

Village Hall Parking Lot Replacement Study

Homewood, Illinois



Prepared For:



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1. Introduction

This report presents the methodologies, analysis and findings of a Parking Study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) to determine potential replacement parking for the public parking spaces displaced from the Village Hall parking lot by the construction of a proposed townhome development.

The Village Hall lot has a parking capacity of 137 spaces, including spaces dedicated to Village Hall staff, public safety vehicles, seniors, visitors, handicapped, and rentals by permit. As proposed, the townhome development would encompass the southern two-thirds of the parking lot, resulting in the elimination of 97 parking spaces or 71 percent of the lot capacity.

The Village must prioritize the remaining parking spaces in the lot public safety vehicles. While the Village may ultimately build a parking garage in the downtown area that could permanently accommodate the parkers displaced from the Village Hall lot, a near-term, convenient parking solution is needed for Village Hall employees and visitors, seniors, and some municipal vehicles. Consideration is also being given to replacing the lost rental/permit parking.

The purpose of this Parking Study is to inventory the current public and selected private parking lots in the vicinity of Village Hall, determine the utilization of the parking lots on weekdays and weekends, develop potential parking replacement options including modifications to the street system or street parking layout, and evaluate the impacts of any street system changes.

The core study area for the Parking Study includes the public parking lots, larger private lots, and street parking spaces within an approximately two-block radius of Village Hall. In general, the core area is bound by Pine Street on the north, Dixie Highway on the east, Ridge Road on the south, and Harwood Avenue on the west, with an extension along Ridge Road to Homewood Avenue. **Figure 1** shows the core study area in relation to the street system. The parking study also included the public parking lots on the periphery of the core study area as well as the Park Avenue commuter lot. **Figure 2** shows an aerial view of the core study area and peripheral parking lots.

The subsequent sections of this report summarize the following:

- Inventory of the study area parking supply, include public and private lots and street spaces
- Evaluation of the study area parking demand on a weekday court day and non-court day, and on a Saturday event day and non-event day
- Estimation of future parking demand from planned development in the core study area
- Determination of the adequacy of the parking supply to accommodate the displaced parking demand from the Village Hall lot and additional demand from the planned development
- Development of potential options to replace the displaced parking in the Village Hall lot and accommodate the parking needs of the planned development.
- Assessment of traffic implications of potential parking replacement options

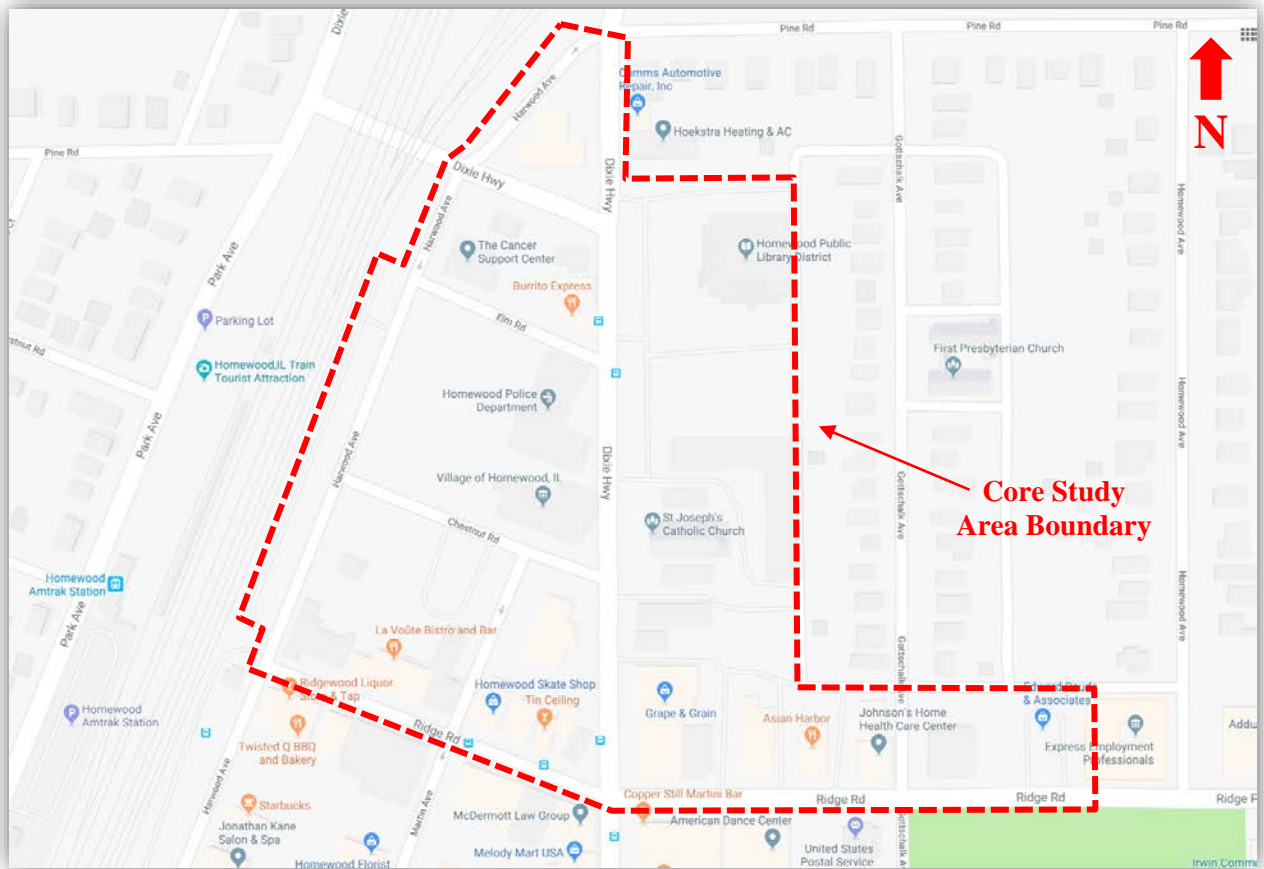


Figure 1

Study Area



Figure 2

Aerial View of Study Area

2. Existing Parking Supply

KLOA, Inc. performed a field inventory of the parking capacity and regulations for the public parking lots, larger private parking lots, and on-street parking spaces within the study area.

Off-Street Parking Supply

The inventory of off-street spaces included six public parking lots and 12 of the larger private lots, all of which offer parking for downtown patrons, employees, visitors, and court-goers. There are also several smaller private lots dispersed throughout the study area that were not included in the parking assessment. **Table 1** summarizes the capacity and user groups of each of the lots in the inventory. **Figure 3** shows the lot locations with numerical references corresponding to the table. The lot capacities were based on a field count of the marked stalls or estimates for unmarked lots.

As shown in Table 1, there are presently a total of 1,309 off-street parking spaces in the downtown locations of which 260 of the spaces (or 20%) are located in public lots while the remaining spaces are private and for use by the respective businesses, agencies, commuters and organizations.

Table 1
EXISTING OFF-STREET PARKING INVENTORY

No.	Parking Lot	Address/Location	User Groups	Capacity
1	StateNets Lot	17911 Harwood Ave	Employees, Patrons	10
2	Cancer Support Center Lot	2028 Elm Rd	Employees, Visitors	23
3	SSMTD Harwood Ave Commuter Lot	Harwood Ave (between Ridge & Elm)	Commuters (By Monthly Permit 24/7)	120
4	Village Hall Lot	2024 Chestnut Rd	Employees, Public Safety, Visitors, Seniors, Permit Holders	137 ¹
5	La Banque Hotel Lot	2034 Ridge Rd	Employees, Patrons	56
6	Ridge/Harwood Lot	2044-2066 Ridge Rd	Tenants, Patrons	38
7	Martin Square Lot	18033 Martin Ave	Tenants (Goodman Ins, Skate Shop, Residents)	20
8	Homewood Public Library Lot	17917 Dixie Hwy	Employees, Patrons	76
9	St. Joseph School Lot	17949 Dixie Hwy	Staff, Visitors, Church	124
10	Eldridge & Eldridge Lot	1944 Ridge Rd	Tenants	37
11	Golden Eagle Office Center Lot	1820 Ridge Rd	Employees, Patrons	82
12	First Presbyterian Church Lot	17929 Gottschalk Ave	Employees, Patrons	116
13	Martin Ave Public Lot	18064 Martin Ave	Employees, Patrons	20
14	Dixie/Kroner Public Lot	2048 Kroner Ln	Patrons (3-hour, 9AM-5 PM, M-Sat)	21
15	Hickory Road Public Lot	2010 Hickory Rd	Patrons (3-hour, 9AM-5 PM, M-Sat)	30
16	SSMTD Park Ave Commuter Lot	Park Ave (between Ridge & 183 rd)	Commuters (By Daily/Overnight Fee)	347
17	Kroner/Harwood Public Lot	18113 Harwood Ave	Patrons (3-hour, 9AM-5 PM, M-Sat)	22
18	Dixie Highway Public Lot	18136 Dixie Hwy	Patrons (2-hour)	30
Total				1,309

¹ Village Hall lot comprised of 42 spaces for Village Hall employees, 64 permit spaces, 16 spaces for Public Safety vehicles, 8 visitor spaces, 2 spaces for seniors, and 5 accessible spaces.

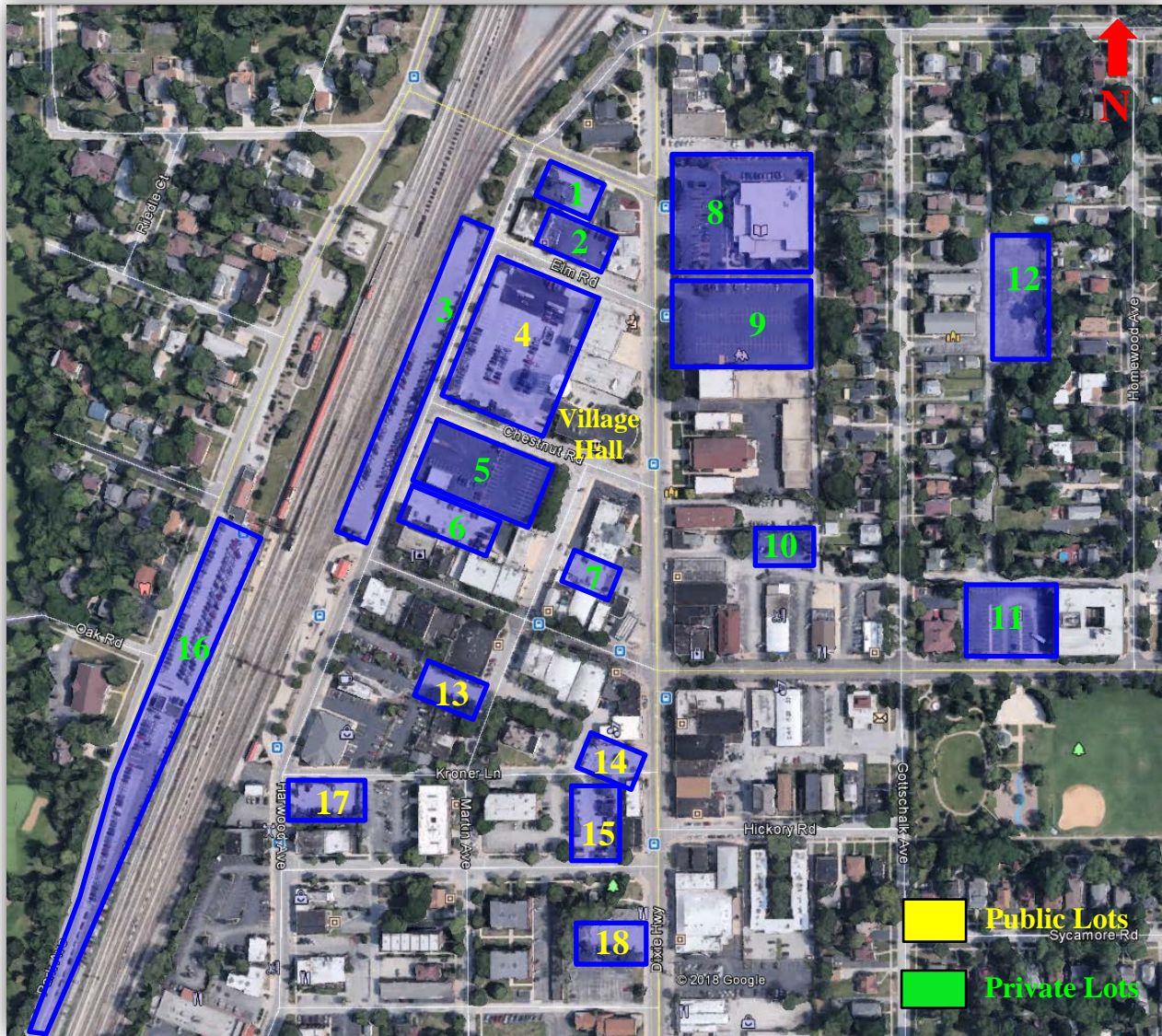


Figure 3 Off-Street Parking Lots Inventoried

On-Street Parking Supply

There are 17 blocks in the downtown study area that were inventoried for the parking assessment. **Table 2** summarizes the parking capacity and posted regulations on each of the blocks. **Figure 4** shows the block numbers and locations that correspond to the data in the table.

In total there are 214 spaces on the study area streets, of which 175 (82%) have time regulations mostly consisting of 3-hour parking between 9:00 AM and 5:00 PM, Monday-Saturday. There are also 15 spaces requiring a permit, 12 spaces reserved for the 17900 Dixie Highway Office Center, seven unregulated spaces, three spaces reserved for emergency/fire personnel, and two spaces for hotel guest drop-off.

Table 2
EXISTING ON-STREET PARKING INVENTORY

Block No.	Street	Block	Parking Regulation	Parking Capacity
1	Dixie Highway	Pine - Dixie	3-Hr 9A-5P M-SAT	21
2	Dixie Highway	Dixie - Elm	3-Hr 9A-5P M-SAT	15
3	Dixie Highway	Elm - Chestnut	EMS only (E side); 3-Hr 9A-5P M-SAT (W side)	10
4	Dixie Highway	Chestnut - Ridge	3-Hr 9A-5P M-SAT	14
5	Harwood Avenue	Pine - Dixie	Reserved (E side); Permit (W side)	34
6	Harwood Avenue	Dixie - Elm	No Parking	0
7	Harwood Avenue	Elm - Chestnut	No Parking	0
8	Harwood Avenue	Chestnut - Ridge	No Parking	0
9	Dixie Highway	Harwood - Dixie	No Parking	0
10	Elm Road	Harwood - Dixie	3-Hr 9A-5P M-SAT (N side); No Parking (S side)	12
11	Chestnut Road	Harwood - Martin	3-Hr 9A-5P M-SAT	16
12	Chestnut Road	Martin - Dixie	15-min (N side); 1-Hr 9A-5P M-SAT (S side)	5
13	Ridge Road	Harwood - Martin	3-Hr 9A-5P M-SAT; Hotel guest spaces	22
14	Ridge Road	Martin - Dixie	3-Hr 9A-5P M-SAT	13
15	Ridge Road	Dixie - Gottschalk	3-Hr 9A-5P M-SAT	23
16	Ridge Road	Gottschalk - Homewood	3-Hr 9A-5P M-SAT	20
17	Martin Avenue	Chestnut - Ridge	3-Hr 9A-5P M-SAT; No Parking SAT 6A-1P	9
Total				214

Total Parking Supply

Table 3 summarizes the total off-street (public and private) and on-street parking supply within the downtown study area that was included in the parking study. These spaces are available for patrons, employees, commuters, visitors and/or court-goers. As shown there are 1,523 parking spaces in the study area.

Table 3
TOTAL PARKING INVENTORY

	Off-Street Lots (Public)	Off-Street Lots (Private)	On-Street Spaces (Public)	Total
Parking Spaces	260	1,049	214	1,523

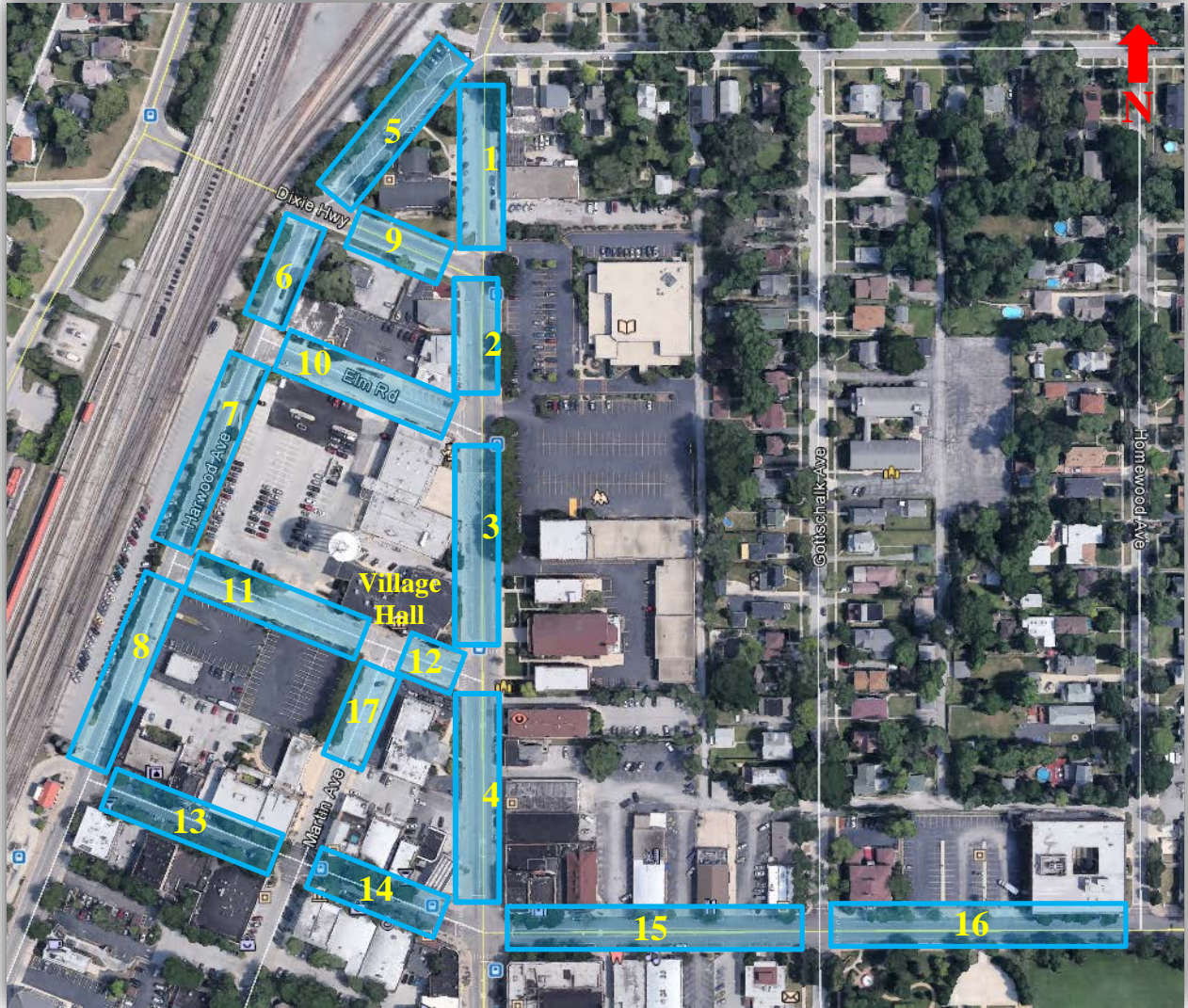


Figure 4

On-Street Parking Locations Inventoried

3. Existing Parking Demand

To determine the existing parking demand in the study area on a typical weekday court day and non-court day, and on a Saturday event day and non-event day, parking occupancy surveys were conducted in the off-street parking lots and on-street parking locations noted above. The weekday surveys spanned an 11-hour period (7:00 AM-6:00 PM) on Monday, September 17, 2018 when local court was in session and on Thursday, September 20, 2018. The Saturday surveys spanned an 11-hour period (11:00 AM-10:00 PM) on Saturday, September 15, 2018 when no events were planned and on Saturday, September 29, 2018 during the Farmers' Market and Fall Fest.

