

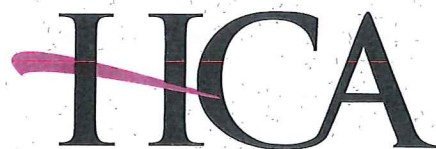
TRAFFIC IMPACT STUDY

PROPOSED STARBUCKS PAD SITE SUBURBAN SQUARE SHOPPING CENTER

Ewing Township, Mercer County

New Jersey

October 2, 2024



Horner & Canter Associates A PROFESSIONAL CORPORATION
TRANSPORTATION AND TRAFFIC ENGINEERING

TRAFFIC IMPACT STUDY

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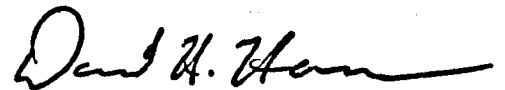
Scotch Road (CR 611)
Parkway Avenue (CR 634)

Ewing Township
Mercer County
New Jersey

Prepared by:

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October 2, 2024



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TABLE OF CONTENTS

| | <u>Page</u> |
|---|-------------|
| Introduction | 1 |
| <i>Scope of Study</i> | 1 |
| Existing Conditions | 2 |
| <i>Existing Traffic</i> | 2 |
| <i>Existing Levels of Service</i> | 3 |
| Site Traffic..... | 5 |
| Future Conditions..... | 7 |
| <i>Assessment</i> | 7 |
| Conclusions | 9 |

TABLES

| | | |
|---------|------------------|---|
| Table 1 | Site Trips | 5 |
|---------|------------------|---|

FIGURES

| | |
|-----------|--|
| Figure 1 | Site Location Map |
| Figure 2 | Existing AM Peak Hour Traffic Volumes |
| Figure 3 | Existing PM Peak Hour Traffic Volumes |
| Figure 4 | Existing Saturday Peak Hour Traffic Volumes |
| Figure 5 | Existing Levels of Service |
| Figure 6 | Site Traffic |
| Figure 7 | Future No-Build AM Peak Hour Traffic Volumes |
| Figure 8 | Future No-Build PM Peak Hour Traffic Volumes |
| Figure 9 | Future No-Build Saturday Peak Hour Traffic Volumes |
| Figure 10 | Future Build AM Peak Hour Traffic Volumes |
| Figure 11 | Future Build PM Peak Hour Traffic Volumes |
| Figure 12 | Future Build Saturday Peak Hour Traffic Volumes |
| Figure 13 | No-Build Levels of Service |
| Figure 14 | Build Levels of Service |

APPENDICES

- APPENDIX A - Straight-Line Diagrams
- APPENDIX B - Traffic Signal Plan
- APPENDIX C - Traffic Counts
- APPENDIX D - Level of Service Delay Thresholds
- APPENDIX E - Existing Capacity/LOS Analysis Worksheets
- APPENDIX F - Trip Generation Worksheets
- APPENDIX G - No-Build Capacity/LOS Analysis Worksheets
- APPENDIX H - Build Capacity/LOS Analysis Worksheets

INTRODUCTION

Horner & Canter Associates has prepared this Traffic Impact Study for the proposed Starbucks pad site development within the Suburban Square Shopping Center on the northwest corner of Scotch Road (CR 611) and Parkway Avenue (CR 634) in Ewing Township, Mercer County, New Jersey (Figure 1). The proposed pad site development will consist of an approximate 2,160 square feet Starbucks Coffee Shop with access provided via the existing Suburban Square Shopping Center accesses to both frontage roadways.

For the purpose of this study the pad site development is assumed to be built-out in 2025.

Scope of Study

The purpose of this Traffic Impact Study is to determine the impact the proposed pad site development will have with respect to traffic conditions on the adjoining streets and highways. In making this determination, our study included:

- A site inspection and inventory of existing roadway features, adjacent land uses, driveways, travel lanes, traffic control devices, and anything that may affect the flow of traffic.
- The review and analysis of peak period traffic volume counts made by this firm at the following study area intersections:
 - Scotch Road (CR 611)/Parkway Avenue (CR 634)/Sylvia Street
 - Scotch Road (CR 611)/Suburban Square Southern Access
 - Scotch Road (CR 611)/Suburban Square Central Access
 - Parkway Avenue (CR 634)/Suburban Square Eastern Access
- A determination of the anticipated future site-generated traffic and distribution of this traffic to the study area roadways and intersections.
- An assessment of the traffic impact the proposed pad site development will have on existing traffic, streets and intersections at build-out, and the identification of any mitigation measures found necessary.

EXISTING CONDITIONS

In order to evaluate the traffic impact on the adjacent streets, highways, and intersections, the area was inventoried to identify physical features that may affect the flow of traffic.

The site fronts on **Scotch Road**, a Mercer County roadway carrying the CR 611 designation in a general north-south direction. Scotch Road is classified as an Urban Minor Arterial as identified on the straight-line diagram provided for reference in Appendix A. In the vicinity of the site, Scotch Road provides one travel lane in each direction with a two-way, center left-turn lane. The posted speed limit on Scotch Road is 40 miles per hour.

The site also fronts on **Parkway Avenue**, a Mercer County roadway carrying the CR 634 designation in a general east-west direction. Parkway Avenue is classified as an Urban Minor Arterial as identified on the straight-line diagram provided for reference in Appendix A. In the study area, Parkway Avenue provides one travel lane in the eastbound direction and two travel lanes in the westbound direction with a two-way, center left-turn lane. The posted speed limit on Parkway Avenue is 40 miles per hour.

The study area intersection of Scotch Road (CR 611)/Parkway Avenue (CR 634)/Sylvia Street is signalized. The Traffic Signal Timing Plan is provided for reference in Appendix B. The shopping center access intersections are unsignalized with stop-sign control on the respective access approaches.

Existing Traffic

In order to evaluate the maximum traffic impact of the proposed development on the adjacent roadways and intersections, the critical peak hours have to be established. The term "critical peak hours" refers to the periods of time when the combined effect of existing traffic and traffic from the proposed project result in maximum traffic flow conditions.

In this case, the peak site volumes and peak background traffic volumes are generated in the same time period, occurring within the traditional commuter peak periods, i.e. weekday AM (the highest one-hour period between 7:00 - 9:00 AM) and weekday PM (the highest one-hour period between 4:00 - 6:00 PM). These weekday peak periods were chosen since they best

represent when the combined effect of background traffic and traffic from the proposed use will result in maximum traffic flow conditions. The Saturday midday peak period (11:00 AM – 1:00 PM) was also included in the study since this represents the peak period of retail activity.

To establish these critical peak hours, HCA obtained peak hour Manual Turning Movement (MTM) counts at the study area intersections in September 2024 while school was in session. The resultant peak hour intersection volumes are shown in Figures 2, 3, and 4 for the AM, PM, and Saturday peak hours, respectively. The summarized MTM count data is provided in Appendix C.

Existing Levels of Service

In order to determine the quality of traffic flow, we need to compute the Level of Service of these facilities. Level of Service (LOS) is expressed as follows:

| | |
|------------------|--|
| Level of Service | A - Excellent - Free flow |
| | B - Very Good - Stable flow of traffic |
| | C - Good - Stable flow of traffic |
| | D - Satisfactory flow - Occasional short periods with minor delays |
| | E - CAPACITY FLOW - Regular delays |
| | F - Forced flow - Significant delays and queuing |

Level of Service is computed using the methodologies and procedures as outlined in the *Highway Capacity Manual*, 7th Edition. Level of Service is defined for each type of facility such as a highway, signalized intersection, or unsignalized intersection.

At signalized intersections, Level of Service is based on the average delay for all approaches at the intersection, accounting for green time allocation, lane geometry, and traffic volumes by movement.

At unsignalized intersections, LOS is based on the average delay to stop-controlled and yielding movements, such as exiting movements from a STOP sign or the left turn from a through street onto a side street. LOS delay thresholds for unsignalized intersections is less than for signalized intersections for the primary reason that motorists are actively pursuing a gap in traffic whereas at a traffic signal, motorists are passively waiting for the green.

The tables provided in Appendix D show the delay ranges expressed in seconds per vehicle for the various levels of service for signalized and unsignalized intersections.

The resultant existing Levels of Service are presented in Figure 5. The detailed capacity/LOS analysis worksheets are provided in Appendix E.

SITE TRAFFIC

The proposed Starbucks pad site will consist of approximately 2,160 square feet of coffee shop space. The determination of the amount of site traffic that the proposed pad site development will generate can best be made by comparison with similar sites. The Institute of Transportation Engineers (ITE) has compiled hundreds of trip generation studies and published the results in *Trip Generation, 11th Edition*, which is the national standard used for estimating site traffic generation for a variety of land uses.

For the proposed development, ITE's Land Use Code 937 – Coffee/Donut Shop with Drive Through Window was selected as the most appropriate. The ITE data was applied to the proposed pad site development, yielding the projected site traffic volumes presented in Table 1 below. The trip generation worksheets are provided for reference in Appendix F.

| Table 1 | | | | | | | | | |
|---------------------------------|--------------|-----------|-----------|--------------|----------|-----------|--------------------|-----------|-----------|
| Site Trips | | | | | | | | | |
| | AM Peak Hour | | | PM Peak Hour | | | Saturday Peak Hour | | |
| | In | Out | Total | In | Out | Total | In | Out | Total |
| Starbucks Pad Site (2,160) s.f. | 95 | 91 | 186 | 42 | 42 | 84 | 95 | 95 | 190 |
| - Pass by Trips ⁽¹⁾ | -79 | -75 | -154 | -35 | -35 | -70 | -79 | -79 | -158 |
| Total New Trips | 16 | 16 | 32 | 7 | 7 | 14 | 16 | 16 | 32 |

⁽¹⁾ Pass-by Trips Percentages per ITE Handbook, 3rd Edition: 83%

As noted in Table 1, a significant component of retail traffic is “pass-by” traffic which is defined as traffic that is already on the adjacent roadway network and stops at the retail use as part of a combined trip (i.e. work-to-retail use-to-home trip). These trips are not new to the roadway network, although they are new to the access entering and exiting movements. For a coffee shop use, the ITE projects a pass-by percentage of 83%.

In order to analyze the impact of the site-generated traffic, these trips must be distributed to the adjoining roadway system in a manner in which the employees and/or customers can be reasonably expected to travel. The traffic distribution was based on the existing traffic patterns that were documented through the existing traffic counts. The distribution percentages are summarized below:

| | |
|------------------------------------|------------|
| Scotch Road (CR 611)/Sylvia Street | |
| to/from the north | 30% |
| to/from the south | 10% |
| Parkway Avenue (CR 634) | |
| to/from the east | 30% |
| to/from the west | <u>30%</u> |
| | 100% |

The resulting site-generated trips were assigned to the adjacent roadway network as shown in Figure 6.

FUTURE CONDITIONS

The future conditions analysis contained in this report evaluates a 2025 build-out horizon. To account for background traffic growth to the design year, we have applied NJDOT growth rates as documented in their *Annual Background Growth Rate Table*, November 2023 – November 2025 to be used in estimating traffic growth in traffic impact studies. For Urban Minor Arterials in Mercer County in this area, the NJDOT predicts a 1.50% annual traffic growth. Thus, a 1.50% growth factor was applied to the existing background traffic volumes to account for total anticipated growth to the year 2025.

The 2025 No-Build traffic volumes, which include the background traffic growth are presented in Figures 7, 8 and 9 for the respective peak hours. Adding the pad site-generated traffic (Figure 6) to the No-Build traffic volumes creates the Build volumes, which are presented in Figures 10, 11 and 12 for the AM, PM, and Saturday peak hours, respectively.

Assessment

In order to assess the traffic impact of the proposed pad site development on the adjacent roadway network, we calculate the Level of Service (LOS) of the study area intersections under both No-Build and Build conditions. The resultant LOS findings are presented in Figures 13 and 14 for the No-Build and Build Conditions, respectively. The detailed capacity analysis worksheets are provided in Appendix G for the No-Build conditions and Appendix H for the Build conditions.

Scotch Road (CR 611)/Parkway Avenue (CR 634)/Sylvia Street – This signalized intersection operates at overall LOS C with all movements operating at acceptable LOS D or better during all three study peak periods. Under both No-Build and Build conditions, these acceptable LOS operations will be maintained.

There are no improvements required at this intersection to accommodate the pad site-generated traffic.

Scotch Road (CR 611)/Suburban Square Southern Access – This unsignalized intersection operates with all movements at acceptable LOS C or better during all three study peak periods. Under both No-Build and Build conditions, these acceptable LOS operations will be maintained.

There are no improvements required at this intersection to accommodate the site-generated traffic.

Scotch Road (CR 611)/Suburban Square Central Access – This unsignalized intersection operates with all movements at acceptable LOS C or better during all three study peak periods. Under both No-Build and Build conditions, there is a slight decline in LOS to a still acceptable LOS D for the access approaches.

There are no improvements required at this intersection to accommodate the site-generated traffic.

Parkway Avenue (CR 634)/Suburban Square Eastern Access – This unsignalized intersection operates with all movements at acceptable LOS C or better during all three study peak periods. Under both No-Build and Build conditions, these acceptable LOS operations will be maintained.

There are no improvements required at this intersection to accommodate the site-generated traffic.

CONCLUSIONS

Based on the preparation of this Traffic Impact Study for the proposed Starbucks pad site within the Suburban Square Shopping Center in Ewing Township, Mercer County, we offer the following conclusions:

1. The proposed pad site will generate 32 new trips during the AM peak hour, 14 new trips during the PM peak hour, and 32 new trips during the Saturday peak hour. The majority of the total pad site trips are considered “pass-by” trips which are already on the adjacent roadways.
2. The pad site-generated traffic associated with the 2025 build-out can be acceptably accommodated by the surrounding roadway network without the need for any roadway improvements.
3. All off-site study intersections will operate at acceptable LOS D or better on all movements during all three peak hours under both No-Build and Build conditions.
4. The existing access driveways serving the Suburban Square Shopping Center can fully accommodate the pad site-generated traffic.

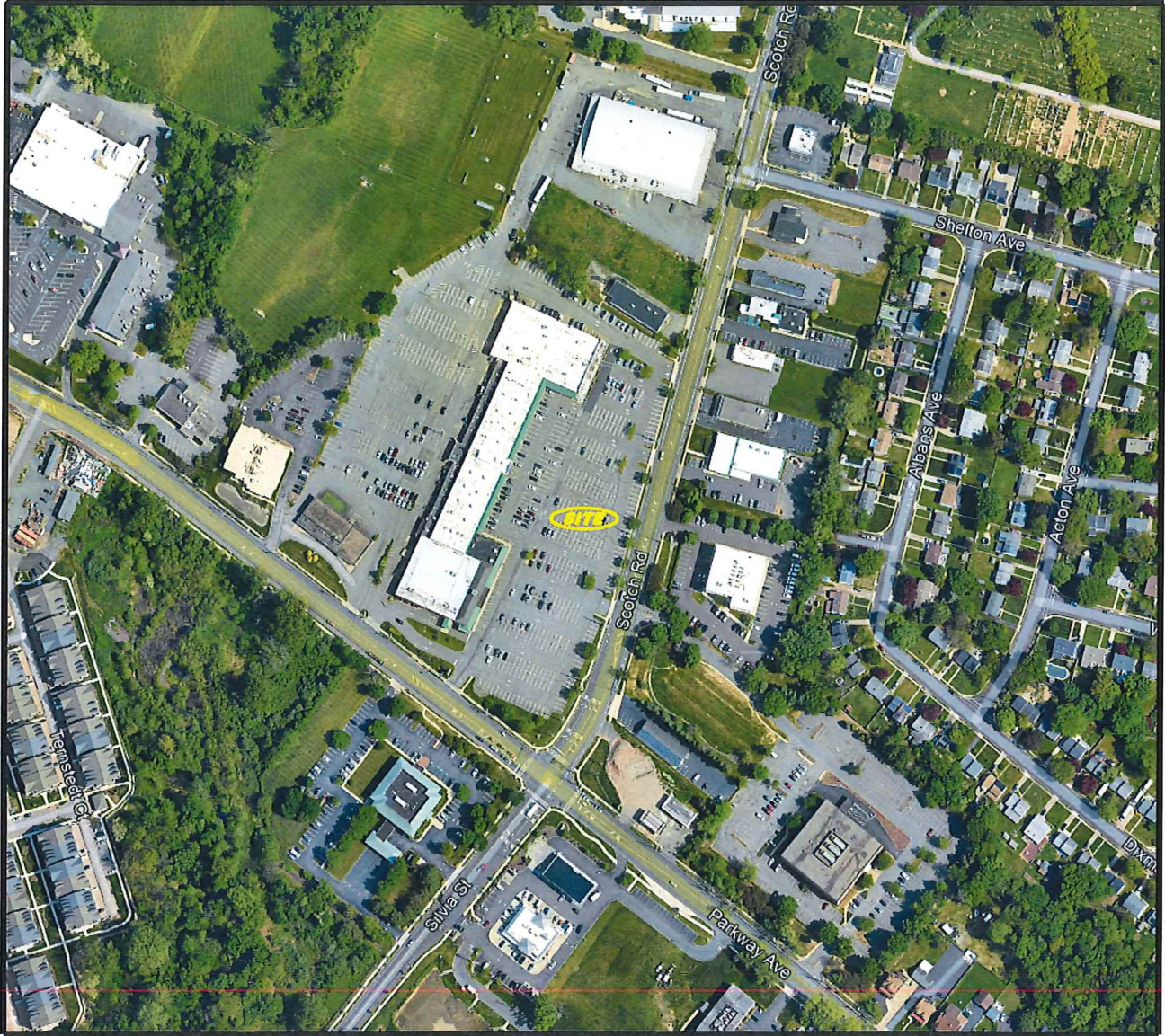
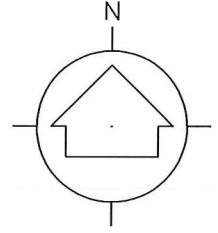


FIGURE 1
SITE LOCATION MAP

*PROPOSED STARBUCKS PAD SITE
SUBURBAN SQUARE SHOPPING CENTER*

EWING TOWNSHIP, MERCER COUNTY, NJ

24-039
OCTOBER 2024

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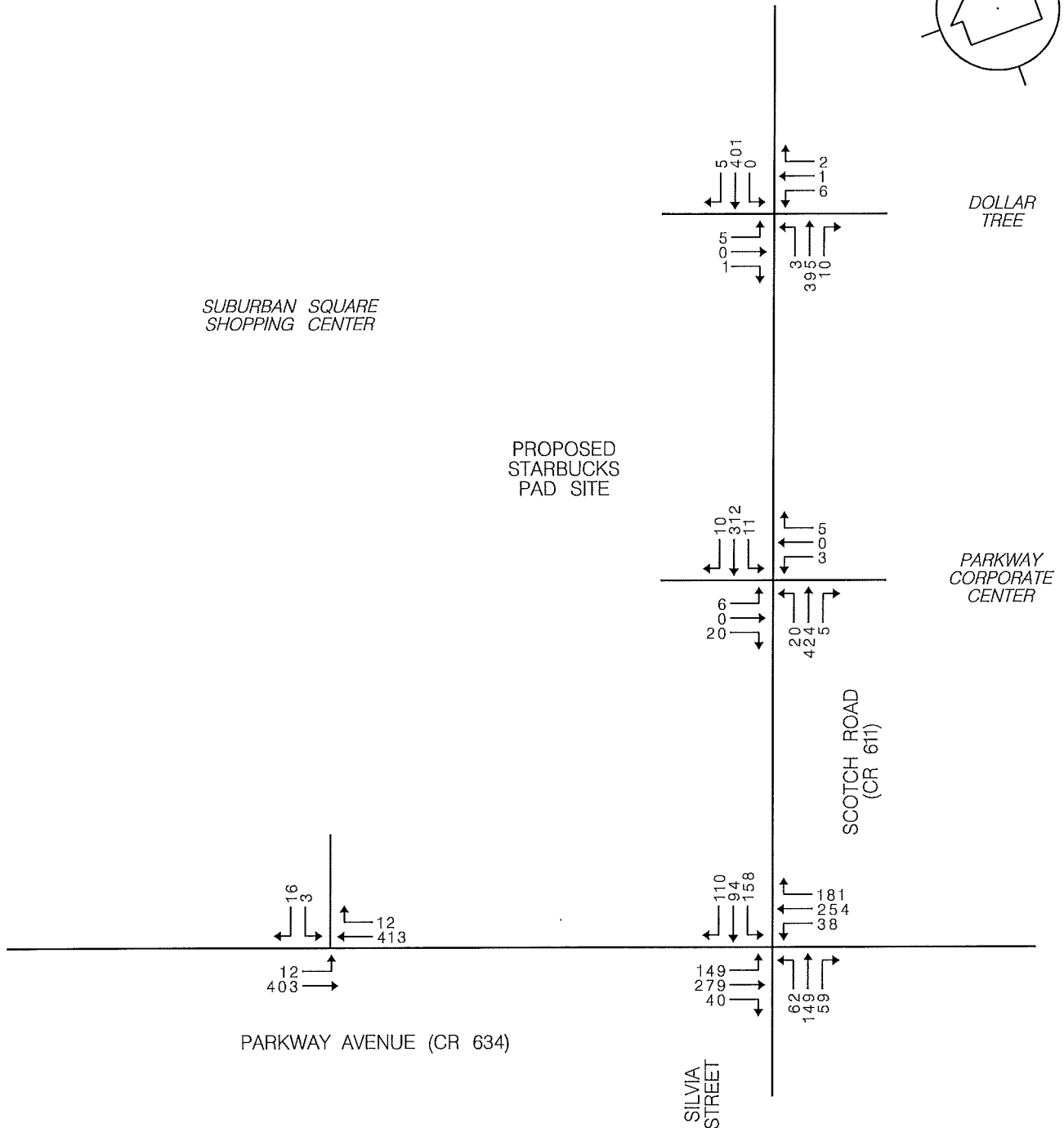
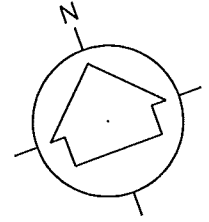


FIGURE 2
 EXISTING AM PEAK HOUR TRAFFIC VOLUMES

PROPOSED STARBUCKS PAD SITE
SUBURBAN SQUARE SHOPPING CENTER

EWING TOWNSHIP, MERCER COUNTY, NJ

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 OCTOBER 2024

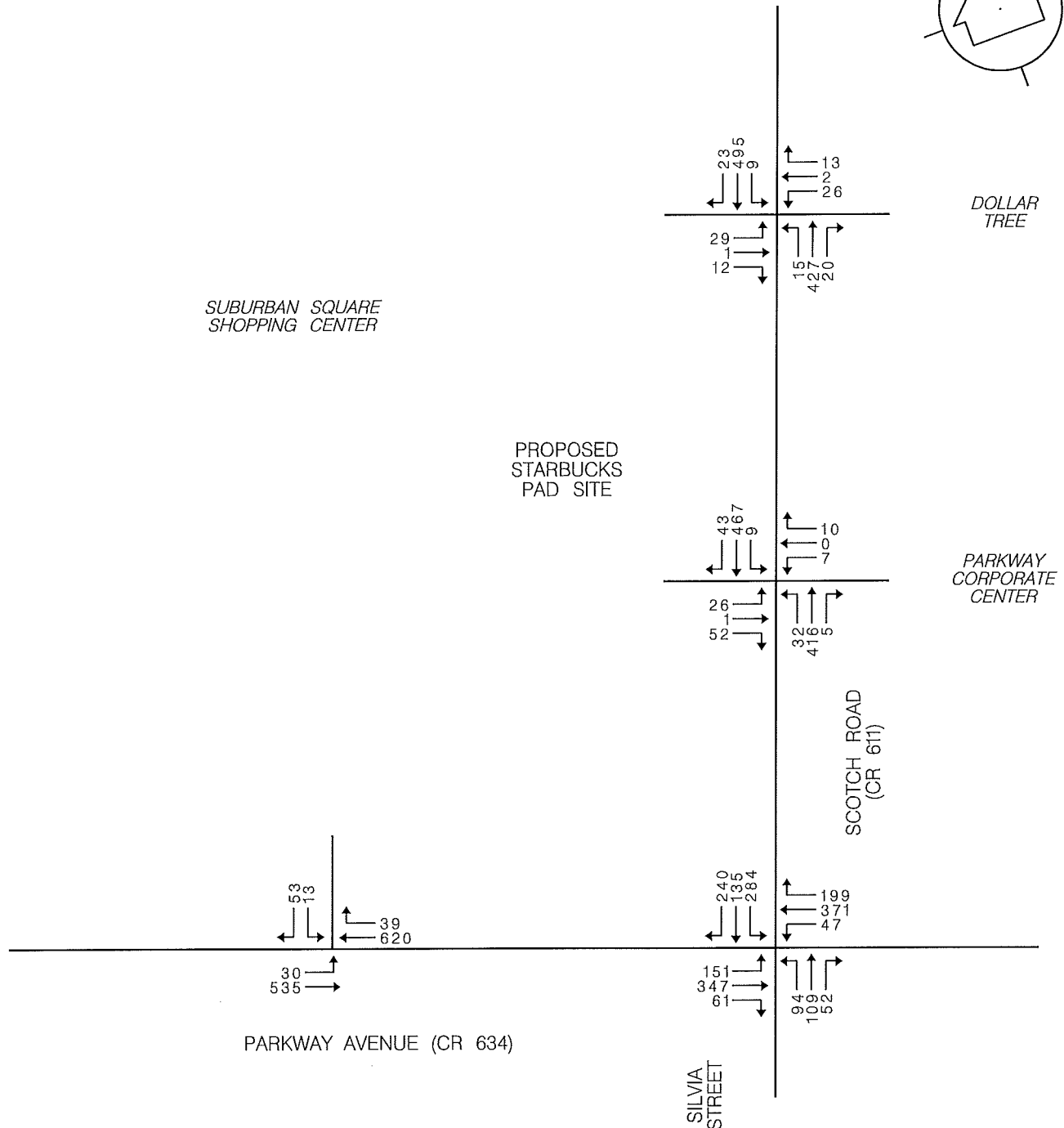
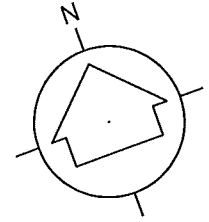


FIGURE 3
 EXISTING PM PEAK HOUR TRAFFIC VOLUMES

PROPOSED STARBUCKS PAD SITE
SUBURBAN SQUARE SHOPPING CENTER

EWING TOWNSHIP, MERCER COUNTY, NJ

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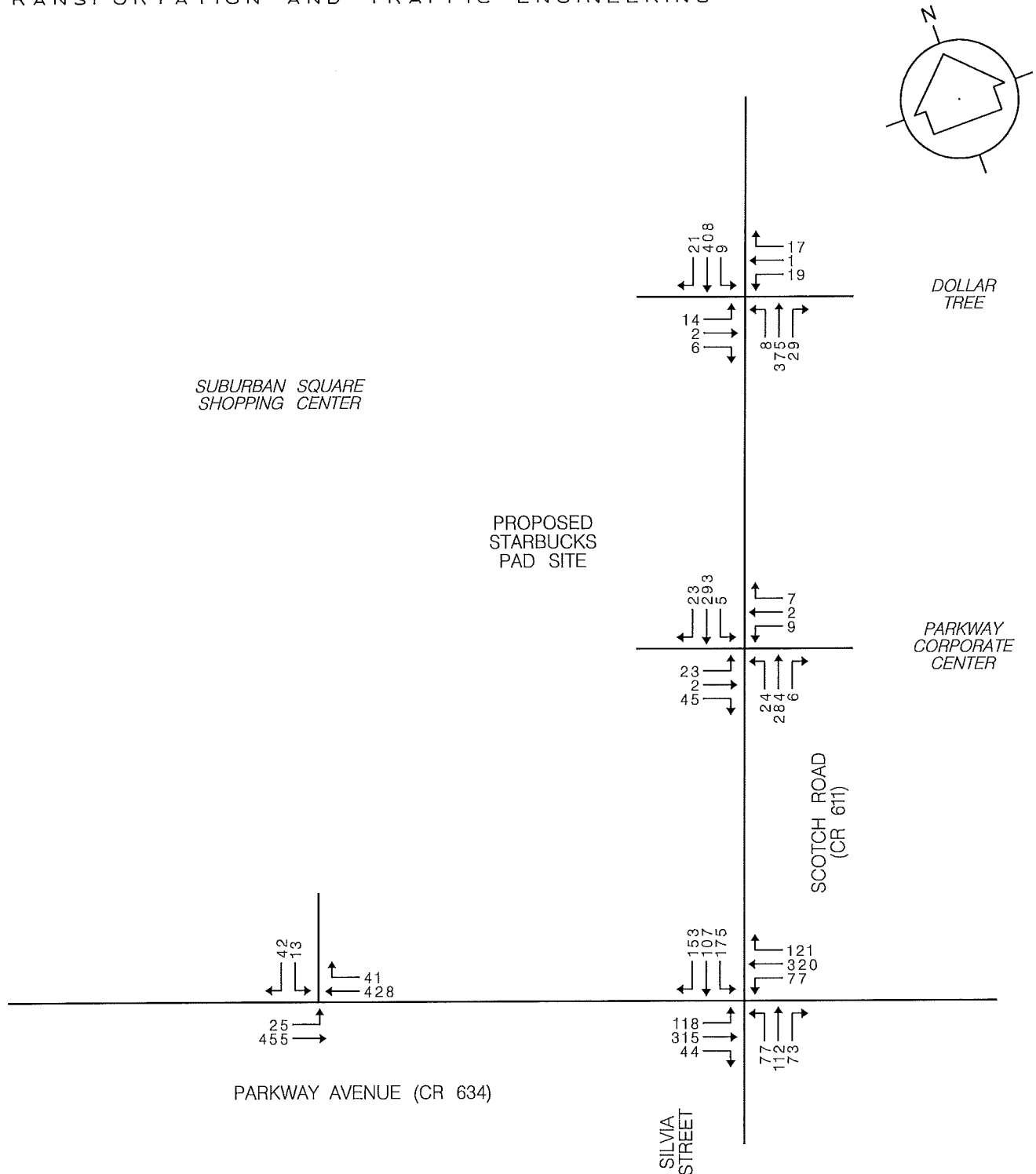


FIGURE 4
 EXISTING SATURDAY PEAK HOUR TRAFFIC VOLUMES
PROPOSED STARBUCKS PAD SITE
SUBURBAN SQUARE SHOPPING CENTER

EWING TOWNSHIP, MERCER COUNTY, NJ

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 OCTOBER 2024

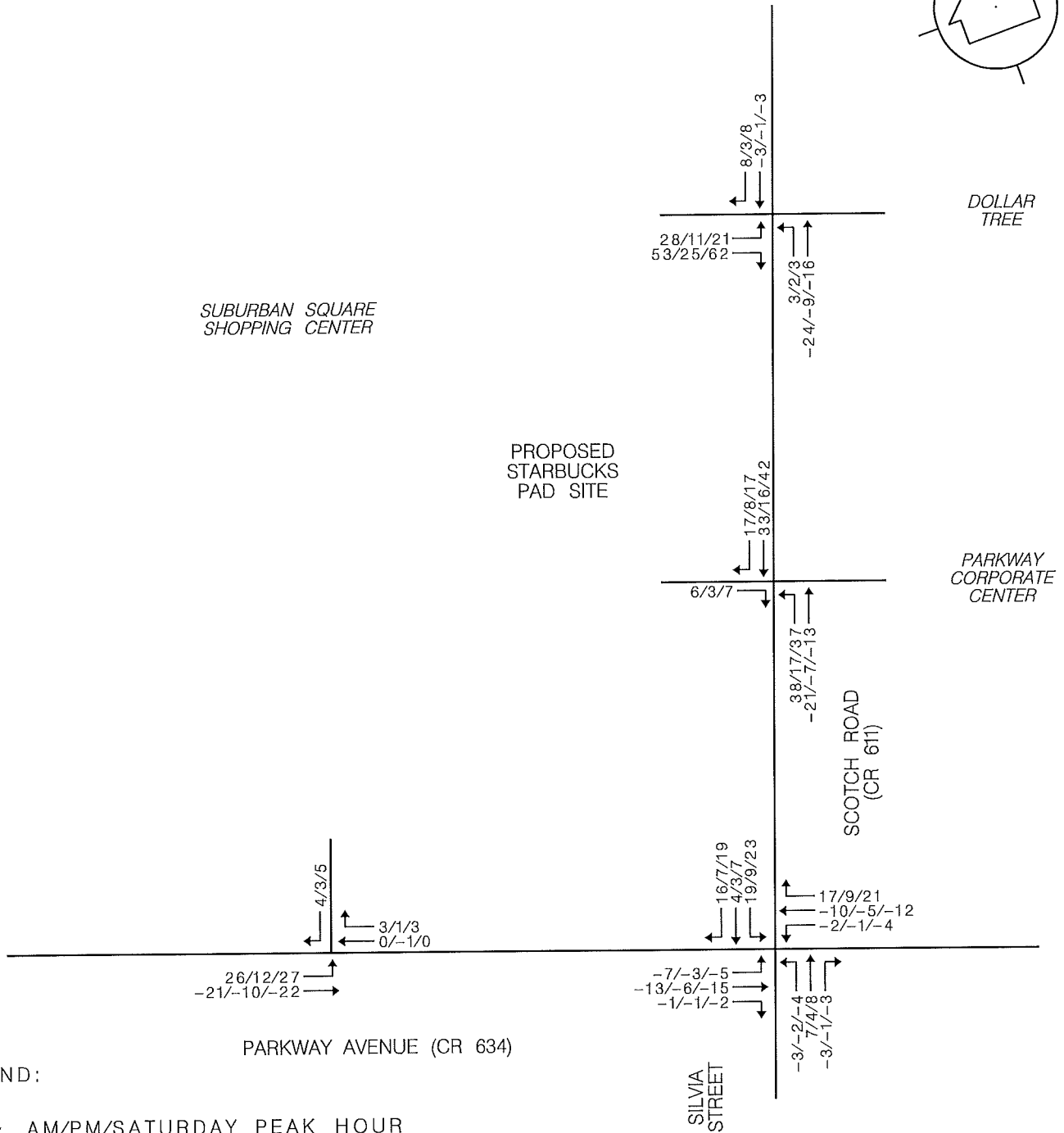
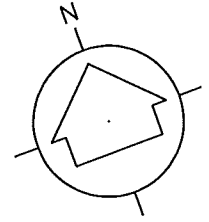


