office building, and a 125-room hotel.

The internal trip reduction process resulted in the following internal capture rate estimates:

- 19.4% internal capture rate for the daily trip generation,
- 20.5% internal capture rate for entering trips in the AM peak hour,
- 30.3% internal capture rate for exiting trips in the AM peak hour,
- 16.4% internal capture rate for entering trips in the PM peak hour, and
- 12.8% internal capture rate for exiting trips in the PM peak hour.

Table 9 presents the daily, AM and PM peak hour trip generation for the proposed development. As shown in Table 9, the proposed development can be expected to generate approximately 9,839 new vehicle trips per day. The AM and PM peak hour trip generations will equal approximately 1,113 and 1,232 new trips, respectively. These trips represent the new traffic that will be generated by the proposed Harding Town Center development. The Phase 1 and Phase 2 breakdown of trips is presented in Appendix G.

TABLE 9. DEVELOPMENT TRIP GENERATION – HARDING TOWN CENTER

LAND USE	SIZE	GENERATED TRAFFIC				
		DAILY TRAFFIC	AM PEAK		PM PEAK	
			Enter	Exit	Enter	Exit
Multi-Family Housing (Mid-Rise) (LUC 221)	262 units	1,203	24	80	63	40
High-Turnover (Sit-Down) Restaurant (LUC 932)	30,000 s.f.	3,216	158	129	166	106
Coffee/Donut Shop without Drive-Through (LUC 936)	5,000 s.f.	N/A	237	228	81	80
Day Care Center (LUC 565)	9,000 s.f.	429	52	47	47	53
Walk-In Bank (LUC 911)	9,000 s.f.	N/A	N/A	N/A	48	61
Health/Fitness Club (LUC 492)	9,000 s.f.	N/A	6	6	18	13
Office (LUC 710)	40,000 s.f.	434	54	7	10	48
Medical-Dental Office Building (LUC 720)	160,000 s.f.	6,767	392	104	189	440
Hotel (LUC 310)	125 rooms	931	31	24	38	36
Multi-Family Housing (Mid-Rise) (LUC 221)	70 units	287	4	15	17	11
SUBTOTAL		**13,267**	**958**	**640**	**677**	**888**
			1,598		**1,565**	
Internal Trips Reduction		*-2,573*	*-196*	*-194*	*-111*	*-114*
SUBTOTAL		**10,694**	**762**	**446**	**566**	**774**
			1,208		**1,340**	
Alternative Mode Reduction		*-855*	*-60*	*-35*	*-46*	*-62*
NEW TRIPS		**9,839**	**702**	**411**	**520**	**712**
			1,113		**1,232**	

Source: *Trip Generation*, 11th Edition

4.3 4416 Ridgefield Way - Trip Generation

According to the developer, the proposed 4416 Ridgefield Way development includes approximately 60,000 square feet of grocery store space and 250 new multi-family units. As previously mentioned, there are currently 54 multi-family units already on the project site.

The internal trip reduction process resulted in the following internal capture rate estimates:

- 10.6% internal capture rate for the daily trip generation,
- 1.5% internal capture rate for entering trips in the AM peak hour,
- 1.2% internal capture rate for exiting trips in the AM peak hour,
- 18.7% internal capture rate for entering trips in the PM peak hour, and
- 20.9% internal capture rate for exiting trips in the PM peak hour.

Additionally, studies have shown that some service/retail developments generate a reduced number of "new" trips. The traffic volumes entering and exiting these service/retail sites are usually either captured ("pass-by") trips from the adjacent street or diverted trips from street serving other destinations. This traffic is already existing on the roadway system and will be passing by the site even if the proposed development is not constructed.

Data presented in the *Trip Generation Handbook* indicate average pass-by percentages for typical peak periods based on the size and type of various land usage. ITE indicates that the average daily pass-by percentage for a grocery store is approximately 24%.

Conservatively, pass-by rates for the grocery store were assumed to be 20%. Therefore, 32 of the total AM and 90 of the total PM peak hour external trips generated by the proposed development were assumed to be pass-by trips.

Table 10 presents the daily, AM and PM peak hour trip generation for the proposed development. As shown in Table 10, the proposed development can be expected to generate approximately 4,960 new vehicle trips per day. The AM and PM peak hour trip generations will equal approximately 235 and 416 new trips, respectively. These trips represent the new traffic that will be generated by the proposed 4416 Ridgefield Way development.

TABLE 10. DEVELOPMENT TRIP GENERATION – 4416 RIDGEFIELD WAY

LAND USE	SIZE	GENERATED TRAFFIC				
		DAILY TRAFFIC	AM PEAK		PM PEAK	
			Enter	Exit	Enter	Exit
Supermarket (LUC 850)	60,000 s.f.	5,630	101	71	268	269
Multi-Family Housing (Mid-Rise) (LUC 221)	304 units	1,404	28	94	73	46
SUBTOTAL		**7,034**	**129**	**165**	**341**	**315**
			294		**656**	
Internal Trips Reduction		*-616*	*-2*	*-2*	*-53*	*-53*
SUBTOTAL		**6,418**	**127**	**163**	**288**	**262**
			290		**550**	
Alternative Mode Reduction		*-513*	*-10*	*-13*	*-23*	*-21*
SUBTOTAL		**5,905**	**117**	**150**	**265**	**241**
			267		**506**	
Pass-By Trips		*-945*	*-16*	*-16*	*-45*	*-45*
NEW TRIPS		**4,960**	**101**	**134**	**220**	**196**
			235		**416**	

Source: *Trip Generation*, 11th Edition

4.4 Belle Meade Plaza - Trip Generation

According to the developer, the proposed development includes approximately 70,000 square feet of retail, 440 multifamily housing units, and a 150-room hotel.

The internal trip reduction process resulted in the following internal capture rate estimates:

- 14.2% internal capture rate for the daily trip generation,
- 3.2% internal capture rate for entering trips in the AM peak hour,
- 2.3% internal capture rate for exiting trips in the AM peak hour,
- 24.4% internal capture rate for entering trips in the PM peak hour, and
- 27.0% internal capture rate for exiting trips in the PM peak hour.

Table 11 presents the daily, AM and PM peak hour trip generation for the proposed development. As shown in Table 11, the proposed development can be expected to generate approximately 6,301 new vehicle trips per day. The AM and PM peak hour trip generations will equal approximately 332 and 427 new trips, respectively. These

trips represent the new traffic that will be generated by the proposed Belle Meade Plaza development.

TABLE 11. DEVELOPMENT TRIP GENERATION – BELLE MEADE PLAZA

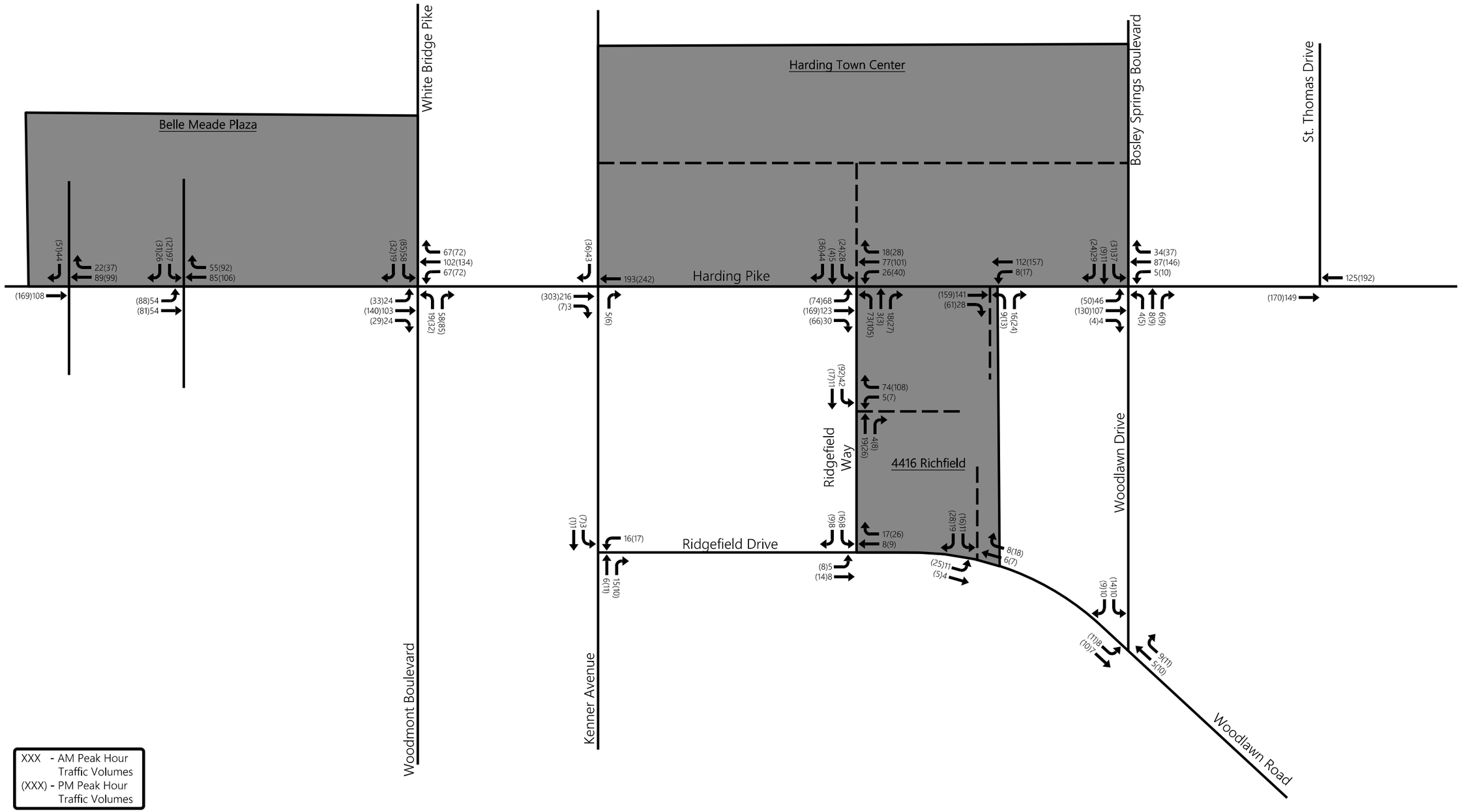
LAND USE	SIZE	GENERATED TRAFFIC				
		DAILY TRAFFIC	AM PEAK		PM PEAK	
			Enter	Exit	Enter	Exit
Shopping Plaza – Without Supermarket (LUC 821)	70,000 s.f.	4,726	75	46	178	185
Multifamily Housing (Mid-Rise) (LUC 221)	440 units	2,052	42	140	105	67
Hotel (LUC 310)	150 rooms	1,202	38	30	45	44
SUBTOTAL		**7,980**	**155**	**216**	**328**	**296**
			371		**624**	
Internal Trips Reduction		*-1,131*	*-5*	*-5*	*-80*	*-80*
SUBTOTAL		**6,849**	**150**	**211**	**248**	**216**
			361		**464**	
Alternative Mode Reduction		*-548*	*-12*	*-17*	*-20*	*-17*
NEW TRIPS		**6,301**	**138**	**194**	**228**	**199**
			332		**427**	

Source: *Trip Generation*, 11th Edition

4.5 Trip Distribution and Traffic Assignment

An overall directional distribution of the total traffic generated by the proposed project was established based on the proposed access, the existing roadway network, and the existing travel patterns developed from the existing peak hour traffic counts.

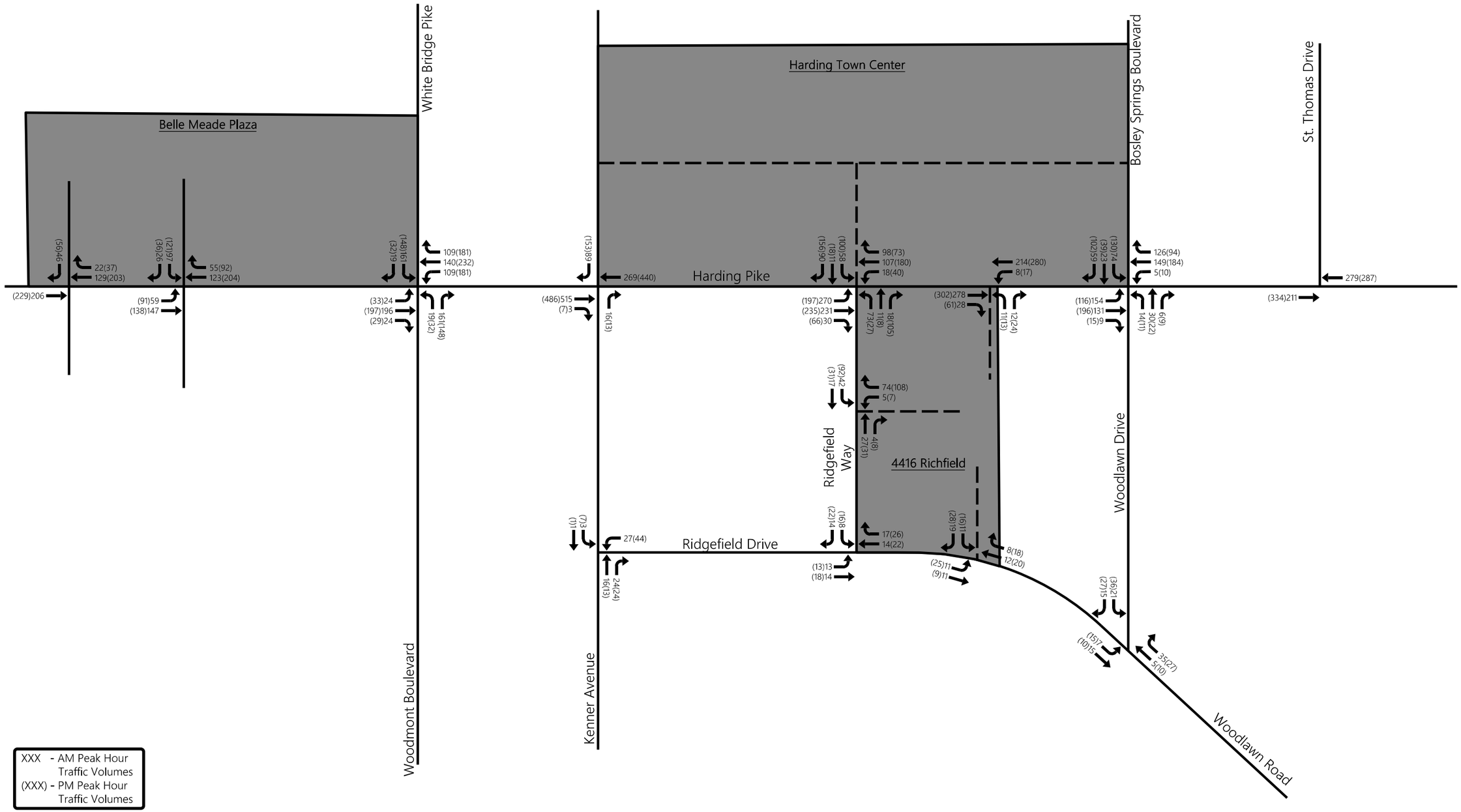
VISTRO software was utilized to develop the trip distribution and assignment for each development. VISTRO has the capability to identify vehicle paths (routes) to and from the project site and allocate a percentage of the trip generation to each entering path and exiting path. Vehicle paths were specifically developed for each parcel in order to provide a detailed analysis of the public street network and the proposed parcel access points. The traffic assignment for each proposed development is presented in Appendix H. The 2027 assignment for 4416 Ridgefield Way, Belle Meade Plaza, and phase 1 of Harding Town Center is presented in Figure 6. The 2032 assignment for all the developments is presented in Figure 7.



XXX - AM Peak Hour Traffic Volumes
(XXX) - PM Peak Hour Traffic Volumes

2027 Total Assignment of Peak Hour Trips Generated by the Project Sites
(Not to Scale)

Figure 6.



XXX - AM Peak Hour Traffic Volumes
(XXX) - PM Peak Hour Traffic Volumes

2032 Total Assignment of Peak Hour Trips Generated by the Project Sites
(Not to Scale)

Figure 7.

4.6 Capacity / Level of Service Analyses

The total site-generated traffic volumes for the 4416 Ridgefield Way and Belle Meade Plaza developments and Phase 1 of the site-generated traffic volumes for the Harding Town Center development were added to the background 2027 peak hour traffic volumes for the proposed developments in order to obtain the total projected 2027 traffic volumes for the study intersections. Additionally, the total site-generated traffic volumes for all of the developments were added to the background 2032 peak hour traffic volumes for the proposed developments in order to obtain the total projected 2032 traffic volumes for the study intersections. It should be noted that the trips generated by the existing retail establishments on the Belle Meade Plaza site removed from the network. The removed trips are presented in Appendix H. The projected 2027 and projected 2032 AM and PM peak hour traffic volumes expected at the completion of the proposed developments are presented in Figure 8 and Figure 9, respectively.

Capacity analyses were performed in order to determine the impact of the project on the study intersections. These capacity analyses were also used to evaluate the need for roadway and traffic control improvements at the intersections studied. The capacity calculations were performed according to the methods outlined in the *Highway Capacity Manual*, 6th Edition. The results of the capacity analyses for the projected conditions at the study area intersections are presented in Tables 12A and 12B. For the analyses, the intersection configurations and signal timings were the same as the existing and background conditions.

As shown in Tables 12A and 12B, under projected conditions, the capacity analyses indicate that the operational performances of the critical movements at the study intersections are generally expected to continue to operate at the same level of service as under background conditions or continue to operate at LOS D or better in the AM and PM peak hours with the following exceptions:

- Harding Pike and White Bridge Pike/Woodmont Boulevard
    - Between Background 2027 and Projected 2027, the overall intersection is expected to deteriorate from LOS E to LOS F in the AM peak hour.
- Harding Pike and Kenner Avenue
    - Between Background 2027 and Projected 2027, the overall intersection expected to deteriorate from LOS D to LOS E in the AM peak hour and from LOS E to LOS F in the PM peak hour. Additionally, between Background 2032 and Projected 2032, the overall intersection is expected to deteriorate from LOS E to LOS F in the AM peak hour.

- Harding Pike and Ridgefield Way
    - Between Background 2027 and Projected 2027, the northbound right-turn is expected to deteriorate from LOS C to LOS F in the AM and PM peak hour. Additionally, between Background 2032 and Projected 2032, the northbound right-turn is expected to deteriorate from LOS D to LOS F in the AM peak hour and LOS C to LOS F in the PM peak hour.
    - Between Background 2027 and Projected 2027, the southbound right-turn is expected to deteriorate from LOS B to LOS F in the AM peak hour and LOS C to LOS F in the PM peak hour. Additionally, between Background 2032 and Projected 2032, the southbound right-turn is expected to deteriorate from LOS C to LOS F in the AM and PM peak hour.
    - Between Background 2032 and Projected 2032, the eastbound left-turn is expected to deteriorate from LOS C to LOS F in the PM peak hour.
- Harding Pike and Bosley Springs Road/Woodlawn Drive
    - Between Background 2032 and Projected 2032, the overall intersection is expected to deteriorate from LOS C to LOS E in the AM and PM peak hour.
- Woodlawn Drive and Ridgefield Drive
    - Between Background 2032 and Projected 2032, the westbound approach is expected to deteriorate from LOS D to LOS F in the PM peak hour.

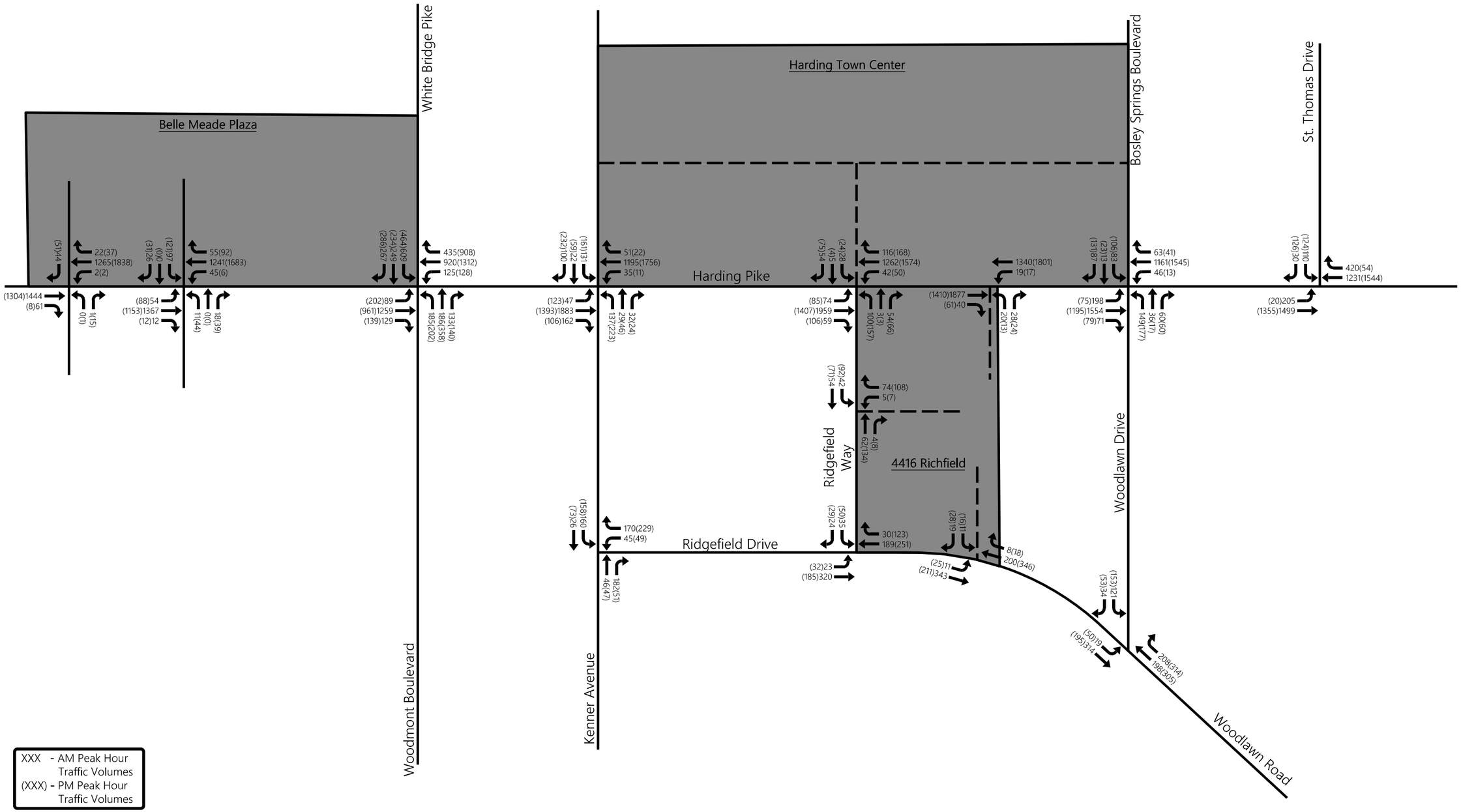
Additional analyses were conducted under a "projected with improvements" scenario to evaluate the benefits of adding the following roadway improvements:

- Harding Pike and White Bridge Pike/Woodmont Boulevard
    - Convert the split phasing to concurrent signal phasing on the side street approaches of White Bridge Pike/Woodmont Boulevard. Provide protected-permissive left-turn signal phasing on the northbound approach of Woodmont Boulevard and protected-only left-turn signal phasing on the southbound approach of White Bridge Pike.
- Harding Pike and Kenner Avenue
    - Remove the signal.
    - Convert the northbound and southbound approaches of Kenner Avenue to right-in/right-out only access with stop control.
        - In conjunction with the change in access, the vehicles associated with the eliminated movements were redistributed throughout the network. The 2027 and 2032 redistribution of vehicle volumes are included in Appendix H.

- Harding Pike and HTC Access/Ridgefield Way
    - Provide a traffic signal with protected-permissive left-turn signal phasing on all approaches.
- Harding Pike and Bosley Springs Road/Woodlawn Drive
    - Under Projected 2032 conditions, optimize the signal splits.
- Harding Pike and St. Thomas Drive
    - Under Projected 2032 conditions, optimize the AM signal splits.
- Woodlawn Drive and Ridgefield Drive
    - Under Projected 2032 conditions, convert the all-way stop controlled intersection to a single-lane roundabout.

Capacity analyses results for the "projected with improvements" scenario are presented **in bold** in Tables 12A and 12B. As shown in Tables 12A and 12B, these improvements generally reduce delay at the study intersections.

Capacity analyses worksheets and 95th percentile queuing tables are included in Appendix F.

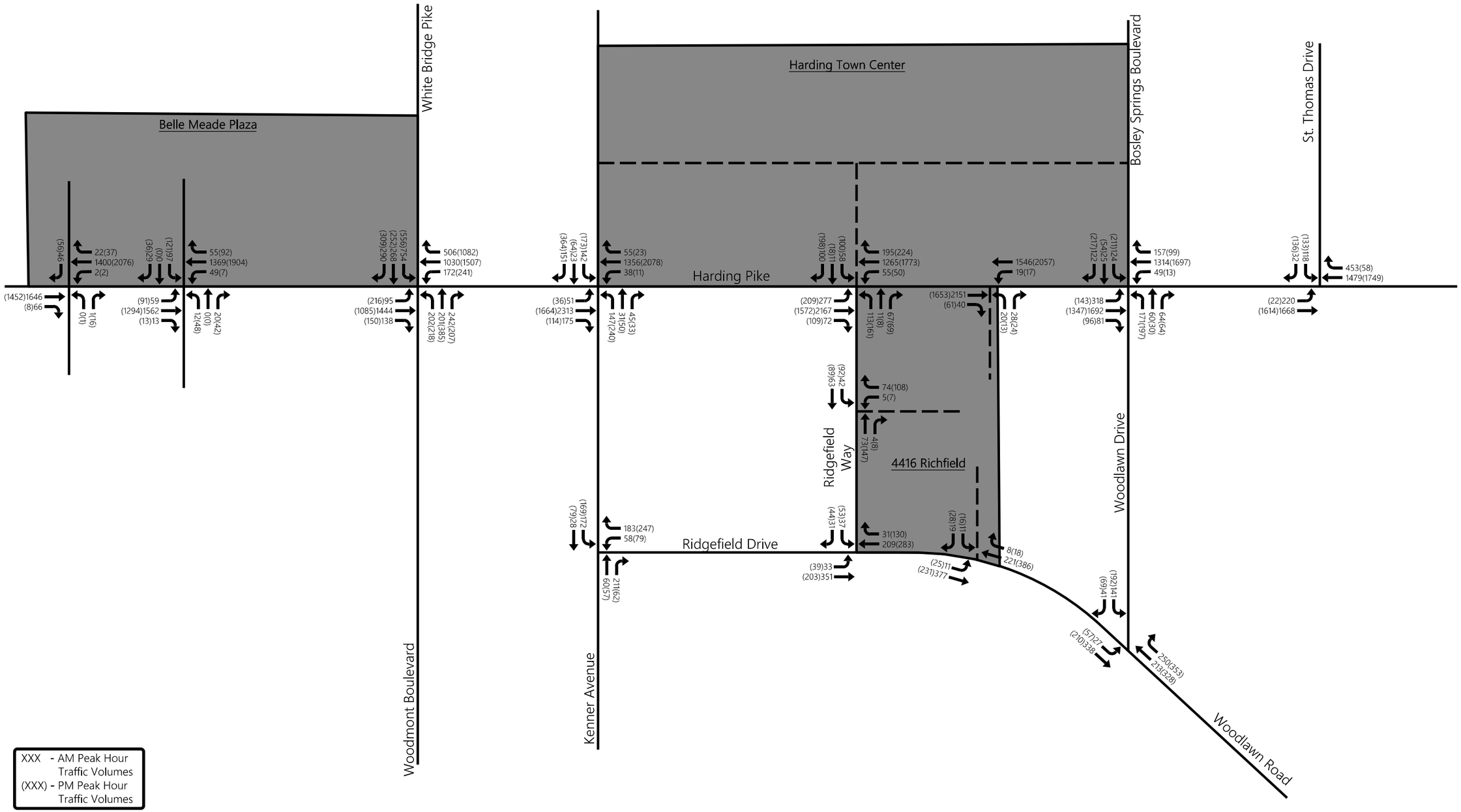


XXX - AM Peak Hour Traffic Volumes
(XXX) - PM Peak Hour Traffic Volumes

N

2027 Projected Peak Hour Traffic Volumes
(Not to Scale)

Figure 8.



XXX - AM Peak Hour Traffic Volumes
(XXX) - PM Peak Hour Traffic Volumes

N

2032 Projected Peak Hour Traffic Volumes
(Not to Scale)

Figure 9.

TABLE 12A. PROJECTED AM PEAK HOUR LEVELS OF SERVICE

INTERSECTION	TURNING MOVEMENT	LEVEL OF SERVICE (Average Delay in sec/veh)				
		EXISTING	BACKGROUND		PROJECTED	
			2027	2032	2027	2032
Harding Pike and White Bridge Pike/Woodmont Boulevard	Overall Intersection	E (63.5)	E (75.4)	F (91.6)	F (92.3) **E (73.6)**	F (140.5) **F (116.9)**
Harding Pike and Kenner Avenue	Overall Intersection	D (35.1)	D (46.1)	E (64.0)	E (69.3)	F (143.6)
	Northbound Right-Turn	--	--	--	**D (32.3)**	**F (58.4)**
	Southbound Right-Turn	--	--	--	**C (23.5)**	**E (39.3)**
Harding Pike and HTC Access/Ridgefield Way	**Overall Intersection**	--	--	--	**D (41.8)**	**F (94.6)**
	Northbound Left-Turn	F (>300)	F (>300)	F (>300)	F (>300)	F (>300)
	Northbound Right-Turn	C (20.7)	C (23.2)	D (26.3)	F (>300)	F (>300)
	Southbound Left-Turn	--	--	--	F (>300)	F (>300)
	Southbound Right-Turn	B (13.8)	B (14.5)	C (15.3)	F (>300)	F (>300)
	Eastbound Left-Turn	B (11.8)	B (12.5)	B (13.2)	B (14.9)	D (34.6)
	Westbound Left-Turn	C (17.4)	C (19.4)	C (22.0)	C (24.0)	D (32.7)
Harding Pike and Bosley Springs Road/Woodlawn Drive	Overall Intersection	C (20.2)	C (22.2)	C (25.0)	C (28.6)	E (59.6) **E (58.7)**
Harding Pike and Saint Thomas Drive	Overall Intersection	C (22.8)	C (32.2)	D (45.9)	C (33.4)	E (62.2) **D (51.6)**
Kenner Avenue and Ridgefield Drive	Northbound Approach	A (8.5)	A (8.8)	A (9.2)	A (9.1) **A (8.1)**	A (10.0) **A (8.7)**
	Southbound Approach	A (9.4)	A (9.7)	B (10.0)	A (9.9) **A (8.6)**	A (10.5) **A (8.9)**
	Eastbound Approach	A (8.3)	A (8.5)	A (8.6)	A (8.5) **A (8.1)**	A (8.8) **A (8.3)**
	Westbound Approach	A (8.8)	A (9.1)	A (9.5)	A (9.5) **A (8.3)**	B (10.3) **A (8.7)**
"Projected with Improvements" Scenario Results						

TABLE 12A. PROJECTED AM PEAK HOUR LEVELS OF SERVICE CONT.

INTERSECTION	TURNING MOVEMENT	LEVEL OF SERVICE (Average Delay in sec/veh)				
		EXISTING	BACKGROUND		PROJECTED	
			2027	2032	2027	2032
Ridgefield Drive and Ridgefield Way	Southbound Approach	B (11.6)	B (12.0)	B (12.6)	B (12.5) **B (13.7)**	B (13.2) **C (15.1)**
	Eastbound Left-Turn	A (7.7)	A (7.7)	A (7.7)	A (7.8) **A (7.8)**	A (7.8) **A (7.9)**
Woodlawn Drive and Ridgefield Drive	Southbound Approach	A (9.4)	A (9.7)	B (10.2)	B (10.1)	B (11.1) **A (5.1)**
	Eastbound Approach	B (11.2)	B (12.0)	B (13.0)	B (12.7)	B (14.9) **A (6.5)**
	Westbound Approach	B (11.4)	B (12.4)	B (13.8)	B (13.2)	C (16.7) **A (6.4)**
Harding Pike and BMP Central Driveway	Overall Intersection	B (11.2)	B (11.6)	B (12.3)	B (15.3)	B (17.3)
Harding Pike and BMP Western Driveway	Northbound Approach	B (14.2)	B (14.9)	C (15.8)	C (15.8)	C (17.8)
	Southbound Left-Turn	F (194.9)	F (267.6)	F (>300)	--	--
	Southbound Right-Turn	B (14.5)	C (15.3)	C (16.3)	C (15.8)	C (17.5)
	Eastbound Left-Turn	B (13.3)	B (14.3)	C (15.0)	--	--
	Westbound Left-Turn	B (12.6)	B (13.4)	B (14.3)	B (14.3)	B (16.3)
"Projected with Improvements" Scenario Results						

TABLE 12B. PROJECTED PM PEAK HOUR LEVELS OF SERVICE

INTERSECTION	TURNING MOVEMENT	LEVEL OF SERVICE (Average Delay in sec/veh)				
		EXISTING	BACKGROUND		PROJECTED	
			2027	2032	2027	2032
Harding Pike and White Bridge Pike/Woodmont Boulevard	Overall Intersection	F (109.4)	F (135.4)	F (160.5)	F (150.2) **F (106.5)**	F (209.5) **F (122.8)**
Harding Pike and Kenner Avenue	Overall Intersection	E (65.4)	E (73.2)	F (82.2)	F (83.8)	F (145.6)
	Northbound Right-Turn	--	--	--	**C (21.2)**	**D (27.5)**
	Southbound Right-Turn	--	--	--	**F (255.9)**	**F (>300)**
Harding Pike and HTC Access/Ridgefield Way	**Overall Intersection**	--	--	--	**E (79.2)**	**F (158.1)**
	Northbound Left-Turn	F (>300)	F (>300)	F (>300)	F (>300)	F (>300)
	Northbound Right-Turn	B (14.9)	C (15.9)	C (17.2)	F (>300)	F (>300)
	Southbound Left-Turn	--	--	--	F (>300)	F (>300)
	Southbound Right-Turn	C (17.7)	C (19.3)	C (21.2)	F (>300)	F (>300)
	Eastbound Left-Turn	C (15.1)	C (16.4)	C (18.1)	C (21.4)	F (86.5)
	Westbound Left-Turn	B (12.1)	B (12.9)	B (13.7)	C (15.7)	C (18.0)
Harding Pike and Bosley Springs Road/Woodlawn Drive	Overall Intersection	C (25.6)	C (28.4)	C (33.0)	D (37.9)	E (77.9) **E (64.5)**
Harding Pike and Saint Thomas Drive	Overall Intersection	B (14.6)	B (15.7)	B (17.2)	B (16.1)	B (18.9)
Kenner Avenue and Ridgefield Drive	Northbound Approach	A (8.0)	A (8.2)	A (8.3)	A (8.4) **A (7.2)**	A (8.9) **A (7.4)**
	Southbound Approach	A (9.8)	B (10.1)	B (10.6)	B (10.5) **A (8.6)**	B (11.3) **A (8.9)**
	Eastbound Approach	A (7.6)	A (7.7)	A (7.8)	A (7.8) **A (7.3)**	A (8.1) **A (7.4)**
	Westbound Approach	A (9.0)	A (9.4)	A (9.8)	A (9.9) **A (8.3)**	B (11.2) **A (8.7)**
"Projected with Improvements" Scenario Results						

TABLE 12B. PROJECTED PM PEAK HOUR LEVELS OF SERVICE CONT.

INTERSECTION	TURNING MOVEMENT	LEVEL OF SERVICE (Average Delay in sec/veh)				
		EXISTING	BACKGROUND		PROJECTED	
			2027	2032	2027	2032
Ridgefield Drive and Ridgefield Way	Southbound Approach	B (11.9)	B (12.3)	B (12.8)	B (13.4) **B (14.0)**	B (14.4) **C (15.5)**
	Eastbound Left-Turn	A (8.0)	A (8.1)	A (8.2)	A (8.2) **A (8.4)**	A (8.4) **A (8.5)**
Woodlawn Drive and Ridgefield Drive	Southbound Approach	A (10.0)	A (10.5)	A (11.2)	A (11.2)	B (13.1) **A (7.1)**
	Eastbound Approach	B (10.6)	B (11.3)	B (12.1)	B (12.2)	B (13.8) **A (5.8)**
	Westbound Approach	C (19.1)	C (24.7)	D (34.9)	D (30.9)	F (62.0) **A (9.7)**
Harding Pike and BMP Central Driveway	Overall Intersection	B (17.1)	B (18.1)	B (19.5)	C (20.4)	C (25.0)
Harding Pike and BMP Western Driveway	Northbound Approach	D (28.9)	E (35.9)	E (47.7)	D (34.1)	F (54.5)
	Southbound Left-Turn	F (>300)	F (>300)	F (>300)	--	--
	Southbound Right-Turn	C (23.0)	D (26.0)	D (30.0)	C (24.2)	D (31.2)
	Eastbound Left-Turn	C (17.6)	C (19.7)	C (22.4)	--	--
	Westbound Left-Turn	B (11.0)	B (11.5)	B (12.1)	B (12.7)	B (13.9)
"Projected with Improvements" Scenario Results						

As shown in Tables 12A and 12B, the proposed signal at Ridgefield Way and Harding Pike is expected to operate at LOS E in the 2027 PM peak hours and LOS F in both 2032 peak hours. An additional northbound left-turn lane is warranted under the 2032 projected condition. This additional left-turn lane would mitigate the expected vehicular delay; however, multimodal travel should be prioritized within the corridor. The additional lane increases crossing distances for bicycles and pedestrians. It is recommended that right-of-way be dedicated for the additional northbound left-turn lane, but the lane is not recommended at this time.

4.7 Queue Length Analysis

95th percentile queue lengths for the critical movements of the study intersections that are expected to be impacted by the proposed development were also analyzed and evaluated under the background and projected conditions. Tables 13A and 13B indicate the results of the queue length analyses for the study intersections for 2027 conditions and 2032 conditions, respectively.

TABLE 13A. STUDY INTERSECTIONS 95TH PERCENTILE QUEUE LENGTH (2027)

INTERSECTION	TURNING MOVEMENT	AVAILABLE STORAGE (FEET)	95TH PERCENTILE QUEUE LENGTH (FEET)			
			BACKGROUND (2027)		PROJECTED (2027)	
			AM PEAK	PM PEAK	AM PEAK	PM PEAK
Harding Pike and White Bridge Pike/Woodmont Boulevard	Northbound Left-Turn	**185**	355	397	286 **211**	383 **329**
	Northbound Through	--	279	995	279 **279**	995 **995**
	Northbound Right-Turn	**390**	114	102	208 **208**	260 **260**
	Southbound Left-Turn	--	521	394	648 **553**	555 **532**
	Southbound Through	--	431	554	431 **303**	554 **340**
	Southbound Right-Turn	**140**	748	965	589 **343**	926 **445**
	Eastbound Left-Turn	**110+TWLTL**	78	226	93 **101**	249 **506**
	Eastbound Through	--	983	600	1308 **1247**	730 **693**
	Eastbound Through/ Right-Turn	--	980	582	1321 **1261**	714 **677**
	Westbound Left-Turn	**90+TWLTL**	59	55	140 **179**	139 **149**
	Westbound Through	--	534	1067	537 **543**	1180 **929**
	Westbound Right-Turn	--	435	2456	556 **564**	2877 **2446**

INTERSECTION	TURNING MOVEMENT	AVAILABLE STORAGE (FEET)	95TH PERCENTILE QUEUE LENGTH (FEET)			
			BACKGROUND (2027)		PROJECTED (2027)	
			AM PEAK	PM PEAK	AM PEAK	PM PEAK
Harding Pike and Kenner Avenue	Northbound Through/ Left-Turn	--	290	607	290 --	607 --
	Northbound Right-Turn	**50**	42	33	51 **19**	44 **9**
	Southbound Left-Turn	**100**	146	228	146 --	228 --
	Southbound Through/ Left-Turn	--	147	233	148 --	233 --
	Southbound Right-Turn	**150**	105	710	288 **40**	896 **378**
	Eastbound Left-Turn	**110+TWLTL**	87	442	87 --	442 --
	Eastbound Through	--	1191	678	1591 --	941 --
	Eastbound Through/ Right-Turn	--	1263	670	1687 --	952 --
	Westbound Left-Turn	**120+TWLTL**	65	25	66 --	27 --
	Westbound Through	--	290	603	314 --	693 --
	Westbound Through/ Right-Turn	--	302	640	328 --	739 --
Harding Pike and HTC Access/Ridgefield Way	Northbound Left-Turn	--	120	195	404 **377**	601 **710**
	Northbound Through/ Right-Turn	**95**	14	9	168 **166**	175 **205**
	Southbound Left-Turn	--	--	--	143 **225**	129 **293**
	Southbound Through/ Right-Turn	--	1	6	195 **141**	218 **320**
	Eastbound Left-Turn	**TWLTL**	1	3	16 **77**	30 **335**

INTERSECTION	TURNING MOVEMENT	AVAILABLE STORAGE (FEET)	95TH PERCENTILE QUEUE LENGTH (FEET)			
			BACKGROUND (2027)		PROJECTED (2027)	
			AM PEAK	PM PEAK	AM PEAK	PM PEAK
Harding Pike and HTC Access/Ridgefield Way (Cont.)	Eastbound Through	--	--	--	-- **1155**	-- **821**
	Eastbound Through/ Right-Turn	--	--	--	-- **1193**	-- **824**
	Westbound Left-Turn	**TWLTL**	8	2	18 **69**	12 **47**
	Westbound Through	--	--	--	-- **525**	-- **1601**
	Westbound Through/ Right-Turn	--	--	--	-- **517**	-- **1693**
Harding Pike and Bosley Springs Road/Woodlawn Drive	Northbound Left-Turn	--	237	322	237	310
	Northbound Through/ Right-Turn	**185**	144	114	164	144
	Southbound Left-Turn	--	69	132	122	177
	Southbound Through/ Right-Turn	--	112	234	183	278
	Eastbound Left-Turn	**110+TWLTL**	74	17	123	67
	Eastbound Through	--	587	506	738	655
	Eastbound Through/ Right-Turn	--	593	499	753	649
	Westbound Left-Turn	**150+TWLTL**	18	2	25	8
	Westbound Through	--	432	743	512	1011
	Westbound Through/ Right-Turn	--	430	743	507	1016

INTERSECTION	TURNING MOVEMENT	AVAILABLE STORAGE (FEET)	95TH PERCENTILE QUEUE LENGTH (FEET)			
			BACKGROUND (2027)		PROJECTED (2027)	
			AM PEAK	PM PEAK	AM PEAK	PM PEAK
Harding Pike and Saint Thomas Drive	Southbound Left-Turn	--	173	248	172	248
	Southbound Right-Turn	--	45	258	45	258
	Eastbound Left-Turn	**155+TWLTL**	267	36	266	36
	Eastbound Through	--	415	282	486	326
	Westbound Through	--	843	487	872	554
	Westbound Through/ Right-Turn	--	981	492	1022	561
Kenner Avenue and Ridgefield Drive	Northbound Approach	--	28	9	31 **26**	12 **9**
	Southbound Approach	--	27	35	29 **17**	38 **20**
	Eastbound Approach	--	0	0	0 **0**	0 **0**
	Westbound Approach	--	28	37	32 **11**	42 **9**
Ridgefield Drive and Ridgefield Way	Southbound Approach	--	7	9	10 **22**	15 **29**
	Eastbound Left-Turn	**100**	1	2	1 **4**	2 **6**
Woodlawn Drive and Ridgefield Drive	Southbound Approach		20	31	25	37
	Eastbound Approach		62	41	70	49
	Westbound Approach		79	227	88	274
Harding Pike and BMP Central Driveway	Northbound Left-Turn	--	19	96	18	89
	Northbound Through/ Right-Turn	--	41	89	28	74
	Southbound Left-Turn	--	104	169	200	270

INTERSECTION	TURNING MOVEMENT	AVAILABLE STORAGE (FEET)	95TH PERCENTILE QUEUE LENGTH (FEET)			
			BACKGROUND (2027)		PROJECTED (2027)	
			AM PEAK	PM PEAK	AM PEAK	PM PEAK
Harding Pike and BMP Central Driveway (Cont.)	Southbound Through/ Right-Turn	--	96	206	49	59
	Eastbound Left-Turn	**160+TWLTL**	4	29	29	64
	Eastbound Through	--	342	321	430	367
	Eastbound Through/ Right-Turn	--	341	320	429	366
	Westbound Left-Turn	**100+TWLTL**	18	3	23	4
	Westbound Through	--	266	618	371	752
	Westbound Through/ Right-Turn	--	10	28	26	54
Harding Pike and BMP Western Driveway	Northbound Approach	--	0	11	0	10
	Southbound Through/ Left-Turn	--	13	28	--	--
	Southbound Right-Turn	--	11	38	12	21
	Eastbound Left-Turn	**TWLTL**	23	19	--	--
	Westbound Left-Turn	**TWLTL**	0	0	0	0
"Projected with Improvements" Scenario Results						

TABLE 13B. STUDY INTERSECTIONS 95TH PERCENTILE QUEUE LENGTH (2032)

INTERSECTION	TURNING MOVEMENT	AVAILABLE STORAGE (FEET)	95TH PERCENTILE QUEUE LENGTH (FEET)			
			BACKGROUND (2032)		PROJECTED (2032)	
			AM PEAK	PM PEAK	AM PEAK	PM PEAK
Harding Pike and White Bridge Pike/Woodmont Boulevard	Northbound Left-Turn	**185**	402	444	316 **233**	425 **390**
	Northbound Through	--	304	1134	302 **302**	1134 **823**
	Northbound Right-Turn	**390**	123	109	469 **469**	425 **354**
	Southbound Left-Turn	--	611	443	1023 **855**	783 **381**
	Southbound Through	--	486	630	486 **307**	630 **376**
	Southbound Right-Turn	**140**	865	1087	694 **352**	1048 **510**
	Eastbound Left-Turn	**110+TWLTL**	87	249	104 **117**	275 **640**
	Eastbound Through	--	1178	667	1833 **1784**	871 **858**
	Eastbound Through/ Right-Turn	--	1191	649	1890 **1842**	866 **853**
	Westbound Left-Turn	**90+TWLTL**	64	59	222 **334**	432 **426**
	Westbound Through	--	597	1271	643 **660**	1667 **1230**
	Westbound Right-Turn	--	484	2834	750 **780**	3889 **3398**
Harding Pike and Kenner Avenue	Northbound Through/ Left-Turn	--	314	704	314 --	704 --
	Northbound Right-Turn	**50**	46	37	71 **46**	61 **16**
	Southbound Left-Turn	**100**	168	255	168 --	255 --
	Southbound Through/ Left-Turn	--	169	259	169 --	259 --
	Southbound Right-Turn	**150**	115	786	567 **96**	1560 **915**

INTERSECTION	TURNING MOVEMENT	AVAILABLE STORAGE (FEET)	95TH PERCENTILE QUEUE LENGTH (FEET)			
			BACKGROUND (2032)		PROJECTED (2032)	
			AM PEAK	PM PEAK	AM PEAK	PM PEAK
Harding Pike and Kenner Avenue (Cont.)	Eastbound Left-Turn	**110+TWLTL**	93	488	93 --	488 --
	Eastbound Through	--	1524	761	2844 --	1407 --
	Eastbound Through/ Right-Turn	--	1623	757	2956 --	1457 --
	Westbound Left-Turn	**120+TWLTL**	70	25	71 --	27 --
	Westbound Through	--	324	670	374 --	913 --
	Westbound Through/ Right-Turn	--	338	713	392 --	989 --
Harding Pike and HTC Access/Ridgefield Way	Northbound Left-Turn	--	139	219	449 **384**	614 **1058**
	Northbound Through/ Right-Turn	**95**	18	11	324 **170**	322 **235**
	Southbound Left-Turn	--	--	--	255 **277**	404 **436**
	Southbound Through/ Right-Turn	--	1	8	438 **219**	801 **753**
	Eastbound Left-Turn	**TWLTL**	1	4	149 **517**	209 **758**
	Eastbound Through	--	--	--	-- **1924**	-- **1013**
	Eastbound Through/ Right-Turn	--	--	--	-- **1969**	-- **1047**
	Westbound Left-Turn	**TWLTL**	10	2	32 **83**	14 **48**
	Westbound Through	--	--	--	-- **930**	-- **2588**
	Westbound Through/ Right-Turn	--	--	--	-- **948**	-- **2717**

INTERSECTION	TURNING MOVEMENT	AVAILABLE STORAGE (FEET)	95TH PERCENTILE QUEUE LENGTH (FEET)			
			BACKGROUND (2032)		PROJECTED (2032)	
			AM PEAK	PM PEAK	AM PEAK	PM PEAK
Harding Pike and Bosley Springs Road/Woodlawn Drive	Northbound Left-Turn	--	259	337	271 **266**	381 **353**
	Northbound Through/ Right-Turn	**185**	156	120	205 **201**	185 **174**
	Southbound Left-Turn	--	75	138	183 **180**	320 **336**
	Southbound Through/ Right-Turn	--	120	244	265 **258**	506 **553**
	Eastbound Left-Turn	**110+TWLTL**	86	20	290 **372**	192 **120**
	Eastbound Through	--	687	602	1039 **1074**	908 **904**
	Eastbound Through/ Right-Turn	--	701	595	1075 **1113**	914 **911**
	Westbound Left-Turn	**150+TWLTL**	21	2	33 **34**	10 **10**
	Westbound Through	--	493	916	1086 **996**	1714 **1549**
	Westbound Through/ Right-Turn	--	491	916	1101 **1015**	1770 **1598**
Harding Pike and Saint Thomas Drive	Southbound Left-Turn	--	180	262	179 **177**	262
	Southbound Right-Turn	--	46	274	46 **46**	274
	Eastbound Left-Turn	**155+TWLTL**	277	39	276 **290**	39
	Eastbound Through	--	515	330	651 **676**	461
	Westbound Through	--	1113	578	1451 **1283**	740
	Westbound Through/ Right-Turn	--	1321	586	1707 **1505**	752

INTERSECTION	TURNING MOVEMENT	AVAILABLE STORAGE (FEET)	95TH PERCENTILE QUEUE LENGTH (FEET)			
			BACKGROUND (2032)		PROJECTED (2032)	
			AM PEAK	PM PEAK	AM PEAK	PM PEAK
Kenner Avenue and Ridgefield Drive	Northbound Approach	--	32	10	42 **34**	16 **12**
	Southbound Approach	--	31	40	33 **18**	45 **23**
	Eastbound Approach	--	0	0	0 **0**	0 **0**
	Westbound Approach	--	31	42	39 **14**	58 **13**
Ridgefield Drive and Ridgefield Way	Southbound Approach	--	8	10	13 **29**	20 **39**
	Eastbound Left-Turn	**100**	1	2	2 **5**	3 **7**
Woodlawn Drive and Ridgefield Drive	Southbound Approach		23	36	33 **17**	57 **32**
	Eastbound Approach		74	48	91 **39**	62 **27**
	Westbound Approach		96	307	129 **46**	447 **99**
Harding Pike and BMP Central Driveway	Northbound Left-Turn	--	21	104	19	97
	Northbound Through/ Right-Turn	--	44	96	31	81
	Southbound Left-Turn	--	104	169	200	272
	Southbound Through/ Right-Turn	--	96	205	52	68
	Eastbound Left-Turn	**160+TWLTL**	4	30	32	75
	Eastbound Through	--	387	361	542	433
	Eastbound Through/ Right-Turn	--	387	360	542	432
	Westbound Left-Turn	**100+TWLTL**	20	4	27	4

INTERSECTION	TURNING MOVEMENT	AVAILABLE STORAGE (FEET)	95TH PERCENTILE QUEUE LENGTH (FEET)			
			BACKGROUND (2032)		PROJECTED (2032)	
			AM PEAK	PM PEAK	AM PEAK	PM PEAK
Harding Pike and BMP Central Driveway (Cont.)	Westbound Through	--	297	731	434	1027
	Westbound Through/ Right-Turn	--	10	28	26	54
Harding Pike and BMP Western Driveway	Northbound Approach	--	0	15	0	17
	Southbound Through/ Left-Turn	--	16	32	--	--
	Southbound Right-Turn	--	12	45	15	32
	Eastbound Left-Turn	**TWLTL**	26	22	--	--
	Westbound Left-Turn	**TWLTL**	0	0	0	0
"Projected with Improvements" Scenario Results						

4.8 Signal Warrant Analysis

As noted in the capacity analysis, the intersection of Harding Pike and HTC Access/Ridgefield Way is expected to operate at poor LOS under unsignalized projected conditions in the AM and PM peak hours.

A traffic signal should normally be installed at an intersection only when specific warrants are satisfied. Therefore, traffic signal warrant analyses were performed with available data for the intersections based on the anticipated traffic conditions at completion of the development.

The *Manual on Uniform Traffic Control Devices* (MUTCD) sets forth nine different warrants that have been developed by the traffic engineering profession to facilitate the determination of whether a signal is warranted. These warrants include minimum conditions that normally indicate when a traffic signal is justified at a particular location. The MUTCD states "traffic control signals should not be installed unless one or more of the signal warrants in the manual are met."

Although the MUTCD provides nine different warrants, only three of these are potentially applicable at the intersection under study. These three warrants, described in the MUTCD, are the volume-related signal warrants, which are described as follows:

WARRANT 1, EIGHT-HOUR VEHICLE VOLUME

Under Warrant 1, the following three conditions are taken into consideration:

1. Warrant 1A, Minimum Vehicle Volumes
2. Warrant 1B, Continuous Traffic
3. Warrant 1C, Combination

According to the MUTCD, Warrant 1 is satisfied if any of the three conditions listed above are satisfied. It should be noted that Warrant 1C should only be taken into consideration at locations where Warrant 1A and Warrant 1B are **not** satisfied.

Additionally, when the 85th percentile speed of the major street traffic exceeds 40 mph in either an urban or a rural area, or when the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the conditions presented in Warrant 1 can be evaluated at 70 percent of the requirements. The speed limit on Harding Pike is 40 mph; therefore, the intersection of Harding Pike and HTC Access/Ridgefield Way does not qualify for this reduction.

WARRANT 1A, MINIMUM VEHICULAR VOLUME

The Minimum Vehicular Volume warrant is intended for application where the volume of intersecting traffic is the principal reason for consideration of signal installation. The warrant is satisfied when, for each of any eight hours of an average day, the traffic volumes given below in Table 13 exist on the major street and on the higher volume minor street approach to the intersection.

TABLE 14. MINIMUM VEHICULAR VOLUMES FOR WARRANT 1A

NUMBER OF LANES FOR MOVING TRAFFIC ON EACH APPROACH		VEHICLES PER HOUR ON MAJOR APPROACH	VEHICLES PER HOUR ON HIGHER VOLUMES MINOR APPROACH
Major Street	Minor Street	Total of Both Approaches	One Direction Only
1 Lane	1 Lane	500	150
2 Lanes or more	1 Lane	600	150
2 Lanes or more	2 Lanes or more	600	200
1 Lane	2 Lanes or more	500	200

WARRANT 1B, INTERRUPTION OF CONTINUOUS TRAFFIC

The Interruption of Continuous Traffic warrant applies to operating conditions where the traffic volume on a major street is so heavy that traffic on a minor intersecting street suffers excessive delay or hazard when entering or crossing the major street. The warrant is satisfied when, for each of any eight hours of an average day, the traffic volumes given below in Table 14 exist on the major street and on the higher volume minor street approach to an intersection. In addition, the signal installation shall not seriously disrupt progressive traffic flow.

TABLE 15. MINIMUM VEHICULAR VOLUMES FOR WARRANT 1B

NUMBER OF LANES FOR MOVING TRAFFIC ON EACH APPROACH		VEHICLES PER HOUR ON MAJOR APPROACH	VEHICLES PER HOUR ON HIGHER VOLUMES MINOR APPROACH
Major Street	Minor Street	Total of Both Approaches	One Direction Only
1 Lane	1 Lane	750	75
2 Lanes or more	1 Lane	900	75
2 Lanes or more	2 Lanes or more	900	100
1 Lane	2 Lanes or more	750	100

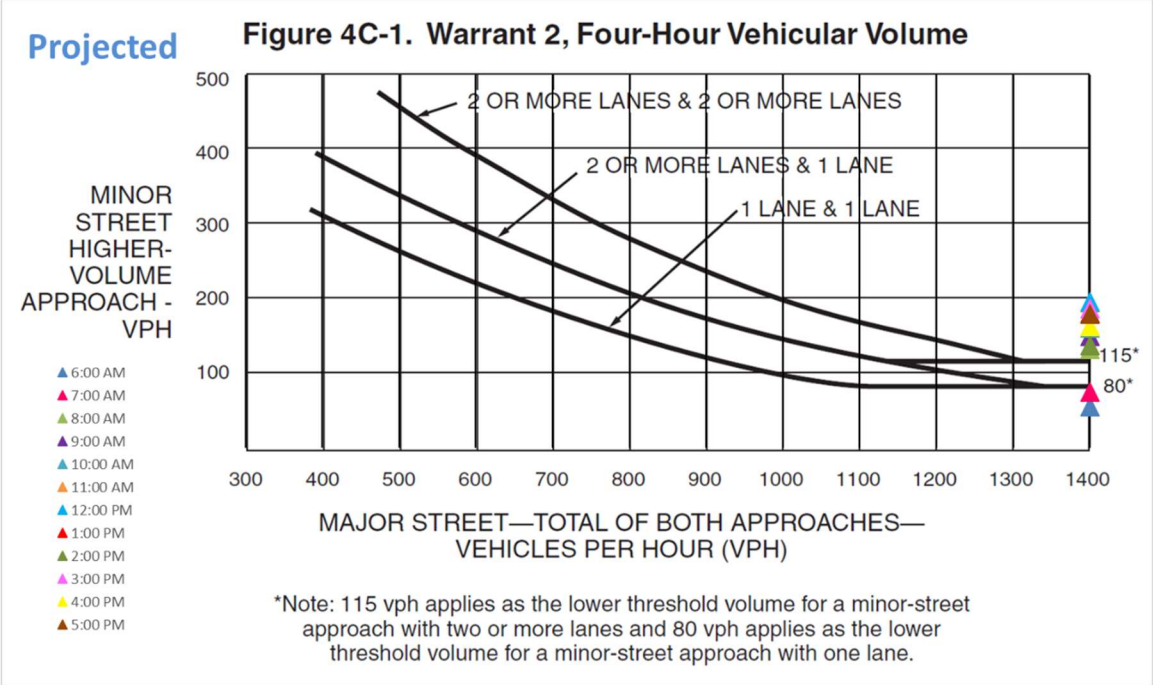
WARRANT 1C, COMBINATION WARRANT

In exceptional cases, traffic signals occasionally may be justified where no single warrant is satisfied but where Warrants 1A and 1B are satisfied to the extent of 80 percent or more of the stated values. This warrant is referred to as Warrant 1C (Combination Warrant).

WARRANT 2, FOUR-HOUR VOLUME

The Four-Hour Volume warrant is satisfied when for each of any four high hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher volume minor street approach (one direction only) all fall above the curve in Figure 10, for the appropriate combination of approach lanes. It should be noted that when the 85th percentile speed of the major street traffic exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000, the peak hour volume requirements are reduced by 30%. Figure 10 shows the Projected 2032 traffic volumes at the study intersection as applied to Warrant 2 thresholds.

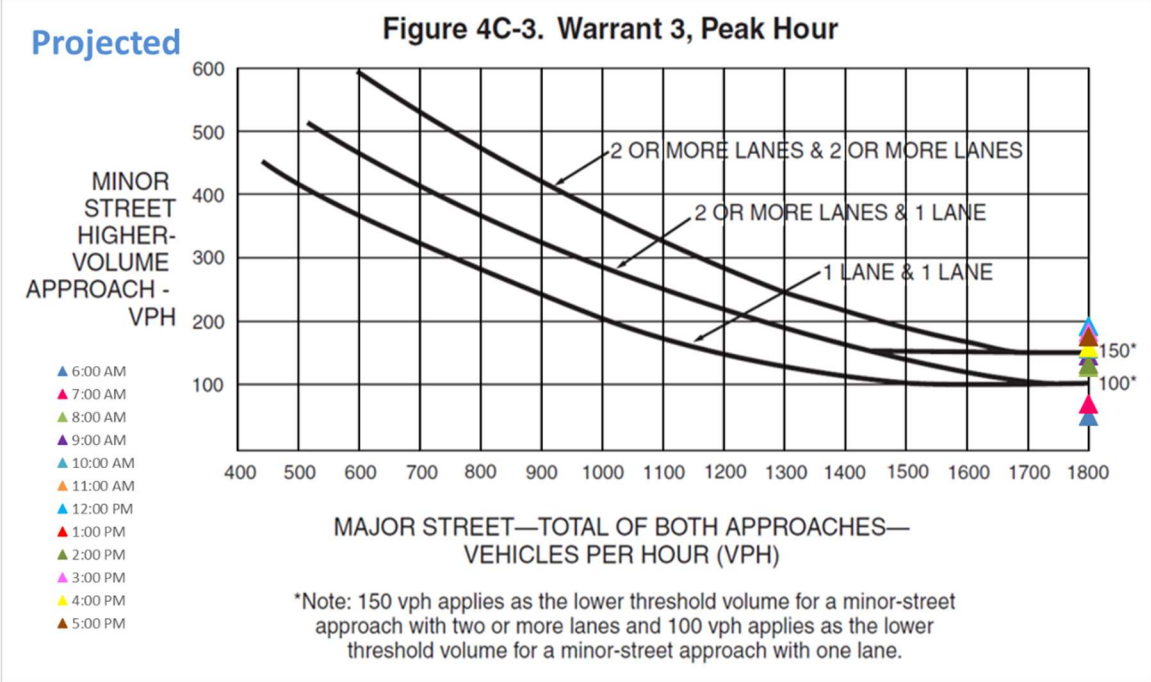
FIGURE 10. WARRANT 2, FOUR-HOUR VEHICULAR VOLUME – PROJECTED 2032



WARRANT 3, PEAK HOUR VOLUME

The Peak Hour Volume warrant is intended for application when traffic conditions are such that for one hour of the day, minor street traffic suffers undue traffic delay in entering or crossing the major street. The Peak Hour Volume warrant is satisfied when the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 11 for the appropriate combination of approach lanes. It should be noted that when the 85th percentile speed of the major street traffic exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000, the peak hour volume requirements are reduced by 30%. Figure 11 shows the Projected 2032 traffic volumes at the study intersection as applied to Warrant 3 thresholds.

FIGURE 11. WARRANT 3, PEAK-HOUR VEHICULAR VOLUME – PROJECTED 2032



TRAFFIC SIGNAL WARRANT ANALYSIS RESULTS

Based on the geometry of the intersection, the analyses were performed based on two lanes on the major street (Harding Pike) and two lanes on the minor street (HTC Access/Ridgefield Way). The results of the warrant analyses indicated that under Projected 2027 conditions, the projected traffic volumes at the intersection of Harding Pike and HTC Access/Ridgefield Way will warrant a traffic signal. Specifically, the

intersection is expected to meet Warrant 2 for seven hours and Warrant 3 for two hours. Additionally, the results of the warrant analyses indicated that under Projected 2032 conditions, the projected traffic volumes at the intersection of Harding Pike and HTC Access/Ridgefield Way are expected to meet Warrant 1B for ten hours, Warrant 2 for ten hours, and Warrant 3 for eight hours. Results of the warrant analyses are shown in Table 15 and Table 16.

TABLE 16. TRAFFIC SIGNAL WARRANT ANALYSIS – PROJECTED 2027

Hour	Traffic Volumes		Full Warrants Met?				
	Main Street Both Directions	Minor Street Highest Approach	1A	1B	1C	2	3
7:00-8:00	3171	56	--	--	--	--	--
8:00-9:00	2899	77	--	--	--	--	--
9:00-10:00	2990	87	--	--	--	--	--
10:00-11:00	2998	90	--	--	--	--	--
11:00-12:00 PM	3012	96	--	--	--	--	--
12:00-1:00	3179	123	--	**Yes**	--	**Yes**	--
1:00-2:00	3346	133	--	**Yes**	--	**Yes**	--
2:00-3:00	3386	121	--	**Yes**	--	**Yes**	--
3:00-4:00	3185	119	--	**Yes**	--	**Yes**	--
4:00-5:00	3098	174	--	**Yes**	**Yes**	**Yes**	**Yes**
5:00-6:00	3265	152	--	**Yes**	--	**Yes**	**Yes**
6:00-7:00	2856	116	--	**Yes**	--	**Yes**	--
Total Hours Met			**0**	**7**	**1**	**7**	**2**

Note: Warrants 1A, 1B and 1C must be satisfied for at least 8 hours of a typical day. Warrant 2 must be met for at least 4 hours and Warrant 3 must be met for at least one hour of a typical day.

TABLE 17. TRAFFIC SIGNAL WARRANT ANALYSIS – PROJECTED 2032

Hour	Traffic Volumes		Full Warrants Met?				
	Main Street Both Directions	Minor Street Highest Approach	1A	1B	1C	2	3
7:00-8:00	3445	56	--	--	--	--	--
8:00-9:00	3233	75	--	--	--	--	--
9:00-10:00	3401	132	--	**Yes**	--	**Yes**	--
10:00-11:00	3395	150	--	**Yes**	--	**Yes**	**Yes**
11:00-12:00 PM	3397	161	--	**Yes**	**Yes**	**Yes**	**Yes**
12:00-1:00	3532	195	--	**Yes**	**Yes**	**Yes**	**Yes**
1:00-2:00	3687	196	--	**Yes**	**Yes**	**Yes**	**Yes**
2:00-3:00	3778	180	--	**Yes**	**Yes**	**Yes**	**Yes**
3:00-4:00	3569	137	--	**Yes**	--	**Yes**	--
4:00-5:00	3468	187	--	**Yes**	**Yes**	**Yes**	**Yes**
5:00-6:00	3608	163	--	**Yes**	**Yes**	**Yes**	**Yes**
6:00-7:00	3119	179	--	**Yes**	**Yes**	**Yes**	**Yes**
Total Hours Met			**0**	**10**	**7**	**10**	**8**

Note: Warrants 1A, 1B and 1C must be satisfied for at least 8 hours of a typical day. Warrant 2 must be met for at least 4 hours and Warrant 3 must be met for at least one hour of a typical day.

5. MULTIMODAL INFRASTRUCTURE AND OPERATIONS

5.1 Street Network

The Major Collector and Street Plan (MCSP) was reviewed in regard to the roadways within the area. Table 17 details the MCSP cross-section information associated with each roadway in the direct vicinity of the project sites.

TABLE 18. MCSP WIDTHS

ROADWAY	RIGHT-OF-WAY	BIKE LANES	PLANTING STRIP WIDTH	SIDEWALK WIDTH
Harding Pike	109	6	4	10
	117	5	4	8
	112	5	12.5	10
White Bridge Pike	100	0	4	10
Woodmont Boulevard	69	5	4	8
Kenner Avenue	64	0	4	10
Ridgefield Way	62	0	4	10
Woodlawn Drive	49	6	6	6
Bosley Springs Road	N/A	N/A	N/A	N/A
South Thomas Drive	N/A	N/A	N/A	N/A
Ridgefield Drive	64	0	4	10

5.2 Traffic Signals

As previously mentioned, it is recommended that the signal at Kenner Avenue be removed in favor of a signal at Ridgefield Way and Harding Pike. The concept of relocating the signal was first presented in the Harding Town Center urban design overlay prepared by the Metro Nashville Planning Department in 2005. The existing spacing between the White Bridge Avenue signal and the Kenner Avenue signal is approximately 350 feet. The proposed spacing between the White Bridge Avenue signal and Ridgefield Way is approximately 750 feet. The increase in signal spacing will reduce the impact the signals have on each other and help improve mobility on the corridor. The MCSP currently classifies Kenner Avenue as a collector-avenue and Ridgefield Way as a local street. However, Ridgefield Way is planned to be improved to a collector-avenue. When the Kenner Avenue signal is removed, it is recommended that the minor approaches of Kenner Avenue be modified to right-in/right-out only.

Kenner Avenue is identified by multiple bicycle plans as a priority bike route. Kenner Avenue provides connection to the Richland Creek Greenway. However, the Harding Town Center development is providing paved trails that connect to the greenway. These trails can be accessed directly from Ridgefield Way.

5.3 Pedestrian Infrastructure Plan

As previously mentioned, sidewalk is currently provided on the south side of Harding Pike, the west side of Woodmont Boulevard, the east side of Ridgefield Way, and the east side of Bosley Springs Road. Additionally, intermittent sidewalk is currently provided on the north side of Harding Pike, both sides of Kenner Avenue, the west side of Ridgefield Way, and both sides of Ridgefield Drive. No sidewalk is currently provided on Woodlawn Drive. Each development is responsible for installing and/or updating the sidewalk along their frontages in order to meet the MCSP requirements. A map detailing the existing sidewalk is presented in Figure 12.

As shown in Figure 12, the developments included in this study will create a continuous sidewalk network on both sides of Harding Pike between the western Belle Meade Plaza driveway and Bosley Springs Drive. The sidewalk on the north side of Harding Pike terminates east of Bosley Springs Drive.

There is an approximately 160 feet gap in the sidewalk on the east side of Kenner Avenue. It is recommended that sidewalk is installed within the existing right-of-way in front of 100 and 104 Kenner Avenue to create a continuous sidewalk that connects Harding Pike and Ridgefield Drive on Kenner Avenue.

A detailed inventory of the existing pedestrian infrastructure at each study intersection is provided in Tables 2A and 2B. Each development will be responsible for providing and/or improving crosswalks, detectable warning mats, and ADA ramps at all study intersections.