Off-Street Parking Demand

Table A in the Appendix summarizes the number of occupied parking spaces in each of the lots hourly over the course of the 11-hour survey period on Monday, September 17th. Table B shows the percentage of parking spaces occupied hourly on that Monday. Table C summarizes the hourly occupied parking spaces in each lot on Thursday, September 20th and Table D shows the percentage of parking spaces occupied hourly on that Thursday. Table E summarizes the hourly occupied parking spaces in each lot on Saturday, September 15th and Table F shows the percentage of parking spaces occupied hourly on that Saturday. Table G summarizes the hourly occupied parking spaces in each lot on Saturday, September 29th and Table H shows the percentage of parking spaces occupied hourly on that Saturday. The peak hour in which parking occupancy was highest for all lots combined (i.e., peak parking demand) is highlighted in each of these tables.

On Monday, September 17th, peak occupancy of all off-street lots combined occurred at 11:00 AM when 703 spaces were utilized representing 54 percent of the total off-street parking capacity, as shown in Tables A and B, respectively. Local court was in session on this day between 8:00 AM and 3:00 PM. The Village Hall lot was well-utilized at this time (78% of capacity) as were the two commuter parking lots. The combined parking utilization in the other five public lots was 29 percent at this time. In total there were 124 unoccupied parking spaces in the public parking lots at 11:00 AM, including 30 empty spaces in the Village Hall lot (14 permit spaces, 16 non-permit spaces). The occupancy of the 10 non-commuter private lots ranged from 2 percent (First Presbyterian Church) to 64 percent (Public Library) at the peak 11:00 AM period. **Figure 5** shows the parking occupancy levels in each of the lots during the Monday peak hour of parking demand.

On Thursday, September 20th, a typical non-court weekday, peak occupancy of all off-street lots combined occurred at 1:00 PM when 726 spaces were utilized representing 55 percent of the total off-street parking capacity, as shown in Tables C and D, respectively. The Village Hall lot was utilized to 62 percent of capacity at this time. The two commuter parking lots were utilized in excess of 76% of capacity at this time, as were the Kroner/Harwood and Dixie/Kroner public lots. The combined parking utilization in the five public lots (excluding the Village Hall lot) was 56 percent at this time. In total there were 106 unoccupied parking spaces in the public parking lots at 1:00 PM, including 52 empty spaces in the Village Hall lot (22 permit spaces, 30 non-permit spaces). The occupancy of the 10 non-commuter private lots ranged from 6 percent (St. Joseph School) to 56 percent (Golden Eagle Office Center) at the peak 1:00 PM period. **Figure 6** shows the parking occupancy levels in each of the lots during the Thursday peak hour of parking demand.

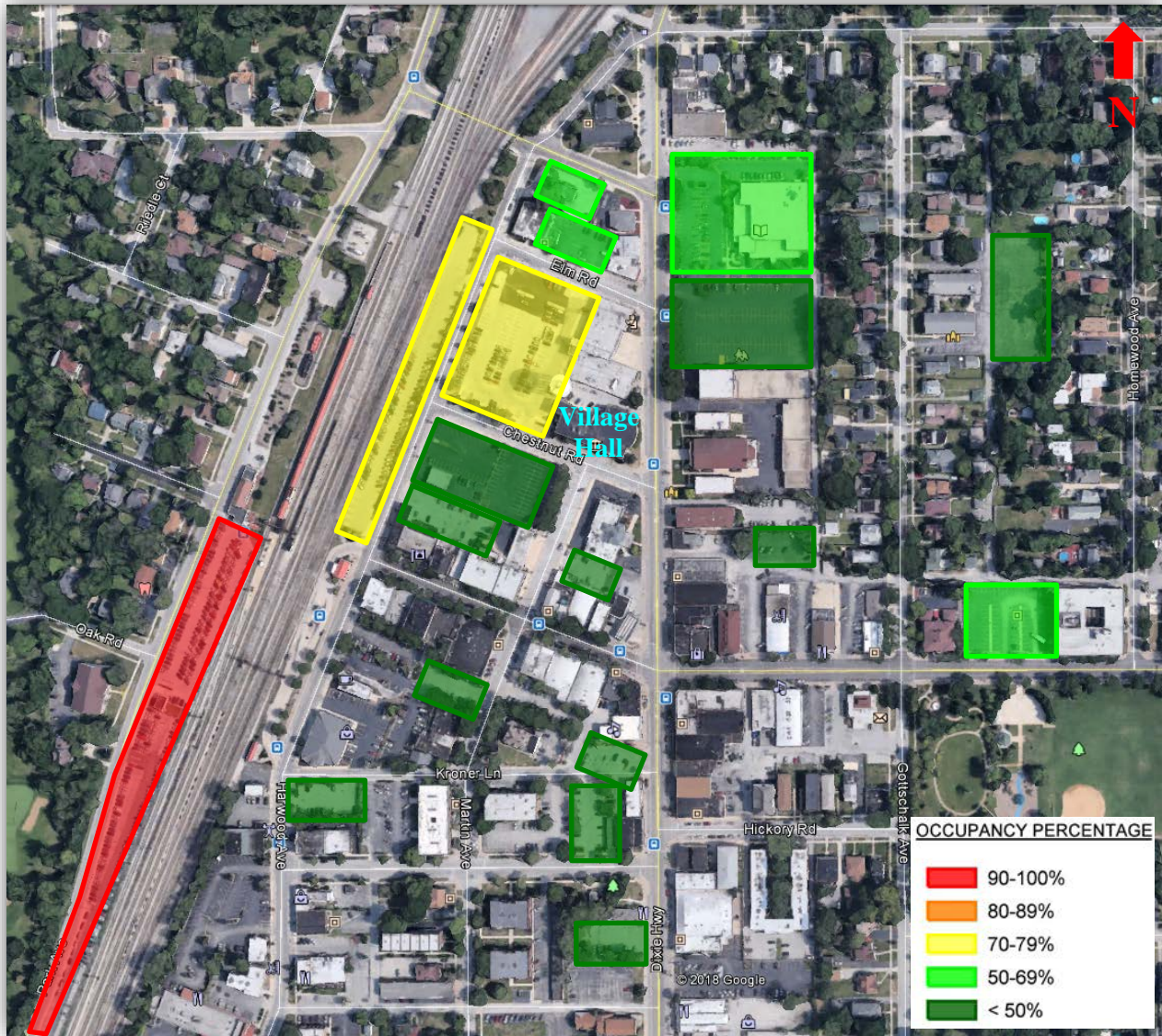


Figure 5 Off-Street Parking Occupancy – Monday Court Day 11:00 AM

On Saturday, September 15th, a typical non-event weekend day, peak occupancy of all off-street lots combined occurred at 11:00 AM when 330 spaces were utilized representing 25 percent of the total off-street parking capacity, as shown in Tables E and F, respectively. The Village Hall lot was utilized to 53 percent of capacity at this time, and the Dixie/Kroner and Hickory public lots were utilized in excess of 73 percent. The combined parking utilization in the five public lots (excluding the Village Hall lot) was 57 percent at this time. In total there were 117 unoccupied parking spaces in the public parking lots at 11:00 AM, including 64 empty spaces in the Village Hall lot. The occupancy of the two commuter lots ranged from 3 to 12 percent, and the occupancy of the 10 non-commuter private lots ranged from 1 percent (First Presbyterian Church) to 89 percent (La Banque Hotel) at the peak 11:00 AM period. **Figure 7** shows the parking occupancy levels in each of the lots during the Saturday peak hour of parking demand.

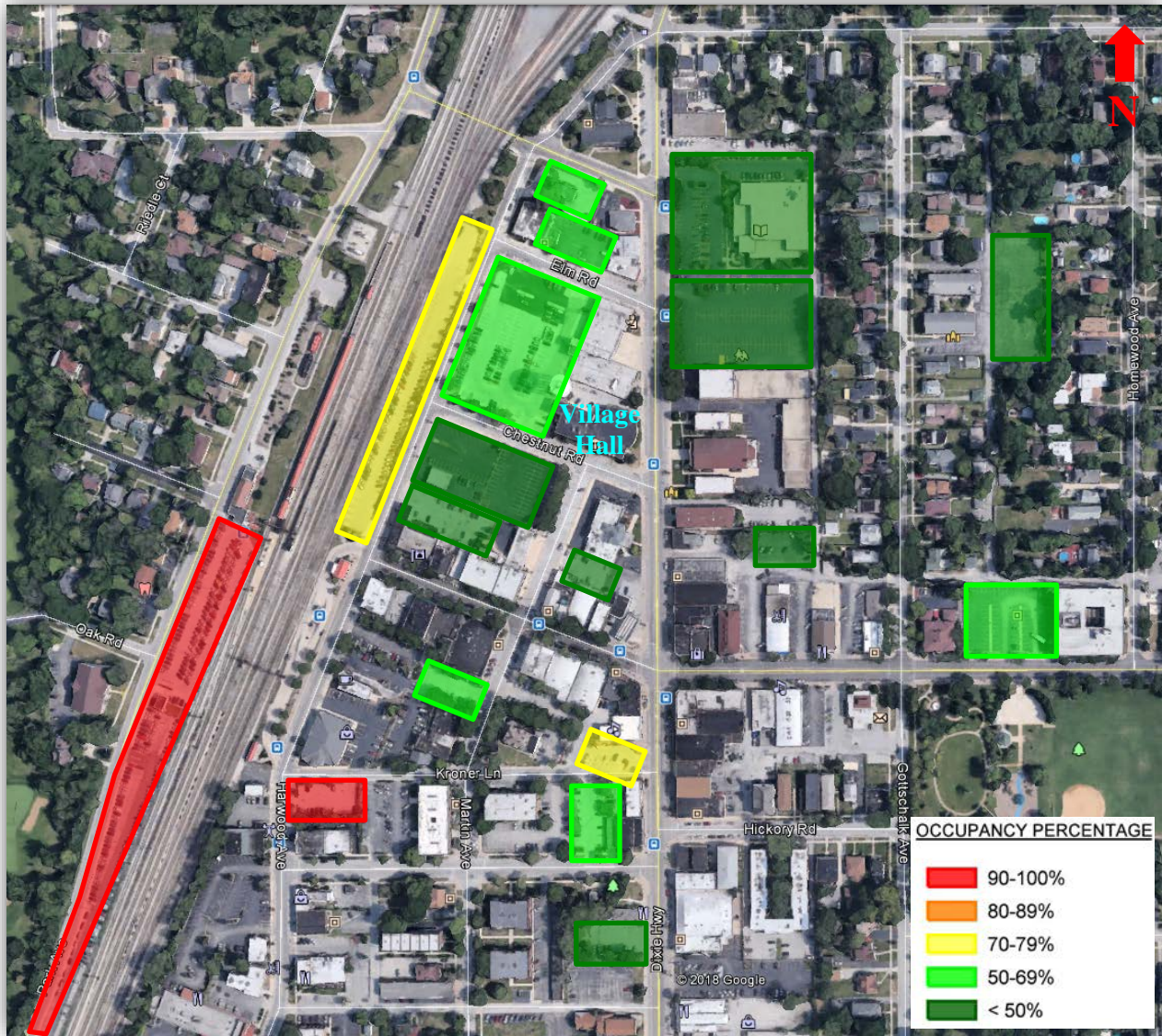


Figure 6 Off-Street Parking Occupancy – Thursday Non-Court Day 1:00 PM

On Saturday, September 29th, an event day with the Homewood Outdoor Farmers’ Market on Martin Square (8:00 AM-1:00 PM) overlapping with Fall Fest (11:00 AM-10 PM) on Martin Avenue between Ridge Road and Hickory Road, peak occupancy of all off-street lots combined occurred from 1:00 PM to 2:00 PM when 420 spaces in the study area were utilized representing 32 percent of the total off-street parking capacity, as shown in Tables G and H, respectively. The Village Hall lot was utilized to 67 percent of capacity at this time while the other public lots were utilized in excess of 90 percent of capacity. The Martin Avenue public lot was not available during Fall Fest. In total there were 46 unoccupied parking spaces in the public parking lots at 2:00 PM, most of which were in the Village Hall lot. The occupancy of the two commuter lots ranged from 2 to 18 percent, and the occupancy of the 10 non-commuter private lots ranged from 3 percent (First Presbyterian Church) to 89 percent (La Banque Hotel) during the peak period. **Figure 8** shows the parking occupancy levels in each lot during the Saturday peak parking demand period.

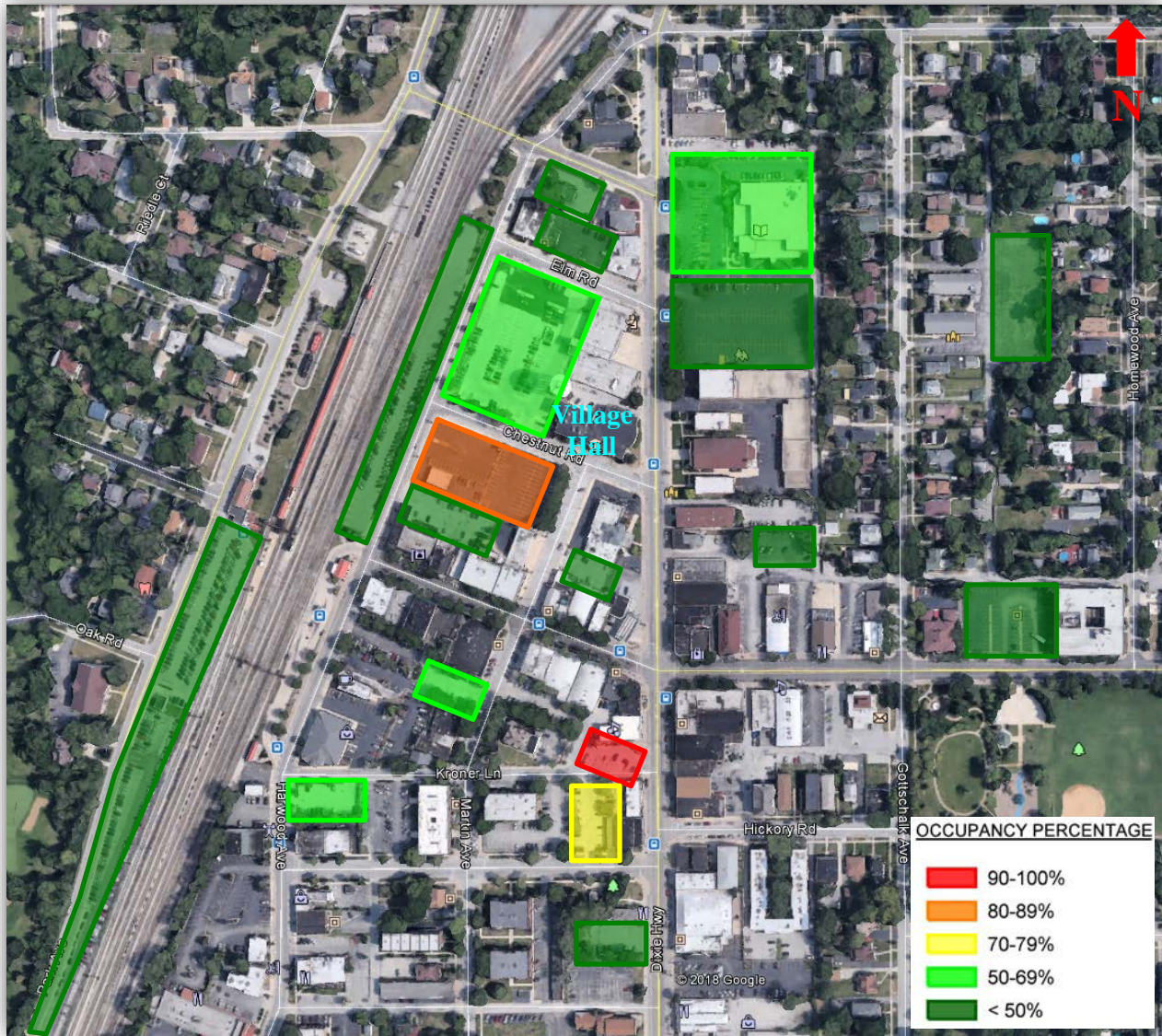


Figure 7 Off-Street Parking Occupancy – Saturday Non-Event Day 11:00 AM

On-Street Parking Demand

Table I in the Appendix summarizes the number of occupied parking spaces on each of the 17 blocks of the study area hourly over the course of the 11-hour survey period on Monday, September 17th. Table J shows the percentage of parking spaces occupied hourly on that Monday. Table K summarizes the hourly occupied parking spaces on each block on Thursday, September 20th and Table L shows the percentage of parking spaces occupied hourly on that Thursday. Table M summarizes the hourly occupied parking spaces on each block on Saturday, September 15th and Table N shows the percentage of parking spaces occupied hourly on that Saturday. Table O summarizes the hourly occupied parking spaces on each block on Saturday, September 29th and Table P shows the percentage of parking spaces occupied hourly on that Saturday. The peak hour in which parking occupancy was highest for all lots combined (i.e., peak parking demand) is highlighted in each of these tables.

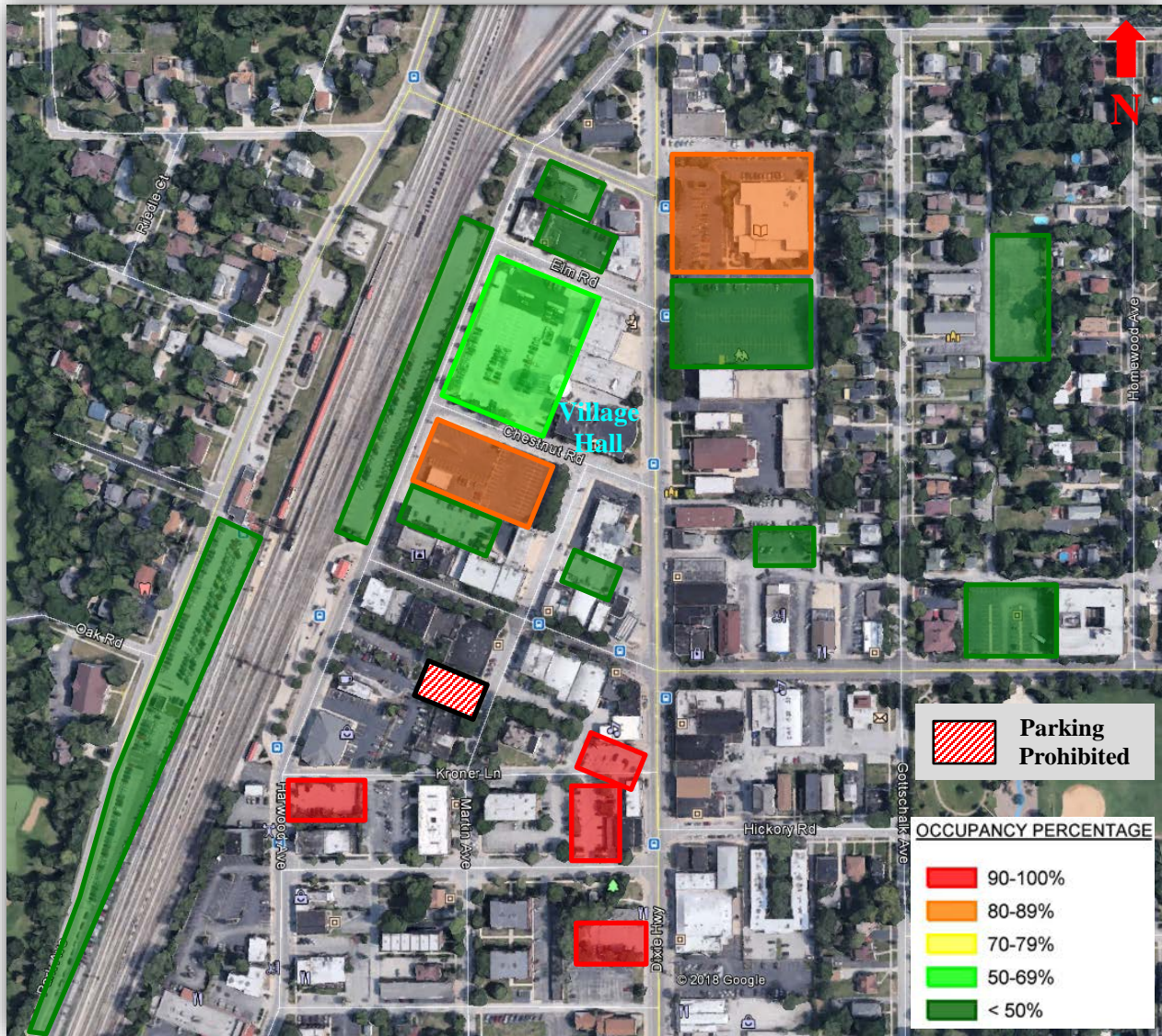


Figure 8 Off-Street Parking Occupancy – Saturday Event Day 1:00-2:00 PM

On Monday, September 17th, peak occupancy of the street parking spaces occurred at Noon when 79 spaces were utilized representing 37 percent of the total street parking capacity, as shown in Tables I and J, respectively. Local court was in session on this day between 8:00 AM and 3:00 PM. In total there were 135 unoccupied parking spaces on the study area streets at Noon. The blocks experiencing the highest levels of parking utilization (60-70%) were on Ridge Road (Dixie-Gottschalk), Vincennes Street (Pine-Dixie), and Chestnut Road (Martin-Dixie). The parking occupancy of the blocks adjoining the Village Hall lot ranged from 25 to 67 percent at Noon. **Figure 9** shows the parking occupancy levels on each of the 17 blocks in the study area during the Monday peak hour of parking demand (Noon).