FIGURE 6
 SITE TRAFFIC

*PROPOSED STARBUCKS PAD SITE
 SUBURBAN SQUARE SHOPPING CENTER*

EWING TOWNSHIP, MERCER COUNTY, NJ

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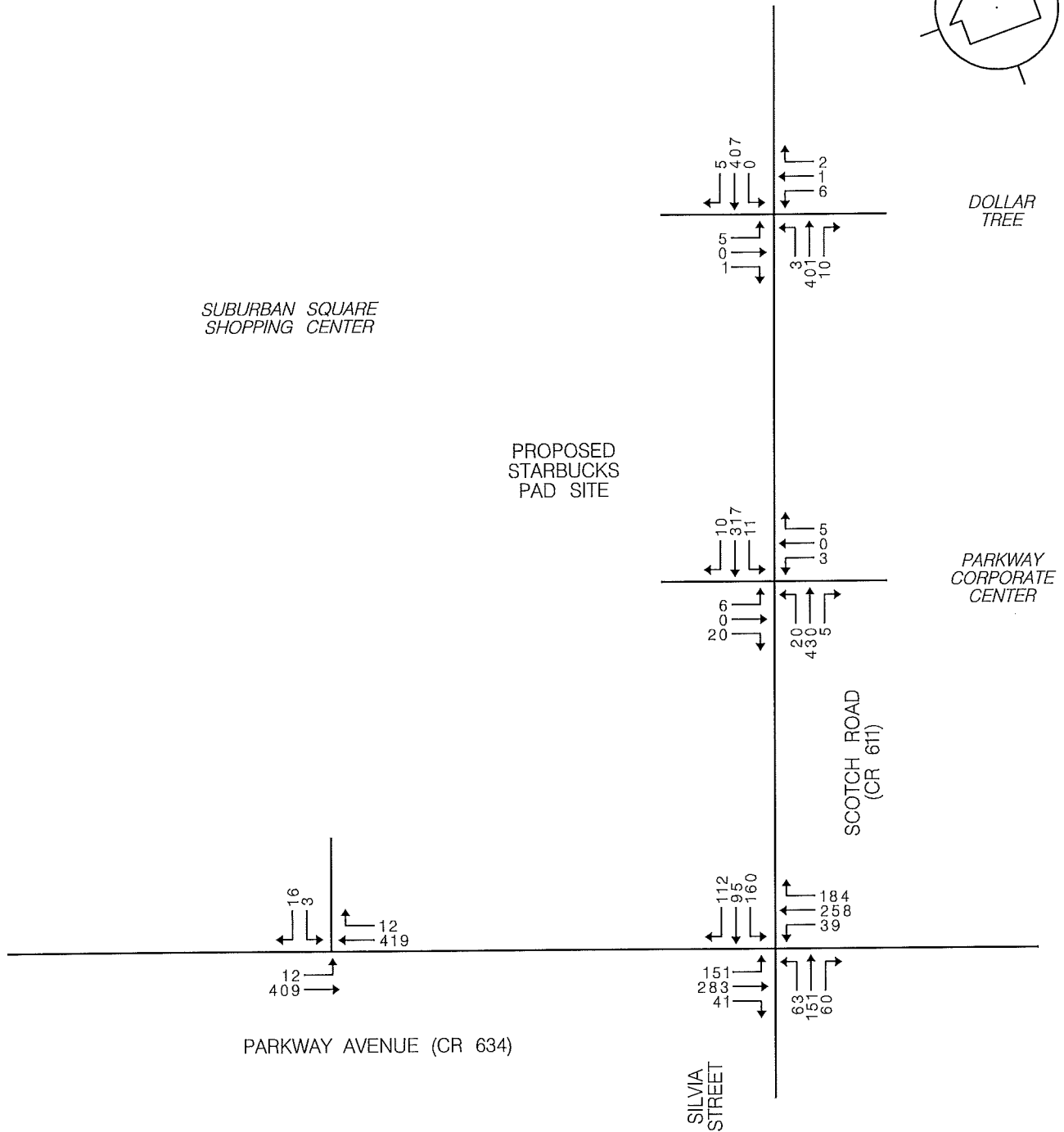
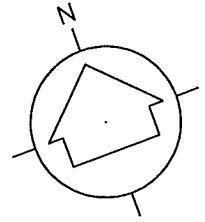


FIGURE 7
 FUTURE NO-BUILD AM PEAK HOUR TRAFFIC VOLUMES
PROPOSED STARBUCKS PAD SITE
SUBURBAN SQUARE SHOPPING CENTER
 EWING TOWNSHIP, MERCER COUNTY, NJ

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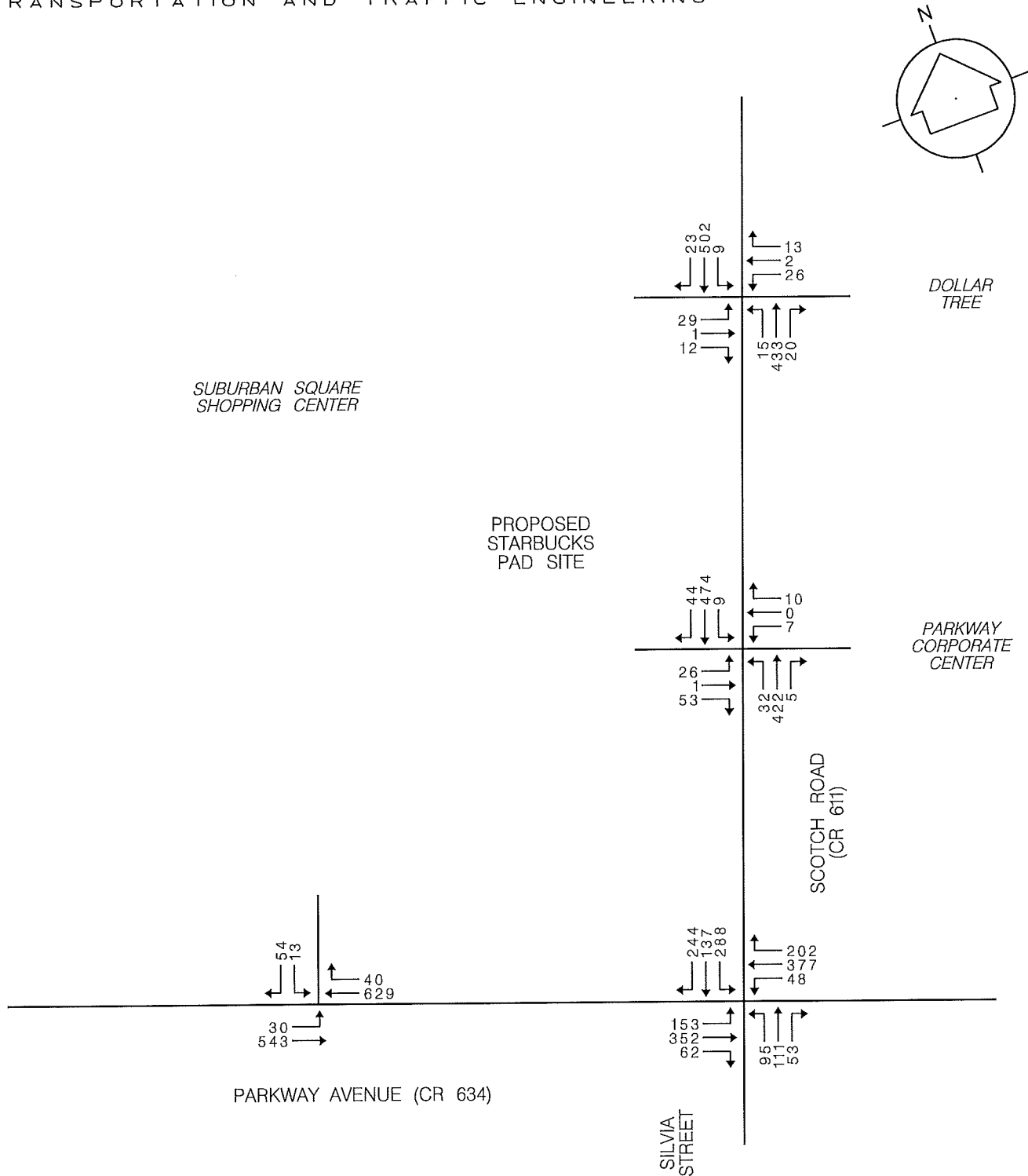


FIGURE 8
 FUTURE NO-BUILD PM PEAK HOUR TRAFFIC VOLUMES
PROPOSED STARBUCKS PAD SITE
SUBURBAN SQUARE SHOPPING CENTER
 EWING TOWNSHIP, MERCER COUNTY, NJ

24-039
 OCTOBER 2024

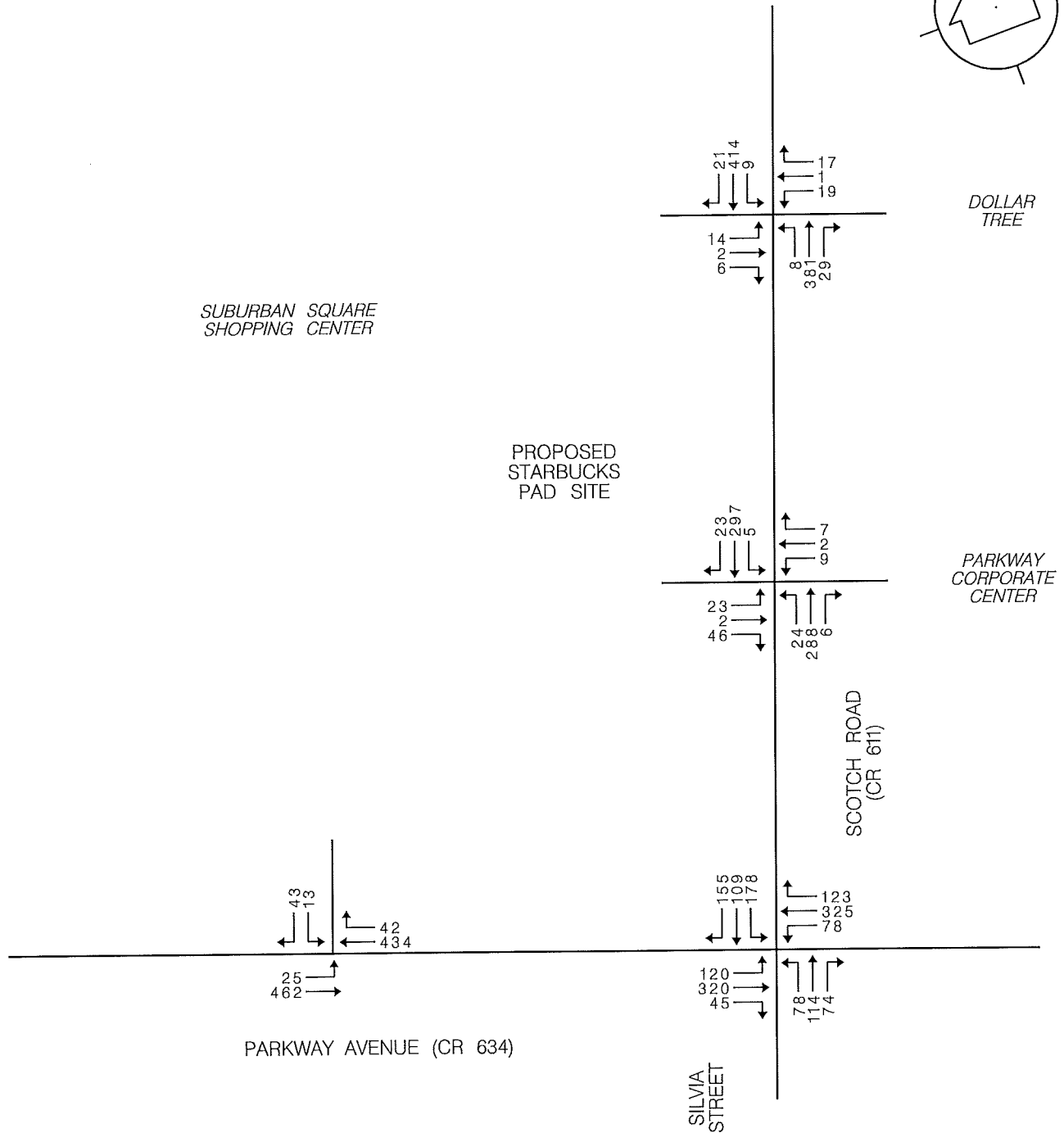
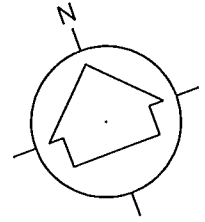


FIGURE 9
 FUTURE NO-BUILD SATURDAY PEAK HOUR TRAFFIC VOLUMES

PROPOSED STARBUCKS PAD SITE
SUBURBAN SQUARE SHOPPING CENTER

EWING TOWNSHIP, MERCER COUNTY, NJ

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 OCTOBER 2024

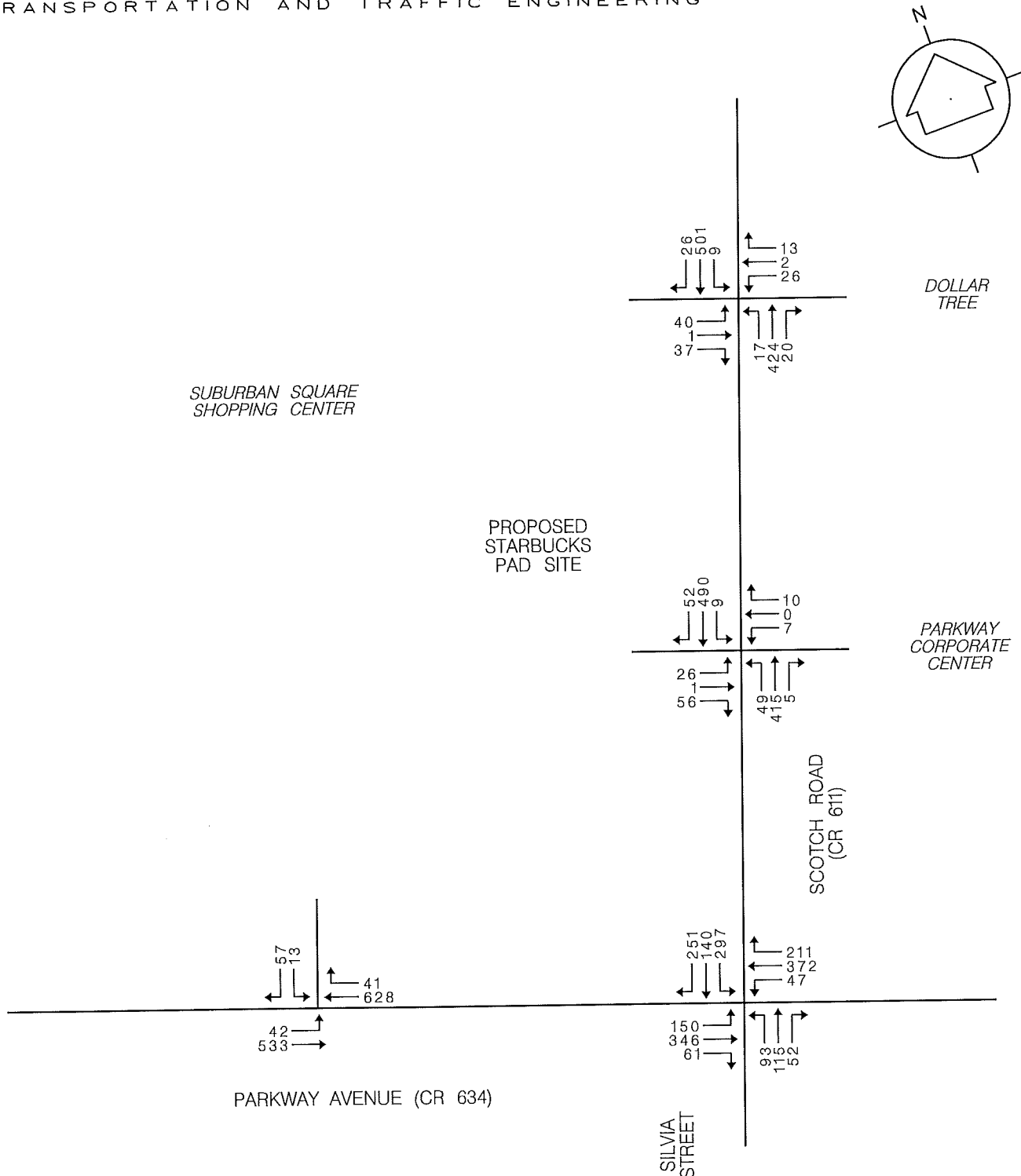


FIGURE 11
 FUTURE BUILD PM PEAK HOUR TRAFFIC VOLUMES
PROPOSED STARBUCKS PAD SITE
SUBURBAN SQUARE SHOPPING CENTER
 EWING TOWNSHIP, MERCER COUNTY, NJ

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 OCTOBER 2024

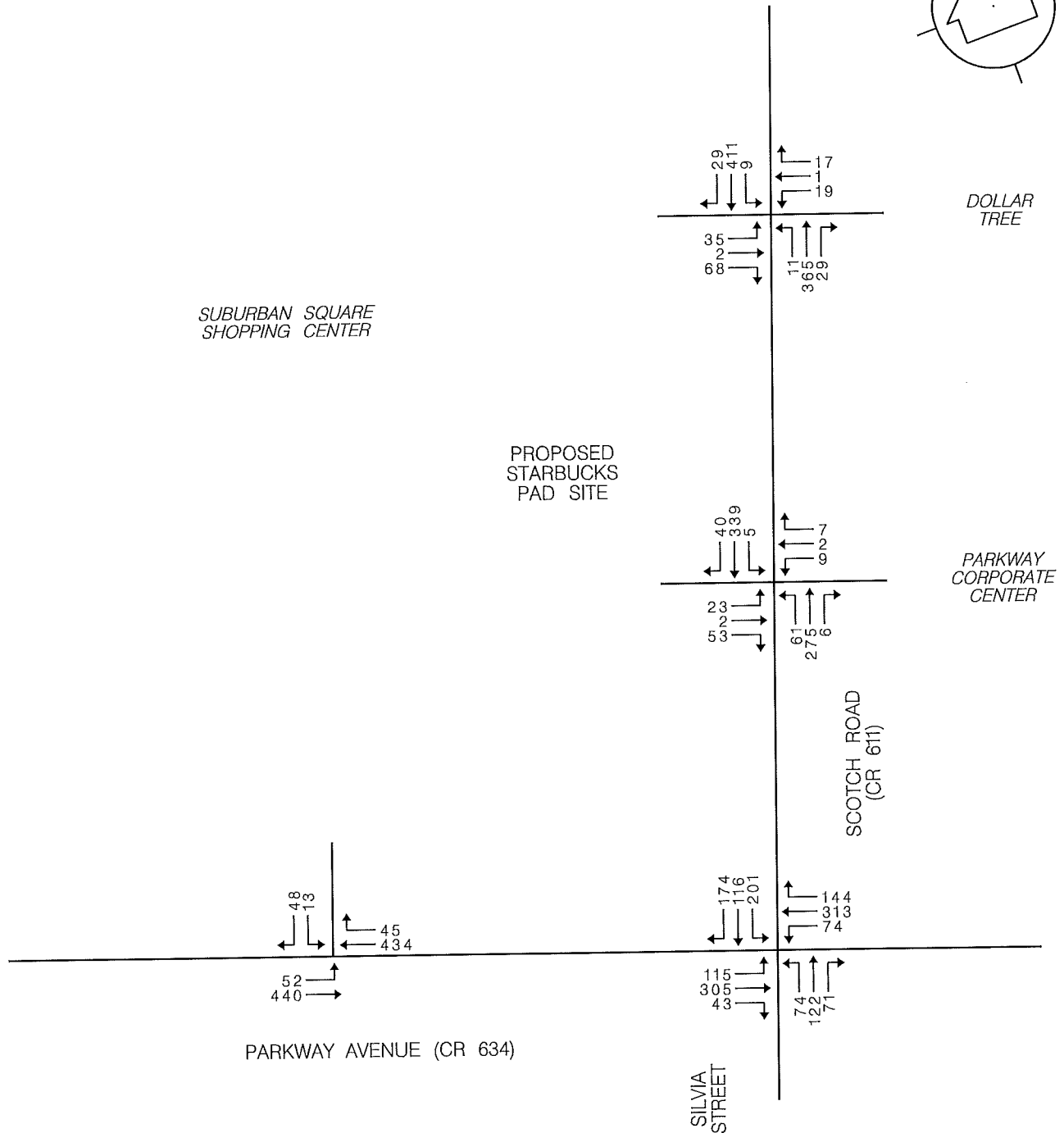
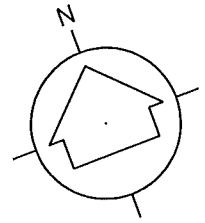
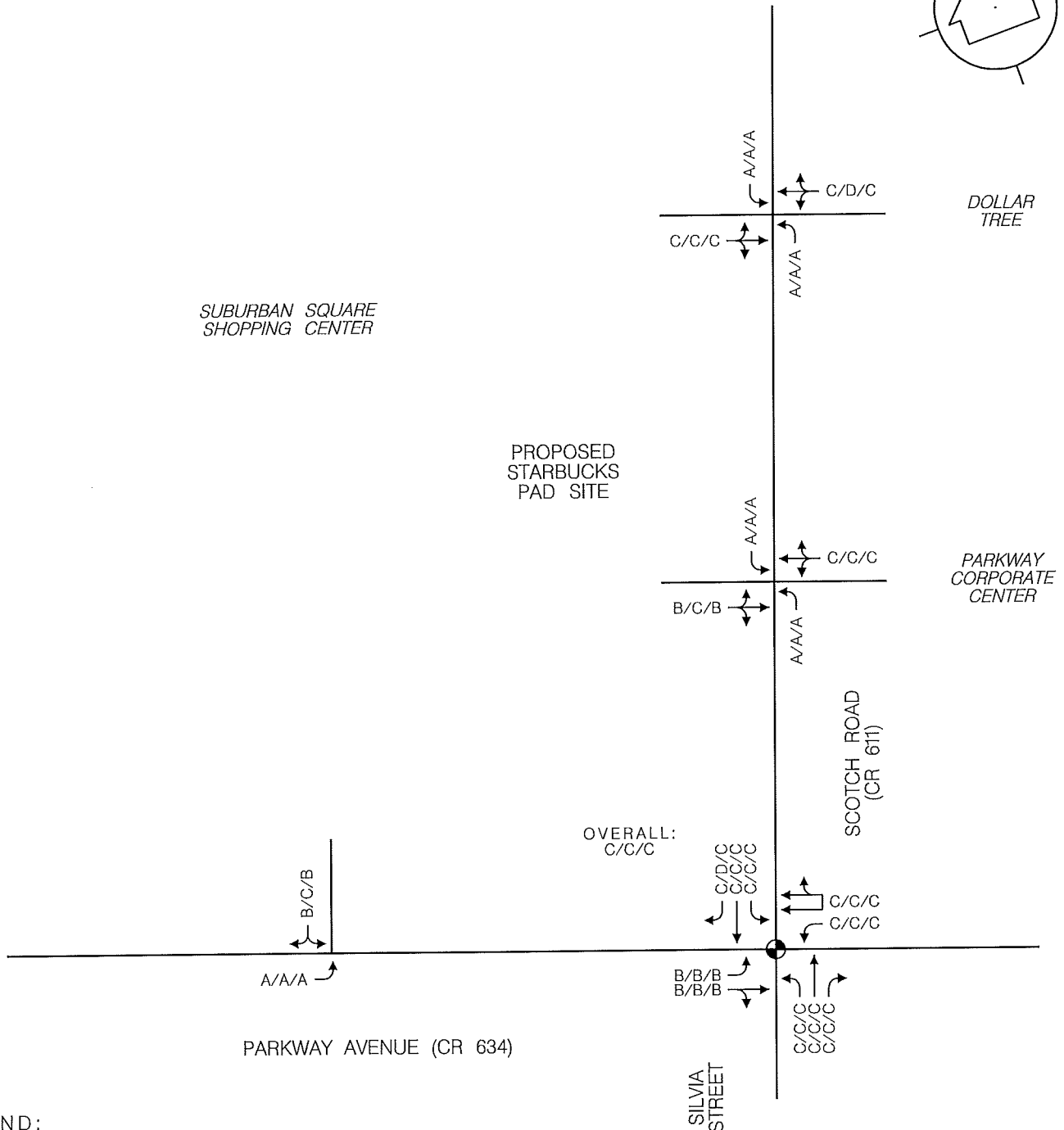
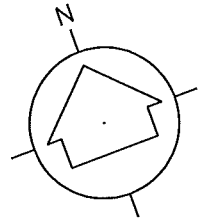


FIGURE 12
 FUTURE BUILD SATURDAY PEAK HOUR TRAFFIC VOLUMES

PROPOSED STARBUCKS PAD SITE
SUBURBAN SQUARE SHOPPING CENTER

EWING TOWNSHIP, MERCER COUNTY, NJ

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 OCTOBER 2024



LEGEND:

- ← AM/PM/SATURDAY PEAK HOUR
- ⊕ TRAFFIC SIGNAL

FIGURE 14
 BUILD LEVELS OF SERVICE

PROPOSED STARBUCKS PAD SITE
SUBURBAN SQUARE SHOPPING CENTER

EWING TOWNSHIP, MERCER COUNTY, NJ

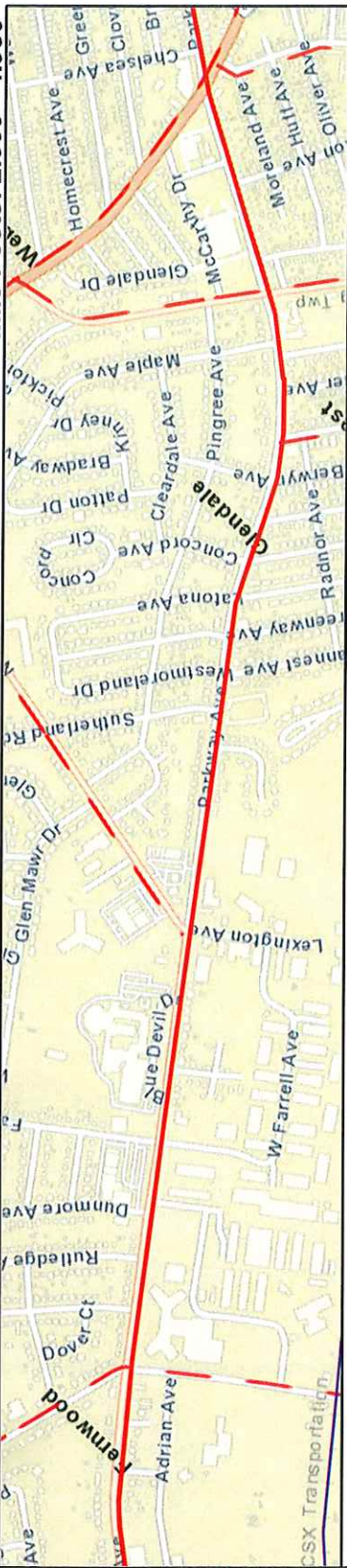
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APPENDIX A

Straight-Line Diagrams

Mile Posts: 2.000 - 4.930

MERCER COUNTY 634 (West to East)



| Street Name | Units in miles |
|-------------------------------|----------------|
| West Upper Ferry Road | 2.0 |
| SCOTCH RD (2.20) | 2.20 |
| SILVIA ST | 2.20 |
| WALTER ST (2.36) | 2.36 |
| GOLD ST (2.54) | 2.54 |
| LOWER FERRY ROAD | 2.67 |
| STRATFORD AVE (2.75) | 2.75 |
| RUTLEDGE AVE (2.82) | 2.82 |
| DUNMORE AVE (2.88) | 2.88 |
| FARRELL AVENUE (2.97) | 2.97 |
| SARATOGA AVE (3.07) | 3.07 |
| LEXINGTON AVE | 3.25 |
| N OLDEN AVE (3.25) | 3.25 |
| RANCHWOOD DR (3.50) | 3.50 |
| SUTHERLAND RD (3.55) | 3.55 |
| WANNEST AVE (3.60) | 3.60 |
| GREENWAY AVENUE (3.65) | 3.65 |
| LATONA AVENUE (3.68) | 3.68 |
| CONCORD AVENUE (3.75) | 3.75 |
| BEECHWOOD AVE (3.80) | 3.80 |
| BERWYN AVENUE (3.88) | 3.88 |
| HILLCREST AVE (3.92) | 3.92 |
| GARDNER AVE (3.98) | 3.98 |
| MAPLE AVE (4.02) | 4.02 |
| MAPLE AVE (4.04) | 4.04 |
| PARKSIDE AVENUE (4.11) | 4.11 |
| CADWALADER TERR AVENUE (4.15) | 4.15 |
| BRINTON AVE (4.26) | 4.26 |
| PENNINGTON ROAD (4.40) | 4.40 |
| CHELSEA AVE (4.44) | 4.44 |
| GLENWOOD AVE (4.51) | 4.51 |
| ARLINGTON AVE (4.53) | 4.53 |
| KUOP AVENUE (4.57) | 4.57 |
| DOUGLAS AVE (4.61) | 4.61 |
| PROSPECT STREET (4.76) | 4.76 |
| KELSEY AVENUE (4.85) | 4.85 |
| W INGHAM AVE (4.93) | 4.93 |

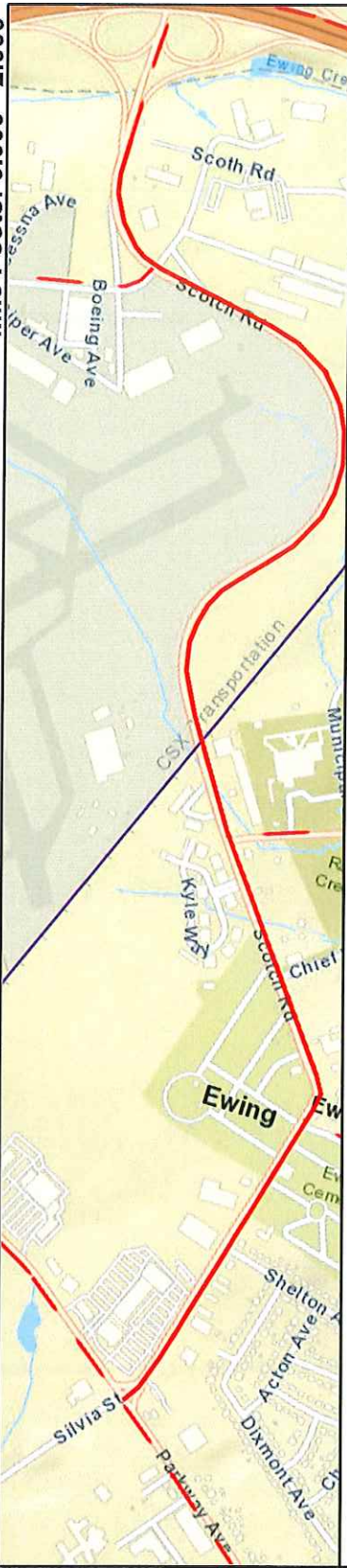
| Street Name | Jurisdiction | Functional Class | Federal Aid - NHS Sy | Control Section | Speed Limit | Number of Lanes | Med. Type | Med. Width | Pavement | Shoulder | Traffic Volume | Traffic Sig. ID | Structure No. | Enlarged Views |
|-------------------------------|-------------------------|----------------------|----------------------|-----------------|-------------|-----------------|-----------|------------|----------|----------|----------------|-----------------|---------------|----------------|
| West Upper Ferry Road | County | Urban Minor Arterial | STP | | 40 | 4 | None | 60 | | | 18,627 (2019) | | | |
| PROSPECT STREET | Trenton City, Mercer Co | | | | 35 | 2 | | 30 | | | 5,095 (2019) | | | |
| END MERCER COUNTY 634 MF-4.93 | | | | | | | | | | | | | | |

Date last inventoried: May 2011

SRI = 11000634

MERCER COUNTY 611 (South to North)

Mile Posts: 0.000 - 2.000



| Legend | |
|----------------------|-----------------------|
| | Secondary Direction |
| | Primary Direction |
| Pavement | |
| Shoulder | |
| Number of Lanes | |
| Speed Limit | |
| Street Name | |
| | Interstate Route |
| | US Route |
| | NJ Route |
| | County Road |
| | Interchange Number |
| | Grade |
| | Separated Interchange |
| | Traffic Signal |
| | Traffic Monitoring |
| | Monitoring Sias |
| | Road |
| | Underpass |
| | Overpass |
| | Dyn Mag Sign |
| Street Name | Scotch Road |
| Jurisdiction | County |
| Functional Class | Urban Minor Arterial |
| Federal Aid - NHS Sy | STP |
| Control Section | |
| Speed Limit | 45 |
| Number of Lanes | 4 |
| Mid. Type | None |
| Mid. Width | 2 |
| Pavement | 40 |
| Shoulder | 48 |
| Traffic Volume | 30 |
| Traffic Sta. ID | 6 |
| Structure No. | 35 |
| Enlarged Views | 26 |
| | 2 |
| | 60 |
| | 48 |
| | 8 |
| | 8,401 (2017) |
| | 11105 |

SRI = 11000611

Date last inventoried: May 2011

Begin Mercer County 611 MP=0

APPENDIX B

Traffic Signal Plan

Scotch Road (C.R.611)/Silvia Street and Parkway Avenue (C.R.634)
 Ewing Township, Mercer County, New Jersey
 Equipment ID SG00870



CONTROLLER TIMING

| PHASE | Ø 1 | Ø 2 | Ø 3 | Ø 4 | Ø 5 | Ø 6 | Ø 7 | Ø 8 |
|--------------|-----|----------|-----|----------|-----|----------|-----|----------|
| MINIMUM | 5 | 25 | 5 | 7 | | 25 | 5 | 7 |
| EXTENSION | 2.0 | 2.0 | 2.0 | 2.0 | | 2.0 | 2.0 | 2.0 |
| MAX I | 17 | 25 | 5 | 14 | | 25 | 5 | 14 |
| MAX II | | | | | | | | |
| PED WALK | | 7 | | 7 | | 7 | | 7 |
| PED CLEAR | | 18 | | 18 | | 18 | | 18 |
| YELLOW | 3.0 | 5.0 | 3.0 | 4.0 | | 5.0 | 3.0 | 4.0 |
| RED | | 2.0 | | 2.0 | | 2.0 | | 2.0 |
| MIN RECALL | OFF | OFF | OFF | OFF | | OFF | OFF | OFF |
| PED RECAL | OFF | ON | OFF | OFF | | ON | OFF | OFF |
| MAX RECALL | OFF | OFF | OFF | OFF | | OFF | OFF | OFF |
| MEMORY | OFF | OFF | OFF | OFF | | OFF | OFF | OFF |
| FLASH | | Y | | R | | Y | | R |

- Ø 1 Parkway Avenue EB Lead Left
- Ø 2 Parkway Avenue WB R.O.W.
- Ø 3 Scotch Road Lead Left
- Ø 4 Silvia Street R.O.W.
- Ø 6 Parkway Avenue EB R.O.W.
- Ø 7 Silvia Street Lead Left
- Ø 8 Scotch Road R.O.W.