In addition to pedestrian infrastructure improvements at the study intersections, protected pedestrian/bicycle intersections should be provided at the following intersections:

- Harding Pike and HTC Access/Ridgefield Way
    - *This is being recommended under both Harding Town Center and 4416 Ridgefield Way developments.*

- Harding Pike and Bosley Springs Road/Woodlawn Drive
    - *This is being recommended under both Harding Town Center and 4416 Ridgefield Way developments.*
- Harding Pike and Central Belle Meade Plaza Driveway
    - *If feasible with the adjacent infrastructure, this is being recommended under the Belle Meade Plaza development.*

N

Pedestrian Facilities

(Not to Scale)

Figure 1.

5.4 Bicycle Facilities Plan

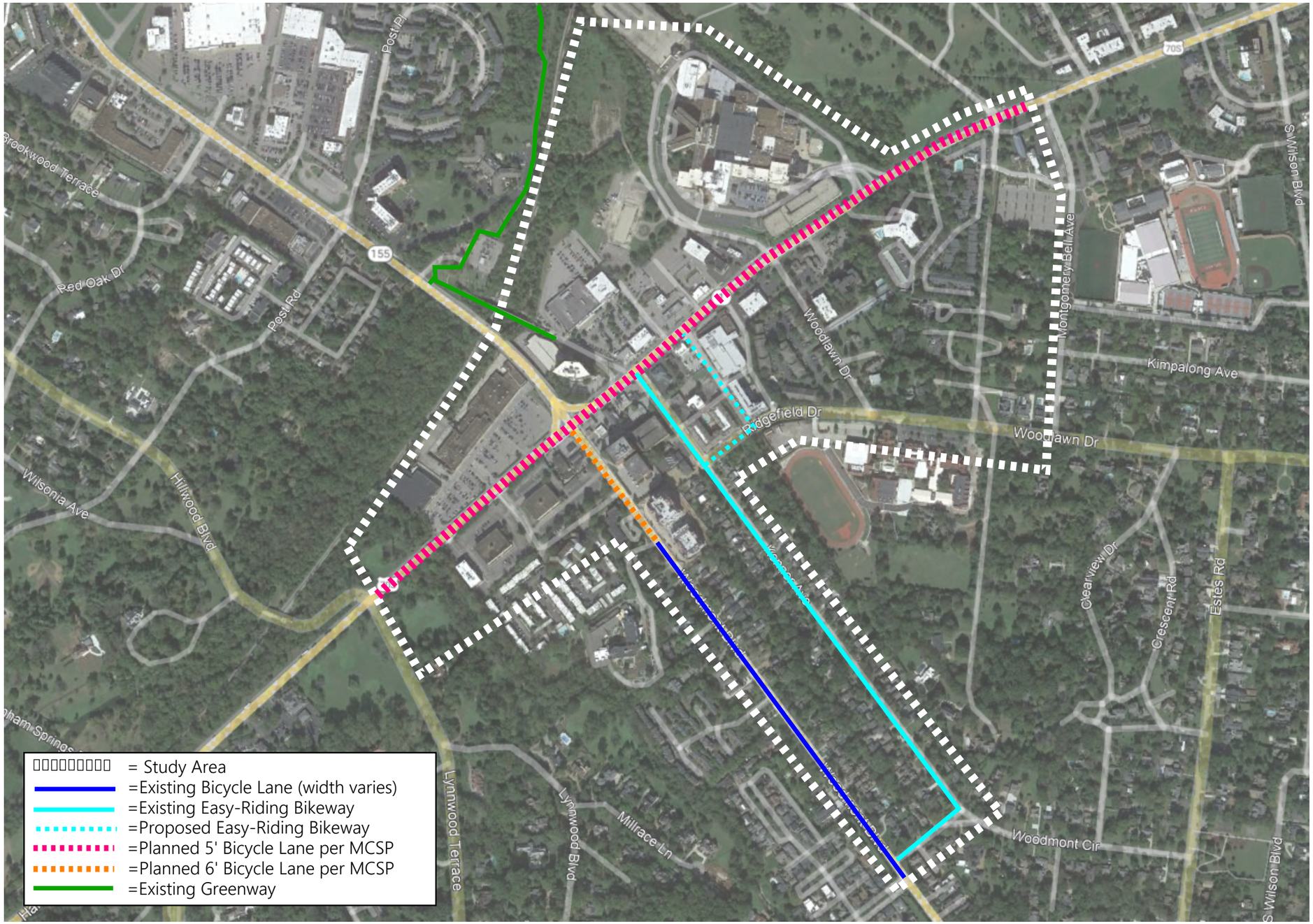
Within the study area, Woodlawn Drive is a shared roadway. Bicycle lanes are provided on both sides of Woodmont Boulevard but terminate approximately 500 feet south of the intersection of Harding Place and Woodmont Boulevard/White Bridge Pike.

The 2022 WalkNBike plan identifies Harding Pike west of White Bridge Pike as a proposed bikeway within the workplan. It also shows Kenner Avenue as a priority bikeway network identified in the 2017 WalkNBike plan that has yet to be constructed.

Walk Bike Nashville identifies Kenner Avenue (north of Woodmont Circle) and Woodmont Boulevard (south of Woodmont Circle) as easy-riding bicycle routes. Easy-riding routes can be utilized by most cyclists comfortably.

According to the MCSP, bike lanes are planned on Harding Pike, Woodmont Boulevard, and Woodlawn Drive between Harding Pike and Ridgefield Drive. The MCSP identifies the right-of-way required for bicycle lanes as part of the planting strip. It is not recommended bicycle lanes be installed on Harding Pike until the connectivity to the east and west is improved.

A detailed inventory of the existing bicycle facilities as well as planned bicycle improvements is included in Figure 13.



N

Bicycle Facilities

(Not to Scale)

Figure 1.

5.5 Trails and Greenways

The Richland Creek Greenway terminates on Kenner Avenue, north of Harding Pike. The greenway includes 4.1 miles of paved multi-use path that circulates around McCabe Park. This greenway provides connection to between Sylvan Park and White Bridge Pike, Harding Road, and Nashville State Community College. The greenway can be entered via the Hill Center, White Bridge Road, Lion's Head, Nashville State Campus Connector, Knob Road, 54th Avenue, Wyoming Avenue, McCabe Park, and Sloan Road trailheads.

The Metro Nashville Greenways Plan identifies a future extension of the Richland Creek Greenway on both sides of Richland Creek. A new connection to the proposed Richland Creek Greenway Extension is planned along Bosley Springs Road. Additionally, a new greenway is planned on one side of Sugartree Creek. This new greenway terminates east of Estes Road.

The Belle Meade Plaza and Harding Town Center developments plan on creating new paved trails along Richland Creek. These trails would be created in permanent access easements along the north side of the properties. The existing and proposed trails and greenways are shown in Figure 14.

N

Greenway Facilities

(Not to Scale)

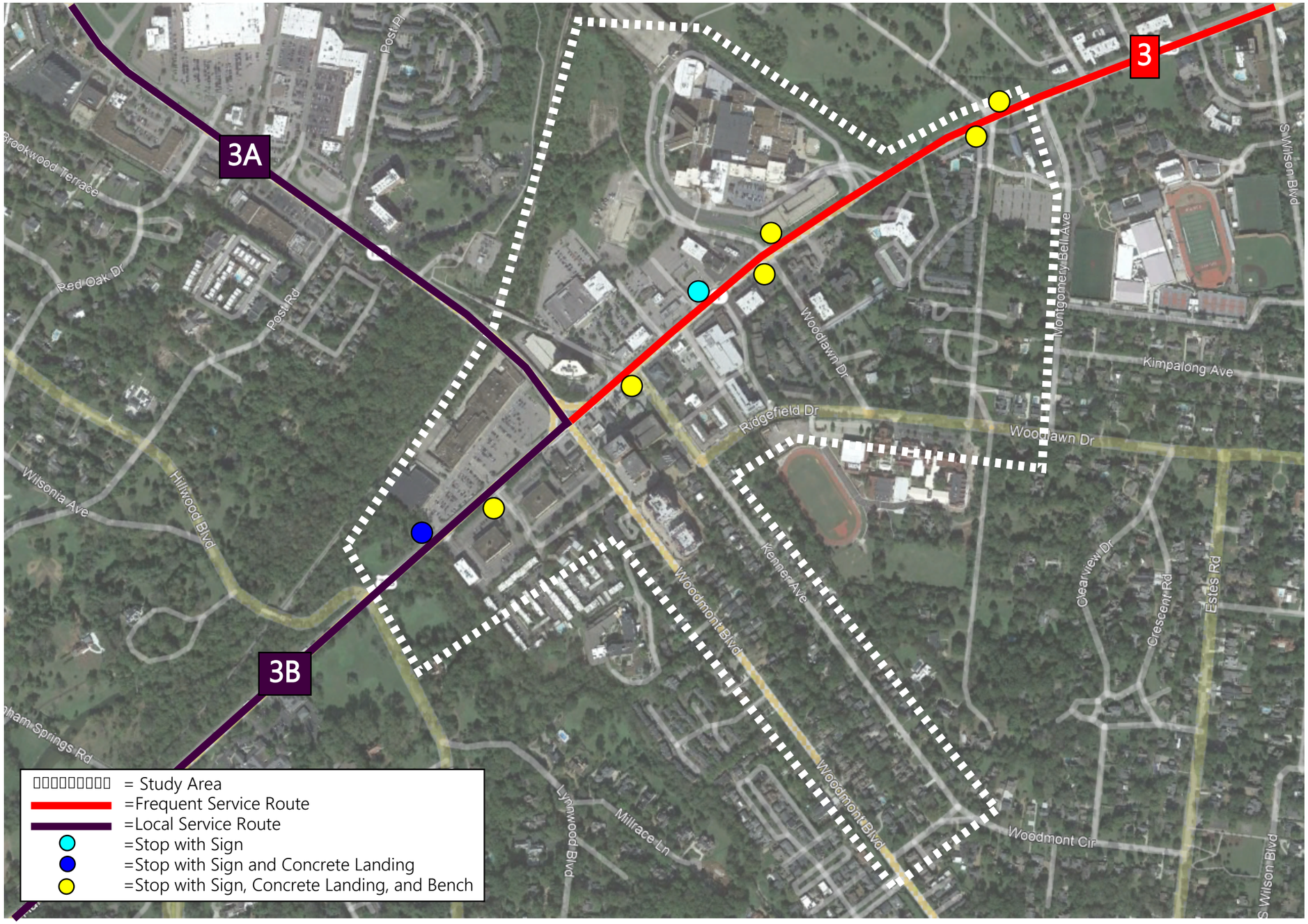
Figure 1.

5.6 Transit Services and Facilities Plan

A detailed inventory of the existing transit services and transit stops are provided in Section 2.4. The routes and stops are presented visually in Figure 15.

The following transit recommendations should also be taken into consideration:

- Developments should coordinate with WeGo and NDOT regarding updates to transit stops and locations.
- All transit stops should include, at minimum, a sign and a concrete landing. Benches and bus shelters are preferred to enhance the facilities and encourage ridership.



N

(Not to Scale)

Transit Facilities

Figure 1.

6. RECOMMENDATIONS

The analyses presented in this study indicate that the impacts of the proposed project on the existing street network will be manageable by providing the recommendations below. Recommendations listed under multiple developments will be the joint responsibility of each development. The recommendations are as follows:

6.1 Harding Town Center

Site Driveways

- All site driveways should be stop-controlled, and a stop bar should be installed on the egress approach.
- All site driveways should be designed to include sufficient width for a minimum of one entering lane and one exiting lane.

Harding Pike and White Bridge Pike/Woodmont Boulevard

- Convert the side street split phasing to concurrent phasing with protected-permissive left-turn phasing on the northbound approach of Woodmont Boulevard and protected-only left-turn phasing on the southbound approach of White Bridge Pike. Stripe the left-turn movements on the northbound and southbound approaches.
- Install advanced warning signs for a crosswalk (W11-2) on the westbound and southbound channelized, right-turns.

Harding Pike and Kenner Avenue

- Remove the signal.
- Convert the northbound and southbound approaches of Kenner Avenue to right-in/right-out only with a center median.

Harding Pike and HTC Access/Ridgefield Way

- Install a traffic signal at the intersection. Provide protected-permissive left-turn phasing on all approaches.

Woodlawn Drive and Ridgefield Drive

- Upon completion of the proposed development, the intersection should be analyzed for the need to convert the intersection for all-way stop operation to a roundabout.

Signal Timing Optimization and Coordination

- Signal timings at all the signalized study intersections should be optimized upon completion of the development. Furthermore, after providing a traffic signal at the intersection of Harding Pike and HTC Access/Ridgefield Way, signal timing coordination should be conducted between the signalized intersections.

Parking, Valet, and Rideshare Accommodations

- Parking should be developed per code.
- All rideshare operations should take place on-site and not block traffic on Harding Pike.
- Signage should be place near the project site to direct rideshare drivers to the designated drop-off areas.

Travel Demand Management

- It is recommended that the development provide employees, residents, and customers extensive information about area transit service including routes, nearby stops, and schedules. This information may be provided by an informational kiosk, maps, or posters at prominent locations.
- Parking/storage options should be provided for bicycles on-site.
- Off-peak loading and deliveries for the development should be encouraged to minimize impacts to traffic operations.

Pedestrian, Bicycle, and Transit Information

- Provide and/or improve crosswalks, detectable warning mats, and curb ramps at the study intersections.
- Leading pedestrian intervals (LPI) should be taken into consideration at the signalized study intersections.
- Coordinate with WeGo and NDOT on transit improvements in the study area.
- Provide a protected pedestrian intersection at the intersection of Harding Pike and HTC Access/Ridgefield Way.
- Provide a protected pedestrian and bicycle intersection at the intersection of Harding Pike and Bosley Springs Road/Woodlawn Drive.
- A 10-foot-wide sidewalk with a 12.5-foot-wide planting strip should be constructed along the property frontage.

Additional Recommendations

- As part of the construction of the project, all internal and external driveway connections should be designed such that the departure sight triangles, as specified by AASHTO, will be clear of all sight obstructions, including landscaping, existing vegetation, monument signs/walls, fences, etc.

- Final design of internal roadways and parking should meet all Metro Nashville standards and the latest version of "A Policy of Geometric Design of Highways and Streets" published by AASHTO. Any parking lots and streets associated with the development should ensure that passenger cars and emergency vehicles are capable of making all turning movements. Internal intersections should be two-way stop-controlled unless all-way stop control warrants are met.

6.2 4416 Ridgefield Way

Site Driveways

- All site driveways should be stop-controlled, and a stop bar should be installed on the egress approach.
- All site driveways should be designed to include sufficient width for one entering lane and one exiting lane.

Harding Pike and White Bridge Pike/Woodmont Boulevard

- Convert the side street split phasing to concurrent phasing with protected-permissive left-turn phasing on the northbound approach of Woodmont Boulevard and protected-only left-turn phasing on the southbound approach of White Bridge Pike. Stripe the left-turn movements on the northbound and southbound approaches.
- Install advanced warning signs for a crosswalk (W11-2) on the westbound and southbound channelized, right-turns.

Harding Pike and Kenner Avenue

- Remove the signal.
- Convert the northbound and southbound approached of Kenner Avenue to right-in/right-out only with a center median island.

Harding Pike and HTC Access/Ridgefield Way

- Install a traffic signal at this intersection. Provide protected-permissive left-turn phasing on all approaches.
- If feasible, additional right-of-way should be provided along the Ridgefield Way frontage for an additional northbound left-turn lane.

Woodlawn Drive and Ridgefield Drive

- Upon completion of the proposed development, the intersection should be analyzed for the need to convert the intersection for all-way stop operation to a roundabout.

Signal Timing Optimization and Coordination

- Signal timings at all the signalized study intersections should be optimized upon completion of the development. Furthermore, after providing a traffic signal at the intersection of Harding Pike and HTC Access/Ridgefield Way, signal timing coordination should be conducted between the signalized intersections.

Parking, Valet, and Rideshare Accommodations

- Parking should be developed per code.
- All rideshare operations should take place on-site and not block traffic on Harding Pike, Ridgefield Way, or Ridgefield Drive.
- Signage should be place near the project site to direct rideshare drivers to the designated drop-off areas.

Travel Demand Management

- It is recommended that the development provide employees, residents, and customers extensive information about area transit service including routes, nearby stops, and schedules. This information may be provided by an informational kiosk, maps, or posters at prominent locations.
- Parking/storage options should be provided for bicycles on-site.
- Off-peak loading and deliveries for the development should be encouraged to minimize impacts to traffic operations.

Pedestrian, Bicycle, and Transit Information

- Provide and/or improve crosswalks, detectable warning mats, and curb ramps at the study intersections.
- Leading pedestrian intervals (LPI) should be taken into consideration at the signalized study intersections.
- Coordinate with WeGo and NDOT on transit improvements in the study area.
- Provide a protected pedestrian intersection at the intersection of Harding Pike and HTC Access/Ridgefield Way.
- Provide a protected pedestrian and bicycle intersection at the intersection of Harding Pike and Bosley Springs Road/Woodlawn Drive.
- A 10-foot-wide sidewalk with a 12.5-foot-wide planting strip should be constructed along the property frontage.

Additional Recommendations

- As part of the construction of the project, all internal and external driveway connections should be designed such that the departure sight triangles, as specified by AASHTO, will be clear of all sight obstructions, including landscaping, existing vegetation, monument signs/walls, fences, etc.

- Final design of internal roadways and parking should meet all Metro Nashville standards and the latest version of "A Policy of Geometric Design of Highways and Streets" published by AASHTO. Any parking lots and streets associated with the development should ensure that passenger cars and emergency vehicles are capable of making all turning movements. Internal intersections should be two-way stop-controlled unless all-way stop control warrants are met.

6.3 Belle Meade Plaza

Harding Pike and White Bridge Pike/Woodmont Boulevard

- Convert the side street split phasing to concurrent phasing with protected-permissive left-turn phasing on the northbound approach of Woodmont Boulevard and protected-only left-turn phasing on the southbound approach of White Bridge Pike.
- Install advanced warning signs for a crosswalk (W11-2) on the westbound and southbound channelized, right-turns.

Harding Pike and Eastern Driveway

- Remove the existing curb cut.

Harding Pike and Middle Driveway

- Modify the signal to include protected-permissive left-turn phasing on the southbound approach.
- If feasible with the adjacent intersection, make the intersection a protected intersection for pedestrians.

Harding Pike and Western Driveway

- Modify the southbound approach to restrict turning movements to right-in/right-out only.

Signal Timing Optimization and Coordination

- Signal timings at all the signalized study intersections should be optimized upon completion of the development.

Parking, Valet, and Rideshare Accommodations

- Parking should be developed per code.
- All rideshare operations should take place on-site and not block traffic on Harding Pike.
- Signage should be place near the project site to direct rideshare drivers to the designated drop-off areas.

Travel Demand Management

- It is recommended that the development provide employees, residents, and customers extensive information about area transit service including routes, nearby stops, and schedules. This information may be provided by an informational kiosk, maps, or posters at prominent locations.
- Parking/storage options should be provided for bicycles on-site.
- Off-peak loading and deliveries for the development should be encouraged to minimize impacts to traffic operations.

Pedestrian, Bicycle, and Transit Information

- Provide and/or improve crosswalks, detectable warning mats, and curb ramps at the study intersections.
- Leading pedestrian intervals (LPI) should be taken into consideration at the signalized study intersections.
- Coordinate with WeGo and NDOT on transit improvements in the study area.
- A 10-foot-wide sidewalk with a 4-foot-wide planting strip should be constructed from the Middle Driveway to the western property line.
- An 8-foot-wide sidewalk with a 4-foot-wide planting strip should be constructed from the Middle Driveway to the eastern property line.

Additional Recommendations

- Approximately 12 feet of right-of-way should be dedicated along White Bridge Pike to accommodate the potential future widening of the bridge.
- As part of the construction of the project, all internal and external driveway connections should be designed such that the departure sight triangles, as specified by AASHTO, will be clear of all sight obstructions, including landscaping, existing vegetation, monument signs/walls, fences, etc.
- Final design of internal roadways and parking should meet all Metro Nashville standards and the latest version of "A Policy of Geometric Design of Highways and Streets" published by AASHTO. Any parking lots and streets associated with the development should ensure that passenger cars and emergency vehicles are capable of making all turning movements. Internal intersections should be two-way stop-controlled unless all-way stop control warrants are met .

In summary, based on the analyses conducted, no further recommendations are presented for the proposed Belle Meade developments.

APPENDICES

APPENDIX A
PRELIMINARY SITE PLAN

APPENDIX B
SCOPING MEETING SUMMARY

APPENDIX C
DETAILED TURNING MOVEMENT COUNTS

APPENDIX D
TDOT COUNT DATA

APPENDIX E
SIGNAL TIMING SHEETS

APPENDIX F
CAPACITY ANALYSES

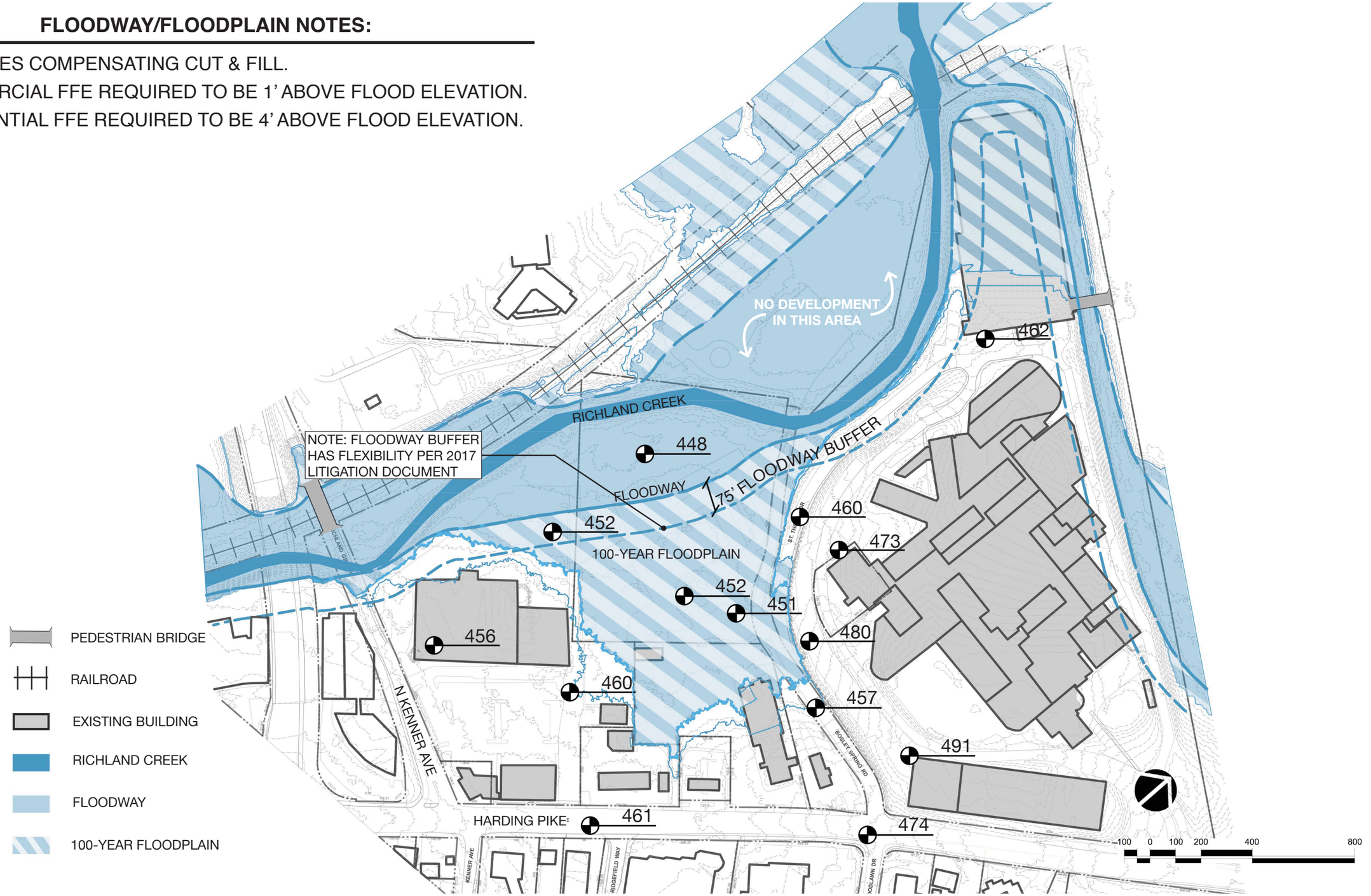
APPENDIX G
TRIP GENERATION CALCULATIONS

APPENDIX H
TRIP ASSIGNMENT AND REDISTRIBUTION

APPENDIX A
PRELIMINARY SITE PLAN

FLOODWAY/FLOODPLAIN NOTES:

1. REQUIRES COMPENSATING CUT & FILL.
2. COMMERCIAL FFE REQUIRED TO BE 1' ABOVE FLOOD ELEVATION.
3. RESIDENTIAL FFE REQUIRED TO BE 4' ABOVE FLOOD ELEVATION.



SITE ANALYSIS: FLOOD PLAIN

OVERALL TEST FIT PLAN

BELLE MEADE SIGN & CANOPY

WALGREENS

5' SETB
10' STEI
UDO)

112'-0" ROW
16'-0"
40'-0"
40'-0"
16'-0"

HARDING PIKE

+462'

461.0'

456.0'

PROPERTY LINE

ROPERTY LINE

LOBBY

KROGER
59,000 SF
+467.0'
RETAIL

+483'

PROPERTY LINE

RAMP UP 7.5%

RAMP DOWN 7.5%

+463.0'

+464.0'

+465.0'

+466.5'

79 SPACES

+466.0'

+466.5'

INTERNAL STREET

+465'

EXISTING RESIDENTIAL

RIDGEFIELD DR

NEW PROPERTY L
DEDICATION

PROPERTY LINE

A

A

B

B

HARDING PIKE

RIDGEFIELD WAY

+461'

+465'

+466'

62'-0" ROW

SEWER / STORM EASEMENT

20'-0"

KROGER PICK UP - 10 SPACES

PROPERTY LINE DEDICATION

PROPERTY LINE

MARQUEE APARTMENTS
PORTION OF THE GROUND
FLOOR - TO REMAIN

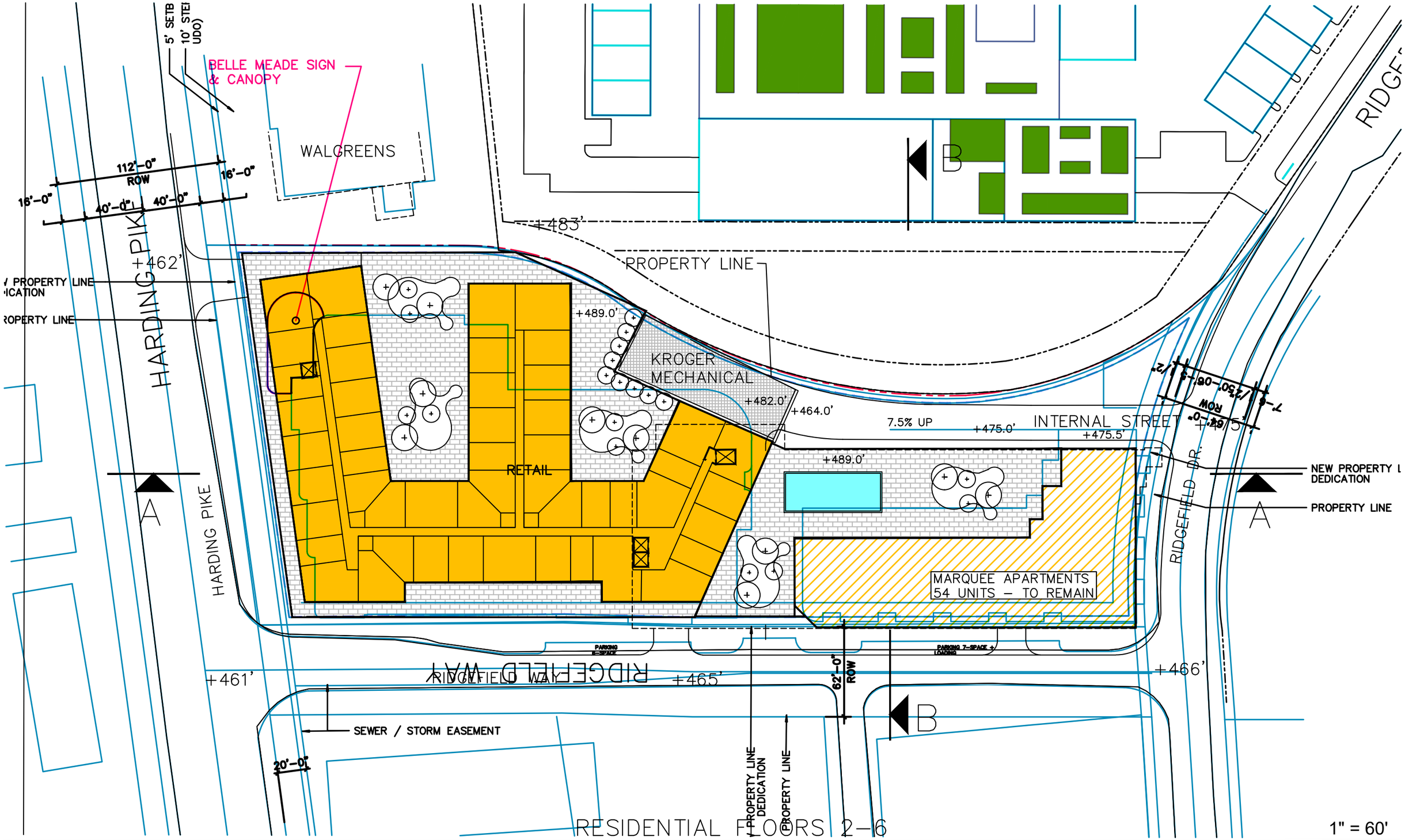
GROUND FLOOR STORE AT 467.0'

1" = 60'

HARDING PIKE MIXED USE NASHVILLE, TN

03/15/2022

dcs DESIGN



1" = 60'

HARDING PIKE MIXED USE NASHVILLE, TN

03/15/2022

dcs DESIGN

BUILDING DATA

SITE: 458,856 SF
FAR: 1.65 (755,000 SF FAR)

RESIDENTIAL CONDOS

TWO, 12 & 11 STORY BUILDINGS
340,000 SF FAR (TOTAL)
277,500 SF SALABLE (TOTAL)
+/- 90 UNITS (TOTAL) / +/- 3,000 SF PER DU
180 UNDERGROUND PARKING STALLS

MIXED-USE SHOPPING CENTER

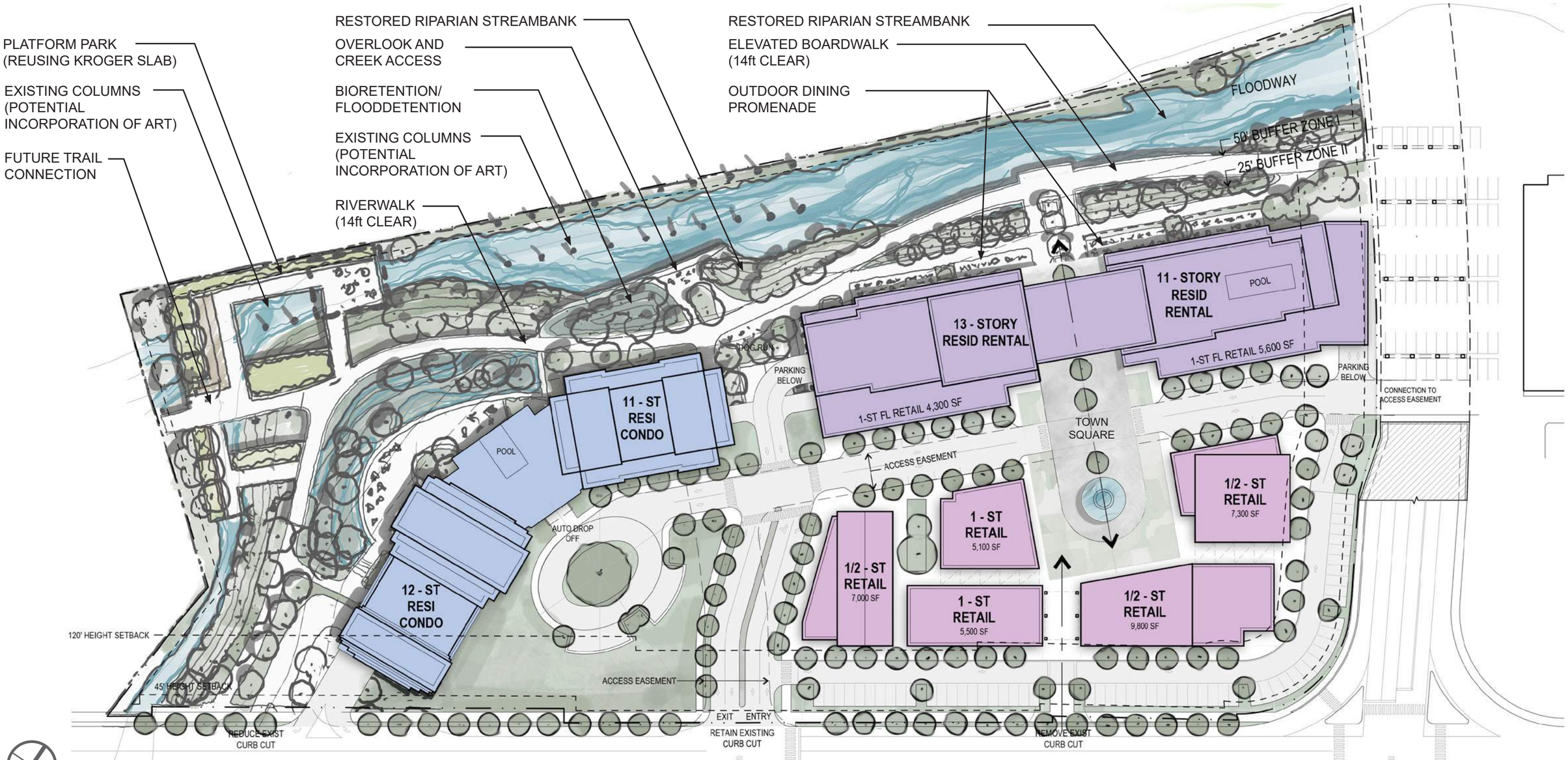
FOUR, 1 & 2 STORY RETAIL BUILDINGS
60,000 SF FAR
50,000 SF FAR @ GRADE
10,000 SF FAR @ SECOND FLOOR
+/- 120 PARKING STALLS AT GRADE

RESIDENTIAL RENTAL

TWO, 13 & 11 STORY BUILDINGS
355,000 SF FAR
280,000 SF RENTABLE
+/- 276 UNITS (825 SF PER DU)
PARKING SEE BELOW

RESIDENTIAL & RETAIL GARAGE

ONE UNDERGROUND PARKING LEVEL
135,000 SF
+/- 330 UNDERGROUND



SITE PLAN/RIVER TRAIL

APPENDIX B
SCOPING MEETING SUMMARY

Todd Serbent

From: Todd Serbent
Sent: Wednesday, December 28, 2022 10:35 PM
To: Todd Serbent
Subject: FW: Harding Town Center Mobility Study Scope

From: Doyle, Devin (NDOT) <Devin.Doyle@nashville.gov>
Sent: Thursday, December 15, 2022 3:33 PM
To: Beth Ostrowski <Beth.Ostrowski@kci.com>
Cc: Hattabaugh, Matthew (NDOT) <Matthew.Hattabaugh@nashville.gov>; Hancock, Melisa (NDOT) <Melisa.Hancock@nashville.gov>
Subject: Harding Town Center Mobility Study Scope
Importance: High

Beth,
Please see the proposed scope of work for the Harding Town Center Mobility Study. Let me know if you have any questions or comments.

Harding Town Center Mobility Study Scope

Per our conversation, Diana has asked KCI to complete a comprehensive mobility study of the Harding Pike at White Bridge Pike/Woodmont Boulevard intersection and surrounding area. It is to focus on the three large development projects in various quadrants of that intersection. The specific projects to be considered include: Hill Center Belle Meade, Belle Meade Plaza, and the old theatre/Harris Teeter site.

The scope of this study should include the following elements:

Assessment of Existing Modal Specific Transportation Plans
The following adopted transportation plans shall be reviewed and an assessment shall be made as to how the circulation characteristics of each are impacted by each development. The study should make recommended enhancements and modifications to each plan would that can be incorporated in the various projects. This is all in an effort to further support the successful implementation of each plan. At a minimum, these plans shall be considered:

- NDOT Bicycle Plan
- NDOT Pedestrian & Sidewalk Plan
- WeGo - NMotion and any other transit plans
- Metro Parks Department - Parks and Greenways “Plan to Play” Master Plan
- Vision Zero Plan - High Injury Network
- Any crash summaries and analysis where applicable

The study should evaluate and discuss how all of the mobility methods listed above function today and provide guidance as to how they can function at full build of the three development sites. Safety improvements to the area for all modes of mobility shall also be identified.

Background Growth

- A 3% growth rate shall be applied to account for historical growth.

Network Analysis

Perform a capacity analysis at the intersections previously discussed and agreed upon with NDOT staff. The evaluation should also include recommendations to provide specific multimodal enhancements at the intersections and at other important locations. At a minimum, this shall include the following intersections:

1. Harding Pike and White Bridge Pike / Woodmont Blvd.
2. Harding Pike and Kenner Ave.
3. Harding Pike and Ridgefield Way
4. Harding Pike and Bosley Spring Rd. / Woodlawn Dr.
5. Harding Pike and S. Thomas Drive
6. Harding Pike and Belle Meade Plaza

**The analysis should specifically evaluate the net impact on traffic patterns if the Kenner Avenue traffic signal is relocated to Ridgefield Way.

Recommendations

Following the network analysis and assessment of existing plans, KCI shall develop a list of recommended improvements for the area. Following that, a comparative review of the existing Major & Collector Street Plan (MCSP) shall be performed. The study shall list any specific changes that are recommended to be made to the MCSP.

All recommendations and considerations shall be presented both comprehensively and separately by development. As necessary, phased recommendations should be included per development**.**

Devin P. Doyle | Asst. Chief Engineer
Transportation Planning & Development
<image001.jpg>
Metropolitan Government of Nashville
750 South Fifth Street
Nashville, Tennessee 37206
Ph (615) 862-8704

Confidentiality Notice: This e-mail is from a law firm and may be protected by the attorney-client or work product privileges. If you have received this message in error, please notify the sender by replying to this e-mail and then delete it from your computer.

Tyler Fosnes

From: Meghan Sigler
Sent: Tuesday, November 1, 2022 3:46 PM
To: Hattabaugh, Matthew (NDOT); NDOT TIS Review
Cc: Hancock, Melisa (NDOT); Woods, Ian (NDOT - Vendor); Doyle, Devin (NDOT); Beth Ostrowski; Tyler Fosnes
Subject: RE: Scoping Request - 4416 Ridgefield Way TIS
Attachments: Study Intersections - Harding Town Center and 4416 Ridgefield Way.pdf

Matt,

We chatted about this. We are going to work on Harding Town Center and 4416 Ridgefield Way as one TIS with two background/projected scenarios (2027 and 2032). 2027 will reflect full build out of 4416 Ridgefield Way and Phase 1 of Harding Town Center. 2032 will reflect full build out of both developments. Then we will prepare a secondary memo that will include the Kroger Site as an overall trip generation evaluation of the area like we discussed on the call.

We have attached an updated list of study intersections.

Based on TDOT AADT within the area we are proposing a 1.5% per year growth rate. I know that you mentioned 3% per year on the phone, but that seems like a high percentage of growth over 10 years when taking into account that the Kroger site is expected to generate less trips.

We are also planning to utilize the following:

- Internal Trips:
  - HTC – AM: 25%, PM: 15%
  - RW – AM: 1.5%, PM: 20%
- Pass-By:
  - HTC – None
  - RW – 20%
- Alt Mode:
  - HTC – 8%
  - RW – 8%

If you have any questions/comments, please let us know.

Best Wishes,
Meghan

Meghan Sigler, P.E.
Project Engineer
DL: 615.559.0174
KCI TECHNOLOGIES INC.

From: Hattabaugh, Matthew (NDOT) <Matthew.Hattabaugh@nashville.gov>
Sent: Tuesday, October 25, 2022 12:08 PM
To: Meghan Sigler <Meghan.Sigler@kci.com>; NDOT TIS Review <NDOTTISReview@nashville.gov>
Cc: Hancock, Melisa (NDOT) <Melisa.Hancock@nashville.gov>; Woods, Ian (NDOT - Vendor) <Ian.Woods@nashville.gov>; Doyle, Devin (NDOT) <Devin.Doyle@nashville.gov>; Beth Ostrowski

<Beth.Ostrowski@kci.com>; Tyler Fosnes <Tyler.Fosnes@kci.com>; Todd Serbent <Todd.Serbent@kci.com>
Subject: [External Email] RE: Scoping Request - 4416 Ridgefield Way TIS

*****From IT@KCI.COM 410-316-7820 *** This is an External Email from outside of KCI.*****

Meghan,

Let's do next Tuesday (11/1) at 1 pm, and I'll send out the invite.

If we're thinking of the same project, we'll need to have a broader discussion on the trip gen since there was some confusion with the previous scoping.

Thanks,
Matt

From: Meghan Sigler <Meghan.Sigler@kci.com>
Sent: Tuesday, October 25, 2022 10:47 AM
To: Hattabaugh, Matthew (NDOT) <Matthew.Hattabaugh@nashville.gov>; NDOT TIS Review <NDOTTISReview@nashville.gov>
Cc: Hancock, Melisa (NDOT) <Melisa.Hancock@nashville.gov>; Woods, Ian (NDOT - Vendor) <Ian.Woods@nashville.gov>; Doyle, Devin (NDOT) <Devin.Doyle@nashville.gov>; Beth Ostrowski <Beth.Ostrowski@kci.com>; Tyler Fosnes <Tyler.Fosnes@kci.com>; Todd Serbent <Todd.Serbent@kci.com>
Subject: RE: Scoping Request - 4416 Ridgefield Way TIS

Attention: This email originated from a source external to Metro Government. Please exercise caution when opening any attachments or links from external sources.

Matt,

We wanted to make you aware that we are working to get under contract for a third project in the area as well. This site may actually be a reduction in trips since it is an active site. I have cc'd Todd because he will be the one working on that study.

Our availability is as follows:

- 10/25 – The rest of the day
- 10/26 – 9-10, 11-1, 2-3
- 10/31 – 10-3
- 11/1 – 1-5
- 11/2 – 9-10, 11-1, 2-5
- 11/3 – 9-11, 12-5

Meghan Sigler, P.E.
Project Engineer
DL: 615.559.0174
KCI TECHNOLOGIES INC.

From: Hattabaugh, Matthew (NDOT) <Matthew.Hattabaugh@nashville.gov>
Sent: Tuesday, October 25, 2022 9:24 AM
To: Meghan Sigler <Meghan.Sigler@kci.com>; NDOT TIS Review <NDOTTISReview@nashville.gov>
Cc: Hancock, Melisa (NDOT) <Melisa.Hancock@nashville.gov>; Woods, Ian (NDOT - Vendor) <Ian.Woods@nashville.gov>; Doyle, Devin (NDOT) <Devin.Doyle@nashville.gov>; Beth Ostrowski

<Beth.Ostrowski@kci.com>; Tyler Fosnes <Tyler.Fosnes@kci.com>
Subject: [External Email] RE: Scoping Request - 4416 Ridgefield Way TIS

*****From IT@KCI.COM 410-316-7820 *** This is an External Email from outside of KCI.*****

Meghan,

We think we should set up a call to scope this one since there has been quite a bit of activity in this area.

A few weeks back Beth & Tyler were scoping the Harding Pike Town Center redevelopment, and of the last questions that we needed answered was the background developments for that scoping. I think it would be best if we finalize the scoping for the Harding Pike Town Center and the 4416 Ridgefield Way in the same call.

What are some availabilities that you all have this week or early next week?

Thanks,
Matt

From: Meghan Sigler <Meghan.Sigler@kci.com>
Sent: Monday, October 17, 2022 8:55 AM
To: NDOT TIS Review <NDOTTISReview@nashville.gov>
Cc: Hattabaugh, Matthew (NDOT) <Matthew.Hattabaugh@nashville.gov>; Hancock, Melisa (NDOT) <Melisa.Hancock@nashville.gov>; Woods, Ian (NDOT - Vendor) <Ian.Woods@nashville.gov>; Doyle, Devin (NDOT) <Devin.Doyle@nashville.gov>
Subject: Scoping Request - 4416 Ridgefield Way TIS

Attention: This email originated from a source external to Metro Government. Please exercise caution when opening any attachments or links from external sources.

All,

We have a new project we would like to scope with you. The project is 4416 Ridgefield Way. I have attached the scoping packet for you to review.

The build-out year for the project is 2025. I have included the TDOT background information in the scoping packet. Based on the TDOT data with a 3-year build-out, we are proposing a 2% per year growth rate.

We are ok with scoping this either via email or phone.

If you have any questions/comments, please let me know.

Best Wishes,
Meghan

Meghan Sigler, P.E.
Project Engineer

KCI

KCI TECHNOLOGIES INC.
500 11th Avenue North, Suite 290, Nashville, TN 37203

Main: 615.370.8410
meghan.sigler@kci.com
DL: 615.559.0174 | Cell: 423.839.3577 | F: 615.370.8455
www.kci.com

APPENDIX C
DETAILED TURNING MOVEMENT COUNTS

Peak Hour Turning Movement Count

Nashville, TN

Click here for Map

Marr Traffic DATA COLLECTION

www.marrtraffic.com

Thursday, November 17, 2022	
Period	0700 - 1900
Peak Hour	0715 - 0815

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)

0715 - 0815

Volume

All vehicles

	Northbound					Southbound					Eastbound					Westbound					
	Kenner Ave (South)					Kenner Ave (North)					Driveway					Ridgefield Dr					
Time	Left 1.1	Thru 1.2	Right 1.3	U-Turn 1.4	App Total	Left 1.5	Thru 1.6	Right 1.7	U-Turn 1.8	App Total	Left 1.9	Thru 1.10	Right 1.11	U-Turn 1.12	App Total	Left 1.13	Thru 1.14	Right 1.15	U-Turn 1.16	App Total	Int Total
0715 - 0730	0	11	34	0	45	49	7	0	0	56	0	0	0	0	0	0	1	20	0	21	122
0730 - 0745	0	13	63	0	76	41	10	1	0	52	0	0	0	0	0	15	2	50	0	67	195
0745 - 0800	0	9	53	0	62	39	1	0	0	40	1	0	0	0	1	12	0	59	0	71	174
0800 - 0815	1	5	11	0	17	17	5	0	0	22	0	0	0	0	0	0	0	29	0	29	68
Total	1	38	161	0	200	146	23	1	0	170	1	0	0	0	1	27	3	158	0	188	559
Approach %	0.50	19.00	80.50	0.00	-	85.88	13.53	0.59	0.00	-	100.00	0.00	0.00	0.00	-	14.36	1.60	84.04	0.00	-	
PHF	0.25	0.73	0.64	0.00	**0.66**	0.74	0.58	0.25	0.00	**0.76**	0.25	0.00	0.00	0.00	**0.25**	0.45	0.38	0.67	0.00	**0.66**	**0.72**

Passenger Vehicles (1-3)

	Northbound					Southbound					Eastbound					Westbound					
	Kenner Ave (South)					Kenner Ave (North)					Driveway					Ridgefield Dr					
Time	Left 1.1	Thru 1.2	Right 1.3	U-Turn 1.4	App Total	Left 1.5	Thru 1.6	Right 1.7	U-Turn 1.8	App Total	Left 1.9	Thru 1.10	Right 1.11	U-Turn 1.12	App Total	Left 1.13	Thru 1.14	Right 1.15	U-Turn 1.16	App Total	Int Total
0715 - 0730	0	11	34	0	45	49	6	0	0	55	0	0	0	0	0	0	1	20	0	21	121
0730 - 0745	0	13	63	0	76	41	9	1	0	51	0	0	0	0	0	15	2	48	0	65	192
0745 - 0800	0	9	53	0	62	38	1	0	0	39	1	0	0	0	1	12	0	57	0	69	171
0800 - 0815	1	5	11	0	17	17	5	0	0	22	0	0	0	0	0	0	0	29	0	29	68
Total	1	38	161	0	200	145	21	1	0	167	1	0	0	0	1	27	3	154	0	184	552
Approach %	0.50	19.00	80.50	0.00	-	86.83	12.57	0.60	0.00	-	100.00	0.00	0.00	0.00	-	14.67	1.63	83.70	0.00	-	
PHF	0.25	0.73	0.64	0.00	**0.66**	0.74	0.58	0.25	0.00	**0.76**	0.25	0.00	0.00	0.00	**0.25**	0.45	0.38	0.68	0.00	**0.67**	**0.72**

Single Unit Trucks (4-7)

	Northbound					Southbound					Eastbound					Westbound					
	Kenner Ave (South)					Kenner Ave (North)					Driveway					Ridgefield Dr					
Time	Left 1.1	Thru 1.2	Right 1.3	U-Turn 1.4	App Total	Left 1.5	Thru 1.6	Right 1.7	U-Turn 1.8	App Total	Left 1.9	Thru 1.10	Right 1.11	U-Turn 1.12	App Total	Left 1.13	Thru 1.14	Right 1.15	U-Turn 1.16	App Total	Int Total
0715 - 0730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0730 - 0745	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	2	0	2	3
0745 - 0800	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	2	0	2	3
0800 - 0815	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0	4	0	4	6
Approach %	0.00	0.00	0.00	0.00	-	50.00	50.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	100.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.25	0.25	0.00	0.00	**0.50**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.50	0.00	**0.50**	**0.50**

Combination Trucks (8-13)

	Northbound					Southbound					Eastbound					Westbound					
	Kenner Ave (South)					Kenner Ave (North)					Driveway					Ridgefield Dr					
Time	Left 1.1	Thru 1.2	Right 1.3	U-Turn 1.4	App Total	Left 1.5	Thru 1.6	Right 1.7	U-Turn 1.8	App Total	Left 1.9	Thru 1.10	Right 1.11	U-Turn 1.12	App Total	Left 1.13	Thru 1.14	Right 1.15	U-Turn 1.16	App Total	Int Total
0715 - 0730	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
0730 - 0745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0745 - 0800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0800 - 0815	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Approach %	0.00	0.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.25	0.00	0.00	**0.25**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.25**

Bikes

	Northbound					Southbound					Eastbound					Westbound					
	Kenner Ave (South)					Kenner Ave (North)					Driveway					Ridgefield Dr					
Time	Left 1.1	Thru 1.2	Right 1.3	U-Turn 1.4	App Total	Left 1.5	Thru 1.6	Right 1.7	U-Turn 1.8	App Total	Left 1.9	Thru 1.10	Right 1.11	U-Turn 1.12	App Total	Left 1.13	Thru 1.14	Right 1.15	U-Turn 1.16	App Total	Int Total
0715 - 0730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0730 - 0745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0745 - 0800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0800 - 0815	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Peak Hour Turning Movement Count

Nashville, TN

Click here for Map

Marr Traffic DATA COLLECTION

www.marrtraffic.com

Thursday, November 17, 2022	
Period	0700 - 1900
Peak Hour	1600 - 1700

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)

1600 - 1700

Volume

All vehicles

	Northbound					Southbound					Eastbound					Westbound					
	Kenner Ave (South)					Kenner Ave (North)					Driveway					Ridgefield Dr					
Time	Left 1.1	Thru 1.2	Right 1.3	U-Turn 1.4	App Total	Left 1.5	Thru 1.6	Right 1.7	U-Turn 1.8	App Total	Left 1.9	Thru 1.10	Right 1.11	U-Turn 1.12	App Total	Left 1.13	Thru 1.14	Right 1.15	U-Turn 1.16	App Total	Int Total
1600 - 1615	0	13	7	0	20	34	15	0	0	49	0	0	0	0	0	9	0	58	0	67	136
1615 - 1630	0	7	12	0	19	38	16	0	0	54	0	0	0	0	0	6	0	46	0	52	125
1630 - 1645	0	12	8	0	20	36	21	0	0	57	0	1	1	0	2	12	0	59	0	71	150
1645 - 1700	0	6	6	0	12	32	15	0	0	47	0	0	1	0	1	3	0	50	0	53	113
Total	0	38	33	0	71	140	67	0	0	207	0	1	2	0	3	30	0	213	0	243	524
Approach %	0.00	53.52	46.48	0.00	-	67.63	32.37	0.00	0.00	-	0.00	33.33	66.67	0.00	-	12.35	0.00	87.65	0.00	-	
PHF	0.00	0.73	0.69	0.00	**0.89**	0.92	0.80	0.00	0.00	**0.91**	0.00	0.25	0.50	0.00	**0.38**	0.63	0.00	0.90	0.00	**0.86**	**0.87**

Passenger Vehicles (1-3)

	Northbound					Southbound					Eastbound					Westbound					
	Kenner Ave (South)					Kenner Ave (North)					Driveway					Ridgefield Dr					
Time	Left 1.1	Thru 1.2	Right 1.3	U-Turn 1.4	App Total	Left 1.5	Thru 1.6	Right 1.7	U-Turn 1.8	App Total	Left 1.9	Thru 1.10	Right 1.11	U-Turn 1.12	App Total	Left 1.13	Thru 1.14	Right 1.15	U-Turn 1.16	App Total	Int Total
1600 - 1615	0	13	7	0	20	34	15	0	0	49	0	0	0	0	0	9	0	57	0	66	135
1615 - 1630	0	7	12	0	19	38	16	0	0	54	0	0	0	0	0	6	0	46	0	52	125
1630 - 1645	0	12	8	0	20	35	21	0	0	56	0	1	1	0	2	12	0	59	0	71	149
1645 - 1700	0	6	6	0	12	32	15	0	0	47	0	0	1	0	1	3	0	50	0	53	113
Total	0	38	33	0	71	139	67	0	0	206	0	1	2	0	3	30	0	212	0	242	522
Approach %	0.00	53.52	46.48	0.00	-	67.48	32.52	0.00	0.00	-	0.00	33.33	66.67	0.00	-	12.40	0.00	87.60	0.00	-	
PHF	0.00	0.73	0.69	0.00	**0.89**	0.91	0.80	0.00	0.00	**0.92**	0.00	0.25	0.50	0.00	**0.38**	0.63	0.00	0.90	0.00	**0.85**	**0.88**

Single Unit Trucks (4-7)

	Northbound					Southbound					Eastbound					Westbound					
	Kenner Ave (South)					Kenner Ave (North)					Driveway					Ridgefield Dr					
Time	Left 1.1	Thru 1.2	Right 1.3	U-Turn 1.4	App Total	Left 1.5	Thru 1.6	Right 1.7	U-Turn 1.8	App Total	Left 1.9	Thru 1.10	Right 1.11	U-Turn 1.12	App Total	Left 1.13	Thru 1.14	Right 1.15	U-Turn 1.16	App Total	Int Total
1600 - 1615	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
1615 - 1630	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1630 - 1645	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
1645 - 1700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	2
Approach %	0.00	0.00	0.00	0.00	-	100.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	100.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.25	0.00	0.00	0.00	**0.25**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.25	0.00	**0.25**	**0.50**

Combination Trucks (8-13)

	Northbound					Southbound					Eastbound					Westbound					
	Kenner Ave (South)					Kenner Ave (North)					Driveway					Ridgefield Dr					
Time	Left 1.1	Thru 1.2	Right 1.3	U-Turn 1.4	App Total	Left 1.5	Thru 1.6	Right 1.7	U-Turn 1.8	App Total	Left 1.9	Thru 1.10	Right 1.11	U-Turn 1.12	App Total	Left 1.13	Thru 1.14	Right 1.15	U-Turn 1.16	App Total	Int Total
1600 - 1615	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1615 - 1630	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1630 - 1645	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1645 - 1700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Bikes

	Northbound					Southbound					Eastbound					Westbound					
	Kenner Ave (South)					Kenner Ave (North)					Driveway					Ridgefield Dr					
Time	Left 1.1	Thru 1.2	Right 1.3	U-Turn 1.4	App Total	Left 1.5	Thru 1.6	Right 1.7	U-Turn 1.8	App Total	Left 1.9	Thru 1.10	Right 1.11	U-Turn 1.12	App Total	Left 1.13	Thru 1.14	Right 1.15	U-Turn 1.16	App Total	Int Total
1600 - 1615	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1615 - 1630	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1630 - 1645	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1645 - 1700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Peak Hour Turning Movement Count

Nashville, TN

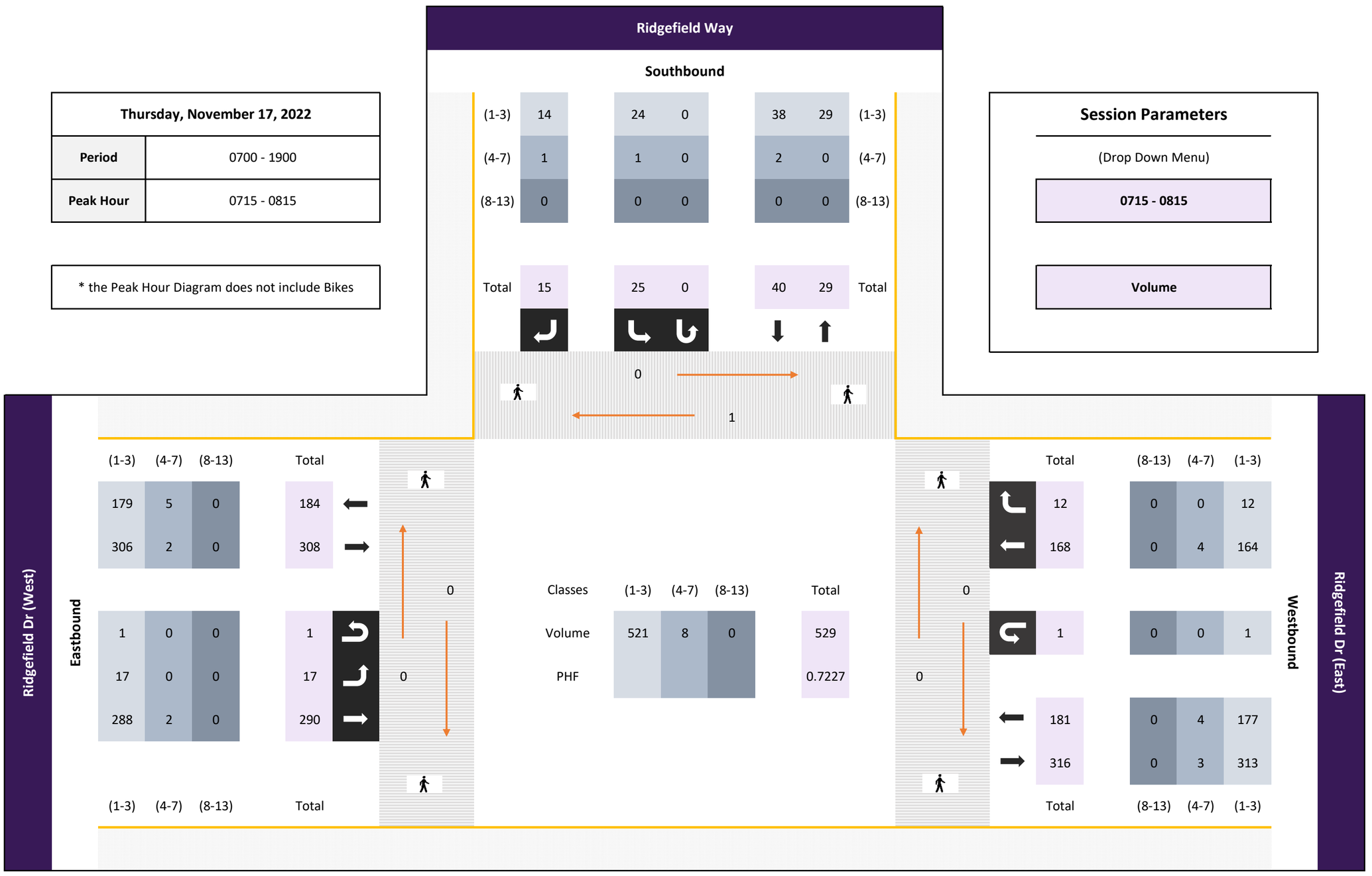
Click here for Map

Marr Traffic DATA COLLECTION

www.marrtraffic.com

Thursday, November 17, 2022	
Period	0700 - 1900
Peak Hour	0715 - 0815

* the Peak Hour Diagram does not include Bikes



Session Parameters
(Drop Down Menu)
0715 - 0815
Volume

All vehicles

						Southbound					Eastbound					Westbound					
						Ridgefield Way					Ridgefield Dr (West)					Ridgefield Dr (East)					
Time					App Total	Left 2.1		Right 2.2	U-Turn 2.3	App Total	Left 2.4	Thru 2.5		U-Turn 2.6	App Total		Thru 2.7	Right 2.8	U-Turn 2.9	App Total	Int Total
0715 - 0730	-	-	-	-	0	10	-	3	0	13	4	75	-	0	79	-	18	5	1	24	116
0730 - 0745	-	-	-	-	0	6	-	4	0	10	4	105	-	0	109	-	60	4	0	64	183
0745 - 0800	-	-	-	-	0	5	-	5	0	10	6	85	-	1	92	-	67	2	0	69	171
0800 - 0815	-	-	-	-	0	4	-	3	0	7	3	25	-	0	28	-	23	1	0	24	59
Total	0	0	0	0	0	25	0	15	0	40	17	290	0	1	308	0	168	12	1	181	529
Approach %	0.00	0.00	0.00	0.00	-	62.50	0.00	37.50	0.00	-	5.52	94.16	0.00	0.32	-	0.00	92.82	6.63	0.55	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.63	0.00	0.75	0.00	**0.77**	0.71	0.69	0.00	0.25	**0.71**	0.00	0.63	0.60	0.25	**0.66**	**0.72**

Passenger Vehicles (1-3)

						Southbound					Eastbound					Westbound					
						Ridgefield Way					Ridgefield Dr (West)					Ridgefield Dr (East)					
Time					App Total	Left 2.1		Right 2.2	U-Turn 2.3	App Total	Left 2.4	Thru 2.5		U-Turn 2.6	App Total		Thru 2.7	Right 2.8	U-Turn 2.9	App Total	Int Total
0715 - 0730	-	-	-	-	0	10	-	3	0	13	4	75	-	0	79	-	18	5	1	24	116
0730 - 0745	-	-	-	-	0	5	-	4	0	9	4	104	-	0	108	-	58	4	0	62	179
0745 - 0800	-	-	-	-	0	5	-	4	0	9	6	85	-	1	92	-	66	2	0	68	169
0800 - 0815	-	-	-	-	0	4	-	3	0	7	3	24	-	0	27	-	22	1	0	23	57
Total	0	0	0	0	0	24	0	14	0	38	17	288	0	1	306	0	164	12	1	177	521
Approach %	0.00	0.00	0.00	0.00	-	63.16	0.00	36.84	0.00	-	5.56	94.12	0.00	0.33	-	0.00	92.66	6.78	0.56	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.60	0.00	0.88	0.00	**0.73**	0.71	0.69	0.00	0.25	**0.71**	0.00	0.62	0.60	0.25	**0.65**	**0.73**

Single Unit Trucks (4-7)

						Southbound					Eastbound					Westbound					
						Ridgefield Way					Ridgefield Dr (West)					Ridgefield Dr (East)					
Time					App Total	Left 2.1		Right 2.2	U-Turn 2.3	App Total	Left 2.4	Thru 2.5		U-Turn 2.6	App Total		Thru 2.7	Right 2.8	U-Turn 2.9	App Total	Int Total
0715 - 0730	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0
0730 - 0745	-	-	-	-	0	1	-	0	0	1	0	1	-	0	1	-	2	0	0	2	4
0745 - 0800	-	-	-	-	0	0	-	1	0	1	0	0	-	0	0	-	1	0	0	1	2
0800 - 0815	-	-	-	-	0	0	-	0	0	0	0	1	-	0	1	-	1	0	0	1	2
Total	0	0	0	0	0	1	0	1	0	2	0	2	0	0	2	0	4	0	0	4	8
Approach %	0.00	0.00	0.00	0.00	-	50.00	0.00	50.00	0.00	-	0.00	100.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.25	0.00	0.25	0.00	**0.50**	0.00	0.50	0.00	0.00	**0.50**	0.00	0.50	0.00	0.00	**0.50**	**0.50**

Combination Trucks (8-13)

						Southbound					Eastbound					Westbound					
						Ridgefield Way					Ridgefield Dr (West)					Ridgefield Dr (East)					
Time					App Total	Left 2.1		Right 2.2	U-Turn 2.3	App Total	Left 2.4	Thru 2.5		U-Turn 2.6	App Total		Thru 2.7	Right 2.8	U-Turn 2.9	App Total	Int Total
0715 - 0730	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0
0730 - 0745	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0
0745 - 0800	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0
0800 - 0815	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Bikes

						Southbound					Eastbound					Westbound					
						Ridgefield Way					Ridgefield Dr (West)					Ridgefield Dr (East)					
Time					App Total	Left 2.1		Right 2.2	U-Turn 2.3	App Total	Left 2.4	Thru 2.5		U-Turn 2.6	App Total		Thru 2.7	Right 2.8	U-Turn 2.9	App Total	Int Total
0715 - 0730	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0
0730 - 0745	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0
0745 - 0800	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0
0800 - 0815	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Peak Hour Turning Movement Count

Nashville, TN

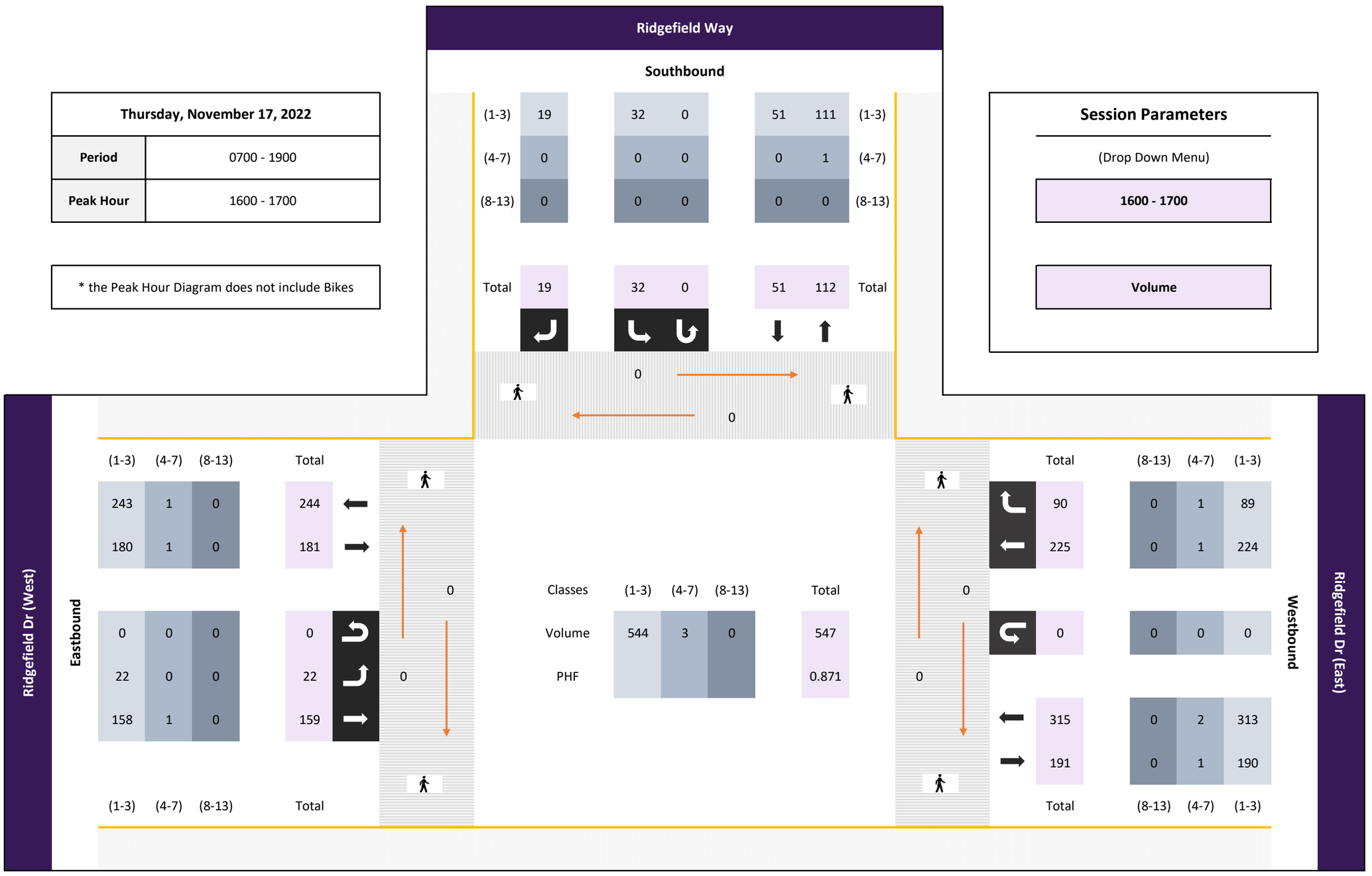
Click here for Map

Marr Traffic DATA COLLECTION

www.marrtraffic.com

Thursday, November 17, 2022	
Period	0700 - 1900
Peak Hour	1600 - 1700

* the Peak Hour Diagram does not include Bikes



Session Parameters

(Drop Down Menu)