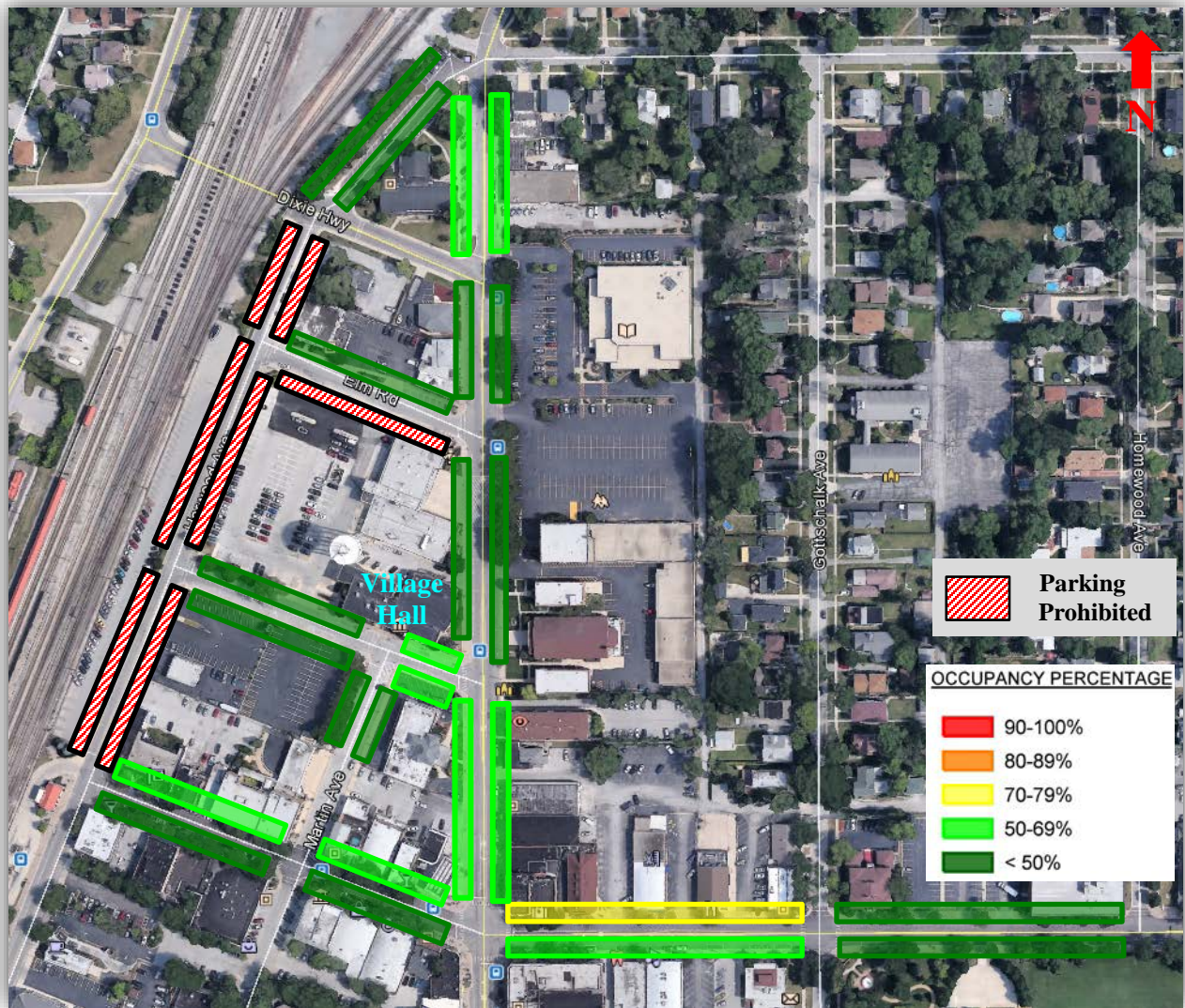


Figure 9 On-Street Parking Occupancy – Monday Court Day 12:00 PM

On Thursday, September 20th, a typical non-court weekday, peak occupancy of the street parking spaces occurred at 11:00 AM when 88 spaces were utilized representing 41 percent of the total street parking capacity, as shown in Tables K and L, respectively. In total there were 126 unoccupied parking spaces on the study area streets at 11:00 AM. The blocks experiencing the highest levels of parking utilization (77-80%) were on Ridge Road between Martin Avenue and Gottschalk Avenue. The parking occupancy of the blocks adjoining the Village Hall lot ranged from 25 to 67 percent at 11:00 AM. **Figure 10** shows the parking occupancy levels on each of the 17 blocks in the study area during the Thursday peak hour of parking demand (11:00 AM).

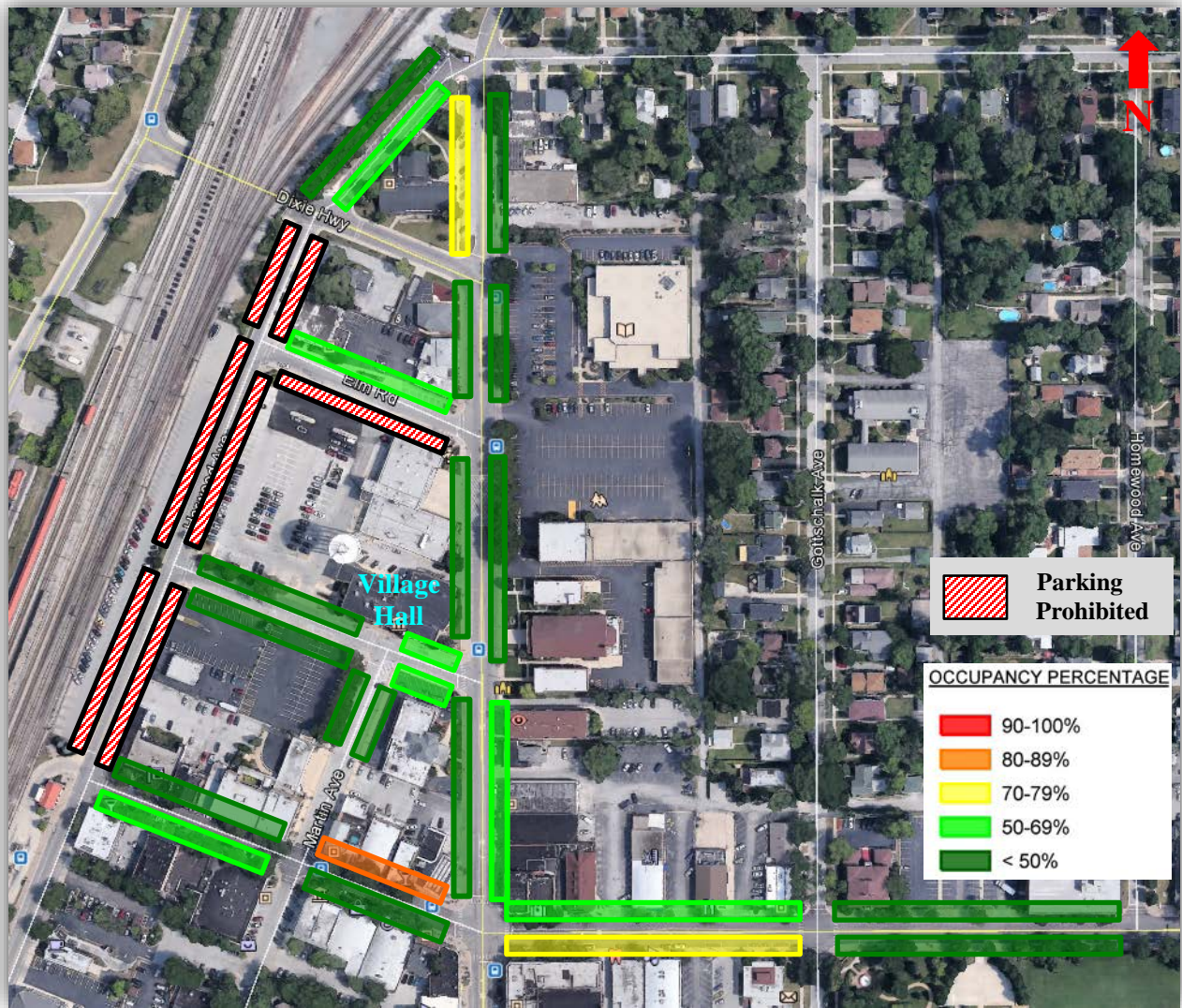


Figure 10 On-Street Parking Occupancy – Thursday Non-Court Day 11:00 AM

On Saturday, September 15th, a typical non-event weekend day, peak occupancy of the street parking spaces occurred at Noon when 101 spaces were utilized representing 47 percent of the total street parking capacity, as shown in Tables M and N, respectively. In total there were 113 unoccupied parking spaces on the study area streets at Noon. The blocks experiencing the highest levels of parking utilization (60-100%) were on Dixie Highway (Elm-Ridge), Chestnut Road (Harwood-Dixie), and Ridge Road (Harwood-Gottschalk). The parking occupancy of the blocks adjoining the Village Hall lot ranged from 29 to over 100 percent at Noon. **Figure 11** shows the parking occupancy levels on each of the 17 blocks in the study area during the Saturday peak hour of parking demand (Noon).

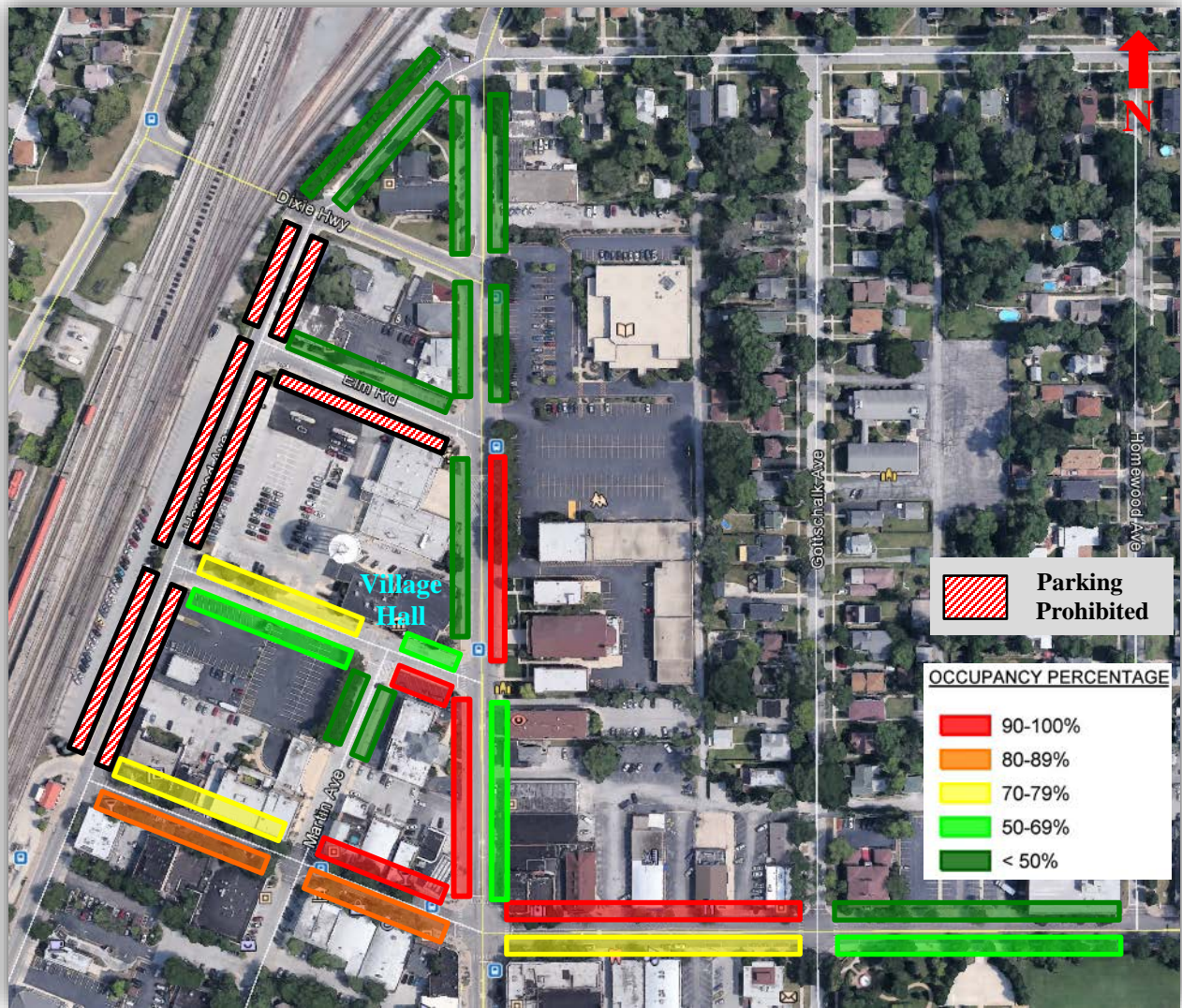


Figure 11 On-Street Parking Occupancy – Saturday Non-Event Day 12:00 PM

On Saturday, September 29th, an event day with the Homewood Outdoor Farmers’ Market on Martin Square (8:00 AM-1:00 PM) overlapping with Fall Fest (11:00 AM-10 PM) on Martin Avenue between Ridge Road and Hickory Road, peak occupancy of the street parking spaces occurred at 4:00 PM when 79 spaces were utilized representing 37 percent of the total street parking capacity, as shown in Tables O and P, respectively. In total there were 135 unoccupied parking spaces on the study area streets at 4:00 PM. The blocks experiencing the highest levels of parking utilization (60-70%) were on Ridge Road (Harwood-Gottschalk), Chestnut Road (Martin-Dixie), and Vincennes Street (Pine-Dixie). The parking occupancy of the blocks adjoining the Village Hall lot ranged from 25 to 67 percent at 4:00 PM. **Figure 12** shows the parking occupancy levels on each of the 17 blocks in the study area during the Saturday peak hour of parking demand (4:00 PM).

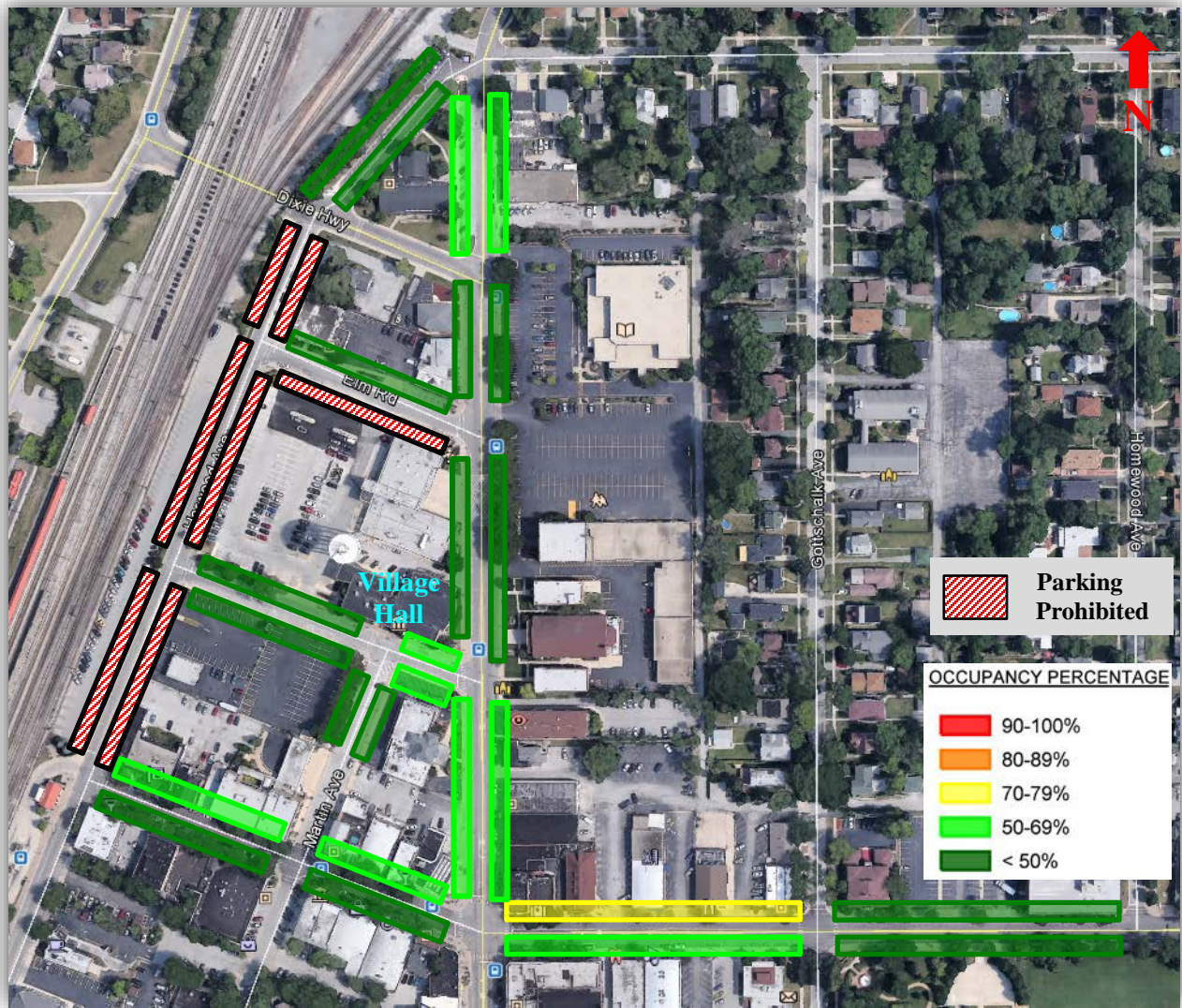


Figure 12 On-Street Parking Occupancy – Saturday Event Day 4:00 PM

Total Parking Demand

Table 4 provides a summary of the Monday court day peak parking utilization for all of the inventoried off-street lots and on-street spaces in the study area, which occurs at 11:00 AM for all parking combined. In total, 51 percent of the combined public and private parking supply was utilized leaving 753 spaces unoccupied.