Scotch Road (C.R.611)/Silvia Street and Parkway Avenue (C.R.634)
 Ewing Township, Mercer County, New Jersey



PROGRAM

| PLAN/ SPLITS | Ø 1 | Ø 2 | Ø 3 | Ø 4 | Ø 5 | Ø 6 | Ø 7 | Ø 8 | CYCLE | OFFSET | OFFSET REFERENCE |
|--------------|----------|-----|----------|-----|-----|-----|----------|-----|-------|--------|--------------------------|
| 1 | 20(LEAD) | 32 | 13(LEAD) | 25 | 0 | 52 | 13(LEAD) | 25 | 90 | 0 | Start of Amber Phase 2&6 |
| 2 | 23(LEAD) | 32 | 15(LEAD) | 23 | 0 | 55 | 15(LEAD) | 23 | 90 | 0 | Start of Amber Phase 2&6 |
| 3 | 27(LEAD) | 32 | 8(LEAD) | 28 | 0 | 59 | 8(LEAD) | 28 | 90 | 0 | Start of Amber Phase 2&6 |

WEEKLY PROGRAM CHART

DAY PLAN 1

| EVENT | DAY | TIME | PLAN | REMARKS |
|-------|---------|-------|------|-----------|
| 1 | Mon-Fri | 00:00 | 3 | OFF PEAK |
| 2 | Mon-Fri | 06:00 | 1 | A.M. PEAK |
| 3 | Mon-Fri | 09:00 | 3 | OFF PEAK |
| 4 | Mon-Fri | 15:00 | 2 | P.M. PEAK |
| 5 | Mon-Fri | 21:00 | 3 | OFF PEAK |

DAY PLAN 2

| EVENT | DAY | TIME | PLAN | REMARKS |
|-------|---------|-------|------|----------|
| 1 | Sat-Sun | 00:00 | 3 | OFF PEAK |

CONTROLLER NOTES:

- 1) Offsets are to be measured from beginning of amber for Parkway Avenue R.O.W. at this intersection.
- 2) The memory circuits shall be off.
- 3) The vehicle interval shall be set at 2 seconds
- 4) The manual control shall be disconnected.
- 5) The controller shall have the ability to skip any phase which has not been actuated.
- 6) When phase 4 and 8 pedestrian actuations cause the timing to exceed the background cycle, the local cycle counter for the controller shall be frozen at the force off point of that phase until the end of the pedestrian clearance interval. The cycle counter shall then resume timing from where it left off and the controller will immediately begin offset seeking until it gets back in step.
- 7) Signal shall rest in phases 2 and 6 green/don't walk
- 8) If phases 3 or 7 are actuated, phases 4 and 8 shall follow.
- 9) Detector switching shall be provided such that phases 3 and 7 actuations extend phases 4 and 8 R.O.W. movements.

APPENDIX C

Traffic Counts

Horner & Canter Associates
Transportation and Traffic Engineering

4950 York Rd, Suite 2G, P.O. 301, Holicong, PA 18928-0301
 105 Atsion Rd, Suite F, Medford, NJ 08055

NB/SB: Silvia St./ Scotch Rd.
 EB/WB: Parkway Ave.
 Ewing Twp./ Mercer Co./ NJ
 Thursday/ Clear/ E-14/ GD

File Name : 24-039-002
 Site Code : 24039002
 Start Date : 9/26/2024
 Page No : 1

Groups Printed- Passenger and 2 Axle Vehicles - Buses and Heavy Vehicles

| Start Time | Scotch Rd. Southbound | | | Parkway Ave. Westbound | | | Silvia St. Northbound | | | Parkway Ave. Eastbound | | | Int. Total |
|---------------------------------|--------------------------|------|-------|---------------------------|------|-------|--------------------------|------|-------|---------------------------|------|-------|------------|
| | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| 07:00 AM | 18 | 18 | 10 | 9 | 32 | 16 | 11 | 30 | 13 | 9 | 57 | 15 | 238 |
| 07:15 AM | 30 | 15 | 14 | 5 | 34 | 28 | 21 | 27 | 17 | 30 | 82 | 8 | 311 |
| 07:30 AM | 36 | 20 | 20 | 4 | 55 | 41 | 14 | 30 | 14 | 15 | 85 | 13 | 347 |
| 07:45 AM | 48 | 19 | 9 | 6 | 52 | 36 | 11 | 41 | 14 | 22 | 85 | 14 | 357 |
| Total | 132 | 72 | 53 | 24 | 173 | 121 | 57 | 128 | 58 | 76 | 309 | 50 | 1253 |
| 08:00 AM | 38 | 23 | 27 | 12 | 52 | 52 | 12 | 35 | 11 | 39 | 74 | 8 | 383 |
| 08:15 AM | 42 | 18 | 30 | 6 | 63 | 37 | 13 | 35 | 15 | 31 | 63 | 12 | 365 |
| 08:30 AM | 35 | 25 | 27 | 11 | 63 | 37 | 13 | 32 | 21 | 38 | 79 | 12 | 393 |
| 08:45 AM | 43 | 28 | 26 | 9 | 76 | 55 | 24 | 47 | 12 | 41 | 63 | 8 | 432 |
| Total | 158 | 94 | 110 | 38 | 254 | 181 | 62 | 149 | 59 | 149 | 279 | 40 | 1573 |
| *** BREAK *** | | | | | | | | | | | | | |
| 04:00 PM | 54 | 40 | 38 | 14 | 115 | 46 | 20 | 35 | 15 | 32 | 78 | 12 | 499 |
| 04:15 PM | 64 | 38 | 44 | 14 | 99 | 41 | 17 | 31 | 10 | 36 | 90 | 16 | 500 |
| 04:30 PM | 68 | 27 | 71 | 15 | 85 | 40 | 29 | 41 | 12 | 35 | 70 | 14 | 507 |
| 04:45 PM | 66 | 27 | 64 | 17 | 85 | 38 | 27 | 25 | 14 | 38 | 73 | 10 | 484 |
| Total | 252 | 132 | 217 | 60 | 384 | 165 | 93 | 132 | 51 | 141 | 311 | 52 | 1990 |
| 05:00 PM | 64 | 33 | 67 | 5 | 97 | 45 | 18 | 23 | 15 | 47 | 100 | 20 | 534 |
| 05:15 PM | 89 | 45 | 55 | 20 | 93 | 65 | 25 | 24 | 8 | 28 | 86 | 17 | 555 |
| 05:30 PM | 65 | 30 | 54 | 5 | 96 | 51 | 24 | 37 | 15 | 38 | 88 | 14 | 517 |
| 05:45 PM | 60 | 33 | 44 | 12 | 99 | 46 | 26 | 33 | 9 | 34 | 68 | 14 | 478 |
| Total | 278 | 141 | 220 | 42 | 385 | 207 | 93 | 117 | 47 | 147 | 342 | 65 | 2084 |
| Grand Total | 820 | 439 | 600 | 164 | 1196 | 674 | 305 | 526 | 215 | 513 | 1241 | 207 | 6900 |
| Apprch % | 44.1 | 23.6 | 32.3 | 8.1 | 58.8 | 33.1 | 29.2 | 50.3 | 20.6 | 26.2 | 63.3 | 10.6 | |
| Total % | 11.9 | 6.4 | 8.7 | 2.4 | 17.3 | 9.8 | 4.4 | 7.6 | 3.1 | 7.4 | 18 | 3 | |
| Passenger and 2 Axle Vehicles | 792 | 421 | 579 | 154 | 1143 | 659 | 294 | 500 | 206 | 496 | 1185 | 192 | 6621 |
| % Passenger and 2 Axle Vehicles | 96.6 | 95.9 | 96.5 | 93.9 | 95.6 | 97.8 | 96.4 | 95.1 | 95.8 | 96.7 | 95.5 | 92.8 | 96 |
| Buses and Heavy Vehicles | 28 | 18 | 21 | 10 | 53 | 15 | 11 | 26 | 9 | 17 | 56 | 15 | 279 |
| % Buses and Heavy Vehicles | 3.4 | 4.1 | 3.5 | 6.1 | 4.4 | 2.2 | 3.6 | 4.9 | 4.2 | 3.3 | 4.5 | 7.2 | 4 |

Horner & Canter Associates
Transportation and Traffic Engineering

4950 York Rd, Suite 2G, P.O. 301, Holicong, PA 18928-0301
 105 Atsion Rd, Suite F, Medford, NJ 08055

NB/SB: Silvia St./ Scotch Rd.
 EB/WB: Parkway Ave.
 Ewing Twp./ Mercer Co./ NJ
 Thursday/ Clear/ E-14/ GD

File Name : 24-039-002
 Site Code : 24039002
 Start Date : 9/26/2024
 Page No : 2

| Start Time | Scotch Rd. Southbound | | | | Parkway Ave. Westbound | | | | Silvia St. Northbound | | | | Parkway Ave. Eastbound | | | | Int. Total |
|--|-----------------------|------|-------|------------|------------------------|------|-------|------------|-----------------------|------|-------|------------|------------------------|------|-------|------------|------------|
| | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 08:00 AM | | | | | | | | | | | | | | | | | |
| 08:00 AM | 38 | 23 | 27 | 88 | 12 | 52 | 52 | 116 | 12 | 35 | 11 | 58 | 39 | 74 | 8 | 121 | 383 |
| 08:15 AM | 42 | 18 | 30 | 90 | 6 | 63 | 37 | 106 | 13 | 35 | 15 | 63 | 31 | 63 | 12 | 106 | 365 |
| 08:30 AM | 35 | 25 | 27 | 87 | 11 | 63 | 37 | 111 | 13 | 32 | 21 | 66 | 38 | 79 | 12 | 129 | 393 |
| 08:45 AM | 43 | 28 | 26 | 97 | 9 | 76 | 55 | 140 | 24 | 47 | 12 | 83 | 41 | 63 | 8 | 112 | 432 |
| Total Volume | 158 | 94 | 110 | 362 | 38 | 254 | 181 | 473 | 62 | 149 | 59 | 270 | 149 | 279 | 40 | 468 | 1573 |
| % App. Total | 43.6 | 26 | 30.4 | | 8 | 53.7 | 38.3 | | 23 | 55.2 | 21.9 | | 31.8 | 59.6 | 8.5 | | |
| PHF | .919 | .839 | .917 | .933 | .792 | .836 | .823 | .845 | .646 | .793 | .702 | .813 | .909 | .883 | .833 | .907 | .910 |
| Passenger and 2 Axle Vehicles | 145 | 82 | 99 | 326 | 33 | 231 | 175 | 439 | 60 | 136 | 57 | 253 | 142 | 265 | 38 | 445 | 1463 |
| % Passenger and 2 Axle Vehicles | 91.8 | 87.2 | 90.0 | 90.1 | 86.8 | 90.9 | 96.7 | 92.8 | 96.8 | 91.3 | 96.6 | 93.7 | 95.3 | 95.0 | 95.0 | 95.1 | 93.0 |
| Buses and Heavy Vehicles | 13 | 12 | 11 | 36 | 5 | 23 | 6 | 34 | 2 | 13 | 2 | 17 | 7 | 14 | 2 | 23 | 110 |
| % Buses and Heavy Vehicles | 8.2 | 12.8 | 10.0 | 9.9 | 13.2 | 9.1 | 3.3 | 7.2 | 3.2 | 8.7 | 3.4 | 6.3 | 4.7 | 5.0 | 5.0 | 4.9 | 7.0 |

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:45 PM

| | | | | | | | | | | | | | | | | | |
|---------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 04:45 PM | 66 | 27 | 64 | 157 | 17 | 85 | 38 | 140 | 27 | 25 | 14 | 66 | 38 | 73 | 10 | 121 | 484 |
| 05:00 PM | 64 | 33 | 67 | 164 | 5 | 97 | 45 | 147 | 18 | 23 | 15 | 56 | 47 | 100 | 20 | 167 | 534 |
| 05:15 PM | 89 | 45 | 55 | 189 | 20 | 93 | 65 | 178 | 25 | 24 | 8 | 57 | 28 | 86 | 17 | 131 | 555 |
| 05:30 PM | 65 | 30 | 54 | 149 | 5 | 96 | 51 | 152 | 24 | 37 | 15 | 76 | 38 | 88 | 14 | 140 | 517 |
| Total Volume | 284 | 135 | 240 | 659 | 47 | 371 | 199 | 617 | 94 | 109 | 52 | 255 | 151 | 347 | 61 | 559 | 2090 |
| % App. Total | 43.1 | 20.5 | 36.4 | | 7.6 | 60.1 | 32.3 | | 36.9 | 42.7 | 20.4 | | 27 | 62.1 | 10.9 | | |
| PHF | .798 | .750 | .896 | .872 | .588 | .956 | .765 | .867 | .870 | .736 | .867 | .839 | .803 | .868 | .763 | .837 | .941 |
| Passenger and 2 Axle Vehicles | 281 | 134 | 237 | 652 | 47 | 367 | 199 | 613 | 93 | 109 | 50 | 252 | 149 | 344 | 59 | 552 | 2069 |
| % Passenger and 2 Axle Vehicles | 98.9 | 99.3 | 98.8 | 98.9 | 100 | 98.9 | 100 | 99.4 | 98.9 | 100 | 96.2 | 98.8 | 98.7 | 99.1 | 96.7 | 98.7 | 99.0 |
| Buses and Heavy Vehicles | 3 | 1 | 3 | 7 | 0 | 4 | 0 | 4 | 1 | 0 | 2 | 3 | 2 | 3 | 2 | 7 | 21 |
| % Buses and Heavy Vehicles | 1.1 | 0.7 | 1.3 | 1.1 | 0 | 1.1 | 0 | 0.6 | 1.1 | 0 | 3.8 | 1.2 | 1.3 | 0.9 | 3.3 | 1.3 | 1.0 |

Horner & Canter Associates
Transportation and Traffic Engineering

4950 York Rd, Suite 2G, P.O. 301, Holicong, PA 18928-0301
 105 Atsion Rd, Suite F, Medford, NJ 08055

NB/SB: Silvia St./ Scotch Rd.
 EB/WB: Parkway Ave.
 Ewing Twp./ Mercer Co./ NJ
 Saturday/ Clear/ E-14/ GD

File Name : 24-039-012
 Site Code : 24039012
 Start Date : 9/14/2024
 Page No : 1

Groups Printed- Passenger and 2 Axle Vehicles - Buses and Heavy Vehicles

| Start Time | Scotch Rd. Southbound | | | Parkway Ave. Westbound | | | Silvia St. Northbound | | | Parkway Ave. Eastbound | | | Int. Total |
|---------------------------------|-----------------------|------------|------------|------------------------|------------|------------|-----------------------|------------|------------|------------------------|------------|-----------|-------------|
| | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| 11:00 AM | 45 | 27 | 45 | 20 | 87 | 20 | 15 | 23 | 21 | 29 | 62 | 12 | 406 |
| 11:15 AM | 39 | 32 | 25 | 19 | 71 | 29 | 21 | 37 | 23 | 28 | 85 | 12 | 421 |
| 11:30 AM | 44 | 31 | 45 | 22 | 68 | 28 | 20 | 24 | 12 | 26 | 80 | 7 | 407 |
| 11:45 AM | 44 | 22 | 38 | 21 | 103 | 28 | 17 | 29 | 25 | 30 | 78 | 12 | 447 |
| Total | 172 | 112 | 153 | 82 | 329 | 105 | 73 | 113 | 81 | 113 | 305 | 43 | 1681 |
| 12:00 PM | 48 | 22 | 45 | 15 | 78 | 36 | 19 | 22 | 13 | 34 | 72 | 13 | 417 |
| 12:15 PM | 36 | 20 | 36 | 12 | 93 | 31 | 27 | 23 | 29 | 28 | 73 | 11 | 419 |
| 12:30 PM | 39 | 28 | 31 | 8 | 83 | 21 | 12 | 16 | 12 | 28 | 73 | 5 | 356 |
| 12:45 PM | 23 | 17 | 42 | 11 | 67 | 29 | 20 | 24 | 15 | 41 | 95 | 13 | 397 |
| Total | 146 | 87 | 154 | 46 | 321 | 117 | 78 | 85 | 69 | 131 | 313 | 42 | 1589 |
| Grand Total | 318 | 199 | 307 | 128 | 650 | 222 | 151 | 198 | 150 | 244 | 618 | 85 | 3270 |
| Apprch % | 38.6 | 24.2 | 37.3 | 12.8 | 65 | 22.2 | 30.3 | 39.7 | 30.1 | 25.8 | 65.3 | 9 | |
| Total % | 9.7 | 6.1 | 9.4 | 3.9 | 19.9 | 6.8 | 4.6 | 6.1 | 4.6 | 7.5 | 18.9 | 2.6 | |
| Passenger and 2 Axle Vehicles | 312 | 197 | 303 | 128 | 638 | 220 | 149 | 195 | 150 | 237 | 606 | 82 | 3217 |
| % Passenger and 2 Axle Vehicles | 98.1 | 99 | 98.7 | 100 | 98.2 | 99.1 | 98.7 | 98.5 | 100 | 97.1 | 98.1 | 96.5 | 98.4 |
| Buses and Heavy Vehicles | 6 | 2 | 4 | 0 | 12 | 2 | 2 | 3 | 0 | 7 | 12 | 3 | 53 |
| % Buses and Heavy Vehicles | 1.9 | 1 | 1.3 | 0 | 1.8 | 0.9 | 1.3 | 1.5 | 0 | 2.9 | 1.9 | 3.5 | 1.6 |

| Start Time | Scotch Rd. Southbound | | | | Parkway Ave. Westbound | | | | Silvia St. Northbound | | | | Parkway Ave. Eastbound | | | | Int. Total |
|--|-----------------------|------------|------------|------------|------------------------|------------|------------|------------|-----------------------|------------|-----------|------------|------------------------|------------|-----------|------------|-------------|
| | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | |
| Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 11:15 AM | | | | | | | | | | | | | | | | | |
| 11:15 AM | 39 | 32 | 25 | 96 | 19 | 71 | 29 | 119 | 21 | 37 | 23 | 81 | 28 | 85 | 12 | 125 | 421 |
| 11:30 AM | 44 | 31 | 45 | 120 | 22 | 68 | 28 | 118 | 20 | 24 | 12 | 56 | 26 | 80 | 7 | 113 | 407 |
| 11:45 AM | 44 | 22 | 38 | 104 | 21 | 103 | 28 | 152 | 17 | 29 | 25 | 71 | 30 | 78 | 12 | 120 | 447 |
| 12:00 PM | 48 | 22 | 45 | 115 | 15 | 78 | 36 | 129 | 19 | 22 | 13 | 54 | 34 | 72 | 13 | 119 | 417 |
| Total Volume | 175 | 107 | 153 | 435 | 77 | 320 | 121 | 518 | 77 | 112 | 73 | 262 | 118 | 315 | 44 | 477 | 1692 |
| % App. Total | 40.2 | 24.6 | 35.2 | | 14.9 | 61.8 | 23.4 | | 29.4 | 42.7 | 27.9 | | 24.7 | 66 | 9.2 | | |
| PHF | .911 | .836 | .850 | .906 | .875 | .777 | .840 | .852 | .917 | .757 | .730 | .809 | .868 | .926 | .846 | .954 | .946 |
| Passenger and 2 Axle Vehicles | 172 | 105 | 151 | 428 | 77 | 316 | 121 | 514 | 76 | 111 | 73 | 260 | 116 | 309 | 42 | 467 | 1669 |
| % Passenger and 2 Axle Vehicles | 98.3 | 98.1 | 98.7 | 98.4 | 100 | 98.8 | 100 | 99.2 | 98.7 | 99.1 | 100 | 99.2 | 98.3 | 98.1 | 95.5 | 97.9 | 98.6 |
| Buses and Heavy Vehicles | 3 | 2 | 2 | 7 | 0 | 4 | 0 | 4 | 1 | 1 | 0 | 2 | 2 | 6 | 2 | 10 | 23 |
| % Buses and Heavy Vehicles | 1.7 | 1.9 | 1.3 | 1.6 | 0 | 1.3 | 0 | 0.8 | 1.3 | 0.9 | 0 | 0.8 | 1.7 | 1.9 | 4.5 | 2.1 | 1.4 |

Horner & Canter Associates

Transportation and Traffic Engineering

4950 York Rd, Suite 2G, P.O. 301, Holicong, PA 18928-0301
105 Atsion Rd, Suite F, Medford, NJ 08055

SB: Suburban Square Access
EB/WB: Parkway Ave.
Ewing Twp./ Mercer Co./ NJ
Tuesday/ Clear/ E-14/ GD

File Name : 24-039-001
Site Code : 24039001
Start Date : 9/17/2024
Page No : 1

Groups Printed- Passenger and 2 Axle Vehicles - Buses and Heavy Vehicles

| Start Time | Suburban Square Access Southbound | | Parkway Ave. Westbound | | Parkway Ave. Eastbound | | Int. Total |
|---------------------------------|-----------------------------------|------------|------------------------|-----------|------------------------|-------------|-------------|
| | Left | Right | Thru | Right | Left | Thru | |
| 07:00 AM | 0 | 0 | 55 | 0 | 0 | 91 | 146 |
| 07:15 AM | 0 | 0 | 56 | 1 | 0 | 132 | 189 |
| 07:30 AM | 0 | 1 | 95 | 2 | 1 | 90 | 189 |
| 07:45 AM | 0 | 0 | 80 | 4 | 0 | 128 | 212 |
| Total | 0 | 1 | 286 | 7 | 1 | 441 | 736 |
| 08:00 AM | 0 | 2 | 82 | 2 | 2 | 102 | 190 |
| 08:15 AM | 1 | 3 | 100 | 4 | 3 | 96 | 207 |
| 08:30 AM | 2 | 5 | 103 | 3 | 3 | 106 | 222 |
| 08:45 AM | 0 | 6 | 128 | 3 | 4 | 99 | 240 |
| Total | 3 | 16 | 413 | 12 | 12 | 403 | 859 |
| *** BREAK *** | | | | | | | |
| 04:00 PM | 5 | 5 | 152 | 5 | 6 | 135 | 308 |
| 04:15 PM | 4 | 9 | 148 | 13 | 8 | 109 | 291 |
| 04:30 PM | 3 | 14 | 143 | 8 | 7 | 125 | 300 |
| 04:45 PM | 2 | 10 | 145 | 6 | 9 | 130 | 302 |
| Total | 14 | 38 | 588 | 32 | 30 | 499 | 1201 |
| 05:00 PM | 4 | 11 | 175 | 16 | 10 | 137 | 353 |
| 05:15 PM | 4 | 18 | 157 | 9 | 4 | 143 | 335 |
| 05:30 PM | 5 | 12 | 129 | 7 | 6 | 112 | 271 |
| 05:45 PM | 3 | 10 | 127 | 14 | 8 | 130 | 292 |
| Total | 16 | 51 | 588 | 46 | 28 | 522 | 1251 |
| Grand Total | 33 | 106 | 1875 | 97 | 71 | 1865 | 4047 |
| Apprch % | 23.7 | 76.3 | 95.1 | 4.9 | 3.7 | 96.3 | |
| Total % | 0.8 | 2.6 | 46.3 | 2.4 | 1.8 | 46.1 | |
| Passenger and 2 Axle Vehicles | 32 | 104 | 1783 | 97 | 69 | 1777 | 3862 |
| % Passenger and 2 Axle Vehicles | 97 | 98.1 | 95.1 | 100 | 97.2 | 95.3 | 95.4 |
| Buses and Heavy Vehicles | 1 | 2 | 92 | 0 | 2 | 88 | 185 |
| % Buses and Heavy Vehicles | 3 | 1.9 | 4.9 | 0 | 2.8 | 4.7 | 4.6 |

Horner & Canter Associates
Transportation and Traffic Engineering

4950 York Rd, Suite 2G, P.O. 301, Holicong, PA 18928-0301
 105 Atsion Rd, Suite F, Medford, NJ 08055

SB: Suburban Square Access
 EB/WB: Parkway Ave.
 Ewing Twp./ Mercer Co./ NJ
 Tuesday/ Clear/ E-14/ GD

File Name : 24-039-001
 Site Code : 24039001
 Start Date : 9/17/2024
 Page No : 2

| Start Time | Suburban Square Access Southbound | | | Parkway Ave. Westbound | | | Parkway Ave. Eastbound | | | Int. Total |
|--|--------------------------------------|-------|------------|---------------------------|-------|------------|---------------------------|------|------------|------------|
| | Left | Right | App. Total | Thru | Right | App. Total | Left | Thru | App. Total | |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 08:00 AM | | | | | | | | | | |
| 08:00 AM | 0 | 2 | 2 | 82 | 2 | 84 | 2 | 102 | 104 | 190 |
| 08:15 AM | 1 | 3 | 4 | 100 | 4 | 104 | 3 | 96 | 99 | 207 |
| 08:30 AM | 2 | 5 | 7 | 103 | 3 | 106 | 3 | 106 | 109 | 222 |
| 08:45 AM | 0 | 6 | 6 | 128 | 3 | 131 | 4 | 99 | 103 | 240 |
| Total Volume | 3 | 16 | 19 | 413 | 12 | 425 | 12 | 403 | 415 | 859 |
| % App. Total | 15.8 | 84.2 | | 97.2 | 2.8 | | 2.9 | 97.1 | | |
| PHF | .375 | .667 | .679 | .807 | .750 | .811 | .750 | .950 | .952 | .895 |
| Passenger and 2 Axle Vehicles | 2 | 15 | 17 | 377 | 12 | 389 | 12 | 373 | 385 | 791 |
| % Passenger and 2 Axle Vehicles | 66.7 | 93.8 | 89.5 | 91.3 | 100 | 91.5 | 100 | 92.6 | 92.8 | 92.1 |
| Buses and Heavy Vehicles | 1 | 1 | 2 | 36 | 0 | 36 | 0 | 30 | 30 | 68 |
| % Buses and Heavy Vehicles | 33.3 | 6.3 | 10.5 | 8.7 | 0 | 8.5 | 0 | 7.4 | 7.2 | 7.9 |

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 04:30 PM

| | | | | | | | | | | |
|---------------------------------|------|------|------|------|------|------|------|------|------|------|
| 04:30 PM | 3 | 14 | 17 | 143 | 8 | 151 | 7 | 125 | 132 | 300 |
| 04:45 PM | 2 | 10 | 12 | 145 | 6 | 151 | 9 | 130 | 139 | 302 |
| 05:00 PM | 4 | 11 | 15 | 175 | 16 | 191 | 10 | 137 | 147 | 353 |
| 05:15 PM | 4 | 18 | 22 | 157 | 9 | 166 | 4 | 143 | 147 | 335 |
| Total Volume | 13 | 53 | 66 | 620 | 39 | 659 | 30 | 535 | 565 | 1290 |
| % App. Total | 19.7 | 80.3 | | 94.1 | 5.9 | | 5.3 | 94.7 | | |
| PHF | .813 | .736 | .750 | .886 | .609 | .863 | .750 | .935 | .961 | .914 |
| Passenger and 2 Axle Vehicles | 13 | 53 | 66 | 608 | 39 | 647 | 29 | 523 | 552 | 1265 |
| % Passenger and 2 Axle Vehicles | 100 | 100 | 100 | 98.1 | 100 | 98.2 | 96.7 | 97.8 | 97.7 | 98.1 |
| Buses and Heavy Vehicles | 0 | 0 | 0 | 12 | 0 | 12 | 1 | 12 | 13 | 25 |
| % Buses and Heavy Vehicles | 0 | 0 | 0 | 1.9 | 0 | 1.8 | 3.3 | 2.2 | 2.3 | 1.9 |

Horner & Canter Associates
Transportation and Traffic Engineering

4950 York Rd, Suite 2G, P.O. 301, Holicong, PA 18928-0301
 105 Atsion Rd, Suite F, Medford, NJ 08055

NB/SB: Scotch Rd.
 EB/WB: Suburban Square/ Parkway Corp. DW
 Ewing Twp./ Mercer Co./ NJ
 Tuesday/ Clear/ E-14/ GD

File Name : 24-039-003
 Site Code : 24039003
 Start Date : 9/24/2024
 Page No : 1

Groups Printed- Passenger and 2 Axle Vehicles - Buses and Heavy Vehicles

| Start Time | Scotch Rd. Southbound | | | Parkway Corp. Center DW Westbound | | | Scotch Rd. Northbound | | | Suburban Square Access Eastbound | | | Int. Total |
|---------------------------------|-----------------------|-------------|-----------|-----------------------------------|----------|-----------|-----------------------|-------------|-----------|----------------------------------|----------|------------|-------------|
| | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| 07:00 AM | 0 | 47 | 0 | 1 | 0 | 0 | 0 | 59 | 1 | 0 | 0 | 0 | 108 |
| 07:15 AM | 1 | 55 | 0 | 3 | 0 | 0 | 2 | 78 | 0 | 0 | 0 | 1 | 140 |
| 07:30 AM | 0 | 64 | 1 | 0 | 0 | 1 | 1 | 83 | 1 | 1 | 0 | 1 | 153 |
| 07:45 AM | 3 | 61 | 0 | 0 | 0 | 1 | 2 | 100 | 1 | 0 | 0 | 1 | 169 |
| Total | 4 | 227 | 1 | 4 | 0 | 2 | 5 | 320 | 3 | 1 | 0 | 3 | 570 |
| 08:00 AM | 2 | 72 | 3 | 0 | 0 | 1 | 3 | 108 | 0 | 0 | 0 | 4 | 193 |
| 08:15 AM | 3 | 84 | 3 | 1 | 0 | 0 | 4 | 96 | 1 | 1 | 0 | 8 | 201 |
| 08:30 AM | 4 | 74 | 2 | 2 | 0 | 0 | 5 | 97 | 2 | 2 | 0 | 2 | 190 |
| 08:45 AM | 2 | 82 | 2 | 0 | 0 | 4 | 8 | 123 | 2 | 3 | 0 | 6 | 232 |
| Total | 11 | 312 | 10 | 3 | 0 | 5 | 20 | 424 | 5 | 6 | 0 | 20 | 816 |
| *** BREAK *** | | | | | | | | | | | | | |
| 04:00 PM | 2 | 108 | 6 | 1 | 0 | 4 | 6 | 89 | 0 | 5 | 0 | 5 | 226 |
| 04:15 PM | 1 | 100 | 10 | 1 | 0 | 5 | 5 | 89 | 1 | 5 | 0 | 6 | 223 |
| 04:30 PM | 1 | 126 | 5 | 1 | 0 | 9 | 5 | 96 | 0 | 3 | 0 | 14 | 260 |
| 04:45 PM | 0 | 126 | 11 | 1 | 0 | 3 | 7 | 104 | 1 | 5 | 0 | 15 | 273 |
| Total | 4 | 460 | 32 | 4 | 0 | 21 | 23 | 378 | 2 | 18 | 0 | 40 | 982 |
| 05:00 PM | 4 | 133 | 12 | 2 | 0 | 3 | 11 | 94 | 2 | 7 | 0 | 17 | 285 |
| 05:15 PM | 2 | 88 | 12 | 4 | 0 | 2 | 5 | 106 | 0 | 5 | 0 | 7 | 231 |
| 05:30 PM | 3 | 120 | 8 | 0 | 0 | 2 | 9 | 112 | 2 | 9 | 1 | 13 | 279 |
| 05:45 PM | 3 | 106 | 7 | 5 | 0 | 1 | 6 | 93 | 2 | 4 | 1 | 27 | 255 |
| Total | 12 | 447 | 39 | 11 | 0 | 8 | 31 | 405 | 6 | 25 | 2 | 64 | 1050 |
| Grand Total | 31 | 1446 | 82 | 22 | 0 | 36 | 79 | 1527 | 16 | 50 | 2 | 127 | 3418 |
| Apprch % | 2 | 92.8 | 5.3 | 37.9 | 0 | 62.1 | 4.9 | 94.1 | 1 | 27.9 | 1.1 | 70.9 | |
| Total % | 0.9 | 42.3 | 2.4 | 0.6 | 0 | 1.1 | 2.3 | 44.7 | 0.5 | 1.5 | 0.1 | 3.7 | |
| Passenger and 2 Axle Vehicles | 30 | 1360 | 80 | 19 | 0 | 36 | 78 | 1458 | 16 | 50 | 2 | 127 | 3256 |
| % Passenger and 2 Axle Vehicles | 96.8 | 94.1 | 97.6 | 86.4 | 0 | 100 | 98.7 | 95.5 | 100 | 100 | 100 | 100 | 95.3 |
| Buses and Heavy Vehicles | 1 | 86 | 2 | 3 | 0 | 0 | 1 | 69 | 0 | 0 | 0 | 0 | 162 |
| % Buses and Heavy Vehicles | 3.2 | 5.9 | 2.4 | 13.6 | 0 | 0 | 1.3 | 4.5 | 0 | 0 | 0 | 0 | 4.7 |

Horner & Canter Associates
Transportation and Traffic Engineering

4950 York Rd, Suite 2G, P.O. 301, Holicong, PA 18928-0301
 105 Atslon Rd, Suite F, Medford, NJ 08055

NB/SB: Scotch Rd.
 EB/WB: Suburban Square/ Parkway Corp. DW
 Ewing Twp./ Mercer Co./ NJ
 Tuesday/ Clear/ E-14/ GD

File Name : 24-039-003
 Site Code : 24039003
 Start Date : 9/24/2024
 Page No : 2

| Start Time | Scotch Rd. Southbound | | | | Parkway Corp. Center DW Westbound | | | | Scotch Rd. Northbound | | | | Suburban Square Access Eastbound | | | | Int. Total |
|--|-----------------------|------|-------|------------|-----------------------------------|------|-------|------------|-----------------------|------|-------|------------|----------------------------------|------|-------|------------|------------|
| | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 08:00 AM | | | | | | | | | | | | | | | | | |
| 08:00 AM | 2 | 72 | 3 | 77 | 0 | 0 | 1 | 1 | 3 | 108 | 0 | 111 | 0 | 0 | 4 | 4 | 193 |
| 08:15 AM | 3 | 84 | 3 | 90 | 1 | 0 | 0 | 1 | 4 | 96 | 1 | 101 | 1 | 0 | 8 | 9 | 201 |
| 08:30 AM | 4 | 74 | 2 | 80 | 2 | 0 | 0 | 2 | 5 | 97 | 2 | 104 | 2 | 0 | 2 | 4 | 190 |
| 08:45 AM | 2 | 82 | 2 | 86 | 0 | 0 | 4 | 4 | 8 | 123 | 2 | 133 | 3 | 0 | 6 | 9 | 232 |
| Total Volume | 11 | 312 | 10 | 333 | 3 | 0 | 5 | 8 | 20 | 424 | 5 | 449 | 6 | 0 | 20 | 26 | 816 |
| % App. Total | 3.3 | 93.7 | 3 | | 37.5 | 0 | 62.5 | | 4.5 | 94.4 | 1.1 | | 23.1 | 0 | 76.9 | | |
| PHF | .688 | .929 | .833 | .925 | .375 | .000 | .313 | .500 | .625 | .862 | .625 | .844 | .500 | .000 | .625 | .722 | .879 |
| Passenger and 2 Axle Vehicles | 10 | 267 | 9 | 286 | 3 | 0 | 5 | 8 | 20 | 395 | 5 | 420 | 6 | 0 | 20 | 26 | 740 |
| % Passenger and 2 Axle Vehicles | 90.9 | 85.6 | 90.0 | 85.9 | 100 | 0 | 100 | 100 | 100 | 93.2 | 100 | 93.5 | 100 | 0 | 100 | 100 | 90.7 |
| Buses and Heavy Vehicles | 1 | 45 | 1 | 47 | 0 | 0 | 0 | 0 | 0 | 29 | 0 | 29 | 0 | 0 | 0 | 0 | 76 |
| % Buses and Heavy Vehicles | 9.1 | 14.4 | 10.0 | 14.1 | 0 | 0 | 0 | 0 | 0 | 6.8 | 0 | 6.5 | 0 | 0 | 0 | 0 | 9.3 |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:45 PM | | | | | | | | | | | | | | | | | |
| 04:45 PM | 0 | 126 | 11 | 137 | 1 | 0 | 3 | 4 | 7 | 104 | 1 | 112 | 5 | 0 | 15 | 20 | 273 |
| 05:00 PM | 4 | 133 | 12 | 149 | 2 | 0 | 3 | 5 | 11 | 94 | 2 | 107 | 7 | 0 | 17 | 24 | 285 |
| 05:15 PM | 2 | 88 | 12 | 102 | 4 | 0 | 2 | 6 | 5 | 106 | 0 | 111 | 5 | 0 | 7 | 12 | 231 |
| 05:30 PM | 3 | 120 | 8 | 131 | 0 | 0 | 2 | 2 | 9 | 112 | 2 | 123 | 9 | 1 | 13 | 23 | 279 |
| Total Volume | 9 | 467 | 43 | 519 | 7 | 0 | 10 | 17 | 32 | 416 | 5 | 453 | 26 | 1 | 52 | 79 | 1068 |
| % App. Total | 1.7 | 90 | 8.3 | | 41.2 | 0 | 58.8 | | 7.1 | 91.8 | 1.1 | | 32.9 | 1.3 | 65.8 | | |
| PHF | .563 | .878 | .896 | .871 | .438 | .000 | .833 | .708 | .727 | .929 | .625 | .921 | .722 | .250 | .765 | .823 | .937 |
| Passenger and 2 Axle Vehicles | 9 | 461 | 42 | 512 | 7 | 0 | 10 | 17 | 32 | 401 | 5 | 438 | 26 | 1 | 52 | 79 | 1046 |
| % Passenger and 2 Axle Vehicles | 100 | 98.7 | 97.7 | 98.7 | 100 | 0 | 100 | 100 | 100 | 96.4 | 100 | 96.7 | 100 | 100 | 100 | 100 | 97.9 |
| Buses and Heavy Vehicles | 0 | 6 | 1 | 7 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 15 | 0 | 0 | 0 | 0 | 22 |
| % Buses and Heavy Vehicles | 0 | 1.3 | 2.3 | 1.3 | 0 | 0 | 0 | 0 | 0 | 3.6 | 0 | 3.3 | 0 | 0 | 0 | 0 | 2.1 |