1600 - 1700

Volume

All vehicles

						Southbound					Eastbound					Westbound					
						Ridgefield Way					Ridgefield Dr (West)					Ridgefield Dr (East)					
Time					App Total	Left 2.1		Right 2.2	U-Turn 2.3	App Total	Left 2.4	Thru 2.5		U-Turn 2.6	App Total		Thru 2.7	Right 2.8	U-Turn 2.9	App Total	Int Total
1600 - 1615	-	-	-	-	0	11	-	4	0	15	6	36	-	0	42	-	61	13	0	74	131
1615 - 1630	-	-	-	-	0	8	-	5	0	13	3	46	-	0	49	-	54	26	0	80	142
1630 - 1645	-	-	-	-	0	8	-	6	0	14	4	47	-	0	51	-	60	32	0	92	157
1645 - 1700	-	-	-	-	0	5	-	4	0	9	9	30	-	0	39	-	50	19	0	69	117
Total	0	0	0	0	0	32	0	19	0	51	22	159	0	0	181	0	225	90	0	315	547
Approach %	0.00	0.00	0.00	0.00	-	62.75	0.00	37.25	0.00	-	12.15	87.85	0.00	0.00	-	0.00	71.43	28.57	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.73	0.00	0.79	0.00	**0.85**	0.61	0.85	0.00	0.00	**0.89**	0.00	0.92	0.70	0.00	**0.86**	**0.87**

Passenger Vehicles (1-3)

						Southbound					Eastbound					Westbound					
						Ridgefield Way					Ridgefield Dr (West)					Ridgefield Dr (East)					
Time					App Total	Left 2.1		Right 2.2	U-Turn 2.3	App Total	Left 2.4	Thru 2.5		U-Turn 2.6	App Total		Thru 2.7	Right 2.8	U-Turn 2.9	App Total	Int Total
1600 - 1615	-	-	-	-	0	11	-	4	0	15	6	36	-	0	42	-	61	13	0	74	131
1615 - 1630	-	-	-	-	0	8	-	5	0	13	3	45	-	0	48	-	54	26	0	80	141
1630 - 1645	-	-	-	-	0	8	-	6	0	14	4	47	-	0	51	-	59	32	0	91	156
1645 - 1700	-	-	-	-	0	5	-	4	0	9	9	30	-	0	39	-	50	18	0	68	116
Total	0	0	0	0	0	32	0	19	0	51	22	158	0	0	180	0	224	89	0	313	544
Approach %	0.00	0.00	0.00	0.00	-	62.75	0.00	37.25	0.00	-	12.22	87.78	0.00	0.00	-	0.00	71.57	28.43	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.73	0.00	0.79	0.00	**0.85**	0.61	0.84	0.00	0.00	**0.88**	0.00	0.92	0.70	0.00	**0.86**	**0.87**

Single Unit Trucks (4-7)

						Southbound					Eastbound					Westbound					
						Ridgefield Way					Ridgefield Dr (West)					Ridgefield Dr (East)					
Time					App Total	Left 2.1		Right 2.2	U-Turn 2.3	App Total	Left 2.4	Thru 2.5		U-Turn 2.6	App Total		Thru 2.7	Right 2.8	U-Turn 2.9	App Total	Int Total
1600 - 1615	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0
1615 - 1630	-	-	-	-	0	0	-	0	0	0	0	1	-	0	1	-	0	0	0	0	1
1630 - 1645	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	1	0	0	1	1
1645 - 1700	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	1	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1	0	2	3
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	0.00	50.00	50.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.25	0.00	0.00	**0.25**	0.00	0.25	0.25	0.00	**0.50**	**0.75**

Combination Trucks (8-13)

						Southbound					Eastbound					Westbound					
						Ridgefield Way					Ridgefield Dr (West)					Ridgefield Dr (East)					
Time					App Total	Left 2.1		Right 2.2	U-Turn 2.3	App Total	Left 2.4	Thru 2.5		U-Turn 2.6	App Total		Thru 2.7	Right 2.8	U-Turn 2.9	App Total	Int Total
1600 - 1615	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0
1615 - 1630	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0
1630 - 1645	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0
1645 - 1700	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Bikes

						Southbound					Eastbound					Westbound					
						Ridgefield Way					Ridgefield Dr (West)					Ridgefield Dr (East)					
Time					App Total	Left 2.1		Right 2.2	U-Turn 2.3	App Total	Left 2.4	Thru 2.5		U-Turn 2.6	App Total		Thru 2.7	Right 2.8	U-Turn 2.9	App Total	Int Total
1600 - 1615	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0
1615 - 1630	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0
1630 - 1645	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0
1645 - 1700	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Peak Hour Turning Movement Count

Nashville, TN

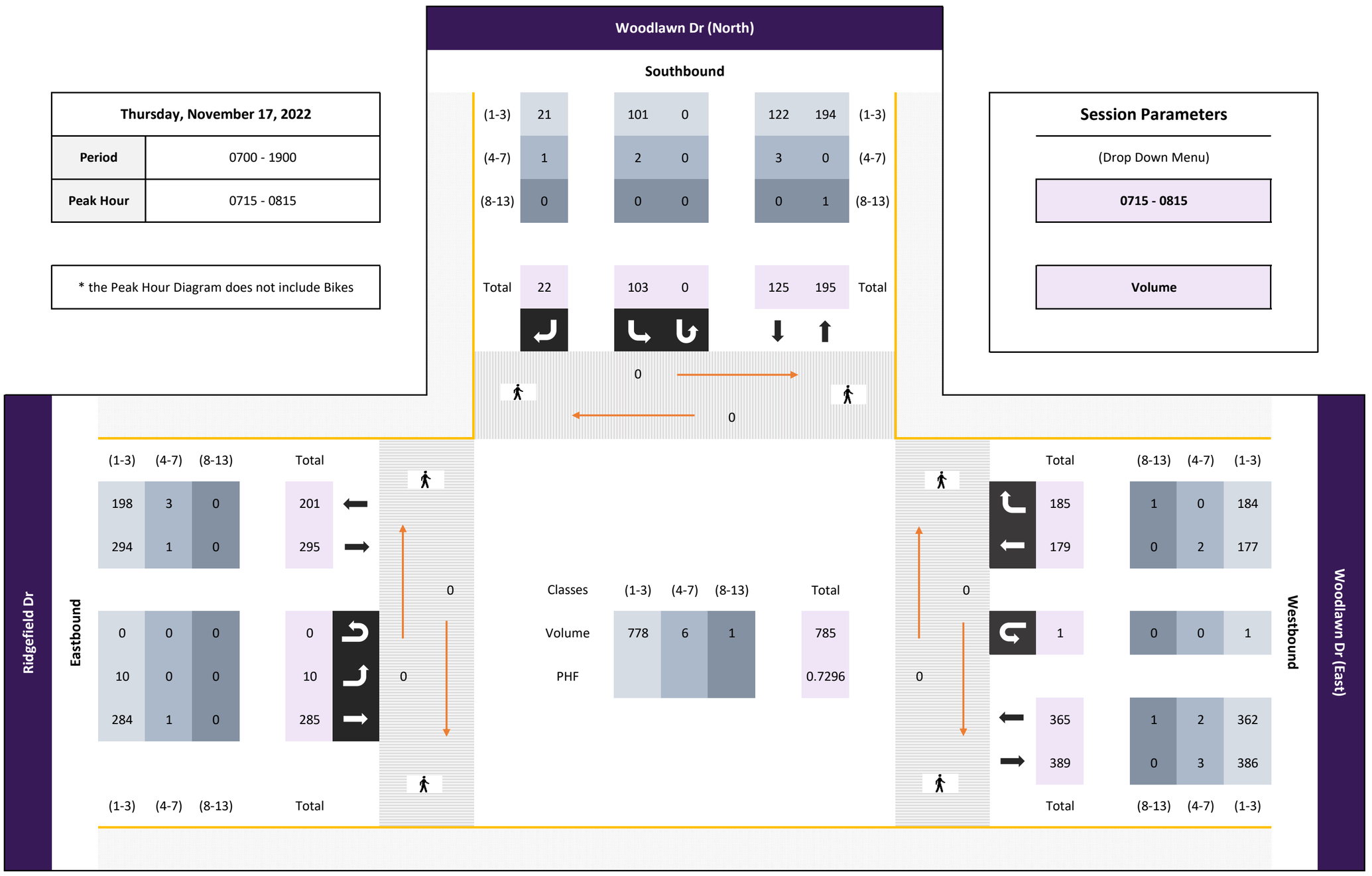
Click here for Map

Marr Traffic DATA COLLECTION

www.marrtraffic.com

Thursday, November 17, 2022	
Period	0700 - 1900
Peak Hour	0715 - 0815

* the Peak Hour Diagram does not include Bikes



Session Parameters

(Drop Down Menu)

0715 - 0815

Volume

All vehicles

						Southbound					Eastbound					Westbound					
						Woodlawn Dr (North)					Ridgefield Dr					Woodlawn Dr (East)					
Time					App Total	Left 3.1		Right 3.2	U-Turn 3.3	App Total	Left 3.4	Thru 3.5		U-Turn 3.6	App Total		Thru 3.7	Right 3.8	U-Turn 3.9	App Total	Int Total
0715 - 0730	-	-	-	-	0	21	-	7	0	28	2	51	-	0	53	-	33	28	0	61	142
0730 - 0745	-	-	-	-	0	28	-	10	0	38	3	108	-	0	111	-	57	57	0	114	263
0745 - 0800	-	-	-	-	0	28	-	5	0	33	2	100	-	0	102	-	65	69	0	134	269
0800 - 0815	-	-	-	-	0	26	-	0	0	26	3	26	-	0	29	-	24	31	1	56	111
Total	0	0	0	0	0	103	0	22	0	125	10	285	0	0	295	0	179	185	1	365	785
Approach %	0.00	0.00	0.00	0.00	-	82.40	0.00	17.60	0.00	-	3.39	96.61	0.00	0.00	-	0.00	49.04	50.68	0.27	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.92	0.00	0.55	0.00	**0.82**	0.83	0.66	0.00	0.00	**0.66**	0.00	0.69	0.67	0.25	**0.68**	**0.73**

Passenger Vehicles (1-3)

						Southbound					Eastbound					Westbound					
						Woodlawn Dr (North)					Ridgefield Dr					Woodlawn Dr (East)					
Time					App Total	Left 3.1		Right 3.2	U-Turn 3.3	App Total	Left 3.4	Thru 3.5		U-Turn 3.6	App Total		Thru 3.7	Right 3.8	U-Turn 3.9	App Total	Int Total
0715 - 0730	-	-	-	-	0	21	-	6	0	27	2	51	-	0	53	-	33	28	0	61	141
0730 - 0745	-	-	-	-	0	28	-	10	0	38	3	107	-	0	110	-	56	56	0	112	260
0745 - 0800	-	-	-	-	0	27	-	5	0	32	2	100	-	0	102	-	64	69	0	133	267
0800 - 0815	-	-	-	-	0	25	-	0	0	25	3	26	-	0	29	-	24	31	1	56	110
Total	0	0	0	0	0	101	0	21	0	122	10	284	0	0	294	0	177	184	1	362	778
Approach %	0.00	0.00	0.00	0.00	-	82.79	0.00	17.21	0.00	-	3.40	96.60	0.00	0.00	-	0.00	48.90	50.83	0.28	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.90	0.00	0.53	0.00	**0.80**	0.83	0.66	0.00	0.00	**0.67**	0.00	0.69	0.67	0.25	**0.68**	**0.73**

Single Unit Trucks (4-7)

						Southbound					Eastbound					Westbound					
						Woodlawn Dr (North)					Ridgefield Dr					Woodlawn Dr (East)					
Time					App Total	Left 3.1		Right 3.2	U-Turn 3.3	App Total	Left 3.4	Thru 3.5		U-Turn 3.6	App Total		Thru 3.7	Right 3.8	U-Turn 3.9	App Total	Int Total
0715 - 0730	-	-	-	-	0	0	-	1	0	1	0	0	-	0	0	-	0	0	0	0	1
0730 - 0745	-	-	-	-	0	0	-	0	0	0	0	1	-	0	1	-	1	0	0	1	2
0745 - 0800	-	-	-	-	0	1	-	0	0	1	0	0	-	0	0	-	1	0	0	1	2
0800 - 0815	-	-	-	-	0	1	-	0	0	1	0	0	-	0	0	-	0	0	0	0	1
Total	0	0	0	0	0	2	0	1	0	3	0	1	0	0	1	0	2	0	0	2	6
Approach %	0.00	0.00	0.00	0.00	-	66.67	0.00	33.33	0.00	-	0.00	100.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.50	0.00	0.25	0.00	**0.75**	0.00	0.25	0.00	0.00	**0.25**	0.00	0.50	0.00	0.00	**0.50**	**0.75**

Combination Trucks (8-13)

						Southbound					Eastbound					Westbound					
						Woodlawn Dr (North)					Ridgefield Dr					Woodlawn Dr (East)					
Time					App Total	Left 3.1		Right 3.2	U-Turn 3.3	App Total	Left 3.4	Thru 3.5		U-Turn 3.6	App Total		Thru 3.7	Right 3.8	U-Turn 3.9	App Total	Int Total
0715 - 0730	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0
0730 - 0745	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	1	0	1	1
0745 - 0800	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0
0800 - 0815	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	100.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.25	0.00	**0.25**	**0.25**

Bikes

						Southbound					Eastbound					Westbound					
						Woodlawn Dr (North)					Ridgefield Dr					Woodlawn Dr (East)					
Time					App Total	Left 3.1		Right 3.2	U-Turn 3.3	App Total	Left 3.4	Thru 3.5		U-Turn 3.6	App Total		Thru 3.7	Right 3.8	U-Turn 3.9	App Total	Int Total
0715 - 0730	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0
0730 - 0745	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0
0745 - 0800	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0
0800 - 0815	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Peak Hour Turning Movement Count

Nashville, TN

Click here for Map

Marr Traffic DATA COLLECTION

www.marrtraffic.com

Thursday, November 17, 2022	
Period	0700 - 1900
Peak Hour	1600 - 1700

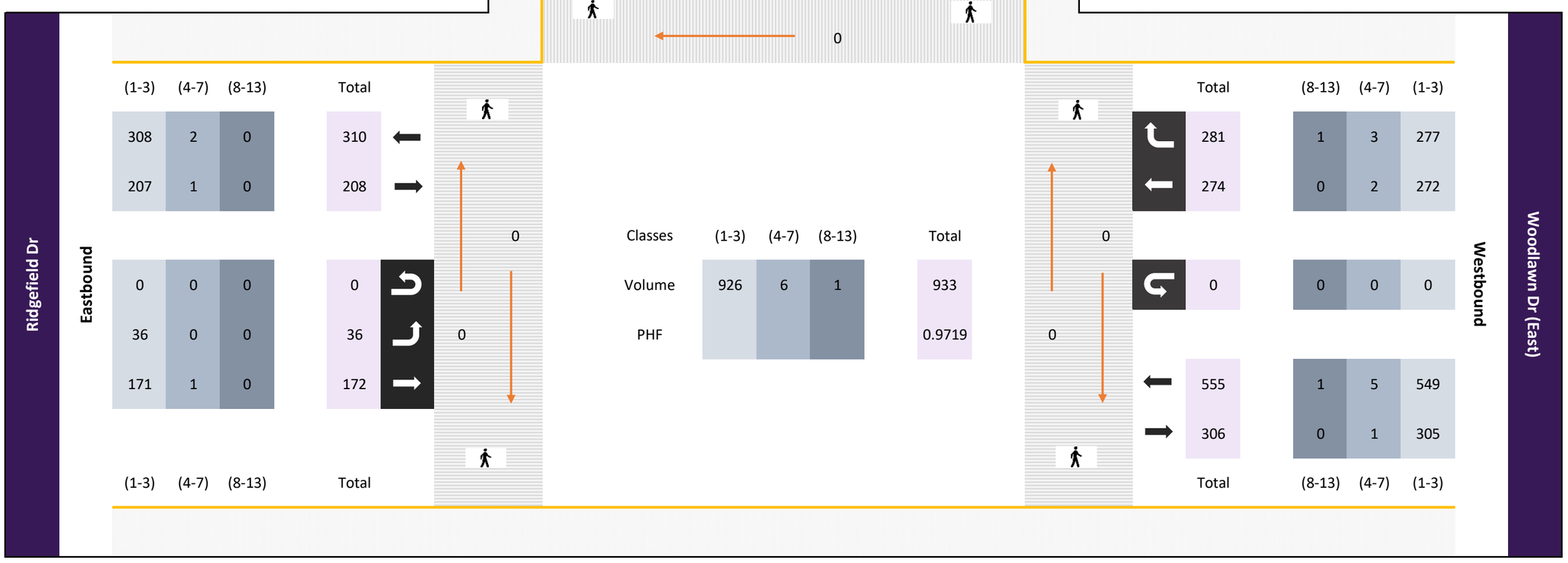
* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)

1600 - 1700

Volume



All vehicles

						Southbound					Eastbound					Westbound					
						Woodlawn Dr (North)					Ridgefield Dr					Woodlawn Dr (East)					
Time					App Total	Left 3.1		Right 3.2	U-Turn 3.3	App Total	Left 3.4	Thru 3.5		U-Turn 3.6	App Total		Thru 3.7	Right 3.8	U-Turn 3.9	App Total	Int Total
1600 - 1615	-	-	-	-	0	44	-	5	0	49	4	43	-	0	47	-	70	64	0	134	230
1615 - 1630	-	-	-	-	0	33	-	15	0	48	9	43	-	0	52	-	71	65	0	136	236
1630 - 1645	-	-	-	-	0	25	-	11	0	36	14	45	-	0	59	-	78	67	0	145	240
1645 - 1700	-	-	-	-	0	32	-	5	0	37	9	41	-	0	50	-	55	85	0	140	227
Total	0	0	0	0	0	134	0	36	0	170	36	172	0	0	208	0	274	281	0	555	933
Approach %	0.00	0.00	0.00	0.00	-	78.82	0.00	21.18	0.00	-	17.31	82.69	0.00	0.00	-	0.00	49.37	50.63	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.76	0.00	0.60	0.00	**0.87**	0.64	0.96	0.00	0.00	**0.88**	0.00	0.88	0.83	0.00	**0.96**	**0.97**

Passenger Vehicles (1-3)

						Southbound					Eastbound					Westbound					
						Woodlawn Dr (North)					Ridgefield Dr					Woodlawn Dr (East)					
Time					App Total	Left 3.1		Right 3.2	U-Turn 3.3	App Total	Left 3.4	Thru 3.5		U-Turn 3.6	App Total		Thru 3.7	Right 3.8	U-Turn 3.9	App Total	Int Total
1600 - 1615	-	-	-	-	0	44	-	5	0	49	4	43	-	0	47	-	69	62	0	131	227
1615 - 1630	-	-	-	-	0	33	-	15	0	48	9	43	-	0	52	-	71	64	0	135	235
1630 - 1645	-	-	-	-	0	25	-	11	0	36	14	44	-	0	58	-	78	67	0	145	239
1645 - 1700	-	-	-	-	0	32	-	5	0	37	9	41	-	0	50	-	54	84	0	138	225
Total	0	0	0	0	0	134	0	36	0	170	36	171	0	0	207	0	272	277	0	549	926
Approach %	0.00	0.00	0.00	0.00	-	78.82	0.00	21.18	0.00	-	17.39	82.61	0.00	0.00	-	0.00	49.54	50.46	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.76	0.00	0.60	0.00	**0.87**	0.64	0.97	0.00	0.00	**0.89**	0.00	0.87	0.82	0.00	**0.95**	**0.97**

Single Unit Trucks (4-7)

						Southbound					Eastbound					Westbound					
						Woodlawn Dr (North)					Ridgefield Dr					Woodlawn Dr (East)					
Time					App Total	Left 3.1		Right 3.2	U-Turn 3.3	App Total	Left 3.4	Thru 3.5		U-Turn 3.6	App Total		Thru 3.7	Right 3.8	U-Turn 3.9	App Total	Int Total
1600 - 1615	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	1	1	0	2	2
1615 - 1630	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	1	0	1	1
1630 - 1645	-	-	-	-	0	0	-	0	0	0	0	1	-	0	1	-	0	0	0	0	1
1645 - 1700	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	1	1	0	2	2
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	3	0	5	6
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	0.00	40.00	60.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.25	0.00	0.00	**0.25**	0.00	0.50	0.75	0.00	**0.63**	**0.75**

Combination Trucks (8-13)

						Southbound					Eastbound					Westbound					
						Woodlawn Dr (North)					Ridgefield Dr					Woodlawn Dr (East)					
Time					App Total	Left 3.1		Right 3.2	U-Turn 3.3	App Total	Left 3.4	Thru 3.5		U-Turn 3.6	App Total		Thru 3.7	Right 3.8	U-Turn 3.9	App Total	Int Total
1600 - 1615	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	1	0	1	1
1615 - 1630	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0
1630 - 1645	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0
1645 - 1700	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	100.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.25	0.00	**0.25**	**0.25**

Bikes

						Southbound					Eastbound					Westbound					
						Woodlawn Dr (North)					Ridgefield Dr					Woodlawn Dr (East)					
Time					App Total	Left 3.1		Right 3.2	U-Turn 3.3	App Total	Left 3.4	Thru 3.5		U-Turn 3.6	App Total		Thru 3.7	Right 3.8	U-Turn 3.9	App Total	Int Total
1600 - 1615	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0
1615 - 1630	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0
1630 - 1645	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0
1645 - 1700	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	-	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Peak Hour Turning Movement Count

Nashville, TN

Click here for Map

Marr Traffic DATA COLLECTION

www.marrtraffic.com

Thursday, November 17, 2022	
Period	0700 - 1900
Peak Hour	0715 - 0815

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)

0715 - 0815

Volume

All vehicles

	Northbound					Southbound					Eastbound					Westbound					
	Kinner Ave					N Kinner Ave					TN-1 Harding Pike (West)					TN-1 Harding Pike (East)					
Time	Left 4.1	Thru 4.2	Right 4.3	U-Turn 4.4	App Total	Left 4.5	Thru 4.6	Right 4.7	U-Turn 4.8	App Total	Left 4.9	Thru 4.10	Right 4.11	U-Turn 4.12	App Total	Left 4.13	Thru 4.14	Right 4.15	U-Turn 4.16	App Total	Int Total
0715 - 0730	13	5	8	0	26	23	5	15	0	43	12	421	47	0	480	5	231	12	0	248	797
0730 - 0745	40	5	12	0	57	40	5	7	0	52	5	386	41	0	432	9	270	11	0	290	831
0745 - 0800	33	8	4	0	45	32	4	14	0	50	14	388	33	0	435	10	297	15	0	322	852
0800 - 0815	41	9	1	0	51	27	6	17	0	50	13	380	27	0	420	8	232	9	0	249	770
Total	127	27	25	0	179	122	20	53	0	195	44	1575	148	0	1767	32	1030	47	0	1109	3250
Approach %	70.95	15.08	13.97	0.00	-	62.56	10.26	27.18	0.00	-	2.49	89.13	8.38	0.00	-	2.89	92.88	4.24	0.00	-	
PHF	0.77	0.75	0.52	0.00	**0.79**	0.76	0.83	0.78	0.00	**0.94**	0.79	0.94	0.79	0.00	**0.92**	0.80	0.87	0.78	0.00	**0.86**	**0.95**

Passenger Vehicles (1-3)

	Northbound					Southbound					Eastbound					Westbound					
	Kinner Ave					N Kinner Ave					TN-1 Harding Pike (West)					TN-1 Harding Pike (East)					
Time	Left 4.1	Thru 4.2	Right 4.3	U-Turn 4.4	App Total	Left 4.5	Thru 4.6	Right 4.7	U-Turn 4.8	App Total	Left 4.9	Thru 4.10	Right 4.11	U-Turn 4.12	App Total	Left 4.13	Thru 4.14	Right 4.15	U-Turn 4.16	App Total	Int Total
0715 - 0730	13	5	8	0	26	21	5	15	0	41	11	416	46	0	473	5	226	11	0	242	782
0730 - 0745	38	5	12	0	55	40	5	7	0	52	5	379	40	0	424	9	262	11	0	282	813
0745 - 0800	32	8	4	0	44	30	4	14	0	48	14	380	32	0	426	10	290	15	0	315	833
0800 - 0815	41	9	1	0	51	26	6	15	0	47	13	375	27	0	415	8	225	8	0	241	754
Total	124	27	25	0	176	117	20	51	0	188	43	1550	145	0	1738	32	1003	45	0	1080	3182
Approach %	70.45	15.34	14.20	0.00	-	62.23	10.64	27.13	0.00	-	2.47	89.18	8.34	0.00	-	2.96	92.87	4.17	0.00	-	
PHF	0.76	0.75	0.52	0.00	**0.80**	0.73	0.83	0.85	0.00	**0.90**	0.77	0.93	0.79	0.00	**0.92**	0.80	0.86	0.75	0.00	**0.86**	**0.95**

Single Unit Trucks (4-7)

	Northbound					Southbound					Eastbound					Westbound					
	Kinner Ave					N Kinner Ave					TN-1 Harding Pike (West)					TN-1 Harding Pike (East)					
Time	Left 4.1	Thru 4.2	Right 4.3	U-Turn 4.4	App Total	Left 4.5	Thru 4.6	Right 4.7	U-Turn 4.8	App Total	Left 4.9	Thru 4.10	Right 4.11	U-Turn 4.12	App Total	Left 4.13	Thru 4.14	Right 4.15	U-Turn 4.16	App Total	Int Total
0715 - 0730	0	0	0	0	0	2	0	0	0	2	1	5	1	0	7	0	4	1	0	5	14
0730 - 0745	2	0	0	0	2	0	0	0	0	0	0	7	0	0	7	0	7	0	0	7	16
0745 - 0800	1	0	0	0	1	2	0	0	0	2	0	7	1	0	8	0	7	0	0	7	18
0800 - 0815	0	0	0	0	0	1	0	2	0	3	0	5	0	0	5	0	6	1	0	7	15
Total	3	0	0	0	3	5	0	2	0	7	1	24	2	0	27	0	24	2	0	26	63
Approach %	100.00	0.00	0.00	0.00	-	71.43	0.00	28.57	0.00	-	3.70	88.89	7.41	0.00	-	0.00	92.31	7.69	0.00	-	
PHF	0.38	0.00	0.00	0.00	**0.38**	0.63	0.00	0.25	0.00	**0.58**	0.25	0.86	0.50	0.00	**0.84**	0.00	0.86	0.50	0.00	**0.93**	**0.88**

Combination Trucks (8-13)

	Northbound					Southbound					Eastbound					Westbound					
	Kinner Ave					N Kinner Ave					TN-1 Harding Pike (West)					TN-1 Harding Pike (East)					
Time	Left 4.1	Thru 4.2	Right 4.3	U-Turn 4.4	App Total	Left 4.5	Thru 4.6	Right 4.7	U-Turn 4.8	App Total	Left 4.9	Thru 4.10	Right 4.11	U-Turn 4.12	App Total	Left 4.13	Thru 4.14	Right 4.15	U-Turn 4.16	App Total	Int Total
0715 - 0730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
0730 - 0745	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	2
0745 - 0800	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
0800 - 0815	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	3	0	0	3	5
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	50.00	50.00	0.00	-	0.00	100.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.25	0.25	0.00	**0.50**	0.00	0.75	0.00	0.00	**0.75**	**0.63**

Bikes

	Northbound					Southbound					Eastbound					Westbound					
	Kinner Ave					N Kinner Ave					TN-1 Harding Pike (West)					TN-1 Harding Pike (East)					
Time	Left 4.1	Thru 4.2	Right 4.3	U-Turn 4.4	App Total	Left 4.5	Thru 4.6	Right 4.7	U-Turn 4.8	App Total	Left 4.9	Thru 4.10	Right 4.11	U-Turn 4.12	App Total	Left 4.13	Thru 4.14	Right 4.15	U-Turn 4.16	App Total	Int Total
0715 - 0730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0730 - 0745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0745 - 0800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0800 - 0815	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Peak Hour Turning Movement Count

Nashville, TN

Click here for Map

Marr Traffic DATA COLLECTION

www.marrtraffic.com

Thursday, November 17, 2022	
Period	0700 - 0900
Peak Hour	0715 - 0815

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)

Peak Hour

Volume

All vehicles

	Northbound					Southbound					Eastbound					Westbound					
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					TN-155 White Bridge Pike					Woodmont Blvd					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	4.1	4.2	4.3	4.4	Total	4.5	4.6	4.7	4.8	Total	4.9	4.10	4.11	4.12	Total	4.13	4.14	4.15	4.16	Total	Total
0715 - 0730	11	305	17	0	333	8	172	68	0	248	130	61	60	0	251	49	42	24	0	115	947
0730 - 0745	11	292	28	0	331	14	240	88	0	342	128	56	56	0	240	51	26	11	0	88	1001
0745 - 0800	14	246	29	0	289	10	248	88	0	346	147	58	89	0	294	59	56	13	0	128	1057
0800 - 0815	39	258	38	0	335	22	200	98	0	320	106	56	76	0	238	46	49	22	0	117	1010
Total	75	1101	112	0	1288	54	860	342	0	1256	511	231	281	0	1023	205	173	70	0	448	4015
Approach %	5.82	85.48	8.70	0.00	-	4.30	68.47	27.23	0.00	-	49.95	22.58	27.47	0.00	-	45.76	38.62	15.63	0.00	-	
PHF	0.48	0.90	0.74	0.00	**0.96**	0.61	0.87	0.87	0.00	**0.91**	0.87	0.95	0.79	0.00	**0.87**	0.87	0.77	0.73	0.00	**0.88**	**0.95**

Passenger Vehicles (1-3)

	Northbound					Southbound					Eastbound					Westbound					
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					TN-155 White Bridge Pike					Woodmont Blvd					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	4.1	4.2	4.3	4.4	Total	4.5	4.6	4.7	4.8	Total	4.9	4.10	4.11	4.12	Total	4.13	4.14	4.15	4.16	Total	Total
0715 - 0730	11	301	17	0	329	8	164	65	0	237	127	56	58	0	241	47	40	24	0	111	918
0730 - 0745	11	287	28	0	326	14	232	87	0	333	127	55	55	0	237	50	25	11	0	86	982
0745 - 0800	14	243	29	0	286	9	243	84	0	336	144	52	85	0	281	55	56	13	0	124	1027
0800 - 0815	38	255	38	0	331	22	193	96	0	311	104	51	63	0	218	44	47	22	0	113	973
Total	74	1086	112	0	1272	53	832	332	0	1217	502	214	261	0	977	196	168	70	0	434	3900
Approach %	5.82	85.38	8.81	0.00	-	4.35	68.36	27.28	0.00	-	51.38	21.90	26.71	0.00	-	45.16	38.71	16.13	0.00	-	
PHF	0.49	0.90	0.74	0.00	**0.96**	0.60	0.86	0.86	0.00	**0.91**	0.87	0.96	0.77	0.00	**0.87**	0.89	0.75	0.73	0.00	**0.88**	**0.95**

Single Unit Trucks (4-7)

	Northbound					Southbound					Eastbound					Westbound					
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					TN-155 White Bridge Pike					Woodmont Blvd					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	4.1	4.2	4.3	4.4	Total	4.5	4.6	4.7	4.8	Total	4.9	4.10	4.11	4.12	Total	4.13	4.14	4.15	4.16	Total	Total
0715 - 0730	0	4	0	0	4	0	8	2	0	10	3	4	1	0	8	2	2	0	0	4	26
0730 - 0745	0	5	0	0	5	0	7	0	0	7	1	0	1	0	2	1	1	0	0	2	16
0745 - 0800	0	2	0	0	2	1	5	3	0	9	3	5	4	0	12	3	0	0	0	3	26
0800 - 0815	1	3	0	0	4	0	6	2	0	8	2	3	13	0	18	2	1	0	0	3	33
Total	1	14	0	0	15	1	26	7	0	34	9	12	19	0	40	8	4	0	0	12	101
Approach %	6.67	93.33	0.00	0.00	-	2.94	76.47	20.59	0.00	-	22.50	30.00	47.50	0.00	-	66.67	33.33	0.00	0.00	-	
PHF	0.25	0.70	0.00	0.00	**0.75**	0.25	0.81	0.58	0.00	**0.85**	0.75	0.60	0.37	0.00	**0.56**	0.67	0.50	0.00	0.00	**0.75**	**0.77**

Combination Trucks (8-13)

	Northbound					Southbound					Eastbound					Westbound					
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					TN-155 White Bridge Pike					Woodmont Blvd					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	4.1	4.2	4.3	4.4	Total	4.5	4.6	4.7	4.8	Total	4.9	4.10	4.11	4.12	Total	4.13	4.14	4.15	4.16	Total	Total
0715 - 0730	0	0	0	0	0	0	0	1	0	1	0	1	1	0	2	0	0	0	0	0	3
0730 - 0745	0	0	0	0	0	0	1	1	0	2	0	1	0	0	1	0	0	0	0	0	3
0745 - 0800	0	1	0	0	1	0	0	1	0	1	0	1	0	0	1	1	0	0	0	1	4
0800 - 0815	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	0	1	0	0	1	4
Total	0	1	0	0	1	0	2	3	0	5	0	5	1	0	6	1	1	0	0	2	14
Approach %	0.00	100.00	0.00	0.00	-	0.00	40.00	60.00	0.00	-	0.00	83.33	16.67	0.00	-	50.00	50.00	0.00	0.00	-	
PHF	0.00	0.25	0.00	0.00	**0.25**	0.00	0.50	0.75	0.00	**0.63**	0.00	0.63	0.25	0.00	**0.75**	0.25	0.25	0.00	0.00	**0.50**	**0.88**

Bikes

	Northbound					Southbound					Eastbound					Westbound					
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					TN-155 White Bridge Pike					Woodmont Blvd					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	4.1	4.2	4.3	4.4	Total	4.5	4.6	4.7	4.8	Total	4.9	4.10	4.11	4.12	Total	4.13	4.14	4.15	4.16	Total	Total
0715 - 0730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0730 - 0745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0745 - 0800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0800 - 0815	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Peak Hour Turning Movement Count

Nashville, TN

Click here for Map

Marr Traffic DATA COLLECTION

www.marrtraffic.com

Thursday, November 17, 2022	
Period	1600 - 1800
Peak Hour	1645 - 1745

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)

Peak Hour

Volume

All vehicles

	Northbound					Southbound					Eastbound					Westbound					
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					TN-155 White Bridge Pike					Woodmont Blvd					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	4.1	4.2	4.3	4.4	Total	4.5	4.6	4.7	4.8	Total	4.9	4.10	4.11	4.12	Total	4.13	4.14	4.15	4.16	Total	Total
1645 - 1700	42	206	23	0	271	14	310	191	0	515	93	49	65	0	207	44	82	10	0	136	1129
1700 - 1715	41	205	31	0	277	15	298	200	0	513	71	50	60	0	181	56	74	16	0	146	1117
1715 - 1730	39	196	32	0	267	7	269	188	0	464	107	66	69	0	242	55	90	15	0	160	1133
1730 - 1745	54	194	36	0	284	16	291	197	0	504	81	52	80	0	213	40	86	10	0	136	1137
Total	176	801	122	0	1099	52	1168	776	0	1996	352	217	274	0	843	195	332	51	0	578	4516
Approach %	16.01	72.88	11.10	0.00	-	2.61	58.52	38.88	0.00	-	41.76	25.74	32.50	0.00	-	33.74	57.44	8.82	0.00	-	
PHF	0.81	0.97	0.85	0.00	**0.97**	0.81	0.94	0.97	0.00	**0.97**	0.82	0.82	0.86	0.00	**0.87**	0.87	0.92	0.80	0.00	**0.90**	**0.99**

Passenger Vehicles (1-3)

	Northbound					Southbound					Eastbound					Westbound					
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					TN-155 White Bridge Pike					Woodmont Blvd					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	4.1	4.2	4.3	4.4	Total	4.5	4.6	4.7	4.8	Total	4.9	4.10	4.11	4.12	Total	4.13	4.14	4.15	4.16	Total	Total
1645 - 1700	37	203	23	0	263	14	308	190	0	512	92	49	64	0	205	43	78	10	0	131	1111
1700 - 1715	39	203	30	0	272	14	296	199	0	509	70	49	59	0	178	55	72	16	0	143	1102
1715 - 1730	36	193	31	0	260	7	268	187	0	462	106	66	68	0	240	55	86	15	0	156	1118
1730 - 1745	54	192	36	0	282	16	289	194	0	499	79	52	79	0	210	40	83	9	0	132	1123
Total	166	791	120	0	1077	51	1161	770	0	1982	347	216	270	0	833	193	319	50	0	562	4454
Approach %	15.41	73.44	11.14	0.00	-	2.57	58.58	38.85	0.00	-	41.66	25.93	32.41	0.00	-	34.34	56.76	8.90	0.00	-	
PHF	0.77	0.97	0.83	0.00	**0.95**	0.80	0.94	0.97	0.00	**0.97**	0.82	0.82	0.85	0.00	**0.87**	0.88	0.93	0.78	0.00	**0.90**	**0.99**

Single Unit Trucks (4-7)

	Northbound					Southbound					Eastbound					Westbound					
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					TN-155 White Bridge Pike					Woodmont Blvd					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	4.1	4.2	4.3	4.4	Total	4.5	4.6	4.7	4.8	Total	4.9	4.10	4.11	4.12	Total	4.13	4.14	4.15	4.16	Total	Total
1645 - 1700	4	2	0	0	6	0	2	1	0	3	1	0	1	0	2	1	4	0	0	5	16
1700 - 1715	2	2	0	0	4	1	2	1	0	4	1	1	1	0	3	1	2	0	0	3	14
1715 - 1730	3	3	1	0	7	0	1	1	0	2	1	0	1	0	2	0	3	0	0	3	14
1730 - 1745	0	2	0	0	2	0	2	3	0	5	2	0	1	0	3	0	2	1	0	3	13
Total	9	9	1	0	19	1	7	6	0	14	5	1	4	0	10	2	11	1	0	14	57
Approach %	47.37	47.37	5.26	0.00	-	7.14	50.00	42.86	0.00	-	50.00	10.00	40.00	0.00	-	14.29	78.57	7.14	0.00	-	
PHF	0.56	0.75	0.25	0.00	**0.68**	0.25	0.88	0.50	0.00	**0.70**	0.63	0.25	1.00	0.00	**0.83**	0.50	0.69	0.25	0.00	**0.70**	**0.89**

Combination Trucks (8-13)

	Northbound					Southbound					Eastbound					Westbound					
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					TN-155 White Bridge Pike					Woodmont Blvd					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	4.1	4.2	4.3	4.4	Total	4.5	4.6	4.7	4.8	Total	4.9	4.10	4.11	4.12	Total	4.13	4.14	4.15	4.16	Total	Total
1645 - 1700	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1700 - 1715	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1715 - 1730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
1730 - 1745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	1	1	1	0	3	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	5
Approach %	33.33	33.33	33.33	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	
PHF	0.25	0.25	0.25	0.00	**0.38**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.50	0.00	0.00	**0.50**	**0.63**

Bikes

	Northbound					Southbound					Eastbound					Westbound					
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					TN-155 White Bridge Pike					Woodmont Blvd					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	4.1	4.2	4.3	4.4	Total	4.5	4.6	4.7	4.8	Total	4.9	4.10	4.11	4.12	Total	4.13	4.14	4.15	4.16	Total	Total
1645 - 1700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1700 - 1715	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1715 - 1730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1730 - 1745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Peak Hour Turning Movement Count

Nashville, TN

Click here for Map

Marr Traffic DATA COLLECTION

www.marrtraffic.com

Thursday, November 17, 2022	
Period	0700 - 1900
Peak Hour	1600 - 1700

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)

1600 - 1700

Volume

All vehicles

	Northbound					Southbound					Eastbound					Westbound					
	Kinner Ave					N Kinner Ave					TN-1 Harding Pike (West)					TN-1 Harding Pike (East)					
Time	Left 4.1	Thru 4.2	Right 4.3	U-Turn 4.4	App Total	Left 4.5	Thru 4.6	Right 4.7	U-Turn 4.8	App Total	Left 4.9	Thru 4.10	Right 4.11	U-Turn 4.12	App Total	Left 4.13	Thru 4.14	Right 4.15	U-Turn 4.16	App Total	Int Total
1600 - 1615	57	14	3	0	74	36	10	46	0	92	32	270	25	1	328	3	348	6	0	357	851
1615 - 1630	43	10	6	0	59	45	18	37	0	100	32	257	20	0	309	0	379	5	0	384	852
1630 - 1645	51	8	5	0	64	29	16	48	0	93	25	263	24	0	312	4	366	4	0	374	843
1645 - 1700	56	11	3	0	70	39	11	51	0	101	25	261	23	0	309	2	387	5	0	394	874
Total	207	43	17	0	267	149	55	182	0	386	114	1051	92	1	1258	9	1480	20	0	1509	3420
Approach %	77.53	16.10	6.37	0.00	-	38.60	14.25	47.15	0.00	-	9.06	83.55	7.31	0.08	-	0.60	98.08	1.33	0.00	-	
PHF	0.91	0.77	0.71	0.00	**0.90**	0.83	0.76	0.89	0.00	**0.96**	0.89	0.97	0.92	0.25	**0.96**	0.56	0.96	0.83	0.00	**0.96**	**0.98**

Passenger Vehicles (1-3)

	Northbound					Southbound					Eastbound					Westbound					
	Kinner Ave					N Kinner Ave					TN-1 Harding Pike (West)					TN-1 Harding Pike (East)					
Time	Left 4.1	Thru 4.2	Right 4.3	U-Turn 4.4	App Total	Left 4.5	Thru 4.6	Right 4.7	U-Turn 4.8	App Total	Left 4.9	Thru 4.10	Right 4.11	U-Turn 4.12	App Total	Left 4.13	Thru 4.14	Right 4.15	U-Turn 4.16	App Total	Int Total
1600 - 1615	57	14	3	0	74	36	10	45	0	91	32	263	25	1	321	3	345	6	0	354	840
1615 - 1630	42	10	6	0	58	44	18	37	0	99	32	252	20	0	304	0	377	4	0	381	842
1630 - 1645	51	8	5	0	64	29	16	48	0	93	25	260	24	0	309	4	361	4	0	369	835
1645 - 1700	56	11	3	0	70	39	11	51	0	101	25	255	23	0	303	2	385	5	0	392	866
Total	206	43	17	0	266	148	55	181	0	384	114	1030	92	1	1237	9	1468	19	0	1496	3383
Approach %	77.44	16.17	6.39	0.00	-	38.54	14.32	47.14	0.00	-	9.22	83.27	7.44	0.08	-	0.60	98.13	1.27	0.00	-	
PHF	0.90	0.77	0.71	0.00	**0.90**	0.84	0.76	0.89	0.00	**0.95**	0.89	0.98	0.92	0.25	**0.96**	0.56	0.95	0.79	0.00	**0.95**	**0.98**

Single Unit Trucks (4-7)

	Northbound					Southbound					Eastbound					Westbound					
	Kinner Ave					N Kinner Ave					TN-1 Harding Pike (West)					TN-1 Harding Pike (East)					
Time	Left 4.1	Thru 4.2	Right 4.3	U-Turn 4.4	App Total	Left 4.5	Thru 4.6	Right 4.7	U-Turn 4.8	App Total	Left 4.9	Thru 4.10	Right 4.11	U-Turn 4.12	App Total	Left 4.13	Thru 4.14	Right 4.15	U-Turn 4.16	App Total	Int Total
1600 - 1615	0	0	0	0	0	0	0	1	0	1	0	6	0	0	6	0	3	0	0	3	10
1615 - 1630	1	0	0	0	1	1	0	0	0	1	0	4	0	0	4	0	2	1	0	3	9
1630 - 1645	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	5	0	0	5	8
1645 - 1700	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	2	0	0	2	8
Total	1	0	0	0	1	1	0	1	0	2	0	19	0	0	19	0	12	1	0	13	35
Approach %	100.00	0.00	0.00	0.00	-	50.00	0.00	50.00	0.00	-	0.00	100.00	0.00	0.00	-	0.00	92.31	7.69	0.00	-	
PHF	0.25	0.00	0.00	0.00	**0.25**	0.25	0.00	0.25	0.00	**0.50**	0.00	0.79	0.00	0.00	**0.79**	0.00	0.60	0.25	0.00	**0.65**	**0.88**

Combination Trucks (8-13)

	Northbound					Southbound					Eastbound					Westbound					
	Kinner Ave					N Kinner Ave					TN-1 Harding Pike (West)					TN-1 Harding Pike (East)					
Time	Left 4.1	Thru 4.2	Right 4.3	U-Turn 4.4	App Total	Left 4.5	Thru 4.6	Right 4.7	U-Turn 4.8	App Total	Left 4.9	Thru 4.10	Right 4.11	U-Turn 4.12	App Total	Left 4.13	Thru 4.14	Right 4.15	U-Turn 4.16	App Total	Int Total
1600 - 1615	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
1615 - 1630	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
1630 - 1645	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1645 - 1700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.50	0.00	0.00	**0.50**	0.00	0.00	0.00	0.00	**0.00**	**0.50**

Bikes

	Northbound					Southbound					Eastbound					Westbound					
	Kinner Ave					N Kinner Ave					TN-1 Harding Pike (West)					TN-1 Harding Pike (East)					
Time	Left 4.1	Thru 4.2	Right 4.3	U-Turn 4.4	App Total	Left 4.5	Thru 4.6	Right 4.7	U-Turn 4.8	App Total	Left 4.9	Thru 4.10	Right 4.11	U-Turn 4.12	App Total	Left 4.13	Thru 4.14	Right 4.15	U-Turn 4.16	App Total	Int Total
1600 - 1615	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1615 - 1630	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1630 - 1645	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1645 - 1700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Peak Hour Turning Movement Count

Nashville, TN

Click here for Map

Marr Traffic DATA COLLECTION

www.marrtraffic.com

Thursday, November 17, 2022	
Period	0700 - 1900
Peak Hour	1700 - 1800

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)

1700 - 1800

Volume

All vehicles

	Northbound					Southbound					Eastbound					Westbound					
	Ridgefield Way					Driveway					TN-1 Harding Pike (West)					TN-1 Harding Pike (East)					
Time	Left 5.1	Thru 5.2	Right 5.3	U-Turn 5.4	App Total	Left 5.5	Thru 5.6	Right 5.7	U-Turn 5.8	App Total	Left 5.9	Thru 5.10	Right 5.11	U-Turn 5.12	App Total	Left 5.13	Thru 5.14	Right 5.15	U-Turn 5.16	App Total	Int Total
1700 - 1715	9	0	9	0	18	0	0	7	0	7	4	309	8	0	321	0	364	34	0	398	744
1715 - 1730	14	0	10	0	24	2	0	8	0	10	3	302	12	0	317	2	345	30	0	377	728
1730 - 1745	12	0	7	0	19	0	0	11	0	11	2	301	11	0	314	2	363	35	0	400	744
1745 - 1800	13	0	10	0	23	1	0	10	1	12	1	276	6	0	283	5	370	31	0	406	724
Total	48	0	36	0	84	3	0	36	1	40	10	1188	37	0	1235	9	1442	130	0	1581	2940
Approach %	57.14	0.00	42.86	0.00	-	7.50	0.00	90.00	2.50	-	0.81	96.19	3.00	0.00	-	0.57	91.21	8.22	0.00	-	
PHF	0.86	0.00	0.90	0.00	**0.88**	0.38	0.00	0.82	0.25	**0.83**	0.63	0.96	0.77	0.00	**0.96**	0.45	0.97	0.93	0.00	**0.97**	**0.99**

Passenger Vehicles (1-3)

	Northbound					Southbound					Eastbound					Westbound					
	Ridgefield Way					Driveway					TN-1 Harding Pike (West)					TN-1 Harding Pike (East)					
Time	Left 5.1	Thru 5.2	Right 5.3	U-Turn 5.4	App Total	Left 5.5	Thru 5.6	Right 5.7	U-Turn 5.8	App Total	Left 5.9	Thru 5.10	Right 5.11	U-Turn 5.12	App Total	Left 5.13	Thru 5.14	Right 5.15	U-Turn 5.16	App Total	Int Total
1700 - 1715	9	0	9	0	18	0	0	7	0	7	4	306	8	0	318	0	360	34	0	394	737
1715 - 1730	12	0	10	0	22	2	0	8	0	10	3	296	11	0	310	2	345	30	0	377	719
1730 - 1745	12	0	7	0	19	0	0	11	0	11	2	295	9	0	306	2	360	35	0	397	733
1745 - 1800	13	0	10	0	23	1	0	10	1	12	1	272	6	0	279	5	365	31	0	401	715
Total	46	0	36	0	82	3	0	36	1	40	10	1169	34	0	1213	9	1430	130	0	1569	2904
Approach %	56.10	0.00	43.90	0.00	-	7.50	0.00	90.00	2.50	-	0.82	96.37	2.80	0.00	-	0.57	91.14	8.29	0.00	-	
PHF	0.88	0.00	0.90	0.00	**0.89**	0.38	0.00	0.82	0.25	**0.83**	0.63	0.96	0.77	0.00	**0.95**	0.45	0.98	0.93	0.00	**0.98**	**0.99**

Single Unit Trucks (4-7)

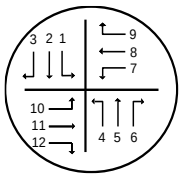
	Northbound					Southbound					Eastbound					Westbound					
	Ridgefield Way					Driveway					TN-1 Harding Pike (West)					TN-1 Harding Pike (East)					
Time	Left 5.1	Thru 5.2	Right 5.3	U-Turn 5.4	App Total	Left 5.5	Thru 5.6	Right 5.7	U-Turn 5.8	App Total	Left 5.9	Thru 5.10	Right 5.11	U-Turn 5.12	App Total	Left 5.13	Thru 5.14	Right 5.15	U-Turn 5.16	App Total	Int Total
1700 - 1715	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	3	0	0	3	6
1715 - 1730	2	0	0	0	2	0	0	0	0	0	0	6	1	0	7	0	0	0	0	0	9
1730 - 1745	0	0	0	0	0	0	0	0	0	0	0	5	2	0	7	0	3	0	0	3	10
1745 - 1800	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	5	0	0	5	8
Total	2	0	0	0	2	0	0	0	0	0	0	17	3	0	20	0	11	0	0	11	33
Approach %	100.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	85.00	15.00	0.00	-	0.00	100.00	0.00	0.00	-	
PHF	0.25	0.00	0.00	0.00	**0.25**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.71	0.38	0.00	**0.71**	0.00	0.55	0.00	0.00	**0.55**	**0.83**

Combination Trucks (8-13)

	Northbound					Southbound					Eastbound					Westbound					
	Ridgefield Way					Driveway					TN-1 Harding Pike (West)					TN-1 Harding Pike (East)					
Time	Left 5.1	Thru 5.2	Right 5.3	U-Turn 5.4	App Total	Left 5.5	Thru 5.6	Right 5.7	U-Turn 5.8	App Total	Left 5.9	Thru 5.10	Right 5.11	U-Turn 5.12	App Total	Left 5.13	Thru 5.14	Right 5.15	U-Turn 5.16	App Total	Int Total
1700 - 1715	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
1715 - 1730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1730 - 1745	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
1745 - 1800	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	3
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.50	0.00	0.00	**0.50**	0.00	0.25	0.00	0.00	**0.25**	**0.75**

Bikes

	Northbound					Southbound					Eastbound					Westbound					
	Ridgefield Way					Driveway					TN-1 Harding Pike (West)					TN-1 Harding Pike (East)					
Time	Left 5.1	Thru 5.2	Right 5.3	U-Turn 5.4	App Total	Left 5.5	Thru 5.6	Right 5.7	U-Turn 5.8	App Total	Left 5.9	Thru 5.10	Right 5.11	U-Turn 5.12	App Total	Left 5.13	Thru 5.14	Right 5.15	U-Turn 5.16	App Total	Int Total
1700 - 1715	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1715 - 1730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1730 - 1745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1745 - 1800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

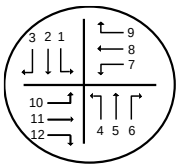


North

INTERSECTION TRAFFIC VOLUME COUNTS

LOCATION: Woodlawn Drive/Bosley Springs Road & Harding Pike
DATE: 5/5/2022
RECORDER: SCU453/Zack Murphy
NOTES:

	Southbound			Northbound			Westbound			Eastbound			
LOCATION	**Bosley Springs Road**			**Woodlawn Drive**			**Harding Pike**			**Harding Pike**			
TIME	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
6:00-6:15 AM													
6:15-6:30													**639**
6:30-6:45													**1,399**
6:45-7:00													**2,189**
7:00-7:15	1		7	9	3	13	5	222	8	23	343	5	**3,010**
7:15-7:30	16	1	21	13	4	6	8	259	8	29	381	14	**3,046**
7:30-7:45	14	1	11	52	7	18	17	252	7	38	357	16	**2,935**
7:45-8:00	3		10	40	7	9	7	357	7	37	329	15	**2,838**
8:00-8:15	10		12	30	8	17	6	229	5	37	304	17	**2,702**
8:15-8:30	5		5	16	3	14	7	242	10	25	312	10	**2,027**
8:30-8:45	5	2	10	19	3	14	8	266	3	20	324	19	**1,378**
8:45-9:00	9	1	13	21	2	5	8	296	5	19	292	14	**685**
9:00-9:15													
9:15-9:30													
9:30-9:45													
9:45-10:00													
10:00-10:15													
10:15-10:30													
10:30-10:45													
10:45-11:00													
11:00-11:15													
11:15-11:30													
11:30-11:45													
11:45-12:00 PM													
12:00-12:15													
12:15-12:30													
12:30-12:45													
12:45-1:00													
1:00-1:15													
1:15-1:30													
1:30-1:45													
1:45-2:00													
2:00-2:15													
2:15-2:30													
2:30-2:45													
2:45-3:00													
3:00-3:15													
3:15-3:30													**730**
3:30-3:45													**1,456**
3:45-4:00													**2,187**
4:00-4:15	43	7	45	62	1	10	17	278	1	11	236	19	**2,871**
4:15-4:30	32	13	40	62	2	16	18	301	2	5	216	19	**2,901**
4:30-4:45	22	4	41	40	1	9	10	332	4	4	241	23	**2,905**
4:45-5:00	23	1	30	43	3	7	13	300	2	7	232	23	**2,918**
5:00-5:15	22	4	42	41	5	11	19	320	2	6	274	14	**2,956**
5:15-5:30	15	3	21	40		15	13	332	1	5	267	18	**2,196**
5:30-5:45	20	3	16	36		9	16	359		8	259	18	**1,466**
5:45-6:00	13	3	20	43	2	12	14	362	1	4	228	20	**722**
6:00-6:15													
6:15-6:30													
6:30-6:45													
6:45-7:00													
7:00-7:15													
7:15-7:30													
7:30-7:45													
7:45-8:00													
8:00-8:15													
8:15-8:30													
8:30-8:45													
8:45-9:00													
9:00-9:15													
9:15-9:30													
9:30-9:45													
9:45-10:00 PM													
TOTAL	253	43	344	567	51	185	186	4,707	66	278	4,595	264	
AM PK HR	43	2	54	135	26	50	38	1,097	27	141	1,371	62	7:15 AM - 8:15 AM
MID PK HR													
PM PK HR	70	13	99	160	7	47	62	1,373	4	23	1,028	70	5:00 PM - 6:00 PM



North

INTERSECTION TRAFFIC VOLUME COUNTS

LOCATION: St. Thomas Drive & Harding Pike
DATE: 5/5/22
RECORDER: SCU26Z/Zack Murphy
NOTES:

	Southbound			Northbound			Westbound			Eastbound			
LOCATION	**St. Thomas Drive**			**St. Thomas Drive**			**Harding Pike**			**Harding Pike**			
TIME	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
6:00-6:15 AM													
6:15-6:30													**724**
6:30-6:45													**1,487**
6:45-7:00													**2,296**
7:00-7:15	23		11					225	107	57	301		**3,099**
7:15-7:30	30		5					258	95	39	336		**3,118**
7:30-7:45	38		7					273	86	37	368		**3,017**
7:45-8:00	18		7					312	114	52	300		**2,948**
8:00-8:15	16		9					284	95	62	277		**2,828**
8:15-8:30	18		10					231	82	46	275		**2,085**
8:30-8:45	22		14					282	61	52	309		**1,423**
8:45-9:00	12		21					272	58	28	292		**683**
9:00-9:15													
9:15-9:30													
9:30-9:45													
9:45-10:00													
10:00-10:15													
10:15-10:30													
10:30-10:45													
10:45-11:00													
11:00-11:15													
11:15-11:30													
11:30-11:45													
11:45-12:00 PM													
12:00-12:15													
12:15-12:30													
12:30-12:45													
12:45-1:00													
1:00-1:15													
1:15-1:30													
1:30-1:45													
1:45-2:00													
2:00-2:15													
2:15-2:30													
2:30-2:45													
2:45-3:00													
3:00-3:15													
3:15-3:30													**701**
3:30-3:45													**1,342**
3:45-4:00													**2,003**
4:00-4:15	42		52					295	16	12	284		**2,642**
4:15-4:30	59		56					248	13	5	260		**2,632**
4:30-4:45	46		43					308	14	4	246		**2,724**
4:45-5:00	35		41					276	20	13	254		**2,692**
5:00-5:15	41		39					302	9	6	294		**2,769**
5:15-5:30	37		27					330	11	4	324		**2,078**
5:30-5:45	20		36					310	9	5	249		**1,345**
5:45-6:00	17		15					387	21	4	272		**716**
6:00-6:15													
6:15-6:30													
6:30-6:45													
6:45-7:00													
7:00-7:15													
7:15-7:30													
7:30-7:45													
7:45-8:00													
8:00-8:15													
8:15-8:30													
8:30-8:45													
8:45-9:00													
9:00-9:15													
9:15-9:30													
9:30-9:45													
9:45-10:00 PM													
TOTAL	474		393					4,593	811	426	4,641		
AM PK HR	102		28					1,127	390	190	1,281		7:15 AM - 8:15 AM
MID PK HR													
PM PK HR	115		117					1,329	50	19	1,139		5:00 PM - 6:00 PM

Peak Hour Turning Movement Count

Nashville, TN

Click here for Map

Marr Traffic DATA COLLECTION

www.marrtraffic.com

Thursday, November 17, 2022	
Period	0700 - 0900
Peak Hour	0715 - 0815

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)

Peak Hour

Volume

All vehicles

	Northbound					Southbound					Eastbound					Westbound					
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					Driveway (West)					Driveway (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	1.1	1.2	1.3	1.4	Total	1.5	1.6	1.7	1.8	Total	1.9	1.10	1.11	1.12	Total	1.13	1.14	1.15	1.16	Total	Total
0715 - 0730	26	327	13	0	366	0	241	0	0	241	0	0	13	0	13	0	0	0	0	0	620
0730 - 0745	32	299	14	0	345	1	286	1	0	288	1	0	9	0	10	0	0	0	0	0	643
0745 - 0800	37	308	20	0	365	0	318	0	0	318	2	0	14	0	16	0	0	0	0	0	699
0800 - 0815	17	317	10	0	344	1	293	9	0	303	0	0	12	0	12	0	0	1	0	1	660
Total	112	1251	57	0	1420	2	1138	10	0	1150	3	0	48	0	51	0	0	1	0	1	2622
Approach %	7.89	88.10	4.01	0.00	-	0.17	98.96	0.87	0.00	-	5.88	0.00	94.12	0.00	-	0.00	0.00	100.00	0.00	-	
PHF	0.76	0.96	0.71	0.00	**0.97**	0.50	0.89	0.28	0.00	**0.90**	0.38	0.00	0.86	0.00	**0.80**	0.00	0.00	0.25	0.00	**0.25**	**0.94**

Passenger Vehicles (1-3)

	Northbound					Southbound					Eastbound					Westbound					
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					Driveway (West)					Driveway (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	1.1	1.2	1.3	1.4	Total	1.5	1.6	1.7	1.8	Total	1.9	1.10	1.11	1.12	Total	1.13	1.14	1.15	1.16	Total	Total
0715 - 0730	26	324	13	0	363	0	233	0	0	233	0	0	13	0	13	0	0	0	0	0	609
0730 - 0745	32	296	14	0	342	1	275	1	0	277	1	0	9	0	10	0	0	0	0	0	629
0745 - 0800	37	302	20	0	359	0	307	0	0	307	2	0	13	0	15	0	0	0	0	0	681
0800 - 0815	17	316	10	0	343	1	275	9	0	285	0	0	12	0	12	0	0	1	0	1	641
Total	112	1238	57	0	1407	2	1090	10	0	1102	3	0	47	0	50	0	0	1	0	1	2560
Approach %	7.96	87.99	4.05	0.00	-	0.18	98.91	0.91	0.00	-	6.00	0.00	94.00	0.00	-	0.00	0.00	100.00	0.00	-	
PHF	0.76	0.96	0.71	0.00	**0.97**	0.50	0.89	0.28	0.00	**0.90**	0.38	0.00	0.90	0.00	**0.83**	0.00	0.00	0.25	0.00	**0.25**	**0.94**

Single Unit Trucks (4-7)

	Northbound					Southbound					Eastbound					Westbound					
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					Driveway (West)					Driveway (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	1.1	1.2	1.3	1.4	Total	1.5	1.6	1.7	1.8	Total	1.9	1.10	1.11	1.12	Total	1.13	1.14	1.15	1.16	Total	Total
0715 - 0730	0	3	0	0	3	0	8	0	0	8	0	0	0	0	0	0	0	0	0	0	11
0730 - 0745	0	3	0	0	3	0	10	0	0	10	0	0	0	0	0	0	0	0	0	0	13
0745 - 0800	0	4	0	0	4	0	9	0	0	9	0	0	1	0	1	0	0	0	0	0	14
0800 - 0815	0	1	0	0	1	0	17	0	0	17	0	0	0	0	0	0	0	0	0	0	18
Total	0	11	0	0	11	0	44	0	0	44	0	0	1	0	1	0	0	0	0	0	56
Approach %	0.00	100.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	0.00	0.00	100.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.69	0.00	0.00	**0.69**	0.00	0.65	0.00	0.00	**0.65**	0.00	0.00	0.25	0.00	**0.25**	0.00	0.00	0.00	0.00	**0.00**	**0.78**

Combination Trucks (8-13)

	Northbound					Southbound					Eastbound					Westbound					
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					Driveway (West)					Driveway (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	1.1	1.2	1.3	1.4	Total	1.5	1.6	1.7	1.8	Total	1.9	1.10	1.11	1.12	Total	1.13	1.14	1.15	1.16	Total	Total
0715 - 0730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0730 - 0745	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
0745 - 0800	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	4
0800 - 0815	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	2	0	0	2	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	6
Approach %	0.00	100.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.25	0.00	0.00	**0.25**	0.00	0.50	0.00	0.00	**0.50**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.38**

Bikes

	Northbound					Southbound					Eastbound					Westbound					
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					Driveway (West)					Driveway (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	1.1	1.2	1.3	1.4	Total	1.5	1.6	1.7	1.8	Total	1.9	1.10	1.11	1.12	Total	1.13	1.14	1.15	1.16	Total	Total
0715 - 0730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0730 - 0745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0745 - 0800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0800 - 0815	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Peak Hour Turning Movement Count

Nashville, TN

Click here for Map

Marr Traffic DATA COLLECTION

www.marrtraffic.com

Thursday, November 17, 2022	
Period	1600 - 1800
Peak Hour	1645 - 1745

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)

Peak Hour

Volume

All vehicles

	Northbound					Southbound					Eastbound					Westbound					
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					Driveway (West)					Driveway (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	1.1	1.2	1.3	1.4	Total	1.5	1.6	1.7	1.8	Total	1.9	1.10	1.11	1.12	Total	1.13	1.14	1.15	1.16	Total	Total
1645 - 1700	16	274	1	0	291	0	399	6	0	405	3	0	19	0	22	0	0	4	0	4	722
1700 - 1715	16	252	2	0	270	1	413	2	0	416	0	0	27	0	27	0	0	4	0	4	717
1715 - 1730	17	264	2	0	283	0	388	3	0	391	1	0	21	0	22	0	0	4	0	4	700
1730 - 1745	10	264	2	0	276	1	414	2	0	417	1	0	19	0	20	1	0	2	0	3	716
Total	59	1054	7	0	1120	2	1614	13	0	1629	5	0	86	0	91	1	0	14	0	15	2855
Approach %	5.27	94.11	0.63	0.00	-	0.12	99.08	0.80	0.00	-	5.49	0.00	94.51	0.00	-	6.67	0.00	93.33	0.00	-	
PHF	0.87	0.96	0.88	0.00	**0.96**	0.50	0.97	0.54	0.00	**0.98**	0.42	0.00	0.80	0.00	**0.84**	0.25	0.00	0.88	0.00	**0.94**	**0.99**

Passenger Vehicles (1-3)

	Northbound					Southbound					Eastbound					Westbound					
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					Driveway (West)					Driveway (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	1.1	1.2	1.3	1.4	Total	1.5	1.6	1.7	1.8	Total	1.9	1.10	1.11	1.12	Total	1.13	1.14	1.15	1.16	Total	Total
1645 - 1700	16	266	1	0	283	0	396	6	0	402	3	0	19	0	22	0	0	4	0	4	711
1700 - 1715	16	248	2	0	266	1	410	2	0	413	0	0	27	0	27	0	0	4	0	4	710
1715 - 1730	16	257	2	0	275	0	386	3	0	389	1	0	21	0	22	0	0	4	0	4	690
1730 - 1745	10	261	2	0	273	1	412	2	0	415	1	0	19	0	20	1	0	2	0	3	711
Total	58	1032	7	0	1097	2	1604	13	0	1619	5	0	86	0	91	1	0	14	0	15	2822
Approach %	5.29	94.07	0.64	0.00	-	0.12	99.07	0.80	0.00	-	5.49	0.00	94.51	0.00	-	6.67	0.00	93.33	0.00	-	
PHF	0.91	0.97	0.88	0.00	**0.97**	0.50	0.97	0.54	0.00	**0.98**	0.42	0.00	0.80	0.00	**0.84**	0.25	0.00	0.88	0.00	**0.94**	**0.99**

Single Unit Trucks (4-7)

	Northbound					Southbound					Eastbound					Westbound					
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					Driveway (West)					Driveway (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	1.1	1.2	1.3	1.4	Total	1.5	1.6	1.7	1.8	Total	1.9	1.10	1.11	1.12	Total	1.13	1.14	1.15	1.16	Total	Total
1645 - 1700	0	6	0	0	6	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	9
1700 - 1715	0	3	0	0	3	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	6
1715 - 1730	1	7	0	0	8	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	10
1730 - 1745	0	3	0	0	3	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	5
Total	1	19	0	0	20	0	10	0	0	10	0	0	0	0	0	0	0	0	0	0	30
Approach %	5.00	95.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.25	0.68	0.00	0.00	**0.63**	0.00	0.83	0.00	0.00	**0.83**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.75**

Combination Trucks (8-13)

	Northbound					Southbound					Eastbound					Westbound					
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					Driveway (West)					Driveway (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	1.1	1.2	1.3	1.4	Total	1.5	1.6	1.7	1.8	Total	1.9	1.10	1.11	1.12	Total	1.13	1.14	1.15	1.16	Total	Total
1645 - 1700	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1700 - 1715	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1715 - 1730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1730 - 1745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Approach %	0.00	100.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.38	0.00	0.00	**0.38**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.38**

Bikes

	Northbound					Southbound					Eastbound					Westbound					
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					Driveway (West)					Driveway (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	1.1	1.2	1.3	1.4	Total	1.5	1.6	1.7	1.8	Total	1.9	1.10	1.11	1.12	Total	1.13	1.14	1.15	1.16	Total	Total
1645 - 1700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1700 - 1715	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1715 - 1730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1730 - 1745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Peak Hour Turning Movement Count

Nashville, TN

Click here for Map

Marr Traffic DATA COLLECTION

www.marrtraffic.com

Thursday, November 17, 2022	
Period	0700 - 0900
Peak Hour	0715 - 0815

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)

Peak Hour

Volume

All vehicles

	Northbound					Southbound					Eastbound					Westbound					
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					Driveway (West)					Driveway (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	2.1	2.2	2.3	2.4	Total	2.5	2.6	2.7	2.8	Total	2.9	2.10	2.11	2.12	Total	2.13	2.14	2.15	2.16	Total	Total
0715 - 0730	1	321	1	0	323	11	212	4	0	227	18	0	11	0	29	2	3	3	0	8	587
0730 - 0745	1	290	4	0	295	10	287	9	0	306	18	2	11	0	31	2	2	4	0	8	640
0745 - 0800	7	308	4	0	319	15	297	10	0	322	10	4	12	0	26	5	0	4	0	9	676
0800 - 0815	3	303	2	0	308	6	286	7	0	299	13	1	16	0	30	1	1	6	0	8	645
Total	12	1222	11	0	1245	42	1082	30	0	1154	59	7	50	0	116	10	6	17	0	33	2548
Approach %	0.96	98.15	0.88	0.00	-	3.64	93.76	2.60	0.00	-	50.86	6.03	43.10	0.00	-	30.30	18.18	51.52	0.00	-	
PHF	0.43	0.95	0.69	0.00	**0.96**	0.70	0.91	0.75	0.00	**0.90**	0.82	0.44	0.78	0.00	**0.94**	0.50	0.50	0.71	0.00	**0.92**	**0.94**

Passenger Vehicles (1-3)

	Northbound					Southbound					Eastbound					Westbound					
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					Driveway (West)					Driveway (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	2.1	2.2	2.3	2.4	Total	2.5	2.6	2.7	2.8	Total	2.9	2.10	2.11	2.12	Total	2.13	2.14	2.15	2.16	Total	Total
0715 - 0730	1	318	1	0	320	11	203	3	0	217	17	0	10	0	27	2	2	3	0	7	571
0730 - 0745	1	287	4	0	292	10	277	9	0	296	16	2	11	0	29	2	2	4	0	8	625
0745 - 0800	7	303	4	0	314	15	287	9	0	311	10	4	12	0	26	5	0	4	0	9	660
0800 - 0815	3	301	2	0	306	5	268	6	0	279	13	1	15	0	29	1	1	6	0	8	622
Total	12	1209	11	0	1232	41	1035	27	0	1103	56	7	48	0	111	10	5	17	0	32	2478
Approach %	0.97	98.13	0.89	0.00	-	3.72	93.83	2.45	0.00	-	50.45	6.31	43.24	0.00	-	31.25	15.63	53.13	0.00	-	
PHF	0.43	0.95	0.69	0.00	**0.96**	0.68	0.90	0.75	0.00	**0.89**	0.82	0.44	0.80	0.00	**0.96**	0.50	0.63	0.71	0.00	**0.89**	**0.94**