Table 5 provides a summary of the Thursday non-court day peak parking utilization for all of the inventoried off-street lots and on-street spaces in the study area, which occurs at 1:00 PM for all parking combined. In total, 53 percent of the combined public and private parking supply was utilized leaving 715 spaces unoccupied.

Table 4

TOTAL PARKING UTILIZATION – Monday Court Day Peak Demand (11:00 AM)

	Off-Street Lots (Public)	Off-Street Lots (Private)	On-Street Spaces (Public)	Total
Parking Capacity	260	1,049	214	1,523
Peak Occupancy	<u>136</u>	<u>567</u>	<u>67</u>	<u>770</u>
Parking Surplus	124	482	147	753
Utilization %	52%	54%	31%	51%

Table 5

TOTAL PARKING UTILIZATION – Thursday Non-Court Day Peak Demand (1:00 PM)

	Off-Street Lots (Public)	Off-Street Lots (Private)	On-Street Spaces (Public)	Total
Parking Capacity	260	1,049	214	1,523
Peak Occupancy	<u>154</u>	<u>572</u>	<u>82</u>	<u>808</u>
Parking Surplus	106	477	132	715
Utilization %	59%	55%	38%	53%

Table 6 provides a summary of the Saturday non-event day peak parking utilization for all of the inventoried off-street lots and on-street spaces in the study area, which occurs at Noon for all parking combined. In total, 28 percent of the combined public and private parking supply was utilized leaving 1,100 spaces unoccupied.

Table 6

TOTAL PARKING UTILIZATION – Saturday Non-Event Day Peak Demand (Noon)

	Off-Street Lots (Public)	Off-Street Lots (Private)	On-Street Spaces (Public)	Total
Parking Capacity	260	1,049	214	1,523
Peak Occupancy	<u>125</u>	<u>197</u>	<u>101</u>	<u>423</u>
Parking Surplus	135	852	113	1,100
Utilization %	48%	19%	47%	28%

Table 7 provides a summary of the Saturday event-day peak parking utilization for all of the inventoried off-street lots and on-street spaces in the study area, which occurs at 2:00 PM for all parking combined. In total, 33 percent of the combined public and private parking supply was utilized leaving 1,011 spaces unoccupied.

Table 7
TOTAL PARKING UTILIZATION – Saturday Event Day Peak Demand (2:00 PM)

	Off-Street Lots (Public)	Off-Street Lots (Private)	On-Street Spaces (Public)	Total
Parking Capacity	240 ¹	1,049	214	1,503
Peak Occupancy	<u>194</u>	<u>226</u>	<u>72</u>	<u>492</u>
Parking Surplus	46	823	142	1,011
Utilization %	81%	22%	34%	33%

¹ Martin Avenue public lot was closed during event times.

4. Existing Traffic Conditions

Existing traffic conditions in the downtown study area were documented from field visits by KLOA, Inc. in order to obtain a database for projecting potential future conditions. The following provides a description of the characteristics of the roadway system, weekday peak hour traffic, pedestrian and bicycle volumes, intersection operational analysis, and public transportation services.

Existing Roadway System Characteristics

The characteristics of the study area roadways are described below and shown in **Figure 13**.

Dixie Highway is a north-south roadway through Homewood. It is under the jurisdiction of the Illinois Department of Transportation (IDOT) but maintained by the Village. It is also classified by IDOT as a minor arterial roadway. Within the study area, between Vincennes Street and Ridge Road, Dixie Highway has a two- to three-lane cross-section with a parking lane on both sides of the road. There are dedicated left-turn lanes on Dixie Highway at Ridge Road and Chestnut Road. Dixie Highway is also a posted bike route with dedicated bike lanes or marked shared lanes (i.e., “sharrows”) in both directions of travel. Dixie Highway has a posted speed limit of 25 miles per hour (mph) and carries an average annual daily traffic (AADT) volume of 11,200 vehicles per day (vpd) based on the published IDOT AADT Map. There are sidewalks along both sides of the roadway.

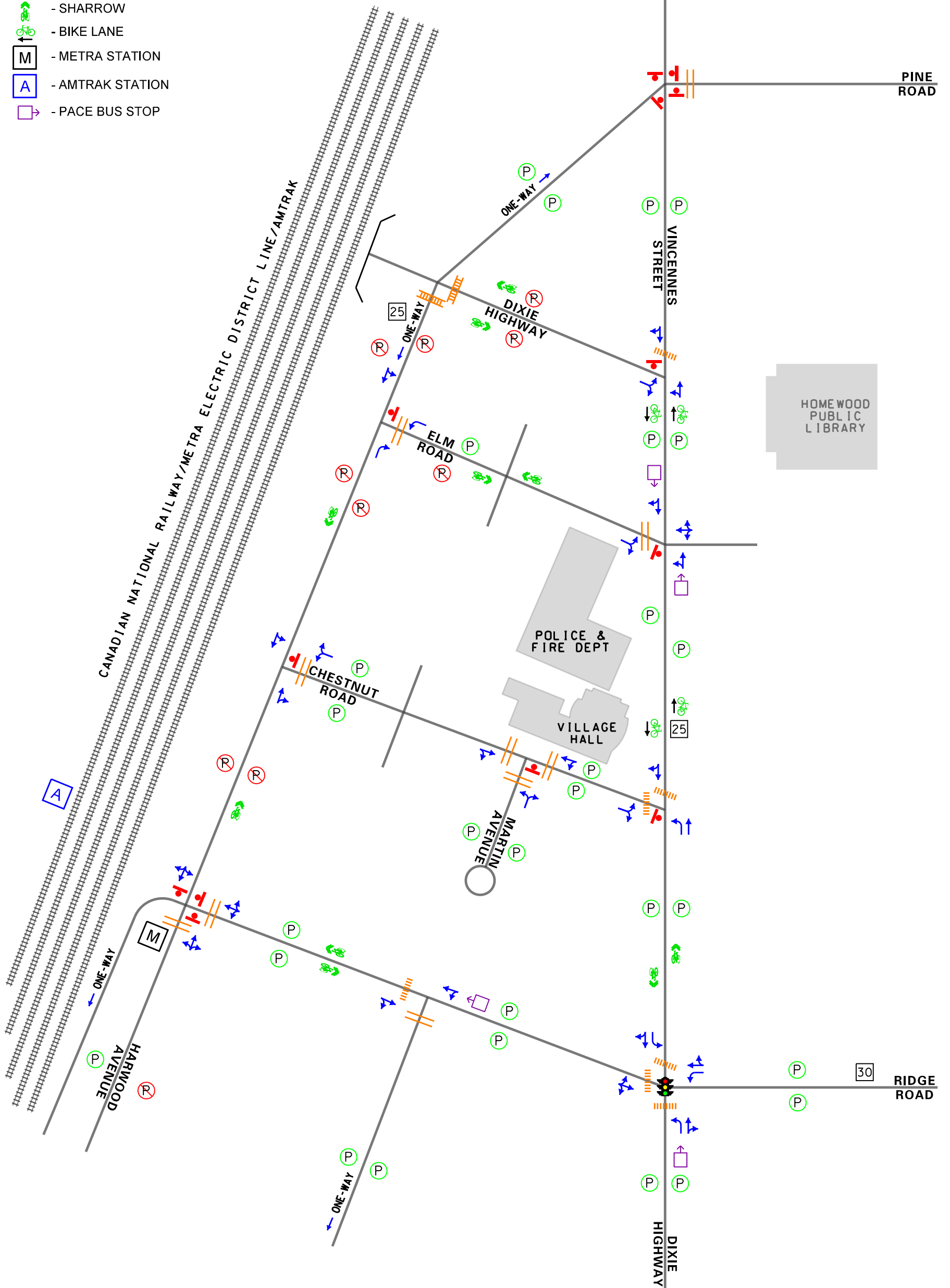
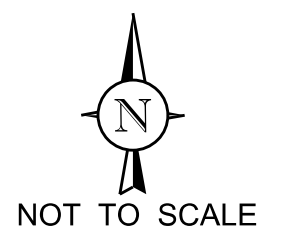


Ridge Road is an east-west roadway through Homewood that is under IDOT jurisdiction. It is maintained by IDOT to the west of Dixie Highway and classified as a local road. It is maintained by the Village to the east of Dixie Highway and classified as a major collector road. Within the



study area, Ridge Road has a two-lane cross-section with a parking lane on both sides of the road. The intersection of Ridge Road with Dixie Highway is under traffic signal control and there is a dedicated left-turn lane on the westbound approach of Ridge Road. Ridge Road is also a posted bike route with marked shared lanes in both directions of travel. Ridge Road has a posted speed limit of 30 mph and carries an AADT volume of 9,100 vpd. There are sidewalks along both sides of the roadway.

- LEGEND**
- TRAVEL LANE
 - TRAFFIC SIGNAL
 - STOP SIGN
 - SPEED LIMIT
 - ON-STREET PARKING
 - NO PARKING
 - SHARROW
 - BIKE LANE
 - METRA STATION
 - AMTRAK STATION
 - PACE BUS STOP



VILLAGE HALL
PARKING LOT
REPLACEMENT STUDY
HOMEWOOD, ILLINOIS

EXISTING ROADWAY CHARACTERISTICS

Job No: 18-202 Figure: 13

Harwood Avenue is a north-south roadway through Homewood that is under IDOT jurisdiction but maintained by the Village. To the south of Dixie Highway, Harwood Avenue is classified as a major collector road. It has a one-lane cross-section and one-way southbound orientation between Dixie Highway and Elm Road, and a two-way operation with a two-lane cross-section to the south of Elm Road with parking prohibited and marked shared lanes on both sides of the road.



Harwood Avenue (Chestnut-Elm)

Source: Google

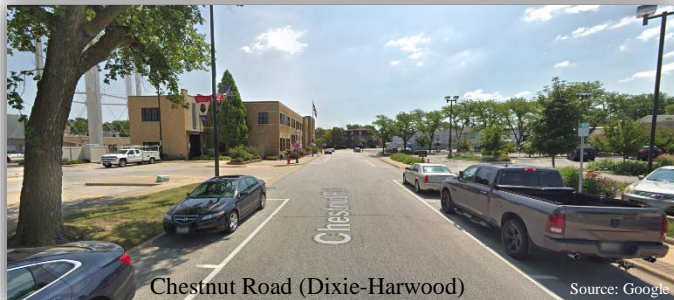
To the north of Dixie Highway, Harwood Avenue is classified as a minor collector road. It has a one-lane cross-section and one-way northbound orientation with angle or perpendicular parking on both sides of the road between Dixie Highway and Pine Road, and a two-way operation with a two-lane cross-section to the north of Pine Road with a parking lane on the east side of the road. The intersection of Harwood Avenue with Ridge Road is under all-way stop control. Harwood Avenue has a posted speed limit of 25 mph and carries an AADT volume of 1,850 vpd. There is a sidewalk along the east side of the road to the south of Dixie Highway.

Elm Road is an east-west local road that is under the jurisdiction of the Village of Homewood. It has a two-lane cross-section with parallel or angle parking on the north side of the road. Parking is prohibited on the south side of the road. The intersections of Elm Road with Harwood Avenue and Dixie Highway are under stop control on Elm Road. Elm Road is also a posted bike route with marked shared lanes in both directions of travel and sidewalks along both sides of the road.



Elm Road (Dixie-Harwood)

Source: Google



Chestnut Road (Dixie-Harwood)

Source: Google

Chestnut Road is an east-west local road that is under the jurisdiction of the Village of Homewood. It has a two-lane cross-section with parallel and sidewalks on both sides of the road. The intersections of Chestnut Road with Harwood Avenue and Dixie Highway are under stop control on Chestnut Road.

Martin Avenue is a north-south local road that is under the jurisdiction of the Village of Homewood. From Chestnut Road to the mid-block cul-de-sac (Martin Square), Martin Avenue is a two-way, two-lane road with parallel parking along both sides. South of Ridge Road, Martin Avenue is a one-lane, one-way southbound road with angle parking on both sides. The intersection of Martin Avenue with Chestnut Road is under stop control on Martin Avenue.



Vincennes Road is a north-south, one-block, local road segment that connects Dixie Highway to the south with Harwood Avenue (at Pine Road) to the north. The two-lane road is under Village jurisdiction with angle parking on the west side of the road, parallel parking along the east side, and sidewalks along both sides. Vincennes Road is also a posted bike route. The intersection of Vincennes Road with Dixie Highway is under stop control on Vincennes Road. The intersection of Vincennes Road with Harwood Avenue/Pine Road is under all-way stop control.



Existing Traffic/Pedestrian/Bicycle Volumes

Counts of traffic, pedestrian and bicycle activity were conducted at the following intersections on Tuesday, October 2, 2018 during the morning (6:30-9:00 AM) and evening (4:00-6:30 PM) peak commuting periods. This date was selected as a typical weekday in downtown Homewood.

- Dixie Highway / Elm Road
- Dixie Highway / Chestnut Road
- Dixie Highway / Ridge Road
- Harwood Avenue / Elm Road
- Harwood Avenue / Chestnut Road
- Harwood Avenue / Ridge Road
- Elm Road / Village Hall Lot driveway / Cancer Support Center Lot driveways
- Chestnut Road / Martin Avenue / Village Hall Lot driveway / La Banque Hotel Lot driveways

A review of the traffic count data indicated that the single peak hours of traffic activity during each of the two traffic count periods are from 7:15-8:15 AM in the morning and from 5:00-6:00 PM in the evening. The existing peak hour traffic volumes are shown in **Figure 14**. Summaries of the traffic count data are contained in the Appendix of this report. The existing peak hour pedestrian and bicycle volumes at these intersections are shown in **Figure 15** and **Figure 16**, respectively.

Existing Intersection Operations

Traffic operational analyses were performed for the study area intersections to determine the ability of the existing roadway system to accommodate existing traffic demands during the weekday morning and evening peak hours. The analyses were performed using SYNCHRO 9.0 computer software, which generally follows the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual, 2010*. The methodologies use traffic control devices, traffic volumes, and roadway characteristics to determine the average control delay and levels of service for vehicles at an intersection.

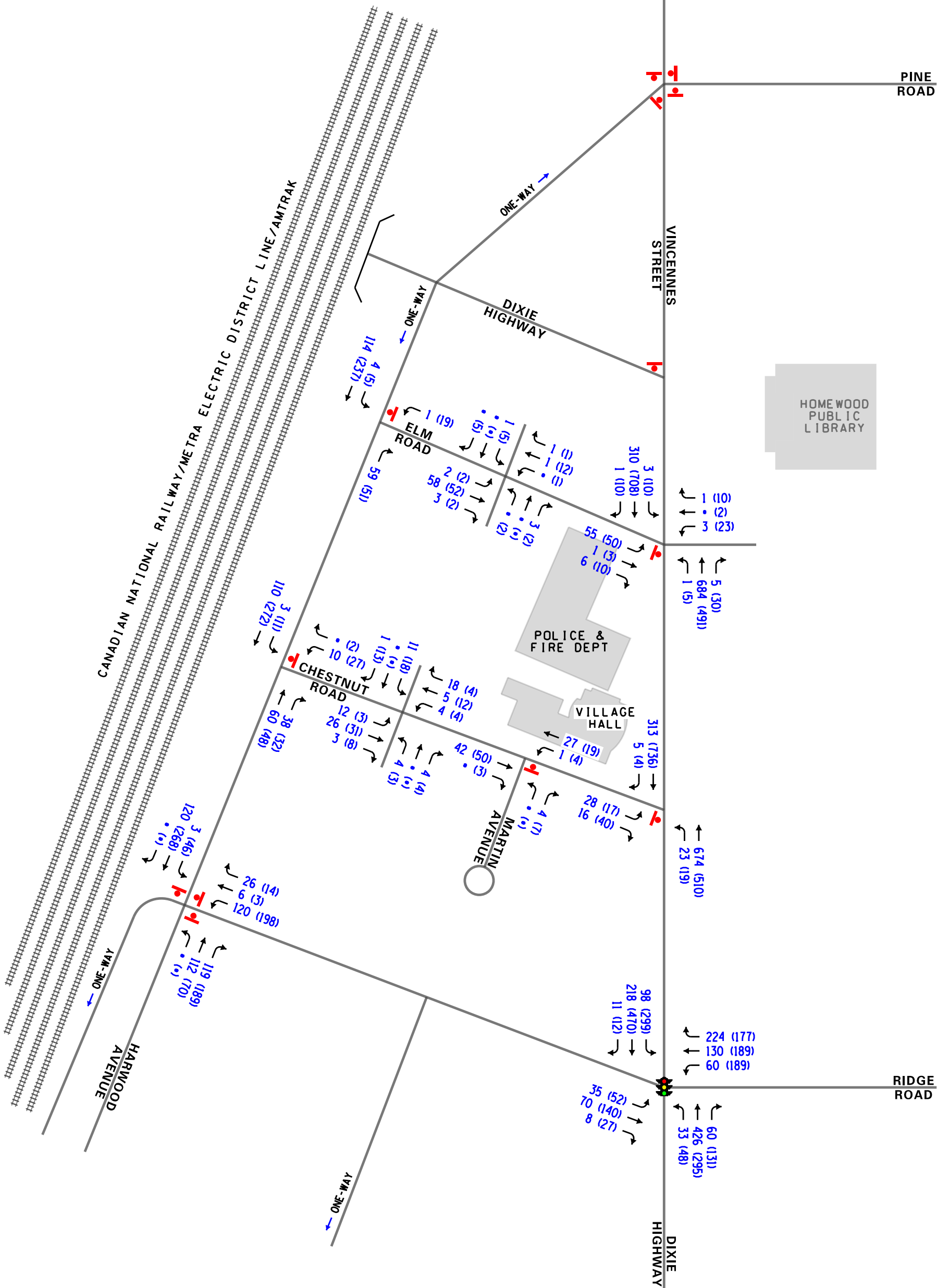
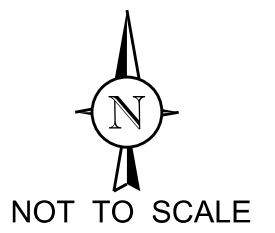
The ability of an intersection to accommodate traffic flow is expressed in terms of level of service, which is a qualitative term developed to express intersection operating conditions. Alpha designations from A to F are assigned based on the average control delay experienced by vehicles passing through the intersection. Control delay is that portion of the total delay attributed to the stop control operation, and includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay until resumption of free flow speed. Level of Service A is the highest grade (best traffic flow, least delays), Level of Service E represents saturated or at-capacity conditions, and Level of Service F is the lowest grade (oversaturated conditions, extensive delays). Typically, Level of Service D is the lowest acceptable grade for peak-hour conditions in a suburban environment such as Homewood.

For signal-controlled intersections, levels of service are calculated for lane groups, intersection approaches, and the intersection as a whole. For all-way stop controlled (AWSC) intersections, an intersection level of service is calculated based on the weighted average of the delay on each of the approaches (the approach delay consists of the weighted average of the delay on each lane of the approach). For one-way or two-way stop-controlled intersections, levels of service are only calculated for the approaches controlled by a stop sign (not for the intersection as a whole). Level of Service F at TWSC intersections occurs when there are not enough suitable gaps in the flow of traffic on the major (uncontrolled) street to allow minor-street traffic to safely cross or enter the major street flow.

The *Highway Capacity Manual* criteria for levels of service and the corresponding control delay for signalized and unsignalized intersections are included in the Appendix of this report.

Table 8 summarizes the results of the traffic analysis for the existing weekday peak hour conditions. The traffic analysis worksheets are included in the Appendix.