Horner & Canter Associates
Transportation and Traffic Engineering

4950 York Rd, Suite 2G, P.O. 301, Holicong, PA 18928-0301
 105 Atsion Rd, Suite F, Medford, NJ 08055

NB/SB: Scotch Rd.
 EB/WB: Suburban Square/ Dollar Tree DW
 Ewing Twp./ Mercer Co./ NJ
 Thursday/ Clear/ E-14/ GD

File Name : 24-039-004
 Site Code : 24039004
 Start Date : 9/19/2024
 Page No : 1

Groups Printed- Passenger and 2 Axle Vehicles - Buses and Heavy Vehicles

| Start Time | Scotch Rd. Southbound | | | Dollar Tree DW Westbound | | | Scotch Rd. Northbound | | | Suburban Square Access Eastbound | | | Int. Total |
|---------------------------------|-----------------------|-------------|-----------|--------------------------|----------|-----------|-----------------------|-------------|-----------|----------------------------------|----------|-----------|-------------|
| | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| 07:00 AM | 0 | 54 | 0 | 0 | 0 | 0 | 0 | 58 | 0 | 0 | 0 | 1 | 113 |
| 07:15 AM | 1 | 55 | 0 | 0 | 0 | 0 | 1 | 87 | 0 | 0 | 0 | 0 | 144 |
| 07:30 AM | 0 | 81 | 1 | 1 | 0 | 0 | 1 | 87 | 1 | 0 | 0 | 0 | 172 |
| 07:45 AM | 0 | 81 | 0 | 0 | 0 | 0 | 3 | 124 | 1 | 1 | 0 | 1 | 211 |
| Total | 1 | 271 | 1 | 1 | 0 | 0 | 5 | 356 | 2 | 1 | 0 | 2 | 640 |
| 08:00 AM | 0 | 114 | 0 | 2 | 0 | 0 | 0 | 96 | 1 | 1 | 0 | 1 | 215 |
| 08:15 AM | 0 | 80 | 2 | 1 | 0 | 1 | 0 | 111 | 3 | 0 | 0 | 0 | 198 |
| 08:30 AM | 0 | 100 | 0 | 0 | 1 | 0 | 1 | 82 | 1 | 2 | 0 | 0 | 187 |
| 08:45 AM | 0 | 107 | 3 | 3 | 0 | 1 | 2 | 106 | 5 | 2 | 0 | 0 | 229 |
| Total | 0 | 401 | 5 | 6 | 1 | 2 | 3 | 395 | 10 | 5 | 0 | 1 | 829 |
| *** BREAK *** | | | | | | | | | | | | | |
| 04:00 PM | 5 | 118 | 3 | 5 | 1 | 4 | 3 | 113 | 6 | 3 | 0 | 0 | 261 |
| 04:15 PM | 5 | 107 | 2 | 6 | 0 | 6 | 0 | 91 | 5 | 4 | 1 | 2 | 229 |
| 04:30 PM | 7 | 124 | 10 | 7 | 0 | 7 | 1 | 83 | 9 | 4 | 1 | 2 | 255 |
| 04:45 PM | 3 | 115 | 5 | 8 | 0 | 2 | 6 | 101 | 5 | 5 | 1 | 2 | 253 |
| Total | 20 | 464 | 20 | 26 | 1 | 19 | 10 | 388 | 25 | 16 | 3 | 6 | 998 |
| 05:00 PM | 1 | 144 | 5 | 6 | 1 | 7 | 4 | 106 | 7 | 8 | 0 | 3 | 292 |
| 05:15 PM | 3 | 118 | 7 | 6 | 1 | 0 | 3 | 107 | 6 | 8 | 0 | 2 | 261 |
| 05:30 PM | 2 | 118 | 6 | 6 | 0 | 4 | 2 | 113 | 2 | 8 | 0 | 5 | 266 |
| 05:45 PM | 3 | 94 | 3 | 6 | 1 | 1 | 0 | 100 | 4 | 4 | 0 | 2 | 218 |
| Total | 9 | 474 | 21 | 24 | 3 | 12 | 9 | 426 | 19 | 28 | 0 | 12 | 1037 |
| Grand Total | 30 | 1610 | 47 | 57 | 5 | 33 | 27 | 1565 | 56 | 50 | 3 | 21 | 3504 |
| Apprch % | 1.8 | 95.4 | 2.8 | 60 | 5.3 | 34.7 | 1.6 | 95 | 3.4 | 67.6 | 4.1 | 28.4 | |
| Total % | 0.9 | 45.9 | 1.3 | 1.6 | 0.1 | 0.9 | 0.8 | 44.7 | 1.6 | 1.4 | 0.1 | 0.6 | |
| Passenger and 2 Axle Vehicles | 30 | 1523 | 47 | 56 | 5 | 33 | 26 | 1500 | 55 | 49 | 3 | 21 | 3348 |
| % Passenger and 2 Axle Vehicles | 100 | 94.6 | 100 | 98.2 | 100 | 100 | 96.3 | 95.8 | 98.2 | 98 | 100 | 100 | 95.5 |
| Buses and Heavy Vehicles | 0 | 87 | 0 | 1 | 0 | 0 | 1 | 65 | 1 | 1 | 0 | 0 | 156 |
| % Buses and Heavy Vehicles | 0 | 5.4 | 0 | 1.8 | 0 | 0 | 3.7 | 4.2 | 1.8 | 2 | 0 | 0 | 4.5 |

Horner & Canter Associates
Transportation and Traffic Engineering

4950 York Rd, Suite 2G, P.O. 301, Holicong, PA 18928-0301
 105 Atsion Rd, Suite F, Medford, NJ 08055

NB/SB: Scotch Rd.
 EB/WB: Suburban Square/ Dollar Tree DW
 Ewing Twp./ Mercer Co./ NJ
 Thursday/ Clear/ E-14/ GD

File Name : 24-039-004
 Site Code : 24039004
 Start Date : 9/19/2024
 Page No : 2

| Start Time | Scotch Rd. Southbound | | | | Dollar Tree DW Westbound | | | | Scotch Rd. Northbound | | | | Suburban Square Access Eastbound | | | | Int. Total |
|--|-----------------------|------|-------|------------|--------------------------|------|-------|------------|-----------------------|------|-------|------------|----------------------------------|------|-------|------------|------------|
| | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 08:00 AM | | | | | | | | | | | | | | | | | |
| 08:00 AM | 0 | 114 | 0 | 114 | 2 | 0 | 0 | 2 | 0 | 96 | 1 | 97 | 1 | 0 | 1 | 2 | 215 |
| 08:15 AM | 0 | 80 | 2 | 82 | 1 | 0 | 1 | 2 | 0 | 111 | 3 | 114 | 0 | 0 | 0 | 0 | 198 |
| 08:30 AM | 0 | 100 | 0 | 100 | 0 | 1 | 0 | 1 | 1 | 82 | 1 | 84 | 2 | 0 | 0 | 2 | 187 |
| 08:45 AM | 0 | 107 | 3 | 110 | 3 | 0 | 1 | 4 | 2 | 106 | 5 | 113 | 2 | 0 | 0 | 2 | 229 |
| Total Volume | 0 | 401 | 5 | 406 | 6 | 1 | 2 | 9 | 3 | 395 | 10 | 408 | 5 | 0 | 1 | 6 | 829 |
| % App. Total | 0 | 98.8 | 1.2 | | 66.7 | 11.1 | 22.2 | | 0.7 | 96.8 | 2.5 | | 83.3 | 0 | 16.7 | | |
| PHF | .000 | .879 | .417 | .890 | .500 | .250 | .500 | .563 | .375 | .890 | .500 | .895 | .625 | .000 | .250 | .750 | .905 |
| Passenger and 2 Axle Vehicles | 0 | 360 | 5 | 365 | 5 | 1 | 2 | 8 | 3 | 374 | 10 | 387 | 5 | 0 | 1 | 6 | 766 |
| % Passenger and 2 Axle Vehicles | 0 | 89.8 | 100 | 89.9 | 83.3 | 100 | 100 | 88.9 | 100 | 94.7 | 100 | 94.9 | 100 | 0 | 100 | 100 | 92.4 |
| Buses and Heavy Vehicles | 0 | 41 | 0 | 41 | 1 | 0 | 0 | 1 | 0 | 21 | 0 | 21 | 0 | 0 | 0 | 0 | 63 |
| % Buses and Heavy Vehicles | 0 | 10.2 | 0 | 10.1 | 16.7 | 0 | 0 | 11.1 | 0 | 5.3 | 0 | 5.1 | 0 | 0 | 0 | 0 | 7.6 |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:45 PM | | | | | | | | | | | | | | | | | |
| 04:45 PM | 3 | 115 | 5 | 123 | 8 | 0 | 2 | 10 | 6 | 101 | 5 | 112 | 5 | 1 | 2 | 8 | 253 |
| 05:00 PM | 1 | 144 | 5 | 150 | 6 | 1 | 7 | 14 | 4 | 106 | 7 | 117 | 8 | 0 | 3 | 11 | 292 |
| 05:15 PM | 3 | 118 | 7 | 128 | 6 | 1 | 0 | 7 | 3 | 107 | 6 | 116 | 8 | 0 | 2 | 10 | 261 |
| 05:30 PM | 2 | 118 | 6 | 126 | 6 | 0 | 4 | 10 | 2 | 113 | 2 | 117 | 8 | 0 | 5 | 13 | 266 |
| Total Volume | 9 | 495 | 23 | 527 | 26 | 2 | 13 | 41 | 15 | 427 | 20 | 462 | 29 | 1 | 12 | 42 | 1072 |
| % App. Total | 1.7 | 93.9 | 4.4 | | 63.4 | 4.9 | 31.7 | | 3.2 | 92.4 | 4.3 | | 69 | 2.4 | 28.6 | | |
| PHF | .750 | .859 | .821 | .878 | .813 | .500 | .464 | .732 | .625 | .945 | .714 | .987 | .906 | .250 | .600 | .808 | .918 |
| Passenger and 2 Axle Vehicles | 9 | 485 | 23 | 517 | 26 | 2 | 13 | 41 | 15 | 415 | 20 | 450 | 29 | 1 | 12 | 42 | 1050 |
| % Passenger and 2 Axle Vehicles | 100 | 98.0 | 100 | 98.1 | 100 | 100 | 100 | 100 | 100 | 97.2 | 100 | 97.4 | 100 | 100 | 100 | 100 | 97.9 |
| Buses and Heavy Vehicles | 0 | 10 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 12 | 0 | 0 | 0 | 0 | 22 |
| % Buses and Heavy Vehicles | 0 | 2.0 | 0 | 1.9 | 0 | 0 | 0 | 0 | 0 | 2.8 | 0 | 2.6 | 0 | 0 | 0 | 0 | 2.1 |

Horner & Canter Associates
Transportation and Traffic Engineering

4950 York Rd, Suite 2G, P.O. 301, Hollicong, PA 18928-0301
 105 Atsion Rd, Suite F, Medford, NJ 08055

NB/SB: Scotch Rd.
 EB/WB: Suburban Square/ Dollar Tree DW
 Ewing Twp./ Mercer Co./ NJ
 Saturday/ Cloudy/ E-01/ LE

File Name : 24-039-014
 Site Code : 24039014
 Start Date : 9/21/2024
 Page No : 1

Groups Printed- Passenger and 2 Axle Vehicles - Buses and Heavy Vehicles

| Start Time | Scotch Rd. Southbound | | | Dollar Tree DW Westbound | | | Scotch Rd. Northbound | | | Suburban Square Access Eastbound | | | Int. Total |
|---------------------------------|-----------------------|------------|-----------|--------------------------|----------|-----------|-----------------------|------------|-----------|----------------------------------|----------|----------|-------------|
| | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| 11:00 AM | 2 | 67 | 1 | 4 | 1 | 3 | 0 | 78 | 10 | 2 | 1 | 0 | 169 |
| 11:15 AM | 5 | 82 | 3 | 5 | 2 | 5 | 1 | 71 | 3 | 2 | 1 | 0 | 180 |
| 11:30 AM | 1 | 119 | 4 | 3 | 0 | 7 | 3 | 85 | 12 | 4 | 0 | 1 | 239 |
| 11:45 AM | 2 | 106 | 4 | 6 | 0 | 4 | 2 | 103 | 5 | 4 | 0 | 4 | 240 |
| Total | 10 | 374 | 12 | 18 | 3 | 19 | 6 | 337 | 30 | 12 | 2 | 5 | 828 |
| 12:00 PM | 3 | 89 | 6 | 5 | 1 | 3 | 1 | 103 | 3 | 5 | 0 | 0 | 219 |
| 12:15 PM | 3 | 94 | 7 | 5 | 0 | 3 | 2 | 84 | 9 | 1 | 2 | 1 | 211 |
| 12:30 PM | 0 | 78 | 2 | 7 | 1 | 3 | 2 | 46 | 4 | 3 | 0 | 2 | 148 |
| 12:45 PM | 1 | 84 | 6 | 5 | 0 | 3 | 3 | 83 | 9 | 3 | 1 | 1 | 199 |
| Total | 7 | 345 | 21 | 22 | 2 | 12 | 8 | 316 | 25 | 12 | 3 | 4 | 777 |
| Grand Total | 17 | 719 | 33 | 40 | 5 | 31 | 14 | 653 | 55 | 24 | 5 | 9 | 1605 |
| Apprch % | 2.2 | 93.5 | 4.3 | 52.6 | 6.6 | 40.8 | 1.9 | 90.4 | 7.6 | 63.2 | 13.2 | 23.7 | |
| Total % | 1.1 | 44.8 | 2.1 | 2.5 | 0.3 | 1.9 | 0.9 | 40.7 | 3.4 | 1.5 | 0.3 | 0.6 | |
| Passenger and 2 Axle Vehicles | 17 | 715 | 33 | 40 | 5 | 31 | 14 | 651 | 55 | 24 | 5 | 9 | 1599 |
| % Passenger and 2 Axle Vehicles | 100 | 99.4 | 100 | 100 | 100 | 100 | 100 | 99.7 | 100 | 100 | 100 | 100 | 99.6 |
| Buses and Heavy Vehicles | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 6 |
| % Buses and Heavy Vehicles | 0 | 0.6 | 0 | 0 | 0 | 0 | 0 | 0.3 | 0 | 0 | 0 | 0 | 0.4 |

| Start Time | Scotch Rd. Southbound | | | | Dollar Tree DW Westbound | | | | Scotch Rd. Northbound | | | | Suburban Square Access Eastbound | | | | Int. Total |
|--|-----------------------|-------------|-------------|-------------|--------------------------|-------------|-------------|-------------|-----------------------|-------------|-------------|-------------|----------------------------------|-------------|-------------|-------------|-------------|
| | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | |
| Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 11:30 AM | | | | | | | | | | | | | | | | | |
| 11:30 AM | 1 | 119 | 4 | 124 | 3 | 0 | 7 | 10 | 3 | 85 | 12 | 100 | 4 | 0 | 1 | 5 | 239 |
| 11:45 AM | 2 | 106 | 4 | 112 | 6 | 0 | 4 | 10 | 2 | 103 | 5 | 110 | 4 | 0 | 4 | 8 | 240 |
| 12:00 PM | 3 | 89 | 6 | 98 | 5 | 1 | 3 | 9 | 1 | 103 | 3 | 107 | 5 | 0 | 0 | 5 | 219 |
| 12:15 PM | 3 | 94 | 7 | 104 | 5 | 0 | 3 | 8 | 2 | 84 | 9 | 95 | 1 | 2 | 1 | 4 | 211 |
| Total Volume | 9 | 408 | 21 | 438 | 19 | 1 | 17 | 37 | 8 | 375 | 29 | 412 | 14 | 2 | 6 | 22 | 909 |
| % App. Total | 2.1 | 93.2 | 4.8 | | 51.4 | 2.7 | 45.9 | | 1.9 | 91 | 7 | | 63.6 | 9.1 | 27.3 | | |
| PHF | .750 | .857 | .750 | .883 | .792 | .250 | .607 | .925 | .667 | .910 | .604 | .936 | .700 | .250 | .375 | .688 | .947 |
| Passenger and 2 Axle Vehicles | 9 | 406 | 21 | 436 | 19 | 1 | 17 | 37 | 8 | 374 | 29 | 411 | 14 | 2 | 6 | 22 | 906 |
| % Passenger and 2 Axle Vehicles | 100 | 99.5 | 100 | 99.5 | 100 | 100 | 100 | 100 | 100 | 99.7 | 100 | 99.8 | 100 | 100 | 100 | 100 | 99.7 |
| Buses and Heavy Vehicles | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 3 |
| % Buses and Heavy Vehicles | 0 | 0.5 | 0 | 0.5 | 0 | 0 | 0 | 0 | 0 | 0.3 | 0 | 0.2 | 0 | 0 | 0 | 0 | 0.3 |

APPENDIX D

Level of Service Delay Thresholds

Level of Service Criteria

Level of Service at intersections is defined in terms of DELAY. Delay is a measure of driver discomfort, frustration, and lost travel time, thus the rating of delay from highly acceptable LOS A to unacceptable LOS F.

At traffic signals, delay is a complex measure and is dependent on a number of variables including signal progression, the cycle length, the green-time ratio, clearance times, trucks, pedestrians, parking, and signal phasing.

At unsignalized intersections, delay is dependent on the available gaps in the two-way flow of the uninterrupted traffic movement, intersection width, and queuing.

Intersection LOS

| | <u>Signalized</u> | <u>Unsignalized</u> |
|-------|---------------------------|---------------------------|
| LOS A | Less than 10.0 sec/veh | Less than 10.0 sec/veh |
| B | 10.0 to 20.0 sec/veh | 10.0 to 15.0 sec/veh |
| C | 20.0 to 35.0 sec/veh | 15.0 to 25.0 sec/veh |
| D | 35.0 to 55.0 sec/veh | 25.0 to 35.0 sec/veh |
| E | 55.0 to 80.0 sec/veh | 35.0 to 50.0 sec/veh |
| F | Greater than 80.0 sec/veh | Greater than 50.0 sec/veh |

LEVEL OF SERVICE FOR SIGNALIZED INTERSECTIONS

Level of service for signalized intersections is defined in terms of delay. Delay is a measure of driver discomfort, frustration, fuel consumption, and lost travel time.

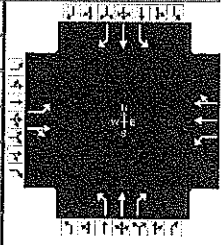
- **LEVEL-OF-SERVICE A** describes operations with very low delay, i.e., less than 10.0 sec per vehicle. This occurs when progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
- **LEVEL-OF-SERVICE B** describes operations with delay in the range of 10.0 to 20.0 sec per vehicle. This generally occurs with good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.
- **LEVEL-OF-SERVICE C** describes operations with delay in the range of 20.0 to 35.0 sec per vehicle. These higher delays may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear in this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
- **LEVEL-OF-SERVICE D** describes operations with delay in the range of 35.0 to 55.0 sec per vehicle. At level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
- **LEVEL-OF-SERVICE E** describes operations with delay in the range of 55.0 to 80.0 sec per vehicle. This is considered to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent occurrences.
- **LEVEL-OF-SERVICE F** describes operations with delay in excess of 80.0 sec per vehicle. This is considered to be unacceptable to most drivers. This condition often occurs with over saturation, i.e., when arrival flow rates exceed the capacity of the intersection. It may also occur at high v/c ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

APPENDIX E

Existing Capacity/LOS Analysis Worksheets

HCS Signalized Intersection Results Summary

| General Information | | | | Intersection Information | | | |
|---------------------|------------------------------------|---------------|--|--------------------------|---------|--|--|
| Agency | Horner & Canter Assoc | | | Duration, h | 0.250 | | |
| Analyst | DHH | Analysis Date | Oct 1, 2024 | Area Type | Other | | |
| Jurisdiction | Ewing Twp | Time Period | AM Peak Hour | PHF | 0.91 | | |
| Urban Street | | Analysis Year | Existing | Analysis Period | 1> 7:00 | | |
| Intersection | Parkway Ave/Scotch Rd... | File Name | Parkway Ave_Scotch Rd_Sylvia St_ea.xus | | | | |
| Project Description | 24-039 Proposed Starbucks Pad Site | | | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|--------------------|-----|-----|----|----|-----|-----|----|-----|----|-----|----|-----|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Demand (v), veh/h | 149 | 279 | 40 | 38 | 254 | 181 | 62 | 149 | 59 | 158 | 94 | 110 |

| Signal Information | | | | Signal Timing (s) | | | | | | | | | | | | | | | | | | | | |
|--------------------|-------|-----------------|-----|-------------------|------|------|------|------|-----|-----|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cycle, s | 90.0 | Reference Phase | 2 | Green | 17.0 | 25.0 | 10.0 | 19.0 | 0.0 | 0.0 | Yellow | 3.0 | 5.0 | 3.0 | 4.0 | 0.0 | 0.0 | Red | 0.0 | 2.0 | 0.0 | 2.0 | 0.0 | 0.0 |
| Offset, s | 0 | Reference Point | End | | | | | | | | | | | | | | | | | | | | | |
| Uncoordinated | Yes | Simult. Gap E/W | On | | | | | | | | | | | | | | | | | | | | | |
| Force Mode | Fixed | Simult. Gap N/S | On | | | | | | | | | | | | | | | | | | | | | |

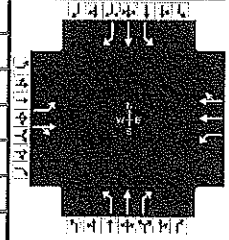
| Timer Results | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|------|------|-----|------|------|------|------|------|
| Assigned Phase | 5 | 2 | | 6 | 3 | 8 | 7 | 4 |
| Case Number | 1.0 | 4.0 | | 6.3 | 1.1 | 3.0 | 1.1 | 3.0 |
| Phase Duration, s | 20.0 | 52.0 | | 32.0 | 13.0 | 25.0 | 13.0 | 25.0 |
| Change Period, (Y+R _c), s | 3.0 | 7.0 | | 7.0 | 3.0 | 6.0 | 3.0 | 6.0 |
| Max Allow Headway (MAH), s | 3.1 | 3.1 | | 3.1 | 3.3 | 3.2 | 3.1 | 3.2 |
| Queue Clearance Time (g _s), s | 6.8 | 12.5 | | 11.6 | 4.4 | 9.3 | 9.0 | 6.8 |
| Green Extension Time (g _e), s | 0.2 | 1.6 | | 1.4 | 0.0 | 0.6 | 0.0 | 0.7 |
| Phase Call Probability | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Max Out Probability | 0.00 | 0.00 | | 0.01 | 0.04 | 0.01 | 1.00 | 0.00 |

| Movement Group Results | EB | | | WB | | | NB | | | SB | | |
|---|-------|-------|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Assigned Movement | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Adjusted Flow Rate (v), veh/h | 164 | 340 | | 42 | 227 | 207 | 68 | 164 | 48 | 174 | 103 | 93 |
| Adjusted Saturation Flow Rate (s), veh/h/ln | 1739 | 1795 | | 950 | 1826 | 1609 | 1767 | 1767 | 1572 | 1697 | 1707 | 1485 |
| Queue Service Time (g _s), s | 4.8 | 10.5 | | 3.0 | 9.2 | 9.6 | 2.4 | 7.3 | 2.3 | 7.0 | 4.6 | 4.8 |
| Cycle Queue Clearance Time (g _c), s | 4.8 | 10.5 | | 3.0 | 9.2 | 9.6 | 2.4 | 7.3 | 2.3 | 7.0 | 4.6 | 4.8 |
| Green Ratio (g/C) | 0.49 | 0.50 | | 0.28 | 0.28 | 0.28 | 0.32 | 0.21 | 0.21 | 0.32 | 0.21 | 0.21 |
| Capacity (c), veh/h | 568 | 897 | | 344 | 507 | 447 | 453 | 373 | 332 | 395 | 360 | 313 |
| Volume-to-Capacity Ratio (X) | 0.288 | 0.378 | | 0.121 | 0.447 | 0.464 | 0.150 | 0.439 | 0.146 | 0.440 | 0.287 | 0.296 |
| Back of Queue (Q), ft/ln (95 th percentile) | 80.4 | 180.4 | | 32.2 | 179.8 | 158.9 | 46.8 | 149.8 | 39.5 | 127.1 | 90 | 80.1 |
| Back of Queue (Q), veh/ln (95 th percentile) | 3.1 | 6.9 | | 1.2 | 6.9 | 6.4 | 1.8 | 5.6 | 1.5 | 4.8 | 3.3 | 3.0 |
| Queue Storage Ratio (RQ) (95 th percentile) | 0.00 | 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Delay (d ₁), s/veh | 13.9 | 13.9 | | 24.6 | 26.8 | 26.9 | 21.8 | 30.9 | 28.9 | 23.6 | 29.8 | 29.9 |
| Incremental Delay (d ₂), s/veh | 0.1 | 0.1 | | 0.1 | 0.2 | 0.3 | 0.1 | 0.3 | 0.1 | 0.3 | 0.2 | 0.2 |
| Initial Queue Delay (d ₃), s/veh | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Control Delay (d), s/veh | 14.0 | 14.0 | | 24.6 | 27.0 | 27.2 | 21.8 | 31.2 | 29.0 | 23.9 | 30.0 | 30.1 |
| Level of Service (LOS) | B | B | | C | C | C | C | C | C | C | C | C |
| Approach Delay, s/veh / LOS | 14.0 | B | | 26.9 | C | | 28.5 | C | | 27.1 | C | |
| Intersection Delay, s/veh / LOS | 23.2 | | | | | | C | | | | | |

| Multimodal Results | EB | WB | NB | SB |
|----------------------------|----------|----------|----------|----------|
| Pedestrian LOS Score / LOS | 2.11 / B | 2.15 / B | 2.18 / B | 2.14 / B |
| Bicycle LOS Score / LOS | 1.32 / A | 0.88 / A | 0.95 / A | 1.10 / A |

HCS Signalized Intersection Results Summary

| General Information | | | | Intersection Information | | | |
|---------------------|------------------------------------|---------------|--|--------------------------|----------|--|--|
| Agency | Horner & Canter Assoc | | | Duration, h | 0.250 | | |
| Analyst | DHH | Analysis Date | Oct 1, 2024 | Area Type | Other | | |
| Jurisdiction | Ewing Twp | Time Period | PM Peak Hour | PHF | 0.94 | | |
| Urban Street | | Analysis Year | Existing | Analysis Period | 1 > 7:00 | | |
| Intersection | Parkway Ave/Scotch Rd... | File Name | Parkway Ave_Scotch Rd_Sylvia St_ep.xus | | | | |
| Project Description | 24-039 Proposed Starbucks Pad Site | | | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|--------------------|-----|-----|----|----|-----|-----|----|-----|----|-----|-----|-----|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Demand (v), veh/h | 151 | 347 | 61 | 47 | 371 | 199 | 94 | 109 | 52 | 284 | 135 | 240 |

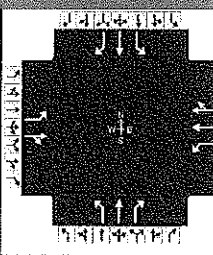
| Signal Information | | | | Signal Timing (s) | | | | | | | | | |
|--------------------|-------|-----------------|-----|-------------------|------|------|------|------|-----|-----|-----|-----|-----|
| Cycle, s | 93.0 | Reference Phase | 2 | Green | 20.0 | 25.0 | 12.0 | 17.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Offset, s | 0 | Reference Point | End | Yellow | 3.0 | 5.0 | 3.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Uncoordinated | Yes | Simult. Gap E/W | On | Red | 0.0 | 2.0 | 0.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Force Mode | Fixed | Simult. Gap N/S | On | | | | | | | | | | |

| Timer Results | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|------|------|-----|------|------|------|------|------|
| Assigned Phase | 5 | 2 | | 6 | 3 | 8 | 7 | 4 |
| Case Number | 1.0 | 4.0 | | 6.3 | 1.1 | 3.0 | 1.1 | 3.0 |
| Phase Duration, s | 23.0 | 55.0 | | 32.0 | 15.0 | 23.0 | 15.0 | 23.0 |
| Change Period, (Y+R _c), s | 3.0 | 7.0 | | 7.0 | 3.0 | 6.0 | 3.0 | 6.0 |
| Max Allow Headway (MAH), s | 3.1 | 3.1 | | 3.1 | 3.3 | 3.2 | 3.1 | 3.2 |
| Queue Clearance Time (g _s), s | 6.5 | 15.2 | | 14.7 | 5.8 | 6.9 | 14.0 | 12.7 |
| Green Extension Time (g _e), s | 0.2 | 2.0 | | 1.7 | 0.1 | 0.8 | 0.0 | 0.5 |
| Phase Call Probability | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Max Out Probability | 0.00 | 0.00 | | 0.09 | 0.02 | 0.02 | 1.00 | 0.51 |

| Movement Group Results | EB | | | WB | | | NB | | | SB | | |
|---|-------|-------|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Assigned Movement | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Adjusted Flow Rate (v), veh/h | 161 | 418 | | 50 | 291 | 267 | 100 | 116 | 39 | 302 | 144 | 197 |
| Adjusted Saturation Flow Rate (s), veh/h/ln | 1795 | 1846 | | 984 | 1885 | 1698 | 1795 | 1900 | 1560 | 1795 | 1885 | 1598 |
| Queue Service Time (g _s), s | 4.5 | 13.2 | | 3.6 | 12.4 | 12.7 | 3.8 | 4.9 | 2.0 | 12.0 | 6.3 | 10.7 |
| Cycle Queue Clearance Time (g _c), s | 4.5 | 13.2 | | 3.6 | 12.4 | 12.7 | 3.8 | 4.9 | 2.0 | 12.0 | 6.3 | 10.7 |
| Green Ratio (g/C) | 0.51 | 0.52 | | 0.27 | 0.27 | 0.27 | 0.31 | 0.18 | 0.18 | 0.31 | 0.18 | 0.18 |
| Capacity (c), veh/h | 577 | 953 | | 342 | 507 | 456 | 427 | 347 | 285 | 448 | 345 | 292 |
| Volume-to-Capacity Ratio (X) | 0.278 | 0.439 | | 0.146 | 0.575 | 0.585 | 0.234 | 0.334 | 0.138 | 0.674 | 0.417 | 0.674 |
| Back of Queue (Q), ft/ln (95 th percentile) | 76 | 217.3 | | 37.2 | 235.4 | 219.9 | 73 | 103.4 | 34.9 | 240.3 | 126.3 | 197.3 |
| Back of Queue (Q), veh/ln (95 th percentile) | 3.0 | 8.6 | | 1.5 | 9.3 | 8.8 | 2.9 | 4.1 | 1.4 | 9.5 | 5.0 | 7.8 |
| Queue Storage Ratio (RQ) (95 th percentile) | 0.00 | 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Delay (d ₁), s/veh | 13.9 | 14.1 | | 26.2 | 29.4 | 29.5 | 23.7 | 33.1 | 31.9 | 27.3 | 33.6 | 35.4 |
| Incremental Delay (d ₂), s/veh | 0.1 | 0.1 | | 0.1 | 1.0 | 1.3 | 0.1 | 0.2 | 0.1 | 3.3 | 0.3 | 4.9 |
| Initial Queue Delay (d ₃), s/veh | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Control Delay (d), s/veh | 14.0 | 14.2 | | 26.3 | 30.4 | 30.8 | 23.8 | 33.3 | 31.9 | 30.5 | 33.9 | 40.3 |
| Level of Service (LOS) | B | B | | C | C | C | C | C | C | C | C | D |
| Approach Delay, s/veh / LOS | 14.1 | B | | 30.3 | C | | 29.4 | C | | 34.3 | C | |
| Intersection Delay, s/veh / LOS | 26.9 | | | | | | C | | | | | |

| Multimodal Results | EB | WB | NB | SB |
|----------------------------|----------|----------|----------|----------|
| Pedestrian LOS Score / LOS | 2.11 / B | 2.20 / B | 2.19 / B | 2.15 / B |
| Bicycle LOS Score / LOS | 1.44 / A | 0.99 / A | 0.91 / A | 1.55 / B |