Single Unit Trucks (4-7)

	Northbound					Southbound					Eastbound					Westbound					
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					Driveway (West)					Driveway (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	2.1	2.2	2.3	2.4	Total	2.5	2.6	2.7	2.8	Total	2.9	2.10	2.11	2.12	Total	2.13	2.14	2.15	2.16	Total	Total
0715 - 0730	0	3	0	0	3	0	8	1	0	9	1	0	1	0	2	0	1	0	0	1	15
0730 - 0745	0	3	0	0	3	0	9	0	0	9	2	0	0	0	2	0	0	0	0	0	14
0745 - 0800	0	4	0	0	4	0	9	1	0	10	0	0	0	0	0	0	0	0	0	0	14
0800 - 0815	0	2	0	0	2	1	17	1	0	19	0	0	1	0	1	0	0	0	0	0	22
Total	0	12	0	0	12	1	43	3	0	47	3	0	2	0	5	0	1	0	0	1	65
Approach %	0.00	100.00	0.00	0.00	-	2.13	91.49	6.38	0.00	-	60.00	0.00	40.00	0.00	-	0.00	100.00	0.00	0.00	-	
PHF	0.00	0.75	0.00	0.00	**0.75**	0.25	0.63	0.75	0.00	**0.62**	0.38	0.00	0.50	0.00	**0.63**	0.00	0.25	0.00	0.00	**0.25**	**0.74**

Combination Trucks (8-13)

	Northbound					Southbound					Eastbound					Westbound					
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					Driveway (West)					Driveway (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	2.1	2.2	2.3	2.4	Total	2.5	2.6	2.7	2.8	Total	2.9	2.10	2.11	2.12	Total	2.13	2.14	2.15	2.16	Total	Total
0715 - 0730	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
0730 - 0745	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
0745 - 0800	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
0800 - 0815	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	0	1	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	5
Approach %	0.00	100.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.25	0.00	0.00	**0.25**	0.00	1.00	0.00	0.00	**1.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.63**

Bikes

	Northbound					Southbound					Eastbound					Westbound					
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					Driveway (West)					Driveway (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	2.1	2.2	2.3	2.4	Total	2.5	2.6	2.7	2.8	Total	2.9	2.10	2.11	2.12	Total	2.13	2.14	2.15	2.16	Total	Total
0715 - 0730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0730 - 0745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0745 - 0800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0800 - 0815	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Peak Hour Turning Movement Count

Nashville, TN

Click here for Map

Marr Traffic DATA COLLECTION

www.marrtraffic.com

Thursday, November 17, 2022	
Period	1600 - 1800
Peak Hour	1700 - 1800

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)

Peak Hour

Volume

All vehicles

	Northbound					Southbound					Eastbound					Westbound					
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					Driveway (West)					Driveway (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	2.1	2.2	2.3	2.4	Total	2.5	2.6	2.7	2.8	Total	2.9	2.10	2.11	2.12	Total	2.13	2.14	2.15	2.16	Total	Total
1700 - 1715	14	251	2	0	267	2	373	12	0	387	21	1	32	0	54	12	0	10	0	22	730
1715 - 1730	16	254	6	0	276	2	347	13	0	362	18	1	23	0	42	16	3	10	0	29	709
1730 - 1745	10	241	2	0	253	0	389	15	0	404	23	2	20	0	45	5	2	9	0	16	718
1745 - 1800	14	235	1	0	250	2	398	9	0	409	15	0	21	0	36	7	1	7	0	15	710
Total	54	981	11	0	1046	6	1507	49	0	1562	77	4	96	0	177	40	6	36	0	82	2867
Approach %	5.16	93.79	1.05	0.00	-	0.38	96.48	3.14	0.00	-	43.50	2.26	54.24	0.00	-	48.78	7.32	43.90	0.00	-	
PHF	0.84	0.97	0.46	0.00	**0.95**	0.75	0.95	0.82	0.00	**0.95**	0.84	0.50	0.75	0.00	**0.82**	0.63	0.50	0.90	0.00	**0.71**	**0.98**

Passenger Vehicles (1-3)

	Northbound					Southbound					Eastbound					Westbound					
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					Driveway (West)					Driveway (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	2.1	2.2	2.3	2.4	Total	2.5	2.6	2.7	2.8	Total	2.9	2.10	2.11	2.12	Total	2.13	2.14	2.15	2.16	Total	Total
1700 - 1715	14	245	2	0	261	2	369	12	0	383	21	1	32	0	54	12	0	10	0	22	720
1715 - 1730	16	251	6	0	273	2	344	13	0	359	18	1	23	0	42	16	3	10	0	29	703
1730 - 1745	10	237	2	0	249	0	388	15	0	403	23	2	20	0	45	5	1	9	0	15	712
1745 - 1800	14	231	1	0	246	2	395	9	0	406	15	0	21	0	36	7	1	7	0	15	703
Total	54	964	11	0	1029	6	1496	49	0	1551	77	4	96	0	177	40	5	36	0	81	2838
Approach %	5.25	93.68	1.07	0.00	-	0.39	96.45	3.16	0.00	-	43.50	2.26	54.24	0.00	-	49.38	6.17	44.44	0.00	-	
PHF	0.84	0.96	0.46	0.00	**0.94**	0.75	0.95	0.82	0.00	**0.96**	0.84	0.50	0.75	0.00	**0.82**	0.63	0.42	0.90	0.00	**0.70**	**0.99**

Single Unit Trucks (4-7)

	Northbound					Southbound					Eastbound					Westbound					
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					Driveway (West)					Driveway (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	2.1	2.2	2.3	2.4	Total	2.5	2.6	2.7	2.8	Total	2.9	2.10	2.11	2.12	Total	2.13	2.14	2.15	2.16	Total	Total
1700 - 1715	0	5	0	0	5	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	9
1715 - 1730	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	4
1730 - 1745	0	4	0	0	4	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	6
1745 - 1800	0	4	0	0	4	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	7
Total	0	15	0	0	15	0	10	0	0	10	0	0	0	0	0	0	1	0	0	1	26
Approach %	0.00	100.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	
PHF	0.00	0.75	0.00	0.00	**0.75**	0.00	0.63	0.00	0.00	**0.63**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.25	0.00	0.00	**0.25**	**0.72**

Combination Trucks (8-13)

	Northbound					Southbound					Eastbound					Westbound					
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					Driveway (West)					Driveway (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	2.1	2.2	2.3	2.4	Total	2.5	2.6	2.7	2.8	Total	2.9	2.10	2.11	2.12	Total	2.13	2.14	2.15	2.16	Total	Total
1700 - 1715	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1715 - 1730	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
1730 - 1745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1745 - 1800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
Approach %	0.00	100.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.50	0.00	0.00	**0.50**	0.00	0.25	0.00	0.00	**0.25**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.38**

Bikes

	Northbound					Southbound					Eastbound					Westbound					
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					Driveway (West)					Driveway (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	2.1	2.2	2.3	2.4	Total	2.5	2.6	2.7	2.8	Total	2.9	2.10	2.11	2.12	Total	2.13	2.14	2.15	2.16	Total	Total
1700 - 1715	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1715 - 1730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1730 - 1745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1745 - 1800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Click here for Map

Peak Hour Turning Movement Count

Nashville, TN

Marr Traffic DATA COLLECTION

www.marrtraffic.com

Thursday, November 17, 2022	
Period	0700 - 0900
Peak Hour	0715 - 0815

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)

Peak Hour

Volume

All vehicles

	Northbound					Southbound					Eastbound										
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					Driveway										
Time	Left 3.1	Thru 3.2		U-Turn 3.3	App Total		Thru 3.4	Right 3.5	U-Turn 3.6	App Total					App Total					App Total	Int Total
0715 - 0730	0	339	-	0	339	-	229	48	0	277	-	-	-	-	0	-	-	-	-	0	616
0730 - 0745	0	321	-	0	321	-	302	45	0	347	-	-	-	-	0	-	-	-	-	0	668
0745 - 0800	0	320	-	0	320	-	320	49	0	369	-	-	-	-	0	-	-	-	-	0	689
0800 - 0815	0	324	-	0	324	-	287	36	0	323	-	-	-	-	0	-	-	-	-	0	647
Total	0	1304	0	0	1304	0	1138	178	0	1316	0	0	0	0	0	0	0	0	0	0	2620
Approach %	0.00	100.00	0.00	0.00	-	0.00	86.47	13.53	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.96	0.00	0.00	**0.96**	0.00	0.89	0.91	0.00	**0.89**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.95**

Passenger Vehicles (1-3)

	Northbound					Southbound					Eastbound										
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					Driveway										
Time	Left 3.1	Thru 3.2		U-Turn 3.3	App Total		Thru 3.4	Right 3.5	U-Turn 3.6	App Total					App Total					App Total	Int Total
0715 - 0730	0	335	-	0	335	-	219	48	0	267	-	-	-	-	0	-	-	-	-	0	602
0730 - 0745	0	316	-	0	316	-	293	45	0	338	-	-	-	-	0	-	-	-	-	0	654
0745 - 0800	0	316	-	0	316	-	310	46	0	356	-	-	-	-	0	-	-	-	-	0	672
0800 - 0815	0	319	-	0	319	-	268	36	0	304	-	-	-	-	0	-	-	-	-	0	623
Total	0	1286	0	0	1286	0	1090	175	0	1265	0	0	0	0	0	0	0	0	0	0	2551
Approach %	0.00	100.00	0.00	0.00	-	0.00	86.17	13.83	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.96	0.00	0.00	**0.96**	0.00	0.88	0.91	0.00	**0.89**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.95**

Single Unit Trucks (4-7)

	Northbound					Southbound					Eastbound										
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					Driveway										
Time	Left 3.1	Thru 3.2		U-Turn 3.3	App Total		Thru 3.4	Right 3.5	U-Turn 3.6	App Total					App Total					App Total	Int Total
0715 - 0730	0	4	-	0	4	-	8	0	0	8	-	-	-	-	0	-	-	-	-	0	12
0730 - 0745	0	5	-	0	5	-	8	0	0	8	-	-	-	-	0	-	-	-	-	0	13
0745 - 0800	0	2	-	0	2	-	10	3	0	13	-	-	-	-	0	-	-	-	-	0	15
0800 - 0815	0	5	-	0	5	-	18	0	0	18	-	-	-	-	0	-	-	-	-	0	23
Total	0	16	0	0	16	0	44	3	0	47	0	0	0	0	0	0	0	0	0	0	63
Approach %	0.00	100.00	0.00	0.00	-	0.00	93.62	6.38	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.80	0.00	0.00	**0.80**	0.00	0.61	0.25	0.00	**0.65**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.68**

Combination Trucks (8-13)

	Northbound					Southbound					Eastbound										
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					Driveway										
Time	Left 3.1	Thru 3.2		U-Turn 3.3	App Total		Thru 3.4	Right 3.5	U-Turn 3.6	App Total					App Total					App Total	Int Total
0715 - 0730	0	0	-	0	0	-	2	0	0	2	-	-	-	-	0	-	-	-	-	0	2
0730 - 0745	0	0	-	0	0	-	1	0	0	1	-	-	-	-	0	-	-	-	-	0	1
0745 - 0800	0	2	-	0	2	-	0	0	0	0	-	-	-	-	0	-	-	-	-	0	2
0800 - 0815	0	0	-	0	0	-	1	0	0	1	-	-	-	-	0	-	-	-	-	0	1
Total	0	2	0	0	2	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	6
Approach %	0.00	100.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.25	0.00	0.00	**0.25**	0.00	0.50	0.00	0.00	**0.50**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.75**

Bikes

	Northbound					Southbound					Eastbound										
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					Driveway										
Time	Left 3.1	Thru 3.2		U-Turn 3.3	App Total		Thru 3.4	Right 3.5	U-Turn 3.6	App Total					App Total					App Total	Int Total
0715 - 0730	0	0	-	0	0	-	0	0	0	0	-	-	-	-	0	-	-	-	-	0	0
0730 - 0745	0	0	-	0	0	-	0	0	0	0	-	-	-	-	0	-	-	-	-	0	0
0745 - 0800	0	0	-	0	0	-	0	0	0	0	-	-	-	-	0	-	-	-	-	0	0
0800 - 0815	0	0	-	0	0	-	0	0	0	0	-	-	-	-	0	-	-	-	-	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Peak Hour Turning Movement Count

Nashville, TN

Click here for Map

Marr Traffic DATA COLLECTION

www.marrtraffic.com

Thursday, November 17, 2022	
Period	1600 - 1800
Peak Hour	1700 - 1800

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)

Peak Hour

Volume

All vehicles

	Northbound					Southbound					Eastbound										
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					Driveway										
Time	Left 3.1	Thru 3.2		U-Turn 3.3	App Total		Thru 3.4	Right 3.5	U-Turn 3.6	App Total					App Total					App Total	Int Total
1700 - 1715	0	281	-	0	281	-	396	26	0	422	-	-	-	-	0	-	-	-	-	0	703
1715 - 1730	0	282	-	0	282	-	369	20	0	389	-	-	-	-	0	-	-	-	-	0	671
1730 - 1745	0	267	-	0	267	-	384	21	0	405	-	-	-	-	0	-	-	-	-	0	672
1745 - 1800	2	255	-	0	257	-	414	28	0	442	-	-	-	-	0	-	-	-	-	0	699
Total	2	1085	0	0	1087	0	1563	95	0	1658	0	0	0	0	0	0	0	0	0	0	2745
Approach %	0.18	99.82	0.00	0.00	-	0.00	94.27	5.73	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.25	0.96	0.00	0.00	**0.96**	0.00	0.94	0.85	0.00	**0.94**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.98**

Passenger Vehicles (1-3)

	Northbound					Southbound					Eastbound										
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					Driveway										
Time	Left 3.1	Thru 3.2		U-Turn 3.3	App Total		Thru 3.4	Right 3.5	U-Turn 3.6	App Total					App Total					App Total	Int Total
1700 - 1715	0	278	-	0	278	-	392	26	0	418	-	-	-	-	0	-	-	-	-	0	696
1715 - 1730	0	276	-	0	276	-	367	20	0	387	-	-	-	-	0	-	-	-	-	0	663
1730 - 1745	0	264	-	0	264	-	383	21	0	404	-	-	-	-	0	-	-	-	-	0	668
1745 - 1800	2	250	-	0	252	-	410	28	0	438	-	-	-	-	0	-	-	-	-	0	690
Total	2	1068	0	0	1070	0	1552	95	0	1647	0	0	0	0	0	0	0	0	0	0	2717
Approach %	0.19	99.81	0.00	0.00	-	0.00	94.23	5.77	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.25	0.96	0.00	0.00	**0.96**	0.00	0.95	0.85	0.00	**0.94**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.98**

Single Unit Trucks (4-7)

	Northbound					Southbound					Eastbound										
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					Driveway										
Time	Left 3.1	Thru 3.2		U-Turn 3.3	App Total		Thru 3.4	Right 3.5	U-Turn 3.6	App Total					App Total					App Total	Int Total
1700 - 1715	0	3	-	0	3	-	4	0	0	4	-	-	-	-	0	-	-	-	-	0	7
1715 - 1730	0	5	-	0	5	-	2	0	0	2	-	-	-	-	0	-	-	-	-	0	7
1730 - 1745	0	3	-	0	3	-	1	0	0	1	-	-	-	-	0	-	-	-	-	0	4
1745 - 1800	0	4	-	0	4	-	3	0	0	3	-	-	-	-	0	-	-	-	-	0	7
Total	0	15	0	0	15	0	10	0	0	10	0	0	0	0	0	0	0	0	0	0	25
Approach %	0.00	100.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.75	0.00	0.00	**0.75**	0.00	0.63	0.00	0.00	**0.63**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.89**

Combination Trucks (8-13)

	Northbound					Southbound					Eastbound										
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					Driveway										
Time	Left 3.1	Thru 3.2		U-Turn 3.3	App Total		Thru 3.4	Right 3.5	U-Turn 3.6	App Total					App Total					App Total	Int Total
1700 - 1715	0	0	-	0	0	-	0	0	0	0	-	-	-	-	0	-	-	-	-	0	0
1715 - 1730	0	1	-	0	1	-	0	0	0	0	-	-	-	-	0	-	-	-	-	0	1
1730 - 1745	0	0	-	0	0	-	0	0	0	0	-	-	-	-	0	-	-	-	-	0	0
1745 - 1800	0	1	-	0	1	-	1	0	0	1	-	-	-	-	0	-	-	-	-	0	2
Total	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
Approach %	0.00	100.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.50	0.00	0.00	**0.50**	0.00	0.25	0.00	0.00	**0.25**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.38**

Bikes

	Northbound					Southbound					Eastbound										
	TN-1 Harding Pike (South)					TN-1 Harding Pike (North)					Driveway										
Time	Left 3.1	Thru 3.2		U-Turn 3.3	App Total		Thru 3.4	Right 3.5	U-Turn 3.6	App Total					App Total					App Total	Int Total
1700 - 1715	0	0	-	0	0	-	0	0	0	0	-	-	-	-	0	-	-	-	-	0	0
1715 - 1730	0	0	-	0	0	-	0	0	0	0	-	-	-	-	0	-	-	-	-	0	0
1730 - 1745	0	0	-	0	0	-	0	0	0	0	-	-	-	-	0	-	-	-	-	0	0
1745 - 1800	0	0	-	0	0	-	0	0	0	0	-	-	-	-	0	-	-	-	-	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

APPENDIX D
TDOT COUNT DATA

TDOT AADT DATA

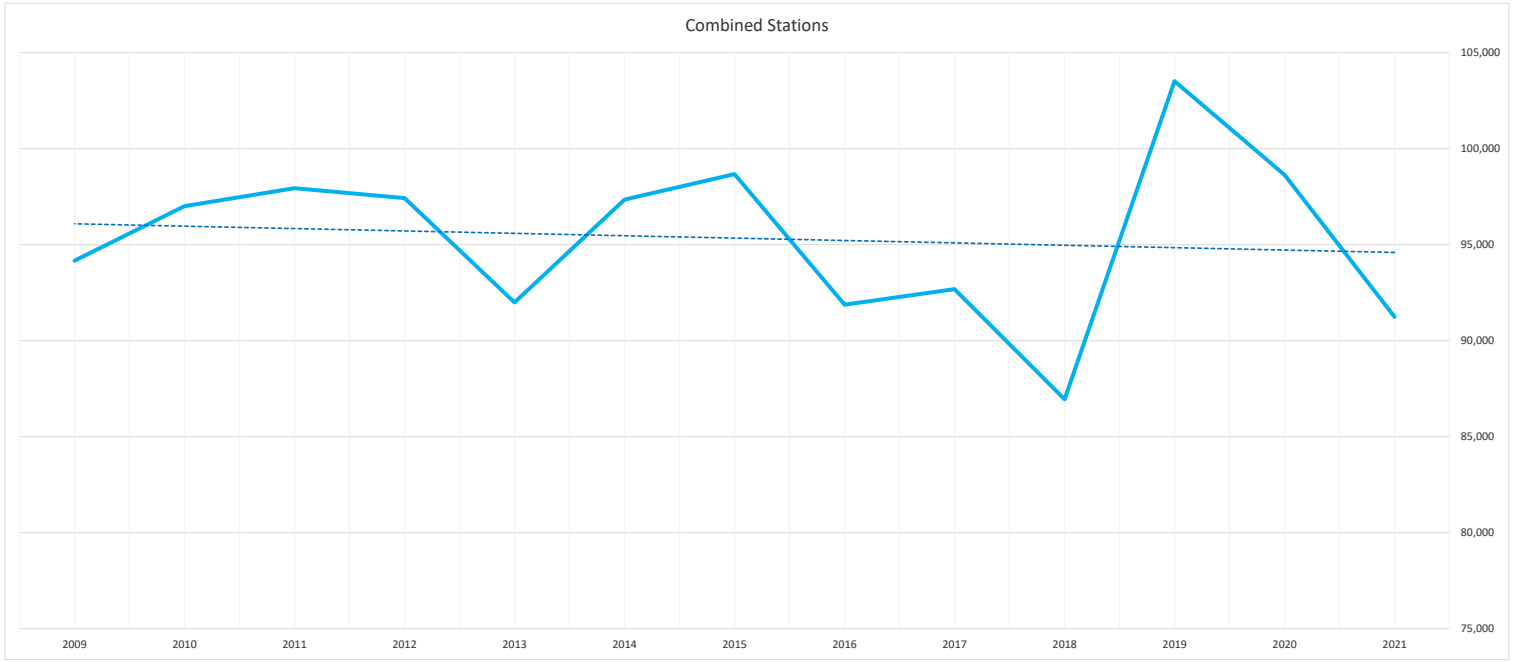
Station	181	65	508	632	67
Route					
Location	Harding Pike - W of Project - B/W Lynnwood Terrace and Woodmont Boulevard	Woodmont Boulevard - S of Project - B/w Park Manor Boulevard and Kenner Avenue	Kenner Avenue - W of Project - B/W Harding Pike and Ridgefield Drive	Bosley Springs Road - N of Project - B/W St. Thomas Drive and Harding Pike	Harding Pike - E of Project - B/W Montgomery Bell Avenue and Cherokee Road
County	Davidson	Davidson	Davidson	Davidson	Davidson
2021	33,357	12,285	3,406	6,129	36,062
2020	34,424	14,905	5,071	6,881	37,350
2019	34,628	14,285	4,837	4,595	45,173
2018	31,575	12,588	4,015	4,209	34,559
2017	34,231	13,610	4,931	5,466	34,448
2016	32,796	13,106	5,253	5,356	35,360
2015	33,986	14,463	5,637	5,300	39,286
2014	35,994	12,227	4,792	4,965	39,373
2013	31,530	12,210	4,724	5,079	38,447
2012	33,174	13,482	5,101	5,813	39,851
2011	32,336	12,200	4,956	5,045	43,406
2010	30,821	12,969	5,719	6,276	41,220
2009	30,592	12,432	5,296	4,973	40,870

TDOT AADT Background Growth Trend Analysis

Year	Harding Pike - W of Project - B/W 181	% Difference	Woodmont Boulevard - S of Project - 65	% Difference	Kenner Avenue - W of Project - B/W 508	% Difference	Bosley Springs Road - N of Project - 632	% Difference	Harding Pike - E of Project - B/W 67	% Difference	TOTAL	% Difference
2021	33,357	-3.1%	12,285	-17.6%	3,406	-32.8%	6,129	-10.9%	36,062	-3.4%	91,239	-7.5%
2020	34,424	-0.6%	14,905	4.3%	5,071	4.8%	6,881	49.7%	37,350	-17.3%	98,631	-4.7%
2019	34,628	9.7%	14,285	13.5%	4,837	20.5%	4,595	9.2%	45,173	30.7%	103,518	19.1%
2018	31,575	-7.8%	12,588	-7.5%	4,015	-18.6%	4,209	-23.0%	34,559	0.3%	86,946	-6.2%
2017	34,231	4.4%	13,610	3.8%	4,931	-6.1%	5,466	2.1%	34,448	-2.6%	92,686	0.9%
2016	32,796	-3.5%	13,106	-9.4%	5,253	-6.8%	5,356	1.1%	35,360	-10.0%	91,871	-6.9%
2015	33,986	-5.6%	14,463	18.3%	5,637	17.6%	5,300	6.7%	39,286	-0.2%	98,672	1.4%
2014	35,994	14.2%	12,227	0.1%	4,792	1.4%	4,965	-2.2%	39,373	2.4%	97,351	5.8%
2013	31,530	-5.0%	12,210	-9.4%	4,724	-7.4%	5,079	-12.6%	38,447	-3.5%	91,990	-5.6%
2012	33,174	2.6%	13,482	10.5%	5,101	2.9%	5,813	15.2%	39,851	-8.2%	97,421	-0.5%
2011	32,336	4.9%	12,200	-5.9%	4,956	-13.3%	5,045	-19.6%	43,406	5.3%	97,943	1.0%
2010	30,821	0.7%	12,969	4.3%	5,719	8.0%	6,276	26.2%	41,220	0.9%	97,005	3.0%
2009	30,592	--	12,432	--	5,296	--	4,973	--	40,870	--	94,163	--

Exponential Rate

Since 2020 Annual	-3.10%	-17.58%	-32.83%	-10.93%	-3.45%	-7.49%
Since 2019 Annual	-1.85%	-7.26%	-16.09%	15.49%	-10.65%	-6.12%
Since 2018 Annual	1.85%	-0.81%	-5.34%	13.35%	1.43%	1.62%
Since 2017 Annual	-0.64%	-2.53%	-8.84%	2.90%	1.15%	-0.39%
Since 2016 Annual	0.34%	-1.29%	-8.30%	2.73%	0.39%	-0.14%
Since 2015 Annual	-0.31%	-2.68%	-8.05%	2.45%	-1.42%	-1.30%
Since 2014 Annual	-1.08%	0.07%	-4.76%	3.05%	-1.25%	-0.92%
Since 2013 Annual	0.71%	0.08%	-4.01%	2.38%	-0.80%	-0.10%
Since 2012 Annual	0.06%	-1.03%	-4.39%	0.59%	-1.10%	-0.73%
Since 2011 Annual	0.31%	0.07%	-3.68%	1.97%	-1.84%	-0.71%



APPENDIX E
SIGNAL TIMING SHEETS

ID Number: 3960 **ZONE:** B

Location: Harding Rd & White Bridge Pk/Woodmont Blvd

Install Date: _____ Address: _____

Program. By: _____ Switch: _____

P7=LS10 -- P8 ext to 3sec 3/2018

CONTROLLER SETTINGS

ASC3/2100 & COBALT SERIES

ECONOLITE CONTROL PRODUCTS, INC.

MM 1-1-1 — CONTROLLER PHASE RING SEQUENCE

TP # 1

PHASE												
RING 1	1	2	3	4	9	10	13	14				
RING 2	5	6	7	8	11	12	15	16				
RING 3												
RING 4												

MM 1-1-3 — BACKUP PREVENT PHASES

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
PHASE 1												
PHASE 2					X							
PHASE 3												
PHASE 4												
PHASE 5												
PHASE 6	X											
PHASE 7												
PHASE 8												
PHASE 9												
PHASE 10												
PHASE 11												
PHASE 12												

MM 1-2 — PHASE IN USE & EXCLUSIVE PEDS

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
PH. IN USE	X	X			X	X	X	X				
EXCL. PED												

MM 2-1 — CONTROLLER TIMING PLANS

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
MIN GREEN	4	10			4	10	7	7				
BK MIN GRN												
CS MGRN												
DELAY GRN												
WALK		7				7	7	7				
WALK 2												
WALK MAX												
PED CLR		12				15	18	18				
PED CLR 2												
PED CLR MX												
PED CO												
VEH EXT	2.0	2.0			2.0	2.0	2.0	3.0				
VEH EXT2												
MAX 1	20	60			15	60	25	20				
MAX 2												
MAX 3												
DYM MAX												
DYM STP												
YELLOW	4.0	4.0			4.0	4.0	4.0	4.0				
RED CLR	2.5	2.0			2.0	2.0	2.5	2.5				
RED MAX												
RED RVT												
ACT B4												
SEC/ACT												
MAX INT												
TIME B4												
CARS WT												
STPTDUC												
TTREDUC												
MIN GAP												

MM 2-2 — OVERLAPS

PHASE	TYPE	1	2	3	4	5	6	7	8	LG	LY	LR	AG
VEH OL A													
VEH OL B													
VEH OL C													
VEH OL D													

MM 2-3

PED OL 01								
PED OL 02								
PED OL 03								
PED OL 04								

MM 2-5 — START UP / FLASH DATA

START UP - PHASE	1	2	3	4	5	6	7	8	9	10	11	12
START UP		W				W						
OVERLAPS												
FLASH>MON		Y				FLASH TIME		7			ALL RED	0
PWR START SEQ		1				MUTCD		N			MUTCD Y→G	N

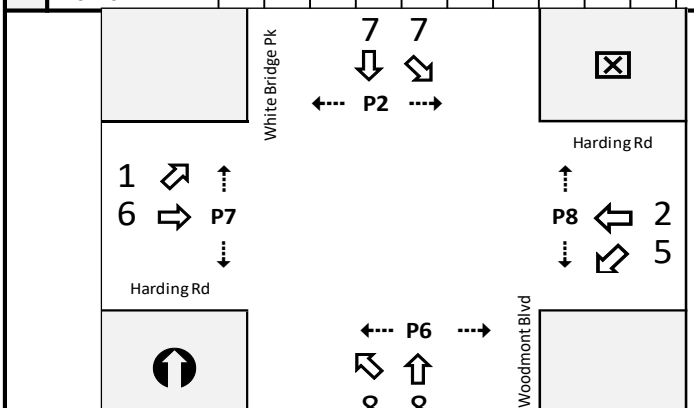
FLASH - PHASE	1	2	3	4	5	6	7	8	9	10	11	12
FLASH - ENTRY								X				
FLASH - EXIT		X				X						
OVERLAP EXIT												
FLASH>MON		Y				EXIT FLASH		W			MIN FLASH	8
MINIMUM RECALL		N									CYCLE THRU PHASES	N

MM 2-6-1 — CONTROLLER OPTIONS

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
FLASHING GRN PH												
GUAR PASSAGE												
NON-ACT I		X				X						
NON-ACT II												
DUAL ENTRY												
COND. SERVICE												
COND. RESERVICE												
PED RESERVICE												
REST IN WALK		X				X						
FLASH WALK												
PED CLR > YEL.												
PED CLR > RED												
IGRN + VEH EXT												

MM 2-8 — PHASE DETECTOR OPTIONS

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
LOCK DET												
VE RCALL												
PD RCALL		X				X	X	X				
MX RCALL		X				X	X					
SF RCALL												
NO REST												
AI CALC												



ID #: **3960** ZONE: **B**

Location: **Harding Rd & White Bridge Pk/Woodmont Blvd**

Install Date: _____

Program. By: _____

Notes: _____

COORDINATION & TIME OF DAY (TOD)

ASC3/2100 & COBALT SERIES

ECONOLITE CONTROL PRODUCTS, INC.

COORDINATOR PATTERN DATA

MM 3-2

Phase	Cycle Length		Offset		1	2	3	4	5	6	7	8	9	10	11	12
PATTERN 1	**140**	SEC.	**0**	SEC.	16	60			15	61	32	32				
COORD PHS						X				X						
FUNCTION																
PATTERN 2	**150**	SEC.	**0**	SEC.	24	62			25	61	32	32				
COORD PHS						X				X						
FUNCTION																
PATTERN 3	**170**	SEC.	**0**	SEC.	20	80			15	85	32	38				
COORD PHS						X				X						
FUNCTION																
PATTERN 4	**110**	SEC.	**0**	SEC.	14	32			14	32	32	32				
COORD PHS						X				X						
FUNCTION																
PATTERN 5	**150**	SEC.	**0**	SEC.	20	58			10	68	36	36				
COORD PHS						X				X						
FUNCTION																
PATTERN 6	**140**	SEC.	**0**	SEC.	16	60			15	61	32	32				
COORD PHS						X				X						
FUNCTION																
PATTERN 7	**150**	SEC.	**2**	SEC.	28	60			25	63	31	31				
COORD PHS						X				X						
FUNCTION																
PATTERN 8	**170**	SEC.	**3**	SEC.	25	78			15	88	31	36				
COORD PHS						X				X						
FUNCTION																
PATTERN 9	**110**	SEC.	**2**	SEC.	18	32			14	36	30	30				
COORD PHS						X				X						
FUNCTION																
PATTERN 10	**150**	SEC.	**3**	SEC.	24	58			16	66	34	34				
COORD PHS						X				X						
FUNCTION																

COORD OPTIONS

MM 3-1

MANUAL PATTERN	**AUTO**	ECPI COORD	**YES**
SYSTEM SOURCE	**SYS**	TBC SYS FORMAT	**PTN**
SPLITS IN	**SEC.**	OFFSET IN	**SEC.**
TRANSITION	**SMTH**	MAX SELECT.	**MAXINH**
DWELL/ADD TIME	**0**	ENBL. MN. SYNC.	**NO**
DLY COORD WK-LZ.	**NO**	FORCE OFF	**FLOAT**
OFFSET REF	**YELLOW**	CAL USE PED TM	**YES**
PED RECALL	**NO**	PED RESERVE	**NO**
LOCAL ZERO OVRD	**YES**	FO ADD INI GRN	**NO**
RE-SYNC COUNT	**0**	MULTISYNC	**NO**

CLOCK / CALENDAR DATA

MM 5-1

ENABLE ACTION PLAN	0
SYNC REFERENCE TIME	00:00
SYNCHRONIZATION REFERENCE	REF TIME
TIME FROM GMT	-6
DAY LIGHT SAVE	USDLS
TIME RESET INPUT	0:00:00

DAY PLAN SCHEDULE

MM 5-4

Day Plan	Months	S 1	M 2	T 3	W 4	T 5	F 6	S 7	DOM
1	1-12		X	X	X	X	X		ALL
2	1-12	X						X	ALL

ACTION PLANS

MM 5-2

Action Plan #	Pattern #	Funct.	Phs.	Funct.	Phs.	Funct.	Phs.	Funct.	Phs.
1	**1**								
2	**2**								
3	**3**								
4	**4**								
5	**5**								
6	**6**								
7	**7**								
8	**8**								
9	**9**								
10	**10**								
99	**254**								

SPECIAL DEFINED PATTERNS

PATTERN	ACTION PLAN	DESCRIPTION
254	99	FREE

DAY PLAN EVENTS

MM 5-3

Day Plan	Event #	Action Plan	Start Time	Description
1	1	**99**	00:00	FREE
1	2	**6**	06:00	AM PEAK
1	3	**7**	09:30	MD PEAK
1	4	**8**	14:00	PM PEAK
1	5	**9**	19:00	OFF PEAK
1	6	**99**	23:00	FREE
2	1	**99**	00:00	FREE
2	2	**9**	06:00	OFF PEAK
2	3	**10**	09:00	WKE PEAK
2	4	**9**	20:00	OFF PEAK
2	5	**99**	23:00	FREE

DAY PLAN EVENTS - CONTINUED

MM 5-3

Day Plan	Event #	Action Plan	Start Time	Description

ACTION PLAN PROGRAMMING NOTES

ID Number: 3960 **ZONE:** B

Location: Harding Rd & White Bridge Pk/Woodmont Blvd

Install Date: _____

Program. By _____

Notes: _____

DETECTOR SETTINGS
ASC3/2100 & COBALT SERIES
ECONOLITE CONTROL PRODUCTS, INC.

VDP # 1		VEHICLE DETECTOR PHASE ASSIGNMENT MM 6-1												VEHICLE DETECTOR SETUP MM 6-2												
		ADDITIONAL PHASE CALLS																							
DET. #	PHASE	1	2	3	4	5	6	7	8	9	10	11	12	TYPE	TS2 DET.	ECPI LOG	EXT/PASS. TIME	DELAY TIME	USE ADD. INIT.	CROSS SW PH	LOCK IN	NTCIP VOL	NTCIP OCC	PMT Q DELAY	DISCON. TIME	CALL OPTION	EXT OPTION
1		X												S	NO	NO											
2			X											S	NO	NO											
3				X										S	NO	NO											
4					X									S	NO	NO											
5						X								S	NO	NO											
6							X							S	NO	NO											
7								X						S	NO	NO											
8									X					S	NO	NO											
9														S	NO	NO											
10														S	NO	NO											
11														S	NO	NO											
12														S	NO	NO											
13														S	NO	NO											
14														S	NO	NO											
15														S	NO	NO											
16														S	NO	NO											

PEDESTRIAN PHASE ASSIGNMENT MM 6-3													
DET. #	PHASE	1	2	3	4	5	6	7	8	9	10	11	12
1		X											
2			X										
3				X									
4					X								
5						X							
6							X						
7								X					
8									X				
9										X			
10											X		
11												X	
12													X
13													
14													
15													
16													

DETECTOR PROGRAMMING NOTES

ID Number: 3970 **ZONE:** B

Location: Harding Rd & Old White Bridge/Kenner Ave

Install Date: _____ Address: _____

Program. By: _____ Switch: _____

PH6=LS5 PH5=LS6

5/31/2019 - Update Ph 4 FDW. Update Patterns for Temporary Detour at Hillword Blvd.

CONTROLLER SETTINGS

ASC3/2100 & COBALT SERIES

ECONOLITE CONTROL PRODUCTS, INC.

MM 1-1-1 — CONTROLLER PHASE RING SEQUENCE

TP # 1

PHASE												
RING 1	1	2	3	4	9	10	13	14				
RING 2	6	5	7	8	11	12	15	16				
RING 3												
RING 4												

MM 1-1-3 — BACKUP PREVENT PHASES

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
PHASE 1												
PHASE 2												
PHASE 3												
PHASE 4												
PHASE 5												
PHASE 6												
PHASE 7												
PHASE 8												
PHASE 9												
PHASE 10												
PHASE 11												
PHASE 12												

MM 1-2 — PHASE IN USE & EXCLUSIVE PEDS

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
PH. IN USE	X	X	X	X	X	X						
EXCL. PED												

MM 2-1 — CONTROLLER TIMING PLANS

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
MIN GREEN	4	15	7	7	4	15						
BK MIN GRN												
CS MGRN												
DELAY GRN												
WALK				7								
WALK 2												
WALK MAX												
PED CLR				20								
PED CLR 2												
PED CLR MX												
PED CO												
VEH EXT	2.0	2.0	2.0	2.0	2.0	2.0						
VEH EXT2												
MAX 1	15	60	20	20	15	60						
MAX 2												
MAX 3												
DYM MAX												
DYM STP												
YELLOW	4.0	4.0	3.0	3.0	4.0	4.0						
RED CLR	2.0	2.0	4.0	3.5	2.0	2.0						
RED MAX												
RED RVT												
ACT B4												
SEC/ACT												
MAX INT												
TIME B4												
CARS WT												
STPTDUC												
TTREDUC												
MIN GAP												

MM 2-2 — OVERLAPS

PHASE	TYPE	1	2	3	4	5	6	7	8	LG	LY	LR	AG
VEH OL A													
VEH OL B													
VEH OL C													
VEH OL D													

MM 2-3

PED OL 01								
PED OL 02								
PED OL 03								
PED OL 04								

MM 2-5 — START UP / FLASH DATA

START UP - PHASE	1	2	3	4	5	6	7	8	9	10	11	12
START UP		G				G						
OVERLAPS												
FLASH>MON		Y				FLASH TIME		7			ALL RED	0
PWR START SEQ		1				MUTCD		N			MUTCD Y→G	N

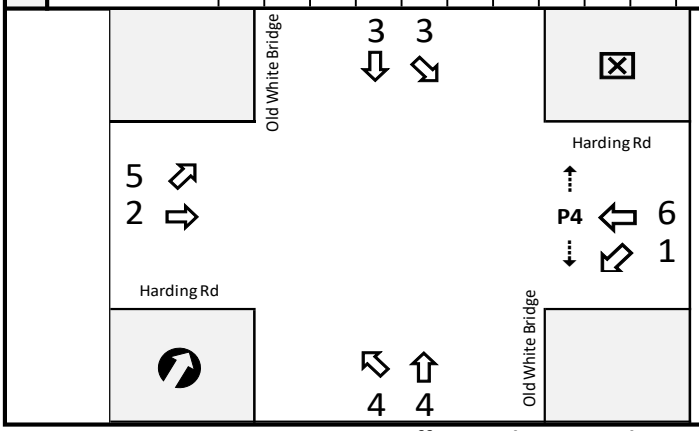
FLASH - PHASE	1	2	3	4	5	6	7	8	9	10	11	12
FLASH - ENTRY				X								
FLASH - EXIT		X				X						
OVERLAP EXIT												
FLASH>MON		Y				EXIT FLASH		G			MIN FLASH	8
MINIMUM RECALL		N									CYCLE THRU PHASES	N

MM 2-6-1 — CONTROLLER OPTIONS

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
FLASHING GRN PH												
GUAR PASSAGE												
NON-ACT I												
NON-ACT II												
DUAL ENTRY												
COND. SERVICE												
COND. RESERVICE												
PED RESERVICE												
REST IN WALK												
FLASH WALK												
PED CLR > YEL.												
PED CLR > RED												
IGRN + VEH EXT												

MM 2-8 — PHASE DETECTOR OPTIONS

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
LOCK DET												
VE RCALL												
PD RCALL												
MX RCALL		X				X						
SF RCALL												
NO REST												
AI CALC												



ID #: **3970** ZONE: **B**

Location: **Harding Rd & Old White Bridge/Kenner Ave**

Install Date: _____

Program. By: _____

Notes: _____

COORDINATION & TIME OF DAY (TOD)

ASC3/2100 & COBALT SERIES

ECONOLITE CONTROL PRODUCTS, INC.

COORDINATOR PATTERN DATA

MM 3-2

Phase	Cycle Length		Offset		1	2	3	4	5	6	7	8	9	10	11	12
PATTERN 1	**140**	SEC.	**130**	SEC.	15	82	15	28	15	82						
COORD PHS						X				X						
FUNCTION																
PATTERN 2	**150**	SEC.	**148**	SEC.	15	86	21	28	17	84						
COORD PHS						X				X						
FUNCTION																
PATTERN 3	**170**	SEC.	**10**	SEC.	16	96	22	36	15	97						
COORD PHS						X				X						
FUNCTION																
PATTERN 4	**110**	SEC.	**14**	SEC.	15	52	15	28	17	50						
COORD PHS						X				X						
FUNCTION																
PATTERN 5	**150**	SEC.	**13**	SEC.	16	81	22	31	15	82						
COORD PHS						X				X						
FUNCTION																
PATTERN 6	**140**	SEC.	**23**	SEC.	14	83	15	28	14	83						
COORD PHS						X				X						
FUNCTION																
PATTERN 7	**150**	SEC.	26	SEC.	15	86	21	28	17	84						
COORD PHS						X				X						
FUNCTION																
PATTERN 8	**170**	SEC.	9	SEC.	16	96	22	36	15	97						
COORD PHS						X				X						
FUNCTION																
PATTERN 9	**110**	SEC.	18	SEC.	15	52	18	25	15	52						
COORD PHS						X				X						
FUNCTION																
PATTERN 10	**150**	SEC.	22	SEC.	16	81	22	31	15	82						
COORD PHS						X				X						
FUNCTION																

COORD OPTIONS

MM 3-1

MANUAL PATTERN	**AUTO**	ECPI COORD	**YES**
SYSTEM SOURCE	**SYS**	TBC SYS FORMAT	**PTN**
SPLITS IN	**SEC.**	OFFSET IN	**SEC.**
TRANSITION	**SMTH**	MAX SELECT.	**MAXINH**
DWELL/ADD TIME	**0**	ENBL. MN. SYNC.	**NO**
DLY COORD WK-LZ.	**NO**	FORCE OFF	**FLOAT**
OFFSET REF	**YELLOW**	CAL USE PED TM	**YES**
PED RECALL	**NO**	PED RESERVE	**NO**
LOCAL ZERO OVRD	**YES**	FO ADD INI GRN	**NO**
RE-SYNC COUNT	**0**	MULTISYNC	**NO**

CLOCK / CALENDAR DATA

MM 5-1

ENABLE ACTION PLAN	0
SYNC REFERENCE TIME	00:00
SYNCHRONIZATION REFERENCE	REF TIME
TIME FROM GMT	0
DAY LIGHT SAVE	NO
TIME RESET INPUT	0:00:00

DAY PLAN SCHEDULE

MM 5-4

Day Plan	Months	S 1	M 2	T 3	W 4	T 5	F 6	S 7	DOM
1	1-12		X	X	X	X	X		ALL
2	1-12	X						X	ALL

ACTION PLANS

MM 5-2

Action Plan #	Pattern #	Funct.	Phs.	Funct.	Phs.	Funct.	Phs.	Funct.	Phs.
1	**1**								
2	**2**								
3	**3**								
4	**4**								
5	**5**								
100	**255**								

SPECIAL DEFINED PATTERNS

PATTERN	ACTION PLAN	DESCRIPTION
255	100	FLASH

DAY PLAN EVENTS

MM 5-3

Day Plan	Event #	Action Plan	Start Time	Description
1	1	**100**	00:00	FLASH
1	2	**6**	06:00	AM PEAK
1	3	**7**	09:30	MD PEAK
1	4	**8**	14:00	PM PEAK
1	5	**9**	19:00	OFF PEAK
1	6	**100**	23:00	FLASH
2	1	**100**	00:00	FLASH
2	2	**9**	06:00	OFF PEAK
2	3	**10**	09:00	WKE PEAK
2	4	**9**	20:00	OFF PEAK
2	5	**100**	23:00	FLASH

DAY PLAN EVENTS - CONTINUED

MM 5-3

Day Plan	Event #	Action Plan	Start Time	Description

ACTION PLAN PROGRAMMING NOTES

ID Number: **3970** **ZONE:** **B**

Location: **Harding Rd & Old White Bridge/Kenner Ave**

Install Date: _____

Program. By _____

Notes: _____

DETECTOR SETTINGS

ASC3/2100 & COBALT SERIES

ECONOLITE CONTROL PRODUCTS, INC.

VDP # **1**	**VEHICLE DETECTOR PHASE ASSIGNMENT** MM 6-1													**VEHICLE DETECTOR SETUP** MM 6-2												
		ADDITIONAL PHASE CALLS																								
DET. #	**PHASE**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**TYPE**	TS2 DET.	ECPI LOG	EXT/PASS. TIME	DELAY TIME	USE ADD. INIT.	CROSS SW PH	LOCK IN	NTCIP VOL	NTCIP OCC	PMT Q DELAY	DISCON. TIME	CALL OPTION	EXT OPTION
1		X												S	NO	NO										
2			X											S	NO	NO										
3				X										S	NO	NO										
4					X									S	NO	NO										
5						X								S	NO	NO										
6							X							S	NO	NO										
7								X						S	NO	NO										
8									X					S	NO	NO										
9														S	NO	NO										
10														S	NO	NO										
11														S	NO	NO										
12														S	NO	NO										
13														S	NO	NO										
14														S	NO	NO										
15														S	NO	NO										
16														S	NO	NO										

PEDESTRIAN PHASE ASSIGNMENT MM 6-3													
DET. #	**PHASE**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
1		X											
2			X										
3				X									
4					X								
5						X							
6							X						
7								X					
8									X				
9										X			
10											X		
11												X	
12													X
13													
14													
15													
16													

DETECTOR PROGRAMMING NOTES

ID Number: 3915 **ZONE:** B

Location: Harding Rd & Bosley Springs Rd/Woodlawn Dr

Install Date: _____ Address: _____

Program. By: _____ Switch: _____

CONTROLLER SETTINGS

ASC3/2100 & COBALT SERIES

ECONOLITE CONTROL PRODUCTS, INC.

MM 1-1-1

TP #	CONTROLLER PHASE RING SEQUENCE											
1	PHASE											
RING 1	1	2	3	4	9	10	13	14				
RING 2	5	6	7	8	11	12	15	16				
RING 3												
RING 4												

MM 1-1-3

BACKUP PREVENT PHASES												
PHASE	1	2	3	4	5	6	7	8	9	10	11	12
PHASE 1												
PHASE 2					X							
PHASE 3												
PHASE 4												
PHASE 5												
PHASE 6	X											
PHASE 7												
PHASE 8												
PHASE 9												
PHASE 10												
PHASE 11												
PHASE 12												

MM 1-2

PHASE IN USE & EXCLUSIVE PEDS												
PHASE	1	2	3	4	5	6	7	8	9	10	11	12
PH. IN USE	X	X	X	X	X	X	X	X				
EXCL. PED												

MM 2-1

CONTROLLER TIMING PLANS												
PHASE	1	2	3	4	5	6	7	8	9	10	11	12
MIN GREEN	4	10	7	7	4	10	8	7				
BK MIN GRN												
CS MGRN												
DELAY GRN												
WALK		7				7		7				
WALK 2												
WALK MAX												
PED CLR		14				14		19				
PED CLR 2												
PED CLR MX												
PED CO												
VEH EXT	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0				
VEH EXT2												
MAX 1	15	60	15	15	15	60	15	15				
MAX 2												
MAX 3												
DYM MAX												
DYM STP												
YELLOW	4.0	4.0	3.5	3.5	4.0	4.0	3.5	3.5				
RED CLR	2.0	2.0	2.5	2.5	2.0	2.0	2.0	2.5				
RED MAX												
RED RVT												
ACT B4												
SEC/ACT												
MAX INT												
TIME B4												
CARS WT												
STPTDUC												
TTREDUC												
MIN GAP												

MM 2-2 / MM 2-3

OVERLAPS													
PHASE	TYPE	1	2	3	4	5	6	7	8	LG	LY	LR	AG
VEH OL A													
VEH OL B													
VEH OL C													
VEH OL D													
PED OL 01													
PED OL 02													
PED OL 03													
PED OL 04													

MM 2-5

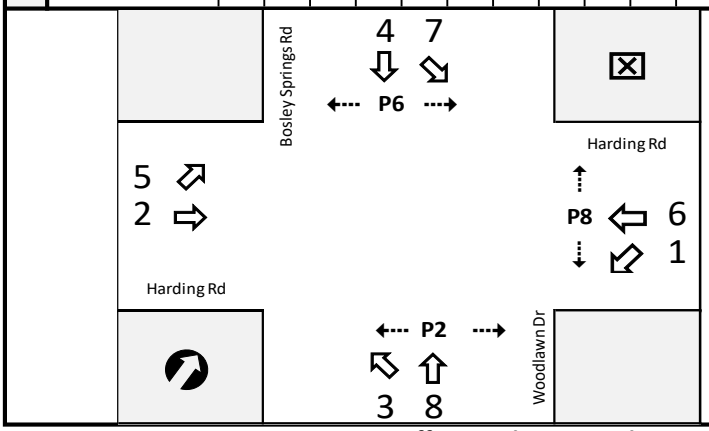
START UP / FLASH DATA												
START UP - PHASE	1	2	3	4	5	6	7	8	9	10	11	12
START UP		W				W						
OVERLAPS												
FLASH>MON		Y			FLASH TIME		7			ALL RED		0
PWR START SEQ		1			MUTCD		N			MUTCD Y→G		N
FLASH - PHASE	1	2	3	4	5	6	7	8	9	10	11	12
FLASH - ENTRY				X				X				
FLASH - EXIT		X				X						
OVERLAP EXIT												
FLASH>MON		Y			EXIT FLASH		W			MIN FLASH		8
MINIMUM RECALL		N								CYCLE THRU PHASES		N

MM 2-6-1

CONTROLLER OPTIONS												
PHASE	1	2	3	4	5	6	7	8	9	10	11	12
FLASHING GRN PH												
GUAR PASSAGE												
NON-ACT I		X				X						
NON-ACT II												
DUAL ENTRY				X				X				
COND. SERVICE												
COND. RESERVICE												
PED RESERVICE												
REST IN WALK		X				X						
FLASH WALK												
PED CLR > YEL.												
PED CLR > RED												
IGRN + VEH EXT												

MM 2-8

PHASE DETECTOR OPTIONS												
PHASE	1	2	3	4	5	6	7	8	9	10	11	12
LOCK DET												
VE RCALL							X					
PD RCALL		X				X						
MX RCALL		X				X						
SF RCALL												
NO REST												
AI CALC												



ID #: 3915 **ZONE:** B
Location: Harding Rd & Bosley Springs Rd/Woodlawn Dr
Install Date: _____
Program. By: _____
Notes: _____

COORDINATION & TIME OF DAY (TOD)
ASC3/2100 & COBALT SERIES
ECONOLITE CONTROL PRODUCTS, INC.

COORDINATOR PATTERN DATA
MM 3-2

Phase	Cycle Length		Offset		1	2	3	4	5	6	7	8	9	10	11	12
PATTERN 1	**140**	SEC.	**14**	SEC.	15	82	16	27	28	69	15	28				
COORD PHS						X				X						
FUNCTION																
PATTERN 2	**150**	SEC.	**23**	SEC.	16	83	20	31	15	84	16	35				
COORD PHS						X				X						
FUNCTION																
PATTERN 3	**170**	SEC.	**26**	SEC.	17	93	15	45	15	95	28	32				
COORD PHS						X				X						
FUNCTION																
PATTERN 4	**110**	SEC.	**58**	SEC.	15	53	15	27	15	53	10	32				
COORD PHS						X				X						
FUNCTION																
PATTERN 5	**150**	SEC.	**9**	SEC.	15	92	15	28	13	94	15	28				
COORD PHS						X				X						
FUNCTION																
PATTERN 6																
COORD PHS																
FUNCTION																
PATTERN 7																
COORD PHS																
FUNCTION																
PATTERN 8																
COORD PHS																
FUNCTION																
PATTERN 9																
COORD PHS																
FUNCTION																
PATTERN 10																
COORD PHS																
FUNCTION																

COORD OPTIONS
MM 3-1

MANUAL PATTERN	**AUTO**	ECPI COORD	**YES**
SYSTEM SOURCE	**SYS**	TBC SYS FORMAT	**PTN**
SPLITS IN	**SEC.**	OFFSET IN	**SEC.**
TRANSITION	**SMTH**	MAX SELECT.	**MAXINH**
DWELL/ADD TIME	**0**	ENBL. MN. SYNC.	**NO**
DLY COORD WK-LZ.	**NO**	FORCE OFF	**FLOAT**
OFFSET REF	**YELLOW**	CAL USE PED TM	**YES**
PED RECALL	**NO**	PED RESERVE	**NO**
LOCAL ZERO OVRD	**YES**	FO ADD INI GRN	**NO**
RE-SYNC COUNT	**0**	MULTISYNC	**NO**

CLOCK / CALENDAR DATA
MM 5-1

ENABLE ACTION PLAN	0
SYNC REFERENCE TIME	00:00
SYNCHRONIZATION REFERENCE	REF TIME
TIME FROM GMT	0
DAY LIGHT SAVE	NO
TIME RESET INPUT	0:00:00

DAY PLAN SCHEDULE
MM 5-4

Day Plan	Months	S 1	M 2	T 3	W 4	T 5	F 6	S 7	DOM
1	1-12		X	X	X	X	X		ALL
2	1-12	X						X	ALL

ACTION PLANS
MM 5-2

Action Plan #	Pattern #	Funct.	Phs.	Funct.	Phs.	Funct.	Phs.	Funct.	Phs.
1	**1**								
2	**2**								
3	**3**								
4	**4**								
5	**5**								
100	**255**								

SPECIAL DEFINED PATTERNS

PATTERN	ACTION PLAN	DESCRIPTION
255	100	FLASH

DAY PLAN EVENTS
MM 5-3

Day Plan	Event #	Action Plan	Start Time	Description
1	1	**100**	00:00	FLASH
1	2	**1**	06:00	AM PEAK
1	3	**2**	09:30	MD PEAK
1	4	**3**	14:00	PM PEAK
1	5	**4**	19:00	OFF PEAK
1	6	**100**	23:00	FLASH
2	1	**100**	00:00	FLASH
2	2	**4**	06:00	OFF PEAK
2	3	**5**	09:00	WKE PEAK
2	4	**4**	20:00	OFF PEAK
2	5	**100**	23:00	FLASH

DAY PLAN EVENTS - CONTINUED
MM 5-3

Day Plan	Event #	Action Plan	Start Time	Description

ACTION PLAN PROGRAMMING NOTES

ID Number: **3915** **ZONE:** **B**

Location: **Harding Rd & Bosley Springs Rd/Woodlawn Dr**

Install Date: _____

Program. By _____

Notes: _____

DETECTOR SETTINGS

ASC3/2100 & COBALT SERIES

ECONOLITE CONTROL PRODUCTS, INC.

VDP # **1**	**VEHICLE DETECTOR PHASE ASSIGNMENT** MM 6-1													**VEHICLE DETECTOR SETUP** MM 6-2												
		ADDITIONAL PHASE CALLS																								
DET. #	**PHASE**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**TYPE**	TS2 DET.	ECPI LOG	EXT/PASS. TIME	DELAY TIME	USE ADD. INIT.	CROSS SW PH	LOCK IN	NTCIP VOL	NTCIP OCC	PMT Q DELAY	DISCON. TIME	CALL OPTION	EXT OPTION
1		X												S	NO	NO										
2			X											S	NO	NO										
3				X										S	NO	NO										
4					X									S	NO	NO										
5						X								S	NO	NO										
6							X							S	NO	NO										
7								X						S	NO	NO										
8									X					S	NO	NO										
9														S	NO	NO										
10														S	NO	NO										
11														S	NO	NO										
12														S	NO	NO										
13														S	NO	NO										
14														S	NO	NO										
15														S	NO	NO										
16														S	NO	NO										

PEDESTRIAN PHASE ASSIGNMENT

MM 6-3

DET. #	**PHASE**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
1		X											
2			X										
3				X									
4					X								
5						X							
6							X						
7								X					
8									X				
9										X			
10											X		
11												X	
12													X
13													
14													
15													
16													

DETECTOR PROGRAMMING NOTES

ID Number: 3945 **ZONE:** B

Location: Harding Rd & St. Thomas Hospital

Install Date: _____ Address: _____

Program. By: _____ Switch: _____

CONTROLLER SETTINGS

ASC3/2100 & COBALT SERIES

ECONOLITE CONTROL PRODUCTS, INC.

MM 1-1-1 — CONTROLLER PHASE RING SEQUENCE

TP #	PHASE											
1	RING 1	1	2	3	4	9	10	13	14			
	RING 2	5	6	7	8	11	12	15	16			
	RING 3											
	RING 4											

MM 1-1-3 — BACKUP PREVENT PHASES

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
PHASE 1												
PHASE 2												
PHASE 3												
PHASE 4												
PHASE 5												
PHASE 6												
PHASE 7												
PHASE 8												
PHASE 9												
PHASE 10												
PHASE 11												
PHASE 12												

MM 1-2 — PHASE IN USE & EXCLUSIVE PEDS

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
PH. IN USE	X	X		X		X						
EXCL. PED												

MM 2-1 — CONTROLLER TIMING PLANS

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
MIN GREEN	4	20		7		20						
BK MIN GRN												
CS MGRN												
DELAY GRN												
WALK				9								
WALK 2												
WALK MAX												
PED CLR				17								
PED CLR 2												
PED CLR MX												
PED CO												
VEH EXT	2.0	2.0		2.0		2.0						
VEH EXT2												
MAX 1	15	60		20		60						
MAX 2												
MAX 3												
DYM MAX												
DYM STP												
YELLOW	4.0	4.0		3.5		4.0						
RED CLR	1.5	4.0		3.0		4.0						
RED MAX												
RED RVT												
ACT B4												
SEC/ACT												
MAX INT												
TIME B4												
CARS WT												
STPTDUC												
TTREDUC												
MIN GAP												

MM 2-2 — OVERLAPS

PHASE	TYPE	1	2	3	4	5	6	7	8	LG	LY	LR	AG
VEH OL A	NORM.	X			X								
VEH OL B													
VEH OL C													
VEH OL D													

MM 2-3

PED OL 01								
PED OL 02								
PED OL 03								
PED OL 04								

MM 2-5 — START UP / FLASH DATA

START UP - PHASE	1	2	3	4	5	6	7	8	9	10	11	12
START UP		G				G						
OVERLAPS												
FLASH>MON		Y				FLASH TIME		7			ALL RED	0
PWR START SEQ		1				MUTCD		N			MUTCD Y→G	N

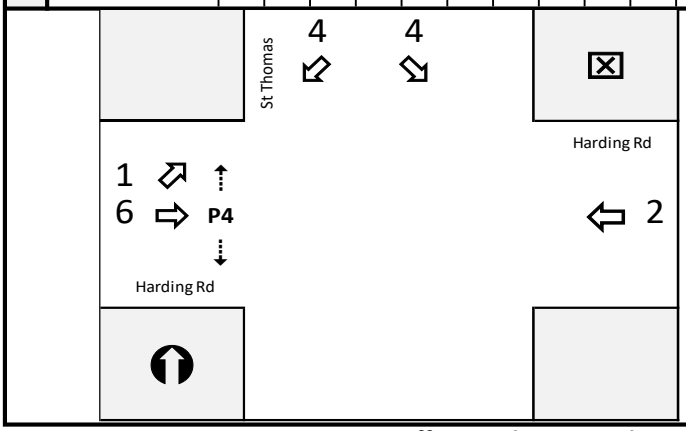
FLASH - PHASE	1	2	3	4	5	6	7	8	9	10	11	12
FLASH - ENTRY				X								
FLASH - EXIT		X				X						
OVERLAP EXIT												
FLASH>MON		Y				EXIT FLASH		G			MIN FLASH	8
MINIMUM RECALL		N									CYCLE THRU PHASES	N

MM 2-6-1 — CONTROLLER OPTIONS

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
FLASHING GRN PH												
GUAR PASSAGE												
NON-ACT I												
NON-ACT II												
DUAL ENTRY												
COND. SERVICE												
COND. RESERVICE												
PED RESERVICE												
REST IN WALK												
FLASH WALK												
PED CLR > YEL.												
PED CLR > RED												
IGRN + VEH EXT												

MM 2-8 — PHASE DETECTOR OPTIONS

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
LOCK DET												
VE RCALL												
PD RCALL												
MX RCALL		X				X						
SF RCALL												
NO REST												
AI CALC												



ID #: 3945 **ZONE:** B

Location: Harding Rd & St. Thomas Hospital

Install Date: _____

Program. By: _____

Notes: _____

COORDINATION & TIME OF DAY (TOD)

ASC3/2100 & COBALT SERIES

ECONOLITE CONTROL PRODUCTS, INC.

COORDINATOR PATTERN DATA

MM 3-2

Phase	Cycle Length		Offset		1	2	3	4	5	6	7	8	9	10	11	12
PATTERN 1	**140**	SEC.	**37**	SEC.	16	88		36		104						
COORD PHS						X				X						
FUNCTION																
PATTERN 2	**150**	SEC.	**26**	SEC.	16	99		35		115						
COORD PHS						X				X						
FUNCTION																
PATTERN 3	**170**	SEC.	**37**	SEC.	15	118		37		133						
COORD PHS						X				X						
FUNCTION																
PATTERN 4	**110**	SEC.	**85**	SEC.	15	62		33		77						
COORD PHS						X				X						
FUNCTION																
PATTERN 5	**150**	SEC.	**147**	SEC.	15	100		35		115						
COORD PHS						X				X						
FUNCTION																
PATTERN 6																
COORD PHS																
FUNCTION																
PATTERN 7																
COORD PHS																
FUNCTION																
PATTERN 8																
COORD PHS																
FUNCTION																
PATTERN 9																
COORD PHS																
FUNCTION																
PATTERN 10																
COORD PHS																
FUNCTION																

COORD OPTIONS

MM 3-1

MANUAL PATTERN	**AUTO**	ECPI COORD	**YES**
SYSTEM SOURCE	**SYS**	TBC SYS FORMAT	**PTN**
SPLITS IN	**SEC.**	OFFSET IN	**SEC.**
TRANSITION	**SMTH**	MAX SELECT.	**MAXINH**
DWELL/ADD TIME	**0**	ENBL. MN. SYNC.	**NO**
DLY COORD WK-LZ.	**NO**	FORCE OFF	**FLOAT**
OFFSET REF	**YELLOW**	CAL USE PED TM	**YES**
PED RECALL	**NO**	PED RESERVE	**NO**
LOCAL ZERO OVRD	**YES**	FO ADD INI GRN	**NO**
RE-SYNC COUNT	**0**	MULTISYNC	**NO**

CLOCK / CALENDAR DATA

MM 5-1

ENABLE ACTION PLAN	0
SYNC REFERENCE TIME	00:00
SYNCHRONIZATION REFERENCE	REF TIME
TIME FROM GMT	0
DAY LIGHT SAVE	NO
TIME RESET INPUT	0:00:00

DAY PLAN SCHEDULE

MM 5-4

Day Plan	Months	S 1	M 2	T 3	W 4	T 5	F 6	S 7	DOM
1	1-12		X	X	X	X	X		ALL
2	1-12	X						X	ALL

ACTION PLANS

MM 5-2

Action Plan #	Pattern #	Funct.	Phs.	Funct.	Phs.	Funct.	Phs.	Funct.	Phs.
1	**1**								
2	**2**								
3	**3**								
4	**4**								
5	**5**								
100	**255**								

SPECIAL DEFINED PATTERNS

PATTERN	ACTION PLAN	DESCRIPTION
255	100	FLASH

DAY PLAN EVENTS

MM 5-3

Day Plan	Event #	Action Plan	Start Time	Description
1	1	**100**	00:00	FLASH
1	2	**1**	06:00	AM PEAK
1	3	**2**	09:30	MD PEAK
1	4	**3**	14:00	PM PEAK
1	5	**4**	19:00	OFF PEAK
1	6	**100**	23:00	FLASH
2	1	**100**	00:00	FLASH
2	2	**4**	06:00	OFF PEAK
2	3	**5**	09:00	WKE PEAK
2	4	**4**	20:00	OFF PEAK
2	5	**100**	23:00	FLASH

DAY PLAN EVENTS - CONTINUED

MM 5-3

Day Plan	Event #	Action Plan	Start Time	Description

ACTION PLAN PROGRAMMING NOTES

ID Number: **3945** **ZONE:** **B**

Location: **Harding Rd & St. Thomas Hospital**

Install Date: _____

Program. By _____

Notes: _____

DETECTOR SETTINGS

ASC3/2100 & COBALT SERIES

ECONOLITE CONTROL PRODUCTS, INC.

VDP # 1		**VEHICLE DETECTOR PHASE ASSIGNMENT** MM 6-1												**VEHICLE DETECTOR SETUP** MM 6-2												
		ADDITIONAL PHASE CALLS																								
DET. #	**PHASE**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**TYPE**	TS2 DET.	ECPI LOG	EXT/PASS. TIME	DELAY TIME	USE ADD. INIT.	CROSS SW PH	LOCK IN	NTCIP VOL	NTCIP OCC	PMT Q DELAY	DISCON. TIME	CALL OPTION	EXT OPTION
1		X												S	NO	NO										
2			X											S	NO	NO										
3				X										S	NO	NO										
4					X									S	NO	NO										
5						X								S	NO	NO										
6							X							S	NO	NO										
7								X						S	NO	NO										
8									X					S	NO	NO										
9														S	NO	NO										
10														S	NO	NO										
11														S	NO	NO										
12														S	NO	NO										
13														S	NO	NO										
14														S	NO	NO										
15														S	NO	NO										
16														S	NO	NO										

PEDESTRIAN PHASE ASSIGNMENT MM 6-3													
DET. #	**PHASE**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
1		X											
2			X										
3				X									
4					X								
5						X							
6							X						
7								X					
8									X				
9										X			
10											X		
11												X	
12													X
13													
14													
15													
16													

DETECTOR PROGRAMMING NOTES

ID Number: 3912 **ZONE:** B

Location: Harding Rd & Belle Meade Plaza

Install Date: _____ Address: _____

Program. By: _____ Switch: _____

Phase 5 lags. Add D/G- leading walk 4 & 8 SR1218142 02062020

CONTROLLER SETTINGS

ASC3/2100 & COBALT SERIES

ECONOLITE CONTROL PRODUCTS, INC.

CONTROLLER PHASE RING SEQUENCE

TP # 1

PHASE

MM 1-1-1

RING 1	1	2	3	4	9	10	13	14				
RING 2	6	5	7	8	11	12	15	16				
RING 3												
RING 4												

BACKUP PREVENT PHASES

MM 1-1-3

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
PHASE 1												
PHASE 2												
PHASE 3												
PHASE 4												
PHASE 5												
PHASE 6	X											
PHASE 7												
PHASE 8												
PHASE 9												
PHASE 10												
PHASE 11												
PHASE 12												

PHASE IN USE & EXCLUSIVE PEDS

MM 1-2

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
PH. IN USE	X	X		X	X	X		X				
EXCL. PED												

CONTROLLER TIMING PLANS

MM 2-1

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
MIN GREEN	4	10		7	4	10		7				
BK MIN GRN												
CS MGRN												
DELAY GRN				5				5				
WALK				7				7				
WALK 2												
WALK MAX												
PED CLR				18				18				
PED CLR 2												
PED CLR MX												
PED CO												
VEH EXT	2.0	2.0		2.0	2.0	2.0		2.0				
VEH EXT2												
MAX 1	15	60		15	15	60		15				
MAX 2												
MAX 3												
DYM MAX												
DYM STP												
YELLOW	4.0	4.0		3.5	4.0	4.0		3.5				
RED CLR	2.0	2.0		2.5	2.0	2.0		2.5				
RED MAX												
RED RVT												
ACT B4												
SEC/ACT												
MAX INT												
TIME B4												
CARS WT												
STPTDUC												
TTREDUC												
MIN GAP												

OVERLAPS

MM 2-2 / MM 2-3

PHASE	TYPE	1	2	3	4	5	6	7	8	LG	LY	LR	AG
VEH OL A													
VEH OL B													
VEH OL C													
VEH OL D													
PED OL 01													
PED OL 02													
PED OL 03													
PED OL 04													

START UP / FLASH DATA

MM 2-5

START UP - PHASE	1	2	3	4	5	6	7	8	9	10	11	12
START UP		G				G						
OVERLAPS												
FLASH>MON	Y			FLASH TIME			7			ALL RED		0
PWR START SEQ	1			MUTCD			N			MUTCD Y→G		N
FLASH - PHASE	1	2	3	4	5	6	7	8	9	10	11	12
FLASH - ENTRY				X				X				
FLASH - EXIT		X				X						
OVERLAP EXIT												
FLASH>MON	Y			EXIT FLASH			G			MIN FLASH		8
MINIMUM RECALL	N									CYCLE THRU PHASES		N

CONTROLLER OPTIONS

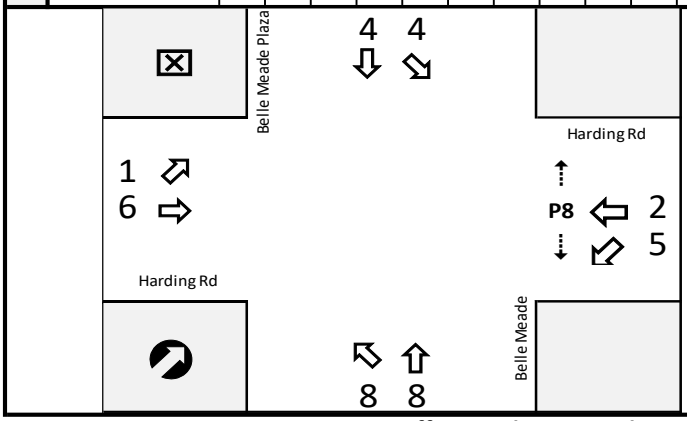
MM 2-6-1

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
FLASHING GRN PH												
GUAR PASSAGE												
NON-ACT I												
NON-ACT II												
DUAL ENTRY				X				X				
COND. SERVICE												
COND. RESERVICE												
PED RESERVICE												
REST IN WALK												
FLASH WALK												
PED CLR > YEL.												
PED CLR > RED												
IGRN + VEH EXT												

PHASE DETECTOR OPTIONS

MM 2-8

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
LOCK DET												
VE RCALL												
PD RCALL												
MX RCALL		X				X						
SF RCALL												
NO REST												
AI CALC												



ID #: **3912** ZONE: **B**

Location: **Harding Rd & Belle Meade Plaza**

Install Date: _____

Program. By: _____

Notes: _____

COORDINATION & TIME OF DAY (TOD)

ASC3/2100 & COBALT SERIES

ECONOLITE CONTROL PRODUCTS, INC.