- LEGEND**
- 00 - WEEKDAY AM PEAK HOUR (7:15-8:15 AM)
 - (00) - WEEKDAY PM PEAK HOUR (5:00-6:00 PM)
 - * - MINIMAL VOLUME (< 5 VEHICLES)



VILLAGE HALL
PARKING LOT
REPLACEMENT STUDY
HOMEWOOD, ILLINOIS

EXISTING TRAFFIC VOLUMES

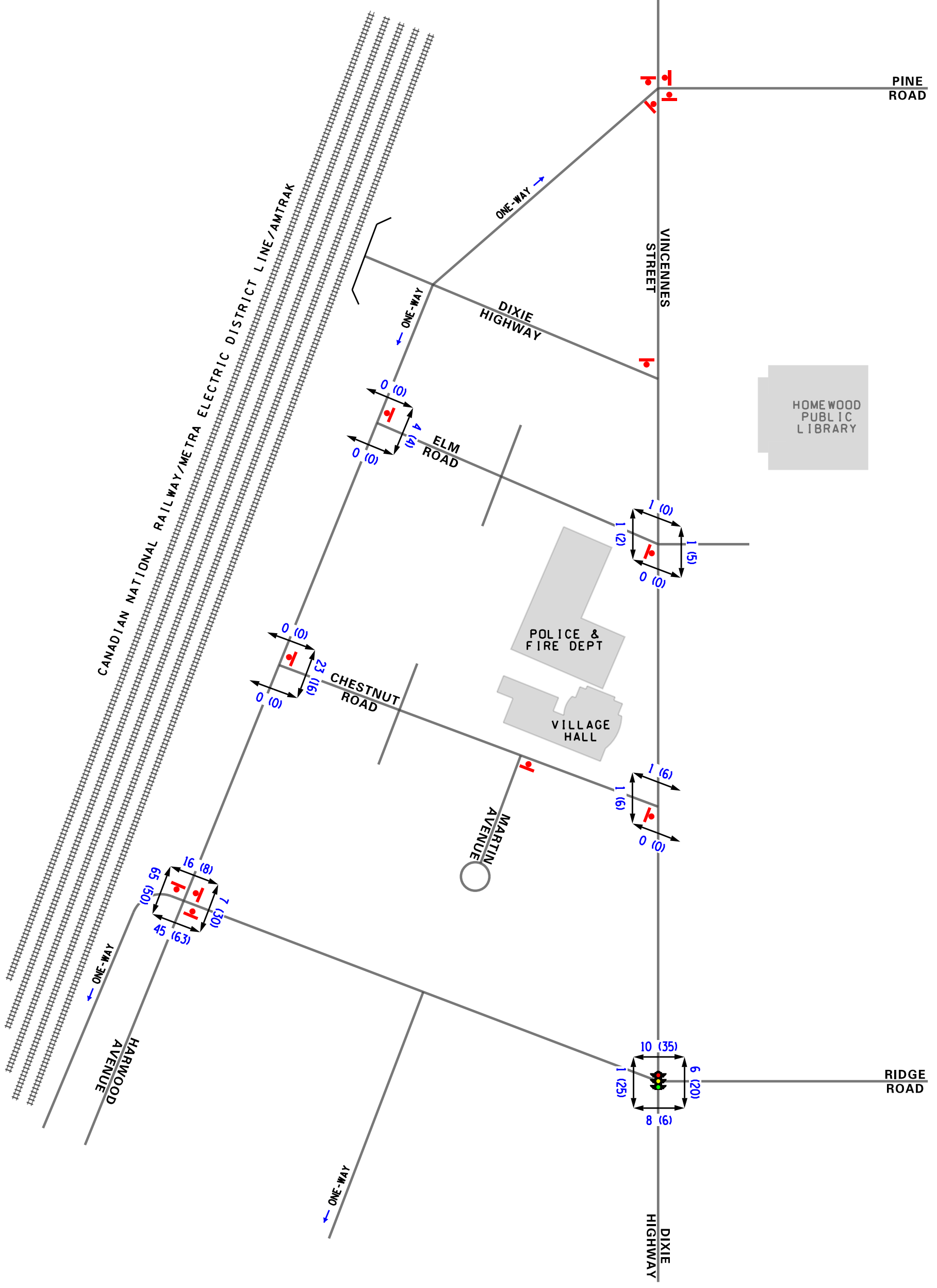




NOT TO SCALE

LEGEND

- 00 - WEEKDAY AM PEAK HOUR (7:15-8:15 AM)
- (00) - WEEKDAY PM PEAK HOUR (5:00-6:00 PM)
- ← 00 (00) → - PEDESTRIAN VOLUME



VILLAGE HALL
PARKING LOT
REPLACEMENT STUDY
HOMEWOOD, ILLINOIS

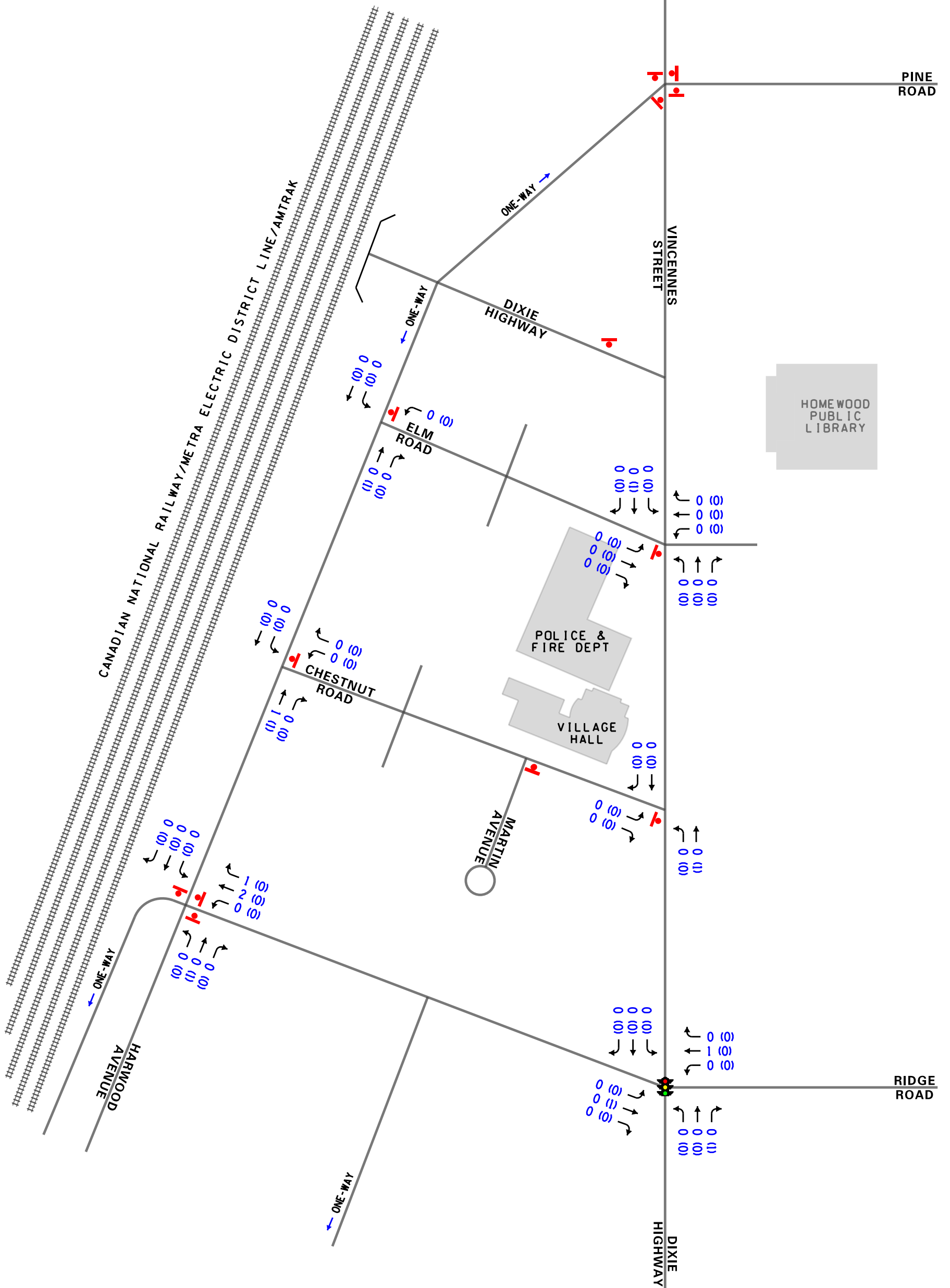
EXISTING PEDESTRIAN VOLUMES

KLOA
Kenig, Lindgren, O'Hara, Aboona, Inc.

- LEGEND**
- 00 - WEEKDAY AM PEAK HOUR (7:15-8:15 AM)
 - (00) - WEEKDAY PM PEAK HOUR (5:00-6:00 PM)



NOT TO SCALE



VILLAGE HALL
PARKING LOT
REPLACEMENT STUDY
HOMEWOOD, ILLINOIS

EXISTING BICYCLE VOLUMES

KLOA
Kenig, Lindgren, O'Hara, Aboona, Inc.
Job No: 18-202 Figure: 16

Table 8
TRAFFIC ANALYSIS RESULTS – EXISTING CONDITIONS

Intersection / Approach	Weekday AM Peak Hour		Weekday PM Peak Hour	
	LOS	Delay	LOS	Delay
Dixie Highway / Ridge Road¹				
• Overall	C	27.8	C	30.4
• Northbound Dixie Highway	C	28.1	C	32.4
• Southbound Dixie Highway	B	14.9	C	28.3
• Eastbound Ridge Road	D	37.8	D	45.3
• Westbound Ridge Road	C	34.9	C	25.7
Dixie Highway / Elm Road / Library Drive²				
• Eastbound Elm Road	D	30.7	F	52.8
• Westbound Library Drive	C	21.8	D	34.8
Dixie Highway / Chestnut Road²				
• Eastbound Chestnut Road	C	20.8	C	23.8
• Northbound Dixie Highway Left-Turn	A	8.0	A	9.5
Harwood Avenue / Elm Road²				
• Westbound Elm Road	A	9.3	B	10.2
Harwood Avenue / Chestnut Road²				
• Westbound Chestnut Road	B	10.0	B	11.6
Harwood Avenue / Ridge Road²				
• Overall	A	8.9	B	11.0
• Northbound Harwood Avenue	A	8.9	A	9.9
• Southbound Harwood Avenue	A	8.5	B	11.7
• Westbound Ridge Road	A	9.2	B	11.2
Martin Avenue / Chestnut Road²				
• Northbound Martin Avenue	A	8.6	A	8.6
LOS = Level of Service Delay is measured in seconds ¹ Signalized Intersection ² Unsignalized Intersection				

A discussion of the capacity analysis results follows for the study area intersections.

Dixie Highway / Ridge Road

The traffic analysis for the signalized intersection of Dixie Highway and Ridge Road indicates that the intersection presently operates at a satisfactory level of service (LOS) C overall during the weekday morning and evening peak hours. Further, all movements through the intersection operate at level of service D or better.

Dixie Highway / Elm Road / Library Drive

The Elm Road and Library Drive approaches to Dixie Highway presently operate at LOS D or better during the morning peak hour under stop control. During the evening peak hour, the Library drive operates at LOS D but the Elm Road approach experiences more delay and operates at LOS F due to higher traffic volumes on Dixie Highway, higher left-turning volumes from the opposing Library drive, and the stop control on Elm Road.

Dixie Highway / Chestnut Road

The Chestnut Road approach to Dixie Highway presently operates at a satisfactory LOS C during the morning and evening peak hours under stop control.

Harwood Avenue / Elm Road

The Elm Road approach to Harwood Avenue presently operates at a very good LOS A and B during the weekday morning and evening peak hours, respectively, under stop control.

Harwood Avenue / Chestnut Road

The Chestnut Road approach to Harwood Avenue presently operates at a good LOS B during the weekday morning and evening peak hours under stop control.

Harwood Avenue / Ridge Road

The traffic analysis for the all-way stop-controlled intersection of Harwood Avenue and Ridge Road indicates that the intersection presently operates at a very good LOS A and B overall during the weekday morning and evening peak hours, respectively. Further, all approaches at the intersection that are under stop control also presently operate at LOS A or B during the peak hours.

Martin Avenue / Chestnut Road

The Martin Avenue approach to Chestnut Road presently operates at a very good LOS A during the weekday morning and evening peak hours under stop control.

Public Transportation

The study area is served by Amtrak, Metra and Pace transit services. The Amtrak passenger rail service is provided at the Homewood train station at 18015 Park Avenue. The station receives one northbound and one southbound stop daily on the Saluki, Illini and City of New Orleans routes. Parking for the station is provided in the South Suburban Mass Transit District's (SSMTD) Park Avenue commuter lot.

Metra commuter rail service is provided at the Homewood Metra station at Ridge Road and Harwood Avenue. The station is served by the Metra Electric (ME) District Line, which connects University Park with Chicago's Millennium Park station. The ME Line offers 28 northbound trips from Homewood and 26 southbound trips each weekday, and 20 northbound and southbound trips each Saturday and Sunday. Parking for the station is provided in the SSMTD's Harwood Avenue and Park Avenue commuter lots as well as in the Village Hall lot.

Pace suburban bus operates three fixed bus routes through the study area.

- *Route 356 (Harvey-Homewood-Tinley Park)* – Provides daily service between the Pace Harvey Transportation Center and DeVry University in Tinley Park. Stops are located at the Homewood Metra Station and at Dixie Highway/Ridge Road.
- *Route 359 (Robbins-S. Kedzie Ave.)* – Provides weekday service between the Homewood Metra Station and the CTA Red Line Station in Chicago at 95th Street/Dan Ryan Expressway. The only area stop is at the Homewood Metra Station.
- *Route 372 (Dixie Highway)* – Provides weekday service between the Homewood Metra Station and Pace Chicago Heights terminal. The only area stop is at the Homewood Metra Station.

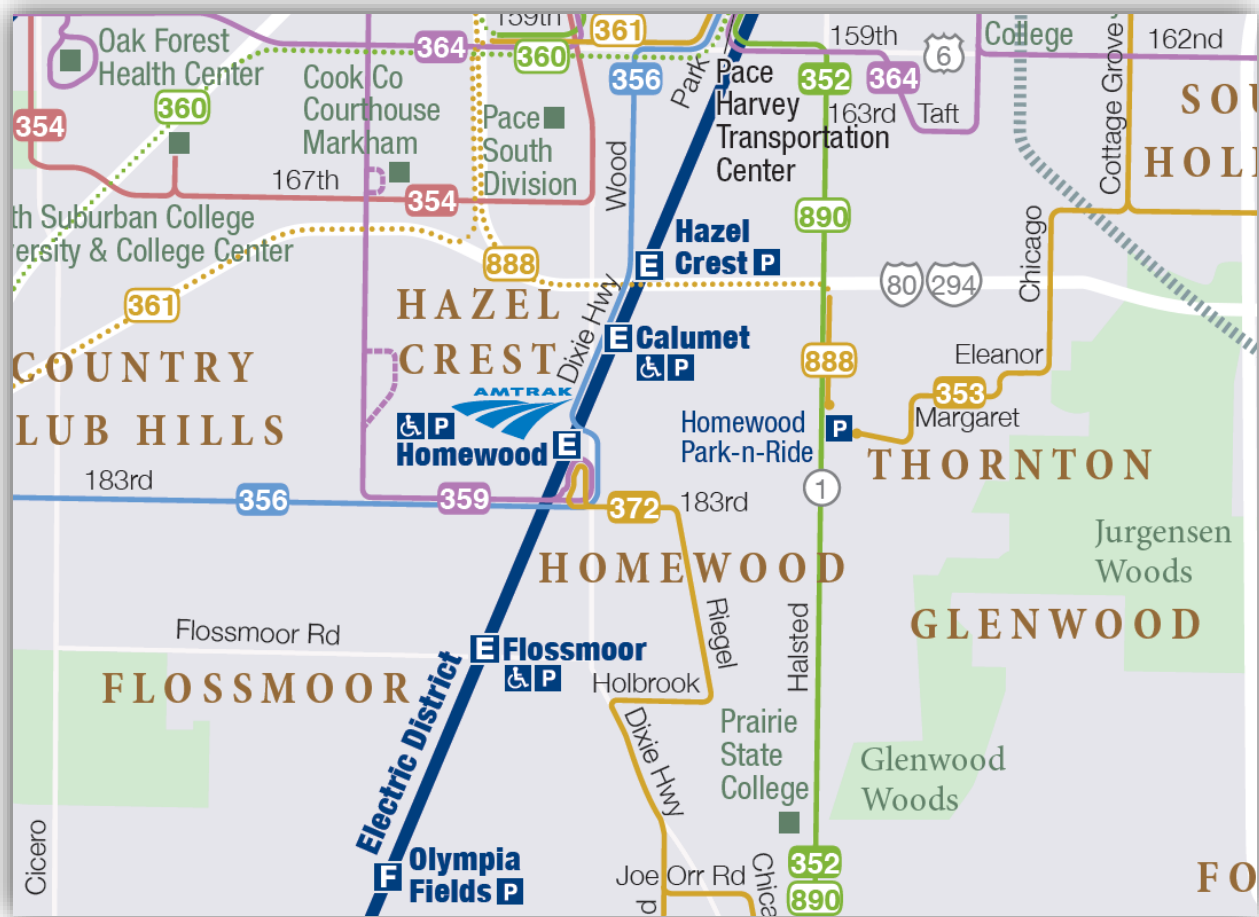


Figure 17 Public Transportation System

5. Projected Parking Supply & Demand

The projected future parking conditions in the study area were analyzed based on potential changes in the off-street public parking supply by anticipated development projects, and by potential changes in parking demand from the interior conversion of the Homewood-Flossmoor Park District Auditorium into a performing arts center.

Planned Development Projects

There are four development proposals within or to the south of the study area that are in various stages of planning and were considered in this study.

Townhome Development on Village Hall Parking Lot Site

Plans prepared by Fitzgerald Architects (see Appendix) depict a 24-unit townhome development encompassing the southern two-thirds of the Village Hall parking lot, resulting in the elimination of approximately 97 parking spaces or 72 percent of the lot capacity. The northern third of the parking lot will remain and continue to be used for municipal vehicles as it contains a subsurface geothermal field that generates energy for Village Hall and the Police and Fire departments. The development plan also extends into the public right-of-way, effectively narrowing Harwood Avenue to approximately 21 feet wide between Elm Road and Chestnut Road.

18225 Dixie Highway Mixed-Use Development

Steinmarch Development Corporation has plans for a 9,600 square-foot mixed-use development on the site of the shuttered Bogart's Charhouse restaurant. The concept includes a two-story building with a restaurant on the ground floor and five apartment units on the second floor (see Appendix).

18136 Dixie Highway Mixed-Use Development

The Village has issued a Request for Proposals (RFP) for a mixed-use development on the site of the Dixie Highway public parking lot, which was the former site of the Savoia T'Go restaurant. The concept developed by Steinmarch Development Corporation consists of 24 residential units and a ground floor restaurant. The development would displace 30 public parking spaces.

Performing Arts Center

The Village is considering renovating the Homewood-Flossmoor Park District Auditorium adjoining Village Hall into a performing arts center. The facility is currently used by the Park District for sports programs and day camps, and as the main stage for the it's community theatre productions. As a performing arts center it could potentially house the Illinois Philharmonic, a multipurpose live theatre similar to the Arcada Theatre in St. Charles, and local theatre by high school groups and Park District programs. A seating capacity of 900 seats is envisioned.



H-F Park District Auditorium

Projected Parking Supply

Table 9 summarizes the potential near-term changes in the public parking supply within the study area upon completion of these development projects. As shown, the public parking supply in the study area would be reduced by 127 spaces (27%) from 474 spaces to 347 spaces, due to the elimination of the Dixie Highway lot and 97 parking spaces in the Village Hall lot. The 1,049-space private parking supply included in the inventory would not change.