HCS Signalized Intersection Results Summary

| General Information | | | | Intersection Information | | | |  | | | | | | | |
|---|------------------------------------|-----------------|--|--------------------------|----------|-------|-------|---|-------|-------|-------|-------|----|--|--|
| Agency | Horner & Canter Assoc | | | Duration, h | 0.250 | | | | | | | | | | |
| Analyst | DHH | Analysis Date | Oct 1, 2024 | Area Type | Other | | | | | | | | | | |
| Jurisdiction | Ewing Twp | Time Period | SAT Peak Hour | PHF | 0.95 | | | | | | | | | | |
| Urban Street | | Analysis Year | Existing | Analysis Period | 1 > 7:00 | | | | | | | | | | |
| Intersection | Parkway Ave/Scotch Rd... | File Name | Parkway Ave_Scotch Rd_Sylvia St_es.xus | | | | | | | | | | | | |
| Project Description | 24-039 Proposed Starbucks Pad Site | | | | | | | | | | | | | | |
| Demand Information | | | | EB | | | WB | | | NB | | | SB | | |
| Approach Movement | L | T | R | L | T | R | L | T | R | L | T | R | | | |
| Demand (v), veh/h | 118 | 315 | 44 | 77 | 320 | 121 | 77 | 112 | 73 | 175 | 107 | 153 | | | |
| Signal Information | | | | | | | | | | | | | | | |
| Cycle, s | 95.0 | Reference Phase | 2 | | | | | | | | | | | | |
| Offset, s | 0 | Reference Point | End | | | | | | | | | | | | |
| Uncoordinated | Yes | Simult. Gap E/W | On | Green | 24.0 | 25.0 | 5.0 | 22.0 | 0.0 | 0.0 | | | | | |
| Force Mode | Fixed | Simult. Gap N/S | On | Yellow | 3.0 | 5.0 | 3.0 | 4.0 | 0.0 | 0.0 | | | | | |
| | | | | Red | 0.0 | 2.0 | 0.0 | 2.0 | 0.0 | 0.0 | | | | | |
| Timer Results | | | | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT | | | | |
| Assigned Phase | | | | 5 | 2 | | 6 | 3 | 8 | 7 | 4 | | | | |
| Case Number | | | | 1.0 | 4.0 | | 6.3 | 1.1 | 3.0 | 1.1 | 3.0 | | | | |
| Phase Duration, s | | | | 27.0 | 59.0 | | 32.0 | 8.0 | 28.0 | 8.0 | 28.0 | | | | |
| Change Period, (Y+R _c), s | | | | 3.0 | 7.0 | | 7.0 | 3.0 | 6.0 | 3.0 | 6.0 | | | | |
| Max Allow Headway (MAH), s | | | | 3.1 | 3.1 | | 3.1 | 3.3 | 3.2 | 3.1 | 3.2 | | | | |
| Queue Clearance Time (g _s), s | | | | 5.3 | 12.7 | | 11.6 | 5.2 | 6.9 | 7.0 | 7.9 | | | | |
| Green Extension Time (g _e), s | | | | 0.2 | 1.7 | | 1.6 | 0.0 | 0.7 | 0.0 | 0.7 | | | | |
| Phase Call Probability | | | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| Max Out Probability | | | | 0.00 | 0.00 | | 0.02 | 1.00 | 0.00 | 1.00 | 0.00 | | | | |
| Movement Group Results | | | | EB | | | WB | | | NB | | | SB | | |
| Approach Movement | L | T | R | L | T | R | L | T | R | L | T | R | | | |
| Assigned Movement | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 | | | |
| Adjusted Flow Rate (v), veh/h | 124 | 367 | | 81 | 222 | 210 | 81 | 118 | 56 | 184 | 113 | 119 | | | |
| Adjusted Saturation Flow Rate (s), veh/h/ln | 1781 | 1838 | | 1031 | 1885 | 1742 | 1795 | 1885 | 1610 | 1781 | 1870 | 1598 | | | |
| Queue Service Time (g _s), s | 3.3 | 10.7 | | 6.0 | 9.4 | 9.6 | 3.2 | 4.9 | 2.6 | 5.0 | 4.7 | 5.9 | | | |
| Cycle Queue Clearance Time (g _c), s | 3.3 | 10.7 | | 6.0 | 9.4 | 9.6 | 3.2 | 4.9 | 2.6 | 5.0 | 4.7 | 5.9 | | | |
| Green Ratio (g/C) | 0.54 | 0.55 | | 0.26 | 0.26 | 0.26 | 0.28 | 0.23 | 0.23 | 0.28 | 0.23 | 0.23 | | | |
| Capacity (c), veh/h | 681 | 1006 | | 347 | 496 | 459 | 378 | 437 | 373 | 372 | 433 | 370 | | | |
| Volume-to-Capacity Ratio (X) | 0.183 | 0.365 | | 0.234 | 0.448 | 0.459 | 0.214 | 0.270 | 0.150 | 0.495 | 0.260 | 0.322 | | | |
| Back of Queue (Q), ft/ln (95 th percentile) | 54.4 | 181.6 | | 64.3 | 185.2 | 174.5 | 62.8 | 101.1 | 46.1 | 55.3 | 93.3 | 99.6 | | | |
| Back of Queue (Q), veh/ln (95 th percentile) | 2.1 | 7.2 | | 2.6 | 7.3 | 7.0 | 2.5 | 4.0 | 1.8 | 2.2 | 3.7 | 4.0 | | | |
| Queue Storage Ratio (RQ) (95 th percentile) | 0.00 | 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| Uniform Delay (d ₁), s/veh | 11.8 | 12.2 | | 28.0 | 29.2 | 29.3 | 25.7 | 29.9 | 29.1 | 29.7 | 29.8 | 30.3 | | | |
| Incremental Delay (d ₂), s/veh | 0.0 | 0.1 | | 0.1 | 0.2 | 0.3 | 0.1 | 0.1 | 0.1 | 0.4 | 0.1 | 0.2 | | | |
| Initial Queue Delay (d ₃), s/veh | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| Control Delay (d), s/veh | 11.8 | 12.2 | | 28.1 | 29.5 | 29.6 | 25.8 | 30.0 | 29.1 | 30.1 | 30.0 | 30.5 | | | |
| Level of Service (LOS) | B | B | | C | C | C | C | C | C | C | C | C | | | |
| Approach Delay, s/veh / LOS | 12.1 | B | | 29.3 | C | | 28.5 | C | | 30.2 | C | | | | |
| Intersection Delay, s/veh / LOS | 24.4 | | | | | | C | | | | | | | | |
| Multimodal Results | | | | EB | | | WB | | | NB | | | SB | | |
| Pedestrian LOS Score / LOS | 2.11 | B | | 2.18 | B | | 2.16 | B | | 2.14 | B | | | | |
| Bicycle LOS Score / LOS | 1.30 | A | | 0.91 | A | | 0.91 | A | | 1.17 | A | | | | |

HCS Two-Way Stop-Control Report

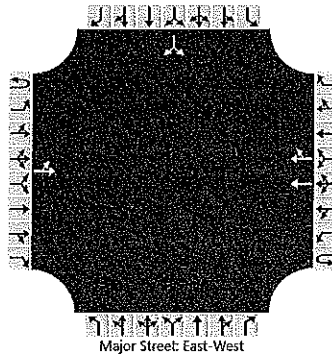
General Information

| | |
|--------------------------|------------------------------------|
| Analyst | DHH |
| Agency/Co. | Horner & Canter Assoc |
| Date Performed | 10/1/2024 |
| Analysis Year | 2024 |
| Time Analyzed | AM Peak Hour |
| Intersection Orientation | East-West |
| Project Description | 24-039 Proposed Starbucks Pad Site |

Site Information

| | |
|----------------------------|-----------------------------|
| Intersection | Parkway Ave/Shop Ctr Access |
| Jurisdiction | Ewing Twp |
| East/West Street | Parkway Avenue |
| North/South Street | Shop Ctr Access |
| Peak Hour Factor | 0.90 |
| Analysis Time Period (hrs) | 0.25 |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|----|-----|---|-----------|---|-----|----|------------|---|---|---|------------|----|----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Movement | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Priority | | | | | | | | | | | | | | | | |
| Number of Lanes | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | | 0 | 0 | 0 | | 0 | 1 | 0 |
| Configuration | | LT | | | | | T | TR | | | | | | | LR | |
| Volume (veh/h) | | 12 | 403 | | | | 413 | 12 | | | | | | 3 | | 16 |
| Percent Heavy Vehicles (%) | | 0 | | | | | | | | | | | | 33 | | 6 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | | | | | | 0 | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|--|--|--|--|--|--|--|--|--|--|------|--|------|
| Base Critical Headway (sec) | | 4.1 | | | | | | | | | | | | 7.5 | | 6.9 |
| Critical Headway (sec) | | 4.10 | | | | | | | | | | | | 7.46 | | 7.02 |
| Base Follow-Up Headway (sec) | | 2.2 | | | | | | | | | | | | 3.5 | | 3.3 |
| Follow-Up Headway (sec) | | 2.20 | | | | | | | | | | | | 3.83 | | 3.36 |

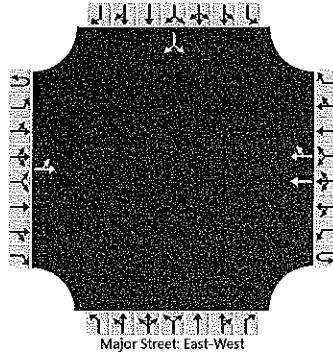
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|--|------|-----|--|--|--|--|--|--|--|--|--|--|------|--|------|--|
| Flow Rate, v (veh/h) | | 13 | | | | | | | | | | | | | | 21 | |
| Capacity, c (veh/h) | | 1100 | | | | | | | | | | | | | | 533 | |
| v/c Ratio | | 0.01 | | | | | | | | | | | | | | 0.04 | |
| 95% Queue Length, Q ₉₅ (veh) | | 0.0 | | | | | | | | | | | | | | 0.1 | |
| Control Delay (s/veh) | | 8.3 | 0.1 | | | | | | | | | | | | | 12.0 | |
| Level of Service (LOS) | | A | A | | | | | | | | | | | | | B | |
| Approach Delay (s/veh) | | 0.4 | | | | | | | | | | | | 12.0 | | | |
| Approach LOS | | A | | | | | | | | | | | | B | | | |

HCS Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|------------------------------------|--|--|----------------------------|-----------------------------|--|--|
| Analyst | DHH | | | Intersection | Parkway Ave/Shop Ctr Access | | |
| Agency/Co. | Horner & Canter Assoc | | | Jurisdiction | Ewing Twp | | |
| Date Performed | 10/1/2024 | | | East/West Street | Parkway Avenue | | |
| Analysis Year | 2024 | | | North/South Street | Shop Ctr Access | | |
| Time Analyzed | PM Peak Hour | | | Peak Hour Factor | 0.91 | | |
| Intersection Orientation | East-West | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | 24-039 Proposed Starbucks Pad Site | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|----|-----|---|-----------|---|-----|----|------------|---|---|---|------------|----|----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Movement | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Priority | | | | | | | | | | | | | | | | |
| Number of Lanes | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | | 0 | 0 | 0 | | 0 | 1 | 0 |
| Configuration | | LT | | | | | T | TR | | | | | | | LR | |
| Volume (veh/h) | | 30 | 535 | | | | 620 | 39 | | | | | | 13 | | 53 |
| Percent Heavy Vehicles (%) | | 3 | | | | | | | | | | | | 0 | | 0 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | | | | | | 0 | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|--|--|--|--|--|--|--|--|--|--|------|--|------|
| Base Critical Headway (sec) | | 4.1 | | | | | | | | | | | | 7.5 | | 6.9 |
| Critical Headway (sec) | | 4.16 | | | | | | | | | | | | 6.80 | | 6.90 |
| Base Follow-Up Headway (sec) | | 2.2 | | | | | | | | | | | | 3.5 | | 3.3 |
| Follow-Up Headway (sec) | | 2.23 | | | | | | | | | | | | 3.50 | | 3.30 |

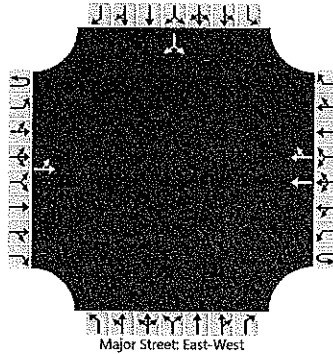
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|--|------|-----|--|--|--|--|--|--|--|--|--|--|------|--|------|--|
| Flow Rate, v (veh/h) | | 33 | | | | | | | | | | | | | | 73 | |
| Capacity, c (veh/h) | | 868 | | | | | | | | | | | | | | 368 | |
| v/c Ratio | | 0.04 | | | | | | | | | | | | | | 0.20 | |
| 95% Queue Length, Q ₉₅ (veh) | | 0.1 | | | | | | | | | | | | | | 0.7 | |
| Control Delay (s/veh) | | 9.3 | 0.5 | | | | | | | | | | | | | 17.2 | |
| Level of Service (LOS) | | A | A | | | | | | | | | | | | | C | |
| Approach Delay (s/veh) | | 1.0 | | | | | | | | | | | | 17.2 | | | |
| Approach LOS | | A | | | | | | | | | | | | C | | | |

HCS Two-Way Stop-Control Report

| General Information | | Site Information | |
|--------------------------|------------------------------------|----------------------------|-----------------------------|
| Analyst | DHH | Intersection | Parkway Ave/Shop Ctr Access |
| Agency/Co. | Horner & Canter Assoc | Jurisdiction | Ewing Twp |
| Date Performed | 10/1/2024 | East/West Street | Parkway Avenue |
| Analysis Year | 2024 | North/South Street | Shop Ctr Access |
| Time Analyzed | SAT Peak Hour | Peak Hour Factor | 0.94 |
| Intersection Orientation | East-West | Analysis Time Period (hrs) | 0.25 |
| Project Description | 24-039 Proposed Starbucks Pad Site | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|----|-----|---|-----------|---|-----|----|------------|---|---|---|------------|----|----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Movement | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Priority | | | | | | | | | | | | | | | | |
| Number of Lanes | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | | 0 | 0 | 0 | | 0 | 1 | 0 |
| Configuration | | LT | | | | | T | TR | | | | | | | LR | |
| Volume (veh/h) | | 25 | 455 | | | | 428 | 41 | | | | | | 13 | | 42 |
| Percent Heavy Vehicles (%) | | 0 | | | | | | | | | | | | 0 | | 0 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | | | | | | 0 | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|--|--|--|--|--|--|--|--|--|--|------|--|------|
| Base Critical Headway (sec) | | 4.1 | | | | | | | | | | | | 7.5 | | 6.9 |
| Critical Headway (sec) | | 4.10 | | | | | | | | | | | | 6.80 | | 6.90 |
| Base Follow-Up Headway (sec) | | 2.2 | | | | | | | | | | | | 3.5 | | 3.3 |
| Follow-Up Headway (sec) | | 2.20 | | | | | | | | | | | | 3.50 | | 3.30 |

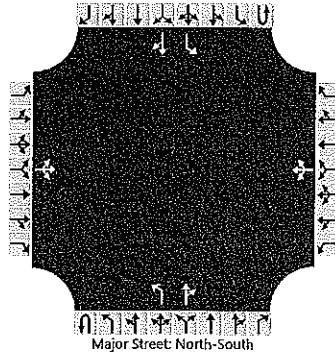
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|--|------|-----|--|--|--|--|--|--|--|--|--|--|------|--|------|
| Flow Rate, v (veh/h) | | 27 | | | | | | | | | | | | | | 59 |
| Capacity, c (veh/h) | | 1076 | | | | | | | | | | | | | | 491 |
| v/c Ratio | | 0.02 | | | | | | | | | | | | | | 0.12 |
| 95% Queue Length, Q ₉₅ (veh) | | 0.1 | | | | | | | | | | | | | | 0.4 |
| Control Delay (s/veh) | | 8.4 | 0.3 | | | | | | | | | | | | | 13.3 |
| Level of Service (LOS) | | A | A | | | | | | | | | | | | | B |
| Approach Delay (s/veh) | | 0.7 | | | | | | | | | | | | 13.3 | | |
| Approach LOS | | A | | | | | | | | | | | | B | | |

HCS Two-Way Stop-Control Report

| General Information | | Site Information | |
|--------------------------|------------------------------------|----------------------------|--|
| Analyst | DHH | Intersection | Scotch Rd/S. Shop Ctr Access |
| Agency/Co. | Horner & Canter Assoc | Jurisdiction | Ewing Twp |
| Date Performed | 10/1/2024 | East/West Street | S. Shop Ctr Access/Parkway Corporate Ctr Acc |
| Analysis Year | 2024 | North/South Street | Scotch Road |
| Time Analyzed | AM Peak Hour | Peak Hour Factor | 0.88 |
| Intersection Orientation | North-South | Analysis Time Period (hrs) | 0.25 |
| Project Description | 24-039 Proposed Starbucks Pad Site | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | |
|----------------------------|-----------|-----------|-----|----|-----------|---|-----|---|------------|----|-----|----|------------|----|-----|----|--|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R | |
| Movement | | | | | | | | | | | | | | | | | |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 | |
| Configuration | | | LTR | | | | LTR | | | L | | TR | | L | | TR | |
| Volume (veh/h) | | 6 | 0 | 20 | | 3 | 0 | 5 | | 20 | 424 | 5 | | 11 | 312 | 10 | |
| Percent Heavy Vehicles (%) | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | | | | 9 | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | 0 | | | | 0 | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | | |
| Median Type Storage | | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|------|------|--|------|------|------|--|------|--|--|--|------|--|--|
| Base Critical Headway (sec) | | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 | | 4.1 | | | | 4.1 | | |
| Critical Headway (sec) | | 7.10 | 6.50 | 6.20 | | 7.10 | 6.50 | 6.20 | | 4.10 | | | | 4.19 | | |
| Base Follow-Up Headway (sec) | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 | | 2.2 | | | | 2.2 | | |
| Follow-Up Headway (sec) | | 3.50 | 4.00 | 3.30 | | 3.50 | 4.00 | 3.30 | | 2.20 | | | | 2.28 | | |

Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|--|------|------|--|--|------|------|--|--|-----|------|--|--|-----|------|--|--|
| Flow Rate, v (veh/h) | | | 30 | | | | 9 | | | | 23 | | | | 13 | | |
| Capacity, c (veh/h) | | | 485 | | | | 376 | | | | 1204 | | | | 1040 | | |
| v/c Ratio | | | 0.06 | | | | 0.02 | | | | 0.02 | | | | 0.01 | | |
| 95% Queue Length, Q ₉₅ (veh) | | | 0.2 | | | | 0.1 | | | | 0.1 | | | | 0.0 | | |
| Control Delay (s/veh) | | | 12.9 | | | | 14.8 | | | | 8.0 | | | | 8.5 | | |
| Level of Service (LOS) | | | B | | | | B | | | | A | | | | A | | |
| Approach Delay (s/veh) | | 12.9 | | | | 14.8 | | | | 0.4 | | | | 0.3 | | | |
| Approach LOS | | B | | | | B | | | | A | | | | A | | | |

HCS Two-Way Stop-Control Report

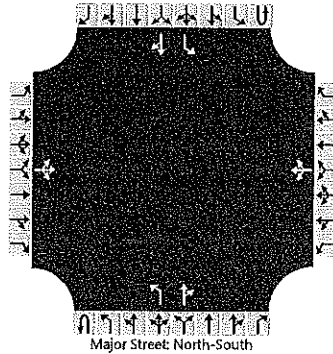
General Information

| | |
|--------------------------|------------------------------------|
| Analyst | DHH |
| Agency/Co. | Horner & Canter Assoc |
| Date Performed | 10/1/2024 |
| Analysis Year | 2024 |
| Time Analyzed | PM Peak Hour |
| Intersection Orientation | North-South |
| Project Description | 24-039 Proposed Starbucks Pad Site |

Site Information

| | |
|----------------------------|--|
| Intersection | Scotch Rd/S. Shop Ctr Access |
| Jurisdiction | Ewing Twp |
| East/West Street | S. Shop Ctr Access/Parkway Corporate Ctr Acc |
| North/South Street | Scotch Road |
| Peak Hour Factor | 0.94 |
| Analysis Time Period (hrs) | 0.25 |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | |
|----------------------------|-----------|-----------|-----|----|-----------|---|-----|----|------------|----|-----|----|------------|---|-----|----|--|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R | |
| Movement | | | | | | | | | | | | | | | | | |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 | |
| Configuration | | | LTR | | | | LTR | | | L | | TR | | L | | TR | |
| Volume (veh/h) | | 26 | 1 | 52 | | 7 | 0 | 10 | | 32 | 416 | 5 | | 9 | 467 | 43 | |
| Percent Heavy Vehicles (%) | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | | | | 0 | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | 0 | | | | 0 | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | | |
| Median Type Storage | | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|------|------|--|------|------|------|--|------|--|--|--|------|--|--|
| Base Critical Headway (sec) | | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 | | 4.1 | | | | 4.1 | | |
| Critical Headway (sec) | | 7.10 | 6.50 | 6.20 | | 7.10 | 6.50 | 6.20 | | 4.10 | | | | 4.10 | | |
| Base Follow-Up Headway (sec) | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 | | 2.2 | | | | 2.2 | | |
| Follow-Up Headway (sec) | | 3.50 | 4.00 | 3.30 | | 3.50 | 4.00 | 3.30 | | 2.20 | | | | 2.20 | | |

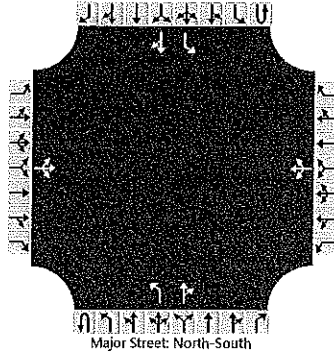
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|--|------|------|--|--|------|------|--|--|-----|------|--|--|-----|------|--|--|
| Flow Rate, v (veh/h) | | | 84 | | | | 18 | | | | 34 | | | | 10 | | |
| Capacity, c (veh/h) | | | 340 | | | | 296 | | | | 1036 | | | | 1123 | | |
| v/c Ratio | | | 0.25 | | | | 0.06 | | | | 0.03 | | | | 0.01 | | |
| 95% Queue Length, Q ₉₅ (veh) | | | 1.0 | | | | 0.2 | | | | 0.1 | | | | 0.0 | | |
| Control Delay (s/veh) | | | 19.0 | | | | 18.0 | | | | 8.6 | | | | 8.2 | | |
| Level of Service (LOS) | | | C | | | | C | | | | A | | | | A | | |
| Approach Delay (s/veh) | | 19.0 | | | | 18.0 | | | | 0.6 | | | | 0.1 | | | |
| Approach LOS | | C | | | | C | | | | A | | | | A | | | |

HCS Two-Way Stop-Control Report

| General Information | | Site Information | |
|--------------------------|------------------------------------|----------------------------|--|
| Analyst | DHH | Intersection | Scotch Rd/S. Shop Ctr Access |
| Agency/Co. | Horner & Canter Assoc | Jurisdiction | Ewing Twp |
| Date Performed | 10/1/2024 | East/West Street | S. Shop Ctr Access/Parkway Corporate Ctr Acc |
| Analysis Year | 2024 | North/South Street | Scotch Road |
| Time Analyzed | SAT Peak Hour | Peak Hour Factor | 0.94 |
| Intersection Orientation | North-South | Analysis Time Period (hrs) | 0.25 |
| Project Description | 24-039 Proposed Starbucks Pad Site | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | |
|----------------------------|-----------|-----------|-----|----|-----------|---|-----|---|------------|----|-----|----|------------|---|-----|----|--|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R | |
| Movement | | | | | | | | | | | | | | | | | |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | |
| Configuration | | | LTR | | | | LTR | | | L | | TR | | L | | TR | |
| Volume (veh/h) | | 23 | 2 | 45 | | 9 | 2 | 7 | | 24 | 284 | 6 | | 5 | 293 | 23 | |
| Percent Heavy Vehicles (%) | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | | | | 0 | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | 0 | | | | 0 | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | | |
| Median Type Storage | | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|------|------|--|------|------|------|--|------|--|--|--|------|--|--|
| Base Critical Headway (sec) | | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 | | 4.1 | | | | 4.1 | | |
| Critical Headway (sec) | | 7.10 | 6.50 | 6.20 | | 7.10 | 6.50 | 6.20 | | 4.10 | | | | 4.10 | | |
| Base Follow-Up Headway (sec) | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 | | 2.2 | | | | 2.2 | | |
| Follow-Up Headway (sec) | | 3.50 | 4.00 | 3.30 | | 3.50 | 4.00 | 3.30 | | 2.20 | | | | 2.20 | | |

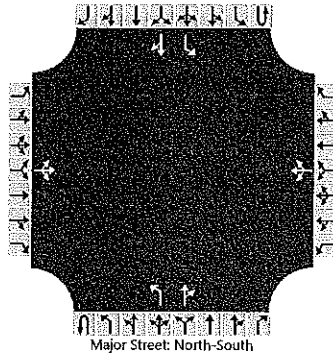
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|--|------|------|--|--|------|------|--|--|-----|------|--|--|-----|------|--|--|
| Flow Rate, v (veh/h) | | | 74 | | | | 19 | | | | 26 | | | | 5 | | |
| Capacity, c (veh/h) | | | 520 | | | | 412 | | | | 1234 | | | | 1264 | | |
| v/c Ratio | | | 0.14 | | | | 0.05 | | | | 0.02 | | | | 0.00 | | |
| 95% Queue Length, Q ₉₅ (veh) | | | 0.5 | | | | 0.1 | | | | 0.1 | | | | 0.0 | | |
| Control Delay (s/veh) | | | 13.1 | | | | 14.2 | | | | 8.0 | | | | 7.9 | | |
| Level of Service (LOS) | | | B | | | | B | | | | A | | | | A | | |
| Approach Delay (s/veh) | | 13.1 | | | | 14.2 | | | | 0.6 | | | | 0.1 | | | |
| Approach LOS | | B | | | | B | | | | A | | | | A | | | |

HCS Two-Way Stop-Control Report

| General Information | | Site Information | |
|--------------------------|------------------------------------|----------------------------|--------------------------------------|
| Analyst | DHH | Intersection | Scotch Rd/Ctrl Shop Ctr Access |
| Agency/Co. | Horner & Canter Assoc | Jurisdiction | Ewing Twp |
| Date Performed | 10/1/2024 | East/West Street | Ctrl Shop Ctr Access/Dollar Tree Acc |
| Analysis Year | 2024 | North/South Street | Scotch Road |
| Time Analyzed | AM Peak Hour | Peak Hour Factor | 0.91 |
| Intersection Orientation | North-South | Analysis Time Period (hrs) | 0.25 |
| Project Description | 24-039 Proposed Starbucks Pad Site | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | |
|----------------------------|-----------|-----------|-----|----|-----------|----|-----|---|------------|---|-----|----|------------|---|-----|----|--|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R | |
| Movement | | | | | | | | | | | | | | | | | |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 | |
| Configuration | | | LTR | | | | LTR | | | L | | TR | | L | | TR | |
| Volume (veh/h) | | 5 | 0 | 1 | | 6 | 1 | 2 | | 3 | 395 | 10 | | 0 | 401 | 5 | |
| Percent Heavy Vehicles (%) | | 0 | 0 | 0 | | 17 | 0 | 0 | | 0 | | | | 0 | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | 0 | | | | 0 | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | | |
| Median Type Storage | | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|------|------|--|------|------|------|--|------|--|--|--|------|--|--|
| Base Critical Headway (sec) | | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 | | 4.1 | | | | 4.1 | | |
| Critical Headway (sec) | | 7.10 | 6.50 | 6.20 | | 7.27 | 6.50 | 6.20 | | 4.10 | | | | 4.10 | | |
| Base Follow-Up Headway (sec) | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 | | 2.2 | | | | 2.2 | | |
| Follow-Up Headway (sec) | | 3.50 | 4.00 | 3.30 | | 3.65 | 4.00 | 3.30 | | 2.20 | | | | 2.20 | | |

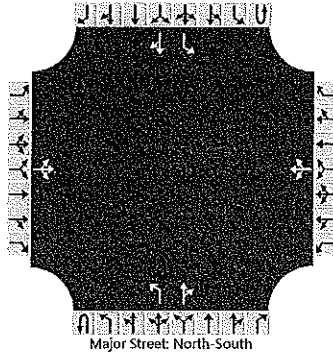
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|--|------|------|--|--|------|------|--|--|-----|------|--|--|-----|------|--|--|
| Flow Rate, v (veh/h) | | | 7 | | | | 10 | | | | 3 | | | | 0 | | |
| Capacity, c (veh/h) | | | 290 | | | | 290 | | | | 1125 | | | | 1126 | | |
| v/c Ratio | | | 0.02 | | | | 0.03 | | | | 0.00 | | | | 0.00 | | |
| 95% Queue Length, Q ₉₅ (veh) | | | 0.1 | | | | 0.1 | | | | 0.0 | | | | 0.0 | | |
| Control Delay (s/veh) | | | 17.7 | | | | 17.9 | | | | 8.2 | | | | 8.2 | | |
| Level of Service (LOS) | | | C | | | | C | | | | A | | | | A | | |
| Approach Delay (s/veh) | | 17.7 | | | | 17.9 | | | | 0.1 | | | | 0.0 | | | |
| Approach LOS | | C | | | | C | | | | A | | | | A | | | |

HCS Two-Way Stop-Control Report

| General Information | | Site Information | |
|--------------------------|------------------------------------|----------------------------|--------------------------------------|
| Analyst | DHH | Intersection | Scotch Rd/Ctrl Shop Ctr Access |
| Agency/Co. | Horner & Canter Assoc | Jurisdiction | Ewing Twp |
| Date Performed | 10/1/2024 | East/West Street | Ctrl Shop Ctr Access/Dollar Tree Acc |
| Analysis Year | 2024 | North/South Street | Scotch Road |
| Time Analyzed | PM Peak Hour | Peak Hour Factor | 0.92 |
| Intersection Orientation | North-South | Analysis Time Period (hrs) | 0.25 |
| Project Description | 24-039 Proposed Starbucks Pad Site | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | |
|----------------------------|-----------|-----------|-----|----|-----------|----|-----|----|------------|----|-----|----|------------|---|-----|----|--|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R | |
| Movement | | | | | | | | | | | | | | | | | |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 | |
| Configuration | | | LTR | | | | LTR | | | L | | TR | | L | | TR | |
| Volume (veh/h) | | 29 | 1 | 12 | | 26 | 2 | 13 | | 15 | 427 | 20 | | 9 | 495 | 23 | |
| Percent Heavy Vehicles (%) | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | | | | 0 | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | 0 | | | | 0 | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | | |
| Median Type Storage | | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|------|------|--|------|------|------|--|------|--|--|--|------|--|--|
| Base Critical Headway (sec) | | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 | | 4.1 | | | | 4.1 | | |
| Critical Headway (sec) | | 7.10 | 6.50 | 6.20 | | 7.10 | 6.50 | 6.20 | | 4.10 | | | | 4.10 | | |
| Base Follow-Up Headway (sec) | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 | | 2.2 | | | | 2.2 | | |
| Follow-Up Headway (sec) | | 3.50 | 4.00 | 3.30 | | 3.50 | 4.00 | 3.30 | | 2.20 | | | | 2.20 | | |

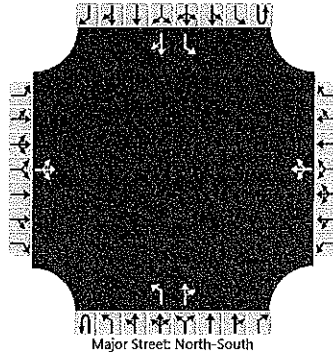
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|--|------|------|--|--|------|------|--|--|-----|------|--|--|-----|------|--|--|
| Flow Rate, v (veh/h) | | | 46 | | | | 45 | | | | 16 | | | | 10 | | |
| Capacity, c (veh/h) | | | 228 | | | | 239 | | | | 1019 | | | | 1088 | | |
| v/c Ratio | | | 0.20 | | | | 0.19 | | | | 0.02 | | | | 0.01 | | |
| 95% Queue Length, Q ₉₅ (veh) | | | 0.7 | | | | 0.7 | | | | 0.0 | | | | 0.0 | | |
| Control Delay (s/veh) | | | 24.7 | | | | 23.5 | | | | 8.6 | | | | 8.3 | | |
| Level of Service (LOS) | | | C | | | | C | | | | A | | | | A | | |
| Approach Delay (s/veh) | | 24.7 | | | | 23.5 | | | | 0.3 | | | | 0.1 | | | |
| Approach LOS | | C | | | | C | | | | A | | | | A | | | |

HCS Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|------------------------------------|--|--|----------------------------|--------------------------------------|--|--|
| Analyst | DHH | | | Intersection | Scotch Rd/Ctrl Shop Ctr Access | | |
| Agency/Co. | Horner & Canter Assoc | | | Jurisdiction | Ewing Twp | | |
| Date Performed | 10/1/2024 | | | East/West Street | Ctrl Shop Ctr Access/Dollar Tree Acc | | |
| Analysis Year | 2024 | | | North/South Street | Scotch Road | | |
| Time Analyzed | SAT Peak Hour | | | Peak Hour Factor | 0.95 | | |
| Intersection Orientation | North-South | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | 24-039 Proposed Starbucks Pad Site | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | |
|----------------------------|-----------|-----------|-----|----|-----------|----|-----|----|------------|---|-----|----|------------|---|-----|----|--|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R | |
| Movement | | | | | | | | | | | | | | | | | |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 | |
| Configuration | | | LTR | | | | LTR | | | L | | TR | | L | | TR | |
| Volume (veh/h) | | 14 | 2 | 6 | | 19 | 1 | 17 | | 8 | 375 | 29 | | 9 | 408 | 21 | |
| Percent Heavy Vehicles (%) | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | | | | 0 | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | 0 | | | | 0 | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | | |
| Median Type Storage | | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|------|------|--|------|------|------|--|------|--|--|--|------|--|--|
| Base Critical Headway (sec) | | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 | | 4.1 | | | | 4.1 | | |
| Critical Headway (sec) | | 7.10 | 6.50 | 6.20 | | 7.10 | 6.50 | 6.20 | | 4.10 | | | | 4.10 | | |
| Base Follow-Up Headway (sec) | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 | | 2.2 | | | | 2.2 | | |
| Follow-Up Headway (sec) | | 3.50 | 4.00 | 3.30 | | 3.50 | 4.00 | 3.30 | | 2.20 | | | | 2.20 | | |

Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|--|------|------|--|--|------|------|--|--|------|--|--|--|------|--|--|--|
| Flow Rate, v (veh/h) | | | 23 | | | | 39 | | | 8 | | | | 9 | | | |
| Capacity, c (veh/h) | | | 303 | | | | 356 | | | 1120 | | | | 1145 | | | |
| v/c Ratio | | | 0.08 | | | | 0.11 | | | 0.01 | | | | 0.01 | | | |
| 95% Queue Length, Q ₉₅ (veh) | | | 0.2 | | | | 0.4 | | | 0.0 | | | | 0.0 | | | |
| Control Delay (s/veh) | | | 17.9 | | | | 16.4 | | | 8.2 | | | | 8.2 | | | |
| Level of Service (LOS) | | | C | | | | C | | | A | | | | A | | | |
| Approach Delay (s/veh) | | 17.9 | | | | 16.4 | | | | 0.2 | | | | 0.2 | | | |
| Approach LOS | | C | | | | C | | | | A | | | | A | | | |

APPENDIX F

Trip Generation Worksheets

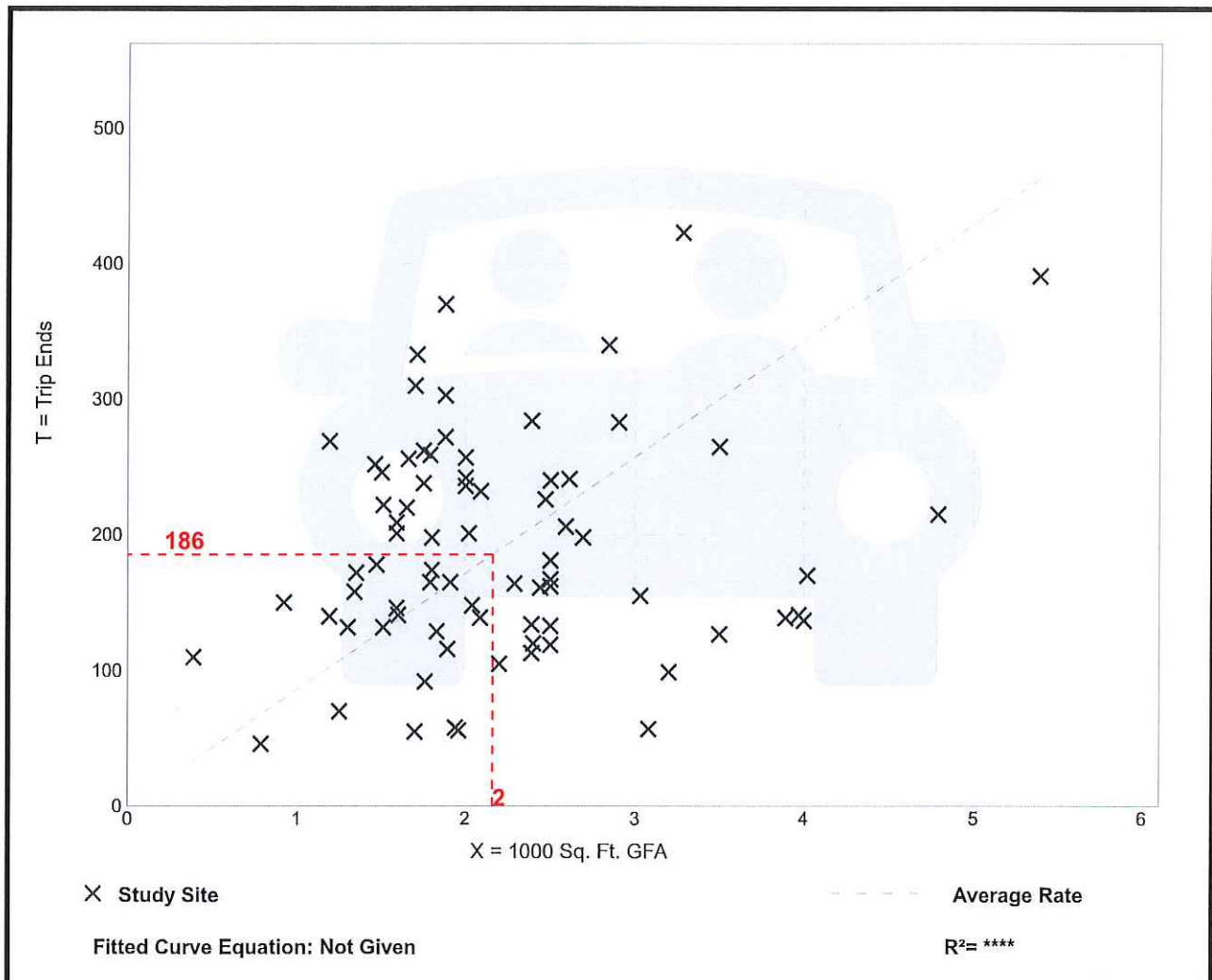
Coffee/Donut Shop with Drive-Through Window (937)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 7 and 9 a.m.
 Setting/Location: General Urban/Suburban
 Number of Studies: 78
 Avg. 1000 Sq. Ft. GFA: 2
 Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 85.88 | 18.51 - 282.05 | 44.92 |