COORDINATOR PATTERN DATA
MM 3-2

Phase	Cycle Length		Offset		1	2	3	4	5	6	7	8	9	10	11	12
PATTERN 1	**140**	SEC.	**21**	SEC.	15	92		33	15	92		33				
COORD PHS						X				X						
FUNCTION																
PATTERN 2	**150**	SEC.	**145**	SEC.	15	81		54	15	81		54				
COORD PHS						X				X						
FUNCTION																
PATTERN 3	**170**	SEC.	**3**	SEC.	15	124		31	15	124		31				
COORD PHS						X				X						
FUNCTION																
PATTERN 4	**110**	SEC.	**16**	SEC.	15	63		32	15	63		32				
COORD PHS						X				X						
FUNCTION																
PATTERN 5	**150**	SEC.	**47**	SEC.	15	94		41	15	94		41				
COORD PHS						X				X						
FUNCTION																
PATTERN 6																
COORD PHS																
FUNCTION																
PATTERN 7																
COORD PHS																
FUNCTION																
PATTERN 8																
COORD PHS																
FUNCTION																
PATTERN 9																
COORD PHS																
FUNCTION																
PATTERN 10																
COORD PHS																
FUNCTION																

COORD OPTIONS
MM 3-1

MANUAL PATTERN	**AUTO**	ECPI COORD	**YES**
SYSTEM SOURCE	**SYS**	TBC SYS FORMAT	**PTN**
SPLITS IN	**SEC.**	OFFSET IN	**SEC.**
TRANSITION	**SMTH**	MAX SELECT.	**MAXINH**
DWELL/ADD TIME	**0**	ENBL. MN. SYNC.	**NO**
DLY COORD WK-LZ.	**NO**	FORCE OFF	**FLOAT**
OFFSET REF	**YELLOW**	CAL USE PED TM	**YES**
PED RECALL	**NO**	PED RESERVE	**NO**
LOCAL ZERO OVRD	**YES**	FO ADD INI GRN	**NO**
RE-SYNC COUNT	**0**	MULTISYNC	**NO**

CLOCK / CALENDAR DATA
MM 5-1

ENABLE ACTION PLAN	0
SYNC REFERENCE TIME	00:00
SYNCHRONIZATION REFERENCE	REF TIME
TIME FROM GMT	0
DAY LIGHT SAVE	NO
TIME RESET INPUT	0:00:00

DAY PLAN SCHEDULE
MM 5-4

Day Plan	Months	S 1	M 2	T 3	W 4	T 5	F 6	S 7	DOM
1	1-12		X	X	X	X	X		ALL
2	1-12	X						X	ALL

ACTION PLANS
MM 5-2

Action Plan #	Pattern #	Funct.	Phs.	Funct.	Phs.	Funct.	Phs.	Funct.	Phs.
1	**1**								
2	**2**								
3	**3**								
4	**4**								
5	**5**								
100	**255**								

SPECIAL DEFINED PATTERNS

PATTERN	ACTION PLAN	DESCRIPTION
255	100	FLASH

DAY PLAN EVENTS
MM 5-3

Day Plan	Event #	Action Plan	Start Time	Description
1	1	**100**	00:00	FLASH
1	2	**1**	06:00	AM PEAK
1	3	**2**	09:30	MD PEAK
1	4	**3**	14:00	PM PEAK
1	5	**4**	19:00	OFF PEAK
1	6	**100**	23:00	FLASH
2	1	**100**	00:00	FLASH
2	2	**4**	06:00	OFF PEAK
2	3	**5**	09:00	WKE PEAK
2	4	**4**	20:00	OFF PEAK
2	5	**100**	23:00	FLASH

DAY PLAN EVENTS - CONTINUED
MM 5-3

Day Plan	Event #	Action Plan	Start Time	Description

ACTION PLAN PROGRAMMING NOTES

ID Number: 3912 **ZONE:** B

Location: Harding Rd & Belle Meade Plaza

Install Date: _____

Program. By: _____

Notes: _____

DETECTOR SETTINGS

ASC3/2100 & COBALT SERIES

ECONOLITE CONTROL PRODUCTS, INC.

VDP # 1

VEHICLE DETECTOR PHASE ASSIGNMENT
MM 6-1

VEHICLE DETECTOR SETUP
MM 6-2

DET. #	PHASE	ADDITIONAL PHASE CALLS 1	2	3	4	5	6	7	8	9	10	11	12	TYPE	TS2 DET.	ECPI LOG	EXT/PASS. TIME	DELAY TIME	USE ADD. INIT.	CROSS SW PH	LOCK IN	NTCIP VOL	NTCIP OCC	PMT Q DELAY	DISCON. TIME	CALL OPTION	EXT OPTION
1		X												S	NO	NO											
2			X											S	NO	NO											
3				X										S	NO	NO											
4					X									S	NO	NO											
5						X								S	NO	NO											
6							X							S	NO	NO											
7								X						S	NO	NO											
8									X					S	NO	NO											
9														S	NO	NO											
10														S	NO	NO											
11														S	NO	NO											
12														S	NO	NO											
13														S	NO	NO											
14														S	NO	NO											
15														S	NO	NO											
16														S	NO	NO											

PEDESTRIAN PHASE ASSIGNMENT
MM 6-3

DET. #	PHASE	1	2	3	4	5	6	7	8	9	10	11	12
1		X											
2			X										
3				X									
4					X								
5						X							
6							X						
7								X					
8					X				X				
9										X			
10											X		
11												X	
12													X
13													
14													
15													
16													

DETECTOR PROGRAMMING NOTES

Speacial ped 8 calls ped 4 for delay green on both approuches. Phase 4 ped must be programmed for delay to work on both approuches.

APPENDIX F
CAPACITY ANALYSES

EXISTING CONDITIONS CAPACITY ANALYSES

Table of Contents

Intersection Analysis Summary 2
Intersection Level Of Service Report 3
Intersection 1: Harding Pike & White Bridge Pike 3
Intersection 2: Harding Pike & Kenner Avenue 8
Intersection 3: Harding Pike & Ridgefield Way 13
Intersection 4: Harding Pike & Bosley Spring Road/Woodlawn Drive 15
Intersection 5: Harding Pike and St. Thomas Drive 20
Intersection 6: Kenner Avenue & Ridgefield Drive 25
Intersection 7: Ridgefield Drive & Ridgefield Way 27
Intersection 8: Woodlawn Drive & Ridgefield Drive 29
Intersection 9: Harding Pike & BMP Central Driveway 31
Intersection 10: Harding Pike & BMP Western Driveway 36

Belle Meade Developments - TIS

Vistro File: M:\...\Belle Meade Developments - TIS.vistro
Report File: M:\...\1 - Existing - AM - UPDATED 022223.pdf

Scenario 1 - Existing - AM
2/22/2023

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Harding Pike & White Bridge Pike	Signalized	HCM 6th Edition	SB Right	0.772	63.5	E
2	Harding Pike & Kenner Avenue	Signalized	HCM 6th Edition	WB Left	0.746	35.1	D
3	Harding Pike & Ridgefield Way	Two-way stop	HCM 6th Edition	NBL2	2.136	1,127.7	F
4	Harding Pike & Bosley Spring Road/Woodlawn Drive	Signalized	HCM 6th Edition	EB Right	0.604	20.2	C
5	Harding Pike and St. Thomas Drive	Signalized	HCM 6th Edition	NBL2	0.667	22.8	C
6	Kenner Avenue & Ridgefield Drive	All-way stop	HCM 6th Edition	SB Left	0.251	8.9	A
7	Ridgefield Drive & Ridgefield Way	Two-way stop	HCM 6th Edition	SB Left	0.054	12.7	B
8	Woodlawn Drive & Ridgefield Drive	All-way stop	HCM 6th Edition	WB Right	0.482	11.0	B
9	Harding Pike & BMP Central Driveway	Signalized	HCM 6th Edition	SB Left	0.452	11.2	B
10	Harding Pike & BMP Western Driveway	Two-way stop	HCM 6th Edition	SB Left	0.138	194.9	F

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Harding Pike & White Bridge Pike

Control Type:	Signalized	Delay (sec / veh):	63.5
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.772

Intersection Setup

Name	Woodmont Boulevard			White Bridge Pike			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	250.00	100.00	100.00	500.00	100.00	200.00	200.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Woodmont Boulevard			White Bridge Pike			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	205	173	70	511	231	281	75	1101	112	54	860	342
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	205	173	70	511	231	281	75	1101	112	54	860	342
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	56	47	19	139	63	76	20	299	30	15	234	93
Total Analysis Volume [veh/h]	223	188	76	555	251	305	82	1197	122	59	935	372
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	ProtPer	Permis	Permis	ProtPer	Permis	Permis
Signal Group	0	8	0	0	7	0	1	6	0	5	2	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	4	10	0	4	10	0
Maximum Green [s]	0	20	0	0	25	0	20	60	0	15	60	0
Amber [s]	0.0	4.0	0.0	0.0	4.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
All red [s]	0.0	2.5	0.0	0.0	2.5	0.0	2.5	2.0	0.0	2.0	2.0	0.0
Split [s]	0	32	0	0	32	0	16	61	0	15	60	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	18	0	0	18	0	0	15	0	0	12	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			Yes			Yes	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	4.5	0.0	0.0	4.5	0.0	4.5	4.0	0.0	4.0	4.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			Yes		No	Yes		No	Yes	
Pedestrian Recall		Yes			Yes		No	Yes		No	Yes	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	50.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	140	140	140	140	140	140	140	140	140	140	140	140
L, Total Lost Time per Cycle [s]	6.50	6.50	6.50	6.50	6.50	6.50	6.00	6.00	6.00	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	4.50	4.50	4.50	4.50	4.50	4.50	0.00	4.00	4.00	0.00	4.00	4.00
g_i, Effective Green Time [s]	25	25	25	26	26	26	70	60	60	70	58	58
g / C, Green / Cycle	0.18	0.18	0.18	0.18	0.18	0.18	0.50	0.43	0.43	0.50	0.42	0.42
(v / s)_i Volume / Saturation Flow Rate	0.14	0.11	0.05	0.18	0.15	0.21	0.15	0.40	0.40	0.11	0.29	0.26
s, saturation flow rate [veh/h]	1603	1683	1431	3113	1683	1431	555	1683	1629	520	3204	1431
c, Capacity [veh/h]	286	301	256	567	307	261	261	723	700	192	1335	596
d1, Uniform Delay [s]	54.85	53.16	49.87	56.98	55.03	57.25	23.54	37.79	37.95	30.17	33.65	32.21
k, delay calibration	0.23	0.12	0.11	0.50	0.50	0.50	0.36	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.12	2.45	0.64	32.95	21.08	109.87	2.23	19.40	20.68	4.10	3.08	4.88
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.78	0.63	0.30	0.98	0.82	1.17	0.31	0.92	0.93	0.31	0.70	0.62
d, Delay for Lane Group [s/veh]	63.97	55.61	50.51	89.93	76.11	167.12	25.77	57.19	58.63	34.28	36.73	37.09
Lane Group LOS	E	E	D	F	E	F	C	E	E	C	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	8.13	6.26	2.34	12.21	10.19	17.02	1.54	24.76	24.42	1.20	13.33	10.53
50th-Percentile Queue Length [ft/ln]	203.37	156.47	58.54	305.22	254.83	425.54	38.55	618.96	610.59	29.93	333.35	263.18
95th-Percentile Queue Length [veh/ln]	12.81	10.36	4.21	17.94	15.43	25.68	2.78	32.92	32.53	2.15	19.32	15.85
95th-Percentile Queue Length [ft/ln]	320.31	259.05	105.37	448.48	385.73	642.06	69.38	822.96	813.21	53.87	483.06	396.20

Movement, Approach, & Intersection Results

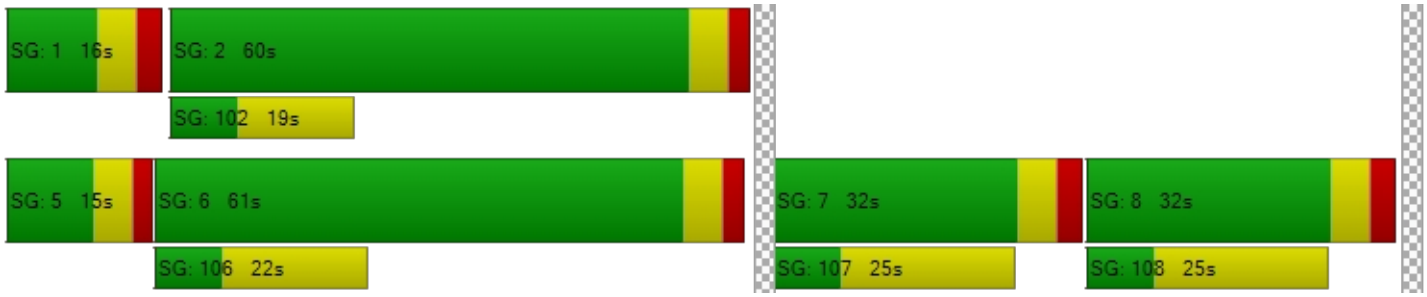
d_M, Delay for Movement [s/veh]	63.97	55.61	50.51	89.93	76.11	167.12	25.77	57.83	58.63	34.28	36.73	37.09
Movement LOS	E	E	D	F	E	F	C	E	E	C	D	D
d_A, Approach Delay [s/veh]	58.64			108.00			56.02			36.72		
Approach LOS	E			F			E			D		
d_I, Intersection Delay [s/veh]	63.50											
Intersection LOS	E											
Intersection V/C	0.772											

Other Modes

g_Walk,mi, Effective Walk Time [s]	19.0	22.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	52.29	49.73	59.43	59.43
l_p,int, Pedestrian LOS Score for Intersection	2.483	2.897	3.095	3.166
Crosswalk LOS	B	C	C	C
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	364	364	786	771
d_b, Bicycle Delay [s]	46.82	46.82	25.80	26.41
l_b,int, Bicycle LOS Score for Intersection	2.363	3.393	2.715	2.687
Bicycle LOS	B	C	B	B

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Harding Pike & Kenner Avenue

Control Type:	Signalized	Delay (sec / veh):	35.1
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.746

Intersection Setup

Name	Kenner Avenue			Kenner Avenue			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	1	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	200.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Kenner Avenue			Kenner Avenue			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	127	27	25	122	20	53	44	1575	148	32	1030	47
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	127	27	25	122	20	53	44	1575	148	32	1030	47
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	35	7	7	33	5	14	12	428	40	9	280	13
Total Analysis Volume [veh/h]	138	29	27	133	22	58	48	1712	161	35	1120	51
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	23.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permis	Permis	Permis	Permis	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis
Signal Group	0	4	0	0	3	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	4	15	0	4	15	0
Maximum Green [s]	0	20	0	0	20	0	15	60	0	15	60	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
All red [s]	0.0	3.5	0.0	0.0	4.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Split [s]	0	28	0	0	15	0	14	83	0	14	83	0
Vehicle Extension [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Walk [s]	0	7	0	0	0	0	0	0	0	0	0	0
Pedestrian Clearance [s]	0	20	0	0	0	0	0	0	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	4.5	0.0	0.0	5.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	Yes		No	Yes	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	50.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	140	140	140	140	140	140	140	140	140	140	140
L, Total Lost Time per Cycle [s]	6.50	6.50	7.00	7.00	7.00	6.00	6.00	6.00	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	4.50	4.50	5.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00
g_i, Effective Green Time [s]	16	16	8	8	8	5	86	86	4	85	85
g / C, Green / Cycle	0.12	0.12	0.06	0.06	0.06	0.04	0.62	0.62	0.03	0.61	0.61
(v / s)_i Volume / Saturation Flow Rate	0.10	0.02	0.05	0.05	0.04	0.03	0.56	0.57	0.02	0.24	0.24
s, saturation flow rate [veh/h]	1616	1431	1603	1625	1431	1603	1683	1633	1603	3204	1646
c, Capacity [veh/h]	190	168	92	93	82	60	1036	1006	44	1941	997
d1, Uniform Delay [s]	60.78	55.55	65.37	65.36	64.86	66.85	23.31	24.19	67.72	14.35	14.36
k, delay calibration	0.09	0.04	0.04	0.04	0.04	0.04	0.50	0.50	0.04	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	10.56	0.16	7.60	7.35	4.18	8.68	12.67	15.86	11.80	0.61	1.19
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.88	0.16	0.84	0.84	0.71	0.80	0.90	0.93	0.80	0.40	0.40
d, Delay for Lane Group [s/veh]	71.35	55.72	72.98	72.71	69.04	75.53	35.98	40.04	79.51	14.97	15.55
Lane Group LOS	E	E	E	E	E	E	D	D	E	B	B
Critical Lane Group	Yes	No	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	6.45	0.88	2.95	2.97	2.15	1.83	28.15	29.82	1.38	6.28	6.61
50th-Percentile Queue Length [ft/ln]	161.37	21.98	73.73	74.27	53.77	45.80	703.86	745.43	34.44	156.93	165.35
95th-Percentile Queue Length [veh/ln]	10.62	1.58	5.31	5.35	3.87	3.30	36.86	38.77	2.48	10.39	10.83
95th-Percentile Queue Length [ft/ln]	265.53	39.56	132.72	133.68	96.79	82.45	921.40	969.31	61.99	259.66	270.79

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	71.35	71.35	55.72	72.86	72.71	69.04	75.53	37.82	40.04	79.51	15.15	15.55
Movement LOS	E	E	E	E	E	E	E	D	D	E	B	B
d_A, Approach Delay [s/veh]	69.17			71.81			38.95			17.03		
Approach LOS	E			E			D			B		
d_I, Intersection Delay [s/veh]	35.11											
Intersection LOS	D											
Intersection V/C	0.746											

Other Modes

g_Walk,mi, Effective Walk Time [s]	77.0	77.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	14.18	14.18	0.00	59.43
l_p,int, Pedestrian LOS Score for Intersection	2.015	2.164	0.000	3.141
Crosswalk LOS	B	B	F	C
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	307	114	1100	1100
d_b, Bicycle Delay [s]	50.15	62.23	14.18	14.18
l_b,int, Bicycle LOS Score for Intersection	1.880	1.911	3.144	2.223
Bicycle LOS	A	A	C	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 3: Harding Pike & Ridgefield Way

Control Type:	Two-way stop	Delay (sec / veh):	1,127.7
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.136

Intersection Setup

Name	Ridgefield Way			HT Ce			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left2	Left	Right	Left	Right	Right2	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	175.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	Ridgefield Way			HT Ce			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	25	0	33	0	0	9	6	1704	27	22	1100	84
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.1040	1.0000	1.1040	1.1040	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	25	0	33	0	0	9	6	1704	27	22	1100	84
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	0	9	0	0	2	2	463	7	6	299	23
Total Analysis Volume [veh/h]	27	0	36	0	0	10	7	1852	29	24	1196	91
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane				
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	2.14	0.00	0.14	0.00	0.00	0.02	0.01	0.02	0.00	0.08	0.01	0.00
d_M, Delay for Movement [s/veh]	1127.7	0.00	20.74	0.00	0.00	13.76	11.82	0.00	0.00	17.37	0.00	0.00
Movement LOS	F		C			B	B	A	A	C	A	A
95th-Percentile Queue Length [veh/ln]	4.20	0.00	0.46	0.00	0.00	0.04	0.04	0.00	0.00	0.25	0.00	0.00
95th-Percentile Queue Length [ft/ln]	105.09	0.00	11.62	0.00	0.00	0.91	0.99	0.00	0.00	6.14	0.00	0.00
d_A, Approach Delay [s/veh]	495.15			13.76			0.04			0.32		
Approach LOS	F			B			A			A		
d_I, Intersection Delay [s/veh]	9.73											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 4: Harding Pike & Bosley Spring Road/Woodlawn Drive

Control Type:	Signalized	Delay (sec / veh):	20.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.604

Intersection Setup

Name	Harding Pike			Harding Pike			Bosley Springs			Woodlawn Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	200.00	100.00	100.00	215.00	100.00	100.00	350.00	100.00	100.00	215.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Harding Pike			Harding Pike			Bosley Springs			Woodlawn Drive		
Base Volume Input [veh/h]	141	1371	62	38	1097	27	43	2	54	135	26	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	141	1371	62	38	1097	27	43	2	54	135	26	50
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	38	373	17	10	298	7	12	1	15	37	7	14
Total Analysis Volume [veh/h]	153	1490	67	41	1192	29	47	2	59	147	28	54
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	14.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	4	10	0	4	10	0	8	7	0	7	7	0
Maximum Green [s]	15	60	0	15	60	0	15	15	0	15	15	0
Amber [s]	4.0	4.0	0.0	4.0	4.0	0.0	3.5	3.5	0.0	3.5	3.5	0.0
All red [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.5	0.0	2.5	2.5	0.0
Split [s]	28	82	0	15	69	0	15	27	0	16	28	0
Vehicle Extension [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Walk [s]	0	7	0	0	7	0	0	0	0	0	7	0
Pedestrian Clearance [s]	0	14	0	0	14	0	0	0	0	0	19	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		Yes			Yes			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	4.0	4.0	0.0	4.0	4.0	0.0	3.5	4.0	0.0	4.0	4.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	Yes		No	Yes		No	No		No	No	
Pedestrian Recall	No	Yes		No	Yes		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	50.0	0.0	0.0	50.0	0.0	0.0	50.0	50.0	0.0	50.0	50.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	L	C
C, Cycle Length [s]	140	140	140	140	140	140	140	140	140	140
L, Total Lost Time per Cycle [s]	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	4.00	4.00	0.00	4.00	4.00	0.00	4.00	0.00	4.00
g_i, Effective Green Time [s]	105	95	95	105	93	93	23	7	23	11
g / C, Green / Cycle	0.75	0.68	0.68	0.75	0.66	0.66	0.17	0.05	0.17	0.08
(v / s)_i Volume / Saturation Flow Rate	0.29	0.46	0.47	0.11	0.36	0.36	0.03	0.04	0.10	0.05
s, saturation flow rate [veh/h]	526	1683	1658	388	1683	1669	1368	1438	1445	1508
c, Capacity [veh/h]	384	1147	1130	279	1113	1104	241	75	266	120
d1, Uniform Delay [s]	9.46	13.22	13.32	11.20	12.61	12.62	50.27	65.64	53.65	62.74
k, delay calibration	0.50	0.50	0.50	0.30	0.50	0.50	0.04	0.04	0.27	0.04
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.06	3.27	3.41	0.66	1.96	1.98	0.15	7.50	4.40	2.58
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.40	0.68	0.69	0.15	0.55	0.55	0.19	0.81	0.55	0.69
d, Delay for Lane Group [s/veh]	12.53	16.49	16.73	11.85	14.57	14.60	50.42	73.14	58.05	65.32
Lane Group LOS	B	B	B	B	B	B	D	E	E	E
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	1.42	14.20	14.24	0.32	10.06	9.99	1.45	2.34	5.10	2.94
50th-Percentile Queue Length [ft/ln]	35.54	354.96	356.00	8.08	251.45	249.78	36.26	58.39	127.61	73.52
95th-Percentile Queue Length [veh/ln]	2.56	20.38	20.43	0.58	15.26	15.17	2.61	4.20	8.81	5.29
95th-Percentile Queue Length [ft/ln]	63.98	509.45	510.71	14.55	381.48	379.37	65.27	105.10	220.24	132.33

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	12.53	16.61	16.73	11.85	14.59	14.60	50.42	73.14	73.14	58.05	65.32	65.32
Movement LOS	B	B	B	B	B	B	D	E	E	E	E	E
d_A, Approach Delay [s/veh]	16.25			14.50			63.25			60.65		
Approach LOS	B			B			E			E		
d_I, Intersection Delay [s/veh]	20.19											
Intersection LOS	C											
Intersection V/C	0.604											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	20.0	20.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	59.43	51.43	51.43
l_p,int, Pedestrian LOS Score for Intersection	0.000	3.069	2.189	2.106
Crosswalk LOS	F	C	B	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1086	900	300	314
d_b, Bicycle Delay [s]	14.63	21.18	50.58	49.73
l_b,int, Bicycle LOS Score for Intersection	2.970	2.601	1.738	1.937
Bicycle LOS	C	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 5: Harding Pike and St. Thomas Drive

Control Type:	Signalized	Delay (sec / veh):	22.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.667

Intersection Setup

Name	Harding Pike			St Thomas Drive			St. Thomas Drive			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left2	Left	Thru	Left	Right	Right2	Left2	Left	Right	Thru	Right	Right2
Lane Width [ft]	11.00	12.00	11.00	11.00	12.00	12.00	12.00	12.00	11.00	11.00	12.00	11.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	225.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	185.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			25.00			25.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Harding Pike			St Thomas Drive			St. Thomas Drive			Harding Pike		
Base Volume Input [veh/h]	190	0	1281	102	0	0	0	0	28	1127	0	390
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	190	0	1281	102	0	0	0	0	28	1127	0	390
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	52	0	348	28	0	0	0	0	8	306	0	106
Total Analysis Volume [veh/h]	207	0	1392	111	0	0	0	0	30	1225	0	424
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	37.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Overla	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
Signal Group	1	6	6	4	0	0	0	0	4	2	2	0
Auxiliary Signal Groups	1,4,6											
Lead / Lag	Lead	Lead	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	4	20	20	7	0	0	0	0	7	20	20	0
Maximum Green [s]	15	60	60	20	0	0	0	0	20	60	60	0
Amber [s]	4.0	4.0	4.0	3.5	0.0	0.0	0.0	0.0	3.5	4.0	4.0	0.0
All red [s]	1.5	4.0	4.0	3.0	0.0	0.0	0.0	0.0	3.0	4.0	4.0	0.0
Split [s]	16	104	104	36	0	0	0	0	36	88	88	0
Vehicle Extension [s]	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0
Walk [s]	0	0	0	9	0	0	0	0	9	0	0	0
Pedestrian Clearance [s]	0	0	0	17	0	0	0	0	17	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk			No	No					No	No		
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.5	6.0	6.0	4.5	0.0	0.0	0.0	0.0	4.5	6.0	6.0	0.0
Minimum Recall	No		No	No					No	No		
Maximum Recall	No		Yes	No					No	Yes		
Pedestrian Recall	No		No	No					No	No		
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	50.0	50.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	R	C	C
C, Cycle Length [s]	140	140	140	140	140	140
L, Total Lost Time per Cycle [s]	6.75	8.00	6.50	6.50	8.00	8.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	6.00	4.50	4.50	6.00	6.00
g_i, Effective Green Time [s]	132	106	20	20	90	90
g / C, Green / Cycle	0.94	0.76	0.14	0.14	0.64	0.64
(v / s)_i Volume / Saturation Flow Rate	0.31	0.43	0.07	0.02	0.49	0.53
s, saturation flow rate [veh/h]	676	3204	1603	1431	1683	1543
c, Capacity [veh/h]	600	2423	225	200	1082	992
d1, Uniform Delay [s]	78.66	7.35	55.61	52.86	17.52	19.19
k, delay calibration	0.50	0.50	0.04	0.04	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.57	1.00	0.63	0.13	5.09	8.09
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.35	0.57	0.49	0.15	0.76	0.83
d, Delay for Lane Group [s/veh]	80.23	8.35	56.23	52.99	22.61	27.28
Lane Group LOS	F	A	E	D	C	C
Critical Lane Group	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.30	7.87	3.71	0.95	18.59	20.91
50th-Percentile Queue Length [ft/ln]	157.56	196.70	92.81	23.77	464.67	522.84
95th-Percentile Queue Length [veh/ln]	10.42	12.47	6.68	1.71	25.66	28.41
95th-Percentile Queue Length [ft/ln]	260.49	311.71	167.05	42.79	641.43	710.34

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	80.23	0.00	8.35	56.23	0.00	0.00	0.00	0.00	52.99	24.14	0.00	27.28
Movement LOS	F		A	E					D	C		C
d_A, Approach Delay [s/veh]	17.65			56.23			52.99			24.95		
Approach LOS	B			E			D			C		
d_I, Intersection Delay [s/veh]	22.78											
Intersection LOS	C											
Intersection V/C	0.667											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1371	421	421	1143
d_b, Bicycle Delay [s]	6.91	43.61	43.61	12.86
l_b,int, Bicycle LOS Score for Intersection	2.879	1.560	1.560	2.920
Bicycle LOS	C	A	A	C

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 6: Kenner Avenue & Ridgefield Drive

Control Type:	All-way stop	Delay (sec / veh):	8.9
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.251

Intersection Setup

Name	Kenner Avenue			Kenner Avenue			Commerical Access			Ridgefield Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Kenner Avenue			Kenner Avenue			Commerical Access			Ridgefield Drive		
Base Volume Input [veh/h]	1	38	161	146	23	1	1	0	0	27	3	158
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	38	161	146	23	1	1	0	0	27	3	158
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	10	44	40	6	0	0	0	0	7	1	43
Total Analysis Volume [veh/h]	1	41	175	159	25	1	1	0	0	29	3	172
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	866	748	676	824
Degree of Utilization, x	0.25	0.25	0.00	0.25

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.99	0.97	0.00	0.98
95th-Percentile Queue Length [ft]	24.78	24.33	0.11	24.39
Approach Delay [s/veh]	8.54	9.39	8.33	8.81
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	8.89			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 7: Ridgefield Drive & Ridgefield Way

Control Type:	Two-way stop	Delay (sec / veh):	12.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.054

Intersection Setup

Name	Ridgefield Way		Ridgefield Drive		Ridgefield Drive	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Ridgefield Way		Ridgefield Drive		Ridgefield Drive	
Base Volume Input [veh/h]	25	15	17	290	168	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	25	15	17	290	168	12
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	4	5	79	46	3
Total Analysis Volume [veh/h]	27	16	18	315	183	13
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.02	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	12.74	9.71	7.65	0.00	0.00	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.24	0.24	0.04	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	5.91	5.91	0.99	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	11.61		0.41		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	1.11					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 8: Woodlawn Drive & Ridgefield Drive

Control Type:	All-way stop	Delay (sec / veh):	11.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.482

Intersection Setup

Name	Woodlawn Drive		Ridgefield Drive		Woodlawn Drive	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Thru	Right
Lane Width [ft]	11.00	11.00	12.00	12.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Woodlawn Drive		Ridgefield Drive		Woodlawn Drive	
Base Volume Input [veh/h]	103	22	10	285	179	185
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	103	22	10	285	179	185
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	6	3	77	49	50
Total Analysis Volume [veh/h]	112	24	11	310	195	201
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	701	758	821
Degree of Utilization, x	0.19	0.42	0.48

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.71	2.12	2.66
95th-Percentile Queue Length [ft]	17.87	53.08	66.56
Approach Delay [s/veh]	9.37	11.20	11.40
Approach LOS	A	B	B
Intersection Delay [s/veh]	11.00		
Intersection LOS	B		

Intersection Level Of Service Report
Intersection 9: Harding Pike & BMP Central Driveway

Control Type:	Signalized	Delay (sec / veh):	11.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.452

Intersection Setup

Name	Commerical Access			BMP Central Driveway			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			Yes		

Volumes

Name	Commerical Access			BMP Central Driveway			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	10	6	17	59	7	50	12	1222	11	42	1082	30
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	6	17	59	7	50	12	1222	11	42	1082	30
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	2	5	16	2	14	3	332	3	11	294	8
Total Analysis Volume [veh/h]	11	7	18	64	8	54	13	1328	12	46	1176	33
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	21.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permis	Permis	Permis	Permis	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis
Signal Group	0	8	0	0	4	0	1	6	0	5	2	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	0	7	0	0	7	0	4	10	0	4	10	0
Maximum Green [s]	0	15	0	0	15	0	15	60	0	15	60	0
Amber [s]	0.0	3.5	0.0	0.0	3.5	0.0	4.0	4.0	0.0	4.0	4.0	0.0
All red [s]	0.0	2.5	0.0	0.0	2.5	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Split [s]	0	33	0	0	33	0	15	92	0	15	92	0
Vehicle Extension [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Walk [s]	0	7	0	0	7	0	0	0	0	5	0	0
Pedestrian Clearance [s]	0	18	0	0	18	0	0	0	0	10	0	0
Delayed Vehicle Green [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	4.0	0.0	0.0	4.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	Yes		No	Yes	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	50.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	C	L	C	R
C, Cycle Length [s]	140	140	140	140	140	140	140	140	140	140
L, Total Lost Time per Cycle [s]	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	4.00	4.00	4.00	4.00	0.00	4.00	4.00	0.00	4.00	4.00
g_i, Effective Green Time [s]	14	14	14	14	105	105	105	107	107	107
g / C, Green / Cycle	0.10	0.10	0.10	0.10	0.75	0.75	0.75	0.76	0.76	0.76
(v / s)_i Volume / Saturation Flow Rate	0.01	0.02	0.05	0.04	0.03	0.40	0.40	0.09	0.37	0.02
s, saturation flow rate [veh/h]	1206	1493	1247	1459	479	1683	1678	498	3204	1431
c, Capacity [veh/h]	100	145	133	141	378	1264	1260	344	2446	1092
d1, Uniform Delay [s]	65.04	58.08	64.47	59.64	5.68	7.23	7.23	13.65	6.20	4.02
k, delay calibration	0.04	0.04	0.04	0.04	0.04	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.18	0.21	1.01	0.80	0.01	1.60	1.61	0.81	0.68	0.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.11	0.17	0.48	0.44	0.03	0.53	0.53	0.13	0.48	0.03
d, Delay for Lane Group [s/veh]	65.22	58.29	65.47	60.44	5.70	8.83	8.84	14.46	6.88	4.07
Lane Group LOS	E	E	E	E	A	A	A	B	A	A
Critical Lane Group	No	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.39	0.83	2.31	2.13	0.08	7.66	7.64	0.36	5.69	0.21
50th-Percentile Queue Length [ft/ln]	9.74	20.84	57.74	53.33	2.12	191.45	191.04	8.88	142.24	5.35
95th-Percentile Queue Length [veh/ln]	0.70	1.50	4.16	3.84	0.15	12.20	12.18	0.64	9.60	0.39
95th-Percentile Queue Length [ft/ln]	17.53	37.51	103.93	95.99	3.82	304.91	304.38	15.99	240.04	9.63

Movement, Approach, & Intersection Results

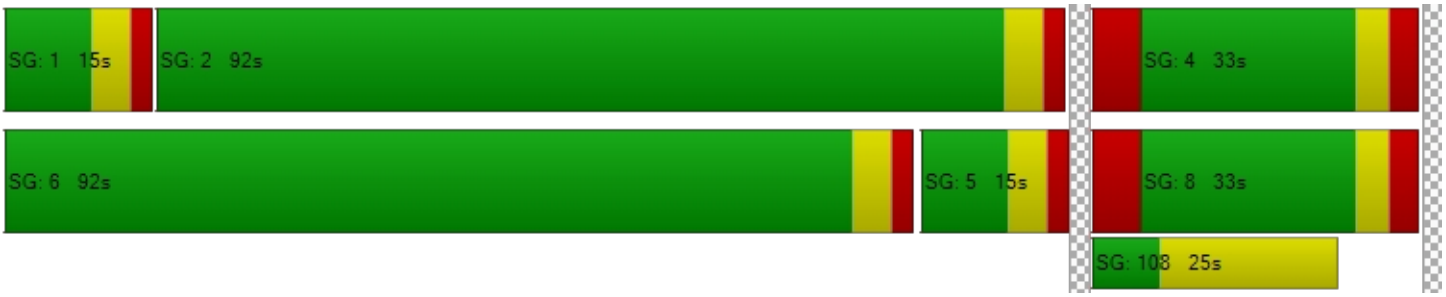
d_M, Delay for Movement [s/veh]	65.22	58.29	58.29	65.47	60.44	60.44	5.70	8.83	8.84	14.46	6.88	4.07
Movement LOS	E	E	E	E	E	E	A	A	A	B	A	A
d_A, Approach Delay [s/veh]	60.40			63.00			8.80			7.08		
Approach LOS	E			E			A			A		
d_I, Intersection Delay [s/veh]	11.16											
Intersection LOS	B											
Intersection V/C	0.452											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	59.43
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	3.142
Crosswalk LOS	F	F	F	C
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	314	314	1229	1229
d_b, Bicycle Delay [s]	49.73	49.73	10.41	10.41
l_b,int, Bicycle LOS Score for Intersection	1.619	1.768	2.676	2.595
Bicycle LOS	A	A	B	B

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 10: Harding Pike & BMP Western Driveway

Control Type:	Two-way stop	Delay (sec / veh):	194.9
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.138

Intersection Setup

Name	Commerical Access			BMP Western Driveway			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	11.00	11.00	12.00	12.00	11.00	10.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	75.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	Commerical Access			BMP Western Driveway			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	0	0	1	3	0	48	112	1251	57	2	1138	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	1	3	0	48	112	1251	57	2	1138	10
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	1	0	13	30	340	15	1	309	3
Total Analysis Volume [veh/h]	0	0	1	3	0	52	122	1360	62	2	1237	11
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No			
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.14	0.00	0.12	0.22	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	213.75	284.04	14.17	194.86	331.20	14.47	13.33	0.00	0.00	12.62	0.00	0.00
Movement LOS	F	F	B	F	F	B	B	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.01	0.41	0.41	0.41	0.84	0.00	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.19	0.19	0.19	10.20	10.20	10.18	20.88	0.00	0.00	0.32	0.00	0.00
d_A, Approach Delay [s/veh]	14.17			24.31			1.05			0.02		
Approach LOS	B			C			A			A		
d_I, Intersection Delay [s/veh]	1.05											
Intersection LOS	F											

Table of Contents

Intersection Analysis Summary 2
Intersection Level Of Service Report 3
Intersection 1: Harding Pike & White Bridge Pike 3
Intersection 2: Harding Pike & Kenner Avenue 8
Intersection 3: Harding Pike & Ridgefield Way 13
Intersection 4: Harding Pike & Bosley Spring Road/Woodlawn Drive 15
Intersection 5: Harding Pike and St. Thomas Drive 20
Intersection 6: Kenner Avenue & Ridgefield Drive 25
Intersection 7: Ridgefield Drive & Ridgefield Way 27
Intersection 8: Woodlawn Drive & Ridgefield Drive 29
Intersection 9: Harding Pike & BMP Central Driveway 31
Intersection 10: Harding Pike & BMP Western Driveway 36

Belle Meade Developments - TIS

Vistro File: M:\...\Belle Meade Developments - TIS.vistro
Report File: M:\...\1 - Existing - PM - UPDATED 022223.pdf

Scenario 2 - Existing - PM
2/22/2023

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Harding Pike & White Bridge Pike	Signalized	HCM 6th Edition	SB Right	1.077	109.4	F
2	Harding Pike & Kenner Avenue	Signalized	HCM 6th Edition	SB Right	0.719	65.4	E
3	Harding Pike & Ridgefield Way	Two-way stop	HCM 6th Edition	NBL2	2.233	918.9	F
4	Harding Pike & Bosley Spring Road/Woodlawn Drive	Signalized	HCM 6th Edition	WB Left	0.622	25.6	C
5	Harding Pike and St. Thomas Drive	Signalized	HCM 6th Edition	EB Right	0.553	14.6	B
6	Kenner Avenue & Ridgefield Drive	All-way stop	HCM 6th Edition	SB Left	0.307	9.2	A
7	Ridgefield Drive & Ridgefield Way	Two-way stop	HCM 6th Edition	SB Left	0.069	12.7	B
8	Woodlawn Drive & Ridgefield Drive	All-way stop	HCM 6th Edition	WB Right	0.744	15.6	C
9	Harding Pike & BMP Central Driveway	Signalized	HCM 6th Edition	NB Left	0.588	17.1	B
10	Harding Pike & BMP Western Driveway	Two-way stop	HCM 6th Edition	SB Left	0.385	402.8	F

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Harding Pike & White Bridge Pike

Control Type:	Signalized	Delay (sec / veh):	109.4
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.077

Intersection Setup

Name	Woodmont Boulevard			White Bridge Pike			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	250.00	100.00	100.00	500.00	100.00	200.00	200.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Woodmont Boulevard			White Bridge Pike			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	195	332	51	352	217	274	176	801	122	52	1168	776
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	195	332	51	352	217	274	176	801	122	52	1168	776
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	53	90	14	96	59	74	48	218	33	14	317	211
Total Analysis Volume [veh/h]	212	361	55	383	236	298	191	871	133	57	1270	843
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	170
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	3.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	ProtPer	Permis	Permis	ProtPer	Permis	Permis
Signal Group	0	8	0	0	7	0	1	6	0	5	2	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	4	10	0	4	10	0
Maximum Green [s]	0	20	0	0	25	0	20	60	0	15	60	0
Amber [s]	0.0	4.0	0.0	0.0	4.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
All red [s]	0.0	2.5	0.0	0.0	2.5	0.0	2.5	2.0	0.0	2.0	2.0	0.0
Split [s]	0	36	0	0	31	0	25	88	0	15	78	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	18	0	0	18	0	0	15	0	0	12	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			Yes			Yes	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	4.5	0.0	0.0	4.5	0.0	4.5	4.0	0.0	4.0	4.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			Yes		No	Yes		No	Yes	
Pedestrian Recall		Yes			Yes		No	Yes		No	Yes	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	50.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	170	170	170	170	170	170	170	170	170	170	170	170
L, Total Lost Time per Cycle [s]	6.50	6.50	6.50	6.50	6.50	6.50	6.00	6.00	6.00	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	4.50	4.50	4.50	4.50	4.50	4.50	0.00	4.00	4.00	0.00	4.00	4.00
g_i, Effective Green Time [s]	30	30	30	25	25	25	97	87	87	97	75	75
g / C, Green / Cycle	0.17	0.17	0.17	0.14	0.14	0.14	0.57	0.51	0.51	0.57	0.44	0.44
(v / s)_i Volume / Saturation Flow Rate	0.13	0.21	0.04	0.12	0.14	0.21	0.41	0.30	0.31	0.09	0.40	0.59
s, saturation flow rate [veh/h]	1603	1683	1431	3113	1683	1431	471	1683	1606	602	3204	1431
c, Capacity [veh/h]	278	292	248	449	243	206	266	856	817	294	1410	629
d1, Uniform Delay [s]	66.91	70.25	60.38	71.00	72.42	72.75	47.84	29.53	29.56	20.87	44.17	47.60
k, delay calibration	0.23	0.50	0.11	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.98	132.18	0.45	18.32	51.25	225.62	15.40	3.09	3.26	1.47	9.56	163.32
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.76	1.24	0.22	0.85	0.97	1.45	0.72	0.60	0.60	0.19	0.90	1.34
d, Delay for Lane Group [s/veh]	75.89	202.43	60.83	89.33	123.67	298.37	63.24	32.62	32.82	22.34	53.72	210.92
Lane Group LOS	E	F	E	F	F	F	E	C	C	C	D	F
Critical Lane Group	No	Yes	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	9.41	23.33	2.07	9.24	13.63	21.85	4.81	15.39	14.77	1.12	26.16	54.50
50th-Percentile Queue Length [ft/ln]	235.33	583.37	51.80	230.97	340.77	546.31	120.27	384.67	369.25	28.03	653.99	1362.4
95th-Percentile Queue Length [veh/ln]	14.44	34.59	3.73	14.22	19.69	34.11	8.41	21.82	21.07	2.02	34.55	80.45
95th-Percentile Queue Length [ft/ln]	361.12	864.66	93.25	355.59	492.15	852.83	210.19	545.50	526.82	50.45	863.69	2011.2

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	75.89	202.43	60.83	89.33	123.67	298.37	63.24	32.70	32.82	22.34	53.72	210.92
Movement LOS	E	F	E	F	F	F	E	C	C	C	D	F
d_A, Approach Delay [s/veh]	147.31			166.10			37.60			113.97		
Approach LOS	F			F			D			F		
d_I, Intersection Delay [s/veh]	109.38											
Intersection LOS	F											
Intersection V/C	1.077											

Other Modes

g_Walk,mi, Effective Walk Time [s]	19.0	22.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	67.06	64.42	74.36	74.36
l_p,int, Pedestrian LOS Score for Intersection	2.542	3.101	3.128	3.237
Crosswalk LOS	B	C	C	C
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	347	288	965	847
d_b, Bicycle Delay [s]	58.06	62.27	22.78	28.25
l_b,int, Bicycle LOS Score for Intersection	2.596	3.073	2.545	3.350
Bicycle LOS	B	C	B	C

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 2: Harding Pike & Kenner Avenue

Control Type:	Signalized	Delay (sec / veh):	65.4
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.719

Intersection Setup

Name	Kenner Avenue			Kenner Avenue			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	1	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	200.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Kenner Avenue			Kenner Avenue			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	207	43	17	149	55	182	114	1051	92	9	1480	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	207	43	17	149	55	182	114	1051	92	9	1480	20
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	56	12	5	40	15	49	31	286	25	2	402	5
Total Analysis Volume [veh/h]	225	47	18	162	60	198	124	1142	100	10	1609	22
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	170
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	9.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permis	Permis	Permis	Permis	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis
Signal Group	0	4	0	0	3	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	4	15	0	4	15	0
Maximum Green [s]	0	20	0	0	20	0	15	60	0	15	60	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
All red [s]	0.0	3.5	0.0	0.0	4.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Split [s]	0	36	0	0	22	0	15	96	0	16	97	0
Vehicle Extension [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Walk [s]	0	7	0	0	0	0	0	0	0	0	0	0
Pedestrian Clearance [s]	0	20	0	0	0	0	0	0	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	4.5	0.0	0.0	5.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	Yes		No	Yes	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	50.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	170	170	170	170	170	170	170	170	170	170	170
L, Total Lost Time per Cycle [s]	6.50	6.50	7.00	7.00	7.00	6.00	6.00	6.00	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	4.50	4.50	5.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00
g_i, Effective Green Time [s]	30	30	15	15	15	9	98	98	2	91	91
g / C, Green / Cycle	0.17	0.17	0.09	0.09	0.09	0.05	0.58	0.58	0.01	0.54	0.54
(v / s)_i Volume / Saturation Flow Rate	0.17	0.01	0.07	0.07	0.14	0.08	0.37	0.38	0.01	0.33	0.33
s, saturation flow rate [veh/h]	1616	1431	1603	1645	1431	1603	1683	1636	1603	3204	1671
c, Capacity [veh/h]	280	248	141	145	126	85	974	947	15	1715	895
d1, Uniform Delay [s]	69.81	58.80	75.85	75.85	77.50	80.50	24.09	24.15	83.89	27.58	27.58
k, delay calibration	0.35	0.04	0.04	0.04	0.45	0.22	0.50	0.50	0.04	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	38.28	0.05	3.40	3.31	287.15	233.50	3.30	3.43	15.63	1.73	3.29
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.97	0.07	0.77	0.77	1.57	1.46	0.65	0.65	0.65	0.62	0.62
d, Delay for Lane Group [s/veh]	108.09	58.84	79.25	79.16	364.65	314.00	27.38	27.58	99.52	29.31	30.87
Lane Group LOS	F	E	E	E	F	F	C	C	F	C	C
Critical Lane Group	Yes	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	14.88	0.67	4.89	5.01	15.66	9.21	17.48	17.15	0.50	15.40	16.45
50th-Percentile Queue Length [ft/ln]	371.92	16.65	122.15	125.18	391.52	230.30	437.03	428.66	12.61	384.91	411.27
95th-Percentile Queue Length [veh/ln]	21.20	1.20	8.51	8.68	25.38	15.61	24.34	23.94	0.91	21.83	23.10
95th-Percentile Queue Length [ft/ln]	530.06	29.98	212.78	216.93	634.42	390.28	608.45	598.43	22.69	545.79	577.57

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	108.09	108.09	58.84	79.22	79.16	364.65	314.00	27.47	27.58	99.52	29.83	30.87
Movement LOS	F	F	E	E	E	F	F	C	C	F	C	C
d_A, Approach Delay [s/veh]	105.04			213.77			53.49			30.27		
Approach LOS	F			F			D			C		
d_I, Intersection Delay [s/veh]	65.37											
Intersection LOS	E											
Intersection V/C	0.719											

Other Modes

g_Walk,mi, Effective Walk Time [s]	90.0	91.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	18.82	18.36	0.00	74.36
l_p,int, Pedestrian LOS Score for Intersection	2.040	2.230	0.000	3.125
Crosswalk LOS	B	B	F	C
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	347	176	1059	1071
d_b, Bicycle Delay [s]	58.06	70.66	18.82	18.36
l_b,int, Bicycle LOS Score for Intersection	2.038	2.253	2.687	2.462
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 3: Harding Pike & Ridgefield Way

Control Type:	Two-way stop	Delay (sec / veh):	918.9
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.233

Intersection Setup

Name	Ridgefield Way			HT Ce			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left2	Left	Right	Left	Right	Right2	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	175.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	Ridgefield Way			HT Ce			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	48	0	36	0	0	36	10	1188	37	9	1442	130
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.1040	1.0000	1.1040	1.1040	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	48	0	36	0	0	36	10	1188	37	9	1442	130
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	0	10	0	0	10	3	323	10	2	392	35
Total Analysis Volume [veh/h]	52	0	39	0	0	39	11	1291	40	10	1567	141
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane				
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	2.23	0.00	0.10	0.00	0.00	0.13	0.03	0.01	0.00	0.02	0.02	0.00
d_M, Delay for Movement [s/veh]	918.92	0.00	14.91	0.00	0.00	17.74	15.09	0.00	0.00	12.14	0.00	0.00
Movement LOS	F		B			C	C	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	6.56	0.00	0.32	0.00	0.00	0.21	0.09	0.00	0.00	0.06	0.00	0.00
95th-Percentile Queue Length [ft/ln]	164.03	0.00	8.00	0.00	0.00	5.15	2.31	0.00	0.00	1.49	0.00	0.00
d_A, Approach Delay [s/veh]	531.48			17.74			0.12			0.07		
Approach LOS	F			C			A			A		
d_I, Intersection Delay [s/veh]	15.47											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 4: Harding Pike & Bosley Spring Road/Woodlawn Drive

Control Type:	Signalized	Delay (sec / veh):	25.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.622

Intersection Setup

Name	Harding Pike			Harding Pike			Bosley Springs			Woodlawn Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	200.00	100.00	100.00	215.00	100.00	100.00	350.00	100.00	100.00	215.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Harding Pike			Harding Pike			Bosley Springs			Woodlawn Drive		
Base Volume Input [veh/h]	23	1028	70	3	1373	4	70	13	99	160	7	47
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	23	1028	70	3	1373	4	70	13	99	160	7	47
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	279	19	1	373	1	19	4	27	43	2	13
Total Analysis Volume [veh/h]	25	1117	76	3	1492	4	76	14	108	174	8	51
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	170
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	26.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	4	10	0	4	10	0	8	7	0	7	7	0
Maximum Green [s]	15	60	0	15	60	0	15	15	0	15	15	0
Amber [s]	4.0	4.0	0.0	4.0	4.0	0.0	3.5	3.5	0.0	3.5	3.5	0.0
All red [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.5	0.0	2.5	2.5	0.0
Split [s]	15	93	0	17	95	0	28	45	0	15	32	0
Vehicle Extension [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Walk [s]	0	7	0	0	7	0	0	0	0	0	7	0
Pedestrian Clearance [s]	0	14	0	0	14	0	0	0	0	0	19	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		Yes			Yes			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	4.0	4.0	0.0	4.0	4.0	0.0	3.5	4.0	0.0	4.0	4.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	Yes		No	Yes		No	No		No	No	
Pedestrian Recall	No	Yes		No	Yes		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	50.0	0.0	0.0	50.0	0.0	0.0	50.0	50.0	0.0	50.0	50.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	L	C
C, Cycle Length [s]	170	170	170	170	170	170	170	170	170	170
L, Total Lost Time per Cycle [s]	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	4.00	4.00	0.00	4.00	4.00	0.00	4.00	0.00	4.00
g_i, Effective Green Time [s]	121	115	115	121	113	113	37	22	37	23
g / C, Green / Cycle	0.71	0.68	0.68	0.71	0.66	0.66	0.22	0.13	0.22	0.13
(v / s)_i Volume / Saturation Flow Rate	0.06	0.36	0.36	0.01	0.44	0.44	0.06	0.08	0.13	0.04
s, saturation flow rate [veh/h]	388	1683	1646	466	1683	1681	1340	1456	1306	1460
c, Capacity [veh/h]	256	1138	1113	321	1116	1115	299	184	246	193
d1, Uniform Delay [s]	13.36	13.89	13.90	9.55	17.38	17.38	55.18	70.79	62.28	66.76
k, delay calibration	0.50	0.50	0.50	0.04	0.50	0.50	0.04	0.04	0.50	0.04
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.76	1.77	1.81	0.00	3.21	3.22	0.16	1.53	15.84	0.33
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.10	0.53	0.53	0.01	0.67	0.67	0.25	0.66	0.71	0.31
d, Delay for Lane Group [s/veh]	14.12	15.65	15.71	9.56	20.59	20.60	55.35	72.32	78.11	67.09
Lane Group LOS	B	B	B	A	C	C	E	E	E	E
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.31	11.80	11.57	0.03	17.96	17.95	2.76	5.21	7.75	2.36
50th-Percentile Queue Length [ft/ln]	7.80	294.91	289.31	0.77	448.88	448.71	68.97	130.37	193.84	58.98
95th-Percentile Queue Length [veh/ln]	0.56	17.43	17.15	0.06	24.90	24.90	4.97	8.96	12.32	4.25
95th-Percentile Queue Length [ft/ln]	14.03	435.73	428.79	1.39	622.61	622.41	124.15	224.00	308.00	106.17

Movement, Approach, & Intersection Results

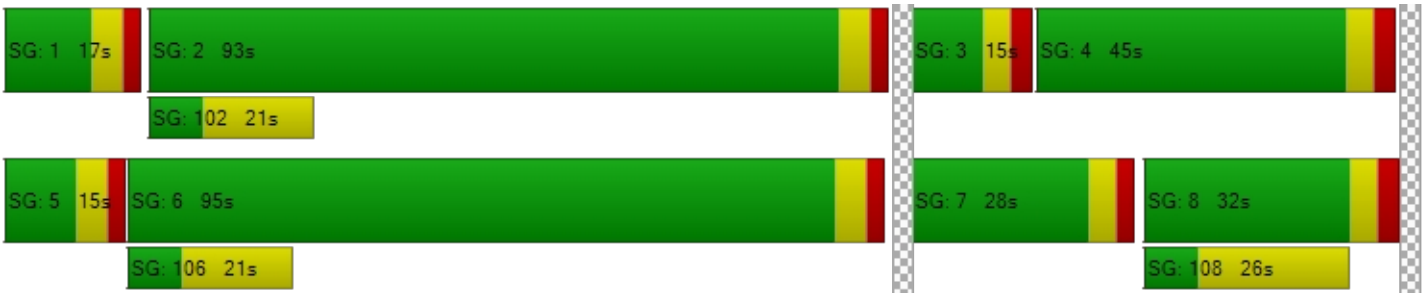
d_M, Delay for Movement [s/veh]	14.12	15.68	15.71	9.56	20.60	20.60	55.35	72.32	72.32	78.11	67.09	67.09
Movement LOS	B	B	B	A	C	C	E	E	E	E	E	E
d_A, Approach Delay [s/veh]	15.65			20.57			65.80			75.32		
Approach LOS	B			C			E			E		
d_I, Intersection Delay [s/veh]	25.57											
Intersection LOS	C											
Intersection V/C	0.622											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	20.0	20.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	74.36	66.18	66.18
l_p,int, Pedestrian LOS Score for Intersection	0.000	3.059	2.053	2.075
Crosswalk LOS	F	C	B	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1024	1047	459	306
d_b, Bicycle Delay [s]	20.26	19.30	50.47	60.99
l_b,int, Bicycle LOS Score for Intersection	2.564	2.796	1.886	1.944
Bicycle LOS	B	C	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Harding Pike and St. Thomas Drive

Control Type:	Signalized	Delay (sec / veh):	14.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.553

Intersection Setup

Name	Harding Pike			St Thomas Drive			St. Thomas Drive			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left2	Left	Thru	Left	Right	Right2	Left2	Left	Right	Thru	Right	Right2
Lane Width [ft]	11.00	12.00	11.00	11.00	12.00	12.00	12.00	12.00	11.00	11.00	12.00	11.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	225.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	185.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			25.00			25.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Harding Pike			St Thomas Drive			St. Thomas Drive			Harding Pike		
Base Volume Input [veh/h]	19	0	1139	115	0	0	0	0	117	1329	0	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	0	1139	115	0	0	0	0	117	1329	0	50
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	0	310	31	0	0	0	0	32	361	0	14
Total Analysis Volume [veh/h]	21	0	1238	125	0	0	0	0	127	1445	0	54
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	170
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	37.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Overla	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
Signal Group	1	6	6	4	0	0	0	0	4	2	2	0
Auxiliary Signal Groups	1,4,6											
Lead / Lag	Lead	Lead	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	4	20	20	7	0	0	0	0	7	20	20	0
Maximum Green [s]	15	60	60	20	0	0	0	0	20	60	60	0
Amber [s]	4.0	4.0	4.0	3.5	0.0	0.0	0.0	0.0	3.5	4.0	4.0	0.0
All red [s]	1.5	4.0	4.0	3.0	0.0	0.0	0.0	0.0	3.0	4.0	4.0	0.0
Split [s]	15	133	133	37	0	0	0	0	37	118	118	0
Vehicle Extension [s]	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0
Walk [s]	0	0	0	9	0	0	0	0	9	0	0	0
Pedestrian Clearance [s]	0	0	0	17	0	0	0	0	17	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk			No	No					No	No		
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.5	6.0	6.0	4.5	0.0	0.0	0.0	0.0	4.5	6.0	6.0	0.0
Minimum Recall	No		No	No					No	No		
Maximum Recall	No		Yes	No					No	Yes		
Pedestrian Recall	No		No	No					No	No		
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	50.0	50.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	R	C	C
C, Cycle Length [s]	170	170	170	170	170	170
L, Total Lost Time per Cycle [s]	6.75	8.00	6.50	6.50	8.00	8.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	6.00	4.50	4.50	6.00	6.00
g_i, Effective Green Time [s]	162	138	17	17	130	130
g / C, Green / Cycle	0.95	0.81	0.10	0.10	0.77	0.77
(v / s)_i Volume / Saturation Flow Rate	0.04	0.39	0.08	0.09	0.45	0.45
s, saturation flow rate [veh/h]	554	3204	1603	1431	1683	1662
c, Capacity [veh/h]	526	2603	164	147	1287	1271
d1, Uniform Delay [s]	65.04	4.89	74.25	75.13	8.49	8.57
k, delay calibration	0.04	0.50	0.04	0.04	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.01	0.63	2.72	5.80	1.93	2.01
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.04	0.48	0.76	0.87	0.58	0.59
d, Delay for Lane Group [s/veh]	65.05	5.51	76.97	80.93	10.42	10.59
Lane Group LOS	E	A	E	F	B	B
Critical Lane Group	Yes	No	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]	0.78	5.80	5.51	5.77	11.17	11.30
50th-Percentile Queue Length [ft/ln]	19.48	144.97	137.76	144.33	279.36	282.59
95th-Percentile Queue Length [veh/ln]	1.40	9.75	9.36	9.71	16.66	16.82
95th-Percentile Queue Length [ft/ln]	35.06	243.70	234.01	242.85	416.42	420.44

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	65.05	0.00	5.51	76.97	0.00	0.00	0.00	0.00	80.93	10.50	0.00	10.59
Movement LOS	E		A	E					F	B		B
d_A, Approach Delay [s/veh]	6.51			76.97			80.93			10.50		
Approach LOS	A			E			F			B		
d_I, Intersection Delay [s/veh]	14.56											
Intersection LOS	B											
Intersection V/C	0.553											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1471	359	359	1294
d_b, Bicycle Delay [s]	5.96	57.24	57.24	10.59
l_b,int, Bicycle LOS Score for Intersection	2.598	1.560	1.560	2.796
Bicycle LOS	B	A	A	C

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 6: Kenner Avenue & Ridgefield Drive

Control Type:	All-way stop	Delay (sec / veh):	9.2
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.307

Intersection Setup

Name	Kenner Avenue			Kenner Avenue			Commerical Access			Ridgefield Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Kenner Avenue			Kenner Avenue			Commerical Access			Ridgefield Drive		
Base Volume Input [veh/h]	0	38	33	140	67	0	0	1	2	30	0	213
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	38	33	140	67	0	0	1	2	30	0	213
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	10	9	38	18	0	0	0	1	8	0	58
Total Analysis Volume [veh/h]	0	41	36	152	73	0	0	1	2	33	0	232
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	794	756	785	863
Degree of Utilization, x	0.10	0.30	0.00	0.31

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.32	1.25	0.01	1.31
95th-Percentile Queue Length [ft]	8.03	31.19	0.29	32.70
Approach Delay [s/veh]	8.02	9.77	7.60	9.02
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	9.17			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 7: Ridgefield Drive & Ridgefield Way

Control Type:	Two-way stop	Delay (sec / veh):	12.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.069

Intersection Setup

Name	Ridgefield Way		Ridgefield Drive		Ridgefield Drive	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Ridgefield Way		Ridgefield Drive		Ridgefield Drive	
Base Volume Input [veh/h]	32	19	22	159	225	90
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	32	19	22	159	225	90
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	5	6	43	61	24
Total Analysis Volume [veh/h]	35	21	24	173	245	98
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.07	0.03	0.02	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	12.73	10.50	8.02	0.00	0.00	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.32	0.32	0.06	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	8.00	8.00	1.51	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	11.89		0.98		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	1.44					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 8: Woodlawn Drive & Ridgefield Drive

Control Type:	All-way stop	Delay (sec / veh):	15.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.744

Intersection Setup

Name	Woodlawn Drive		Ridgefield Drive		Woodlawn Drive	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Thru	Right
Lane Width [ft]	11.00	11.00	12.00	12.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Woodlawn Drive		Ridgefield Drive		Woodlawn Drive	
Base Volume Input [veh/h]	134	36	36	172	274	281
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	134	36	36	172	274	281
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	36	10	10	47	74	76
Total Analysis Volume [veh/h]	146	39	39	187	298	305
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	699	697	811
Degree of Utilization, x	0.26	0.32	0.74

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.06	1.41	6.88
95th-Percentile Queue Length [ft]	26.52	35.21	172.04
Approach Delay [s/veh]	9.98	10.64	19.14
Approach LOS	A	B	C
Intersection Delay [s/veh]	15.57		
Intersection LOS	C		

Intersection Level Of Service Report
Intersection 9: Harding Pike & BMP Central Driveway

Control Type:	Signalized	Delay (sec / veh):	17.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.588

Intersection Setup

Name	Commerical Access			BMP Central Driveway			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			Yes		

Volumes

Name	Commerical Access			BMP Central Driveway			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	41	7	36	79	5	98	51	1000	11	6	1476	56
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	41	7	36	79	5	98	51	1000	11	6	1476	56
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	2	10	21	1	27	14	272	3	2	401	15
Total Analysis Volume [veh/h]	45	8	39	86	5	107	55	1087	12	7	1604	61
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	170
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	3.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permis	Permis	Permis	Permis	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis
Signal Group	0	8	0	0	4	0	1	6	0	5	2	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	0	7	0	0	7	0	4	10	0	4	10	0
Maximum Green [s]	0	15	0	0	15	0	15	60	0	15	60	0
Amber [s]	0.0	3.5	0.0	0.0	3.5	0.0	4.0	4.0	0.0	4.0	4.0	0.0
All red [s]	0.0	2.5	0.0	0.0	2.5	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Split [s]	0	31	0	0	31	0	15	124	0	15	124	0
Vehicle Extension [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Walk [s]	0	7	0	0	7	0	0	0	0	5	0	0
Pedestrian Clearance [s]	0	18	0	0	18	0	0	0	0	10	0	0
Delayed Vehicle Green [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	4.0	0.0	0.0	4.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	Yes		No	Yes	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	50.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	C	L	C	R
C, Cycle Length [s]	170	170	170	170	170	170	170	170	170	170
L, Total Lost Time per Cycle [s]	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	4.00	4.00	4.00	4.00	0.00	4.00	4.00	0.00	4.00	4.00
g_i, Effective Green Time [s]	23	23	23	23	128	128	128	126	126	126
g / C, Green / Cycle	0.13	0.13	0.13	0.13	0.75	0.75	0.75	0.74	0.74	0.74
(v / s)_i Volume / Saturation Flow Rate	0.04	0.03	0.07	0.08	0.16	0.33	0.33	0.01	0.50	0.04
s, saturation flow rate [veh/h]	1153	1468	1222	1440	349	1683	1677	545	3204	1431
c, Capacity [veh/h]	100	196	157	193	252	1268	1263	363	2366	1056
d1, Uniform Delay [s]	79.87	65.88	75.05	69.15	13.05	7.69	7.69	13.69	11.66	6.08
k, delay calibration	0.04	0.04	0.04	0.04	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.19	0.23	1.10	1.03	1.98	1.09	1.09	0.10	1.59	0.10
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.45	0.24	0.55	0.58	0.22	0.43	0.43	0.02	0.68	0.06
d, Delay for Lane Group [s/veh]	81.06	66.11	76.15	70.18	15.03	8.77	8.78	13.79	13.25	6.19
Lane Group LOS	F	E	E	E	B	A	A	B	B	A
Critical Lane Group	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.01	1.87	3.76	4.70	0.61	7.17	7.14	0.07	14.99	0.60
50th-Percentile Queue Length [ft/ln]	50.25	46.75	94.02	117.52	15.28	179.23	178.61	1.83	374.66	15.12
95th-Percentile Queue Length [veh/ln]	3.62	3.37	6.77	8.26	1.10	11.56	11.53	0.13	21.34	1.09
95th-Percentile Queue Length [ft/ln]	90.46	84.15	169.23	206.41	27.50	289.01	288.20	3.29	533.38	27.21

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	81.06	66.11	66.11	76.15	70.18	70.18	15.03	8.78	8.78	13.79	13.25	6.19
Movement LOS	F	E	E	E	E	E	B	A	A	B	B	A
d_A, Approach Delay [s/veh]	73.42			72.77			9.07			12.99		
Approach LOS	E			E			A			B		
d_I, Intersection Delay [s/veh]	17.12											
Intersection LOS	B											
Intersection V/C	0.588											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	74.36
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	3.230
Crosswalk LOS	F	F	F	C
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	235	235	1388	1388
d_b, Bicycle Delay [s]	66.18	66.18	7.95	7.95
I_b,int, Bicycle LOS Score for Intersection	1.711	1.886	2.512	2.939
Bicycle LOS	A	A	B	C

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 10: Harding Pike & BMP Western Driveway

Control Type:	Two-way stop	Delay (sec / veh):	402.8
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.385

Intersection Setup

Name	Commerical Access			BMP Western Driveway			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	11.00	11.00	12.00	12.00	11.00	10.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	75.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	Commerical Access			BMP Western Driveway			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	1	0	14	5	0	86	59	1054	7	2	1614	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	0	14	5	0	86	59	1054	7	2	1614	13
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	4	1	0	23	16	286	2	1	439	4
Total Analysis Volume [veh/h]	1	0	15	5	0	93	64	1146	8	2	1754	14
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No			
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.00	0.03	0.38	0.00	0.32	0.18	0.01	0.00	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	236.75	362.60	15.07	402.80	477.78	23.02	17.63	0.00	0.00	11.01	0.00	0.00
Movement LOS	F	F	C	F	F	C	C	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	0.31	0.31	0.31	0.96	0.96	1.33	0.66	0.00	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	7.85	7.85	7.85	23.95	23.95	33.33	16.55	0.00	0.00	0.25	0.00	0.00
d_A, Approach Delay [s/veh]	28.93			42.40			0.93			0.01		
Approach LOS	D			E			A			A		
d_I, Intersection Delay [s/veh]	1.86											
Intersection LOS	F											

BACKGROUND CONDITIONS
CAPACITY ANALYSES

Table of Contents

Intersection Analysis Summary 2
Intersection Level Of Service Report 3
Intersection 1: Harding Pike & White Bridge Pike 3
Intersection 2: Harding Pike & Kenner Avenue 8
Intersection 3: Harding Pike & Ridgefield Way 13
Intersection 4: Harding Pike & Bosley Spring Road/Woodlawn Drive 15
Intersection 5: Harding Pike and St. Thomas Drive 20
Intersection 6: Kenner Avenue & Ridgefield Drive 25
Intersection 7: Ridgefield Drive & Ridgefield Way 27
Intersection 8: Woodlawn Drive & Ridgefield Drive 29
Intersection 9: Harding Pike & BMP Central Driveway 31
Intersection 10: Harding Pike & BMP Western Driveway 36