Table 9
PROJECTED PARKING SUPPLY

Condition	Off-Street Lots (Public)	Off-Street Lots (Private)	On-Street Spaces (Public)	Total
Existing	260	1,049	214	1,523
Projected	<u>133</u>	<u>1,049</u>	<u>214</u>	<u>1,396</u>
Net Change	(127)	0	0	(127)

Projected Parking Demand

The two mixed-use development projects and the townhome development on the Village Hall parking lot site will provide for their own on-site parking and will not increase demand for public parking in the area, although the townhome development may make periodic use of street parking for visitors. Thus, the increased demand for parking in the study area will be due to the parking displaced from the Village Hall lot and the parking needed by patrons, performers and staff for events at the performing arts center.

Village Hall Lot Parking Demand Displacement

The Village Hall lot currently provides parking for 73 non-permit users during the week, including Village Hall staff, Public Safety vehicles, seniors, visitors and those in need of accessible parking. Upon completion of the townhome development, the parking capacity of the Village Hall lot will be reduced to 40 spaces, located at the north end of the lot above the geothermal field. The accessible parking requirement for this smaller lot will be two spaces rather than the current five-space requirement for the 137-space lot. That would leave a non-permit parking deficit of 30 spaces. ***Since the Village is under no obligation to replace the permit parking spaces eliminated in the Village Hall lot, there would be a need to replace a minimum of 30 parking spaces off-site to accommodate the Village Hall parking demand on weekdays.*** While the current peak utilization of the non-permit spaces is not at 100 percent of capacity, it is still high at 86 percent of capacity, and thus a minimum parking replacement value of 30 spaces was used to maintain a margin for parking efficiency and to reduce circulation.

Of the 40 spaces that will remain in the Village Hall lot, it is assumed that 16 spaces will continue to be reserved for Public Safety vehicles, two spaces will continue to be reserved for seniors, and two of the accessible spaces will remain to comply with the Illinois Accessibility Code. The remaining 20 spaces in the lot could then be reserved for some combination of Village Hall staff and visitors, and the additional 30 spaces needed for staff and visitors could be secured off-site.

If the Village chooses to replace the 64 permit spaces currently provided in the Village Hall lot, up to 94 parking spaces would need to be secured off-site.

Performing Arts Center (PAC) Parking Demand

National parking demand data for live theatres was reviewed, as contained in *Parking Generation*, 4th Edition, published by the Institute of Transportation Engineers. While the number of theatre sites surveyed is limited, the data correlates with other published parking information on live performance events and indicates a peak parking demand of approximately *0.32 spaces/seat*. This parking ratio would result in a peak parking demand of 288 spaces for a capacity-event at the 900-seat PAC.

Parking Analysis

The projected parking supply was compared with the projected peak parking demand for a weekday court day and non-court day, a weekday evening, a Saturday event-day and non-event day, and a Saturday event-day evening. The results are shown in **Table 10** for the scenario in which the permit parking spaces in the Village Hall lot are not replaced, and in **Table 11** for the scenario in which the permit parking spaces in the Village Hall lot are replaced.

Table 10 shows that the total combined parking supply in the study area (public and private) is adequate during all time periods to accommodate the 30 Village Hall spaces displaced from the Village Hall lot and a peak event at the performing arts center. When focusing on the public parking supply only, there would be adequate parking available on weekdays to meet the projected peak demand, but a shortage of public parking on Saturdays (event day or non-event day) ranging from 167-207 spaces to meet the potential need for a capacity event at the performing arts center.

Table 11 shows that the total combined parking supply in the study area (public and private) is adequate during all time periods to accommodate the 30 Village Hall spaces and 64 permit spaces displaced from the Village Hall lot as well as a peak event at the performing arts center. When focusing on the public parking supply only, there would again be adequate public parking available on weekdays to meet the projected peak demand, but a shortage of public parking on Saturdays (event day or non-event day) ranging from 167-207 spaces to meet the potential need for a capacity event at the performing arts center.

Table 10

PROJECTED PARKING SUPPLY-DEMAND ANALYSIS (PERMIT PARKING NOT REPLACED)

	Projected Supply	Projected Demand¹	Surplus (Shortage)
<u>Public & Private Parking Capacity</u>			
Monday Court Day 11:00 AM	1,396	800	596
Thursday Non-Court Day 1:00 PM	1,396	838	558
Thursday Non-Court Day 6:00 PM	1,396	533	863
Saturday Non-Event Day 12:00 PM	1,396	711	685
Saturday Event Day 2:00 PM	1,396	780	616
Saturday Event Day 7:00 PM	1,396	655	741
<u>Public Parking Capacity</u>			
Monday Court Day 11:00 AM	347	233	114
Thursday Non-Court Day 1:00 PM	347	266	81
Thursday Non-Court Day 6:00 PM	347	238	109
Saturday Non-Event Day 12:00 PM	347	514	(167)
Saturday Event Day 2:00 PM	347	554	(207)
Saturday Event Day 7:00 PM	347	336	11
¹ Projected weekday demand reflects existing demand + demand from displaced 30 non-permit spaces from Village Hall lot. Projected weekday evening and Saturday demand reflects existing demand + 288 space demand from PAC event.			

Table 11

PROJECTED PARKING SUPPLY-DEMAND ANALYSIS (PERMIT PARKING REPLACED)

	Projected Supply	Projected Demand ²	Surplus (Shortage)
<u>Public & Private Parking Capacity</u>			
Monday Court Day 11:00 AM	1,396	864	532
Thursday Non-Court Day 1:00 PM	1,396	902	494
Thursday Non-Court Day 6:00 PM	1,396	597	799
Saturday Non-Event Day 12:00 PM	1,396	711	685
Saturday Event Day 2:00 PM	1,396	780	616
Saturday Event Day 7:00 PM	1,396	655	741
<u>Public Parking Capacity</u>			
Monday Court Day 11:00 AM	347	297	50
Thursday Non-Court Day 1:00 PM	347	330	17
Thursday Non-Court Day 6:00 PM	347	302	45
Saturday Non-Event Day 12:00 PM	347	514	(167)
Saturday Event Day 2:00 PM	347	554	(207)
Saturday Event Day 7:00 PM	347	336	11
² Projected weekday demand reflects existing demand + demand from displaced 30 non-permit spaces & 64 permit spaces from Village Hall lot. Projected weekday evening and Saturday demand reflects existing demand + 288 space demand from PAC event.			

6. Potential Parking Replacement Options

The parking analysis in Chapter 5 indicated that there is an adequate public parking supply in the study area on weekdays to accommodate the displacement of the 30 Village Hall staff/visitors and 64 Village Hall lot permit holders (if desired). There would also be an adequate supply of public parking to accommodate a capacity event at the PAC on a weekday evening and a Saturday evening, just not on a Saturday afternoon, event-day or non-event day.

It should be noted, however, that the public spaces remaining to meet this parking need are either located south of Ridge Road, two- to three blocks south of Village Hall/PAC, or along the public streets in the study area.

As such, several options have been developed to replace the 30 Village Hall staff/visitor spaces displaced from the Village Hall lot closer to Village Hall, as well as accommodate parking for a capacity event at closer to the PAC. There is less of a need to locate the 64 permit spaces closer to Village Hall as these may be Metra commuters or downtown employees for which parking closer to Ridge Road may be less of an inconvenience.

Option 1 – Utilize Public Street Parking

The parking surveys indicated a relatively low demand for street parking on weekdays along Elm Road, Chestnut Road, and Dixie Highway (Vincennes-Chestnut). On the court-day and non-court days, a combined total of over 40 parking spaces were empty on these blocks at the peak times. Consideration could be given to temporarily using these spaces for the 30 Village Hall staff/visitor spaces displaced from the Village Hall lot, until a more permanent replacement location is found. The 3-Hour time regulations (9A-5P, M-SAT) would need to be modified accordingly.

Option 2 – Lease or Acquire Private Parking

There are two large parking lots within a block of Village Hall, including the SSMTD Harwood Avenue commuter lot (120 spaces) and the St. Joseph School lot (124 spaces).

SSMTD Harwood Avenue lot. The weekday parking surveys indicated that 26 spaces were empty in this lot at peak utilization while the Saturday parking surveys indicated minimal use of the lot (less than 5 spaces). The 26 spaces may be available for lease during the week for Village Hall staff, which would accommodate most of the 30-space need. The remaining four spaces could be reserved on the street near Village Hall. Alternatively, the Village could approach the SSMTD about acquiring the lot. This would give the Village flexibility to use the lot for commuter parking and some Village Hall staff parking on weekdays while offering parking on weekday evenings and weekends for downtown activities and events at the PAC. The lot in its current form would only accommodate 42 percent of the parking needed for a capacity performance and most of the Village Hall staff parking needed. Additional parking would still be needed for the PAC. The Downtown Master Plan identifies this lot as the recommended site for a public parking deck, which could more than double the parking capacity on the site and accommodate all of the 30 Village Hall staff plus the 64 permit spaces

displaced from the Village Hall lot. Further, the deck would accommodate more than 80 percent of the parking need for a capacity event at the PAC. The remaining 40-50 parking spaces needed for the PAC would be available in the Village Hall lot and/or along Elm Road, Chestnut Road, Dixie Highway and Martin Avenue.

St. Joseph School lot. The weekday parking surveys indicated that less than 9 percent of the parking spaces in the St. Joseph School lot were utilized during the business day, leaving at least 113 parking spaces empty. This lot is located across Dixie Highway from Village Hall and would be a convenient replacement location for the 30 Village Hall staff/visitor spaces needed, and possibly the 64 permit spaces as well, if the spaces can be leased from St. Joseph Church at a rate lower than the permit cost, or an agreement can be reached to use the spaces without a lease. The lot, which is currently used for events at the Park District Auditorium, would also accommodate 43 percent of the parking need for a capacity event at the PAC.

Use of both SSMTD and St. Joseph School lots would accommodate 85 percent of the parking needed for a capacity event at the PAC. The remaining 40-50 parking spaces needed for the PAC would be available in the Village Hall lot and/or along Elm Road, Chestnut Road, Dixie Highway and Martin Avenue.

Option 3 – Develop a Parking Lane on Harwood Avenue

Harwood Avenue is a 30-foot wide roadway between Elm Road and Ridge Road with marked shared lanes and parking prohibited on both sides of the road. The road would be narrowed by the townhome plan to approximately 21 feet between Elm and Chestnut. However, between Chestnut and Ridge, the road could be re-channelized to permit parallel parking along the west side. Approximately 10 spaces could be created, as shown in **Figure 18**, which would accommodate one-third of the 30 spaces needed. The remaining 20 spaces could be reserved on the street near Village Hall, with the 3-Hour time regulations (9A-5P, M-SAT) modified accordingly. The marked shared lanes could still remain under this scenario as traffic volumes and speeds on Harwood Avenue allow for shared use.

Option 4 – Close Chestnut Road at Dixie Highway

The intent of this option is not as much to create a parking solution but rather to create a pedestrian plaza in the Chestnut Road right-of-way between the Village Hall/PAC and Homewood Science Center, as shown in **Figure 19**. While traffic would continue to access Martin Avenue from Chestnut Road to and from the west of Martin, this option has more traffic implications than parking implications. This option would result in the loss of five street parking spaces along Chestnut Road and would need to be combined with one of the other parking options.

Option 5 – Convert Elm and Chestnut to One-Way Counterclockwise Couplet

The intent of this option is to reduce traffic conflicts around the Village Hall/PAC block while increasing the street parking capacity. The conversion of Elm Road to one-way westbound flow between Dixie Highway and Harwood Avenue would add five parallel parking spaces on the south side of the street, as shown in **Figure 20**. Figure 20 also shows that the conversion of Chestnut Road to one-way eastbound flow between Dixie Highway and Harwood Avenue would add two

parking spaces by converting the parking on the south side of the street to angle parking and removing the parking on the north side of the street. The one-way circulation pattern on these two streets would necessitate the conversion of the one block segment of Harwood Avenue between Elm Road and Chestnut Road to one-way southbound movement, which would allow for the addition of 12 parallel parking spaces along the east side of the street. The net gain from the conversion of the three streets is 19 parking spaces. This option would lessen the impact of using street parking for Village Hall staff/visitors and add spaces during weekday evenings and Saturdays for PAC events. This option could also be combined with Option 3 to further increase parking on Harwood Avenue by an additional 10 spaces. The new Harwood Avenue spaces alone (22 spaces) could accommodate 34 percent of the permit spaces eliminated from the Village Hall lot.

Option 6 – Convert Elm and Chestnut to One-Way Clockwise Couplet

The intent of this option is also to reduce traffic conflicts around the Village Hall/PAC block while increasing the street parking capacity. The conversion of Elm Road to one-way eastbound flow between Dixie Highway and Harwood Avenue would add five parking spaces by adding angle parking on the south side of the street and removing the angle and parallel parking on the north side of the street, as shown in **Figure 21**. Figure 21 also shows that the conversion of Chestnut Road to one-way westbound flow between Dixie Highway and Harwood Avenue would add five parking spaces by converting the parallel parking on the north side of the street to angle parking and removing the parallel parking on the south side of the street. The net gain from the conversion of both streets is 10 parking spaces. This option would lessen the impact of using street parking for Village Hall staff/visitors and add a few spaces during weekday evenings and Saturdays for PAC events.

Table 12 summarizing parking changes from each option.



N
SCALE: 1" = 150'

Village Hall Parking Lot
Replacement Study
Homewood, Illinois

Option 3
Harwood Avenue Parking Lane
(Elm Road - Ridge Road)

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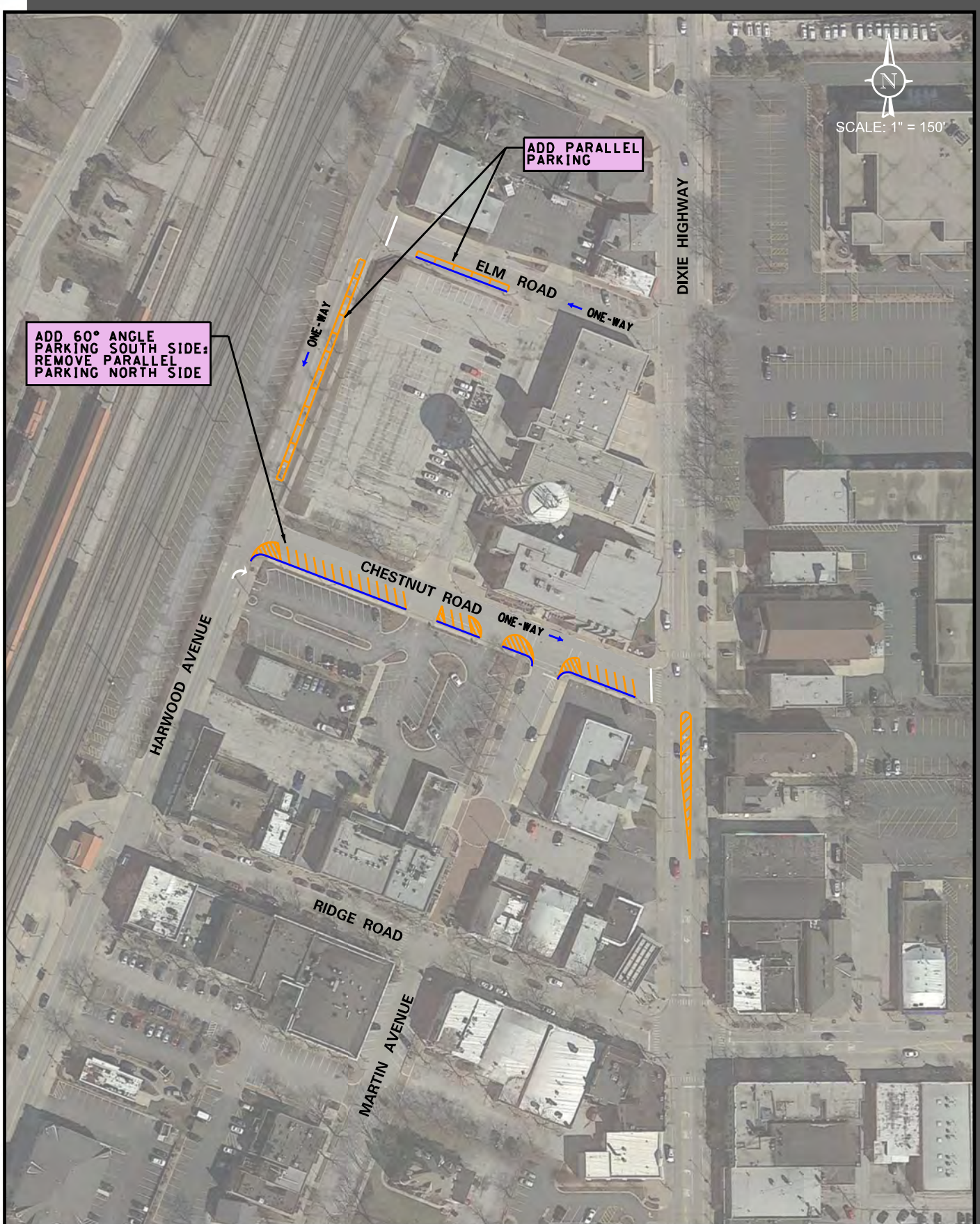


N
SCALE: 1" = 150'

Village Hall Parking Lot
Replacement Study
Homewood, Illinois

Option 4
Chestnut Road Closure
(Martin Avenue - Dixie Highway)

KLOA
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Job No: 18-202 Figure: 19



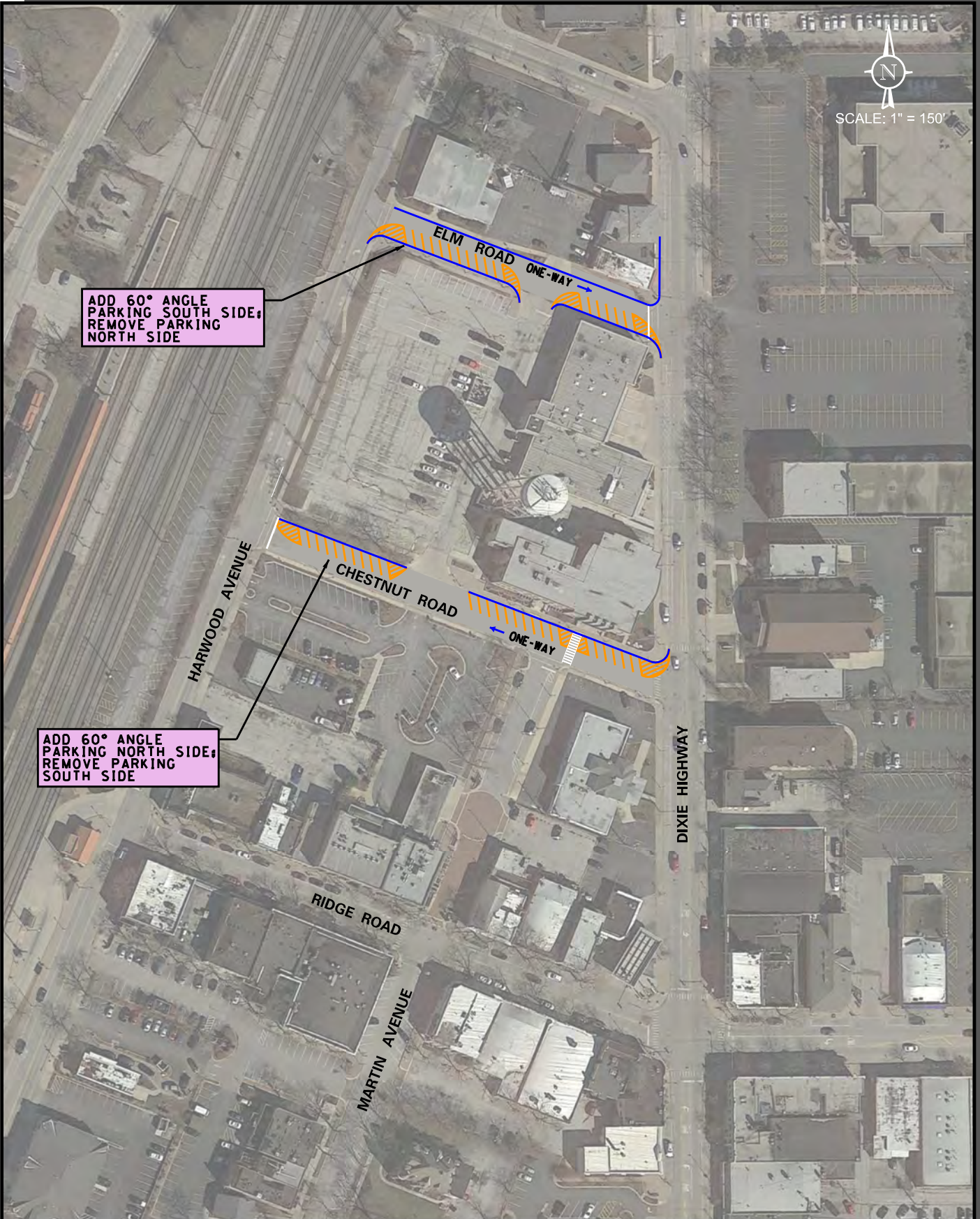
Village Hall Parking Lot
Replacement Study
Homewood, Illinois