Data Plot and Equation



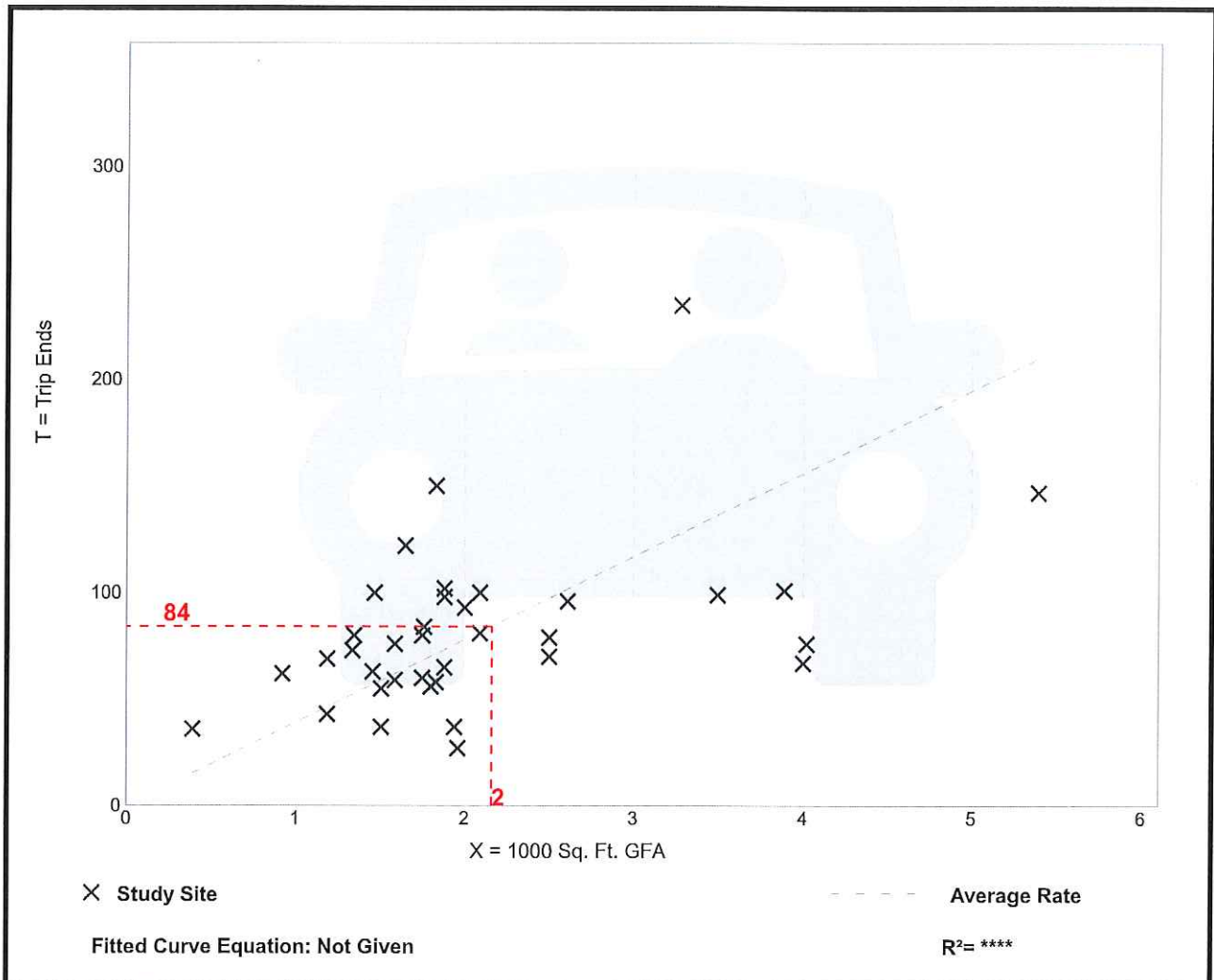
Coffee/Donut Shop with Drive-Through Window (937)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 36
 Avg. 1000 Sq. Ft. GFA: 2
 Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 38.99 | 13.78 - 92.31 | 17.79 |

Data Plot and Equation



Coffee/Donut Shop with Drive-Through Window (937)

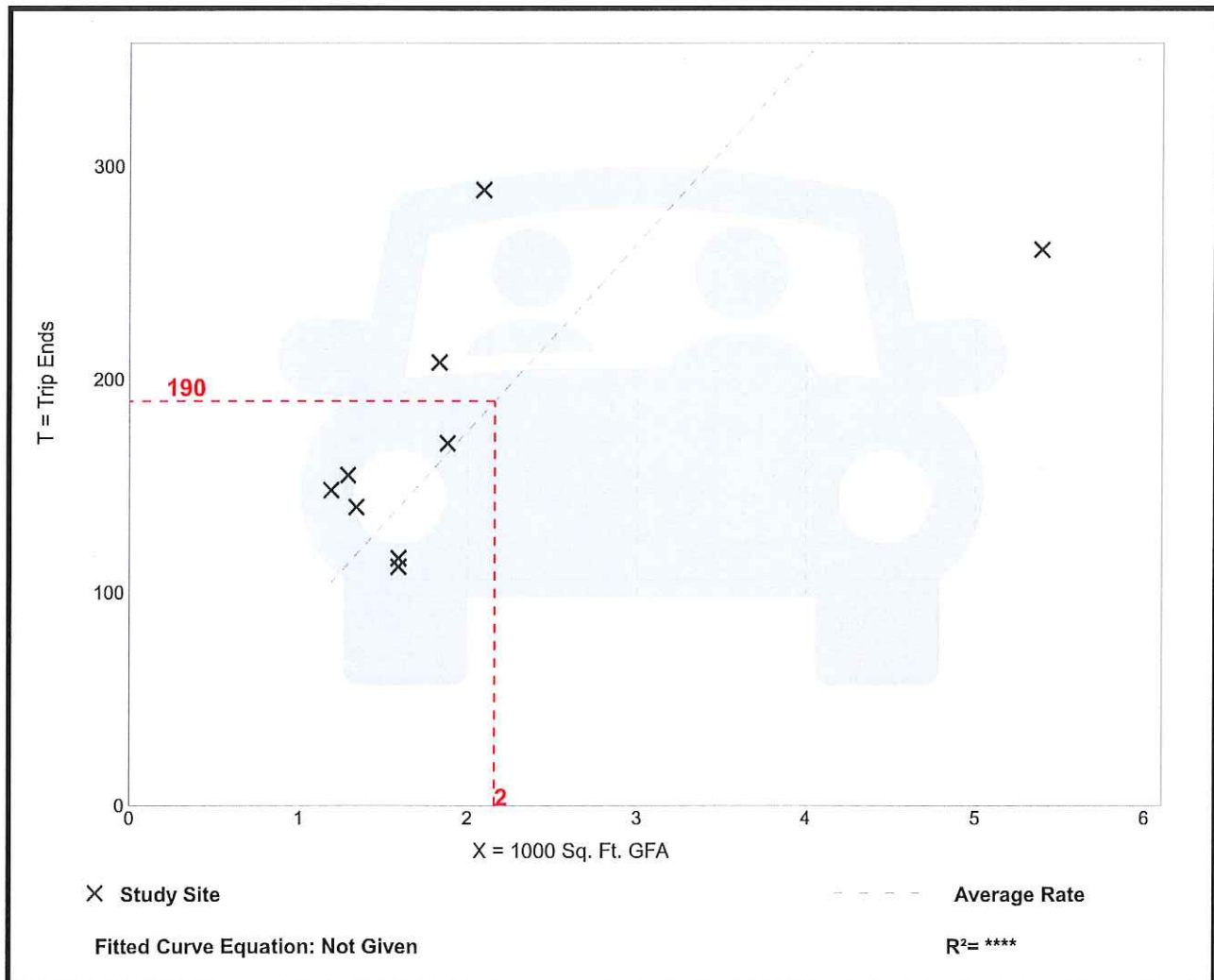
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 9
Avg. 1000 Sq. Ft. GFA: 2
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 87.91 | 48.42 - 138.28 | 34.34 |

Data Plot and Equation



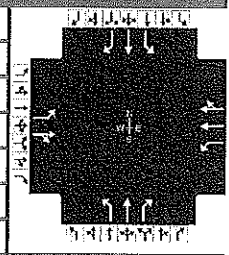
APPENDIX G

No-Build Capacity/LOS Analysis Worksheets

HCS Signalized Intersection Results Summary

General Information

| | | | | | |
|---------------------|------------------------------------|---------------|--|-----------------|---------|
| Agency | Horner & Canter Assoc | | | Duration, h | 0.250 |
| Analyst | DHH | Analysis Date | Oct 1, 2024 | Area Type | Other |
| Jurisdiction | Ewing Twp | Time Period | AM Peak Hour | PHF | 0.91 |
| Urban Street | | Analysis Year | 2025 No-Build | Analysis Period | 1> 7:00 |
| Intersection | Parkway Ave/Scotch Rd... | File Name | Parkway Ave_Scotch Rd_Sylvia St_na.xus | | |
| Project Description | 24-039 Proposed Starbucks Pad Site | | | | |



Demand Information

| Approach Movement | EB | | | WB | | | NB | | | SB | | |
|-------------------|-----|-----|----|----|-----|-----|----|-----|----|-----|----|-----|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Demand (v), veh/h | 151 | 283 | 41 | 39 | 258 | 184 | 63 | 151 | 60 | 160 | 95 | 112 |

Signal Information

| | | | | | | | | | | | | | | | |
|---------------|-------|-----------------|-----|--------|------|------|------|------|-----|-----|---|----|----|----|--|
| Cycle, s | 90.0 | Reference Phase | 2 | EB | | | WB | | | NB | | | SB | | |
| Offset, s | 0 | Reference Point | End | Green | 17.0 | 25.0 | 10.0 | 19.0 | 0.0 | 0.0 | 1 | 2 | 3 | 4 | |
| Uncoordinated | Yes | Simult. Gap E/W | On | Yellow | 3.0 | 5.0 | 3.0 | 4.0 | 0.0 | 0.0 | 5 | 6 | 7 | 8 | |
| Force Mode | Fixed | Simult. Gap N/S | On | Red | 0.0 | 2.0 | 0.0 | 2.0 | 0.0 | 0.0 | 9 | 10 | 11 | 12 | |

Timer Results

| | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|------|------|-----|------|------|------|------|------|
| Assigned Phase | 5 | 2 | | 6 | 3 | 8 | 7 | 4 |
| Case Number | 1.0 | 4.0 | | 6.3 | 1.1 | 3.0 | 1.1 | 3.0 |
| Phase Duration, s | 20.0 | 52.0 | | 32.0 | 13.0 | 25.0 | 13.0 | 25.0 |
| Change Period, (Y+R _c), s | 3.0 | 7.0 | | 7.0 | 3.0 | 6.0 | 3.0 | 6.0 |
| Max Allow Headway (MAH), s | 3.1 | 3.1 | | 3.1 | 3.3 | 3.2 | 3.1 | 3.2 |
| Queue Clearance Time (g _s), s | 6.9 | 12.7 | | 11.8 | 4.5 | 9.4 | 9.1 | 6.9 |
| Green Extension Time (g _e), s | 0.2 | 1.6 | | 1.5 | 0.0 | 0.6 | 0.0 | 0.7 |
| Phase Call Probability | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Max Out Probability | 0.00 | 0.00 | | 0.02 | 0.04 | 0.01 | 1.00 | 0.00 |

Movement Group Results

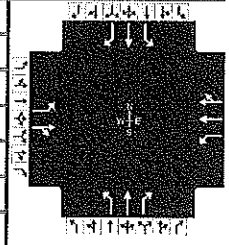
| Approach Movement | EB | | | WB | | | NB | | | SB | | | |
|---|-------|-------|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| | L | T | R | L | T | R | L | T | R | L | T | R | |
| Assigned Movement | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 | |
| Adjusted Flow Rate (v), veh/h | 166 | 345 | | 43 | 231 | 211 | 69 | 166 | 49 | 176 | 104 | 96 | |
| Adjusted Saturation Flow Rate (s), veh/h/ln | 1739 | 1794 | | 945 | 1826 | 1609 | 1767 | 1767 | 1572 | 1697 | 1707 | 1485 | |
| Queue Service Time (g _s), s | 4.9 | 10.7 | | 3.1 | 9.4 | 9.8 | 2.5 | 7.4 | 2.3 | 7.1 | 4.6 | 4.9 | |
| Cycle Queue Clearance Time (g _c), s | 4.9 | 10.7 | | 3.1 | 9.4 | 9.8 | 2.5 | 7.4 | 2.3 | 7.1 | 4.6 | 4.9 | |
| Green Ratio (g/C) | 0.49 | 0.50 | | 0.28 | 0.28 | 0.28 | 0.32 | 0.21 | 0.21 | 0.32 | 0.21 | 0.21 | |
| Capacity (c), veh/h | 565 | 897 | | 343 | 507 | 447 | 452 | 373 | 332 | 393 | 360 | 313 | |
| Volume-to-Capacity Ratio (X) | 0.294 | 0.385 | | 0.125 | 0.455 | 0.472 | 0.153 | 0.445 | 0.149 | 0.447 | 0.290 | 0.301 | |
| Back of Queue (Q), ft/ln (95 th percentile) | 81.5 | 183.7 | | 33.1 | 183.2 | 162.1 | 47.6 | 152.1 | 40.4 | 129 | 91.1 | 82.2 | |
| Back of Queue (Q), veh/ln (95 th percentile) | 3.1 | 7.1 | | 1.2 | 7.0 | 6.5 | 1.9 | 5.7 | 1.6 | 4.8 | 3.3 | 3.0 | |
| Queue Storage Ratio (RQ) (95 th percentile) | 0.00 | 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Uniform Delay (d ₁), s/veh | 13.9 | 13.9 | | 24.6 | 26.9 | 27.0 | 21.8 | 30.9 | 28.9 | 23.6 | 29.8 | 29.9 | |
| Incremental Delay (d ₂), s/veh | 0.1 | 0.1 | | 0.1 | 0.2 | 0.3 | 0.1 | 0.3 | 0.1 | 0.3 | 0.2 | 0.2 | |
| Initial Queue Delay (d ₃), s/veh | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Control Delay (d), s/veh | 14.0 | 14.0 | | 24.6 | 27.1 | 27.3 | 21.8 | 31.2 | 29.0 | 23.9 | 30.0 | 30.1 | |
| Level of Service (LOS) | B | B | | C | C | C | C | C | C | C | C | C | |
| Approach Delay, s/veh / LOS | 14.0 | B | | 27.0 | C | | 28.5 | C | | | 27.2 | C | |
| Intersection Delay, s/veh / LOS | 23.3 | | | | | | C | | | | | | |

Multimodal Results

| | EB | WB | NB | SB |
|----------------------------|----------|----------|----------|----------|
| Pedestrian LOS Score / LOS | 2.11 / B | 2.15 / B | 2.18 / B | 2.14 / B |
| Bicycle LOS Score / LOS | 1.33 / A | 0.89 / A | 0.96 / A | 1.11 / A |

HCS Signalized Intersection Results Summary

| General Information | | | | | Intersection Information | | | |
|---------------------|------------------------------------|---------------|---------------|--|--------------------------|---------|--|--|
| Agency | Horner & Canter Assoc | | | | Duration, h | 0.250 | | |
| Analyst | DHH | Analysis Date | Oct 1, 2024 | | Area Type | Other | | |
| Jurisdiction | Ewing Twp | Time Period | PM Peak Hour | | PHF | 0.94 | | |
| Urban Street | | Analysis Year | 2025 No-Build | | Analysis Period | 1> 7:00 | | |
| Intersection | Parkway Ave/Scotch Rd... | | File Name | Parkway Ave_Scotch Rd_Sylvia St_np.xus | | | | |
| Project Description | 24-039 Proposed Starbucks Pad Site | | | | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|--------------------|-----|-----|----|----|-----|-----|----|-----|----|-----|-----|-----|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Demand (v), veh/h | 153 | 352 | 62 | 48 | 377 | 202 | 95 | 111 | 53 | 288 | 137 | 244 |

| Signal Information | | | | Signal Phases | | | | | | | | | | | |
|--------------------|-------|-----------------|-----|---------------|------|------|------|------|-----|-----|--|--|--|--|--|
| Cycle, s | 93.0 | Reference Phase | 2 | | | | | | | | | | | | |
| Offset, s | 0 | Reference Point | End | Green | 20.0 | 25.0 | 12.0 | 17.0 | 0.0 | 0.0 | | | | | |
| Uncoordinated | Yes | Simult. Gap E/W | On | Yellow | 3.0 | 5.0 | 3.0 | 4.0 | 0.0 | 0.0 | | | | | |
| Force Mode | Fixed | Simult. Gap N/S | On | Red | 0.0 | 2.0 | 0.0 | 2.0 | 0.0 | 0.0 | | | | | |

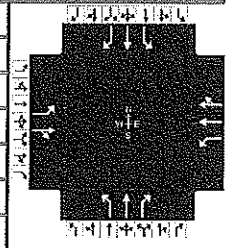
| Timer Results | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|------|------|-----|------|------|------|------|------|
| Assigned Phase | 5 | 2 | | 6 | 3 | 8 | 7 | 4 |
| Case Number | 1.0 | 4.0 | | 6.3 | 1.1 | 3.0 | 1.1 | 3.0 |
| Phase Duration, s | 23.0 | 55.0 | | 32.0 | 15.0 | 23.0 | 15.0 | 23.0 |
| Change Period, (Y+R _c), s | 3.0 | 7.0 | | 7.0 | 3.0 | 6.0 | 3.0 | 6.0 |
| Max Allow Headway (MAH), s | 3.1 | 3.1 | | 3.1 | 3.3 | 3.2 | 3.1 | 3.2 |
| Queue Clearance Time (g _s), s | 6.6 | 15.4 | | 15.0 | 5.8 | 7.0 | 14.0 | 12.9 |
| Green Extension Time (g _e), s | 0.2 | 2.1 | | 1.7 | 0.1 | 0.8 | 0.0 | 0.5 |
| Phase Call Probability | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Max Out Probability | 0.00 | 0.00 | | 0.10 | 0.02 | 0.02 | 1.00 | 0.60 |

| Movement Group Results | EB | | | WB | | | NB | | | SB | | |
|---|-------|-------|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Assigned Movement | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Adjusted Flow Rate (v), veh/h | 163 | 424 | | 51 | 296 | 272 | 101 | 118 | 40 | 306 | 146 | 201 |
| Adjusted Saturation Flow Rate (s), veh/h/ln | 1795 | 1846 | | 978 | 1885 | 1697 | 1795 | 1900 | 1560 | 1795 | 1885 | 1598 |
| Queue Service Time (g _s), s | 4.6 | 13.4 | | 3.7 | 12.7 | 13.0 | 3.8 | 5.0 | 2.0 | 12.0 | 6.4 | 10.9 |
| Cycle Queue Clearance Time (g _c), s | 4.6 | 13.4 | | 3.7 | 12.7 | 13.0 | 3.8 | 5.0 | 2.0 | 12.0 | 6.4 | 10.9 |
| Green Ratio (g/C) | 0.51 | 0.52 | | 0.27 | 0.27 | 0.27 | 0.31 | 0.18 | 0.18 | 0.31 | 0.18 | 0.18 |
| Capacity (c), veh/h | 574 | 953 | | 340 | 507 | 456 | 425 | 347 | 285 | 447 | 345 | 292 |
| Volume-to-Capacity Ratio (X) | 0.284 | 0.445 | | 0.150 | 0.585 | 0.595 | 0.238 | 0.340 | 0.142 | 0.686 | 0.423 | 0.688 |
| Back of Queue (Q), ft/ln (95 th percentile) | 77 | 220.7 | | 38 | 240.1 | 223.9 | 73.8 | 105.4 | 35.8 | 244.6 | 128.6 | 202.1 |
| Back of Queue (Q), veh/ln (95 th percentile) | 3.1 | 8.8 | | 1.5 | 9.5 | 9.0 | 2.9 | 4.2 | 1.4 | 9.7 | 5.1 | 8.0 |
| Queue Storage Ratio (RQ) (95 th percentile) | 0.00 | 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Delay (d ₁), s/veh | 14.0 | 14.1 | | 26.2 | 29.5 | 29.6 | 23.7 | 33.1 | 31.9 | 27.5 | 33.7 | 35.5 |
| Incremental Delay (d ₂), s/veh | 0.1 | 0.1 | | 0.1 | 1.2 | 1.5 | 0.1 | 0.2 | 0.1 | 3.6 | 0.3 | 5.6 |
| Initial Queue Delay (d ₃), s/veh | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Control Delay (d), s/veh | 14.1 | 14.3 | | 26.3 | 30.7 | 31.1 | 23.9 | 33.3 | 32.0 | 31.1 | 34.0 | 41.1 |
| Level of Service (LOS) | B | B | | C | C | C | C | C | C | C | C | D |
| Approach Delay, s/veh / LOS | 14.2 | B | | 30.5 | C | | 29.4 | C | | 34.8 | C | |
| Intersection Delay, s/veh / LOS | 27.2 | | | | | | C | | | | | |

| Multimodal Results | EB | WB | NB | SB |
|----------------------------|----------|----------|----------|----------|
| Pedestrian LOS Score / LOS | 2.11 / B | 2.20 / B | 2.19 / B | 2.15 / B |
| Bicycle LOS Score / LOS | 1.46 / A | 1.00 / A | 0.92 / A | 1.57 / B |

HCS Signalized Intersection Results Summary

| General Information | | | | Intersection Information | | | |
|---------------------|------------------------------------|---------------|--|--------------------------|---------|--|--|
| Agency | Horner & Canter Assoc | | | Duration, h | 0.250 | | |
| Analyst | DHH | Analysis Date | Oct 1, 2024 | Area Type | Other | | |
| Jurisdiction | Ewing Twp | Time Period | SAT Peak Hour | PHF | 0.95 | | |
| Urban Street | | Analysis Year | 2025 No-Build | Analysis Period | 1> 7:00 | | |
| Intersection | Parkway Ave/Scotch Rd... | File Name | Parkway Ave_Scotch Rd_Sylvia St_ns.xus | | | | |
| Project Description | 24-039 Proposed Starbucks Pad Site | | | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|--------------------|-----|-----|----|----|-----|-----|----|-----|----|-----|-----|-----|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Demand (v), veh/h | 120 | 320 | 45 | 78 | 325 | 123 | 78 | 114 | 74 | 178 | 109 | 155 |

| Signal Information | | | | EB | | WB | | NB | | SB | |
|--------------------|-------|-----------------|-----|--------|------|------|-----|------|-----|-----|-----|
| Cycle, s | 95.0 | Reference Phase | 2 | | | | | | | | |
| Offset, s | 0 | Reference Point | End | Green | 24.0 | 25.0 | 5.0 | 22.0 | 0.0 | 0.0 | 0.0 |
| Uncoordinated | Yes | Simult. Gap E/W | On | Yellow | 3.0 | 5.0 | 3.0 | 4.0 | 0.0 | 0.0 | 0.0 |
| Force Mode | Fixed | Simult. Gap N/S | On | Red | 0.0 | 2.0 | 0.0 | 2.0 | 0.0 | 0.0 | 0.0 |

| Timer Results | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|------------------------------|------|------|-----|------|------|------|------|------|
| Assigned Phase | 5 | 2 | | 6 | 3 | 8 | 7 | 4 |
| Case Number | 1.0 | 4.0 | | 6.3 | 1.1 | 3.0 | 1.1 | 3.0 |
| Phase Duration, s | 27.0 | 59.0 | | 32.0 | 8.0 | 28.0 | 8.0 | 28.0 |
| Change Period, (Y+Rc), s | 3.0 | 7.0 | | 7.0 | 3.0 | 6.0 | 3.0 | 6.0 |
| Max Allow Headway (MAH), s | 3.1 | 3.1 | | 3.1 | 3.3 | 3.2 | 3.1 | 3.2 |
| Queue Clearance Time (gs), s | 5.4 | 13.0 | | 11.8 | 5.3 | 7.0 | 7.0 | 8.0 |
| Green Extension Time (ge), s | 0.2 | 1.7 | | 1.6 | 0.0 | 0.7 | 0.0 | 0.7 |
| Phase Call Probability | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Max Out Probability | 0.00 | 0.00 | | 0.02 | 1.00 | 0.00 | 1.00 | 0.00 |

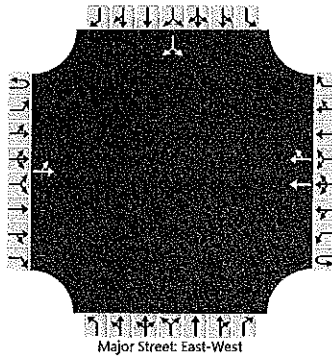
| Movement Group Results | EB | | | WB | | | NB | | | SB | | |
|--|-------|-------|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Assigned Movement | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Adjusted Flow Rate (v), veh/h | 126 | 374 | | 82 | 226 | 214 | 82 | 120 | 57 | 187 | 115 | 121 |
| Adjusted Saturation Flow Rate (s), veh/h/ln | 1781 | 1838 | | 1025 | 1885 | 1742 | 1795 | 1885 | 1610 | 1781 | 1870 | 1598 |
| Queue Service Time (gs), s | 3.4 | 11.0 | | 6.1 | 9.5 | 9.8 | 3.3 | 5.0 | 2.7 | 5.0 | 4.8 | 6.0 |
| Cycle Queue Clearance Time (gc), s | 3.4 | 11.0 | | 6.1 | 9.5 | 9.8 | 3.3 | 5.0 | 2.7 | 5.0 | 4.8 | 6.0 |
| Green Ratio (g/C) | 0.54 | 0.55 | | 0.26 | 0.26 | 0.26 | 0.28 | 0.23 | 0.23 | 0.28 | 0.23 | 0.23 |
| Capacity (c), veh/h | 678 | 1006 | | 345 | 496 | 458 | 377 | 437 | 373 | 371 | 433 | 370 |
| Volume-to-Capacity Ratio (X) | 0.186 | 0.371 | | 0.238 | 0.456 | 0.467 | 0.218 | 0.275 | 0.152 | 0.505 | 0.265 | 0.327 |
| Back of Queue (Q), ft/ln (95 th percentile) | 55.4 | 185.2 | | 65.3 | 189 | 178 | 63.6 | 103.1 | 47 | 59.1 | 95.1 | 101.6 |
| Back of Queue (Q), veh/ln (95 th percentile) | 2.2 | 7.3 | | 2.6 | 7.5 | 7.1 | 2.5 | 4.1 | 1.9 | 2.3 | 3.7 | 4.0 |
| Queue Storage Ratio (RQ) (95 th percentile) | 0.00 | 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh | 11.8 | 12.2 | | 28.0 | 29.3 | 29.4 | 25.8 | 30.0 | 29.1 | 29.9 | 29.9 | 30.3 |
| Incremental Delay (d2), s/veh | 0.0 | 0.1 | | 0.1 | 0.2 | 0.3 | 0.1 | 0.1 | 0.1 | 0.4 | 0.1 | 0.2 |
| Initial Queue Delay (d3), s/veh | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Control Delay (d), s/veh | 11.9 | 12.3 | | 28.2 | 29.5 | 29.7 | 25.9 | 30.1 | 29.1 | 30.3 | 30.0 | 30.5 |
| Level of Service (LOS) | B | B | | C | C | C | C | C | C | C | C | C |
| Approach Delay, s/veh / LOS | 12.2 | B | | 29.4 | C | | 28.5 | C | | 30.3 | C | |
| Intersection Delay, s/veh / LOS | 24.4 | | | | | | C | | | | | |

| Multimodal Results | EB | | WB | | NB | | SB | |
|----------------------------|------|---|------|---|------|---|------|---|
| Pedestrian LOS Score / LOS | 2.11 | B | 2.18 | B | 2.16 | B | 2.14 | B |
| Bicycle LOS Score / LOS | 1.31 | A | 0.92 | A | 0.91 | A | 1.19 | A |

HCS Two-Way Stop Control Report

| General Information | | Site Information | |
|--------------------------|------------------------------------|----------------------------|-----------------------------|
| Analyst | DHH | Intersection | Parkway Ave/Shop Ctr Access |
| Agency/Co. | Horner & Canter Assoc | Jurisdiction | Ewing Twp |
| Date Performed | 10/1/2024 | East/West Street | Parkway Avenue |
| Analysis Year | 2025 | North/South Street | Shop Ctr Access |
| Time Analyzed | AM Peak Hour - No-Build | Peak Hour Factor | 0.90 |
| Intersection Orientation | East-West | Analysis Time Period (hrs) | 0.25 |
| Project Description | 24-039 Proposed Starbucks Pad Site | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|----|-----|---|-----------|---|-----|----|------------|---|---|---|------------|----|----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Movement | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Priority | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Number of Lanes | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | | 0 | 0 | 0 | | 0 | 1 | 0 |
| Configuration | | LT | | | | | T | TR | | | | | | | LR | |
| Volume (veh/h) | | 12 | 409 | | | | 419 | 12 | | | | | | 3 | | 16 |
| Percent Heavy Vehicles (%) | | 0 | | | | | | | | | | | | 33 | | 6 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | | | | | | 0 | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|--|--|--|--|--|--|--|--|--|--|------|--|------|
| Base Critical Headway (sec) | | 4.1 | | | | | | | | | | | | 7.5 | | 6.9 |
| Critical Headway (sec) | | 4.10 | | | | | | | | | | | | 7.46 | | 7.02 |
| Base Follow-Up Headway (sec) | | 2.2 | | | | | | | | | | | | 3.5 | | 3.3 |
| Follow-Up Headway (sec) | | 2.20 | | | | | | | | | | | | 3.83 | | 3.36 |

Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|--|------|-----|--|--|--|--|--|--|--|--|--|--|------|--|------|--|
| Flow Rate, v (veh/h) | | 13 | | | | | | | | | | | | | | 21 | |
| Capacity, c (veh/h) | | 1094 | | | | | | | | | | | | | | 527 | |
| v/c Ratio | | 0.01 | | | | | | | | | | | | | | 0.04 | |
| 95% Queue Length, Q ₉₅ (veh) | | 0.0 | | | | | | | | | | | | | | 0.1 | |
| Control Delay (s/veh) | | 8.3 | 0.1 | | | | | | | | | | | | | 12.1 | |
| Level of Service (LOS) | | A | A | | | | | | | | | | | | | B | |
| Approach Delay (s/veh) | | 0.4 | | | | | | | | | | | | 12.1 | | | |
| Approach LOS | | A | | | | | | | | | | | | B | | | |

HCS Two-Way Stop-Control Report

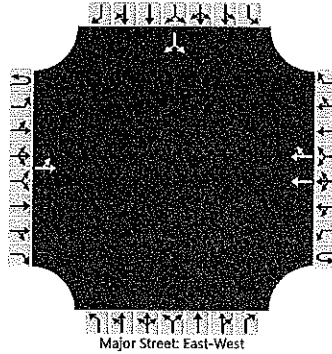
General Information

| | |
|--------------------------|------------------------------------|
| Analyst | DHH |
| Agency/Co. | Horner & Canter Assoc |
| Date Performed | 10/1/2024 |
| Analysis Year | 2025 |
| Time Analyzed | PM Peak Hour - No-Build |
| Intersection Orientation | East-West |
| Project Description | 24-039 Proposed Starbucks Pad Site |

Site Information

| | |
|----------------------------|-----------------------------|
| Intersection | Parkway Ave/Shop Ctr Access |
| Jurisdiction | Ewing Twp |
| East/West Street | Parkway Avenue |
| North/South Street | Shop Ctr Access |
| Peak Hour Factor | 0.91 |
| Analysis Time Period (hrs) | 0.25 |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|----|-----|---|-----------|---|-----|----|------------|---|---|---|------------|----|----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Movement | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Priority | | | | | | | | | | | | | | | | |
| Number of Lanes | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | | 0 | 0 | 0 | | 0 | 1 | 0 |
| Configuration | | LT | | | | | T | TR | | | | | | | LR | |
| Volume (veh/h) | | 30 | 543 | | | | 629 | 40 | | | | | | 13 | | 54 |
| Percent Heavy Vehicles (%) | | 3 | | | | | | | | | | | | 0 | | 0 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | | | | | | 0 | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|--|--|--|--|--|--|--|--|--|--|------|--|------|
| Base Critical Headway (sec) | | 4.1 | | | | | | | | | | | | 7.5 | | 6.9 |
| Critical Headway (sec) | | 4.16 | | | | | | | | | | | | 6.80 | | 6.90 |
| Base Follow-Up Headway (sec) | | 2.2 | | | | | | | | | | | | 3.5 | | 3.3 |
| Follow-Up Headway (sec) | | 2.23 | | | | | | | | | | | | 3.50 | | 3.30 |

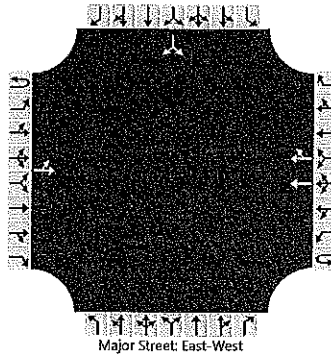
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|--|------|-----|--|--|--|--|--|--|--|--|--|--|------|--|------|--|
| Flow Rate, v (veh/h) | | 33 | | | | | | | | | | | | | | 74 | |
| Capacity, c (veh/h) | | 859 | | | | | | | | | | | | | | 363 | |
| v/c Ratio | | 0.04 | | | | | | | | | | | | | | 0.20 | |
| 95% Queue Length, Q ₉₅ (veh) | | 0.1 | | | | | | | | | | | | | | 0.7 | |
| Control Delay (s/veh) | | 9.4 | 0.5 | | | | | | | | | | | | | 17.4 | |
| Level of Service (LOS) | | A | A | | | | | | | | | | | | | C | |
| Approach Delay (s/veh) | | 1.0 | | | | | | | | | | | | 17.4 | | | |
| Approach LOS | | A | | | | | | | | | | | | C | | | |