Belle Meade Developments - TIS

Vistro File: M:\...\Belle Meade Developments - TIS.vistro
Report File: M:\...\3 - Background 2027 - AM.pdf
Scenario 3 - Background 2027 - AM
12/27/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Harding Pike & White Bridge Pike	Signalized	HCM 6th Edition	SB Right	0.833	75.4	E
2	Harding Pike & Kenner Avenue	Signalized	HCM 6th Edition	WB Left	0.804	46.1	D
3	Harding Pike & Ridgefield Way	Two-way stop	HCM 6th Edition	NBL2	3.326	1,885.4	F
4	Harding Pike & Bosley Spring Road/Woodlawn Drive	Signalized	HCM 6th Edition	EB Right	0.651	22.1	C
5	Harding Pike and St. Thomas Drive	Signalized	HCM 6th Edition	NBL2	0.718	32.2	C
6	Kenner Avenue & Ridgefield Drive	All-way stop	HCM 6th Edition	SB Left	0.275	9.2	A
7	Ridgefield Drive & Ridgefield Way	Two-way stop	HCM 6th Edition	SB Left	0.062	13.3	B
8	Woodlawn Drive & Ridgefield Drive	All-way stop	HCM 6th Edition	WB Right	0.528	11.8	B
9	Harding Pike & BMP Central Driveway	Signalized	HCM 6th Edition	SB Left	0.483	11.6	B
10	Harding Pike & BMP Western Driveway	Two-way stop	HCM 6th Edition	SB Left	0.182	267.6	F

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Harding Pike & White Bridge Pike

Control Type:	Signalized	Delay (sec / veh):	75.4
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.833

Intersection Setup

Name	Woodmont Boulevard			White Bridge Pike			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	250.00	100.00	100.00	500.00	100.00	200.00	200.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Woodmont Boulevard			White Bridge Pike			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	205	173	70	511	231	281	75	1101	112	54	860	342
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	221	186	75	551	249	303	81	1186	121	58	926	368
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	60	51	20	150	68	82	22	322	33	16	252	100
Total Analysis Volume [veh/h]	240	202	82	599	271	329	88	1289	132	63	1007	400
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	ProtPer	Permis	Permis	ProtPer	Permis	Permis
Signal Group	0	8	0	0	7	0	1	6	0	5	2	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	4	10	0	4	10	0
Maximum Green [s]	0	20	0	0	25	0	20	60	0	15	60	0
Amber [s]	0.0	4.0	0.0	0.0	4.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
All red [s]	0.0	2.5	0.0	0.0	2.5	0.0	2.5	2.0	0.0	2.0	2.0	0.0
Split [s]	0	32	0	0	32	0	16	61	0	15	60	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	18	0	0	18	0	0	15	0	0	12	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			Yes			Yes	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	4.5	0.0	0.0	4.5	0.0	4.5	4.0	0.0	4.0	4.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			Yes		No	Yes		No	Yes	
Pedestrian Recall		Yes			Yes		No	Yes		No	Yes	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	50.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	140	140	140	140	140	140	140	140	140	140	140	140
L, Total Lost Time per Cycle [s]	6.50	6.50	6.50	6.50	6.50	6.50	6.00	6.00	6.00	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	4.50	4.50	4.50	4.50	4.50	4.50	0.00	4.00	4.00	0.00	4.00	4.00
g_i, Effective Green Time [s]	25	25	25	26	26	26	70	60	60	70	58	58
g / C, Green / Cycle	0.18	0.18	0.18	0.18	0.18	0.18	0.50	0.43	0.43	0.50	0.41	0.41
(v / s)_i Volume / Saturation Flow Rate	0.15	0.12	0.06	0.19	0.16	0.23	0.17	0.43	0.43	0.13	0.31	0.28
s, saturation flow rate [veh/h]	1603	1683	1431	3113	1683	1431	532	1683	1629	494	3204	1431
c, Capacity [veh/h]	286	301	256	567	307	261	248	720	697	179	1327	593
d1, Uniform Delay [s]	55.53	53.66	50.09	57.25	55.81	57.25	25.25	40.00	40.05	31.53	35.03	33.34
k, delay calibration	0.26	0.16	0.11	0.50	0.50	0.50	0.45	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	14.34	3.71	0.72	53.59	28.84	145.22	3.55	33.09	36.06	5.40	4.11	6.06
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.84	0.67	0.32	1.06	0.88	1.26	0.35	1.00	1.01	0.35	0.76	0.68
d, Delay for Lane Group [s/veh]	69.87	57.37	50.81	110.84	84.64	202.47	28.79	73.09	76.12	36.93	39.13	39.40
Lane Group LOS	E	E	D	F	F	F	C	E	F	D	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	9.21	6.88	2.54	14.09	11.65	19.58	1.73	30.31	29.99	1.31	15.02	11.78
50th-Percentile Queue Length [ft/ln]	230.36	171.90	63.48	352.19	291.27	489.52	43.29	757.77	749.71	32.87	375.48	294.57
95th-Percentile Queue Length [veh/ln]	14.19	11.18	4.57	20.82	17.25	29.92	3.12	39.34	39.21	2.37	21.37	17.41
95th-Percentile Queue Length [ft/ln]	354.82	279.41	114.26	520.57	431.22	747.99	77.91	983.49	980.27	59.17	534.37	435.30

Movement, Approach, & Intersection Results

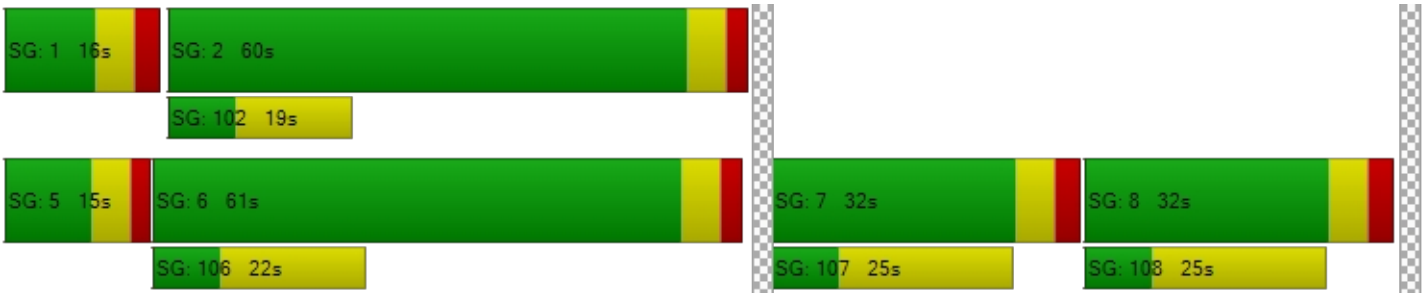
d_M, Delay for Movement [s/veh]	69.87	57.37	50.81	110.84	84.64	202.47	28.79	74.43	76.12	36.93	39.13	39.40
Movement LOS	E	E	D	F	F	F	C	E	E	D	D	D
d_A, Approach Delay [s/veh]	62.07			130.07			71.91			39.11		
Approach LOS	E			F			E			D		
d_I, Intersection Delay [s/veh]	75.39											
Intersection LOS	E											
Intersection V/C	0.833											

Other Modes

g_Walk,mi, Effective Walk Time [s]	19.0	22.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	52.29	49.73	59.43	59.43
l_p,int, Pedestrian LOS Score for Intersection	2.508	2.930	3.142	3.219
Crosswalk LOS	B	C	C	C
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	364	364	786	771
d_b, Bicycle Delay [s]	46.82	46.82	25.80	26.41
l_b,int, Bicycle LOS Score for Intersection	2.424	3.538	2.805	2.772
Bicycle LOS	B	D	C	C

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Harding Pike & Kenner Avenue

Control Type:	Signalized	Delay (sec / veh):	46.1
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.804

Intersection Setup

Name	Kenner Avenue			Kenner Avenue			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	1	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	200.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Kenner Avenue			Kenner Avenue			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	127	27	25	122	20	53	44	1575	148	32	1030	47
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	137	29	27	131	22	57	47	1697	159	34	1110	51
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	37	8	7	36	6	15	13	461	43	9	302	14
Total Analysis Volume [veh/h]	149	32	29	142	24	62	51	1845	173	37	1207	55
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	23.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permis	Permis	Permis	Permis	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis
Signal Group	0	4	0	0	3	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	4	15	0	4	15	0
Maximum Green [s]	0	20	0	0	20	0	15	60	0	15	60	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
All red [s]	0.0	3.5	0.0	0.0	4.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Split [s]	0	28	0	0	15	0	14	83	0	14	83	0
Vehicle Extension [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Walk [s]	0	7	0	0	0	0	0	0	0	0	0	0
Pedestrian Clearance [s]	0	20	0	0	0	0	0	0	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	4.5	0.0	0.0	5.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	Yes		No	Yes	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	50.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	140	140	140	140	140	140	140	140	140	140	140
L, Total Lost Time per Cycle [s]	6.50	6.50	7.00	7.00	7.00	6.00	6.00	6.00	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	4.50	4.50	5.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00
g_i, Effective Green Time [s]	18	18	8	8	8	6	85	85	4	83	83
g / C, Green / Cycle	0.13	0.13	0.06	0.06	0.06	0.04	0.61	0.61	0.03	0.59	0.59
(v / s)_i Volume / Saturation Flow Rate	0.11	0.02	0.05	0.05	0.04	0.03	0.60	0.62	0.02	0.26	0.26
s, saturation flow rate [veh/h]	1616	1431	1603	1625	1431	1603	1683	1634	1603	3204	1646
c, Capacity [veh/h]	204	181	92	93	82	64	1019	989	47	1905	978
d1, Uniform Delay [s]	60.18	54.55	65.61	65.60	65.05	66.62	27.24	27.63	67.52	15.56	15.56
k, delay calibration	0.13	0.04	0.04	0.04	0.04	0.04	0.50	0.50	0.04	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	14.54	0.15	11.48	11.06	5.29	7.99	26.03	33.91	10.36	0.73	1.42
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.89	0.16	0.90	0.90	0.76	0.79	0.99	1.02	0.79	0.44	0.44
d, Delay for Lane Group [s/veh]	74.72	54.70	77.09	76.66	70.34	74.62	53.27	61.54	77.89	16.30	16.99
Lane Group LOS	E	D	E	E	E	E	D	F	E	B	B
Critical Lane Group	Yes	No	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	7.21	0.94	3.25	3.28	2.32	1.93	37.57	39.34	1.44	7.19	7.57
50th-Percentile Queue Length [ft/ln]	180.25	23.38	81.33	81.89	58.10	48.34	939.24	983.41	35.98	179.73	189.37
95th-Percentile Queue Length [veh/ln]	11.61	1.68	5.86	5.90	4.18	3.48	47.62	50.53	2.59	11.59	12.09
95th-Percentile Queue Length [ft/ln]	290.34	42.08	146.40	147.40	104.59	87.02	1190.5	1263.2	64.76	289.66	302.21

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	74.72	74.72	54.70	76.91	76.66	70.34	74.62	57.02	61.54	77.89	16.51	16.99
Movement LOS	E	E	D	E	E	E	E	E	E	E	B	B
d_A, Approach Delay [s/veh]	71.96			75.10			57.83			18.28		
Approach LOS	E			E			E			B		
d_I, Intersection Delay [s/veh]	46.14											
Intersection LOS	D											
Intersection V/C	0.804											

Other Modes

g_Walk,mi, Effective Walk Time [s]	77.0	77.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	14.18	14.18	0.00	59.43
l_p,int, Pedestrian LOS Score for Intersection	2.024	2.169	0.000	3.192
Crosswalk LOS	B	B	F	C
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	307	114	1100	1100
d_b, Bicycle Delay [s]	50.15	62.23	14.18	14.18
l_b,int, Bicycle LOS Score for Intersection	1.906	1.936	3.267	2.274
Bicycle LOS	A	A	C	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 3: Harding Pike & Ridgefield Way

Control Type:	Two-way stop	Delay (sec / veh):	1,885.4
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	3.326

Intersection Setup

Name	Ridgefield Way			HT Ce			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left2	Left	Right	Left	Right	Right2	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	175.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	Ridgefield Way			HT Ce			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	25	0	33	0	0	9	6	1704	27	22	1100	84
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	0	36	0	0	10	6	1836	29	24	1185	90
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	0	10	0	0	3	2	499	8	7	322	24
Total Analysis Volume [veh/h]	29	0	39	0	0	11	7	1996	32	26	1288	98
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane				
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	3.33	0.00	0.17	0.00	0.00	0.03	0.01	0.02	0.00	0.09	0.01	0.00
d_M, Delay for Movement [s/veh]	1885.4	0.00	23.22	0.00	0.00	14.47	12.45	0.00	0.00	19.40	0.00	0.00
Movement LOS	F		C			B	B	A	A	C	A	A
95th-Percentile Queue Length [veh/ln]	4.80	0.00	0.58	0.00	0.00	0.04	0.04	0.00	0.00	0.31	0.00	0.00
95th-Percentile Queue Length [ft/ln]	120.01	0.00	14.48	0.00	0.00	1.08	1.09	0.00	0.00	7.73	0.00	0.00
d_A, Approach Delay [s/veh]	817.40			14.47			0.04			0.36		
Approach LOS	F			B			A			A		
d_I, Intersection Delay [s/veh]	15.98											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 4: Harding Pike & Bosley Spring Road/Woodlawn Drive

Control Type:	Signalized	Delay (sec / veh):	22.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.651

Intersection Setup

Name	Harding Pike			Harding Pike			Bosley Springs			Woodlawn Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	200.00	100.00	100.00	215.00	100.00	100.00	350.00	100.00	100.00	215.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Harding Pike			Harding Pike			Bosley Springs			Woodlawn Drive		
Base Volume Input [veh/h]	141	1371	62	38	1097	27	43	2	54	135	26	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	152	1477	67	41	1182	29	46	2	58	145	28	54
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	41	401	18	11	321	8	13	1	16	39	8	15
Total Analysis Volume [veh/h]	165	1605	73	45	1285	32	50	2	63	158	30	59
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	14.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	4	10	0	4	10	0	8	7	0	7	7	0
Maximum Green [s]	15	60	0	15	60	0	15	15	0	15	15	0
Amber [s]	4.0	4.0	0.0	4.0	4.0	0.0	3.5	3.5	0.0	3.5	3.5	0.0
All red [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.5	0.0	2.5	2.5	0.0
Split [s]	28	82	0	15	69	0	15	27	0	16	28	0
Vehicle Extension [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Walk [s]	0	7	0	0	7	0	0	0	0	0	7	0
Pedestrian Clearance [s]	0	14	0	0	14	0	0	0	0	0	19	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		Yes			Yes			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	4.0	4.0	0.0	4.0	4.0	0.0	3.5	4.0	0.0	4.0	4.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	Yes		No	Yes		No	No		No	No	
Pedestrian Recall	No	Yes		No	Yes		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	50.0	0.0	0.0	50.0	0.0	0.0	50.0	50.0	0.0	50.0	50.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	L	C
C, Cycle Length [s]	140	140	140	140	140	140	140	140	140	140
L, Total Lost Time per Cycle [s]	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	4.00	4.00	0.00	4.00	4.00	0.00	4.00	0.00	4.00
g_i, Effective Green Time [s]	104	95	95	104	92	92	24	8	24	11
g / C, Green / Cycle	0.74	0.68	0.68	0.74	0.66	0.66	0.17	0.06	0.17	0.08
(v / s)_i Volume / Saturation Flow Rate	0.33	0.50	0.51	0.13	0.39	0.39	0.04	0.05	0.11	0.06
s, saturation flow rate [veh/h]	498	1683	1657	359	1683	1669	1362	1437	1438	1507
c, Capacity [veh/h]	358	1140	1123	253	1103	1093	240	80	267	123
d1, Uniform Delay [s]	11.79	14.53	14.71	14.19	13.70	13.71	50.00	65.37	53.64	62.73
k, delay calibration	0.50	0.50	0.50	0.43	0.50	0.50	0.04	0.04	0.32	0.04
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.21	4.27	4.52	1.32	2.41	2.44	0.16	7.14	6.16	2.99
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.46	0.74	0.75	0.18	0.60	0.60	0.21	0.81	0.59	0.72
d, Delay for Lane Group [s/veh]	16.00	18.79	19.23	15.51	16.11	16.15	50.16	72.51	59.80	65.72
Lane Group LOS	B	B	B	B	B	B	D	E	E	E
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	1.63	16.78	16.98	0.40	11.67	11.61	1.54	2.48	5.61	3.21
50th-Percentile Queue Length [ft/ln]	40.84	419.39	424.47	9.96	291.87	290.21	38.49	61.96	140.22	80.19
95th-Percentile Queue Length [veh/ln]	2.94	23.49	23.74	0.72	17.28	17.20	2.77	4.46	9.49	5.77
95th-Percentile Queue Length [ft/ln]	73.51	587.31	593.41	17.93	431.96	429.90	69.27	111.52	237.33	144.34

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	16.00	19.00	19.23	15.51	16.13	16.15	50.16	72.51	72.51	59.80	65.72	65.72
Movement LOS	B	B	B	B	B	B	D	E	E	E	E	E
d_A, Approach Delay [s/veh]	18.74			16.11			62.79			61.93		
Approach LOS	B			B			E			E		
d_I, Intersection Delay [s/veh]	22.15											
Intersection LOS	C											
Intersection V/C	0.651											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	20.0	20.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	59.43	51.43	51.43
l_p,int, Pedestrian LOS Score for Intersection	0.000	3.128	2.205	2.119
Crosswalk LOS	F	C	B	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1086	900	300	314
d_b, Bicycle Delay [s]	14.63	21.18	50.58	49.73
l_b,int, Bicycle LOS Score for Intersection	3.080	2.683	1.749	1.967
Bicycle LOS	C	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 5: Harding Pike and St. Thomas Drive

Control Type:	Signalized	Delay (sec / veh):	32.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.718

Intersection Setup

Name	Harding Pike			St Thomas Drive			St. Thomas Drive			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left2	Left	Thru	Left	Right	Right2	Left2	Left	Right	Thru	Right	Right2
Lane Width [ft]	11.00	12.00	11.00	11.00	12.00	12.00	12.00	12.00	11.00	11.00	12.00	11.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	225.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	185.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			25.00			25.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Harding Pike			St Thomas Drive			St. Thomas Drive			Harding Pike		
Base Volume Input [veh/h]	190	0	1281	102	0	0	0	0	28	1127	0	390
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	205	0	1380	110	0	0	0	0	30	1214	0	420
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	56	0	375	30	0	0	0	0	8	330	0	114
Total Analysis Volume [veh/h]	223	0	1500	120	0	0	0	0	33	1320	0	457
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	37.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Overla	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
Signal Group	1	6	6	4	0	0	0	0	4	2	2	0
Auxiliary Signal Groups	1,4,6											
Lead / Lag	Lead	Lead	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	4	20	20	7	0	0	0	0	7	20	20	0
Maximum Green [s]	15	60	60	20	0	0	0	0	20	60	60	0
Amber [s]	4.0	4.0	4.0	3.5	0.0	0.0	0.0	0.0	3.5	4.0	4.0	0.0
All red [s]	1.5	4.0	4.0	3.0	0.0	0.0	0.0	0.0	3.0	4.0	4.0	0.0
Split [s]	16	104	104	36	0	0	0	0	36	88	88	0
Vehicle Extension [s]	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0
Walk [s]	0	0	0	9	0	0	0	0	9	0	0	0
Pedestrian Clearance [s]	0	0	0	17	0	0	0	0	17	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk			No	No					No	No		
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.5	6.0	6.0	4.5	0.0	0.0	0.0	0.0	4.5	6.0	6.0	0.0
Minimum Recall	No		No	No					No	No		
Maximum Recall	No		Yes	No					No	Yes		
Pedestrian Recall	No		No	No					No	No		
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	50.0	50.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	R	C	C
C, Cycle Length [s]	140	140	140	140	140	140
L, Total Lost Time per Cycle [s]	6.75	8.00	6.50	6.50	8.00	8.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	6.00	4.50	4.50	6.00	6.00
g_i, Effective Green Time [s]	132	101	25	25	85	85
g / C, Green / Cycle	0.94	0.72	0.18	0.18	0.61	0.61
(v / s)_i Volume / Saturation Flow Rate	0.32	0.47	0.07	0.02	0.53	0.58
s, saturation flow rate [veh/h]	706	3204	1603	1431	1683	1543
c, Capacity [veh/h]	613	2309	282	252	1020	935
d1, Uniform Delay [s]	100.80	10.29	51.37	48.65	22.99	25.59
k, delay calibration	0.50	0.50	0.04	0.04	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.67	1.43	0.38	0.09	10.13	19.54
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.36	0.65	0.43	0.13	0.87	0.95
d, Delay for Lane Group [s/veh]	102.47	11.72	51.75	48.74	33.12	45.13
Lane Group LOS	F	B	D	D	C	D
Critical Lane Group	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.49	11.11	3.84	1.00	25.45	30.21
50th-Percentile Queue Length [ft/ln]	162.30	277.85	95.97	24.95	636.36	755.31
95th-Percentile Queue Length [veh/ln]	10.67	16.58	6.91	1.80	33.73	39.23
95th-Percentile Queue Length [ft/ln]	266.77	414.53	172.74	44.91	843.21	980.67

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	102.47	0.00	11.72	51.75	0.00	0.00	0.00	0.00	48.74	37.05	0.00	45.13
Movement LOS	F		B	D					D	D		D
d_A, Approach Delay [s/veh]	23.46			51.75			48.74			39.13		
Approach LOS	C			D			D			D		
d_I, Intersection Delay [s/veh]	32.24											
Intersection LOS	C											
Intersection V/C	0.718											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1371	421	421	1143
d_b, Bicycle Delay [s]	6.91	43.61	43.61	12.86
l_b,int, Bicycle LOS Score for Intersection	2.981	1.560	1.560	3.026
Bicycle LOS	C	A	A	C

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 6: Kenner Avenue & Ridgefield Drive

Control Type:	All-way stop	Delay (sec / veh):	9.2
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.275

Intersection Setup

Name	Kenner Avenue			Kenner Avenue			Commerical Access			Ridgefield Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Kenner Avenue			Kenner Avenue			Commerical Access			Ridgefield Drive		
Base Volume Input [veh/h]	1	38	161	146	23	1	1	0	0	27	3	158
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	41	173	157	25	1	1	0	0	29	3	170
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	11	47	43	7	0	0	0	0	8	1	46
Total Analysis Volume [veh/h]	1	45	188	171	27	1	1	0	0	32	3	185
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	851	736	662	808
Degree of Utilization, x	0.27	0.27	0.00	0.27

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.12	1.09	0.00	1.11
95th-Percentile Queue Length [ft]	28.03	27.32	0.11	27.64
Approach Delay [s/veh]	8.83	9.69	8.45	9.11
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	9.18			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 7: Ridgefield Drive & Ridgefield Way

Control Type:	Two-way stop	Delay (sec / veh):	13.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.062

Intersection Setup

Name	Ridgefield Way		Ridgefield Drive		Ridgefield Drive	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Ridgefield Way		Ridgefield Drive		Ridgefield Drive	
Base Volume Input [veh/h]	25	15	17	290	168	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	16	18	312	181	13
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	4	5	85	49	4
Total Analysis Volume [veh/h]	29	17	20	339	197	14
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.02	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	13.28	9.88	7.69	0.00	0.00	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.27	0.27	0.04	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	6.70	6.70	1.12	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	12.02		0.43		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	1.15					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 8: Woodlawn Drive & Ridgefield Drive

Control Type:	All-way stop	Delay (sec / veh):	11.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.528

Intersection Setup

Name	Woodlawn Drive		Ridgefield Drive		Woodlawn Drive	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Thru	Right
Lane Width [ft]	11.00	11.00	12.00	12.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Woodlawn Drive		Ridgefield Drive		Woodlawn Drive	
Base Volume Input [veh/h]	103	22	10	285	179	185
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	111	24	11	307	193	199
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	30	7	3	83	52	54
Total Analysis Volume [veh/h]	121	26	12	334	210	216
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	683	744	806
Degree of Utilization, x	0.22	0.46	0.53

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.81	2.48	3.15
95th-Percentile Queue Length [ft]	20.30	62.07	78.81
Approach Delay [s/veh]	9.70	11.97	12.36
Approach LOS	A	B	B
Intersection Delay [s/veh]	11.79		
Intersection LOS	B		

Intersection Level Of Service Report
Intersection 9: Harding Pike & BMP Central Driveway

Control Type:	Signalized	Delay (sec / veh):	11.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.483

Intersection Setup

Name	Commerical Access			BMP Central Driveway			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			Yes		

Volumes

Name	Commerical Access			BMP Central Driveway			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	10	6	17	59	7	50	12	1222	11	42	1082	30
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0000	1.0773	1.0000	1.0000	1.0000	1.0000	1.0773	1.0773	1.0773	1.0773	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	6	18	59	7	50	12	1316	12	45	1166	30
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	2	5	16	2	14	3	358	3	12	317	8
Total Analysis Volume [veh/h]	12	7	20	64	8	54	13	1430	13	49	1267	33
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	21.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permis	Permis	Permis	Permis	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis
Signal Group	0	8	0	0	4	0	1	6	0	5	2	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	0	7	0	0	7	0	4	10	0	4	10	0
Maximum Green [s]	0	15	0	0	15	0	15	60	0	15	60	0
Amber [s]	0.0	3.5	0.0	0.0	3.5	0.0	4.0	4.0	0.0	4.0	4.0	0.0
All red [s]	0.0	2.5	0.0	0.0	2.5	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Split [s]	0	33	0	0	33	0	15	92	0	15	92	0
Vehicle Extension [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Walk [s]	0	7	0	0	7	0	0	0	0	5	0	0
Pedestrian Clearance [s]	0	18	0	0	18	0	0	0	0	10	0	0
Delayed Vehicle Green [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	4.0	0.0	0.0	4.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	Yes		No	Yes	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	50.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	C	L	C	R
C, Cycle Length [s]	140	140	140	140	140	140	140	140	140	140
L, Total Lost Time per Cycle [s]	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	4.00	4.00	4.00	4.00	0.00	4.00	4.00	0.00	4.00	4.00
g_i, Effective Green Time [s]	14	14	14	14	105	105	105	107	107	107
g / C, Green / Cycle	0.10	0.10	0.10	0.10	0.75	0.75	0.75	0.76	0.76	0.76
(v / s)_i Volume / Saturation Flow Rate	0.01	0.02	0.05	0.04	0.03	0.43	0.43	0.10	0.40	0.02
s, saturation flow rate [veh/h]	1206	1488	1245	1459	447	1683	1678	468	3204	1431
c, Capacity [veh/h]	102	146	133	143	351	1260	1256	319	2441	1090
d1, Uniform Delay [s]	64.90	57.99	64.46	59.46	6.14	7.73	7.73	15.74	6.56	4.06
k, delay calibration	0.04	0.04	0.04	0.04	0.04	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.19	0.22	1.01	0.77	0.02	1.90	1.91	1.02	0.79	0.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.12	0.18	0.48	0.43	0.04	0.57	0.57	0.15	0.52	0.03
d, Delay for Lane Group [s/veh]	65.09	58.21	65.47	60.23	6.15	9.63	9.64	16.76	7.36	4.11
Lane Group LOS	E	E	E	E	A	A	A	B	A	A
Critical Lane Group	No	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.42	0.90	2.31	2.13	0.09	8.81	8.79	0.39	6.48	0.22
50th-Percentile Queue Length [ft/ln]	10.62	22.51	57.74	53.22	2.15	220.16	219.82	9.75	162.02	5.40
95th-Percentile Queue Length [veh/ln]	0.76	1.62	4.16	3.83	0.15	13.67	13.66	0.70	10.66	0.39
95th-Percentile Queue Length [ft/ln]	19.11	40.51	103.93	95.80	3.86	341.83	341.40	17.56	266.39	9.71

Movement, Approach, & Intersection Results

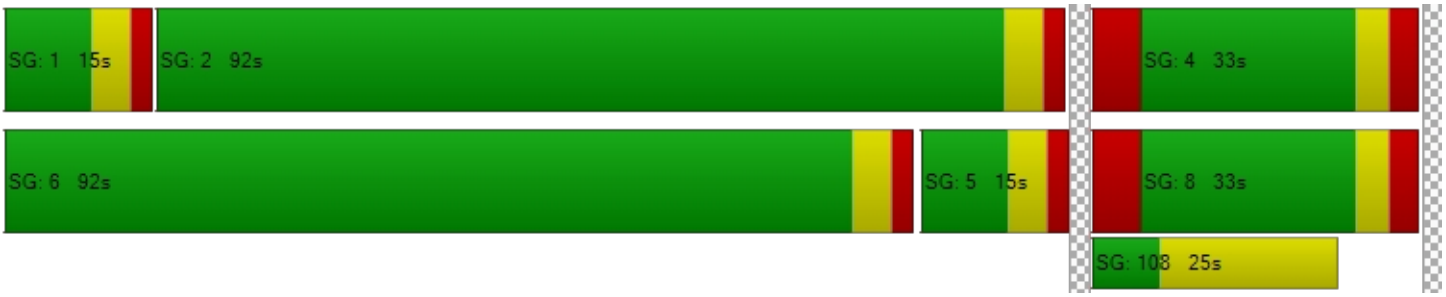
d_M, Delay for Movement [s/veh]	65.09	58.21	58.21	65.47	60.23	60.23	6.15	9.64	9.64	16.76	7.36	4.11
Movement LOS	E	E	E	E	E	E	A	A	A	B	A	A
d_A, Approach Delay [s/veh]	60.33			62.89			9.60			7.62		
Approach LOS	E			E			A			A		
d_I, Intersection Delay [s/veh]	11.63											
Intersection LOS	B											
Intersection V/C	0.483											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	59.43
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	3.185
Crosswalk LOS	F	F	F	C
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	314	314	1229	1229
d_b, Bicycle Delay [s]	49.73	49.73	10.41	10.41
I_b,int, Bicycle LOS Score for Intersection	1.624	1.768	2.761	2.673
Bicycle LOS	A	A	C	B

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 10: Harding Pike & BMP Western Driveway

Control Type:	Two-way stop	Delay (sec / veh):	267.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.182

Intersection Setup

Name	Commerical Access			BMP Western Driveway			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	11.00	11.00	12.00	12.00	11.00	10.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	75.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	Commerical Access			BMP Western Driveway			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	0	0	1	3	0	48	112	1251	57	2	1138	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0000	1.0773	1.0000	1.0000	1.0000	1.0000	1.0773	1.0773	1.0773	1.0773	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	1	3	0	48	112	1348	61	2	1226	10
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	1	0	13	30	366	17	1	333	3
Total Analysis Volume [veh/h]	0	0	1	3	0	52	122	1465	66	2	1333	11
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No			
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.18	0.00	0.13	0.24	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	287.03	393.77	14.93	267.58	471.52	15.29	14.30	0.00	0.00	13.39	0.00	0.00
Movement LOS	F	F	B	F	F	C	B	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.01	0.51	0.51	0.44	0.93	0.00	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.21	0.21	0.21	12.82	12.82	11.04	23.23	0.00	0.00	0.35	0.00	0.00
d_A, Approach Delay [s/veh]	14.93			29.05			1.06			0.02		
Approach LOS	B			D			A			A		
d_I, Intersection Delay [s/veh]	1.11											
Intersection LOS	F											

Table of Contents

Intersection Analysis Summary 2
Intersection Level Of Service Report 3
Intersection 1: Harding Pike & White Bridge Pike 3
Intersection 2: Harding Pike & Kenner Avenue 8
Intersection 3: Harding Pike & Ridgefield Way 13
Intersection 4: Harding Pike & Bosley Spring Road/Woodlawn Drive 15
Intersection 5: Harding Pike and St. Thomas Drive 20
Intersection 6: Kenner Avenue & Ridgefield Drive 25
Intersection 7: Ridgefield Drive & Ridgefield Way 27
Intersection 8: Woodlawn Drive & Ridgefield Drive 29
Intersection 9: Harding Pike & BMP Central Driveway 31
Intersection 10: Harding Pike & BMP Western Driveway 36

Belle Meade Developments - TIS

Vistro File: M:\...\Belle Meade Developments - TIS.vistro
Report File: M:\...\4 - Background 2027 - PM.pdf

Scenario 4 - Background 2027 - PM
12/27/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Harding Pike & White Bridge Pike	Signalized	HCM 6th Edition	SB Right	1.164	135.4	F
2	Harding Pike & Kenner Avenue	Signalized	HCM 6th Edition	SB Right	0.774	73.2	E
3	Harding Pike & Ridgefield Way	Two-way stop	HCM 6th Edition	NBL2	3.408	1,551.9	F
4	Harding Pike & Bosley Spring Road/Woodlawn Drive	Signalized	HCM 6th Edition	WB Left	0.663	28.4	C
5	Harding Pike and St. Thomas Drive	Signalized	HCM 6th Edition	EB Right	0.596	15.6	B
6	Kenner Avenue & Ridgefield Drive	All-way stop	HCM 6th Edition	SB Left	0.335	9.5	A
7	Ridgefield Drive & Ridgefield Way	Two-way stop	HCM 6th Edition	SB Left	0.077	13.2	B
8	Woodlawn Drive & Ridgefield Drive	All-way stop	HCM 6th Edition	WB Right	0.820	19.1	C
9	Harding Pike & BMP Central Driveway	Signalized	HCM 6th Edition	NB Left	0.627	18.0	B
10	Harding Pike & BMP Western Driveway	Two-way stop	HCM 6th Edition	SB Left	0.546	622.5	F

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Harding Pike & White Bridge Pike

Control Type:	Signalized	Delay (sec / veh):	135.4
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.164

Intersection Setup

Name	Woodmont Boulevard			White Bridge Pike			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	250.00	100.00	100.00	500.00	100.00	200.00	200.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Woodmont Boulevard			White Bridge Pike			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	195	332	51	352	217	274	176	801	122	52	1168	776
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	210	358	55	379	234	295	190	863	131	56	1258	836
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	57	97	15	103	64	80	52	235	36	15	342	227
Total Analysis Volume [veh/h]	228	389	60	412	254	321	207	938	142	61	1367	909
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	170
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	3.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	ProtPer	Permis	Permis	ProtPer	Permis	Permis
Signal Group	0	8	0	0	7	0	1	6	0	5	2	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	4	10	0	4	10	0
Maximum Green [s]	0	20	0	0	25	0	20	60	0	15	60	0
Amber [s]	0.0	4.0	0.0	0.0	4.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
All red [s]	0.0	2.5	0.0	0.0	2.5	0.0	2.5	2.0	0.0	2.0	2.0	0.0
Split [s]	0	36	0	0	31	0	25	88	0	15	78	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	18	0	0	18	0	0	15	0	0	12	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			Yes			Yes	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	4.5	0.0	0.0	4.5	0.0	4.5	4.0	0.0	4.0	4.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			Yes		No	Yes		No	Yes	
Pedestrian Recall		Yes			Yes		No	Yes		No	Yes	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	50.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	170	170	170	170	170	170	170	170	170	170	170	170
L, Total Lost Time per Cycle [s]	6.50	6.50	6.50	6.50	6.50	6.50	6.00	6.00	6.00	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	4.50	4.50	4.50	4.50	4.50	4.50	0.00	4.00	4.00	0.00	4.00	4.00
g_i, Effective Green Time [s]	30	30	30	25	25	25	97	86	86	97	72	72
g / C, Green / Cycle	0.17	0.17	0.17	0.14	0.14	0.14	0.57	0.51	0.51	0.57	0.42	0.42
(v / s)_i Volume / Saturation Flow Rate	0.14	0.23	0.04	0.13	0.15	0.22	0.42	0.33	0.33	0.11	0.43	0.64
s, saturation flow rate [veh/h]	1603	1683	1431	3113	1683	1431	491	1683	1607	572	3204	1431
c, Capacity [veh/h]	278	292	248	449	243	206	279	854	815	273	1359	607
d1, Uniform Delay [s]	67.69	70.25	60.60	71.76	72.75	72.75	53.41	30.69	30.76	22.15	48.96	48.96
k, delay calibration	0.27	0.50	0.11	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	13.77	170.99	0.50	26.31	70.71	273.05	16.25	3.75	3.98	1.89	25.90	232.95
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.82	1.33	0.24	0.92	1.05	1.56	0.74	0.65	0.65	0.22	1.01	1.50
d, Delay for Lane Group [s/veh]	81.46	241.24	61.10	98.08	143.46	345.80	69.67	34.45	34.74	24.05	74.86	281.91
Lane Group LOS	F	F	E	F	F	F	E	C	C	C	F	F
Critical Lane Group	No	Yes	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	10.55	26.48	2.27	10.44	15.27	24.57	5.29	17.21	16.60	1.22	33.04	64.38
50th-Percentile Queue Length [ft/ln]	263.76	662.09	56.74	261.07	381.79	614.22	132.17	430.34	414.89	30.44	825.88	1609.5
95th-Percentile Queue Length [veh/ln]	15.88	39.79	4.09	15.74	22.17	38.58	9.06	24.02	23.28	2.19	42.67	98.22
95th-Percentile Queue Length [ft/ln]	396.94	994.85	102.13	393.57	554.28	964.55	226.44	600.44	581.91	54.79	1066.6	2455.5

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	81.46	241.24	61.10	98.08	143.46	345.80	69.67	34.57	34.74	24.05	74.86	281.91
Movement LOS	F	F	E	F	F	F	E	C	C	C	F	F
d_A, Approach Delay [s/veh]	171.47			190.32			40.23			154.07		
Approach LOS	F			F			D			F		
d_I, Intersection Delay [s/veh]	135.36											
Intersection LOS	F											
Intersection V/C	1.164											

Other Modes

g_Walk,mi, Effective Walk Time [s]	19.0	22.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	67.06	64.42	74.36	74.36
I_p,int, Pedestrian LOS Score for Intersection	2.571	3.145	3.177	3.295
Crosswalk LOS	B	C	C	C
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	347	288	965	847
d_b, Bicycle Delay [s]	58.06	62.27	22.78	28.25
I_b,int, Bicycle LOS Score for Intersection	2.677	3.188	2.621	3.488
Bicycle LOS	B	C	B	C

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 2: Harding Pike & Kenner Avenue

Control Type:	Signalized	Delay (sec / veh):	73.2
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.774

Intersection Setup

Name	Kenner Avenue			Kenner Avenue			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	1	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	200.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Kenner Avenue			Kenner Avenue			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	207	43	17	149	55	182	114	1051	92	9	1480	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	223	46	18	161	59	196	123	1132	99	10	1594	22
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	61	13	5	44	16	53	33	308	27	3	433	6
Total Analysis Volume [veh/h]	242	50	20	175	64	213	134	1230	108	11	1733	24
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	170
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	9.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permis	Permis	Permis	Permis	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis
Signal Group	0	4	0	0	3	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	4	15	0	4	15	0
Maximum Green [s]	0	20	0	0	20	0	15	60	0	15	60	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
All red [s]	0.0	3.5	0.0	0.0	4.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Split [s]	0	36	0	0	22	0	15	96	0	16	97	0
Vehicle Extension [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Walk [s]	0	7	0	0	0	0	0	0	0	0	0	0
Pedestrian Clearance [s]	0	20	0	0	0	0	0	0	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	4.5	0.0	0.0	5.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	Yes		No	Yes	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	50.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	170	170	170	170	170	170	170	170	170	170	170
L, Total Lost Time per Cycle [s]	6.50	6.50	7.00	7.00	7.00	6.00	6.00	6.00	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	4.50	4.50	5.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00
g_i, Effective Green Time [s]	30	30	15	15	15	9	98	98	2	91	91
g / C, Green / Cycle	0.17	0.17	0.09	0.09	0.09	0.05	0.58	0.58	0.01	0.54	0.54
(v / s)_i Volume / Saturation Flow Rate	0.18	0.01	0.07	0.07	0.15	0.08	0.40	0.40	0.01	0.36	0.36
s, saturation flow rate [veh/h]	1616	1431	1603	1644	1431	1603	1683	1636	1603	3204	1671
c, Capacity [veh/h]	280	248	141	145	126	85	973	945	17	1715	895
d1, Uniform Delay [s]	70.25	58.88	76.28	76.28	77.50	80.50	25.31	25.43	83.83	28.70	28.70
k, delay calibration	0.41	0.04	0.04	0.04	0.50	0.27	0.50	0.50	0.04	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	59.88	0.05	4.88	4.76	341.11	288.63	4.10	4.31	15.79	2.13	4.04
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	1.04	0.08	0.83	0.83	1.69	1.58	0.70	0.70	0.67	0.67	0.67
d, Delay for Lane Group [s/veh]	130.13	58.93	81.16	81.03	418.61	369.13	29.40	29.74	99.62	30.83	32.74
Lane Group LOS	F	E	F	F	F	F	C	C	F	C	C
Critical Lane Group	Yes	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	17.00	0.74	5.34	5.47	17.55	10.51	19.83	19.56	0.55	17.30	18.53
50th-Percentile Queue Length [ft/ln]	425.12	18.53	133.42	136.72	438.82	262.79	495.85	489.05	13.83	432.51	463.20
95th-Percentile Queue Length [veh/ln]	24.28	1.33	9.13	9.30	28.40	17.68	27.14	26.82	1.00	24.12	25.59
95th-Percentile Queue Length [ft/ln]	606.96	33.35	228.14	232.60	710.01	441.89	678.45	670.39	24.90	603.04	639.68

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	130.13	130.13	58.93	81.12	81.03	418.61	369.13	29.56	29.74	99.62	31.46	32.74
Movement LOS	F	F	E	F	F	F	F	C	C	F	C	C
d_A, Approach Delay [s/veh]	125.57			240.15			60.48			31.91		
Approach LOS	F			F			E			C		
d_I, Intersection Delay [s/veh]	73.22											
Intersection LOS	E											
Intersection V/C	0.774											

Other Modes

g_Walk,mi, Effective Walk Time [s]	90.0	91.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	18.82	18.36	0.00	74.36
l_p,int, Pedestrian LOS Score for Intersection	2.049	2.239	0.000	3.175
Crosswalk LOS	B	B	F	C
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	347	176	1059	1071
d_b, Bicycle Delay [s]	58.06	70.66	18.82	18.36
l_b,int, Bicycle LOS Score for Intersection	2.074	2.305	2.774	2.532
Bicycle LOS	B	B	C	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 3: Harding Pike & Ridgefield Way

Control Type:	Two-way stop	Delay (sec / veh):	1,551.9
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	3.408

Intersection Setup

Name	Ridgefield Way			HT Ce			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left2	Left	Right	Left	Right	Right2	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	175.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	Ridgefield Way			HT Ce			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	48	0	36	0	0	36	10	1188	37	9	1442	130
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	52	0	39	0	0	39	11	1280	40	10	1553	140
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	0	11	0	0	11	3	348	11	3	422	38
Total Analysis Volume [veh/h]	57	0	42	0	0	42	12	1391	43	11	1688	152
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane				
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	3.41	0.00	0.11	0.00	0.00	0.15	0.04	0.01	0.00	0.02	0.02	0.00
d_M, Delay for Movement [s/veh]	1551.8	0.00	15.90	0.00	0.00	19.28	16.43	0.00	0.00	12.85	0.00	0.00
Movement LOS	F		C			C	C	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	7.78	0.00	0.38	0.00	0.00	0.25	0.11	0.00	0.00	0.07	0.00	0.00
95th-Percentile Queue Length [ft/ln]	194.54	0.00	9.46	0.00	0.00	6.20	2.85	0.00	0.00	1.80	0.00	0.00
d_A, Approach Delay [s/veh]	900.26			19.28			0.14			0.08		
Approach LOS	F			C			A			A		
d_I, Intersection Delay [s/veh]	26.26											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 4: Harding Pike & Bosley Spring Road/Woodlawn Drive

Control Type:	Signalized	Delay (sec / veh):	28.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.663

Intersection Setup

Name	Harding Pike			Harding Pike			Bosley Springs			Woodlawn Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	200.00	100.00	100.00	215.00	100.00	100.00	350.00	100.00	100.00	215.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Harding Pike			Harding Pike			Bosley Springs			Woodlawn Drive		
Base Volume Input [veh/h]	23	1028	70	3	1373	4	70	13	99	160	7	47
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	25	1107	75	3	1479	4	75	14	107	172	8	51
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	301	20	1	402	1	20	4	29	47	2	14
Total Analysis Volume [veh/h]	27	1203	82	3	1608	4	82	15	116	187	9	55
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	170
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	26.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	4	10	0	4	10	0	8	7	0	7	7	0
Maximum Green [s]	15	60	0	15	60	0	15	15	0	15	15	0
Amber [s]	4.0	4.0	0.0	4.0	4.0	0.0	3.5	3.5	0.0	3.5	3.5	0.0
All red [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.5	0.0	2.5	2.5	0.0
Split [s]	15	93	0	17	95	0	28	45	0	15	32	0
Vehicle Extension [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Walk [s]	0	7	0	0	7	0	0	0	0	0	7	0
Pedestrian Clearance [s]	0	14	0	0	14	0	0	0	0	0	19	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		Yes			Yes			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	4.0	4.0	0.0	4.0	4.0	0.0	3.5	4.0	0.0	4.0	4.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	Yes		No	Yes		No	No		No	No	
Pedestrian Recall	No	Yes		No	Yes		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	50.0	0.0	0.0	50.0	0.0	0.0	50.0	50.0	0.0	50.0	50.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	L	C
C, Cycle Length [s]	170	170	170	170	170	170	170	170	170	170
L, Total Lost Time per Cycle [s]	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	4.00	4.00	0.00	4.00	4.00	0.00	4.00	0.00	4.00
g_i, Effective Green Time [s]	119	112	112	119	110	110	39	24	39	25
g / C, Green / Cycle	0.70	0.66	0.66	0.70	0.65	0.65	0.23	0.14	0.23	0.15
(v / s)_i Volume / Saturation Flow Rate	0.08	0.39	0.39	0.01	0.48	0.48	0.06	0.09	0.15	0.04
s, saturation flow rate [veh/h]	359	1683	1646	433	1683	1682	1331	1456	1289	1461
c, Capacity [veh/h]	219	1111	1087	280	1088	1087	322	207	264	213
d1, Uniform Delay [s]	17.95	15.97	15.99	11.74	20.40	20.40	53.15	68.68	61.11	64.88
k, delay calibration	0.50	0.50	0.50	0.04	0.50	0.50	0.04	0.04	0.50	0.04
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.15	2.25	2.31	0.01	4.56	4.57	0.15	1.19	14.95	0.29
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.12	0.58	0.59	0.01	0.74	0.74	0.25	0.63	0.71	0.30
d, Delay for Lane Group [s/veh]	19.10	18.21	18.30	11.74	24.95	24.97	53.30	69.87	76.06	65.17
Lane Group LOS	B	B	B	B	C	C	D	E	E	E
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.37	14.10	13.86	0.03	22.03	22.03	2.92	5.52	8.18	2.53
50th-Percentile Queue Length [ft/ln]	9.22	352.38	346.48	0.83	550.71	550.69	73.11	137.92	204.44	63.13
95th-Percentile Queue Length [veh/ln]	0.66	20.25	19.96	0.06	29.73	29.72	5.26	9.37	12.87	4.55
95th-Percentile Queue Length [ft/ln]	16.59	506.31	499.11	1.49	743.15	743.11	131.60	234.22	321.68	113.64

Movement, Approach, & Intersection Results

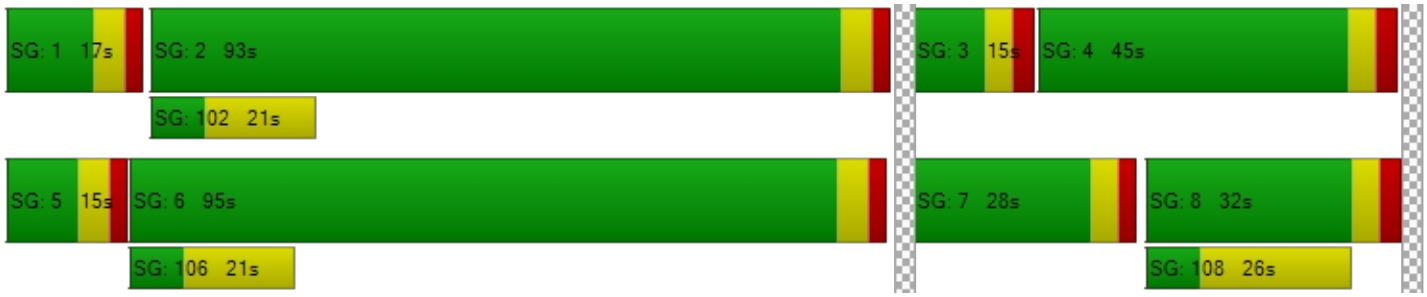
d_M, Delay for Movement [s/veh]	19.10	18.25	18.30	11.74	24.96	24.97	53.30	69.87	69.87	76.06	65.17	65.17
Movement LOS	B	B	B	B	C	C	D	E	E	E	E	E
d_A, Approach Delay [s/veh]	18.27			24.94			63.49			73.28		
Approach LOS	B			C			E			E		
d_I, Intersection Delay [s/veh]	28.36											
Intersection LOS	C											
Intersection V/C	0.663											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	20.0	20.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	74.36	66.18	66.18
l_p,int, Pedestrian LOS Score for Intersection	0.000	3.117	2.059	2.083
Crosswalk LOS	F	C	B	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1024	1047	459	306
d_b, Bicycle Delay [s]	20.26	19.30	50.47	60.99
l_b,int, Bicycle LOS Score for Intersection	2.642	2.892	1.911	1.974
Bicycle LOS	B	C	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Harding Pike and St. Thomas Drive

Control Type:	Signalized	Delay (sec / veh):	15.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.596

Intersection Setup

Name	Harding Pike			St Thomas Drive			St. Thomas Drive			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left2	Left	Thru	Left	Right	Right2	Left2	Left	Right	Thru	Right	Right2
Lane Width [ft]	11.00	12.00	11.00	11.00	12.00	12.00	12.00	12.00	11.00	11.00	12.00	11.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	225.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	185.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			25.00			25.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Harding Pike			St Thomas Drive			St. Thomas Drive			Harding Pike		
Base Volume Input [veh/h]	19	0	1139	115	0	0	0	0	117	1329	0	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	0	1227	124	0	0	0	0	126	1432	0	54
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	0	333	34	0	0	0	0	34	389	0	15
Total Analysis Volume [veh/h]	22	0	1334	135	0	0	0	0	137	1557	0	59
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	170
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	37.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Overla	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
Signal Group	1	6	6	4	0	0	0	0	4	2	2	0
Auxiliary Signal Groups	1,4,6											
Lead / Lag	Lead	Lead	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	4	20	20	7	0	0	0	0	7	20	20	0
Maximum Green [s]	15	60	60	20	0	0	0	0	20	60	60	0
Amber [s]	4.0	4.0	4.0	3.5	0.0	0.0	0.0	0.0	3.5	4.0	4.0	0.0
All red [s]	1.5	4.0	4.0	3.0	0.0	0.0	0.0	0.0	3.0	4.0	4.0	0.0
Split [s]	15	133	133	37	0	0	0	0	37	118	118	0
Vehicle Extension [s]	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0
Walk [s]	0	0	0	9	0	0	0	0	9	0	0	0
Pedestrian Clearance [s]	0	0	0	17	0	0	0	0	17	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk			No	No					No	No		
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.5	6.0	6.0	4.5	0.0	0.0	0.0	0.0	4.5	6.0	6.0	0.0
Minimum Recall	No		No	No					No	No		
Maximum Recall	No		Yes	No					No	Yes		
Pedestrian Recall	No		No	No					No	No		
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	50.0	50.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	R	C	C
C, Cycle Length [s]	170	170	170	170	170	170
L, Total Lost Time per Cycle [s]	6.75	8.00	6.50	6.50	8.00	8.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	6.00	4.50	4.50	6.00	6.00
g_i, Effective Green Time [s]	162	137	19	19	129	129
g / C, Green / Cycle	0.95	0.81	0.11	0.11	0.76	0.76
(v / s)_i Volume / Saturation Flow Rate	0.04	0.42	0.08	0.10	0.48	0.49
s, saturation flow rate [veh/h]	537	3204	1603	1431	1683	1662
c, Capacity [veh/h]	506	2580	176	157	1274	1258
d1, Uniform Delay [s]	65.53	5.53	73.59	74.53	9.63	9.75
k, delay calibration	0.04	0.50	0.04	0.04	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.01	0.74	2.66	5.80	2.41	2.53
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.04	0.52	0.77	0.87	0.63	0.64
d, Delay for Lane Group [s/veh]	65.54	6.27	76.25	80.33	12.05	12.28
Lane Group LOS	E	A	E	F	B	B
Critical Lane Group	Yes	No	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]	0.81	6.96	5.94	6.22	13.46	13.64
50th-Percentile Queue Length [ft/ln]	20.22	174.02	148.44	155.53	336.49	341.03
95th-Percentile Queue Length [veh/ln]	1.46	11.29	9.93	10.31	19.48	19.70
95th-Percentile Queue Length [ft/ln]	36.40	282.19	248.34	257.80	486.91	492.46

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	65.54	0.00	6.27	76.25	0.00	0.00	0.00	0.00	80.33	12.16	0.00	12.28
Movement LOS	E		A	E					F	B		B
d_A, Approach Delay [s/veh]	7.24			76.25			80.33			12.16		
Approach LOS	A			E			F			B		
d_I, Intersection Delay [s/veh]	15.65											
Intersection LOS	B											
Intersection V/C	0.596											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1471	359	359	1294
d_b, Bicycle Delay [s]	5.96	57.24	57.24	10.59
l_b,int, Bicycle LOS Score for Intersection	2.678	1.560	1.560	2.893
Bicycle LOS	B	A	A	C

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 6: Kenner Avenue & Ridgefield Drive

Control Type:	All-way stop	Delay (sec / veh):	9.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.335

Intersection Setup

Name	Kenner Avenue			Kenner Avenue			Commerical Access			Ridgefield Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Kenner Avenue			Kenner Avenue			Commerical Access			Ridgefield Drive		
Base Volume Input [veh/h]	0	38	33	140	67	0	0	1	2	30	0	213
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	41	36	151	72	0	0	1	2	32	0	229
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	11	10	41	20	0	0	0	1	9	0	62
Total Analysis Volume [veh/h]	0	45	39	164	78	0	0	1	2	35	0	249
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	780	747	769	849
Degree of Utilization, x	0.11	0.32	0.00	0.33

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.36	1.41	0.01	1.48
95th-Percentile Queue Length [ft]	9.02	35.22	0.29	36.93
Approach Delay [s/veh]	8.18	10.12	7.71	9.36
Approach LOS	A	B	A	A
Intersection Delay [s/veh]	9.49			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 7: Ridgefield Drive & Ridgefield Way

Control Type:	Two-way stop	Delay (sec / veh):	13.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.077

Intersection Setup

Name	Ridgefield Way		Ridgefield Drive		Ridgefield Drive	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Ridgefield Way		Ridgefield Drive		Ridgefield Drive	
Base Volume Input [veh/h]	32	19	22	159	225	90
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	34	20	24	171	242	97
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	5	7	46	66	26
Total Analysis Volume [veh/h]	37	22	26	186	263	105
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.03	0.02	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	13.23	10.75	8.09	0.00	0.00	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.36	0.36	0.07	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	8.93	8.93	1.67	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	12.31		0.99		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	1.47					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 8: Woodlawn Drive & Ridgefield Drive

Control Type:	All-way stop	Delay (sec / veh):	19.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.820

Intersection Setup

Name	Woodlawn Drive		Ridgefield Drive		Woodlawn Drive	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Thru	Right
Lane Width [ft]	11.00	11.00	12.00	12.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Woodlawn Drive		Ridgefield Drive		Woodlawn Drive	
Base Volume Input [veh/h]	134	36	36	172	274	281
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	144	39	39	185	295	303
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	39	11	11	50	80	82
Total Analysis Volume [veh/h]	157	42	42	201	321	329
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	678	676	793
Degree of Utilization, x	0.29	0.36	0.82

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.22	1.63	9.08
95th-Percentile Queue Length [ft]	30.57	40.85	226.88
Approach Delay [s/veh]	10.51	11.28	24.67
Approach LOS	B	B	C
Intersection Delay [s/veh]	19.11		
Intersection LOS	C		

Intersection Level Of Service Report
Intersection 9: Harding Pike & BMP Central Driveway

Control Type:	Signalized	Delay (sec / veh):	18.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.627

Intersection Setup

Name	Commerical Access			BMP Central Driveway			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			Yes		

Volumes

Name	Commerical Access			BMP Central Driveway			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	41	7	36	79	5	98	51	1000	11	6	1476	56
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0000	1.0773	1.0000	1.0000	1.0000	1.0000	1.0773	1.0773	1.0773	1.0773	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	7	39	79	5	98	51	1077	12	6	1590	56
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	2	11	21	1	27	14	293	3	2	432	15
Total Analysis Volume [veh/h]	48	8	42	86	5	107	55	1171	13	7	1728	61
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	170
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	3.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permis	Permis	Permis	Permis	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis
Signal Group	0	8	0	0	4	0	1	6	0	5	2	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	0	7	0	0	7	0	4	10	0	4	10	0
Maximum Green [s]	0	15	0	0	15	0	15	60	0	15	60	0
Amber [s]	0.0	3.5	0.0	0.0	3.5	0.0	4.0	4.0	0.0	4.0	4.0	0.0
All red [s]	0.0	2.5	0.0	0.0	2.5	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Split [s]	0	31	0	0	31	0	15	124	0	15	124	0
Vehicle Extension [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Walk [s]	0	7	0	0	7	0	0	0	0	5	0	0
Pedestrian Clearance [s]	0	18	0	0	18	0	0	0	0	10	0	0
Delayed Vehicle Green [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	4.0	0.0	0.0	4.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	Yes		No	Yes	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	50.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	C	L	C	R
C, Cycle Length [s]	170	170	170	170	170	170	170	170	170	170
L, Total Lost Time per Cycle [s]	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	4.00	4.00	4.00	4.00	0.00	4.00	4.00	0.00	4.00	4.00
g_i, Effective Green Time [s]	23	23	23	23	128	128	128	125	125	125
g / C, Green / Cycle	0.14	0.14	0.14	0.14	0.75	0.75	0.75	0.74	0.74	0.74
(v / s)_i Volume / Saturation Flow Rate	0.04	0.03	0.07	0.08	0.17	0.35	0.35	0.01	0.54	0.04
s, saturation flow rate [veh/h]	1153	1466	1219	1440	321	1683	1676	512	3204	1431
c, Capacity [veh/h]	103	200	158	197	227	1263	1258	335	2356	1052
d1, Uniform Delay [s]	79.53	65.58	74.86	68.68	16.57	8.18	8.18	15.07	12.92	6.22
k, delay calibration	0.04	0.04	0.04	0.04	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.20	0.24	1.08	0.96	2.53	1.26	1.26	0.11	2.07	0.11
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.46	0.25	0.54	0.57	0.24	0.47	0.47	0.02	0.73	0.06
d, Delay for Lane Group [s/veh]	80.74	65.81	75.94	69.64	19.10	9.44	9.44	15.19	14.99	6.33
Lane Group LOS	F	E	E	E	B	A	A	B	B	A
Critical Lane Group	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.14	1.99	3.76	4.68	0.64	8.16	8.13	0.07	17.81	0.61
50th-Percentile Queue Length [ft/ln]	53.55	49.67	93.90	117.06	15.97	203.93	203.27	1.87	445.36	15.33
95th-Percentile Queue Length [veh/ln]	3.86	3.58	6.76	8.23	1.15	12.84	12.81	0.13	24.74	1.10
95th-Percentile Queue Length [ft/ln]	96.39	89.40	169.02	205.77	28.75	321.02	320.18	3.37	618.40	27.59

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	80.74	65.81	65.81	75.94	69.64	69.64	19.10	9.44	9.44	15.19	14.99	6.33
Movement LOS	F	E	E	E	E	E	B	A	A	B	B	A
d_A, Approach Delay [s/veh]	73.12			72.38			9.87			14.70		
Approach LOS	E			E			A			B		
d_I, Intersection Delay [s/veh]	18.05											
Intersection LOS	B											
Intersection V/C	0.627											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	74.36
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	3.276
Crosswalk LOS	F	F	F	C
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	235	235	1388	1388
d_b, Bicycle Delay [s]	66.18	66.18	7.95	7.95
I_b,int, Bicycle LOS Score for Intersection	1.721	1.886	2.582	3.041
Bicycle LOS	A	A	B	C

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 10: Harding Pike & BMP Western Driveway

Control Type:	Two-way stop	Delay (sec / veh):	622.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.546

Intersection Setup

Name	Commerical Access			BMP Western Driveway			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	11.00	11.00	12.00	12.00	11.00	10.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	75.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	Commerical Access			BMP Western Driveway			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	1	0	14	5	0	86	59	1054	7	2	1614	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0000	1.0773	1.0000	1.0000	1.0000	1.0000	1.0773	1.0773	1.0773	1.0773	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	0	15	5	0	86	59	1135	8	2	1739	13
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	4	1	0	23	16	308	2	1	473	4
Total Analysis Volume [veh/h]	1	0	16	5	0	93	64	1234	9	2	1890	14
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No			
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.09	0.00	0.04	0.55	0.00	0.35	0.21	0.01	0.00	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	334.87	525.13	17.22	622.52	741.97	26.02	19.70	0.00	0.00	11.50	0.00	0.00
Movement LOS	F	F	C	F	F	D	C	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	0.43	0.43	0.43	1.13	1.13	1.53	0.77	0.00	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	10.65	10.65	10.65	28.34	28.34	38.32	19.15	0.00	0.00	0.27	0.00	0.00
d_A, Approach Delay [s/veh]	35.91			56.45			0.96			0.01		
Approach LOS	E			F			A			A		
d_I, Intersection Delay [s/veh]	2.23											
Intersection LOS	F											

Table of Contents

Intersection Analysis Summary 2
Intersection Level Of Service Report 3
Intersection 1: Harding Pike & White Bridge Pike 3
Intersection 2: Harding Pike & Kenner Avenue 8
Intersection 3: Harding Pike & Ridgefield Way 13
Intersection 4: Harding Pike & Bosley Spring Road/Woodlawn Drive 15
Intersection 5: Harding Pike and St. Thomas Drive 20
Intersection 6: Kenner Avenue & Ridgefield Drive 25
Intersection 7: Ridgefield Drive & Ridgefield Way 27
Intersection 8: Woodlawn Drive & Ridgefield Drive 29
Intersection 9: Harding Pike & BMP Central Driveway 31
Intersection 10: Harding Pike & BMP Western Driveway 36

Belle Meade Developments - TIS

Vistro File: M:\...\Belle Meade Developments - TIS.vistro
Report File: M:\...\5 - Background 2032 - AM.pdf

Scenario 5 - Background 2032 - AM
12/27/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Harding Pike & White Bridge Pike	Signalized	HCM 6th Edition	SB Right	0.898	91.6	F
2	Harding Pike & Kenner Avenue	Signalized	HCM 6th Edition	EB Right	0.866	64.0	E
3	Harding Pike & Ridgefield Way	Two-way stop	HCM 6th Edition	NBL2	5.495	3,232.1	F
4	Harding Pike & Bosley Spring Road/Woodlawn Drive	Signalized	HCM 6th Edition	EB Right	0.702	25.0	C
5	Harding Pike and St. Thomas Drive	Signalized	HCM 6th Edition	NBL2	0.773	45.9	D
6	Kenner Avenue & Ridgefield Drive	All-way stop	HCM 6th Edition	SB Left	0.301	9.5	A
7	Ridgefield Drive & Ridgefield Way	Two-way stop	HCM 6th Edition	SB Left	0.073	13.9	B
8	Woodlawn Drive & Ridgefield Drive	All-way stop	HCM 6th Edition	WB Right	0.584	12.9	B
9	Harding Pike & BMP Central Driveway	Signalized	HCM 6th Edition	SB Left	0.517	12.3	B
10	Harding Pike & BMP Western Driveway	Two-way stop	HCM 6th Edition	SB Left	0.248	382.1	F

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Harding Pike & White Bridge Pike

Control Type:	Signalized	Delay (sec / veh):	91.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.898

Intersection Setup

Name	Woodmont Boulevard			White Bridge Pike			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	250.00	100.00	100.00	500.00	100.00	200.00	200.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Woodmont Boulevard			White Bridge Pike			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	205	173	70	511	231	281	75	1101	112	54	860	342
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	238	201	81	593	268	326	87	1278	130	63	998	397
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	65	55	22	161	73	89	24	347	35	17	271	108
Total Analysis Volume [veh/h]	259	218	88	645	291	354	95	1389	141	68	1085	432
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	ProtPer	Permis	Permis	ProtPer	Permis	Permis
Signal Group	0	8	0	0	7	0	1	6	0	5	2	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	4	10	0	4	10	0
Maximum Green [s]	0	20	0	0	25	0	20	60	0	15	60	0
Amber [s]	0.0	4.0	0.0	0.0	4.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
All red [s]	0.0	2.5	0.0	0.0	2.5	0.0	2.5	2.0	0.0	2.0	2.0	0.0
Split [s]	0	32	0	0	32	0	16	61	0	15	60	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	18	0	0	18	0	0	15	0	0	12	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			Yes			Yes	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	4.5	0.0	0.0	4.5	0.0	4.5	4.0	0.0	4.0	4.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			Yes		No	Yes		No	Yes	
Pedestrian Recall		Yes			Yes		No	Yes		No	Yes	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	50.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	140	140	140	140	140	140	140	140	140	140	140	140
L, Total Lost Time per Cycle [s]	6.50	6.50	6.50	6.50	6.50	6.50	6.00	6.00	6.00	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	4.50	4.50	4.50	4.50	4.50	4.50	0.00	4.00	4.00	0.00	4.00	4.00
g_i, Effective Green Time [s]	25	25	25	26	26	26	70	60	60	70	58	58
g / C, Green / Cycle	0.18	0.18	0.18	0.18	0.18	0.18	0.50	0.43	0.43	0.50	0.41	0.41
(v / s)_i Volume / Saturation Flow Rate	0.16	0.13	0.06	0.21	0.17	0.25	0.19	0.46	0.47	0.14	0.34	0.30
s, saturation flow rate [veh/h]	1603	1683	1431	3113	1683	1431	509	1683	1630	469	3204	1431
c, Capacity [veh/h]	286	301	256	567	307	261	236	717	694	181	1319	589
d1, Uniform Delay [s]	56.32	54.25	50.31	57.25	56.61	57.25	27.72	40.20	40.20	31.49	36.64	34.72
k, delay calibration	0.31	0.19	0.11	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	23.58	5.73	0.80	81.81	39.96	184.29	5.04	56.35	62.26	5.86	5.90	7.90
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.90	0.72	0.34	1.14	0.95	1.36	0.40	1.08	1.09	0.38	0.82	0.73
d, Delay for Lane Group [s/veh]	79.90	59.97	51.11	139.06	96.57	241.54	32.75	96.55	102.45	37.35	42.54	42.62
Lane Group LOS	E	E	D	F	F	F	C	F	F	D	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	10.71	7.64	2.74	16.31	13.42	22.41	1.94	34.89	34.92	1.43	17.10	13.38
50th-Percentile Queue Length [ft/ln]	267.82	191.05	68.47	407.73	335.46	560.20	48.58	872.27	872.99	35.72	427.44	334.46
95th-Percentile Queue Length [veh/ln]	16.08	12.18	4.93	24.44	19.43	34.59	3.50	47.12	47.63	2.57	23.88	19.38
95th-Percentile Queue Length [ft/ln]	402.01	304.40	123.24	611.10	485.65	864.74	87.44	1178.0	1190.6	64.29	596.98	484.43

Movement, Approach, & Intersection Results

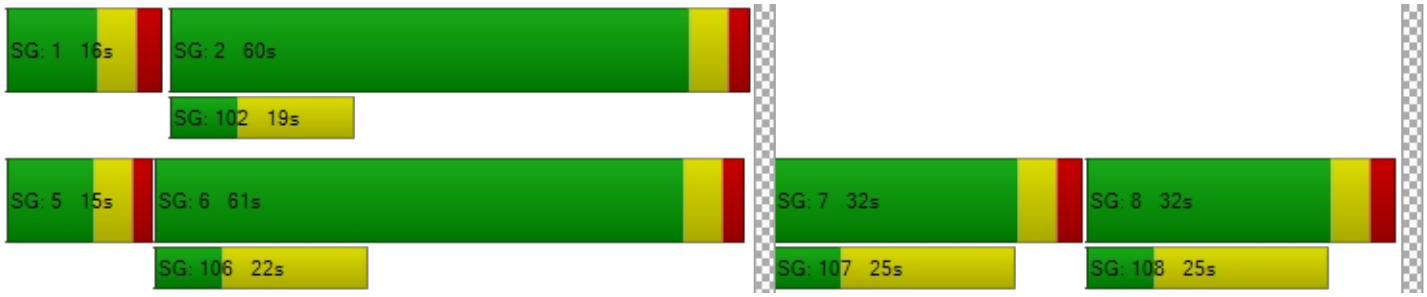
d_M, Delay for Movement [s/veh]	79.90	59.97	51.11	139.06	96.57	241.54	32.75	99.17	102.45	37.35	42.54	42.62
Movement LOS	E	E	D	F	F	F	C	F	F	D	D	D
d_A, Approach Delay [s/veh]	67.73			157.60			95.58			42.34		
Approach LOS	E			F			F			D		
d_I, Intersection Delay [s/veh]	91.61											
Intersection LOS	F											
Intersection V/C	0.898											