Option 5
One-Way Couplet Conversion
Elm Road Westbound; Chestnut Road Eastbound

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Job No: 18-202 Figure: 20



SCALE: 1" = 150'



ADD 60° ANGLE PARKING SOUTH SIDE; REMOVE PARKING NORTH SIDE

ADD 60° ANGLE PARKING NORTH SIDE; REMOVE PARKING SOUTH SIDE

Village Hall Parking Lot Replacement Study
Homewood, Illinois

Option 6
One-Way Couplet Conversion
Elm Road Eastbound; Chestnut Road Westbound

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Job No: 18-202 Figure: 21

Table 12
SUMMARY OF PARKING OPTIONS & NEED

Parking Option	Public Parking Gain/(Loss)	Comments
1. Utilize Public Street Parking	0	40 spaces available at peak times on streets surrounding Village Hall (VH) block.
2a. Lease or Acquire Private Parking	26 - 124	St. Joseph Lot (Lease) or SSMTD Harwood Lot (Lease or Acquire). Provides more convenient off-street parking north of Ridge. Avoids use of street parking. One lot meets weekday parking need and up to 43% of PAC need. Both lots combined meet 85% of PAC need.
2b. SSMTD Harwood Lot Deck	240+	Meets weekday parking need and 84% or more of PAC need.
3. Harwood Ave Parking Lane	10	Alone these spaces meet 33% of parking need for VH staff/visitors or 16% of lost permit parking.
4. Close Chestnut Rd at Dixie Hwy	(5)	Would be combined with another parking option.
5. Convert Elm Rd and Chestnut Rd to One-Way Counterclockwise Couplet	19	Alone these spaces meet 63% of parking need for VH staff/visitors. If combined with Option 4, meets 97% of parking need for VH staff/visitors or 45% of lost permit parking.
6. Convert Elm Rd and Chestnut Rd to One-Way Clockwise Couplet	10	Alone these spaces meet 33% of parking need for VH staff/visitors.
Parking Period	Off-Site Spaces Needed	User Group
Weekdays (Business Hours)	30	Village Hall staff/visitors
Weekdays (Business Hours)	64	Parking Permit Holders
Weekday Evenings & Saturdays	268	Performing Arts Center

7. Projected Traffic Conditions

Traffic conditions were projected under the various parking replacement options to evaluate the implications of the options on street traffic operations during the weekday morning and evening peak hour periods. The traffic projections reflect the reassignment of a portion of the traffic currently parking in the Village Hall lot to the St. Joseph School lot, which was assumed to be available for use based on current use of the lot for events at the Park District Auditorium, as well as the assignment of traffic estimated to be generated by the four planned development projects included in this study. The calculation of the projected traffic conditions under each parking replacement are discussed in this chapter, as is the resulting weekday peak hour traffic operations at the study area intersections.

Estimated Site Traffic Generation

The volume of traffic generated by a development is based on the type of land use, density, and mode choice of development residents, visitors, employees and patrons. The number of weekday peak hour vehicle trips estimated to be generated by the four planned developments in the study area are shown in **Table 13** and were based on vehicle trip generation rates contained in the *Trip Generation Manual*, 10th Edition, published by the Institute of Transportation Engineers (ITE). The ITE data on performing arts centers is very limited. As such, the trip generation for the PAC was based on seating for a capacity event, the parking demand factor of 0.32 spaces/seat, and additional trips for drop-off/pick-up based on other traffic studies prepared by KLOA, Inc. To maintain a conservative analysis, it was assumed that all trips generated by the developments were by automobile.

Table 13

ESTIMATED TRAFFIC GENERATION BY PLANNED DEVELOPMENTS

Development	Land Use/ Density	ITE Land Use Code ¹	Weekday AM Peak Hour			Weekday PM Peak Hour		
			In	Out	Total	In	Out	Total
Village Hall Lot Townhomes	24 THs	220	3	9	12	10	7	17
18225 Dixie Hwy Mixed-Use	5 apts	220	0	2	2	3	0	3
	9,600 sf restaurant	931	4	3	7	50	25	75
18136 Dixie Hwy Mixed-Use	10 apts	220	0	4	4	6	0	6
	9,600 sf restaurant	931	4	3	7	50	25	75
Performing Arts Center	900 seats	n/a	0	0	0	338	0	338
TOTAL			11	21	32	457	57	514

¹ *Trip Generation Manual*, 10th Edition, published by the Institute of Transportation Engineers (ITE).

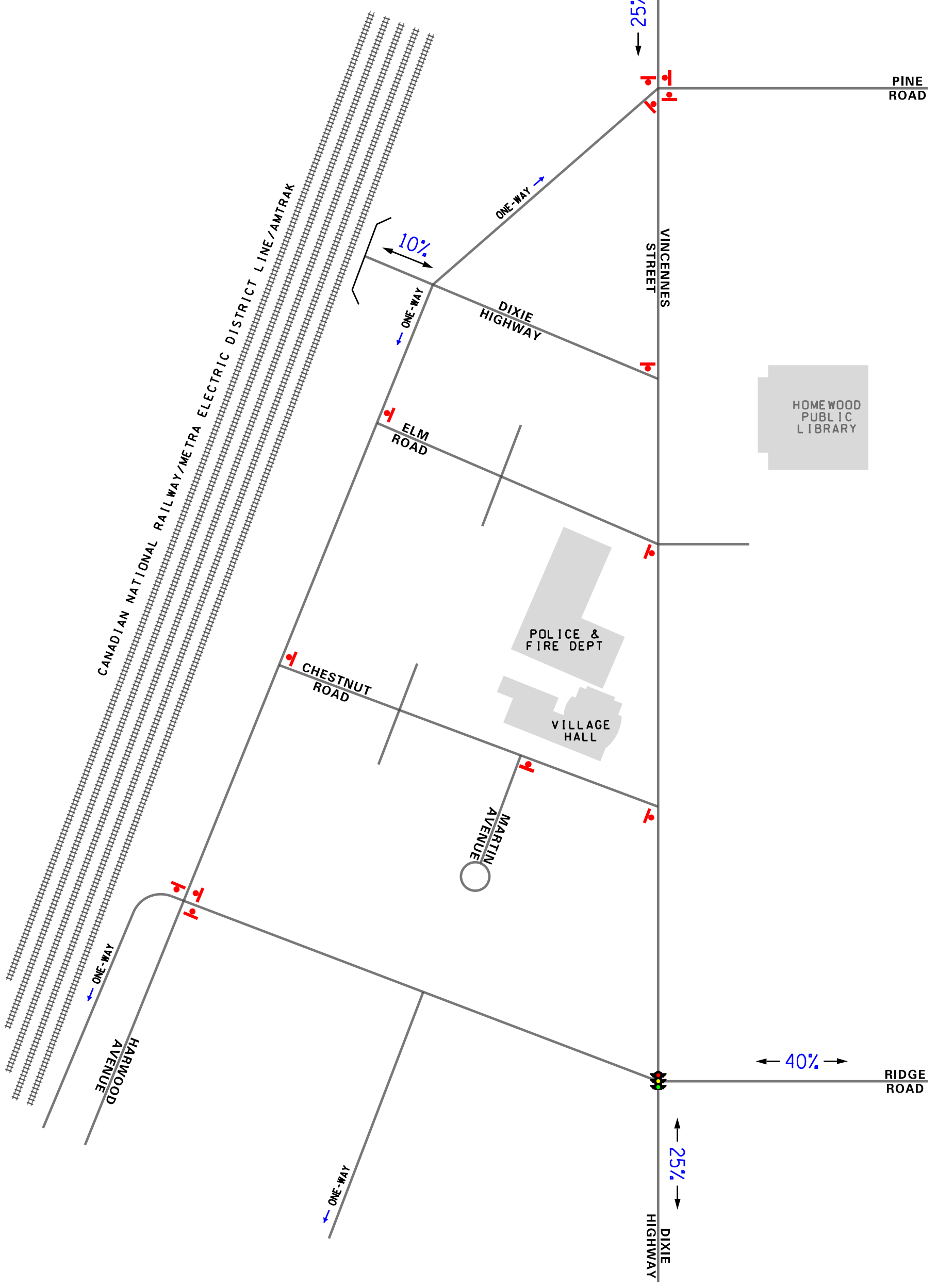
Directional Distribution

The directions from which traffic will approach and depart the downtown area was estimated based on the major roadway system, location of regional highways, commercial market area, and existing travel patterns as determined from the traffic counts. **Figure 22** illustrates the estimated directional distribution for the planned developments.

- LEGEND**
- 00 - WEEKDAY AM PEAK HOUR (7:15-8:15 AM)
 - (00) - WEEKDAY PM PEAK HOUR (5:00-6:00 PM)



NOT TO SCALE



VILLAGE HALL
PARKING LOT
REPLACEMENT STUDY
HOMEWOOD, ILLINOIS

ESTIMATED DIRECTIONAL DISTRIBUTION

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Projected Traffic Volumes – Options 1, 2 and 3

The projected weekday peak hour traffic conditions under these three parking options are very similar as they make use of the roadway system in its current configuration, with the exception of a parking lane on Harwood Avenue under Option 3. The projected weekday peak hour traffic volumes under these options are shown in **Figure 23**. These options all reflect (1) the reassignment of a portion of the Village Hall lot traffic to the St. Joseph School lot, and (2) the assignment of traffic generated by the four planned developments.

Projected Traffic Volumes – Option 4

The projected weekday peak hour traffic conditions under Option 4 is shown in **Figure 24** and reflects (1) the reassignment of traffic resulting from the proposed closure of Chestnut Road between Dixie Highway and Martin Avenue, (2) the reassignment of a portion of the Village Hall lot traffic to the St. Joseph School lot, and (3) the assignment of traffic generated by the four planned developments.

Projected Traffic Volumes – Option 5

The projected weekday peak hour traffic conditions under Option 5 is shown in **Figure 25** and reflects (1) the reassignment of traffic resulting from the conversion of Elm Road and Chestnut Road to a one-way counterclockwise couplet, (2) the conversion of Harwood Avenue to one-way southbound travel between Elm Road and Chestnut Road, (3) the reassignment of a portion of the Village Hall lot traffic to the St. Joseph School lot, and (4) the assignment of traffic generated by the four planned developments.

Projected Traffic Volumes – Option 6

The projected weekday peak hour traffic conditions under Option 6 is shown in **Figure 26** and reflects (1) the reassignment of traffic resulting from the conversion of Elm Road and Chestnut Road to a one-way clockwise couplet, (2) the reassignment of a portion of the Village Hall lot traffic to the St. Joseph School lot, and (3) the assignment of traffic generated by the four planned developments.

Projected Intersection Operations

Traffic operational analyses were performed for the study area intersections under the various parking/street modification options discussed above to determine the ability of the roadway system to accommodate the projected traffic demands during the weekday morning and evening peak hours.

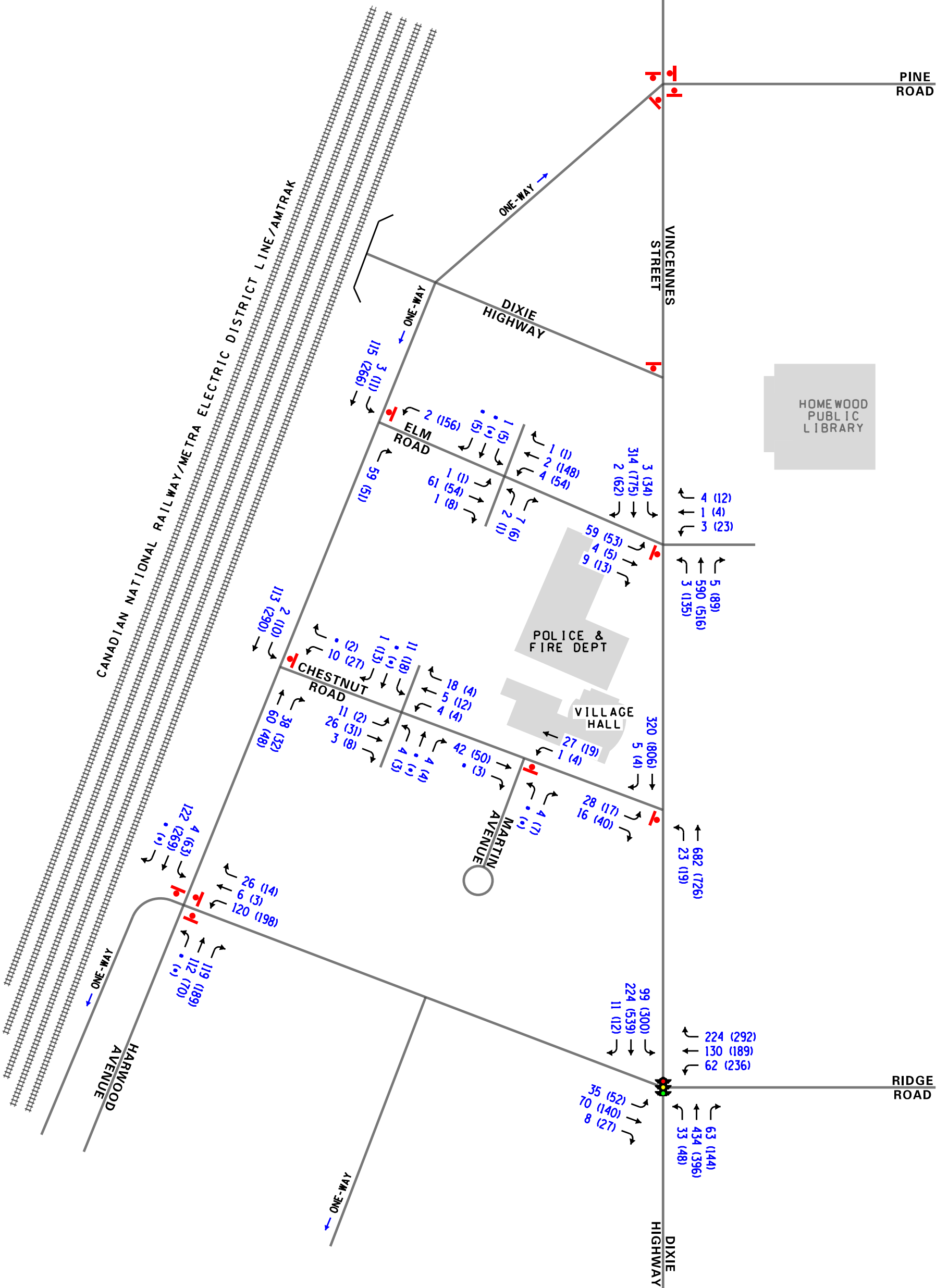
Table 14 summarizes the results of the traffic analysis for the projected weekday peak hour traffic conditions under Options 1, 2 and 3. **Tables 15, 16** and **17** summarize the results of the traffic analysis for the projected weekday peak hour traffic conditions under Options 4, 5 and 6, respectively. The traffic analysis worksheets for all conditions are included in the Appendix. A discussion of the traffic analysis results follows for the study area intersections.

LEGEND

- 00** - WEEKDAY AM PEAK HOUR (7:15-8:15 AM)
- (00)** - WEEKDAY PM PEAK HOUR (5:00-6:00 PM)
- *** - MINIMAL VOLUME (< 5 VEHICLES)



NOT TO SCALE

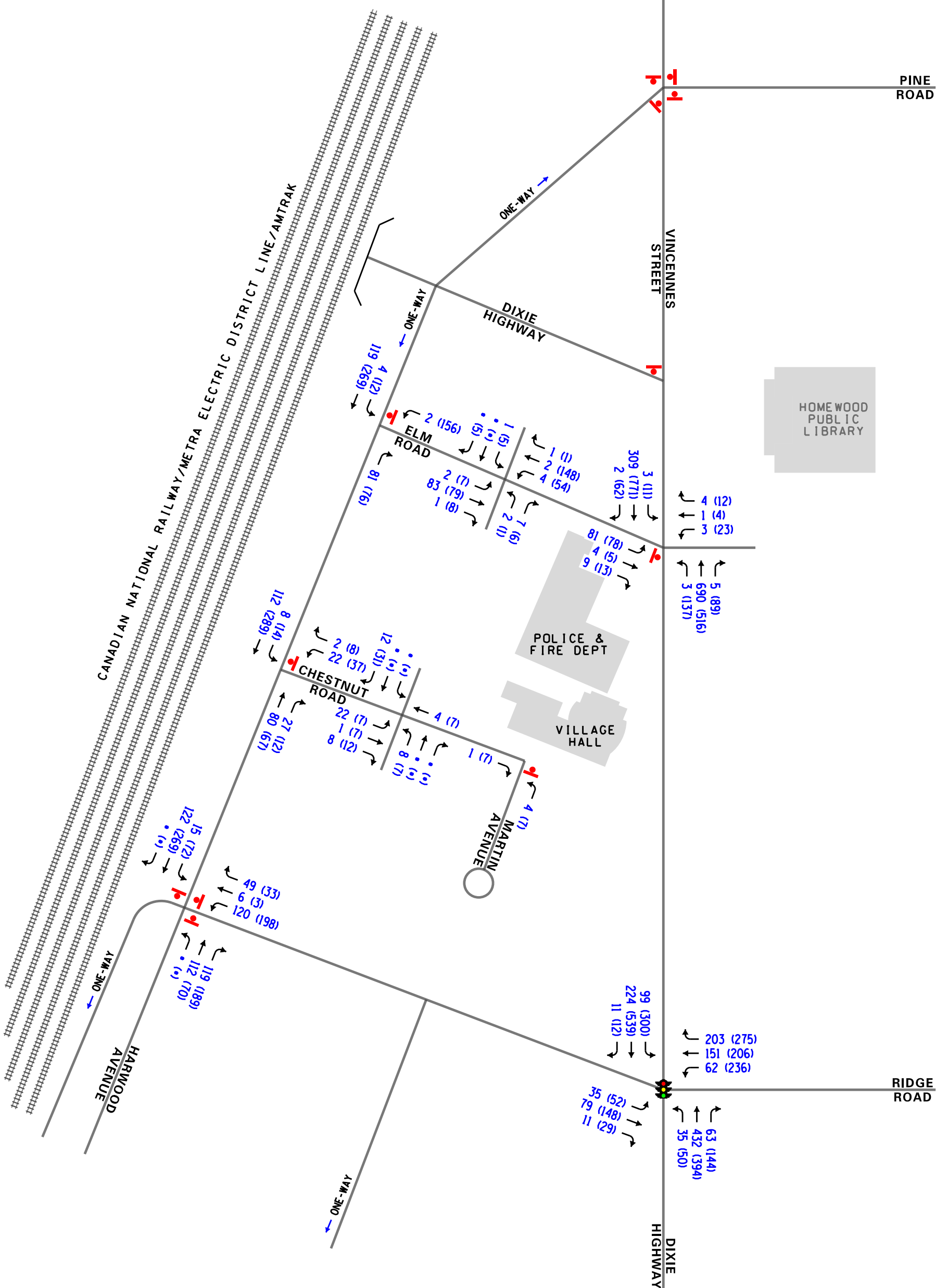
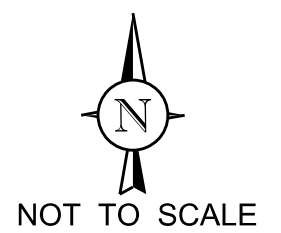