HCS Two-Way Stop-Control Report

| General Information | | Site Information | |
|--------------------------|------------------------------------|----------------------------|-----------------------------|
| Analyst | DHH | Intersection | Parkway Ave/Shop Ctr Access |
| Agency/Co. | Horner & Canter Assoc | Jurisdiction | Ewing Twp |
| Date Performed | 10/1/2024 | East/West Street | Parkway Avenue |
| Analysis Year | 2025 | North/South Street | Shop Ctr Access |
| Time Analyzed | SAT Peak Hour - No-Build | Peak Hour Factor | 0.94 |
| Intersection Orientation | East-West | Analysis Time Period (hrs) | 0.25 |
| Project Description | 24-039 Proposed Starbucks Pad Site | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|----|-----|---|-----------|---|-----|----|------------|---|---|---|------------|----|----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Movement | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Priority | | | | | | | | | | | | | | | | |
| Number of Lanes | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | | 0 | 0 | 0 | | 0 | 1 | 0 |
| Configuration | | LT | | | | | T | TR | | | | | | | LR | |
| Volume (veh/h) | | 25 | 462 | | | | 434 | 42 | | | | | | 13 | | 43 |
| Percent Heavy Vehicles (%) | | 0 | | | | | | | | | | | | 0 | | 0 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | | | | | | 0 | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|--|--|--|--|--|--|--|--|--|--|------|--|------|
| Base Critical Headway (sec) | | 4.1 | | | | | | | | | | | | 7.5 | | 6.9 |
| Critical Headway (sec) | | 4.10 | | | | | | | | | | | | 6.80 | | 6.90 |
| Base Follow-Up Headway (sec) | | 2.2 | | | | | | | | | | | | 3.5 | | 3.3 |
| Follow-Up Headway (sec) | | 2.20 | | | | | | | | | | | | 3.50 | | 3.30 |

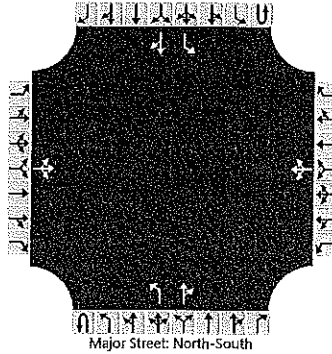
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|--|------|-----|--|--|--|--|--|--|--|--|--|--|------|--|------|--|
| Flow Rate, v (veh/h) | | 27 | | | | | | | | | | | | | | 60 | |
| Capacity, c (veh/h) | | 1069 | | | | | | | | | | | | | | 487 | |
| v/c Ratio | | 0.02 | | | | | | | | | | | | | | 0.12 | |
| 95% Queue Length, Q ₉₅ (veh) | | 0.1 | | | | | | | | | | | | | | 0.4 | |
| Control Delay (s/veh) | | 8.5 | 0.3 | | | | | | | | | | | | | 13.4 | |
| Level of Service (LOS) | | A | A | | | | | | | | | | | | | B | |
| Approach Delay (s/veh) | | 0.7 | | | | | | | | | | | | 13.4 | | | |
| Approach LOS | | A | | | | | | | | | | | | B | | | |

HCS Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|------------------------------------|--|--|----------------------------|--|--|--|
| Analyst | DHH | | | Intersection | Scotch Rd/S. Shop Ctr Access | | |
| Agency/Co. | Horner & Canter Assoc | | | Jurisdiction | Ewing Twp | | |
| Date Performed | 10/1/2024 | | | East/West Street | S. Shop Ctr Access/Parkway Corporate Ctr Acc | | |
| Analysis Year | 2025 | | | North/South Street | Scotch Road | | |
| Time Analyzed | AM Peak Hour - No-Build | | | Peak Hour Factor | 0.88 | | |
| Intersection Orientation | North-South | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | 24-039 Proposed Starbucks Pad Site | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|----|-----|----|-----------|---|-----|---|------------|----|-----|----|------------|----|-----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Movement | | | | | | | | | | | | | | | | |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 |
| Configuration | | | LTR | | | | LTR | | | L | | TR | | L | | TR |
| Volume (veh/h) | | 6 | 0 | 20 | | 3 | 0 | 5 | | 20 | 430 | 5 | | 11 | 317 | 10 |
| Percent Heavy Vehicles (%) | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | | | | 9 | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | 0 | | | | 0 | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|------|------|--|------|------|------|--|------|--|--|--|------|--|--|
| Base Critical Headway (sec) | | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 | | 4.1 | | | | 4.1 | | |
| Critical Headway (sec) | | 7.10 | 6.50 | 6.20 | | 7.10 | 6.50 | 6.20 | | 4.10 | | | | 4.19 | | |
| Base Follow-Up Headway (sec) | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 | | 2.2 | | | | 2.2 | | |
| Follow-Up Headway (sec) | | 3.50 | 4.00 | 3.30 | | 3.50 | 4.00 | 3.30 | | 2.20 | | | | 2.28 | | |

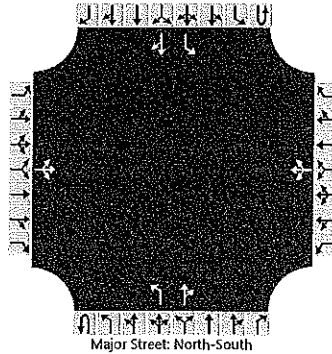
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|------|------|--|--|------|------|--|--|-----|------|--|--|-----|------|--|--|
| Flow Rate, v (veh/h) | | 30 | | | | 9 | | | | 23 | | | | 13 | | |
| Capacity, c (veh/h) | | 479 | | | | 370 | | | | 1198 | | | | 1034 | | |
| v/c Ratio | | 0.06 | | | | 0.02 | | | | 0.02 | | | | 0.01 | | |
| 95% Queue Length, Q ₉₅ (veh) | | 0.2 | | | | 0.1 | | | | 0.1 | | | | 0.0 | | |
| Control Delay (s/veh) | | 13.0 | | | | 15.0 | | | | 8.1 | | | | 8.5 | | |
| Level of Service (LOS) | | B | | | | B | | | | A | | | | A | | |
| Approach Delay (s/veh) | 13.0 | | | | 15.0 | | | | 0.4 | | | | 0.3 | | | |
| Approach LOS | B | | | | B | | | | A | | | | A | | | |

HCS Two-Way Stop-Control Report

| General Information | | Site Information | |
|--------------------------|------------------------------------|----------------------------|--|
| Analyst | DHH | Intersection | Scotch Rd/S. Shop Ctr Access |
| Agency/Co. | Horner & Canter Assoc | Jurisdiction | Ewing Twp |
| Date Performed | 10/1/2024 | East/West Street | S. Shop Ctr Access/Parkway Corporate Ctr Acc |
| Analysis Year | 2025 | North/South Street | Scotch Road |
| Time Analyzed | PM Peak Hour - No-Build | Peak Hour Factor | 0.94 |
| Intersection Orientation | North-South | Analysis Time Period (hrs) | 0.25 |
| Project Description | 24-039 Proposed Starbucks Pad Site | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | |
|----------------------------|-----------|-----------|-----|----|-----------|---|-----|----|------------|----|-----|----|------------|---|-----|----|--|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R | |
| Movement | | | | | | | | | | | | | | | | | |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 | |
| Configuration | | | LTR | | | | LTR | | | L | | TR | | L | | TR | |
| Volume (veh/h) | | 26 | 1 | 53 | | 7 | 0 | 10 | | 32 | 422 | 5 | | 9 | 474 | 44 | |
| Percent Heavy Vehicles (%) | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | | | | 0 | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | 0 | | | | 0 | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | | |
| Median Type Storage | | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|------|------|--|------|------|------|--|------|--|--|--|------|--|--|
| Base Critical Headway (sec) | | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 | | 4.1 | | | | 4.1 | | |
| Critical Headway (sec) | | 7.10 | 6.50 | 6.20 | | 7.10 | 6.50 | 6.20 | | 4.10 | | | | 4.10 | | |
| Base Follow-Up Headway (sec) | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 | | 2.2 | | | | 2.2 | | |
| Follow-Up Headway (sec) | | 3.50 | 4.00 | 3.30 | | 3.50 | 4.00 | 3.30 | | 2.20 | | | | 2.20 | | |

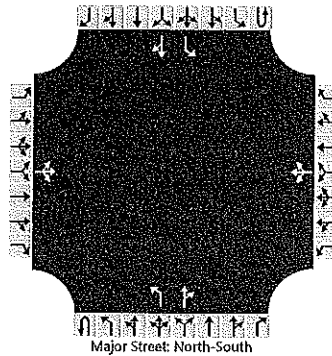
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|--|------|------|--|--|------|------|--|--|-----|------|--|--|-----|------|--|--|
| Flow Rate, v (veh/h) | | | 85 | | | | 18 | | | | 34 | | | | 10 | | |
| Capacity, c (veh/h) | | | 336 | | | | 290 | | | | 1029 | | | | 1117 | | |
| v/c Ratio | | | 0.25 | | | | 0.06 | | | | 0.03 | | | | 0.01 | | |
| 95% Queue Length, Q ₉₅ (veh) | | | 1.0 | | | | 0.2 | | | | 0.1 | | | | 0.0 | | |
| Control Delay (s/veh) | | | 19.3 | | | | 18.3 | | | | 8.6 | | | | 8.3 | | |
| Level of Service (LOS) | | | C | | | | C | | | | A | | | | A | | |
| Approach Delay (s/veh) | | 19.3 | | | | 18.3 | | | | 0.6 | | | | 0.1 | | | |
| Approach LOS | | C | | | | C | | | | A | | | | A | | | |

HCS Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|------------------------------------|--|--|----------------------------|--|--|--|
| Analyst | DHH | | | Intersection | Scotch Rd/S. Shop Ctr Access | | |
| Agency/Co. | Horner & Canter Assoc | | | Jurisdiction | Ewing Twp | | |
| Date Performed | 10/1/2024 | | | East/West Street | S. Shop Ctr Access/Parkway Corporate Ctr Acc | | |
| Analysis Year | 2025 | | | North/South Street | Scotch Road | | |
| Time Analyzed | SAT Peak Hour - No-Build | | | Peak Hour Factor | 0.94 | | |
| Intersection Orientation | North-South | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | 24-039 Proposed Starbucks Pad Site | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | |
|----------------------------|-----------|-----------|-----|----|-----------|---|-----|---|------------|----|-----|----|------------|---|-----|----|--|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R | |
| Movement | | | | | | | | | | | | | | | | | |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 | |
| Configuration | | | LTR | | | | LTR | | | L | | TR | | L | | TR | |
| Volume (veh/h) | | 23 | 2 | 46 | | 9 | 2 | 7 | | 24 | 288 | 6 | | 5 | 297 | 23 | |
| Percent Heavy Vehicles (%) | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | | | | 0 | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | 0 | | | | 0 | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | | |
| Median Type Storage | | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|------|------|--|------|------|------|--|------|--|--|--|------|--|--|
| Base Critical Headway (sec) | | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 | | 4.1 | | | | 4.1 | | |
| Critical Headway (sec) | | 7.10 | 6.50 | 6.20 | | 7.10 | 6.50 | 6.20 | | 4.10 | | | | 4.10 | | |
| Base Follow-Up Headway (sec) | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 | | 2.2 | | | | 2.2 | | |
| Follow-Up Headway (sec) | | 3.50 | 4.00 | 3.30 | | 3.50 | 4.00 | 3.30 | | 2.20 | | | | 2.20 | | |

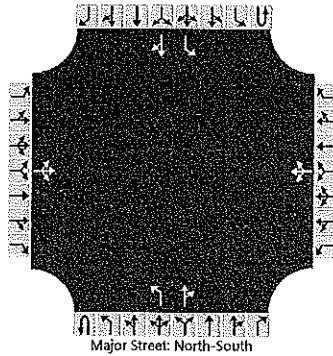
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|--|------|------|--|--|------|------|--|--|-----|------|--|--|-----|------|--|--|
| Flow Rate, v (veh/h) | | | 76 | | | | 19 | | | | 26 | | | | 5 | | |
| Capacity, c (veh/h) | | | 517 | | | | 407 | | | | 1230 | | | | 1259 | | |
| v/c Ratio | | | 0.15 | | | | 0.05 | | | | 0.02 | | | | 0.00 | | |
| 95% Queue Length, Q ₉₅ (veh) | | | 0.5 | | | | 0.1 | | | | 0.1 | | | | 0.0 | | |
| Control Delay (s/veh) | | | 13.2 | | | | 14.3 | | | | 8.0 | | | | 7.9 | | |
| Level of Service (LOS) | | | B | | | | B | | | | A | | | | A | | |
| Approach Delay (s/veh) | | 13.2 | | | | 14.3 | | | | 0.6 | | | | 0.1 | | | |
| Approach LOS | | B | | | | B | | | | A | | | | A | | | |

HCS Two-Way Stop-Control Report

| General Information | | Site Information | |
|--------------------------|------------------------------------|----------------------------|--------------------------------------|
| Analyst | DHH | Intersection | Scotch Rd/Ctrl Shop Ctr Access |
| Agency/Co. | Horner & Canter Assoc | Jurisdiction | Ewing Twp |
| Date Performed | 10/1/2024 | East/West Street | Ctrl Shop Ctr Access/Dollar Tree Acc |
| Analysis Year | 2025 | North/South Street | Scotch Road |
| Time Analyzed | AM Peak Hour - No-Build | Peak Hour Factor | 0.91 |
| Intersection Orientation | North-South | Analysis Time Period (hrs) | 0.25 |
| Project Description | 24-039 Proposed Starbucks Pad Site | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | |
|----------------------------|-----------|-----------|-----|----|-----------|----|-----|---|------------|---|-----|----|------------|---|-----|----|--|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R | |
| Movement | | | | | | | | | | | | | | | | | |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | |
| Configuration | | | LTR | | | | LTR | | | L | | TR | | L | | TR | |
| Volume (veh/h) | | 5 | 0 | 1 | | 6 | 1 | 2 | | 3 | 401 | 10 | | 0 | 407 | 5 | |
| Percent Heavy Vehicles (%) | | 0 | 0 | 0 | | 17 | 0 | 0 | | 0 | | | | 0 | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | 0 | | | | 0 | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | | |
| Median Type Storage | | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|------|------|--|------|------|------|--|------|--|--|--|------|--|--|
| Base Critical Headway (sec) | | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 | | 4.1 | | | | 4.1 | | |
| Critical Headway (sec) | | 7.10 | 6.50 | 6.20 | | 7.27 | 6.50 | 6.20 | | 4.10 | | | | 4.10 | | |
| Base Follow-Up Headway (sec) | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 | | 2.2 | | | | 2.2 | | |
| Follow-Up Headway (sec) | | 3.50 | 4.00 | 3.30 | | 3.65 | 4.00 | 3.30 | | 2.20 | | | | 2.20 | | |

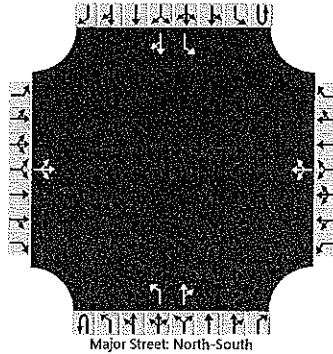
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|--|------|--|--|--|------|--|--|--|------|--|--|--|------|--|--|--|
| Flow Rate, v (veh/h) | | 7 | | | | 10 | | | | 3 | | | | 0 | | | |
| Capacity, c (veh/h) | | 285 | | | | 284 | | | | 1119 | | | | 1120 | | | |
| v/c Ratio | | 0.02 | | | | 0.03 | | | | 0.00 | | | | 0.00 | | | |
| 95% Queue Length, Q ₉₅ (veh) | | 0.1 | | | | 0.1 | | | | 0.0 | | | | 0.0 | | | |
| Control Delay (s/veh) | | 17.9 | | | | 18.1 | | | | 8.2 | | | | 8.2 | | | |
| Level of Service (LOS) | | C | | | | C | | | | A | | | | A | | | |
| Approach Delay (s/veh) | | 17.9 | | | | 18.1 | | | | 0.1 | | | | 0.0 | | | |
| Approach LOS | | C | | | | C | | | | A | | | | A | | | |

HCS Two-Way Stop-Control Report

| General Information | | Site Information | |
|--------------------------|------------------------------------|----------------------------|--------------------------------------|
| Analyst | DHH | Intersection | Scotch Rd/Ctrl Shop Ctr Access |
| Agency/Co. | Horner & Canter Assoc | Jurisdiction | Ewing Twp |
| Date Performed | 10/1/2024 | East/West Street | Ctrl Shop Ctr Access/Dollar Tree Acc |
| Analysis Year | 2025 | North/South Street | Scotch Road |
| Time Analyzed | PM Peak Hour - No-Build | Peak Hour Factor | 0.92 |
| Intersection Orientation | North-South | Analysis Time Period (hrs) | 0.25 |
| Project Description | 24-039 Proposed Starbucks Pad Site | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | |
|----------------------------|-----------|-----------|-----|----|-----------|----|-----|----|------------|----|-----|----|------------|---|-----|----|--|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R | |
| Movement | | | | | | | | | | | | | | | | | |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | |
| Configuration | | | LTR | | | | LTR | | | L | | TR | | L | | TR | |
| Volume (veh/h) | | 29 | 1 | 12 | | 26 | 2 | 13 | | 15 | 433 | 20 | | 9 | 502 | 23 | |
| Percent Heavy Vehicles (%) | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | | | | 0 | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | 0 | | | | 0 | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | | |
| Median Type Storage | | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | | |
|------------------------------|--|------|------|------|--|------|------|------|--|------|--|--|--|------|--|--|--|
| Base Critical Headway (sec) | | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 | | 4.1 | | | | 4.1 | | | |
| Critical Headway (sec) | | 7.10 | 6.50 | 6.20 | | 7.10 | 6.50 | 6.20 | | 4.10 | | | | 4.10 | | | |
| Base Follow-Up Headway (sec) | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 | | 2.2 | | | | 2.2 | | | |
| Follow-Up Headway (sec) | | 3.50 | 4.00 | 3.30 | | 3.50 | 4.00 | 3.30 | | 2.20 | | | | 2.20 | | | |

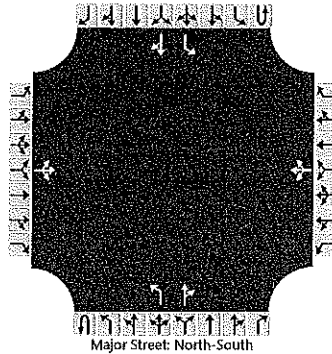
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|--|------|------|--|--|------|------|--|--|-----|------|--|--|-----|--|------|--|
| Flow Rate, v (veh/h) | | | 46 | | | | 45 | | | | 16 | | | | | 10 | |
| Capacity, c (veh/h) | | | 223 | | | | 234 | | | | 1012 | | | | | 1082 | |
| v/c Ratio | | | 0.20 | | | | 0.19 | | | | 0.02 | | | | | 0.01 | |
| 95% Queue Length, Q ₉₅ (veh) | | | 0.7 | | | | 0.7 | | | | 0.0 | | | | | 0.0 | |
| Control Delay (s/veh) | | | 25.2 | | | | 24.0 | | | | 8.6 | | | | | 8.4 | |
| Level of Service (LOS) | | | D | | | | C | | | | A | | | | | A | |
| Approach Delay (s/veh) | | 25.2 | | | | 24.0 | | | | 0.3 | | | | 0.1 | | | |
| Approach LOS | | D | | | | C | | | | A | | | | A | | | |

HCS Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|------------------------------------|----------------------------|--------------------------------------|------------------|--|--|--|
| Analyst | DHH | Intersection | Scotch Rd/Ctrl Shop Ctr Access | | | | |
| Agency/Co. | Horner & Canter Assoc | Jurisdiction | Ewing Twp | | | | |
| Date Performed | 10/1/2024 | East/West Street | Ctrl Shop Ctr Access/Dollar Tree Acc | | | | |
| Analysis Year | 2025 | North/South Street | Scotch Road | | | | |
| Time Analyzed | SAT Peak Hour - No-Build | Peak Hour Factor | 0.95 | | | | |
| Intersection Orientation | North-South | Analysis Time Period (hrs) | 0.25 | | | | |
| Project Description | 24-039 Proposed Starbucks Pad Site | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | |
|----------------------------|-----------|-----------|-----|----|-----------|----|-----|----|------------|---|-----|----|------------|---|-----|----|--|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R | |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | |
| Configuration | | | LTR | | | | LTR | | | L | | TR | | L | | TR | |
| Volume (veh/h) | | 14 | 2 | 6 | | 19 | 1 | 17 | | 8 | 381 | 29 | | 9 | 414 | 21 | |
| Percent Heavy Vehicles (%) | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | | | | 0 | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | 0 | | | | 0 | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | | |
| Median Type Storage | | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|------|------|--|------|------|------|--|------|--|--|--|------|--|--|
| Base Critical Headway (sec) | | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 | | 4.1 | | | | 4.1 | | |
| Critical Headway (sec) | | 7.10 | 6.50 | 6.20 | | 7.10 | 6.50 | 6.20 | | 4.10 | | | | 4.10 | | |
| Base Follow-Up Headway (sec) | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 | | 2.2 | | | | 2.2 | | |
| Follow-Up Headway (sec) | | 3.50 | 4.00 | 3.30 | | 3.50 | 4.00 | 3.30 | | 2.20 | | | | 2.20 | | |

Delay, Queue Length, and Level of Service

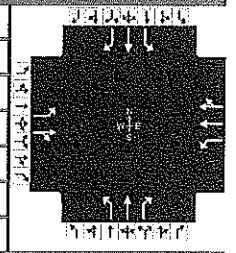
| | | | | | | | | | | | | | | | | | |
|---|--|------|------|--|--|------|------|--|--|-----|------|--|--|-----|------|--|--|
| Flow Rate, v (veh/h) | | | 23 | | | | 39 | | | | 8 | | | | 9 | | |
| Capacity, c (veh/h) | | | 297 | | | | 350 | | | | 1114 | | | | 1139 | | |
| v/c Ratio | | | 0.08 | | | | 0.11 | | | | 0.01 | | | | 0.01 | | |
| 95% Queue Length, Q ₉₅ (veh) | | | 0.3 | | | | 0.4 | | | | 0.0 | | | | 0.0 | | |
| Control Delay (s/veh) | | | 18.1 | | | | 16.6 | | | | 8.3 | | | | 8.2 | | |
| Level of Service (LOS) | | | C | | | | C | | | | A | | | | A | | |
| Approach Delay (s/veh) | | 18.1 | | | | 16.6 | | | | 0.2 | | | | 0.2 | | | |
| Approach LOS | | C | | | | C | | | | A | | | | A | | | |

APPENDIX H

Build Capacity/LOS Analysis Worksheets

HCS Signalized Intersection Results Summary

| General Information | | | | Intersection Information | | | |
|---------------------|------------------------------------|---------------|--|--------------------------|---------|--|--|
| Agency | Horner & Canter Assoc | | | Duration, h | 0.250 | | |
| Analyst | DHH | Analysis Date | Oct 1, 2024 | Area Type | Other | | |
| Jurisdiction | Ewing Twp | Time Period | AM Peak Hour | PHF | 0.91 | | |
| Urban Street | | Analysis Year | 2025 Build | Analysis Period | 1> 7:00 | | |
| Intersection | Parkway Ave/Scotch Rd... | File Name | Parkway Ave_Scotch Rd_Sylvia St_ba.xus | | | | |
| Project Description | 24-039 Proposed Starbucks Pad Site | | | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|--------------------|-----|-----|----|----|-----|-----|----|-----|----|-----|----|-----|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Demand (v), veh/h | 144 | 270 | 40 | 37 | 248 | 201 | 60 | 158 | 57 | 179 | 99 | 128 |

| Signal Information | | | | Signal Phases | | | | | | | | | | | |
|--------------------|-------|-----------------|-----|---------------|------|------|------|------|-----|-----|--|--|--|--|--|
| Cycle, s | 90.0 | Reference Phase | 2 | | | | | | | | | | | | |
| Offset, s | 0 | Reference Point | End | Green | 17.0 | 25.0 | 10.0 | 19.0 | 0.0 | 0.0 | | | | | |
| Uncoordinated | Yes | Simult. Gap E/W | On | Yellow | 3.0 | 5.0 | 3.0 | 4.0 | 0.0 | 0.0 | | | | | |
| Force Mode | Fixed | Simult. Gap N/S | On | Red | 0.0 | 2.0 | 0.0 | 2.0 | 0.0 | 0.0 | | | | | |

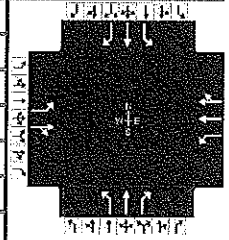
| Timer Results | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|------|------|-----|------|------|------|------|------|
| Assigned Phase | 5 | 2 | | 6 | 3 | 8 | 7 | 4 |
| Case Number | 1.0 | 4.0 | | 6.3 | 1.1 | 3.0 | 1.1 | 3.0 |
| Phase Duration, s | 20.0 | 52.0 | | 32.0 | 13.0 | 25.0 | 13.0 | 25.0 |
| Change Period, (Y+R _c), s | 3.0 | 7.0 | | 7.0 | 3.0 | 6.0 | 3.0 | 6.0 |
| Max Allow Headway (MAH), s | 3.1 | 3.1 | | 3.1 | 3.3 | 3.2 | 3.1 | 3.2 |
| Queue Clearance Time (g _s), s | 6.6 | 12.1 | | 12.1 | 4.4 | 9.7 | 10.0 | 7.9 |
| Green Extension Time (g _e), s | 0.2 | 1.6 | | 1.4 | 0.0 | 0.7 | 0.0 | 0.7 |
| Phase Call Probability | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Max Out Probability | 0.00 | 0.00 | | 0.02 | 0.03 | 0.02 | 1.00 | 0.01 |

| Movement Group Results | EB | | | WB | | | NB | | | SB | | |
|---|-------|-------|----|-------|-------|-------|-------|-------|-------|-------|-------|------|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Assigned Movement | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Adjusted Flow Rate (v), veh/h | 158 | 330 | | 41 | 236 | 213 | 66 | 174 | 46 | 197 | 109 | 113 |
| Adjusted Saturation Flow Rate (s), veh/h/ln | 1739 | 1794 | | 959 | 1826 | 1589 | 1767 | 1767 | 1572 | 1697 | 1707 | 1485 |
| Queue Service Time (g _s), s | 4.6 | 10.1 | | 2.9 | 9.7 | 10.1 | 2.4 | 7.7 | 2.1 | 8.0 | 4.8 | 5.9 |
| Cycle Queue Clearance Time (g _c), s | 4.6 | 10.1 | | 2.9 | 9.7 | 10.1 | 2.4 | 7.7 | 2.1 | 8.0 | 4.8 | 5.9 |
| Green Ratio (g/C) | 0.49 | 0.50 | | 0.28 | 0.28 | 0.28 | 0.32 | 0.21 | 0.21 | 0.32 | 0.21 | 0.21 |
| Capacity (c), veh/h | 561 | 897 | | 346 | 507 | 441 | 449 | 373 | 332 | 387 | 360 | 313 |
| Volume-to-Capacity Ratio (X) | 0.282 | 0.368 | | 0.117 | 0.465 | 0.484 | 0.147 | 0.466 | 0.139 | 0.508 | 0.302 | 0.36 |
| Back of Queue (Q), ft/ln (95 th percentile) | 77.3 | 173.8 | | 31.3 | 188.2 | 164.9 | 45.2 | 159.9 | 37.6 | 147 | 95.3 | 98.6 |
| Back of Queue (Q), veh/ln (95 th percentile) | 3.0 | 6.7 | | 1.1 | 7.2 | 6.6 | 1.8 | 6.0 | 1.5 | 5.5 | 3.5 | 3.7 |
| Queue Storage Ratio (RQ) (95 th percentile) | 0.00 | 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Delay (d ₁), s/veh | 13.9 | 13.8 | | 24.5 | 27.0 | 27.1 | 21.7 | 31.1 | 28.9 | 24.0 | 29.9 | 30.3 |
| Incremental Delay (d ₂), s/veh | 0.1 | 0.1 | | 0.1 | 0.2 | 0.3 | 0.1 | 0.3 | 0.1 | 0.5 | 0.2 | 0.3 |
| Initial Queue Delay (d ₃), s/veh | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Control Delay (d), s/veh | 14.0 | 13.9 | | 24.6 | 27.2 | 27.4 | 21.8 | 31.4 | 28.9 | 24.5 | 30.1 | 30.6 |
| Level of Service (LOS) | B | B | | C | C | C | C | C | C | C | C | C |
| Approach Delay, s/veh / LOS | 13.9 | B | | 27.1 | C | | 28.8 | C | | 27.6 | C | |
| Intersection Delay, s/veh / LOS | 23.7 | | | | | | C | | | | | |

| Multimodal Results | EB | | WB | | NB | | SB | |
|----------------------------|------|---|------|---|------|---|------|---|
| Pedestrian LOS Score / LOS | 2.11 | B | 2.15 | B | 2.18 | B | 2.14 | B |
| Bicycle LOS Score / LOS | 1.29 | A | 0.89 | A | 0.96 | A | 1.18 | A |

HCS Signalized Intersection Results Summary

| General Information | | | | Intersection Information | | | |
|---------------------|------------------------------------|---------------|--|--------------------------|---------|--|--|
| Agency | Horner & Canter Assoc | | | Duration, h | 0.250 | | |
| Analyst | DHH | Analysis Date | Oct 1, 2024 | Area Type | Other | | |
| Jurisdiction | Ewing Twp | Time Period | PM Peak Hour | PHF | 0.94 | | |
| Urban Street | | Analysis Year | 2025 Build | Analysis Period | 1> 7:00 | | |
| Intersection | Parkway Ave/Scotch Rd... | File Name | Parkway Ave_Scotch Rd_Sylvia St_bp.xus | | | | |
| Project Description | 24-039 Proposed Starbucks Pad Site | | | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|--------------------|-----|-----|----|----|-----|-----|----|-----|----|-----|-----|-----|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Demand (v), veh/h | 150 | 346 | 61 | 47 | 372 | 211 | 93 | 115 | 52 | 297 | 140 | 251 |

| Signal Information | | | | Signal Phases | | | | | | | | | | | |
|--------------------|-------|-----------------|-----|---------------|------|------|------|------|-----|-----|--|--|--|--|--|
| Cycle, s | 93.0 | Reference Phase | 2 | | | | | | | | | | | | |
| Offset, s | 0 | Reference Point | End | Green | 20.0 | 25.0 | 12.0 | 17.0 | 0.0 | 0.0 | | | | | |
| Uncoordinated | Yes | Simult. Gap E/W | On | Yellow | 3.0 | 5.0 | 3.0 | 4.0 | 0.0 | 0.0 | | | | | |
| Force Mode | Fixed | Simult. Gap N/S | On | Red | 0.0 | 2.0 | 0.0 | 2.0 | 0.0 | 0.0 | | | | | |

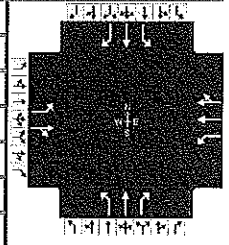
| Timer Results | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|------------------------------|------|------|-----|------|------|------|------|------|
| Assigned Phase | 5 | 2 | | 6 | 3 | 8 | 7 | 4 |
| Case Number | 1.0 | 4.0 | | 6.3 | 1.1 | 3.0 | 1.1 | 3.0 |
| Phase Duration, s | 23.0 | 55.0 | | 32.0 | 15.0 | 23.0 | 15.0 | 23.0 |
| Change Period, (Y+Rc), s | 3.0 | 7.0 | | 7.0 | 3.0 | 6.0 | 3.0 | 6.0 |
| Max Allow Headway (MAH), s | 3.1 | 3.1 | | 3.1 | 3.3 | 3.2 | 3.1 | 3.2 |
| Queue Clearance Time (gs), s | 6.5 | 15.1 | | 15.1 | 5.7 | 7.2 | 14.0 | 13.4 |
| Green Extension Time (ge), s | 0.2 | 2.1 | | 1.7 | 0.1 | 0.8 | 0.0 | 0.5 |
| Phase Call Probability | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Max Out Probability | 0.00 | 0.00 | | 0.10 | 0.02 | 0.02 | 1.00 | 0.79 |

| Movement Group Results | EB | | | WB | | | NB | | | SB | | |
|--|-------|-------|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Assigned Movement | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Adjusted Flow Rate (v), veh/h | 160 | 417 | | 50 | 299 | 273 | 99 | 122 | 39 | 316 | 149 | 209 |
| Adjusted Saturation Flow Rate (s), veh/h/ln | 1795 | 1846 | | 985 | 1885 | 1689 | 1795 | 1900 | 1560 | 1795 | 1885 | 1598 |
| Queue Service Time (gs), s | 4.5 | 13.1 | | 3.6 | 12.8 | 13.1 | 3.7 | 5.2 | 2.0 | 12.0 | 6.5 | 11.4 |
| Cycle Queue Clearance Time (gc), s | 4.5 | 13.1 | | 3.6 | 12.8 | 13.1 | 3.7 | 5.2 | 2.0 | 12.0 | 6.5 | 11.4 |
| Green Ratio (g/C) | 0.51 | 0.52 | | 0.27 | 0.27 | 0.27 | 0.31 | 0.18 | 0.18 | 0.31 | 0.18 | 0.18 |
| Capacity (c), veh/h | 572 | 953 | | 342 | 507 | 454 | 423 | 347 | 285 | 443 | 345 | 292 |
| Volume-to-Capacity Ratio (X) | 0.279 | 0.438 | | 0.146 | 0.591 | 0.601 | 0.234 | 0.352 | 0.138 | 0.713 | 0.432 | 0.714 |
| Back of Queue (Q), ft/ln (95 th percentile) | 75.5 | 217.2 | | 37.2 | 242.6 | 225.4 | 72.1 | 109.4 | 34.9 | 255.3 | 131.6 | 212.0 |
| Back of Queue (Q), veh/ln (95 th percentile) | 3.0 | 8.6 | | 1.5 | 9.6 | 9.0 | 2.9 | 4.4 | 1.4 | 10.1 | 5.2 | 8.4 |
| Queue Storage Ratio (RQ) (95 th percentile) | 0.00 | 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh | 14.0 | 14.1 | | 26.2 | 29.6 | 29.7 | 23.7 | 33.2 | 31.9 | 27.9 | 33.7 | 35.7 |
| Incremental Delay (d2), s/veh | 0.1 | 0.1 | | 0.1 | 1.3 | 1.6 | 0.1 | 0.2 | 0.1 | 4.6 | 0.3 | 6.9 |
| Initial Queue Delay (d3), s/veh | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Control Delay (d), s/veh | 14.1 | 14.2 | | 26.3 | 30.8 | 31.2 | 23.8 | 33.4 | 31.9 | 32.5 | 34.0 | 42.6 |
| Level of Service (LOS) | B | B | | C | C | C | C | C | C | C | C | D |
| Approach Delay, s/veh / LOS | 14.2 | B | | 30.6 | C | | 29.6 | C | | 36.0 | D | |
| Intersection Delay, s/veh / LOS | 27.7 | | | | | | C | | | | | |

| Multimodal Results | EB | | WB | | NB | | SB | |
|----------------------------|------|---|------|---|------|---|------|---|
| Pedestrian LOS Score / LOS | 2.11 | B | 2.20 | B | 2.19 | B | 2.15 | B |
| Bicycle LOS Score / LOS | 1.44 | A | 1.00 | A | 0.92 | A | 1.60 | B |