Other Modes

g_Walk,mi, Effective Walk Time [s]	19.0	22.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	52.29	49.73	59.43	59.43
l_p,int, Pedestrian LOS Score for Intersection	2.536	2.965	3.194	3.277
Crosswalk LOS	B	C	C	C
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	364	364	786	771
d_b, Bicycle Delay [s]	46.82	46.82	25.80	26.41
l_b,int, Bicycle LOS Score for Intersection	2.492	3.688	2.900	2.867
Bicycle LOS	B	D	C	C

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Harding Pike & Kenner Avenue

Control Type:	Signalized	Delay (sec / veh):	64.0
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.866

Intersection Setup

Name	Kenner Avenue			Kenner Avenue			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	1	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	200.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Kenner Avenue			Kenner Avenue			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	127	27	25	122	20	53	44	1575	148	32	1030	47
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	147	31	29	142	23	62	51	1828	172	37	1195	55
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	40	8	8	39	6	17	14	497	47	10	325	15
Total Analysis Volume [veh/h]	160	34	32	154	25	67	55	1987	187	40	1299	60
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	23.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permis	Permis	Permis	Permis	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis
Signal Group	0	4	0	0	3	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	4	15	0	4	15	0
Maximum Green [s]	0	20	0	0	20	0	15	60	0	15	60	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
All red [s]	0.0	3.5	0.0	0.0	4.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Split [s]	0	28	0	0	15	0	14	83	0	14	83	0
Vehicle Extension [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Walk [s]	0	7	0	0	0	0	0	0	0	0	0	0
Pedestrian Clearance [s]	0	20	0	0	0	0	0	0	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	4.5	0.0	0.0	5.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	Yes		No	Yes	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	50.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	140	140	140	140	140	140	140	140	140	140	140
L, Total Lost Time per Cycle [s]	6.50	6.50	7.00	7.00	7.00	6.00	6.00	6.00	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	4.50	4.50	5.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00
g_i, Effective Green Time [s]	19	19	8	8	8	6	83	83	4	82	82
g / C, Green / Cycle	0.13	0.13	0.06	0.06	0.06	0.04	0.60	0.60	0.03	0.58	0.58
(v / s)_i Volume / Saturation Flow Rate	0.12	0.02	0.06	0.06	0.05	0.03	0.65	0.67	0.02	0.28	0.28
s, saturation flow rate [veh/h]	1616	1431	1603	1624	1431	1603	1683	1633	1603	3204	1645
c, Capacity [veh/h]	216	191	92	93	82	69	1002	972	51	1871	961
d1, Uniform Delay [s]	59.68	53.72	65.89	65.88	65.29	66.38	28.33	28.33	67.32	16.84	16.84
k, delay calibration	0.17	0.04	0.04	0.04	0.04	0.04	0.50	0.50	0.04	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	18.15	0.15	20.75	20.02	7.36	7.60	54.41	67.01	9.68	0.88	1.72
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.90	0.17	0.97	0.97	0.82	0.80	1.09	1.12	0.79	0.48	0.48
d, Delay for Lane Group [s/veh]	77.82	53.87	86.63	85.89	72.65	73.98	82.74	95.34	77.00	17.73	18.56
Lane Group LOS	E	D	F	F	E	E	F	F	E	B	B
Critical Lane Group	Yes	No	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	7.93	1.02	3.73	3.75	2.56	2.08	45.78	47.84	1.54	8.23	8.68
50th-Percentile Queue Length [ft/ln]	198.30	25.59	93.36	93.87	63.94	51.89	1144.6	1195.9	38.62	205.86	216.95
95th-Percentile Queue Length [veh/ln]	12.55	1.84	6.72	6.76	4.60	3.74	60.96	64.91	2.78	12.94	13.51
95th-Percentile Queue Length [ft/ln]	313.77	46.07	168.04	168.96	115.10	93.40	1524.0	1622.7	69.52	323.51	337.73

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	77.82	77.82	53.87	86.32	85.89	72.65	73.98	88.45	95.34	77.00	17.99	18.56
Movement LOS	E	E	D	F	F	E	E	F	F	E	B	B
d_A, Approach Delay [s/veh]	74.43			82.55			88.67			19.70		
Approach LOS	E			F			F			B		
d_I, Intersection Delay [s/veh]	63.98											
Intersection LOS	E											
Intersection V/C	0.866											

Other Modes

g_Walk,mi, Effective Walk Time [s]	77.0	77.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	14.18	14.18	0.00	59.43
l_p,int, Pedestrian LOS Score for Intersection	2.033	2.175	0.000	3.248
Crosswalk LOS	B	B	F	C
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	307	114	1100	1100
d_b, Bicycle Delay [s]	50.15	62.23	14.18	14.18
l_b,int, Bicycle LOS Score for Intersection	1.933	1.966	3.399	2.329
Bicycle LOS	A	A	C	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 3: Harding Pike & Ridgefield Way

Control Type:	Two-way stop	Delay (sec / veh):	3,232.1
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	5.495

Intersection Setup

Name	Ridgefield Way			HT Ce			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left2	Left	Right	Left	Right	Right2	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	175.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	Ridgefield Way			HT Ce			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	25	0	33	0	0	9	6	1704	27	22	1100	84
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	29	0	38	0	0	10	7	1977	31	26	1277	97
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	0	10	0	0	3	2	537	8	7	347	26
Total Analysis Volume [veh/h]	32	0	41	0	0	11	8	2149	34	28	1388	105
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane				
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	5.50	0.00	0.20	0.00	0.00	0.03	0.02	0.02	0.00	0.12	0.01	0.00
d_M, Delay for Movement [s/veh]	3232.0	0.00	26.28	0.00	0.00	15.28	13.23	0.00	0.00	21.99	0.00	0.00
Movement LOS	F		D			C	B	A	A	C	A	A
95th-Percentile Queue Length [veh/ln]	5.47	0.00	0.71	0.00	0.00	0.05	0.05	0.00	0.00	0.39	0.00	0.00
95th-Percentile Queue Length [ft/ln]	136.68	0.00	17.63	0.00	0.00	1.18	1.37	0.00	0.00	9.77	0.00	0.00
d_A, Approach Delay [s/veh]	1431.55			15.28			0.05			0.40		
Approach LOS	F			C			A			A		
d_I, Intersection Delay [s/veh]	27.76											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 4: Harding Pike & Bosley Spring Road/Woodlawn Drive

Control Type:	Signalized	Delay (sec / veh):	25.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.702

Intersection Setup

Name	Harding Pike			Harding Pike			Bosley Springs			Woodlawn Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	200.00	100.00	100.00	215.00	100.00	100.00	350.00	100.00	100.00	215.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Harding Pike			Harding Pike			Bosley Springs			Woodlawn Drive		
Base Volume Input [veh/h]	141	1371	62	38	1097	27	43	2	54	135	26	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	164	1591	72	44	1273	31	50	2	63	157	30	58
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	45	432	20	12	346	8	14	1	17	43	8	16
Total Analysis Volume [veh/h]	178	1729	78	48	1384	34	54	2	68	171	33	63
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	14.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	4	10	0	4	10	0	8	7	0	7	7	0
Maximum Green [s]	15	60	0	15	60	0	15	15	0	15	15	0
Amber [s]	4.0	4.0	0.0	4.0	4.0	0.0	3.5	3.5	0.0	3.5	3.5	0.0
All red [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.5	0.0	2.5	2.5	0.0
Split [s]	28	82	0	15	69	0	15	27	0	16	28	0
Vehicle Extension [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Walk [s]	0	7	0	0	7	0	0	0	0	0	7	0
Pedestrian Clearance [s]	0	14	0	0	14	0	0	0	0	0	19	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		Yes			Yes			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	4.0	4.0	0.0	4.0	4.0	0.0	3.5	4.0	0.0	4.0	4.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	Yes		No	Yes		No	No		No	No	
Pedestrian Recall	No	Yes		No	Yes		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	50.0	0.0	0.0	50.0	0.0	0.0	50.0	50.0	0.0	50.0	50.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	L	C
C, Cycle Length [s]	140	140	140	140	140	140	140	140	140	140
L, Total Lost Time per Cycle [s]	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	4.00	4.00	0.00	4.00	4.00	0.00	4.00	0.00	4.00
g_i, Effective Green Time [s]	104	94	94	104	91	91	24	8	24	12
g / C, Green / Cycle	0.74	0.67	0.67	0.74	0.65	0.65	0.17	0.06	0.17	0.08
(v / s)_i Volume / Saturation Flow Rate	0.38	0.54	0.55	0.14	0.42	0.42	0.04	0.05	0.12	0.06
s, saturation flow rate [veh/h]	474	1683	1658	332	1683	1669	1357	1437	1430	1508
c, Capacity [veh/h]	334	1133	1116	227	1090	1081	239	86	267	128
d1, Uniform Delay [s]	15.81	16.17	16.46	18.83	15.04	15.07	49.68	65.04	53.62	62.63
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.04	0.04	0.39	0.04
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.99	5.89	6.40	2.12	3.04	3.08	0.18	6.78	8.84	3.32
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.53	0.80	0.81	0.21	0.65	0.65	0.23	0.81	0.64	0.75
d, Delay for Lane Group [s/veh]	21.80	22.05	22.85	20.95	18.08	18.15	49.85	71.81	62.46	65.96
Lane Group LOS	C	C	C	C	B	B	D	E	E	E
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	1.91	20.14	20.60	0.47	13.66	13.61	1.66	2.66	6.25	3.47
50th-Percentile Queue Length [ft/ln]	47.74	503.43	514.89	11.70	341.49	340.13	41.45	66.43	156.33	86.80
95th-Percentile Queue Length [veh/ln]	3.44	27.50	28.04	0.84	19.72	19.65	2.98	4.78	10.35	6.25
95th-Percentile Queue Length [ft/ln]	85.93	687.41	700.96	21.07	493.02	491.36	74.62	119.57	258.85	156.24

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	21.80	22.44	22.85	20.95	18.12	18.15	49.85	71.81	71.81	62.46	65.96	65.96
Movement LOS	C	C	C	C	B	B	D	E	E	E	E	E
d_A, Approach Delay [s/veh]	22.40			18.21			62.25			63.72		
Approach LOS	C			B			E			E		
d_I, Intersection Delay [s/veh]	24.96											
Intersection LOS	C											
Intersection V/C	0.702											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	20.0	20.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	59.43	51.43	51.43
l_p,int, Pedestrian LOS Score for Intersection	0.000	3.190	2.223	2.131
Crosswalk LOS	F	C	B	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1086	900	300	314
d_b, Bicycle Delay [s]	14.63	21.18	50.58	49.73
l_b,int, Bicycle LOS Score for Intersection	3.197	2.769	1.764	2.000
Bicycle LOS	C	C	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 5: Harding Pike and St. Thomas Drive

Control Type:	Signalized	Delay (sec / veh):	45.9
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.773

Intersection Setup

Name	Harding Pike			St Thomas Drive			St. Thomas Drive			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left2	Left	Thru	Left	Right	Right2	Left2	Left	Right	Thru	Right	Right2
Lane Width [ft]	11.00	12.00	11.00	11.00	12.00	12.00	12.00	12.00	11.00	11.00	12.00	11.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	225.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	185.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			25.00			25.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Harding Pike			St Thomas Drive			St. Thomas Drive			Harding Pike		
Base Volume Input [veh/h]	190	0	1281	102	0	0	0	0	28	1127	0	390
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	220	0	1487	118	0	0	0	0	32	1308	0	453
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	60	0	404	32	0	0	0	0	9	355	0	123
Total Analysis Volume [veh/h]	239	0	1616	128	0	0	0	0	35	1422	0	492
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	37.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Overla	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
Signal Group	1	6	6	4	0	0	0	0	4	2	2	0
Auxiliary Signal Groups	1,4,6											
Lead / Lag	Lead	Lead	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	4	20	20	7	0	0	0	0	7	20	20	0
Maximum Green [s]	15	60	60	20	0	0	0	0	20	60	60	0
Amber [s]	4.0	4.0	4.0	3.5	0.0	0.0	0.0	0.0	3.5	4.0	4.0	0.0
All red [s]	1.5	4.0	4.0	3.0	0.0	0.0	0.0	0.0	3.0	4.0	4.0	0.0
Split [s]	16	104	104	36	0	0	0	0	36	88	88	0
Vehicle Extension [s]	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0
Walk [s]	0	0	0	9	0	0	0	0	9	0	0	0
Pedestrian Clearance [s]	0	0	0	17	0	0	0	0	17	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk			No	No					No	No		
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.5	6.0	6.0	4.5	0.0	0.0	0.0	0.0	4.5	6.0	6.0	0.0
Minimum Recall	No		No	No					No	No		
Maximum Recall	No		Yes	No					No	Yes		
Pedestrian Recall	No		No	No					No	No		
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	50.0	50.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	R	C	C
C, Cycle Length [s]	140	140	140	140	140	140
L, Total Lost Time per Cycle [s]	6.75	8.00	6.50	6.50	8.00	8.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	6.00	4.50	4.50	6.00	6.00
g_i, Effective Green Time [s]	132	98	28	28	82	82
g / C, Green / Cycle	0.94	0.70	0.20	0.20	0.58	0.58
(v / s)_i Volume / Saturation Flow Rate	0.33	0.50	0.08	0.02	0.57	0.62
s, saturation flow rate [veh/h]	720	3204	1603	1431	1683	1543
c, Capacity [veh/h]	630	2237	318	284	983	901
d1, Uniform Delay [s]	106.25	12.87	48.90	46.12	28.09	29.12
k, delay calibration	0.50	0.50	0.04	0.04	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.74	2.06	0.31	0.07	23.03	47.88
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.38	0.72	0.40	0.12	0.97	1.06
d, Delay for Lane Group [s/veh]	107.99	14.93	49.20	46.19	51.12	77.01
Lane Group LOS	F	B	D	D	D	F
Critical Lane Group	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.79	14.37	3.99	1.03	34.83	39.85
50th-Percentile Queue Length [ft/ln]	169.79	359.24	99.78	25.70	870.76	996.21
95th-Percentile Queue Length [veh/ln]	11.07	20.59	7.18	1.85	44.51	52.83
95th-Percentile Queue Length [ft/ln]	276.64	514.66	179.61	46.26	1112.73	1320.83

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	107.99	0.00	14.93	49.20	0.00	0.00	0.00	0.00	46.19	59.59	0.00	77.01
Movement LOS	F		B	D					D	E		E
d_A, Approach Delay [s/veh]	26.92			49.20			46.19			64.06		
Approach LOS	C			D			D			E		
d_I, Intersection Delay [s/veh]	45.90											
Intersection LOS	D											
Intersection V/C	0.773											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1371	421	421	1143
d_b, Bicycle Delay [s]	6.91	43.61	43.61	12.86
l_b,int, Bicycle LOS Score for Intersection	3.090	1.560	1.560	3.139
Bicycle LOS	C	A	A	C

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 6: Kenner Avenue & Ridgefield Drive

Control Type:	All-way stop	Delay (sec / veh):	9.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.301

Intersection Setup

Name	Kenner Avenue			Kenner Avenue			Commerical Access			Ridgefield Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Kenner Avenue			Kenner Avenue			Commerical Access			Ridgefield Drive		
Base Volume Input [veh/h]	1	38	161	146	23	1	1	0	0	27	3	158
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	44	187	169	27	1	1	0	0	31	3	183
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	12	51	46	7	0	0	0	0	8	1	50
Total Analysis Volume [veh/h]	1	48	203	184	29	1	1	0	0	34	3	199
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	837	725	647	793
Degree of Utilization, x	0.30	0.30	0.00	0.30

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.27	1.23	0.00	1.25
95th-Percentile Queue Length [ft]	31.77	30.80	0.12	31.22
Approach Delay [s/veh]	9.15	10.03	8.58	9.45
Approach LOS	A	B	A	A
Intersection Delay [s/veh]	9.52			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 7: Ridgefield Drive & Ridgefield Way

Control Type:	Two-way stop	Delay (sec / veh):	13.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.073

Intersection Setup

Name	Ridgefield Way		Ridgefield Drive		Ridgefield Drive	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Ridgefield Way		Ridgefield Drive		Ridgefield Drive	
Base Volume Input [veh/h]	25	15	17	290	168	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	29	17	20	337	195	14
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	5	5	92	53	4
Total Analysis Volume [veh/h]	32	18	22	366	212	15
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.07	0.02	0.02	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	13.92	10.10	7.73	0.00	0.00	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.31	0.31	0.05	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	7.82	7.82	1.25	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	12.55		0.44		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	1.20					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 8: Woodlawn Drive & Ridgefield Drive

Control Type:	All-way stop	Delay (sec / veh):	12.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.584

Intersection Setup

Name	Woodlawn Drive		Ridgefield Drive		Woodlawn Drive	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Thru	Right
Lane Width [ft]	11.00	11.00	12.00	12.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Woodlawn Drive		Ridgefield Drive		Woodlawn Drive	
Base Volume Input [veh/h]	103	22	10	285	179	185
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	120	26	12	331	208	215
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	33	7	3	90	57	58
Total Analysis Volume [veh/h]	130	28	13	360	226	234
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	661	728	788
Degree of Utilization, x	0.24	0.51	0.58

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.93	2.96	3.85
95th-Percentile Queue Length [ft]	23.21	74.02	96.20
Approach Delay [s/veh]	10.15	13.04	13.78
Approach LOS	B	B	B
Intersection Delay [s/veh]	12.92		
Intersection LOS	B		

Intersection Level Of Service Report
Intersection 9: Harding Pike & BMP Central Driveway

Control Type:	Signalized	Delay (sec / veh):	12.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.517

Intersection Setup

Name	Commerical Access			BMP Central Driveway			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			Yes		

Volumes

Name	Commerical Access			BMP Central Driveway			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	10	6	17	59	7	50	12	1222	11	42	1082	30
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.1605	1.0000	1.1605	1.0000	1.0000	1.0000	1.0000	1.1605	1.1605	1.1605	1.1605	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	6	20	59	7	50	12	1418	13	49	1256	30
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	2	5	16	2	14	3	385	4	13	341	8
Total Analysis Volume [veh/h]	13	7	22	64	8	54	13	1541	14	53	1365	33
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	21.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permis	Permis	Permis	Permis	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis
Signal Group	0	8	0	0	4	0	1	6	0	5	2	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	0	7	0	0	7	0	4	10	0	4	10	0
Maximum Green [s]	0	15	0	0	15	0	15	60	0	15	60	0
Amber [s]	0.0	3.5	0.0	0.0	3.5	0.0	4.0	4.0	0.0	4.0	4.0	0.0
All red [s]	0.0	2.5	0.0	0.0	2.5	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Split [s]	0	33	0	0	33	0	15	92	0	15	92	0
Vehicle Extension [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Walk [s]	0	7	0	0	7	0	0	0	0	5	0	0
Pedestrian Clearance [s]	0	18	0	0	18	0	0	0	0	10	0	0
Delayed Vehicle Green [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	4.0	0.0	0.0	4.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	Yes		No	Yes	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	50.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	C	L	C	R
C, Cycle Length [s]	140	140	140	140	140	140	140	140	140	140
L, Total Lost Time per Cycle [s]	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	4.00	4.00	4.00	4.00	0.00	4.00	4.00	0.00	4.00	4.00
g_i, Effective Green Time [s]	14	14	14	14	105	105	105	106	106	106
g / C, Green / Cycle	0.10	0.10	0.10	0.10	0.75	0.75	0.75	0.76	0.76	0.76
(v / s)_i Volume / Saturation Flow Rate	0.01	0.02	0.05	0.04	0.03	0.46	0.46	0.12	0.43	0.02
s, saturation flow rate [veh/h]	1206	1484	1243	1459	414	1683	1678	439	3204	1431
c, Capacity [veh/h]	104	148	133	145	323	1257	1253	294	2437	1088
d1, Uniform Delay [s]	64.76	57.90	64.45	59.28	6.73	8.34	8.35	18.65	6.99	4.11
k, delay calibration	0.04	0.04	0.04	0.04	0.04	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.20	0.24	1.01	0.74	0.02	2.30	2.31	1.34	0.94	0.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.13	0.20	0.48	0.43	0.04	0.62	0.62	0.18	0.56	0.03
d, Delay for Lane Group [s/veh]	64.96	58.14	65.46	60.03	6.75	10.63	10.66	19.98	7.93	4.16
Lane Group LOS	E	E	E	E	A	B	B	B	A	A
Critical Lane Group	No	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.46	0.97	2.31	2.12	0.09	10.23	10.22	0.44	7.43	0.22
50th-Percentile Queue Length [ft/ln]	11.49	24.17	57.74	53.12	2.17	255.65	255.48	10.93	185.70	5.44
95th-Percentile Queue Length [veh/ln]	0.83	1.74	4.16	3.82	0.16	15.47	15.46	0.79	11.90	0.39
95th-Percentile Queue Length [ft/ln]	20.68	43.50	103.93	95.62	3.91	386.76	386.55	19.67	297.44	9.79

Movement, Approach, & Intersection Results

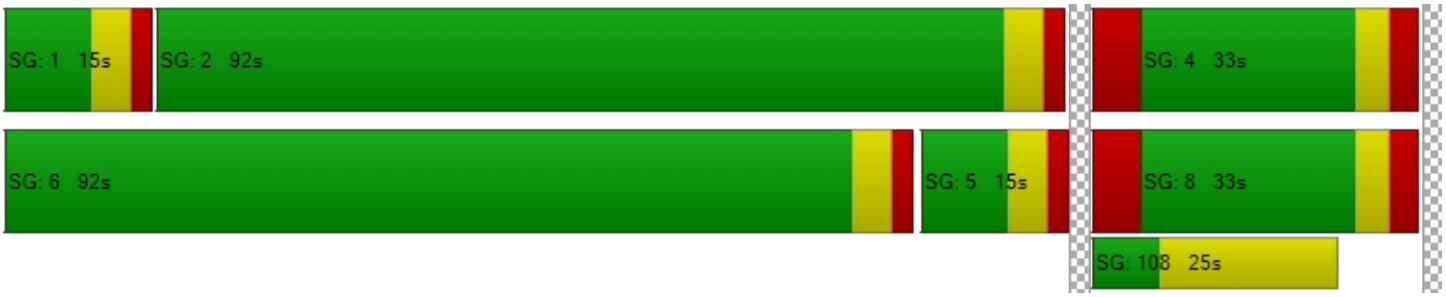
d_M, Delay for Movement [s/veh]	64.96	58.14	58.14	65.46	60.03	60.03	6.75	10.64	10.66	19.98	7.93	4.16
Movement LOS	E	E	E	E	E	E	A	B	B	B	A	A
d_A, Approach Delay [s/veh]	60.25			62.79			10.61			8.28		
Approach LOS	E			E			B			A		
d_I, Intersection Delay [s/veh]	12.27											
Intersection LOS	B											
Intersection V/C	0.517											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	59.43
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	3.232
Crosswalk LOS	F	F	F	C
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	314	314	1229	1229
d_b, Bicycle Delay [s]	49.73	49.73	10.41	10.41
l_b,int, Bicycle LOS Score for Intersection	1.629	1.768	2.853	2.757
Bicycle LOS	A	A	C	C

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 10: Harding Pike & BMP Western Driveway

Control Type:	Two-way stop	Delay (sec / veh):	382.1
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.248

Intersection Setup

Name	Commerical Access			BMP Western Driveway			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	11.00	11.00	12.00	12.00	11.00	10.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	75.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	Commerical Access			BMP Western Driveway			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	0	0	1	3	0	48	112	1251	57	2	1138	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.1605	1.0000	1.1605	1.0000	1.0000	1.0000	1.0000	1.1605	1.1605	1.1605	1.1605	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	1	3	0	48	112	1452	66	2	1321	10
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	1	0	13	30	395	18	1	359	3
Total Analysis Volume [veh/h]	0	0	1	3	0	52	122	1578	72	2	1436	11
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No			
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.25	0.00	0.14	0.26	0.02	0.00	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	396.76	563.81	15.83	382.11	698.40	16.26	15.50	0.00	0.00	14.34	0.00	0.00
Movement LOS	F	F	C	F	F	C	C	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.01	0.63	0.63	0.48	1.04	0.00	0.00	0.02	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.23	0.23	0.23	15.87	15.87	12.06	26.10	0.00	0.00	0.39	0.00	0.00
d_A, Approach Delay [s/veh]	15.83			36.22			1.07			0.02		
Approach LOS	C			E			A			A		
d_I, Intersection Delay [s/veh]	1.20											
Intersection LOS	F											

Table of Contents

Intersection Analysis Summary 2
Intersection Level Of Service Report 3
Intersection 1: Harding Pike & White Bridge Pike 3
Intersection 2: Harding Pike & Kenner Avenue 8
Intersection 3: Harding Pike & Ridgefield Way 13
Intersection 4: Harding Pike & Bosley Spring Road/Woodlawn Drive 15
Intersection 5: Harding Pike and St. Thomas Drive 20
Intersection 6: Kenner Avenue & Ridgefield Drive 25
Intersection 7: Ridgefield Drive & Ridgefield Way 27
Intersection 8: Woodlawn Drive & Ridgefield Drive 29
Intersection 9: Harding Pike & BMP Central Driveway 31
Intersection 10: Harding Pike & BMP Western Driveway 36

Belle Meade Developments - TIS

Vistro File: M:\...\Belle Meade Developments - TIS.vistro
Report File: M:\...\6 - Background 2032 - PM.pdf

Scenario 6 - Background 2032 - PM
12/27/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Harding Pike & White Bridge Pike	Signalized	HCM 6th Edition	SB Right	1.253	160.5	F
2	Harding Pike & Kenner Avenue	Signalized	HCM 6th Edition	SB Right	0.832	82.2	F
3	Harding Pike & Ridgefield Way	Two-way stop	HCM 6th Edition	NBL2	5.254	2,556.6	F
4	Harding Pike & Bosley Spring Road/Woodlawn Drive	Signalized	HCM 6th Edition	WB Left	0.708	33.0	C
5	Harding Pike and St. Thomas Drive	Signalized	HCM 6th Edition	EB Right	0.642	17.2	B
6	Kenner Avenue & Ridgefield Drive	All-way stop	HCM 6th Edition	SB Left	0.366	9.9	A
7	Ridgefield Drive & Ridgefield Way	Two-way stop	HCM 6th Edition	SB Left	0.088	13.9	B
8	Woodlawn Drive & Ridgefield Drive	All-way stop	HCM 6th Edition	WB Right	0.906	25.5	D
9	Harding Pike & BMP Central Driveway	Signalized	HCM 6th Edition	NB Left	0.669	19.5	B
10	Harding Pike & BMP Western Driveway	Two-way stop	HCM 6th Edition	SB Left	0.799	992.4	F

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Harding Pike & White Bridge Pike

Control Type:	Signalized	Delay (sec / veh):	160.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.253

Intersection Setup

Name	Woodmont Boulevard			White Bridge Pike			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	250.00	100.00	100.00	500.00	100.00	200.00	200.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Woodmont Boulevard			White Bridge Pike			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	195	332	51	352	217	274	176	801	122	52	1168	776
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	226	385	59	408	252	318	204	930	142	60	1355	901
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	61	105	16	111	68	86	55	253	39	16	368	245
Total Analysis Volume [veh/h]	246	418	64	443	274	346	222	1011	154	65	1473	979
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	170
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	3.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	ProtPer	Permis	Permis	ProtPer	Permis	Permis
Signal Group	0	8	0	0	7	0	1	6	0	5	2	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	4	10	0	4	10	0
Maximum Green [s]	0	20	0	0	25	0	20	60	0	15	60	0
Amber [s]	0.0	4.0	0.0	0.0	4.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
All red [s]	0.0	2.5	0.0	0.0	2.5	0.0	2.5	2.0	0.0	2.0	2.0	0.0
Split [s]	0	36	0	0	31	0	25	88	0	15	78	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	18	0	0	18	0	0	15	0	0	12	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			Yes			Yes	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	4.5	0.0	0.0	4.5	0.0	4.5	4.0	0.0	4.0	4.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			Yes		No	Yes		No	Yes	
Pedestrian Recall		Yes			Yes		No	Yes		No	Yes	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	50.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	170	170	170	170	170	170	170	170	170	170	170	170
L, Total Lost Time per Cycle [s]	6.50	6.50	6.50	6.50	6.50	6.50	6.00	6.00	6.00	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	4.50	4.50	4.50	4.50	4.50	4.50	0.00	4.00	4.00	0.00	4.00	4.00
g_i, Effective Green Time [s]	30	30	30	25	25	25	97	86	86	97	72	72
g / C, Green / Cycle	0.17	0.17	0.17	0.14	0.14	0.14	0.57	0.51	0.51	0.57	0.42	0.42
(v / s)_i Volume / Saturation Flow Rate	0.15	0.25	0.04	0.14	0.16	0.24	0.47	0.35	0.36	0.12	0.46	0.68
s, saturation flow rate [veh/h]	1603	1683	1431	3113	1683	1431	475	1683	1607	542	3204	1431
c, Capacity [veh/h]	278	292	248	449	243	206	279	851	813	251	1357	606
d1, Uniform Delay [s]	68.59	70.25	60.78	72.60	72.75	72.75	55.25	32.06	32.21	23.94	49.00	49.00
k, delay calibration	0.32	0.50	0.11	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	22.09	212.73	0.54	39.51	97.18	325.48	20.39	4.71	5.05	2.49	51.09	284.72
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.88	1.43	0.26	0.99	1.13	1.68	0.79	0.70	0.70	0.26	1.09	1.62
d, Delay for Lane Group [s/veh]	90.67	282.98	61.32	112.11	169.93	398.23	75.63	36.77	37.26	26.43	100.09	333.72
Lane Group LOS	F	F	E	F	F	F	E	D	D	C	F	F
Critical Lane Group	No	Yes	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	12.08	29.87	2.43	12.04	17.05	27.57	5.95	19.44	18.86	1.32	37.75	73.02
50th-Percentile Queue Length [ft/ln]	301.95	746.74	60.72	300.94	426.37	689.28	148.70	485.89	471.40	33.03	943.63	1825.5
95th-Percentile Queue Length [veh/ln]	17.78	45.38	4.37	17.73	25.22	43.48	9.95	26.67	25.98	2.38	50.84	113.35
95th-Percentile Queue Length [ft/ln]	444.44	1134.4	109.29	443.19	630.42	1087.0	248.69	666.64	649.44	59.45	1270.8	2833.7

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	90.67	282.98	61.32	112.11	169.93	398.23	75.63	36.97	37.26	26.43	100.09	333.72
Movement LOS	F	F	E	F	F	F	E	D	D	C	F	F
d_A, Approach Delay [s/veh]	198.51			220.14			43.19			189.06		
Approach LOS	F			F			D			F		
d_I, Intersection Delay [s/veh]	160.54											
Intersection LOS	F											
Intersection V/C	1.253											

Other Modes

g_Walk,mi, Effective Walk Time [s]	19.0	22.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	67.06	64.42	74.36	74.36
l_p,int, Pedestrian LOS Score for Intersection	2.602	3.196	3.231	3.357
Crosswalk LOS	B	C	C	C
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	347	288	965	847
d_b, Bicycle Delay [s]	58.06	62.27	22.78	28.25
l_b,int, Bicycle LOS Score for Intersection	2.761	3.314	2.704	3.636
Bicycle LOS	C	C	B	D

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 2: Harding Pike & Kenner Avenue

Control Type:	Signalized	Delay (sec / veh):	82.2
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.832

Intersection Setup

Name	Kenner Avenue			Kenner Avenue			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	1	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	200.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Kenner Avenue			Kenner Avenue			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	207	43	17	149	55	182	114	1051	92	9	1480	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	240	50	20	173	64	211	132	1220	107	10	1718	23
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	65	14	5	47	17	57	36	332	29	3	467	6
Total Analysis Volume [veh/h]	261	54	22	188	70	229	143	1326	116	11	1867	25
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	170
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	9.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permis	Permis	Permis	Permis	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis
Signal Group	0	4	0	0	3	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	4	15	0	4	15	0
Maximum Green [s]	0	20	0	0	20	0	15	60	0	15	60	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
All red [s]	0.0	3.5	0.0	0.0	4.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Split [s]	0	36	0	0	22	0	15	96	0	16	97	0
Vehicle Extension [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Walk [s]	0	7	0	0	0	0	0	0	0	0	0	0
Pedestrian Clearance [s]	0	20	0	0	0	0	0	0	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	4.5	0.0	0.0	5.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	Yes		No	Yes	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	50.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	170	170	170	170	170	170	170	170	170	170	170
L, Total Lost Time per Cycle [s]	6.50	6.50	7.00	7.00	7.00	6.00	6.00	6.00	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	4.50	4.50	5.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00
g_i, Effective Green Time [s]	30	30	15	15	15	9	98	98	2	91	91
g / C, Green / Cycle	0.17	0.17	0.09	0.09	0.09	0.05	0.58	0.58	0.01	0.54	0.54
(v / s)_i Volume / Saturation Flow Rate	0.19	0.02	0.08	0.08	0.16	0.09	0.43	0.44	0.01	0.39	0.39
s, saturation flow rate [veh/h]	1616	1431	1603	1645	1431	1603	1683	1636	1603	3204	1672
c, Capacity [veh/h]	280	248	141	145	126	85	973	946	17	1715	895
d1, Uniform Delay [s]	70.25	58.97	76.76	76.76	77.50	80.50	26.66	26.89	83.83	29.99	30.00
k, delay calibration	0.48	0.04	0.08	0.08	0.50	0.31	0.50	0.50	0.04	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	89.89	0.06	13.60	13.32	395.82	338.25	5.24	5.61	15.79	2.70	5.10
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	1.12	0.09	0.90	0.90	1.81	1.69	0.75	0.76	0.67	0.72	0.73
d, Delay for Lane Group [s/veh]	160.14	59.02	90.36	90.08	473.32	418.75	31.90	32.50	99.62	32.69	35.10
Lane Group LOS	F	E	F	F	F	F	C	C	F	C	D
Critical Lane Group	Yes	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	19.34	0.82	6.12	6.27	19.47	11.68	22.64	22.51	0.55	19.54	21.00
50th-Percentile Queue Length [ft/ln]	483.56	20.41	153.06	156.78	486.77	292.02	565.98	562.86	13.83	488.49	525.03
95th-Percentile Queue Length [veh/ln]	28.16	1.47	10.18	10.38	31.45	19.52	30.44	30.30	1.00	26.79	28.52
95th-Percentile Queue Length [ft/ln]	703.93	36.74	254.50	259.45	786.33	487.96	761.06	757.40	24.90	669.72	712.92

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	160.14	160.14	59.02	90.27	90.08	473.32	418.75	32.17	32.50	99.62	33.50	35.10
Movement LOS	F	F	E	F	F	F	F	C	C	F	C	D
d_A, Approach Delay [s/veh]	153.53			270.36			67.07			33.90		
Approach LOS	F			F			E			C		
d_I, Intersection Delay [s/veh]	82.15											
Intersection LOS	F											
Intersection V/C	0.832											

Other Modes

g_Walk,mi, Effective Walk Time [s]	90.0	91.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	18.82	18.36	0.00	74.36
I_p,int, Pedestrian LOS Score for Intersection	2.060	2.249	0.000	3.228
Crosswalk LOS	B	B	F	C
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	347	176	1059	1071
d_b, Bicycle Delay [s]	58.06	70.66	18.82	18.36
I_b,int, Bicycle LOS Score for Intersection	2.116	2.363	2.867	2.606
Bicycle LOS	B	B	C	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 3: Harding Pike & Ridgefield Way

Control Type:	Two-way stop	Delay (sec / veh):	2,556.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	5.254

Intersection Setup

Name	Ridgefield Way			HT Ce			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left2	Left	Right	Left	Right	Right2	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	175.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	Ridgefield Way			HT Ce			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	48	0	36	0	0	36	10	1188	37	9	1442	130
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	56	0	42	0	0	42	12	1379	43	10	1673	151
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	0	11	0	0	11	3	375	12	3	455	41
Total Analysis Volume [veh/h]	61	0	46	0	0	46	13	1499	47	11	1818	164
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane				
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	5.25	0.00	0.13	0.00	0.00	0.19	0.05	0.01	0.00	0.03	0.02	0.00
d_M, Delay for Movement [s/veh]	2556.6	0.00	17.17	0.00	0.00	21.22	18.11	0.00	0.00	13.69	0.00	0.00
Movement LOS	F		C			C	C	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	8.78	0.00	0.46	0.00	0.00	0.31	0.14	0.00	0.00	0.08	0.00	0.00
95th-Percentile Queue Length [ft/ln]	219.48	0.00	11.52	0.00	0.00	7.69	3.54	0.00	0.00	1.99	0.00	0.00
d_A, Approach Delay [s/veh]	1464.91			21.22			0.15			0.08		
Approach LOS	F			C			A			A		
d_I, Intersection Delay [s/veh]	42.67											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 4: Harding Pike & Bosley Spring Road/Woodlawn Drive

Control Type:	Signalized	Delay (sec / veh):	33.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.708

Intersection Setup

Name	Harding Pike			Harding Pike			Bosley Springs			Woodlawn Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	200.00	100.00	100.00	215.00	100.00	100.00	350.00	100.00	100.00	215.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Harding Pike			Harding Pike			Bosley Springs			Woodlawn Drive		
Base Volume Input [veh/h]	23	1028	70	3	1373	4	70	13	99	160	7	47
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	1193	81	3	1593	5	81	15	115	186	8	55
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	324	22	1	433	1	22	4	31	51	2	15
Total Analysis Volume [veh/h]	29	1297	88	3	1732	5	88	16	125	202	9	60
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	170
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	26.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	4	10	0	4	10	0	8	7	0	7	7	0
Maximum Green [s]	15	60	0	15	60	0	15	15	0	15	15	0
Amber [s]	4.0	4.0	0.0	4.0	4.0	0.0	3.5	3.5	0.0	3.5	3.5	0.0
All red [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.5	0.0	2.5	2.5	0.0
Split [s]	15	93	0	17	95	0	28	45	0	15	32	0
Vehicle Extension [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Walk [s]	0	7	0	0	7	0	0	0	0	0	7	0
Pedestrian Clearance [s]	0	14	0	0	14	0	0	0	0	0	19	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		Yes			Yes			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	4.0	4.0	0.0	4.0	4.0	0.0	3.5	4.0	0.0	4.0	4.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	Yes		No	Yes		No	No		No	No	
Pedestrian Recall	No	Yes		No	Yes		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	50.0	0.0	0.0	50.0	0.0	0.0	50.0	50.0	0.0	50.0	50.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	L	C
C, Cycle Length [s]	170	170	170	170	170	170	170	170	170	170
L, Total Lost Time per Cycle [s]	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	4.00	4.00	0.00	4.00	4.00	0.00	4.00	0.00	4.00
g_i, Effective Green Time [s]	115	109	109	115	106	106	43	28	43	28
g / C, Green / Cycle	0.68	0.64	0.64	0.68	0.63	0.63	0.25	0.16	0.25	0.16
(v / s)_i Volume / Saturation Flow Rate	0.09	0.42	0.42	0.01	0.52	0.52	0.07	0.10	0.16	0.05
s, saturation flow rate [veh/h]	332	1683	1646	401	1683	1681	1320	1455	1268	1459
c, Capacity [veh/h]	185	1076	1052	241	1051	1050	345	238	281	240
d1, Uniform Delay [s]	24.71	18.93	18.99	14.69	24.75	24.76	50.49	65.83	59.54	62.27
k, delay calibration	0.50	0.50	0.50	0.04	0.50	0.50	0.04	0.04	0.50	0.04
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.80	3.04	3.15	0.01	7.44	7.47	0.14	0.88	14.60	0.24
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.16	0.65	0.65	0.01	0.83	0.83	0.26	0.59	0.72	0.29
d, Delay for Lane Group [s/veh]	26.51	21.97	22.14	14.70	32.18	32.23	50.63	66.71	74.15	62.51
Lane Group LOS	C	C	C	B	C	C	D	E	E	E
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.44	17.26	17.03	0.04	27.96	27.98	3.06	5.81	8.64	2.67
50th-Percentile Queue Length [ft/ln]	11.07	431.39	425.76	0.90	699.05	699.40	76.44	145.30	216.12	66.65
95th-Percentile Queue Length [veh/ln]	0.80	24.07	23.80	0.07	36.63	36.65	5.50	9.77	13.47	4.80
95th-Percentile Queue Length [ft/ln]	19.93	601.71	594.96	1.63	915.85	916.26	137.59	244.15	336.66	119.97

Movement, Approach, & Intersection Results

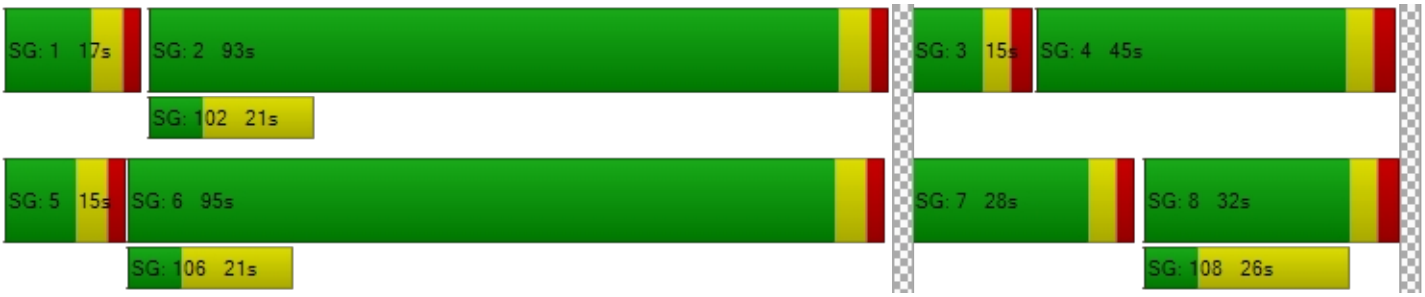
d_M, Delay for Movement [s/veh]	26.51	22.05	22.14	14.70	32.21	32.23	50.63	66.71	66.71	74.15	62.51	62.51
Movement LOS	C	C	C	B	C	C	D	E	E	E	E	E
d_A, Approach Delay [s/veh]	22.15			32.18			60.53			71.18		
Approach LOS	C			C			E			E		
d_I, Intersection Delay [s/veh]	32.96											
Intersection LOS	C											
Intersection V/C	0.708											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	20.0	20.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	74.36	66.18	66.18
l_p,int, Pedestrian LOS Score for Intersection	0.000	3.180	2.066	2.091
Crosswalk LOS	F	C	B	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1024	1047	459	306
d_b, Bicycle Delay [s]	20.26	19.30	50.47	60.99
l_b,int, Bicycle LOS Score for Intersection	2.726	2.995	1.937	2.007
Bicycle LOS	B	C	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Harding Pike and St. Thomas Drive

Control Type:	Signalized	Delay (sec / veh):	17.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.642

Intersection Setup

Name	Harding Pike			St Thomas Drive			St. Thomas Drive			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left2	Left	Thru	Left	Right	Right2	Left2	Left	Right	Thru	Right	Right2
Lane Width [ft]	11.00	12.00	11.00	11.00	12.00	12.00	12.00	12.00	11.00	11.00	12.00	11.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	225.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	185.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			25.00			25.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Harding Pike			St Thomas Drive			St. Thomas Drive			Harding Pike		
Base Volume Input [veh/h]	19	0	1139	115	0	0	0	0	117	1329	0	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	22	0	1322	133	0	0	0	0	136	1542	0	58
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	0	359	36	0	0	0	0	37	419	0	16
Total Analysis Volume [veh/h]	24	0	1437	145	0	0	0	0	148	1676	0	63
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	170
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	37.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Overla	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis	Permis
Signal Group	1	6	6	4	0	0	0	0	4	2	2	0
Auxiliary Signal Groups	1,4,6											
Lead / Lag	Lead	Lead	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	4	20	20	7	0	0	0	0	7	20	20	0
Maximum Green [s]	15	60	60	20	0	0	0	0	20	60	60	0
Amber [s]	4.0	4.0	4.0	3.5	0.0	0.0	0.0	0.0	3.5	4.0	4.0	0.0
All red [s]	1.5	4.0	4.0	3.0	0.0	0.0	0.0	0.0	3.0	4.0	4.0	0.0
Split [s]	15	133	133	37	0	0	0	0	37	118	118	0
Vehicle Extension [s]	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0
Walk [s]	0	0	0	9	0	0	0	0	9	0	0	0
Pedestrian Clearance [s]	0	0	0	17	0	0	0	0	17	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk			No	No					No	No		
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.5	6.0	6.0	4.5	0.0	0.0	0.0	0.0	4.5	6.0	6.0	0.0
Minimum Recall	No		No	No					No	No		
Maximum Recall	No		Yes	No					No	Yes		
Pedestrian Recall	No		No	No					No	No		
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	50.0	50.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	R	C	C
C, Cycle Length [s]	170	170	170	170	170	170
L, Total Lost Time per Cycle [s]	6.75	8.00	6.50	6.50	8.00	8.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	6.00	4.50	4.50	6.00	6.00
g_i, Effective Green Time [s]	162	136	20	20	127	127
g / C, Green / Cycle	0.95	0.80	0.12	0.12	0.75	0.75
(v / s)_i Volume / Saturation Flow Rate	0.05	0.45	0.09	0.10	0.52	0.52
s, saturation flow rate [veh/h]	525	3204	1603	1431	1683	1662
c, Capacity [veh/h]	489	2554	188	168	1258	1243
d1, Uniform Delay [s]	66.96	6.34	72.78	73.83	11.19	11.34
k, delay calibration	0.04	0.50	0.04	0.04	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.02	0.90	2.50	6.01	3.13	3.30
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.05	0.56	0.77	0.88	0.69	0.70
d, Delay for Lane Group [s/veh]	66.97	7.24	75.28	79.84	14.32	14.64
Lane Group LOS	E	A	E	E	B	B
Critical Lane Group	Yes	No	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]	0.87	8.43	6.35	6.72	16.47	16.73
50th-Percentile Queue Length [ft/ln]	21.83	210.82	158.81	168.07	411.77	418.21
95th-Percentile Queue Length [veh/ln]	1.57	13.20	10.49	10.98	23.13	23.44
95th-Percentile Queue Length [ft/ln]	39.29	329.88	262.15	274.38	578.16	585.90

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	66.97	0.00	7.24	75.28	0.00	0.00	0.00	0.00	79.84	14.47	0.00	14.64
Movement LOS	E		A	E					E	B		B
d_A, Approach Delay [s/veh]	8.22			75.28			79.84			14.48		
Approach LOS	A			E			E			B		
d_I, Intersection Delay [s/veh]	17.16											
Intersection LOS	B											
Intersection V/C	0.642											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1471	359	359	1294
d_b, Bicycle Delay [s]	5.96	57.24	57.24	10.59
I_b,int, Bicycle LOS Score for Intersection	2.765	1.560	1.560	2.994
Bicycle LOS	C	A	A	C

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 6: Kenner Avenue & Ridgefield Drive

Control Type:	All-way stop	Delay (sec / veh):	9.9
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.366

Intersection Setup

Name	Kenner Avenue			Kenner Avenue			Commerical Access			Ridgefield Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Kenner Avenue			Kenner Avenue			Commerical Access			Ridgefield Drive		
Base Volume Input [veh/h]	0	38	33	140	67	0	0	1	2	30	0	213
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	44	38	162	78	0	0	1	2	35	0	247
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	12	10	44	21	0	0	0	1	10	0	67
Total Analysis Volume [veh/h]	0	48	41	176	85	0	0	1	2	38	0	268
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	764	736	751	835
Degree of Utilization, x	0.12	0.35	0.00	0.37

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.39	1.61	0.01	1.69
95th-Percentile Queue Length [ft]	9.85	40.17	0.30	42.30
Approach Delay [s/veh]	8.34	10.56	7.82	9.78
Approach LOS	A	B	A	A
Intersection Delay [s/veh]	9.89			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 7: Ridgefield Drive & Ridgefield Way

Control Type:	Two-way stop	Delay (sec / veh):	13.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.088

Intersection Setup

Name	Ridgefield Way		Ridgefield Drive		Ridgefield Drive	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Ridgefield Way		Ridgefield Drive		Ridgefield Drive	
Base Volume Input [veh/h]	32	19	22	159	225	90
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	37	22	26	185	261	104
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	6	7	50	71	28
Total Analysis Volume [veh/h]	40	24	28	201	284	113
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.09	0.03	0.02	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	13.88	11.08	8.18	0.00	0.00	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.41	0.41	0.07	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	10.37	10.37	1.85	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	12.83		1.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	1.52					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 8: Woodlawn Drive & Ridgefield Drive

Control Type:	All-way stop	Delay (sec / veh):	25.5
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.906

Intersection Setup

Name	Woodlawn Drive		Ridgefield Drive		Woodlawn Drive	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Thru	Right
Lane Width [ft]	11.00	11.00	12.00	12.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Woodlawn Drive		Ridgefield Drive		Woodlawn Drive	
Base Volume Input [veh/h]	134	36	36	172	274	281
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	156	42	42	200	318	326
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	42	11	11	54	86	89
Total Analysis Volume [veh/h]	170	46	46	217	346	354
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	656	656	773
Degree of Utilization, x	0.33	0.40	0.91

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.44	1.93	12.27
95th-Percentile Queue Length [ft]	35.92	48.30	306.84
Approach Delay [s/veh]	11.17	12.11	34.90
Approach LOS	B	B	D
Intersection Delay [s/veh]	25.47		
Intersection LOS	D		

Intersection Level Of Service Report
Intersection 9: Harding Pike & BMP Central Driveway

Control Type:	Signalized	Delay (sec / veh):	19.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.669

Intersection Setup

Name	Commerical Access			BMP Central Driveway			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			Yes		

Volumes

Name	Commerical Access			BMP Central Driveway			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	41	7	36	79	5	98	51	1000	11	6	1476	56
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.1605	1.0000	1.1605	1.0000	1.0000	1.0000	1.0000	1.1605	1.1605	1.1605	1.1605	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	48	7	42	79	5	98	51	1161	13	7	1713	56
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	2	11	21	1	27	14	315	4	2	465	15
Total Analysis Volume [veh/h]	52	8	46	86	5	107	55	1262	14	8	1862	61
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	170
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	3.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permis	Permis	Permis	Permis	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis
Signal Group	0	8	0	0	4	0	1	6	0	5	2	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	0	7	0	0	7	0	4	10	0	4	10	0
Maximum Green [s]	0	15	0	0	15	0	15	60	0	15	60	0
Amber [s]	0.0	3.5	0.0	0.0	3.5	0.0	4.0	4.0	0.0	4.0	4.0	0.0
All red [s]	0.0	2.5	0.0	0.0	2.5	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Split [s]	0	31	0	0	31	0	15	124	0	15	124	0
Vehicle Extension [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Walk [s]	0	7	0	0	7	0	0	0	0	5	0	0
Pedestrian Clearance [s]	0	18	0	0	18	0	0	0	0	10	0	0
Delayed Vehicle Green [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	4.0	0.0	0.0	4.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	Yes		No	Yes	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	50.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	C	L	C	R
C, Cycle Length [s]	170	170	170	170	170	170	170	170	170	170
L, Total Lost Time per Cycle [s]	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	4.00	4.00	4.00	4.00	0.00	4.00	4.00	0.00	4.00	4.00
g_i, Effective Green Time [s]	24	24	24	24	127	127	127	125	125	125
g / C, Green / Cycle	0.14	0.14	0.14	0.14	0.75	0.75	0.75	0.73	0.73	0.73
(v / s)_i Volume / Saturation Flow Rate	0.05	0.04	0.07	0.08	0.19	0.38	0.38	0.02	0.58	0.04
s, saturation flow rate [veh/h]	1153	1463	1215	1440	294	1683	1676	481	3204	1431
c, Capacity [veh/h]	108	205	159	202	202	1256	1251	309	2346	1047
d1, Uniform Delay [s]	79.22	65.26	74.73	68.15	22.05	8.81	8.81	16.71	14.56	6.37
k, delay calibration	0.04	0.04	0.04	0.04	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.25	0.25	1.06	0.89	3.31	1.47	1.48	0.16	2.86	0.11
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.48	0.26	0.54	0.56	0.27	0.51	0.51	0.03	0.79	0.06
d, Delay for Lane Group [s/veh]	80.46	65.51	75.80	69.04	25.37	10.29	10.30	16.86	17.43	6.48
Lane Group LOS	F	E	E	E	C	B	B	B	B	A
Critical Lane Group	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.32	2.14	3.75	4.66	0.68	9.40	9.37	0.09	21.60	0.62
50th-Percentile Queue Length [ft/ln]	57.97	53.56	93.81	116.49	16.92	234.97	234.32	2.20	540.07	15.59
95th-Percentile Queue Length [veh/ln]	4.17	3.86	6.75	8.20	1.22	14.43	14.39	0.16	29.23	1.12
95th-Percentile Queue Length [ft/ln]	104.35	96.41	168.85	204.99	30.45	360.67	359.84	3.96	730.64	28.06

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	80.46	65.51	65.51	75.80	69.04	69.04	25.37	10.29	10.30	16.86	17.43	6.48
Movement LOS	F	E	E	E	E	E	C	B	B	B	B	A
d_A, Approach Delay [s/veh]	72.85			71.97			10.91			17.08		
Approach LOS	E			E			B			B		
d_I, Intersection Delay [s/veh]	19.48											
Intersection LOS	B											
Intersection V/C	0.669											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	74.36
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	3.326
Crosswalk LOS	F	F	F	C
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	235	235	1388	1388
d_b, Bicycle Delay [s]	66.18	66.18	7.95	7.95
I_b,int, Bicycle LOS Score for Intersection	1.735	1.886	2.658	3.153
Bicycle LOS	A	A	B	C

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 10: Harding Pike & BMP Western Driveway

Control Type:	Two-way stop	Delay (sec / veh):	992.4
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.799

Intersection Setup

Name	Commerical Access			BMP Western Driveway			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	11.00	11.00	12.00	12.00	11.00	10.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	75.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	Commerical Access			BMP Western Driveway			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	1	0	14	5	0	86	59	1054	7	2	1614	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.1605	1.0000	1.1605	1.0000	1.0000	1.0000	1.0000	1.1605	1.1605	1.1605	1.1605	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	0	16	5	0	86	59	1223	8	2	1873	13
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	4	1	0	23	16	332	2	1	509	4
Total Analysis Volume [veh/h]	1	0	17	5	0	93	64	1329	9	2	2036	14
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No			
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.13	0.00	0.04	0.80	0.00	0.40	0.24	0.01	0.00	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	495.86	791.03	21.35	992.42	1189.5	30.02	22.39	0.00	0.00	12.07	0.00	0.00
Movement LOS	F	F	C	F	F	D	C	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	0.61	0.61	0.61	1.29	1.29	1.79	0.90	0.00	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	15.19	15.19	15.19	32.33	32.33	44.65	22.47	0.00	0.00	0.29	0.00	0.00
d_A, Approach Delay [s/veh]	47.71			79.12			1.02			0.01		
Approach LOS	E			F			A			A		
d_I, Intersection Delay [s/veh]	2.82											
Intersection LOS	F											

PROJECTED CONDITIONS CAPACITY ANALYSES

Table of Contents

Intersection Analysis Summary 2
Intersection Level Of Service Report 3
Intersection 1: Harding Pike & White Bridge Pike 3
Intersection 2: Harding Pike & Kenner Avenue 8
Intersection 3: Harding Pike & Ridgefield Way 13
Intersection 4: Harding Pike & Bosley Spring Road/Woodlawn Drive 15
Intersection 5: Harding Pike and St. Thomas Drive 20
Intersection 6: Kenner Avenue & Ridgefield Drive 25
Intersection 7: Ridgefield Drive & Ridgefield Way 27
Intersection 8: Woodlawn Drive & Ridgefield Drive 29
Intersection 9: Harding Pike & BMP Central Driveway 31
Intersection 10: Harding Pike & BMP Western Driveway 36
Intersection 105: Harding Pike and HTC Driveway/RW Driveway A 38
Intersection 1087: Ridgefield Drive & RW Driveway C 40
Intersection 1088: Ridgefield Drive and RW Driveway B 42

Belle Meade Developments - TIS

Vistro File: M:\...\Belle Meade Developments - TIS.vistro
Report File: M:\...\7 - Projected 2027 - AM.pdf

Scenario 7 - Projected 2027 - AM
1/10/2023

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Harding Pike & White Bridge Pike	Signalized	HCM 6th Edition	SB Left	0.853	92.3	F
2	Harding Pike & Kenner Avenue	Signalized	HCM 6th Edition	SB Right	0.894	69.3	E
3	Harding Pike & Ridgefield Way	Two-way stop	HCM 6th Edition	NB Left	0.000	10,000.0	F
4	Harding Pike & Bosley Spring Road/Woodlawn Drive	Signalized	HCM 6th Edition	EB Right	0.712	28.5	C
5	Harding Pike and St. Thomas Drive	Signalized	HCM 6th Edition	NBL2	0.724	33.4	C
6	Kenner Avenue & Ridgefield Drive	All-way stop	HCM 6th Edition	SB Left	0.300	9.5	A
7	Ridgefield Drive & Ridgefield Way	Two-way stop	HCM 6th Edition	SB Left	0.086	14.0	B
8	Woodlawn Drive & Ridgefield Drive	All-way stop	HCM 6th Edition	WB Right	0.559	12.5	B
9	Harding Pike & BMP Central Driveway	Signalized	HCM 6th Edition	SB Left	0.549	15.3	B
10	Harding Pike & BMP Western Driveway	Two-way stop	HCM 6th Edition	SB Right	0.142	15.8	C
105	Harding Pike and HTC Driveway/RW Driveway A	Two-way stop	HCM 6th Edition	NB Left	2.982	1,696.4	F
1087	Ridgefield Drive & RW Driveway C	Two-way stop	HCM 6th Edition	SB Left	0.027	13.4	B
1088	Ridgefield Drive and RW Driveway B	Two-way stop	HCM 6th Edition	WB Left	0.007	10.2	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Harding Pike & White Bridge Pike

Control Type:	Signalized	Delay (sec / veh):	92.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.853

Intersection Setup

Name	Woodmont Boulevard			White Bridge Pike			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	250.00	100.00	100.00	500.00	100.00	200.00	200.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Woodmont Boulevard			White Bridge Pike			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	205	173	70	511	231	281	75	1101	112	54	860	342
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	21	0	58	58	0	21	29	112	29	67	104	67
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	-55	0	0	0	0	-55	-16	-30	-16	0	-108	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	187	186	133	609	249	269	94	1268	134	125	922	435
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	51	51	36	165	68	73	26	345	36	34	251	118
Total Analysis Volume [veh/h]	203	202	145	662	271	292	102	1378	146	136	1002	473
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Signal Group	0	8	0	0	7	0	1	6	0	5	2	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	4	10	0	4	10	0
Maximum Green [s]	0	20	0	0	25	0	20	60	0	15	60	0
Amber [s]	0.0	4.0	0.0	0.0	4.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
All red [s]	0.0	2.5	0.0	0.0	2.5	0.0	2.5	2.0	0.0	2.0	2.0	0.0
Split [s]	0	32	0	0	32	0	16	61	0	15	60	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	18	0	0	18	0	0	15	0	0	12	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			Yes			Yes	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	4.5	0.0	0.0	4.5	0.0	4.5	4.0	0.0	4.0	4.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			Yes		No	Yes		No	Yes	
Pedestrian Recall		Yes			Yes		No	Yes		No	Yes	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	50.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	140	140	140	140	140	140	140	140	140	140	140	140
L, Total Lost Time per Cycle [s]	6.50	6.50	6.50	6.50	6.50	6.50	6.00	6.00	6.00	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	4.50	4.50	4.50	4.50	4.50	4.50	0.00	4.00	4.00	0.00	4.00	4.00
g_i, Effective Green Time [s]	25	25	25	26	26	26	70	56	56	70	57	57
g / C, Green / Cycle	0.18	0.18	0.18	0.18	0.18	0.18	0.50	0.40	0.40	0.50	0.41	0.41
(v / s)_i Volume / Saturation Flow Rate	0.13	0.12	0.10	0.21	0.16	0.20	0.19	0.46	0.46	0.25	0.31	0.33
s, saturation flow rate [veh/h]	1603	1683	1431	3113	1683	1431	526	1683	1627	537	3204	1431
c, Capacity [veh/h]	286	301	256	567	307	261	252	673	651	222	1311	585
d1, Uniform Delay [s]	54.07	53.66	52.55	57.25	55.81	57.25	26.02	42.01	42.01	31.06	35.58	36.53
k, delay calibration	0.18	0.16	0.11	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.28	3.71	1.97	93.31	28.84	92.11	4.79	81.15	88.31	12.01	4.29	11.46
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.71	0.67	0.57	1.17	0.88	1.12	0.41	1.14	1.16	0.61	0.76	0.81
d, Delay for Lane Group [s/veh]	59.34	57.37	54.52	150.56	84.64	149.36	30.81	123.16	130.32	43.07	39.86	47.99
Lane Group LOS	E	E	D	F	F	F	C	F	F	D	D	D
Critical Lane Group	Yes	No	No	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	7.07	6.88	4.76	17.22	11.65	15.74	2.07	37.59	37.65	3.11	15.09	15.74
50th-Percentile Queue Length [ft/ln]	176.71	171.90	118.89	430.38	291.27	393.42	51.86	939.84	941.18	77.85	377.26	393.38
95th-Percentile Queue Length [veh/ln]	11.43	11.18	8.33	25.91	17.25	23.54	3.73	52.31	52.86	5.60	21.46	22.24
95th-Percentile Queue Length [ft/ln]	285.72	279.41	208.30	647.71	431.22	588.55	93.36	1307.74	1321.41	140.12	536.53	556.02

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	59.34	57.37	54.52	150.56	84.64	149.36	30.81	126.32	130.32	43.07	39.86	47.99
Movement LOS	E	E	D	F	F	F	C	F	F	D	D	D
d_A, Approach Delay [s/veh]	57.35			135.69			120.69			42.52		
Approach LOS	E			F			F			D		
d_I, Intersection Delay [s/veh]	92.28											
Intersection LOS	F											
Intersection V/C	0.853											

Other Modes

g_Walk,mi, Effective Walk Time [s]	19.0	22.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	52.29	49.73	59.43	59.43
l_p,int, Pedestrian LOS Score for Intersection	2.586	2.962	3.151	3.296
Crosswalk LOS	B	C	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	364	364	786	771
d_b, Bicycle Delay [s]	46.82	46.82	25.80	26.41
l_b,int, Bicycle LOS Score for Intersection	2.467	3.581	2.901	2.889
Bicycle LOS	B	D	C	C

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 2: Harding Pike & Kenner Avenue

Control Type:	Signalized	Delay (sec / veh):	69.3
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.894

Intersection Setup

Name	Kenner Avenue			Kenner Avenue			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	1	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	200.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Kenner Avenue			Kenner Avenue			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	127	27	25	122	20	53	44	1575	148	32	1030	47
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	5	0	0	43	0	225	3	1	195	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	-30	0	0	-108	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	137	29	32	131	22	100	47	1892	162	35	1197	51
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	37	8	9	36	6	27	13	514	44	10	325	14
Total Analysis Volume [veh/h]	149	32	35	142	24	109	51	2057	176	38	1301	55
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	23.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	4	0	0	3	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	4	15	0	4	15	0
Maximum Green [s]	0	20	0	0	20	0	15	60	0	15	60	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
All red [s]	0.0	3.5	0.0	0.0	4.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Split [s]	0	28	0	0	15	0	14	83	0	14	83	0
Vehicle Extension [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Walk [s]	0	7	0	0	0	0	0	0	0	0	0	0
Pedestrian Clearance [s]	0	20	0	0	0	0	0	0	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	4.5	0.0	0.0	5.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	Yes		No	Yes	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	50.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	140	140	140	140	140	140	140	140	140	140	140
L, Total Lost Time per Cycle [s]	6.50	6.50	7.00	7.00	7.00	6.00	6.00	6.00	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	4.50	4.50	5.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00
g_i, Effective Green Time [s]	18	18	8	8	8	6	85	85	4	83	83
g / C, Green / Cycle	0.13	0.13	0.06	0.06	0.06	0.04	0.61	0.61	0.03	0.59	0.59
(v / s)_i Volume / Saturation Flow Rate	0.11	0.02	0.05	0.05	0.08	0.03	0.66	0.68	0.02	0.28	0.28
s, saturation flow rate [veh/h]	1616	1431	1603	1625	1431	1603	1683	1637	1603	3204	1648
c, Capacity [veh/h]	204	181	92	93	82	64	1017	990	48	1905	980
d1, Uniform Delay [s]	60.18	54.78	65.61	65.60	66.00	66.62	27.69	27.69	67.45	15.98	15.98
k, delay calibration	0.13	0.04	0.04	0.04	0.04	0.04	0.50	0.50	0.04	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	14.49	0.19	11.43	11.11	156.80	7.99	58.81	70.74	10.12	0.84	1.62
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.89	0.19	0.90	0.90	1.33	0.79	1.10	1.13	0.79	0.47	0.47
d, Delay for Lane Group [s/veh]	74.67	54.97	77.04	76.71	222.80	74.62	86.50	98.43	77.58	16.82	17.60
Lane Group LOS	E	D	E	E	F	E	F	F	E	B	B
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	7.21	1.13	3.25	3.28	6.51	1.93	47.52	49.52	1.47	7.94	8.38
50th-Percentile Queue Length [ft/ln]	180.19	28.34	81.25	81.97	162.72	48.34	1188.12	1237.96	36.86	198.40	209.44
95th-Percentile Queue Length [veh/ln]	11.61	2.04	5.85	5.90	11.53	3.48	63.66	67.47	2.65	12.56	13.12
95th-Percentile Queue Length [ft/ln]	290.26	51.02	146.25	147.55	288.13	87.02	1591.43	1686.72	66.34	313.90	328.12

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	74.67	74.67	54.97	76.90	76.71	222.80	74.62	91.95	98.43	77.58	17.06	17.60
Movement LOS	E	E	D	E	E	F	E	F	F	E	B	B
d_A, Approach Delay [s/veh]	71.48			134.71			92.07			18.73		
Approach LOS	E			F			F			B		
d_I, Intersection Delay [s/veh]	69.29											
Intersection LOS	E											
Intersection V/C	0.894											

Other Modes

g_Walk,mi, Effective Walk Time [s]	77.0	77.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	14.18	14.18	0.00	59.43
l_p,int, Pedestrian LOS Score for Intersection	2.027	2.179	0.000	3.260
Crosswalk LOS	B	B	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	307	114	1100	1100
d_b, Bicycle Delay [s]	50.15	62.23	14.18	14.18
l_b,int, Bicycle LOS Score for Intersection	1.916	2.013	3.444	2.326
Bicycle LOS	A	B	C	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 3: Harding Pike & Ridgefield Way

Control Type:	Two-way stop	Delay (sec / veh):	10,000.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	Ridgefield Way			HTC Central Access Road			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	175.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	Ridgefield Way			HTC Central Access Road			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	25	0	33	0	0	9	6	1704	27	22	1100	84
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	73	3	18	28	5	44	68	132	30	18	79	26
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	100	3	54	28	5	54	74	1968	59	42	1264	116
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	27	1	15	8	1	15	20	535	16	11	343	32
Total Analysis Volume [veh/h]	109	3	59	30	5	59	80	2139	64	46	1374	126
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	1.44	0.29	0.00	2.28	0.17	0.18	0.02	0.00	0.20	0.01	0.00
d_M, Delay for Movement [s/veh]	10000.0	2212.09	506.80	10000.0	2477.90	847.46	14.91	0.00	0.00	23.97	0.00	0.00
Movement LOS	F	F	F	F	F	F	B	A	A	C	A	A
95th-Percentile Queue Length [veh/ln]	16.16	6.71	6.71	5.72	7.80	7.80	0.65	0.00	0.00	0.71	0.00	0.00
95th-Percentile Queue Length [ft/ln]	403.88	167.79	167.79	142.94	195.10	195.10	16.30	0.00	0.00	17.69	0.00	0.00
d_A, Approach Delay [s/veh]	6587.94			3855.21			0.52			0.71		
Approach LOS	F			F			A			A		
d_I, Intersection Delay [s/veh]	364.25											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 4: Harding Pike & Bosley Spring Road/Woodlawn Drive

Control Type:	Signalized	Delay (sec / veh):	28.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.712

Intersection Setup

Name	Harding Pike			Harding Pike			Bosley Springs			Woodlawn Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	200.00	100.00	100.00	215.00	100.00	100.00	350.00	100.00	100.00	215.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Harding Pike			Harding Pike			Bosley Springs			Woodlawn Drive		
Base Volume Input [veh/h]	141	1371	62	38	1097	27	43	2	54	135	26	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	46	116	4	5	89	34	37	11	29	4	8	6
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	-30	0	0	-108	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	198	1563	71	46	1163	63	83	13	87	149	36	60
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	54	425	19	13	316	17	23	4	24	40	10	16
Total Analysis Volume [veh/h]	215	1699	77	50	1264	68	90	14	95	162	39	65
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	14.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	4	10	0	4	10	0	8	7	0	7	7	0
Maximum Green [s]	15	60	0	15	60	0	15	15	0	15	15	0
Amber [s]	4.0	4.0	0.0	4.0	4.0	0.0	3.5	3.5	0.0	3.5	3.5	0.0
All red [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.5	0.0	2.5	2.5	0.0
Split [s]	28	82	0	15	69	0	15	27	0	16	28	0
Vehicle Extension [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Walk [s]	0	7	0	0	7	0	0	0	0	0	7	0
Pedestrian Clearance [s]	0	14	0	0	14	0	0	0	0	0	19	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		Yes			Yes			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	4.0	4.0	0.0	4.0	4.0	0.0	3.5	4.0	0.0	4.0	4.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	Yes		No	Yes		No	No		No	No	
Pedestrian Recall	No	Yes		No	Yes		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	50.0	0.0	0.0	50.0	0.0	0.0	50.0	50.0	0.0	50.0	50.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	L	C
C, Cycle Length [s]	140	140	140	140	140	140	140	140	140	140
L, Total Lost Time per Cycle [s]	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	4.00	4.00	0.00	4.00	4.00	0.00	4.00	0.00	4.00
g_i, Effective Green Time [s]	100	90	90	100	85	85	28	12	28	15
g / C, Green / Cycle	0.71	0.64	0.64	0.71	0.61	0.61	0.20	0.09	0.20	0.10
(v / s)_i Volume / Saturation Flow Rate	0.41	0.53	0.54	0.15	0.40	0.40	0.07	0.07	0.12	0.07
s, saturation flow rate [veh/h]	527	1683	1658	343	1683	1653	1346	1459	1376	1516
c, Capacity [veh/h]	350	1083	1067	218	1020	1002	272	130	270	158
d1, Uniform Delay [s]	18.82	18.82	19.14	21.29	18.06	18.10	47.42	62.81	49.88	60.34
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.04	0.04	0.38	0.04
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.86	6.96	7.61	2.44	3.32	3.41	0.26	5.48	7.28	1.76
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.61	0.82	0.83	0.23	0.66	0.66	0.33	0.84	0.60	0.66
d, Delay for Lane Group [s/veh]	26.67	25.78	26.75	23.73	21.38	21.50	47.68	68.29	57.16	62.10
Lane Group LOS	C	C	C	C	C	C	D	E	E	E
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	2.72	21.86	22.36	0.56	14.29	14.13	2.72	4.06	5.61	3.65
50th-Percentile Queue Length [ft/ln]	68.07	546.48	559.08	13.88	357.22	353.19	68.04	101.47	140.29	91.15
95th-Percentile Queue Length [veh/ln]	4.90	29.53	30.12	1.00	20.49	20.29	4.90	7.31	9.50	6.56
95th-Percentile Queue Length [ft/ln]	122.53	738.18	752.96	24.98	512.20	507.30	122.47	182.64	237.41	164.08

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	26.67	26.24	26.75	23.73	21.44	21.50	47.68	68.29	68.29	57.16	62.10	62.10
Movement LOS	C	C	C	C	C	C	D	E	E	E	E	E
d_A, Approach Delay [s/veh]	26.31			21.52			58.97			59.09		
Approach LOS	C			C			E			E		
d_I, Intersection Delay [s/veh]	28.55											
Intersection LOS	C											
Intersection V/C	0.712											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	20.0	20.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	59.43	51.43	51.43
I_p,int, Pedestrian LOS Score for Intersection	0.000	3.177	2.286	2.135
Crosswalk LOS	F	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1086	900	300	314
d_b, Bicycle Delay [s]	14.63	21.18	50.58	49.73
I_b,int, Bicycle LOS Score for Intersection	3.202	2.700	1.888	1.999
Bicycle LOS	C	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 5: Harding Pike and St. Thomas Drive

Control Type:	Signalized	Delay (sec / veh):	33.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.724

Intersection Setup

Name	Harding Pike			St Thomas Drive			St. Thomas Drive			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left2	Left	Thru	Left	Right	Right2	Left2	Left	Right	Thru	Right	Right2
Lane Width [ft]	11.00	12.00	11.00	11.00	12.00	12.00	12.00	12.00	11.00	11.00	12.00	11.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	225.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	185.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			25.00			25.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Harding Pike			St Thomas Drive			St. Thomas Drive			Harding Pike		
Base Volume Input [veh/h]	190	0	1281	102	0	0	0	0	28	1127	0	390
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	158	0	0	0	0	0	0	127	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	-30	0	0	0	0	0	0	-108	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	205	0	1508	110	0	0	0	0	30	1233	0	420
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	56	0	410	30	0	0	0	0	8	335	0	114
Total Analysis Volume [veh/h]	223	0	1639	120	0	0	0	0	33	1340	0	457
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	37.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Overlap	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	6	4	0	0	0	0	4	2	2	0
Auxiliary Signal Groups	1,4,6											
Lead / Lag	Lead	Lead	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	4	20	20	7	0	0	0	0	7	20	20	0
Maximum Green [s]	15	60	60	20	0	0	0	0	20	60	60	0
Amber [s]	4.0	4.0	4.0	3.5	0.0	0.0	0.0	0.0	3.5	4.0	4.0	0.0
All red [s]	1.5	4.0	4.0	3.0	0.0	0.0	0.0	0.0	3.0	4.0	4.0	0.0
Split [s]	16	104	104	36	0	0	0	0	36	88	88	0
Vehicle Extension [s]	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0
Walk [s]	0	0	0	9	0	0	0	0	9	0	0	0
Pedestrian Clearance [s]	0	0	0	17	0	0	0	0	17	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk			No	No					No	No		
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.5	6.0	6.0	4.5	0.0	0.0	0.0	0.0	4.5	6.0	6.0	0.0
Minimum Recall	No		No	No					No	No		
Maximum Recall	No		Yes	No					No	Yes		
Pedestrian Recall	No		No	No					No	No		
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	50.0	50.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	R	C	C
C, Cycle Length [s]	140	140	140	140	140	140
L, Total Lost Time per Cycle [s]	6.75	8.00	6.50	6.50	8.00	8.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	6.00	4.50	4.50	6.00	6.00
g_i, Effective Green Time [s]	132	100	25	25	84	84
g / C, Green / Cycle	0.94	0.72	0.18	0.18	0.60	0.60
(v / s)_i Volume / Saturation Flow Rate	0.32	0.51	0.07	0.02	0.53	0.58
s, saturation flow rate [veh/h]	707	3204	1603	1431	1683	1544
c, Capacity [veh/h]	612	2301	286	255	1016	933
d1, Uniform Delay [s]	102.69	11.39	51.08	48.37	23.57	26.27
k, delay calibration	0.50	0.50	0.04	0.04	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.68	1.91	0.37	0.08	11.13	21.85
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.36	0.71	0.42	0.13	0.88	0.96
d, Delay for Lane Group [s/veh]	104.37	13.30	51.45	48.46	34.70	48.12
Lane Group LOS	F	B	D	D	C	D
Critical Lane Group	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.47	13.44	3.83	0.99	26.45	31.64
50th-Percentile Queue Length [ft/ln]	161.71	336.11	95.64	24.87	661.37	791.08
95th-Percentile Queue Length [veh/ln]	10.64	19.46	6.89	1.79	34.89	40.87
95th-Percentile Queue Length [ft/ln]	265.98	486.44	172.15	44.76	872.25	1021.71

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	104.37	0.00	13.30	51.45	0.00	0.00	0.00	0.00	48.46	39.12	0.00	48.12
Movement LOS	F		B	D					D	D		D
d_A, Approach Delay [s/veh]	24.20			51.45			48.46			41.41		
Approach LOS	C			D			D			D		
d_I, Intersection Delay [s/veh]	33.38											
Intersection LOS	C											
Intersection V/C	0.724											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1371	421	421	1143
d_b, Bicycle Delay [s]	6.91	43.61	43.61	12.86
l_b,int, Bicycle LOS Score for Intersection	3.096	1.560	1.560	3.042
Bicycle LOS	C	A	A	C

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 6: Kenner Avenue & Ridgefield Drive

Control Type:	All-way stop	Delay (sec / veh):	9.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.300

Intersection Setup

Name	Kenner Avenue			Kenner Avenue			Commerical Access			Ridgefield Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Kenner Avenue			Kenner Avenue			Commerical Access			Ridgefield Drive		
Base Volume Input [veh/h]	1	38	161	146	23	1	1	0	0	27	3	158
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	5	9	3	1	0	0	0	0	16	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	46	182	160	26	1	1	0	0	45	3	170
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	13	49	43	7	0	0	0	0	12	1	46
Total Analysis Volume [veh/h]	1	50	198	174	28	1	1	0	0	49	3	185
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	837	725	650	790
Degree of Utilization, x	0.30	0.28	0.00	0.30

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.25	1.15	0.00	1.26
95th-Percentile Queue Length [ft]	31.22	28.66	0.12	31.58
Approach Delay [s/veh]	9.11	9.89	8.54	9.50
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	9.47			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 7: Ridgefield Drive & Ridgefield Way

Control Type:	Two-way stop	Delay (sec / veh):	14.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.086

Intersection Setup

Name	Ridgefield Way		Ridgefield Drive		Ridgefield Drive	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Ridgefield Way		Ridgefield Drive		Ridgefield Drive	
Base Volume Input [veh/h]	25	15	17	290	168	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	8	8	5	8	8	17
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	24	23	320	189	30
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	7	6	87	51	8
Total Analysis Volume [veh/h]	38	26	25	348	205	33
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.09	0.03	0.02	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	14.00	10.28	7.76	0.00	0.00	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.40	0.40	0.06	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	9.92	9.92	1.44	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	12.49		0.52		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	1.47					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 8: Woodlawn Drive & Ridgefield Drive

Control Type:	All-way stop	Delay (sec / veh):	12.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.559

Intersection Setup

Name	Woodlawn Drive		Ridgefield Drive		Woodlawn Drive	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Thru	Right
Lane Width [ft]	11.00	11.00	12.00	12.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Woodlawn Drive		Ridgefield Drive		Woodlawn Drive	
Base Volume Input [veh/h]	103	22	10	285	179	185
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	10	10	8	7	5	9
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	121	34	19	314	198	208
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	33	9	5	85	54	57
Total Analysis Volume [veh/h]	132	37	21	341	215	226
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	675	728	789
Degree of Utilization, x	0.25	0.50	0.56

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.99	2.80	3.52
95th-Percentile Queue Length [ft]	24.70	69.89	88.02
Approach Delay [s/veh]	10.11	12.73	13.20
Approach LOS	B	B	B
Intersection Delay [s/veh]	12.49		
Intersection LOS	B		

Intersection Level Of Service Report
Intersection 9: Harding Pike & BMP Central Driveway

Control Type:	Signalized	Delay (sec / veh):	15.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.549

Intersection Setup

Name	Commerical Access			BMP Central Driveway			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			Yes		

Volumes

Name	Commerical Access			BMP Central Driveway			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	10	6	17	59	7	50	12	1222	11	42	1082	30
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0000	1.0773	1.0000	1.0000	1.0000	1.0000	1.0773	1.0773	1.0773	1.0773	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	116	0	31	57	54	0	0	87	59
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	-6	0	-59	-7	-50	-12	-3	0	0	-10	-30
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	0	18	116	0	31	57	1367	12	45	1243	59
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	5	32	0	8	15	371	3	12	338	16
Total Analysis Volume [veh/h]	12	0	20	126	0	34	62	1486	13	49	1351	64
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	21.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Signal Group	0	8	0	0	4	0	1	6	0	5	2	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	0	7	0	0	7	0	4	10	0	4	10	0
Maximum Green [s]	0	15	0	0	15	0	15	60	0	15	60	0
Amber [s]	0.0	3.5	0.0	0.0	3.5	0.0	4.0	4.0	0.0	4.0	4.0	0.0
All red [s]	0.0	2.5	0.0	0.0	2.5	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Split [s]	0	33	0	0	33	0	15	92	0	15	92	0
Vehicle Extension [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Walk [s]	0	7	0	0	7	0	0	0	0	5	0	0
Pedestrian Clearance [s]	0	18	0	0	18	0	0	0	0	10	0	0
Delayed Vehicle Green [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	4.0	0.0	0.0	4.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	Yes		No	Yes	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	50.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	C	L	C	R
C, Cycle Length [s]	140	140	140	140	140	140	140	140	140	140
L, Total Lost Time per Cycle [s]	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	4.00	4.00	4.00	4.00	0.00	4.00	4.00	0.00	4.00	4.00
g_i, Effective Green Time [s]	19	19	19	19	99	99	99	99	99	99
g / C, Green / Cycle	0.14	0.14	0.14	0.14	0.71	0.71	0.71	0.71	0.71	0.71
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.10	0.02	0.14	0.45	0.45	0.11	0.42	0.04
s, saturation flow rate [veh/h]	1237	1431	1253	1431	441	1683	1678	466	3204	1431
c, Capacity [veh/h]	182	195	195	195	306	1194	1190	272	2268	1012
d1, Uniform Delay [s]	56.55	52.93	61.06	53.46	10.92	10.67	10.68	26.51	10.34	6.26
k, delay calibration	0.04	0.04	0.04	0.04	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.06	0.08	1.35	0.16	1.48	2.51	2.53	1.45	1.16	0.12
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.07	0.10	0.65	0.17	0.20	0.63	0.63	0.18	0.60	0.06
d, Delay for Lane Group [s/veh]	56.61	53.01	62.42	53.61	12.40	13.19	13.21	27.96	11.51	6.38
Lane Group LOS	E	D	E	D	B	B	B	C	B	A
Critical Lane Group	No	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.39	0.63	4.53	1.09	0.64	11.60	11.59	0.51	9.73	0.57
50th-Percentile Queue Length [ft/ln]	9.80	15.79	113.13	27.13	15.98	289.94	289.72	12.87	243.24	14.27
95th-Percentile Queue Length [veh/ln]	0.71	1.14	8.01	1.95	1.15	17.18	17.17	0.93	14.85	1.03
95th-Percentile Queue Length [ft/ln]	17.64	28.42	200.34	48.83	28.76	429.56	429.29	23.16	371.13	25.69

Movement, Approach, & Intersection Results

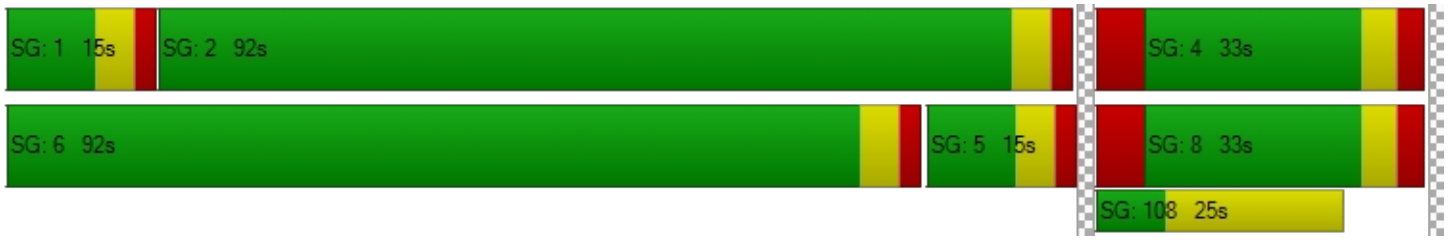
d_M, Delay for Movement [s/veh]	56.61	53.01	53.01	62.42	53.61	53.61	12.40	13.20	13.21	27.96	11.51	6.38
Movement LOS	E	D	D	E	D	D	B	B	B	C	B	A
d_A, Approach Delay [s/veh]	54.36			60.55			13.17			11.83		
Approach LOS	D			E			B			B		
d_I, Intersection Delay [s/veh]	15.33											
Intersection LOS	B											
Intersection V/C	0.549											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	59.43
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	3.324
Crosswalk LOS	F	F	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	314	314	1229	1229
d_b, Bicycle Delay [s]	49.73	49.73	10.41	10.41
I_b,int, Bicycle LOS Score for Intersection	1.612	1.824	2.847	2.767
Bicycle LOS	A	A	C	C

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 10: Harding Pike & BMP Western Driveway

Control Type:	Two-way stop	Delay (sec / veh):	15.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.142

Intersection Setup

Name	Commerical Access			BMP Western Driveway			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	11.00	11.00	12.00	12.00	11.00	10.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	75.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	Commerical Access			BMP Western Driveway			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	0	0	1	3	0	48	112	1251	57	2	1138	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0000	1.0773	1.0000	1.0000	1.0000	1.0000	1.0773	1.0773	1.0773	1.0773	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	51	2	111	0	0	94	24
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	-3	0	-48	-112	-12	0	0	-50	-10
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	1	0	0	51	2	1447	61	2	1270	24
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	14	1	393	17	1	345	7
Total Analysis Volume [veh/h]	0	0	1	0	0	55	2	1573	66	2	1380	26
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No			
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.02	0.00	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	196.01	0.00	15.79	0.00	0.00	15.82	0.00	0.00	0.00	14.25	0.00	0.00
Movement LOS	F		C			C		A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.00	0.01	0.00	0.00	0.49	0.00	0.00	0.00	0.02	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.22	0.00	0.22	0.00	0.00	12.26	0.00	0.00	0.00	0.39	0.00	0.00
d_A, Approach Delay [s/veh]	15.79			15.82			0.00			0.02		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	0.29											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 105: Harding Pike and HTC Driveway/RW Driveway A

Control Type:	Two-way stop	Delay (sec / veh):	1,696.4
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.982

Intersection Setup

Name	RW Driveway A			HTC Driveway			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	RW Driveway A			HTC Driveway			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	0	0	0	0	0	0	0	1650	0	0	1250	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	9	0	16	0	0	0	0	150	28	8	114	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	11	0	12	0	0	0	0	-12	12	11	-11	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	-30	0	0	-108	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	0	28	0	0	0	0	1886	40	19	1342	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	0	8	0	0	0	0	513	11	5	365	0
Total Analysis Volume [veh/h]	22	0	30	0	0	0	0	2050	43	21	1459	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	2.98	0.00	0.13	0.00	0.00	0.00	0.00	0.02	0.00	0.08	0.01	0.00
d_M, Delay for Movement [s/veh]	1696.42	1917.01	1224.41	323.47	737.75	14.86	12.84	0.00	0.00	20.05	0.00	0.00
Movement LOS	F	F	F	F	F	B	B	A	A	C	A	A
95th-Percentile Queue Length [veh/ln]	7.14	7.14	7.14	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00
95th-Percentile Queue Length [ft/ln]	178.59	178.59	178.59	0.00	0.00	0.00	0.00	0.00	0.00	6.53	0.00	0.00
d_A, Approach Delay [s/veh]	1424.11			358.69			0.00			0.28		
Approach LOS	F			F			A			A		
d_I, Intersection Delay [s/veh]	20.54											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 1087: Ridgefield Drive & RW Driveway C

Control Type:	Two-way stop	Delay (sec / veh):	13.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.027

Intersection Setup

Name	RW Driveway C		Ridgefield Drive		Ridgefield Drive	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	RW Driveway C		Ridgefield Drive		Ridgefield Drive	
Base Volume Input [veh/h]	0	0	0	315	180	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	19	11	4	6	8
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	19	11	343	200	8
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	5	3	93	54	2
Total Analysis Volume [veh/h]	12	21	12	373	217	9
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.03	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	13.36	9.72	7.71	0.00	0.00	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.17	0.17	0.03	0.03	0.00	0.00
95th-Percentile Queue Length [ft/ln]	4.15	4.15	0.68	0.68	0.00	0.00
d_A, Approach Delay [s/veh]	11.04		0.24		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.71					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 1088: Ridgefield Drive and RW Driveway B

Control Type:	Two-way stop	Delay (sec / veh):	10.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.007

Intersection Setup

Name	Ridgefield Way		Ridgefield Way		RW Driveway B	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Ridgefield Way		Ridgefield Way		RW Driveway B	
Base Volume Input [veh/h]	40	0	0	40	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	19	4	42	11	5	74
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	62	4	42	54	5	74
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	1	11	15	1	20
Total Analysis Volume [veh/h]	67	4	46	59	5	80
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.03	0.00	0.01	0.08
d_M, Delay for Movement [s/veh]	0.00	0.00	7.43	0.00	10.19	8.97
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.09	0.09	0.29	0.29
95th-Percentile Queue Length [ft/ln]	0.00	0.00	2.32	2.32	7.15	7.15
d_A, Approach Delay [s/veh]	0.00		3.25		9.05	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.25					
Intersection LOS	B					

Table of Contents

Intersection Analysis Summary 2
Intersection Level Of Service Report 3
Intersection 1: Harding Pike & White Bridge Pike 3
Intersection 2: Harding Pike & Kenner Avenue 8
Intersection 3: Harding Pike & Ridgefield Way 13
Intersection 4: Harding Pike & Bosley Spring Road/Woodlawn Drive 15
Intersection 5: Harding Pike and St. Thomas Drive 20
Intersection 6: Kenner Avenue & Ridgefield Drive 25
Intersection 7: Ridgefield Drive & Ridgefield Way 27
Intersection 8: Woodlawn Drive & Ridgefield Drive 29
Intersection 9: Harding Pike & BMP Central Driveway 31
Intersection 10: Harding Pike & BMP Western Driveway 36
Intersection 105: Harding Pike and HTC Driveway/RW Driveway A 38
Intersection 1087: Ridgefield Drive & RW Driveway C 40
Intersection 1088: Ridgefield Drive and RW Driveway B 42

Belle Meade Developments - TIS

Vistro File: M:\...\Belle Meade Developments - TIS.vistro
Report File: M:\...\8 - Projected 2027 - PM.pdf
Scenario 8 - Projected 2027 - PM
1/10/2023

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Harding Pike & White Bridge Pike	Signalized	HCM 6th Edition	WB Right	1.218	150.2	F
2	Harding Pike & Kenner Avenue	Signalized	HCM 6th Edition	SB Right	0.859	83.8	F
3	Harding Pike & Ridgefield Way	Two-way stop	HCM 6th Edition	NB Left	0.000	10,000.0	F
4	Harding Pike & Bosley Spring Road/Woodlawn Drive	Signalized	HCM 6th Edition	WB Left	0.740	37.9	D
5	Harding Pike and St. Thomas Drive	Signalized	HCM 6th Edition	EB Right	0.633	16.1	B
6	Kenner Avenue & Ridgefield Drive	All-way stop	HCM 6th Edition	SB Left	0.366	9.8	A
7	Ridgefield Drive & Ridgefield Way	Two-way stop	HCM 6th Edition	SB Left	0.122	14.5	B
8	Woodlawn Drive & Ridgefield Drive	All-way stop	HCM 6th Edition	WB Right	0.875	22.8	C
9	Harding Pike & BMP Central Driveway	Signalized	HCM 6th Edition	SB Left	0.702	20.4	C
10	Harding Pike & BMP Western Driveway	Two-way stop	HCM 6th Edition	NB Left	0.078	290.0	F
105	Harding Pike and HTC Driveway/RW Driveway A	Two-way stop	HCM 6th Edition	NB Left	1.156	609.1	F
1087	Ridgefield Drive & RW Driveway C	Two-way stop	HCM 6th Edition	SB Left	0.041	14.4	B
1088	Ridgefield Drive and RW Driveway B	Two-way stop	HCM 6th Edition	WB Left	0.015	12.4	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Harding Pike & White Bridge Pike

Control Type:	Signalized	Delay (sec / veh):	150.2
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.218

Intersection Setup

Name	Woodmont Boulevard			White Bridge Pike			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	250.00	100.00	100.00	500.00	100.00	200.00	200.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Woodmont Boulevard			White Bridge Pike			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	195	332	51	352	217	274	176	801	122	52	1168	776
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	34	0	85	85	0	34	35	141	30	72	137	72
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	-40	0	0	0	0	-41	-21	-42	-21	0	-80	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	204	358	140	464	234	288	204	962	140	128	1315	908
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	55	97	38	126	64	78	55	261	38	35	357	247
Total Analysis Volume [veh/h]	222	389	152	504	254	313	222	1046	152	139	1429	987
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	170
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	3.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Signal Group	0	8	0	0	7	0	1	6	0	5	2	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	4	10	0	4	10	0
Maximum Green [s]	0	20	0	0	25	0	20	60	0	15	60	0
Amber [s]	0.0	4.0	0.0	0.0	4.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
All red [s]	0.0	2.5	0.0	0.0	2.5	0.0	2.5	2.0	0.0	2.0	2.0	0.0
Split [s]	0	36	0	0	31	0	25	88	0	15	78	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	18	0	0	18	0	0	15	0	0	12	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			Yes			Yes	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	4.5	0.0	0.0	4.5	0.0	4.5	4.0	0.0	4.0	4.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			Yes		No	Yes		No	Yes	
Pedestrian Recall		Yes			Yes		No	Yes		No	Yes	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	50.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	170	170	170	170	170	170	170	170	170	170	170	170
L, Total Lost Time per Cycle [s]	6.50	6.50	6.50	6.50	6.50	6.50	6.00	6.00	6.00	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	4.50	4.50	4.50	4.50	4.50	4.50	0.00	4.00	4.00	0.00	4.00	4.00
g_i, Effective Green Time [s]	30	30	30	25	25	25	97	82	82	97	72	72
g / C, Green / Cycle	0.17	0.17	0.17	0.14	0.14	0.14	0.57	0.48	0.48	0.57	0.42	0.42
(v / s)_i Volume / Saturation Flow Rate	0.14	0.23	0.11	0.16	0.15	0.22	0.46	0.36	0.37	0.24	0.45	0.69
s, saturation flow rate [veh/h]	1603	1683	1431	3113	1683	1431	478	1683	1610	578	3204	1431
c, Capacity [veh/h]	278	292	248	449	243	206	279	812	777	269	1357	606
d1, Uniform Delay [s]	67.39	70.25	64.96	72.75	72.75	72.75	55.30	35.66	35.85	27.93	49.00	49.00
k, delay calibration	0.26	0.50	0.13	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	11.74	170.99	2.98	80.71	70.71	256.45	20.42	6.31	6.81	6.96	39.66	290.57
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.80	1.33	0.61	1.12	1.05	1.52	0.79	0.75	0.76	0.52	1.05	1.63
d, Delay for Lane Group [s/veh]	79.13	241.24	67.95	153.46	143.46	329.20	75.72	41.97	42.66	34.90	88.66	339.57
Lane Group LOS	E	F	E	F	F	F	E	D	D	C	F	F
Critical Lane Group	No	Yes	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	10.10	26.48	6.28	14.75	15.27	23.62	5.95	21.58	21.03	3.10	35.59	74.00
50th-Percentile Queue Length [ft/ln]	252.60	662.09	156.89	368.65	381.79	590.45	148.75	539.44	525.67	77.44	889.79	1850.12
95th-Percentile Queue Length [veh/ln]	15.32	39.79	10.38	22.19	22.17	37.02	9.95	29.20	28.55	5.58	47.20	115.07
95th-Percentile Queue Length [ft/ln]	382.92	994.85	259.60	554.85	554.28	925.54	248.77	729.89	713.68	139.40	1179.88	2876.71

Movement, Approach, & Intersection Results

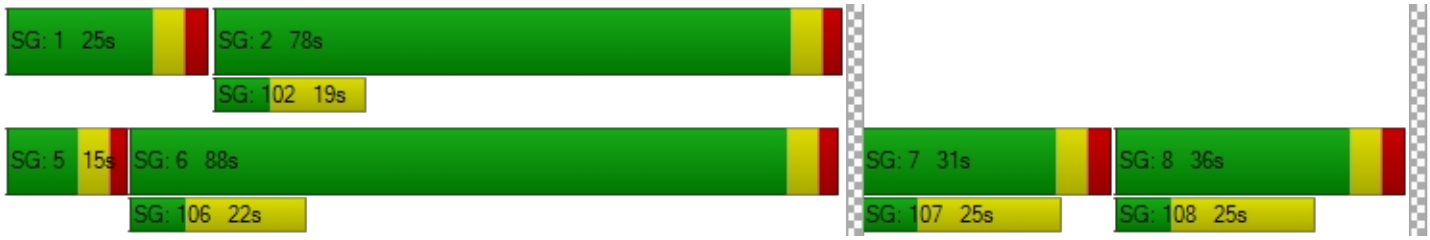
d_M, Delay for Movement [s/veh]	79.13	241.24	67.95	153.46	143.46	329.20	75.72	42.26	42.66	34.90	88.66	339.57
Movement LOS	E	F	E	F	F	F	E	D	D	C	F	F
d_A, Approach Delay [s/veh]	159.55			202.45			47.53			182.66		
Approach LOS	F			F			D			F		
d_I, Intersection Delay [s/veh]	150.24											
Intersection LOS	F											
Intersection V/C	1.218											

Other Modes

g_Walk,mi, Effective Walk Time [s]	19.0	22.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	67.06	64.42	74.36	74.36
l_p,int, Pedestrian LOS Score for Intersection	2.680	3.193	3.216	3.405
Crosswalk LOS	B	C	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	347	288	965	847
d_b, Bicycle Delay [s]	58.06	62.27	22.78	28.25
l_b,int, Bicycle LOS Score for Intersection	2.819	3.327	2.731	3.667
Bicycle LOS	C	C	B	D

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Harding Pike & Kenner Avenue

Control Type:	Signalized	Delay (sec / veh):	83.8
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.859

Intersection Setup

Name	Kenner Avenue			Kenner Avenue			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	1	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	200.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Kenner Avenue			Kenner Avenue			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	207	43	17	149	55	182	114	1051	92	9	1480	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	6	0	0	36	0	304	7	1	245	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	-42	0	0	-80	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	223	46	24	161	59	232	123	1394	106	11	1759	22
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	61	13	7	44	16	63	33	379	29	3	478	6
Total Analysis Volume [veh/h]	242	50	26	175	64	252	134	1515	115	12	1912	24
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	170
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	9.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	4	0	0	3	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	4	15	0	4	15	0
Maximum Green [s]	0	20	0	0	20	0	15	60	0	15	60	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
All red [s]	0.0	3.5	0.0	0.0	4.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Split [s]	0	36	0	0	22	0	15	96	0	16	97	0
Vehicle Extension [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Walk [s]	0	7	0	0	0	0	0	0	0	0	0	0
Pedestrian Clearance [s]	0	20	0	0	0	0	0	0	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	4.5	0.0	0.0	5.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	Yes		No	Yes	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	50.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	170	170	170	170	170	170	170	170	170	170	170
L, Total Lost Time per Cycle [s]	6.50	6.50	7.00	7.00	7.00	6.00	6.00	6.00	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	4.50	4.50	5.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00
g_i, Effective Green Time [s]	30	30	15	15	15	9	98	98	2	91	91
g / C, Green / Cycle	0.17	0.17	0.09	0.09	0.09	0.05	0.58	0.58	0.01	0.54	0.54
(v / s)_i Volume / Saturation Flow Rate	0.18	0.02	0.07	0.07	0.18	0.08	0.49	0.49	0.01	0.40	0.40
s, saturation flow rate [veh/h]	1616	1431	1603	1644	1431	1603	1683	1642	1603	3204	1672
c, Capacity [veh/h]	280	248	141	145	126	85	972	948	18	1715	895
d1, Uniform Delay [s]	70.25	59.13	76.28	76.28	77.50	80.50	29.57	30.03	83.78	30.44	30.45
k, delay calibration	0.41	0.04	0.04	0.04	0.50	0.27	0.50	0.50	0.04	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	59.88	0.07	4.88	4.76	475.36	288.63	8.81	9.82	16.05	2.94	5.52
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	1.04	0.10	0.83	0.83	2.00	1.58	0.84	0.86	0.68	0.74	0.74
d, Delay for Lane Group [s/veh]	130.13	59.20	81.15	81.04	552.86	369.13	38.37	39.85	99.83	33.37	35.97
Lane Group LOS	F	E	F	F	F	F	D	D	F	C	D
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	17.00	0.97	5.34	5.47	22.26	10.51	28.83	29.23	0.60	20.32	21.87
50th-Percentile Queue Length [ft/ln]	425.12	24.20	133.41	136.74	556.49	262.79	720.83	730.80	15.07	507.94	546.84
95th-Percentile Queue Length [veh/ln]	24.28	1.74	9.12	9.30	35.83	17.68	37.64	38.10	1.08	27.71	29.54
95th-Percentile Queue Length [ft/ln]	606.96	43.55	228.12	232.62	895.67	441.89	940.99	952.47	27.12	692.75	738.60

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	130.13	130.13	59.20	81.12	81.04	552.86	369.13	39.05	39.85	99.83	34.24	35.97
Movement LOS	F	F	E	F	F	F	F	D	D	F	C	D
d_A, Approach Delay [s/veh]	124.33			323.22			64.18			34.67		
Approach LOS	F			F			E			C		
d_I, Intersection Delay [s/veh]	83.83											
Intersection LOS	F											
Intersection V/C	0.859											

Other Modes

g_Walk,mi, Effective Walk Time [s]	90.0	91.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	18.82	18.36	0.00	74.36
l_p,int, Pedestrian LOS Score for Intersection	2.053	2.247	0.000	3.277
Crosswalk LOS	B	B	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	347	176	1059	1071
d_b, Bicycle Delay [s]	58.06	70.66	18.82	18.36
l_b,int, Bicycle LOS Score for Intersection	2.084	2.370	3.015	2.631
Bicycle LOS	B	B	C	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 3: Harding Pike & Ridgefield Way

Control Type:	Two-way stop	Delay (sec / veh):	10,000.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	Ridgefield Way			HTC Central Access Road			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	175.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	Ridgefield Way			HTC Central Access Road			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	48	0	36	0	0	36	10	1188	37	9	1442	130
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	105	3	27	24	4	36	74	170	66	40	104	28
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	-42	0	0	-80	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	157	3	66	24	4	75	85	1408	106	50	1577	168
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	43	1	18	7	1	20	23	383	29	14	429	46
Total Analysis Volume [veh/h]	171	3	72	26	4	82	92	1530	115	54	1714	183
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	1.24	0.23	0.00	1.56	0.31	0.30	0.02	0.00	0.14	0.02	0.00
d_M, Delay for Movement [s/veh]	10000.0	1834.65	360.45	10000.0	1936.07	541.40	21.40	0.00	0.00	15.73	0.00	0.00
Movement LOS	F	F	F	F	F	F	C	A	A	C	A	A
95th-Percentile Queue Length [veh/ln]	24.04	7.00	7.00	5.15	8.72	8.72	1.21	0.00	0.00	0.48	0.00	0.00
95th-Percentile Queue Length [ft/ln]	601.05	174.91	174.91	128.63	218.11	218.11	30.24	0.00	0.00	11.95	0.00	0.00
d_A, Approach Delay [s/veh]	7079.09			2786.95			1.13			0.44		
Approach LOS	F			F			A			A		
d_I, Intersection Delay [s/veh]	508.26											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 4: Harding Pike & Bosley Spring Road/Woodlawn Drive

Control Type:	Signalized	Delay (sec / veh):	37.9
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.740

Intersection Setup

Name	Harding Pike			Harding Pike			Bosley Springs			Woodlawn Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	200.00	100.00	100.00	215.00	100.00	100.00	350.00	100.00	100.00	215.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Harding Pike			Harding Pike			Bosley Springs			Woodlawn Drive		
Base Volume Input [veh/h]	23	1028	70	3	1373	4	70	13	99	160	7	47
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	50	131	4	10	149	37	31	9	24	5	9	9
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	-42	0	0	-80	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	75	1196	79	13	1548	41	106	23	131	177	17	60
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	325	21	4	421	11	29	6	36	48	5	16
Total Analysis Volume [veh/h]	82	1300	86	14	1683	45	115	25	142	192	18	65
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	170
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	26.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	4	10	0	4	10	0	8	7	0	7	7	0
Maximum Green [s]	15	60	0	15	60	0	15	15	0	15	15	0
Amber [s]	4.0	4.0	0.0	4.0	4.0	0.0	3.5	3.5	0.0	3.5	3.5	0.0
All red [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.5	0.0	2.5	2.5	0.0
Split [s]	15	93	0	17	95	0	28	45	0	15	32	0
Vehicle Extension [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Walk [s]	0	7	0	0	7	0	0	0	0	0	7	0
Pedestrian Clearance [s]	0	14	0	0	14	0	0	0	0	0	19	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		Yes			Yes			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	4.0	4.0	0.0	4.0	4.0	0.0	3.5	4.0	0.0	4.0	4.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	Yes		No	Yes		No	No		No	No	
Pedestrian Recall	No	Yes		No	Yes		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	50.0	0.0	0.0	50.0	0.0	0.0	50.0	50.0	0.0	50.0	50.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	L	C
C, Cycle Length [s]	170	170	170	170	170	170	170	170	170	170
L, Total Lost Time per Cycle [s]	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	4.00	4.00	0.00	4.00	4.00	0.00	4.00	0.00	4.00
g_i, Effective Green Time [s]	112	104	104	112	101	101	46	31	46	29
g / C, Green / Cycle	0.66	0.61	0.61	0.66	0.59	0.59	0.27	0.18	0.27	0.17
(v / s)_i Volume / Saturation Flow Rate	0.23	0.42	0.42	0.03	0.51	0.52	0.09	0.11	0.16	0.06
s, saturation flow rate [veh/h]	363	1683	1647	418	1683	1668	1320	1463	1238	1479
c, Capacity [veh/h]	188	1026	1004	237	995	986	364	270	285	254
d1, Uniform Delay [s]	34.57	22.12	22.21	17.14	29.23	29.40	48.64	63.79	55.89	61.74
k, delay calibration	0.50	0.50	0.50	0.04	0.50	0.50	0.04	0.04	0.50	0.04
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.20	3.65	3.79	0.04	10.27	10.71	0.18	0.86	12.04	0.27
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.44	0.68	0.68	0.06	0.87	0.87	0.32	0.62	0.67	0.33
d, Delay for Lane Group [s/veh]	41.77	25.76	25.99	17.18	39.50	40.11	48.82	64.66	67.93	62.01
Lane Group LOS	D	C	C	B	D	D	D	E	E	E
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	1.49	19.05	18.85	0.18	31.26	31.43	3.94	6.82	7.82	3.20
50th-Percentile Queue Length [ft/ln]	37.22	476.25	471.21	4.61	781.60	785.81	98.60	170.58	195.39	80.12
95th-Percentile Queue Length [veh/ln]	2.68	26.21	25.97	0.33	40.43	40.63	7.10	11.11	12.40	5.77
95th-Percentile Queue Length [ft/ln]	67.00	655.20	649.21	8.30	1010.85	1015.68	177.48	277.68	310.01	144.21

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	41.77	25.87	25.99	17.18	39.79	40.11	48.82	64.66	64.66	67.93	62.01	62.01
Movement LOS	D	C	C	B	D	D	D	E	E	E	E	E
d_A, Approach Delay [s/veh]	26.76			39.62			58.20			66.14		
Approach LOS	C			D			E			E		
d_I, Intersection Delay [s/veh]	37.94											
Intersection LOS	D											
Intersection V/C	0.740											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	20.0	20.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	74.36	66.18	66.18
l_p,int, Pedestrian LOS Score for Intersection	0.000	3.198	2.152	2.108
Crosswalk LOS	F	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1024	1047	459	306
d_b, Bicycle Delay [s]	20.26	19.30	50.47	60.99
l_b,int, Bicycle LOS Score for Intersection	2.771	2.997	2.025	2.013
Bicycle LOS	C	C	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 5: Harding Pike and St. Thomas Drive

Control Type:	Signalized	Delay (sec / veh):	16.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.633

Intersection Setup

Name	Harding Pike			St Thomas Drive			St. Thomas Drive			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left2	Left	Thru	Left	Right	Right2	Left2	Left	Right	Thru	Right	Right2
Lane Width [ft]	11.00	12.00	11.00	11.00	12.00	12.00	12.00	12.00	11.00	11.00	12.00	11.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	225.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	185.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			25.00			25.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Harding Pike			St Thomas Drive			St. Thomas Drive			Harding Pike		
Base Volume Input [veh/h]	19	0	1139	115	0	0	0	0	117	1329	0	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	171	0	0	0	0	0	0	195	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	-42	0	0	0	0	0	0	-80	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	0	1356	124	0	0	0	0	126	1547	0	54
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	0	368	34	0	0	0	0	34	420	0	15
Total Analysis Volume [veh/h]	22	0	1474	135	0	0	0	0	137	1682	0	59
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	170
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	37.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Overlap	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	6	4	0	0	0	0	4	2	2	0
Auxiliary Signal Groups	1,4,6											
Lead / Lag	Lead	Lead	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	4	20	20	7	0	0	0	0	7	20	20	0
Maximum Green [s]	15	60	60	20	0	0	0	0	20	60	60	0
Amber [s]	4.0	4.0	4.0	3.5	0.0	0.0	0.0	0.0	3.5	4.0	4.0	0.0
All red [s]	1.5	4.0	4.0	3.0	0.0	0.0	0.0	0.0	3.0	4.0	4.0	0.0
Split [s]	15	133	133	37	0	0	0	0	37	118	118	0
Vehicle Extension [s]	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0
Walk [s]	0	0	0	9	0	0	0	0	9	0	0	0
Pedestrian Clearance [s]	0	0	0	17	0	0	0	0	17	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk			No	No					No	No		
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.5	6.0	6.0	4.5	0.0	0.0	0.0	0.0	4.5	6.0	6.0	0.0
Minimum Recall	No		No	No					No	No		
Maximum Recall	No		Yes	No					No	Yes		
Pedestrian Recall	No		No	No					No	No		
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	50.0	50.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	R	C	C
C, Cycle Length [s]	170	170	170	170	170	170
L, Total Lost Time per Cycle [s]	6.75	8.00	6.50	6.50	8.00	8.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	6.00	4.50	4.50	6.00	6.00
g_i, Effective Green Time [s]	162	137	19	19	129	129
g / C, Green / Cycle	0.95	0.81	0.11	0.11	0.76	0.76
(v / s)_i Volume / Saturation Flow Rate	0.04	0.46	0.08	0.10	0.52	0.52
s, saturation flow rate [veh/h]	511	3204	1603	1431	1683	1663
c, Capacity [veh/h]	479	2580	176	157	1274	1259
d1, Uniform Delay [s]	67.38	5.98	73.59	74.53	10.38	10.51
k, delay calibration	0.04	0.50	0.04	0.04	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.01	0.93	2.66	5.80	2.98	3.13
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.05	0.57	0.77	0.87	0.68	0.69
d, Delay for Lane Group [s/veh]	67.39	6.90	76.25	80.33	13.36	13.64
Lane Group LOS	E	A	E	F	B	B
Critical Lane Group	Yes	No	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]	0.81	8.33	5.94	6.22	15.68	15.91
50th-Percentile Queue Length [ft/ln]	20.23	208.17	148.44	155.53	392.03	397.76
95th-Percentile Queue Length [veh/ln]	1.46	13.06	9.93	10.31	22.18	22.45
95th-Percentile Queue Length [ft/ln]	36.41	326.48	248.34	257.80	554.39	561.30

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	67.39	0.00	6.90	76.25	0.00	0.00	0.00	0.00	80.33	13.49	0.00	13.64
Movement LOS	E		A	E					F	B		B
d_A, Approach Delay [s/veh]	7.79			76.25			80.33			13.50		
Approach LOS	A			E			F			B		
d_I, Intersection Delay [s/veh]	16.09											
Intersection LOS	B											
Intersection V/C	0.633											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1471	359	359	1294
d_b, Bicycle Delay [s]	5.96	57.24	57.24	10.59
l_b,int, Bicycle LOS Score for Intersection	2.794	1.560	1.560	2.996
Bicycle LOS	C	A	A	C

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 6: Kenner Avenue & Ridgefield Drive

Control Type:	All-way stop	Delay (sec / veh):	9.8
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.366

Intersection Setup

Name	Kenner Avenue			Kenner Avenue			Commerical Access			Ridgefield Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Kenner Avenue			Kenner Avenue			Commerical Access			Ridgefield Drive		
Base Volume Input [veh/h]	0	38	33	140	67	0	0	1	2	30	0	213
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	6	15	7	1	0	0	0	0	17	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	47	51	158	73	0	0	1	2	49	0	229
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	13	14	43	20	0	0	0	1	13	0	62
Total Analysis Volume [veh/h]	0	51	55	172	79	0	0	1	2	53	0	249
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	772	732	748	825
Degree of Utilization, x	0.14	0.34	0.00	0.37

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.48	1.53	0.01	1.69
95th-Percentile Queue Length [ft]	11.88	38.15	0.30	42.24
Approach Delay [s/veh]	8.41	10.46	7.83	9.87
Approach LOS	A	B	A	A
Intersection Delay [s/veh]	9.85			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 7: Ridgefield Drive & Ridgefield Way

Control Type:	Two-way stop	Delay (sec / veh):	14.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.122

Intersection Setup

Name	Ridgefield Way		Ridgefield Drive		Ridgefield Drive	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Ridgefield Way		Ridgefield Drive		Ridgefield Drive	
Base Volume Input [veh/h]	32	19	22	159	225	90
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	16	9	8	14	9	26
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	50	29	32	185	251	123
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	8	9	50	68	33
Total Analysis Volume [veh/h]	54	32	35	201	273	134
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.12	0.05	0.03	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	14.53	11.53	8.22	0.00	0.00	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.60	0.60	0.09	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	14.91	14.91	2.35	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	13.41		1.22		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	1.98					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 8: Woodlawn Drive & Ridgefield Drive

Control Type:	All-way stop	Delay (sec / veh):	22.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.875

Intersection Setup

Name	Woodlawn Drive		Ridgefield Drive		Woodlawn Drive	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Thru	Right
Lane Width [ft]	11.00	11.00	12.00	12.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Woodlawn Drive		Ridgefield Drive		Woodlawn Drive	
Base Volume Input [veh/h]	134	36	36	172	274	281
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	9	14	11	10	10	11
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	153	53	50	195	305	314
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	42	14	14	53	83	85
Total Analysis Volume [veh/h]	166	58	54	212	332	341
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	662	656	769
Degree of Utilization, x	0.34	0.41	0.88

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.50	1.97	10.98
95th-Percentile Queue Length [ft]	37.39	49.14	274.45
Approach Delay [s/veh]	11.21	12.17	30.89
Approach LOS	B	B	D
Intersection Delay [s/veh]	22.82		
Intersection LOS	C		

Intersection Level Of Service Report
Intersection 9: Harding Pike & BMP Central Driveway

Control Type:	Signalized	Delay (sec / veh):	20.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.702

Intersection Setup

Name	Commerical Access			BMP Central Driveway			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			Yes		

Volumes

Name	Commerical Access			BMP Central Driveway			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	41	7	36	79	5	98	51	1000	11	6	1476	56
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0000	1.0773	1.0000	1.0000	1.0000	1.0000	1.0773	1.0773	1.0773	1.0773	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	125	0	31	93	81	0	0	108	97
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	-7	0	-79	-5	-98	-51	-5	0	0	-13	-56
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	0	39	125	0	31	93	1153	12	6	1685	97
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	0	11	34	0	8	25	313	3	2	458	26
Total Analysis Volume [veh/h]	48	0	42	136	0	34	101	1253	13	7	1832	105
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	170
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	3.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Signal Group	0	8	0	0	4	0	1	6	0	5	2	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	0	7	0	0	7	0	4	10	0	4	10	0
Maximum Green [s]	0	15	0	0	15	0	15	60	0	15	60	0
Amber [s]	0.0	3.5	0.0	0.0	3.5	0.0	4.0	4.0	0.0	4.0	4.0	0.0
All red [s]	0.0	2.5	0.0	0.0	2.5	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Split [s]	0	31	0	0	31	0	15	124	0	15	124	0
Vehicle Extension [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Walk [s]	0	7	0	0	7	0	0	0	0	5	0	0
Pedestrian Clearance [s]	0	18	0	0	18	0	0	0	0	10	0	0
Delayed Vehicle Green [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	4.0	0.0	0.0	4.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	Yes		No	Yes	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	50.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	C	L	C	R
C, Cycle Length [s]	170	170	170	170	170	170	170	170	170	170
L, Total Lost Time per Cycle [s]	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	4.00	4.00	4.00	4.00	0.00	4.00	4.00	0.00	4.00	4.00
g_i, Effective Green Time [s]	25	25	25	25	126	126	126	122	122	122
g / C, Green / Cycle	0.15	0.15	0.15	0.15	0.74	0.74	0.74	0.72	0.72	0.72
(v / s)_i Volume / Saturation Flow Rate	0.04	0.03	0.11	0.02	0.33	0.38	0.38	0.01	0.57	0.07
s, saturation flow rate [veh/h]	1237	1431	1228	1431	307	1683	1677	486	3204	1431
c, Capacity [veh/h]	182	210	175	210	210	1245	1241	303	2299	1026
d1, Uniform Delay [s]	69.53	63.75	76.01	63.38	30.08	9.22	9.22	18.03	15.84	7.32
k, delay calibration	0.04	0.04	0.18	0.04	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.28	0.17	11.35	0.13	7.73	1.49	1.50	0.14	2.97	0.20
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.26	0.20	0.78	0.16	0.48	0.51	0.51	0.02	0.80	0.10
d, Delay for Lane Group [s/veh]	69.82	63.92	87.36	63.52	37.82	10.71	10.72	18.17	18.81	7.52
Lane Group LOS	E	E	F	E	D	B	B	B	B	A
Critical Lane Group	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.97	1.64	6.59	1.32	1.41	9.60	9.57	0.08	22.33	1.19
50th-Percentile Queue Length [ft/ln]	49.31	40.95	164.63	32.95	35.32	239.95	239.35	2.05	558.27	29.74
95th-Percentile Queue Length [veh/ln]	3.55	2.95	10.79	2.37	2.54	14.68	14.65	0.15	30.08	2.14
95th-Percentile Queue Length [ft/ln]	88.76	73.72	269.84	59.32	63.58	366.96	366.22	3.69	752.02	53.54

Movement, Approach, & Intersection Results

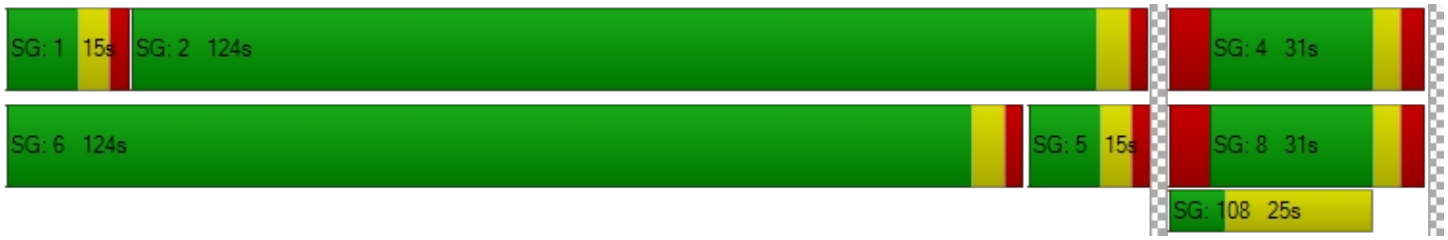
d_M, Delay for Movement [s/veh]	69.82	63.92	63.92	87.36	63.52	63.52	37.82	10.71	10.72	18.17	18.81	7.52
Movement LOS	E	E	E	F	E	E	D	B	B	B	B	A
d_A, Approach Delay [s/veh]	67.07			82.59			12.72			18.20		
Approach LOS	E			F			B			B		
d_I, Intersection Delay [s/veh]	20.40											
Intersection LOS	C											
Intersection V/C	0.702											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	74.36
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	3.408
Crosswalk LOS	F	F	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	235	235	1388	1388
d_b, Bicycle Delay [s]	66.18	66.18	7.95	7.95
l_b,int, Bicycle LOS Score for Intersection	1.708	1.840	2.687	3.163
Bicycle LOS	A	A	B	C

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 10: Harding Pike & BMP Western Driveway

Control Type:	Two-way stop	Delay (sec / veh):	290.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.078

Intersection Setup

Name	Commerical Access			BMP Western Driveway			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	11.00	11.00	12.00	12.00	11.00	10.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	75.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	Commerical Access			BMP Western Driveway			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	1	0	14	5	0	86	59	1054	7	2	1614	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0000	1.0773	1.0000	1.0000	1.0000	1.0000	1.0773	1.0773	1.0773	1.0773	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	51	2	174	0	0	100	39
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	-5	0	-86	-59	0	0	0	0	-13
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	0	15	0	0	51	2	1309	8	2	1839	39
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	4	0	0	14	1	356	2	1	500	11
Total Analysis Volume [veh/h]	1	0	16	0	0	55	2	1423	9	2	1999	42
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No			
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.00	0.04	0.00	0.00	0.23	0.00	0.01	0.00	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	290.03	0.00	18.08	0.00	0.00	24.23	0.00	0.00	0.00	12.69	0.00	0.00
Movement LOS	F		C			C		A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	0.40	0.00	0.40	0.00	0.00	0.85	0.00	0.00	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	10.05	0.00	10.05	0.00	0.00	21.32	0.00	0.00	0.00	0.32	0.00	0.00
d_A, Approach Delay [s/veh]	34.08			24.23			0.00			0.01		
Approach LOS	D			C			A			A		
d_I, Intersection Delay [s/veh]	0.55											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 105: Harding Pike and HTC Driveway/RW Driveway A

Control Type:	Two-way stop	Delay (sec / veh):	609.1
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.156

Intersection Setup

Name	RW Driveway A			HTC Driveway			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	RW Driveway A			HTC Driveway			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	0	0	0	0	0	0	0	1200	0	0	1600	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	13	0	24	0	0	0	0	160	61	17	160	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	-42	0	0	-80	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	13	0	24	0	0	0	0	1411	61	17	1804	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	0	7	0	0	0	0	383	17	5	490	0
Total Analysis Volume [veh/h]	14	0	26	0	0	0	0	1534	66	18	1961	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	1.16	0.00	0.08	0.00	0.00	0.00	0.00	0.02	0.00	0.04	0.02	0.00
d_M, Delay for Movement [s/veh]	609.09	984.86	322.91	451.46	713.44	19.47	17.28	0.00	0.00	14.30	0.00	0.00
Movement LOS	F	F	F	F	F	C	C	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	4.38	4.38	4.38	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00
95th-Percentile Queue Length [ft/ln]	109.44	109.44	109.44	0.00	0.00	0.00	0.00	0.00	0.00	3.48	0.00	0.00
d_A, Approach Delay [s/veh]	423.07			394.79			0.00			0.13		
Approach LOS	F			F			A			A		
d_I, Intersection Delay [s/veh]	4.75											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 1087: Ridgefield Drive & RW Driveway C

Control Type:	Two-way stop	Delay (sec / veh):	14.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.041

Intersection Setup

Name	RW Driveway C		Ridgefield Drive		Ridgefield Drive	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	RW Driveway C		Ridgefield Drive		Ridgefield Drive	
Base Volume Input [veh/h]	0	0	0	191	315	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	16	28	25	5	7	18
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	28	25	211	346	18
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	8	7	57	94	5
Total Analysis Volume [veh/h]	17	30	27	229	376	20
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.05	0.02	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	14.38	11.07	8.17	0.00	0.00	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.28	0.28	0.07	0.07	0.00	0.00
95th-Percentile Queue Length [ft/ln]	7.08	7.08	1.78	1.78	0.00	0.00
d_A, Approach Delay [s/veh]	12.26		0.86		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	1.14					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 1088: Ridgefield Drive and RW Driveway B

Control Type:	Two-way stop	Delay (sec / veh):	12.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.015

Intersection Setup

Name	Ridgefield Way		Ridgefield Way		RW Driveway B	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Ridgefield Way		Ridgefield Way		RW Driveway B	
Base Volume Input [veh/h]	100	0	0	50	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0773	1.0773	1.0773	1.0773	1.0773	1.0773
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	26	8	92	17	7	108
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	134	8	92	71	7	108
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	36	2	25	19	2	29
Total Analysis Volume [veh/h]	146	9	100	77	8	117
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.07	0.00	0.01	0.13
d_M, Delay for Movement [s/veh]	0.00	0.00	7.72	0.00	12.36	9.73
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.23	0.23	0.51	0.51
95th-Percentile Queue Length [ft/ln]	0.00	0.00	5.65	5.65	12.69	12.69
d_A, Approach Delay [s/veh]	0.00		4.36		9.90	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.40					
Intersection LOS	B					

Table of Contents

Intersection Analysis Summary 2
Intersection Level Of Service Report 3
Intersection 1: Harding Pike & White Bridge Pike 3
Intersection 2: Harding Pike & Kenner Avenue 8
Intersection 3: Harding Pike & Ridgefield Way 13
Intersection 4: Harding Pike & Bosley Spring Road/Woodlawn Drive 15
Intersection 5: Harding Pike and St. Thomas Drive 20
Intersection 6: Kenner Avenue & Ridgefield Drive 25
Intersection 7: Ridgefield Drive & Ridgefield Way 27
Intersection 8: Woodlawn Drive & Ridgefield Drive 29
Intersection 9: Harding Pike & BMP Central Driveway 31
Intersection 10: Harding Pike & BMP Western Driveway 36
Intersection 105: Harding Pike and HTC Driveway/RW Driveway A 38
Intersection 1087: Ridgefield Drive & RW Driveway C 40
Intersection 1088: Ridgefield Drive and RW Driveway B 42

Belle Meade Developments - TIS

Vistro File: M:\...\Belle Meade Developments - TIS.vistro
Report File: M:\...\9 - Projected 2032 - AM.pdf

Scenario 9 - Projected 2032 - AM
1/10/2023

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Harding Pike & White Bridge Pike	Signalized	HCM 6th Edition	SB Left	1.046	140.5	F
2	Harding Pike & Kenner Avenue	Signalized	HCM 6th Edition	SB Right	1.086	143.6	F
3	Harding Pike & Ridgefield Way	Two-way stop	HCM 6th Edition	NB Thru	88.642	10,000.0	F
4	Harding Pike & Bosley Spring Road/Woodlawn Drive	Signalized	HCM 6th Edition	NB Left	0.808	59.6	E
5	Harding Pike and St. Thomas Drive	Signalized	HCM 6th Edition	WBR2	0.829	62.2	E
6	Kenner Avenue & Ridgefield Drive	All-way stop	HCM 6th Edition	SB Left	0.365	10.2	B
7	Ridgefield Drive & Ridgefield Way	Two-way stop	HCM 6th Edition	SB Left	0.101	15.3	C
8	Woodlawn Drive & Ridgefield Drive	All-way stop	HCM 6th Edition	WB Right	0.666	15.0	C
9	Harding Pike & BMP Central Driveway	Signalized	HCM 6th Edition	SB Left	0.613	17.3	B
10	Harding Pike & BMP Western Driveway	Two-way stop	HCM 6th Edition	NB Right	0.004	17.8	C
105	Harding Pike and HTC Driveway/RW Driveway A	Two-way stop	HCM 6th Edition	NB Left	6.419	4,025.1	F
1087	Ridgefield Drive & RW Driveway C	Two-way stop	HCM 6th Edition	SB Left	0.029	14.1	B
1088	Ridgefield Drive and RW Driveway B	Two-way stop	HCM 6th Edition	WB Left	0.007	10.3	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Harding Pike & White Bridge Pike

Control Type:	Signalized	Delay (sec / veh):	140.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.046

Intersection Setup

Name	Woodmont Boulevard			White Bridge Pike			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	250.00	100.00	100.00	500.00	100.00	200.00	200.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Woodmont Boulevard			White Bridge Pike			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	205	173	70	511	231	281	75	1101	112	54	860	342
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	21	0	161	161	0	21	29	205	29	109	142	109
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	-55	0	0	0	0	-55	-16	-30	-16	0	-108	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	204	201	242	754	268	292	100	1453	143	172	1032	506
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	55	55	66	205	73	79	27	395	39	47	280	138
Total Analysis Volume [veh/h]	222	218	263	820	291	317	109	1579	155	187	1122	550
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Signal Group	0	8	0	0	7	0	1	6	0	5	2	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	4	10	0	4	10	0
Maximum Green [s]	0	20	0	0	25	0	20	60	0	15	60	0
Amber [s]	0.0	4.0	0.0	0.0	4.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
All red [s]	0.0	2.5	0.0	0.0	2.5	0.0	2.5	2.0	0.0	2.0	2.0	0.0
Split [s]	0	32	0	0	32	0	16	61	0	15	60	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	18	0	0	18	0	0	15	0	0	12	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			Yes			Yes	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	4.5	0.0	0.0	4.5	0.0	4.5	4.0	0.0	4.0	4.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			Yes		No	Yes		No	Yes	
Pedestrian Recall		Yes			Yes		No	Yes		No	Yes	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	50.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	140	140	140	140	140	140	140	140	140	140	140	140
L, Total Lost Time per Cycle [s]	6.50	6.50	6.50	6.50	6.50	6.50	6.00	6.00	6.00	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	4.50	4.50	4.50	4.50	4.50	4.50	0.00	4.00	4.00	0.00	4.00	4.00
g_i, Effective Green Time [s]	26	26	26	26	26	26	70	55	55	70	56	56
g / C, Green / Cycle	0.18	0.18	0.18	0.18	0.18	0.18	0.50	0.39	0.39	0.50	0.40	0.40
(v / s)_i Volume / Saturation Flow Rate	0.14	0.13	0.18	0.26	0.17	0.22	0.22	0.52	0.53	0.37	0.35	0.38
s, saturation flow rate [veh/h]	1603	1683	1431	3113	1683	1431	490	1683	1631	502	3204	1431
c, Capacity [veh/h]	292	307	261	567	307	261	232	661	641	227	1289	575
d1, Uniform Delay [s]	54.35	53.79	57.25	57.25	56.61	57.25	29.51	42.50	42.50	40.56	38.50	40.64
k, delay calibration	0.22	0.19	0.39	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.11	5.28	51.54	210.65	39.96	127.20	6.66	152.52	167.04	27.77	8.23	28.09
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, 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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.76	0.71	1.01	1.45	0.95	1.22	0.47	1.32	1.35	0.83	0.87	0.96
d, Delay for Lane Group [s/veh]	62.46	59.07	108.79	267.90	96.57	184.45	36.17	195.02	209.54	68.34	46.73	68.74
Lane Group LOS	E	E	F	F	F	F	D	F	F	E	D	E
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	7.99	7.58	12.80	26.45	13.42	18.28	2.31	50.09	51.14	5.16	18.64	22.26
50th-Percentile Queue Length [ft/ln]	199.84	189.47	319.99	661.37	335.46	456.91	57.84	1252.23	1278.45	128.93	466.09	556.55
95th-Percentile Queue Length [veh/ln]	12.63	12.09	18.76	40.91	19.43	27.76	4.16	73.33	75.61	8.88	25.73	30.00
95th-Percentile Queue Length [ft/ln]	315.76	302.34	468.96	1022.65	485.65	694.06	104.11	1833.24	1890.18	222.04	643.13	750.00

Movement, Approach, & Intersection Results

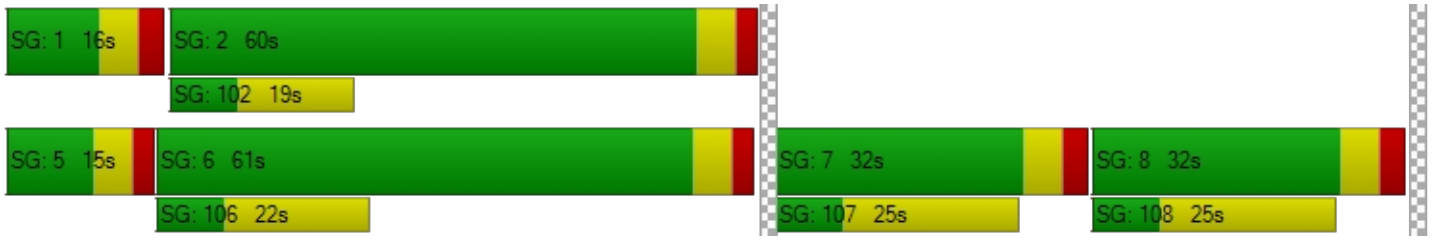
d_M, Delay for Movement [s/veh]	62.46	59.07	108.79	267.90	96.57	184.45	36.17	201.54	209.54	68.34	46.73	68.74
Movement LOS	E	E	F	F	F	F	D	F	F	E	D	E
d_A, Approach Delay [s/veh]	78.74			214.46			192.44			55.41		
Approach LOS	E			F			F			E		
d_I, Intersection Delay [s/veh]	140.46											
Intersection LOS	F											
Intersection V/C	1.046											

Other Modes

g_Walk,mi, Effective Walk Time [s]	19.0	22.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	52.29	49.73	59.43	59.43
l_p,int, Pedestrian LOS Score for Intersection	2.690	3.031	3.233	3.454
Crosswalk LOS	B	C	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	364	364	786	771
d_b, Bicycle Delay [s]	46.82	46.82	25.80	26.41
l_b,int, Bicycle LOS Score for Intersection	2.720	3.916	3.080	3.093
Bicycle LOS	B	D	C	C

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Harding Pike & Kenner Avenue

Control Type:	Signalized	Delay (sec / veh):	143.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.086

Intersection Setup

Name	Kenner Avenue			Kenner Avenue			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	1	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	200.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Kenner Avenue			Kenner Avenue			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	127	27	25	122	20	53	44	1575	148	32	1030	47
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	16	0	0	89	0	524	3	1	271	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	-30	0	0	-108	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	147	31	45	142	23	151	51	2322	175	38	1358	55
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	40	8	12	39	6	41	14	631	48	10	369	15
Total Analysis Volume [veh/h]	160	34	49	154	25	164	55	2524	190	41	1476	60
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	23.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	4	0	0	3	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	4	15	0	4	15	0
Maximum Green [s]	0	20	0	0	20	0	15	60	0	15	60	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
All red [s]	0.0	3.5	0.0	0.0	4.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Split [s]	0	28	0	0	15	0	14	83	0	14	83	0
Vehicle Extension [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Walk [s]	0	7	0	0	0	0	0	0	0	0	0	0
Pedestrian Clearance [s]	0	20	0	0	0	0	0	0	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	4.5	0.0	0.0	5.0	0.0	4.0	4.0	0.0	4.0	4.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	Yes		No	Yes	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	50.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	140	140	140	140	140	140	140	140	140	140	140
L, Total Lost Time per Cycle [s]	6.50	6.50	7.00	7.00	7.00	6.00	6.00	6.00	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	4.50	4.50	5.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	4.00
g_i, Effective Green Time [s]	19	19	8	8	8	6	83	83	4	82	82
g / C, Green / Cycle	0.13	0.13	0.06	0.06	0.06	0.04	0.59	0.59	0.03	0.58	0.58
(v / s)_i Volume / Saturation Flow Rate	0.12	0.03	0.06	0.06	0.11	0.03	0.81	0.83	0.03	0.32	0.32
s, saturation flow rate [veh/h]	1616	1431	1603	1624	1431	1603	1683	1642	1603	3204	1650
c, Capacity [veh/h]	217	192	92	93	82	69	1000	976	52	1870	963
d1, Uniform Delay [s]	59.66	54.36	65.89	65.88	66.00	66.38	28.40	28.40	67.26	17.75	17.75
k, delay calibration	0.17	0.04	0.04	0.04	0.17	0.04	0.50	0.50	0.04	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	18.04	0.26	20.56	20.20	467.33	7.60	167.07	181.92	9.48	1.13	2.19
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.90	0.26	0.97	0.97	2.01	0.80	1.36	1.39	0.79	0.54	0.54
d, Delay for Lane Group [s/veh]	77.70	54.62	86.45	86.08	533.33	73.98	195.46	210.31	76.74	18.88	19.94
Lane Group LOS	E	D	F	F	F	E	F	F	E	B	B
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	7.93	1.59	3.73	3.76	13.56	2.08	77.04	79.21	1.58	9.82	10.39
50th-Percentile Queue Length [ft/ln]	198.14	39.70	93.15	94.07	339.01	51.89	1925.91	1980.14	39.50	245.38	259.75
95th-Percentile Queue Length [veh/ln]	12.54	2.86	6.71	6.77	22.69	3.74	113.79	118.23	2.84	14.95	15.68
95th-Percentile Queue Length [ft/ln]	313.56	71.46	167.67	169.32	567.15	93.40	2844.83	2955.64	71.11	373.83	391.91

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	77.70	77.70	54.62	86.29	86.08	533.33	73.98	202.33	210.31	76.74	19.21	19.94
Movement LOS	E	E	D	F	F	F	E	F	F	E	B	B
d_A, Approach Delay [s/veh]	73.05			300.02			200.33			20.73		
Approach LOS	E			F			F			C		
d_I, Intersection Delay [s/veh]	143.56											
Intersection LOS	F											
Intersection V/C	1.086											

Other Modes

g_Walk,mi, Effective Walk Time [s]	77.0	77.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	14.18	14.18	0.00	59.43
l_p,int, Pedestrian LOS Score for Intersection	2.039	2.195	0.000	3.407
Crosswalk LOS	B	B	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	307	114	1100	1100
d_b, Bicycle Delay [s]	50.15	62.23	14.18	14.18
l_b,int, Bicycle LOS Score for Intersection	1.961	2.126	3.844	2.427
Bicycle LOS	A	B	D	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 3: Harding Pike & Ridgefield Way

Control Type:	Two-way stop	Delay (sec / veh):	10,000.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	88.642

Intersection Setup

Name	Ridgefield Way			HTC Central Access Road			Harding Pike			Harding Pike		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	175.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			No		

Volumes

Name	Ridgefield Way			HTC Central Access Road			Harding Pike			Harding Pike		
Base Volume Input [veh/h]	25	0	33	0	0	9	6	1704	27	22	1100	84
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605	1.1605
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	73	11	18	58	11	90	270	240	30	18	109	98
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	11	0	11	0	0	0	0	-11	11	11	-11	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	-30	0	0	-108	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	113	11	67	58	11	100	277	2176	72	55	1267	195
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	31	3	18	16	3	27	75	591	20	15	344	53
Total Analysis Volume [veh/h]	123	12	73	63	12	109	301	2365	78	60	1377	212
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	88.64	0.43	0.00	79.58	0.33	0.74	0.02	0.00	0.32	0.01	0.00
d_M, Delay for Movement [s/veh]	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	34.64	0.00	0.00	32.65	0.00	0.00
Movement LOS	F	F	F	F	F	F	D	A	A	D	A	A
95th-Percentile Queue Length [veh/ln]	17.95	12.96	12.96	10.19	17.52	17.52	5.83	0.00	0.00	1.29	0.00	0.00
95th-Percentile Queue Length [ft/ln]	448.63	324.11	324.11	254.82	438.12	438.12	145.82	0.00	0.00	32.28	0.00	0.00
d_A, Approach Delay [s/veh]	10000.00			10000.00			3.80			1.19		
Approach LOS	F			F			A			A		
d_I, Intersection Delay [s/veh]	821.81											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 4: Harding Pike & Bosley Spring Road/Woodlawn Drive

Control Type:	Signalized	Delay (sec / veh):	59.6
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.808

Intersection Setup

Name	Harding Pike			Harding Pike			Bosley Springs			Woodlawn Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	200.00	100.00	100.00	215.00	100.00	100.00	350.00	100.00	100.00	215.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		