HCS Signalized Intersection Results Summary

| General Information | | | | | | Intersection Information | | | | |
|---------------------|------------------------------------|---------------|--|--|--|--------------------------|----------|--|--|--|
| Agency | Horner & Canter Assoc | | | | | Duration, h | 0.250 | | | |
| Analyst | DHH | Analysis Date | Oct 1, 2024 | | | Area Type | Other | | | |
| Jurisdiction | Ewing Twp | Time Period | SAT Peak Hour | | | PHF | 0.95 | | | |
| Urban Street | | Analysis Year | 2025 Build | | | Analysis Period | 1 > 7:00 | | | |
| Intersection | Parkway Ave/Scotch Rd... | File Name | Parkway Ave_Scotch Rd_Sylvia St_bs.xus | | | | | | | |
| Project Description | 24-039 Proposed Starbucks Pad Site | | | | | | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|--------------------|-----|-----|----|----|-----|-----|----|-----|----|-----|-----|-----|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Demand (v), veh/h | 115 | 305 | 43 | 74 | 313 | 144 | 74 | 122 | 71 | 201 | 116 | 174 |

| Signal Information | | | | Signal Timing (s) | | | | | | | | | | | |
|--------------------|-------|-----------------|-----|-------------------|------|------|-----|------|-----|-----|-----|------|-----|------|-----|
| Cycle, s | 95.0 | Reference Phase | 2 | | | | | | | | | | | | |
| Offset, s | 0 | Reference Point | End | Green | 24.0 | 25.0 | 5.0 | 22.0 | 0.0 | 0.0 | 8.0 | 28.0 | 8.0 | 28.0 | 8.0 |
| Uncoordinated | Yes | Simult. Gap E/W | On | Yellow | 3.0 | 5.0 | 3.0 | 4.0 | 0.0 | 0.0 | 3.0 | 6.0 | 3.0 | 6.0 | 3.0 |
| Force Mode | Fixed | Simult. Gap N/S | On | Red | 0.0 | 2.0 | 0.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| Timer Results | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|------|------|-----|------|------|------|------|------|
| Assigned Phase | 5 | 2 | | 6 | 3 | 8 | 7 | 4 |
| Case Number | 1.0 | 4.0 | | 6.3 | 1.1 | 3.0 | 1.1 | 3.0 |
| Phase Duration, s | 27.0 | 59.0 | | 32.0 | 8.0 | 28.0 | 8.0 | 28.0 |
| Change Period, (Y+R _c), s | 3.0 | 7.0 | | 7.0 | 3.0 | 6.0 | 3.0 | 6.0 |
| Max Allow Headway (MAH), s | 3.1 | 3.1 | | 3.1 | 3.3 | 3.2 | 3.1 | 3.2 |
| Queue Clearance Time (g _s), s | 5.2 | 12.3 | | 12.1 | 5.1 | 7.3 | 7.0 | 9.1 |
| Green Extension Time (g _e), s | 0.2 | 1.7 | | 1.6 | 0.0 | 0.8 | 0.0 | 0.8 |
| Phase Call Probability | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Max Out Probability | 0.00 | 0.00 | | 0.02 | 1.00 | 0.00 | 1.00 | 0.00 |

| Movement Group Results | EB | | | WB | | | NB | | | SB | | |
|---|-------|-------|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Assigned Movement | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Adjusted Flow Rate (v), veh/h | 121 | 356 | | 78 | 232 | 217 | 78 | 128 | 54 | 212 | 122 | 141 |
| Adjusted Saturation Flow Rate (s), veh/h/ln | 1781 | 1838 | | 1042 | 1885 | 1715 | 1795 | 1885 | 1610 | 1781 | 1870 | 1598 |
| Queue Service Time (g _s), s | 3.2 | 10.3 | | 5.7 | 9.8 | 10.1 | 3.1 | 5.3 | 2.5 | 5.0 | 5.1 | 7.1 |
| Cycle Queue Clearance Time (g _c), s | 3.2 | 10.3 | | 5.7 | 9.8 | 10.1 | 3.1 | 5.3 | 2.5 | 5.0 | 5.1 | 7.1 |
| Green Ratio (g/C) | 0.54 | 0.55 | | 0.26 | 0.26 | 0.26 | 0.28 | 0.23 | 0.23 | 0.28 | 0.23 | 0.23 |
| Capacity (c), veh/h | 673 | 1006 | | 350 | 496 | 451 | 371 | 437 | 373 | 364 | 433 | 370 |
| Volume-to-Capacity Ratio (X) | 0.180 | 0.354 | | 0.223 | 0.468 | 0.481 | 0.210 | 0.294 | 0.144 | 0.581 | 0.282 | 0.387 |
| Back of Queue (Q), ft/ln (95 th percentile) | 53 | 174.5 | | 61.6 | 193.9 | 181.6 | 60.3 | 110.8 | 44.3 | 91.8 | 101.8 | 120 |
| Back of Queue (Q), veh/ln (95 th percentile) | 2.1 | 6.9 | | 2.5 | 7.7 | 7.3 | 2.4 | 4.4 | 1.8 | 3.6 | 4.0 | 4.8 |
| Queue Storage Ratio (RQ) (95 th percentile) | 0.00 | 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Delay (d ₁), s/veh | 11.8 | 12.1 | | 27.9 | 29.4 | 29.5 | 25.7 | 30.1 | 29.0 | 31.2 | 30.0 | 30.8 |
| Incremental Delay (d ₂), s/veh | 0.0 | 0.1 | | 0.1 | 0.3 | 0.3 | 0.1 | 0.1 | 0.1 | 1.6 | 0.1 | 0.2 |
| Initial Queue Delay (d ₃), s/veh | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Control Delay (d), s/veh | 11.9 | 12.1 | | 28.0 | 29.7 | 29.8 | 25.8 | 30.2 | 29.1 | 32.7 | 30.1 | 31.0 |
| Level of Service (LOS) | B | B | | C | C | C | C | C | C | C | C | C |
| Approach Delay, s/veh / LOS | 12.1 | B | | 29.5 | C | | 28.7 | C | | 31.5 | C | |
| Intersection Delay, s/veh / LOS | 25.2 | | | | | | C | | | | | |

| Multimodal Results | EB | WB | NB | SB |
|----------------------------|----------|----------|----------|----------|
| Pedestrian LOS Score / LOS | 2.11 / B | 2.18 / B | 2.16 / B | 2.14 / B |
| Bicycle LOS Score / LOS | 1.27 / A | 0.92 / A | 0.92 / A | 1.27 / A |

HCS Two-Way Stop-Control Report

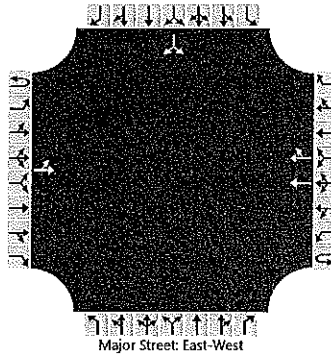
General Information

| | |
|--------------------------|------------------------------------|
| Analyst | DHH |
| Agency/Co. | Horner & Canter Assoc |
| Date Performed | 10/1/2024 |
| Analysis Year | 2025 |
| Time Analyzed | AM Peak Hour - Build |
| Intersection Orientation | East-West |
| Project Description | 24-039 Proposed Starbucks Pad Site |

Site Information

| | |
|----------------------------|-----------------------------|
| Intersection | Parkway Ave/Shop Ctr Access |
| Jurisdiction | Ewing Twp |
| East/West Street | Parkway Avenue |
| North/South Street | Shop Ctr Access |
| Peak Hour Factor | 0.90 |
| Analysis Time Period (hrs) | 0.25 |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|----|-----|---|-----------|---|-----|----|------------|---|---|---|------------|----|----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Movement | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Priority | | | | | | | | | | | | | | | | |
| Number of Lanes | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | | 0 | 0 | 0 | | 0 | 1 | 0 |
| Configuration | | LT | | | | | T | TR | | | | | | | LR | |
| Volume (veh/h) | | 38 | 388 | | | | 419 | 15 | | | | | | 3 | | 20 |
| Percent Heavy Vehicles (%) | | 0 | | | | | | | | | | | | 33 | | 6 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | | | | | | 0 | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|--|--|--|--|--|--|--|--|--|--|------|--|------|
| Base Critical Headway (sec) | | 4.1 | | | | | | | | | | | | 7.5 | | 6.9 |
| Critical Headway (sec) | | 4.10 | | | | | | | | | | | | 7.46 | | 7.02 |
| Base Follow-Up Headway (sec) | | 2.2 | | | | | | | | | | | | 3.5 | | 3.3 |
| Follow-Up Headway (sec) | | 2.20 | | | | | | | | | | | | 3.83 | | 3.36 |

Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|--|------|-----|--|--|--|--|--|--|--|--|--|--|------|--|------|--|
| Flow Rate, v (veh/h) | | 42 | | | | | | | | | | | | | | 26 | |
| Capacity, c (veh/h) | | 1091 | | | | | | | | | | | | | | 536 | |
| v/c Ratio | | 0.04 | | | | | | | | | | | | | | 0.05 | |
| 95% Queue Length, Q ₉₅ (veh) | | 0.1 | | | | | | | | | | | | | | 0.1 | |
| Control Delay (s/veh) | | 8.4 | 0.4 | | | | | | | | | | | | | 12.1 | |
| Level of Service (LOS) | | A | A | | | | | | | | | | | | | B | |
| Approach Delay (s/veh) | | 1.1 | | | | | | | | | | | | 12.1 | | | |
| Approach LOS | | A | | | | | | | | | | | | B | | | |

HCS Two-Way Stop-Control Report

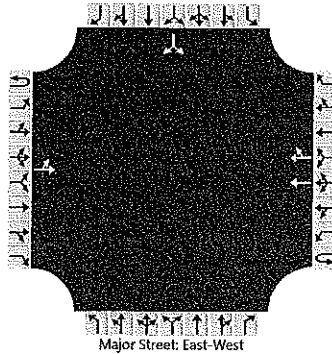
General Information

| | |
|--------------------------|------------------------------------|
| Analyst | DHH |
| Agency/Co. | Horner & Canter Assoc |
| Date Performed | 10/1/2024 |
| Analysis Year | 2025 |
| Time Analyzed | PM Peak Hour - Build |
| Intersection Orientation | East-West |
| Project Description | 24-039 Proposed Starbucks Pad Site |

Site Information

| | |
|----------------------------|-----------------------------|
| Intersection | Parkway Ave/Shop Ctr Access |
| Jurisdiction | Ewing Twp |
| East/West Street | Parkway Avenue |
| North/South Street | Shop Ctr Access |
| Peak Hour Factor | 0.91 |
| Analysis Time Period (hrs) | 0.25 |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|----|-----|---|-----------|---|-----|----|------------|---|---|---|------------|----|----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Movement | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Priority | | | | | | | | | | | | | | | | |
| Number of Lanes | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | | 0 | 0 | 0 | | 0 | 1 | 0 |
| Configuration | | LT | | | | | T | TR | | | | | | | LR | |
| Volume (veh/h) | | 42 | 533 | | | | 628 | 41 | | | | | | 13 | | 57 |
| Percent Heavy Vehicles (%) | | 3 | | | | | | | | | | | | 0 | | 0 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | | | | | | 0 | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|--|--|--|--|--|--|--|--|--|--|------|--|------|
| Base Critical Headway (sec) | | 4.1 | | | | | | | | | | | | 7.5 | | 6.9 |
| Critical Headway (sec) | | 4.16 | | | | | | | | | | | | 6.80 | | 6.90 |
| Base Follow-Up Headway (sec) | | 2.2 | | | | | | | | | | | | 3.5 | | 3.3 |
| Follow-Up Headway (sec) | | 2.23 | | | | | | | | | | | | 3.50 | | 3.30 |

Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|--|------|-----|--|--|--|--|--|--|--|--|--|--|------|--|------|--|
| Flow Rate, v (veh/h) | | 46 | | | | | | | | | | | | | | 77 | |
| Capacity, c (veh/h) | | 859 | | | | | | | | | | | | | | 361 | |
| v/c Ratio | | 0.05 | | | | | | | | | | | | | | 0.21 | |
| 95% Queue Length, Q ₉₅ (veh) | | 0.2 | | | | | | | | | | | | | | 0.8 | |
| Control Delay (s/veh) | | 9.4 | 0.8 | | | | | | | | | | | | | 17.6 | |
| Level of Service (LOS) | | A | A | | | | | | | | | | | | | C | |
| Approach Delay (s/veh) | | 1.4 | | | | | | | | | | | | 17.6 | | | |
| Approach LOS | | A | | | | | | | | | | | | C | | | |

HCS Two-Way Stop-Control Report

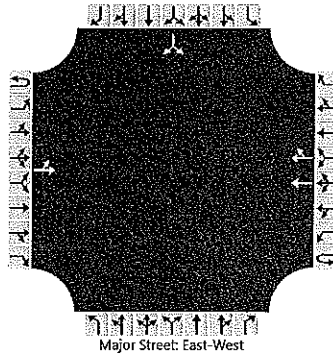
General Information

| | |
|--------------------------|------------------------------------|
| Analyst | DHH |
| Agency/Co. | Horner & Canter Assoc |
| Date Performed | 10/1/2024 |
| Analysis Year | 2025 |
| Time Analyzed | SAT Peak Hour - Build |
| Intersection Orientation | East-West |
| Project Description | 24-039 Proposed Starbucks Pad Site |

Site Information

| | |
|----------------------------|-----------------------------|
| Intersection | Parkway Ave/Shop Ctr Access |
| Jurisdiction | Ewing Twp |
| East/West Street | Parkway Avenue |
| North/South Street | Shop Ctr Access |
| Peak Hour Factor | 0.94 |
| Analysis Time Period (hrs) | 0.25 |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|----|-----|---|-----------|---|-----|----|------------|---|---|---|------------|----|----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Movement | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Priority | | | | | | | | | | | | | | | | |
| Number of Lanes | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | | 0 | 0 | 0 | | 0 | 1 | 0 |
| Configuration | | LT | | | | | T | TR | | | | | | | LR | |
| Volume (veh/h) | | 52 | 440 | | | | 434 | 45 | | | | | | 13 | | 48 |
| Percent Heavy Vehicles (%) | | 0 | | | | | | | | | | | | 0 | | 0 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | | | | | | 0 | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|--|--|--|--|--|--|--|--|--|--|------|--|------|
| Base Critical Headway (sec) | | 4.1 | | | | | | | | | | | | 7.5 | | 6.9 |
| Critical Headway (sec) | | 4.10 | | | | | | | | | | | | 6.80 | | 6.90 |
| Base Follow-Up Headway (sec) | | 2.2 | | | | | | | | | | | | 3.5 | | 3.3 |
| Follow-Up Headway (sec) | | 2.20 | | | | | | | | | | | | 3.50 | | 3.30 |

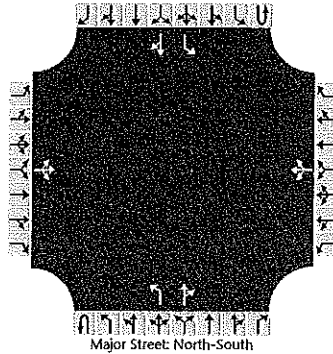
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|--|------|-----|--|--|--|--|--|--|--|--|--|--|------|--|------|--|
| Flow Rate, v (veh/h) | | 55 | | | | | | | | | | | | | | 65 | |
| Capacity, c (veh/h) | | 1066 | | | | | | | | | | | | | | 480 | |
| v/c Ratio | | 0.05 | | | | | | | | | | | | | | 0.14 | |
| 95% Queue Length, Q ₉₅ (veh) | | 0.2 | | | | | | | | | | | | | | 0.5 | |
| Control Delay (s/veh) | | 8.6 | 0.6 | | | | | | | | | | | | | 13.7 | |
| Level of Service (LOS) | | A | A | | | | | | | | | | | | | B | |
| Approach Delay (s/veh) | | 1.4 | | | | | | | | | | | | 13.7 | | | |
| Approach LOS | | A | | | | | | | | | | | | B | | | |

HCS Two-Way Stop-Control Report

| General Information | | Site Information | |
|--------------------------|------------------------------------|----------------------------|--|
| Analyst | DHH | Intersection | Scotch Rd/S. Shop Ctr Access |
| Agency/Co. | Horner & Canter Assoc | Jurisdiction | Ewing Twp |
| Date Performed | 10/1/2024 | East/West Street | S. Shop Ctr Access/Parkway Corporate Ctr Acc |
| Analysis Year | 2025 | North/South Street | Scotch Road |
| Time Analyzed | AM Peak Hour - Build | Peak Hour Factor | 0.88 |
| Intersection Orientation | North-South | Analysis Time Period (hrs) | 0.25 |
| Project Description | 24-039 Proposed Starbucks Pad Site | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | |
|----------------------------|-----------|-----------|-----|----|-----------|---|-----|---|------------|----|-----|----|------------|----|-----|----|--|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R | |
| Movement | | | | | | | | | | | | | | | | | |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | |
| Configuration | | | LTR | | | | LTR | | | L | | TR | | L | | TR | |
| Volume (veh/h) | | 6 | 0 | 26 | | 3 | 0 | 5 | | 58 | 409 | 5 | | 11 | 350 | 27 | |
| Percent Heavy Vehicles (%) | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | | | | 9 | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | 0 | | | | 0 | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | | |
| Median Type Storage | | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|------|------|--|------|------|------|--|------|--|--|--|------|--|--|
| Base Critical Headway (sec) | | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 | | 4.1 | | | | 4.1 | | |
| Critical Headway (sec) | | 7.10 | 6.50 | 6.20 | | 7.10 | 6.50 | 6.20 | | 4.10 | | | | 4.19 | | |
| Base Follow-Up Headway (sec) | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 | | 2.2 | | | | 2.2 | | |
| Follow-Up Headway (sec) | | 3.50 | 4.00 | 3.30 | | 3.50 | 4.00 | 3.30 | | 2.20 | | | | 2.28 | | |

Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|--|------|------|--|--|------|------|--|--|------|--|--|--|------|--|--|--|
| Flow Rate, v (veh/h) | | | 36 | | | | 9 | | | 66 | | | | 13 | | | |
| Capacity, c (veh/h) | | | 448 | | | | 324 | | | 1142 | | | | 1056 | | | |
| v/c Ratio | | | 0.08 | | | | 0.03 | | | 0.06 | | | | 0.01 | | | |
| 95% Queue Length, Q ₉₅ (veh) | | | 0.3 | | | | 0.1 | | | 0.2 | | | | 0.0 | | | |
| Control Delay (s/veh) | | | 13.7 | | | | 16.4 | | | 8.3 | | | | 8.5 | | | |
| Level of Service (LOS) | | | B | | | | C | | | A | | | | A | | | |
| Approach Delay (s/veh) | | 13.7 | | | | 16.4 | | | | 1.0 | | | | 0.2 | | | |
| Approach LOS | | B | | | | C | | | | A | | | | A | | | |

HCS Two-Way Stop-Control Report

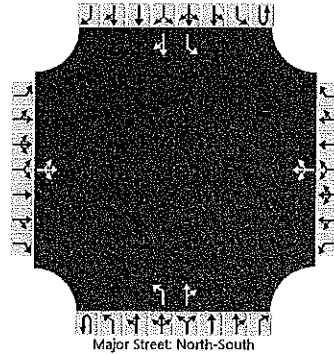
General Information

| | |
|--------------------------|------------------------------------|
| Analyst | DHH |
| Agency/Co. | Horner & Canter Assoc |
| Date Performed | 10/1/2024 |
| Analysis Year | 2025 |
| Time Analyzed | PM Peak Hour - Build |
| Intersection Orientation | North-South |
| Project Description | 24-039 Proposed Starbucks Pad Site |

Site Information

| | |
|----------------------------|--|
| Intersection | Scotch Rd/S. Shop Ctr Access |
| Jurisdiction | Ewing Twp |
| East/West Street | S. Shop Ctr Access/Parkway Corporate Ctr Acc |
| North/South Street | Scotch Road |
| Peak Hour Factor | 0.94 |
| Analysis Time Period (hrs) | 0.25 |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | |
|----------------------------|-----------|-----------|-----|----|-----------|---|-----|----|------------|----|-----|----|------------|---|-----|----|--|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R | |
| Movement | | | | | | | | | | | | | | | | | |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 | |
| Configuration | | | LTR | | | | LTR | | | L | | TR | | L | | TR | |
| Volume (veh/h) | | 26 | 1 | 56 | | 7 | 0 | 10 | | 49 | 415 | 5 | | 9 | 490 | 52 | |
| Percent Heavy Vehicles (%) | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | | | | 0 | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | 0 | | | | 0 | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | | |
| Median Type Storage | | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|------|------|--|------|------|------|--|------|--|--|--|------|--|--|
| Base Critical Headway (sec) | | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 | | 4.1 | | | | 4.1 | | |
| Critical Headway (sec) | | 7.10 | 6.50 | 6.20 | | 7.10 | 6.50 | 6.20 | | 4.10 | | | | 4.10 | | |
| Base Follow-Up Headway (sec) | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 | | 2.2 | | | | 2.2 | | |
| Follow-Up Headway (sec) | | 3.50 | 4.00 | 3.30 | | 3.50 | 4.00 | 3.30 | | 2.20 | | | | 2.20 | | |

Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|--|------|------|--|--|------|------|--|--|-----|------|--|--|-----|------|--|--|
| Flow Rate, v (veh/h) | | | 88 | | | | 18 | | | | 52 | | | | 10 | | |
| Capacity, c (veh/h) | | | 318 | | | | 268 | | | | 1007 | | | | 1124 | | |
| v/c Ratio | | | 0.28 | | | | 0.07 | | | | 0.05 | | | | 0.01 | | |
| 95% Queue Length, Q ₉₅ (veh) | | | 1.1 | | | | 0.2 | | | | 0.2 | | | | 0.0 | | |
| Control Delay (s/veh) | | | 20.6 | | | | 19.4 | | | | 8.8 | | | | 8.2 | | |
| Level of Service (LOS) | | | C | | | | C | | | | A | | | | A | | |
| Approach Delay (s/veh) | | 20.6 | | | | 19.4 | | | | 0.9 | | | | 0.1 | | | |
| Approach LOS | | C | | | | C | | | | A | | | | A | | | |

HCS Two-Way Stop-Control Report

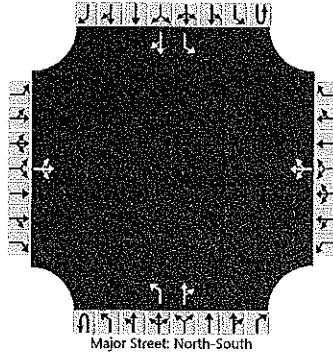
General Information

| | |
|--------------------------|------------------------------------|
| Analyst | DHH |
| Agency/Co. | Horner & Canter Assoc |
| Date Performed | 10/1/2024 |
| Analysis Year | 2025 |
| Time Analyzed | SAT Peak Hour - Build |
| Intersection Orientation | North-South |
| Project Description | 24-039 Proposed Starbucks Pad Site |

Site Information

| | |
|----------------------------|--|
| Intersection | Scotch Rd/S. Shop Ctr Access |
| Jurisdiction | Ewing Twp |
| East/West Street | S. Shop Ctr Access/Parkway Corporate Ctr Acc |
| North/South Street | Scotch Road |
| Peak Hour Factor | 0.94 |
| Analysis Time Period (hrs) | 0.25 |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | |
|----------------------------|-----------|-----------|-----|----|-----------|---|-----|---|------------|----|-----|----|------------|---|-----|----|--|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R | |
| Movement | | | | | | | | | | | | | | | | | |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 | |
| Configuration | | | LTR | | | | LTR | | | L | | TR | | L | | TR | |
| Volume (veh/h) | | 23 | 2 | 53 | | 9 | 2 | 7 | | 61 | 275 | 6 | | 5 | 339 | 40 | |
| Percent Heavy Vehicles (%) | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | | | | 0 | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | 0 | | | | 0 | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | | |
| Median Type Storage | | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|------|------|--|------|------|------|--|------|--|--|--|------|--|--|
| Base Critical Headway (sec) | | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 | | 4.1 | | | | 4.1 | | |
| Critical Headway (sec) | | 7.10 | 6.50 | 6.20 | | 7.10 | 6.50 | 6.20 | | 4.10 | | | | 4.10 | | |
| Base Follow-Up Headway (sec) | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 | | 2.2 | | | | 2.2 | | |
| Follow-Up Headway (sec) | | 3.50 | 4.00 | 3.30 | | 3.50 | 4.00 | 3.30 | | 2.20 | | | | 2.20 | | |

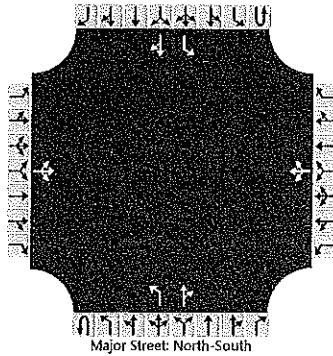
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|--|------|------|--|--|------|------|--|--|-----|------|--|--|-----|------|--|--|
| Flow Rate, v (veh/h) | | | 83 | | | | 19 | | | | 65 | | | | 5 | | |
| Capacity, c (veh/h) | | | 458 | | | | 337 | | | | 1166 | | | | 1274 | | |
| v/c Ratio | | | 0.18 | | | | 0.06 | | | | 0.06 | | | | 0.00 | | |
| 95% Queue Length, Q ₉₅ (veh) | | | 0.7 | | | | 0.2 | | | | 0.2 | | | | 0.0 | | |
| Control Delay (s/veh) | | | 14.6 | | | | 16.3 | | | | 8.3 | | | | 7.8 | | |
| Level of Service (LOS) | | | B | | | | C | | | | A | | | | A | | |
| Approach Delay (s/veh) | | 14.6 | | | | 16.3 | | | | 1.5 | | | | 0.1 | | | |
| Approach LOS | | B | | | | C | | | | A | | | | A | | | |

HCS Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|------------------------------------|--|--|----------------------------|--------------------------------------|--|--|
| Analyst | DHH | | | Intersection | Scotch Rd/Ctrl Shop Ctr Access | | |
| Agency/Co. | Horner & Canter Assoc | | | Jurisdiction | Ewing Twp | | |
| Date Performed | 10/1/2024 | | | East/West Street | Ctrl Shop Ctr Access/Dollar Tree Acc | | |
| Analysis Year | 2025 | | | North/South Street | Scotch Road | | |
| Time Analyzed | AM Peak Hour - Build | | | Peak Hour Factor | 0.91 | | |
| Intersection Orientation | North-South | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | 24-039 Proposed Starbucks Pad Site | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | |
|----------------------------|-----------|-----------|-----|----|-----------|----|-----|---|------------|---|-----|----|------------|---|-----|----|--|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R | |
| Movement | | | | | | | | | | | | | | | | | |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | |
| Configuration | | | LTR | | | | LTR | | | L | | TR | | L | | TR | |
| Volume (veh/h) | | 33 | 0 | 54 | | 6 | 1 | 2 | | 3 | 377 | 10 | | 0 | 404 | 13 | |
| Percent Heavy Vehicles (%) | | 0 | 0 | 0 | | 17 | 0 | 0 | | 0 | | | | 0 | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | 0 | | | | 0 | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | | |
| Median Type Storage | | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|------|------|--|------|------|------|--|------|--|--|--|------|--|--|
| Base Critical Headway (sec) | | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 | | 4.1 | | | | 4.1 | | |
| Critical Headway (sec) | | 7.10 | 6.50 | 6.20 | | 7.27 | 6.50 | 6.20 | | 4.10 | | | | 4.10 | | |
| Base Follow-Up Headway (sec) | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 | | 2.2 | | | | 2.2 | | |
| Follow-Up Headway (sec) | | 3.50 | 4.00 | 3.30 | | 3.65 | 4.00 | 3.30 | | 2.20 | | | | 2.20 | | |

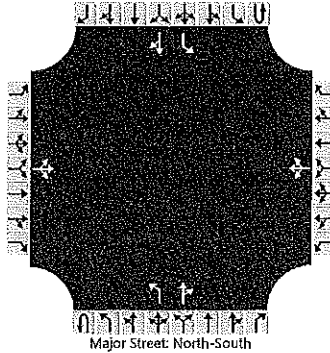
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|--|------|------|--|--|------|------|--|--|-----|------|--|--|-----|------|--|--|
| Flow Rate, v (veh/h) | | | 96 | | | | 10 | | | | 3 | | | | 0 | | |
| Capacity, c (veh/h) | | | 411 | | | | 263 | | | | 1113 | | | | 1145 | | |
| v/c Ratio | | | 0.23 | | | | 0.04 | | | | 0.00 | | | | 0.00 | | |
| 95% Queue Length, Q ₉₅ (veh) | | | 0.9 | | | | 0.1 | | | | 0.0 | | | | 0.0 | | |
| Control Delay (s/veh) | | | 16.4 | | | | 19.2 | | | | 8.2 | | | | 8.1 | | |
| Level of Service (LOS) | | | C | | | | C | | | | A | | | | A | | |
| Approach Delay (s/veh) | | 16.4 | | | | 19.2 | | | | 0.1 | | | | 0.0 | | | |
| Approach LOS | | C | | | | C | | | | A | | | | A | | | |

HCS Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|------------------------------------|--|--|----------------------------|--------------------------------------|--|--|
| Analyst | DHH | | | Intersection | Scotch Rd/Ctrl Shop Ctr Access | | |
| Agency/Co. | Horner & Canter Assoc | | | Jurisdiction | Ewing Twp | | |
| Date Performed | 10/1/2024 | | | East/West Street | Ctrl Shop Ctr Access/Dollar Tree Acc | | |
| Analysis Year | 2025 | | | North/South Street | Scotch Road | | |
| Time Analyzed | PM Peak Hour - Build | | | Peak Hour Factor | 0.92 | | |
| Intersection Orientation | North-South | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | 24-039 Proposed Starbucks Pad Site | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|----|-----|----|-----------|----|-----|----|------------|----|-----|----|------------|---|-----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Movement | | | | | | | | | | | | | | | | |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 |
| Configuration | | | LTR | | | | LTR | | | L | | TR | | L | | TR |
| Volume (veh/h) | | 40 | 1 | 37 | | 26 | 2 | 13 | | 17 | 424 | 20 | | 9 | 501 | 26 |
| Percent Heavy Vehicles (%) | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | | | | 0 | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | 0 | | | | 0 | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|------|------|--|------|------|------|--|------|--|--|--|------|--|--|
| Base Critical Headway (sec) | | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 | | 4.1 | | | | 4.1 | | |
| Critical Headway (sec) | | 7.10 | 6.50 | 6.20 | | 7.10 | 6.50 | 6.20 | | 4.10 | | | | 4.10 | | |
| Base Follow-Up Headway (sec) | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 | | 2.2 | | | | 2.2 | | |
| Follow-Up Headway (sec) | | 3.50 | 4.00 | 3.30 | | 3.50 | 4.00 | 3.30 | | 2.20 | | | | 2.20 | | |

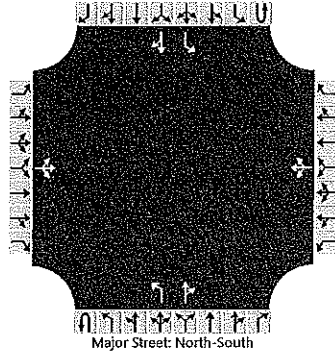
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|------|--|------|--|------|--|------|--|-----|--|------|--|-----|--|------|--|
| Flow Rate, v (veh/h) | | | 85 | | | | 45 | | | | 18 | | | | 10 | |
| Capacity, c (veh/h) | | | 264 | | | | 221 | | | | 1010 | | | | 1091 | |
| v/c Ratio | | | 0.32 | | | | 0.20 | | | | 0.02 | | | | 0.01 | |
| 95% Queue Length, Q ₉₅ (veh) | | | 1.3 | | | | 0.7 | | | | 0.1 | | | | 0.0 | |
| Control Delay (s/veh) | | | 24.9 | | | | 25.3 | | | | 8.6 | | | | 8.3 | |
| Level of Service (LOS) | | | C | | | | D | | | | A | | | | A | |
| Approach Delay (s/veh) | 24.9 | | | | 25.3 | | | | 0.3 | | | | 0.1 | | | |
| Approach LOS | C | | | | D | | | | A | | | | A | | | |

HCS Two-Way Stop-Control Report

| General Information | | Site Information | |
|--------------------------|------------------------------------|----------------------------|--------------------------------------|
| Analyst | DHH | Intersection | Scotch Rd/Ctrl Shop Ctr Access |
| Agency/Co. | Horner & Canter Assoc | Jurisdiction | Ewing Twp |
| Date Performed | 10/1/2024 | East/West Street | Ctrl Shop Ctr Access/Dollar Tree Acc |
| Analysis Year | 2025 | North/South Street | Scotch Road |
| Time Analyzed | SAT Peak Hour - Build | Peak Hour Factor | 0.95 |
| Intersection Orientation | North-South | Analysis Time Period (hrs) | 0.25 |
| Project Description | 24-039 Proposed Starbucks Pad Site | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | |
|----------------------------|-----------|----|-----|----|-----------|----|-----|----|------------|----|-----|----|------------|---|-----|----|--|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R | |
| Movement | | | | | | | | | | | | | | | | | |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | |
| Configuration | | | LTR | | | | LTR | | | L | | TR | | L | | TR | |
| Volume (veh/h) | | 35 | 2 | 68 | | 19 | 1 | 17 | | 11 | 365 | 29 | | 9 | 411 | 29 | |
| Percent Heavy Vehicles (%) | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | | | | 0 | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | 0 | | | | 0 | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|------|------|--|------|------|------|--|------|--|--|--|------|--|--|
| Base Critical Headway (sec) | | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 | | 4.1 | | | | 4.1 | | |
| Critical Headway (sec) | | 7.10 | 6.50 | 6.20 | | 7.10 | 6.50 | 6.20 | | 4.10 | | | | 4.10 | | |
| Base Follow-Up Headway (sec) | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 | | 2.2 | | | | 2.2 | | |
| Follow-Up Headway (sec) | | 3.50 | 4.00 | 3.30 | | 3.50 | 4.00 | 3.30 | | 2.20 | | | | 2.20 | | |

Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|--|------|------|--|--|------|------|--|--|-----|------|--|--|-----|------|--|--|
| Flow Rate, v (veh/h) | | | 111 | | | | 39 | | | | 12 | | | | 9 | | |
| Capacity, c (veh/h) | | | 406 | | | | 315 | | | | 1109 | | | | 1155 | | |
| v/c Ratio | | | 0.27 | | | | 0.12 | | | | 0.01 | | | | 0.01 | | |
| 95% Queue Length, Q ₉₅ (veh) | | | 1.1 | | | | 0.4 | | | | 0.0 | | | | 0.0 | | |
| Control Delay (s/veh) | | | 17.1 | | | | 18.0 | | | | 8.3 | | | | 8.1 | | |
| Level of Service (LOS) | | | C | | | | C | | | | A | | | | A | | |
| Approach Delay (s/veh) | | 17.1 | | | | 18.0 | | | | 0.2 | | | | 0.2 | | | |
| Approach LOS | | C | | | | C | | | | A | | | | A | | | |