VILLAGE HALL
PARKING LOT
REPLACEMENT STUDY
HOMEWOOD, ILLINOIS

PROJECTED TRAFFIC VOLUMES - OPTIONS 1, 2 & 3

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- LEGEND**
- 00 - WEEKDAY AM PEAK HOUR (7:15-8:15 AM)
 - (00) - WEEKDAY PM PEAK HOUR (5:00-6:00 PM)
 - * - MINIMAL VOLUME (< 5 VEHICLES)

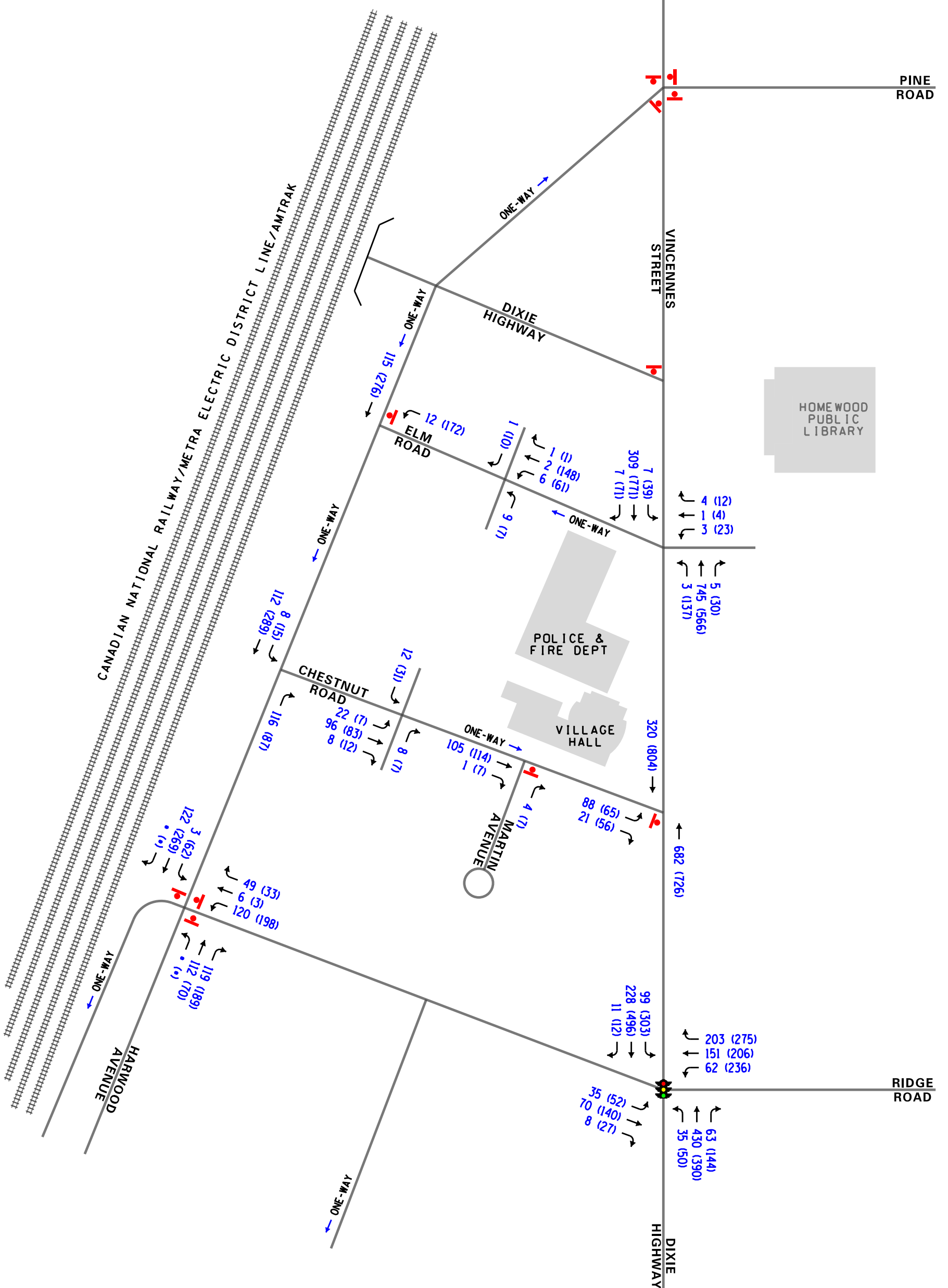
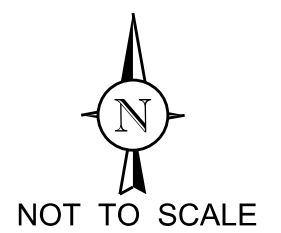


VILLAGE HALL
PARKING LOT
REPLACEMENT STUDY
HOMEWOOD, ILLINOIS

PROJECTED TRAFFIC VOLUMES - OPTION 4

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- LEGEND**
- 00 - WEEKDAY AM PEAK HOUR (7:15-8:15 AM)
 - (00) - WEEKDAY PM PEAK HOUR (5:00-6:00 PM)
 - * - MINIMAL VOLUME (< 5 VEHICLES)

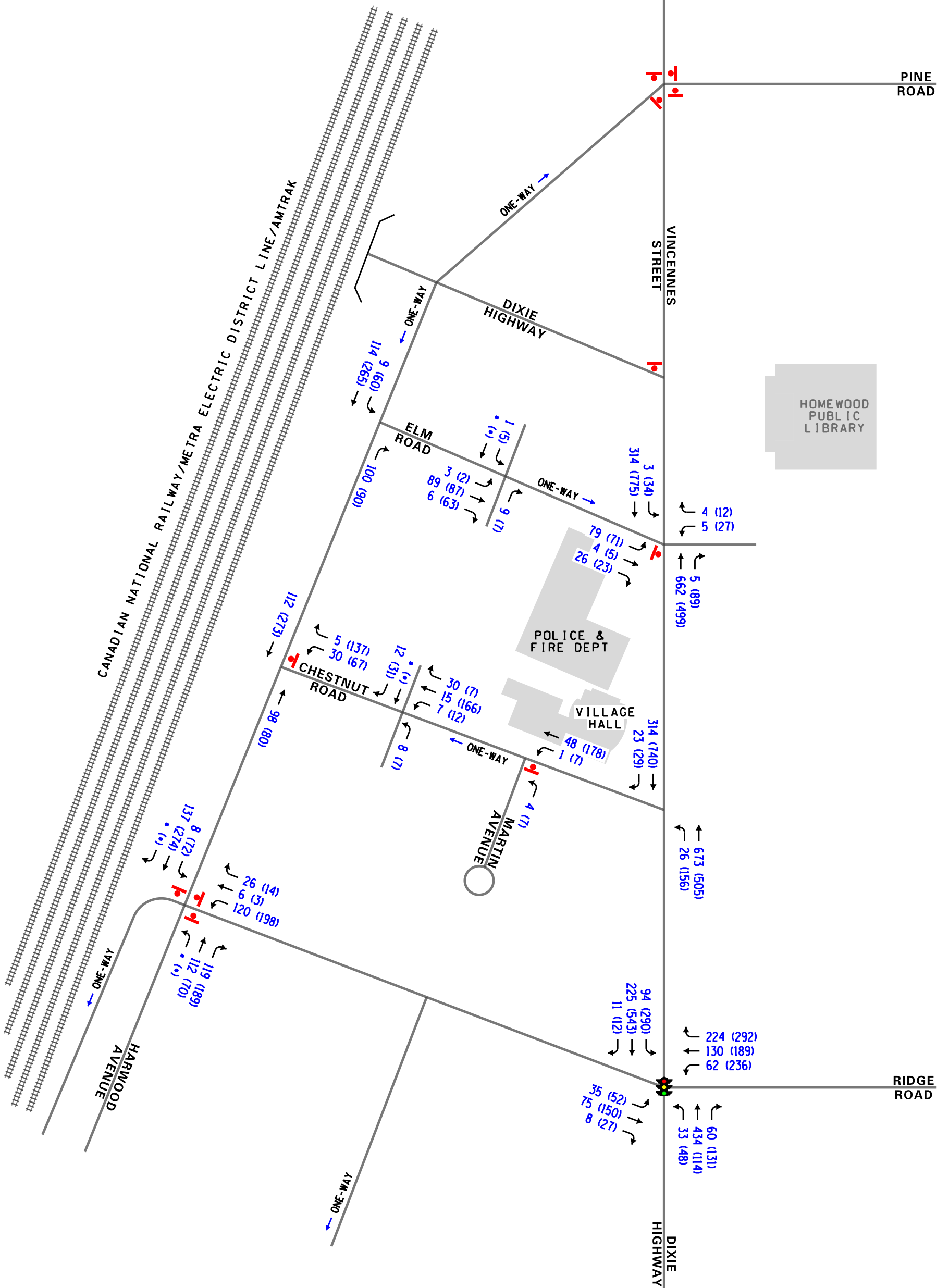
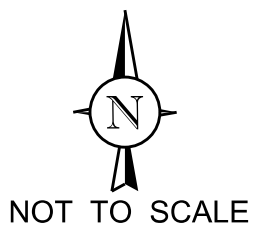


VILLAGE HALL
PARKING LOT
REPLACEMENT STUDY
HOMEWOOD, ILLINOIS

PROJECTED TRAFFIC VOLUMES - OPTION 5

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- LEGEND**
- 00 - WEEKDAY AM PEAK HOUR (7:15-8:15 AM)
 - (00) - WEEKDAY PM PEAK HOUR (5:00-6:00 PM)
 - * - MINIMAL VOLUME (< 5 VEHICLES)



VILLAGE HALL
PARKING LOT
REPLACEMENT STUDY
HOMEWOOD, ILLINOIS

PROJECTED TRAFFIC VOLUMES - OPTION 6



Table 14

TRAFFIC ANALYSIS RESULTS – PROJECTED CONDITIONS – OPTIONS 1, 2 & 3

Intersection / Approach	Weekday AM Peak Hour		Weekday PM Peak Hour	
	LOS	Delay	LOS	Delay
Dixie Highway / Ridge Road¹				
• Overall	C	26.2	D	42.4
• Northbound Dixie Highway	C	27.7	D	46.0
• Southbound Dixie Highway	B	15.8	C	30.5
• Eastbound Ridge Road	C	32.9	E	70.8
• Westbound Ridge Road	C	30.9	D	44.9
Dixie Highway / Elm Road / Library Drive²				
• Eastbound Elm Road	C	16.2	D	30.5
• Westbound Library Drive	B	14.0	D	29.1
• Northbound Dixie Highway Left-Turn	A	7.9	B	10.7
• Southbound Dixie Highway Left-Turn	A	9.7	A	9.0
Dixie Highway / Chestnut Road²				
• Eastbound Chestnut Road	B	13.7	C	18.2
• Northbound Dixie Highway Left-Turn	A	8.0	A	9.7
Harwood Avenue / Elm Road²				
• Westbound Elm Road	A	9.3	B	12.1
Harwood Avenue / Chestnut Road²				
• Westbound Chestnut Road	B	10.1	B	11.8
Harwood Avenue / Ridge Road²				
• Overall	A	8.9	B	11.2
• Northbound Harwood Avenue	A	8.9	A	9.9
• Southbound Harwood Avenue	A	8.6	B	12.2
• Westbound Ridge Road	A	9.2	B	11.3
Martin Avenue / Chestnut Road²				
• Northbound Martin Avenue	A	8.6	A	8.6
LOS = Level of Service Delay is measured in seconds ¹ Signalized Intersection ² Unsignalized Intersection * Extensive delay				

Dixie Highway / Ridge Road

The traffic analysis for the signalized intersection of Dixie Highway and Ridge Road indicates that the intersection would remain at a level of service (LOS) C during the weekday morning peak hour but degrade to a LOS D during the evening peak hour under all options except Option 6, in which the evening LOS would remain at C. Further, all movements through the intersection would continue to operate at LOS D or better under all options except the eastbound movement on Ridge Road which would degrade to LOS E, again except for Option 6 in which the eastbound movement

would remain at LOS D. The eastbound approach on Ridge Road is the only approach of the intersection without a dedicated left-turn lane. But implementation of a left-turn lane on this approach would not measurably improve intersection operations but would require the removal of a few parking spaces from the south side of Ridge. To reduce traffic delays at the intersection, dedicated right-turn lanes would be needed on the westbound approach of Ridge and the northbound approach of Dixie Highway. These improvements would require the removal of the curb extensions and landscape areas on the northeast and southeast corners of the intersection, which effectively frame the parking lanes and narrow the length of the crosswalks. As such, no geometric improvements are recommended at this intersection at this time.

Table 15
TRAFFIC ANALYSIS RESULTS – PROJECTED CONDITIONS – OPTION 4

Intersection / Approach	Weekday AM Peak Hour		Weekday PM Peak Hour	
	LOS	Delay	LOS	Delay
Dixie Highway / Ridge Road¹				
• Overall	C	26.0	D	42.8
• Northbound Dixie Highway	C	26.9	D	46.2
• Southbound Dixie Highway	B	15.4	C	33.8
• Eastbound Ridge Road	C	34.1	E	66.3
• Westbound Ridge Road	C	31.0	D	43.1
Dixie Highway / Elm Road / Library Drive²				
• Eastbound Elm Road	C	17.2	D	33.5
• Westbound Library Drive	B	14.0	D	26.5
• Northbound Dixie Highway Left-Turn	A	7.9	B	10.7
• Southbound Dixie Highway Left-Turn	A	9.4	A	8.9
Harwood Avenue / Elm Road²				
• Westbound Elm Road	A	9.4	B	12.2
Harwood Avenue / Chestnut Road²				
• Westbound Chestnut Road	B	10.5	B	11.9
Harwood Avenue / Ridge Road²				
• Overall	A	9.3	B	11.6
• Northbound Harwood Avenue	A	9.4	B	10.2
• Southbound Harwood Avenue	A	8.8	B	12.7
• Westbound Ridge Road	A	9.5	B	11.7
LOS = Level of Service Delay is measured in seconds ¹ Signalized Intersection ² Unsignalized Intersection * Extensive delay				

Dixie Highway / Elm Road / Library Drive

The Elm Road and Library Drive approaches to Dixie Highway presently operate at LOS D or better during the morning peak hour under stop control. During the evening peak hour, the Library drive operates at LOS D but the Elm Road approach experiences more delay and operates at LOS F due to higher traffic volumes on Dixie Highway, higher left-turning volumes from the opposing Library drive, the two-lane configuration of Dixie Highway, and the stop control on Elm Road.

This condition can be mitigated for all options by removing the bike lanes between Vincennes and Chestnut in place of a two-way left-turn center lane and shared-lane markings, similar to bicycle markings on Dixie Highway south of Chestnut. These changes would reduce traffic delays on Elm and the Library drive and result in level of service D or better during both peak hours.

Table 16
TRAFFIC ANALYSIS RESULTS – PROJECTED CONDITIONS – OPTION 5

Intersection / Approach	Weekday AM Peak Hour		Weekday PM Peak Hour	
	LOS	Delay	LOS	Delay
Dixie Highway / Ridge Road¹				
• Overall	C	25.7	D	43.0
• Northbound Dixie Highway	C	26.5	D	47.6
• Southbound Dixie Highway	B	15.4	C	32.5
• Eastbound Ridge Road	C	32.2	E	68.9
• Westbound Ridge Road	C	31.3	D	43.3
Dixie Highway / Elm Road / Library Drive²				
• Westbound Library Drive	B	14.9	D	27.7
• Northbound Dixie Highway Left-Turn	A	7.9	B	10.8
• Southbound Dixie Highway Left-Turn	A	9.7	A	8.9
Dixie Highway / Chestnut Road²				
• Eastbound Chestnut Road	B	14.8	C	18.8
Harwood Avenue / Elm Road²				
• Westbound Elm Road	A	9.3	B	12.1
Harwood Avenue / Ridge Road²				
• Overall	A	9.0	B	11.4
• Northbound Harwood Avenue	A	9.0	B	10.1
• Southbound Harwood Avenue	A	8.6	B	12.4
• Westbound Ridge Road	A	9.4	B	11.5
Martin Avenue / Chestnut Road²				
• Northbound Martin Avenue	A	8.9	A	8.9
LOS = Level of Service Delay is measured in seconds ¹ Signalized Intersection ² Unsignalized Intersection * Extensive delay				

Dixie Highway / Chestnut Road

The Chestnut Road approach to Dixie Highway presently operates at a satisfactory LOS C during the morning and evening peak hours under stop control. The removal of the bike lanes between Vincennes and Chestnut in place of a two-way left-turn center lane, as needed to improve traffic conditions on Elm at Dixie Highway, will effectively improve traffic conditions on Chestnut at Dixie as well. The resulting level of service would be B in the morning peak hour and C in the evening peak hour under all options that have eastbound traffic on Chestnut.

Table 17
TRAFFIC ANALYSIS RESULTS – PROJECTED CONDITIONS – OPTION 6

Intersection / Approach	Weekday AM Peak Hour		Weekday PM Peak Hour	
	LOS	Delay	LOS	Delay
Dixie Highway / Ridge Road¹				
• Overall	C	26.6	C	31.4
• Northbound Dixie Highway	C	28.3	C	27.6
• Southbound Dixie Highway	B	15.8	C	28.1
• Eastbound Ridge Road	C	33.2	D	46.8
• Westbound Ridge Road	C	31.0	C	32.1
Dixie Highway / Elm Road / Library Drive²				
• Eastbound Elm Road	C	15.2	C	21.2
• Westbound Library Drive	B	13.8	C	18.3
• Southbound Left-Turn	A	9.2	A	8.8
Dixie Highway / Chestnut Road²				
• Northbound Dixie Highway Left-Turn	A	8.1	B	10.6
Harwood Avenue / Chestnut Road²				
• Westbound Chestnut Road	B	10.5	B	12.0
Harwood Avenue / Ridge Road²				
• Overall	A	9.0	B	11.4
• Northbound Harwood Avenue	A	8.9	A	10.0
• Southbound Harwood Avenue	A	8.7	B	12.6
• Westbound Ridge Road	A	9.3	B	11.4
Martin Avenue / Chestnut Road²				
• Northbound Martin Avenue	A	8.8	A	8.3
LOS = Level of Service Delay is measured in seconds ¹ Signalized Intersection ² Unsignalized Intersection				

Harwood Avenue / Elm Road

The Elm Road approach to Harwood Avenue presently operates at a very good LOS A and B during the weekday morning and evening peak hours, respectively, under stop control. The level of service on Elm would remain the same under all options that have westbound traffic on Elm.

Harwood Avenue / Chestnut Road

The Chestnut Road approach to Harwood Avenue presently operates at a good LOS B during the weekday morning and evening peak hours under stop control. The level of service on Chestnut would remain the same under all options that have westbound traffic on Chestnut.

Harwood Avenue / Ridge Road

The traffic analysis for the all-way stop-controlled intersection of Harwood Avenue and Ridge Road indicates that the intersection presently operates at a very good LOS A and B overall during the weekday morning and evening peak hours, respectively. Further, all approaches at the intersection that are under stop control also presently operate at LOS A or B during the peak hours. These levels of service would remain the same under all options.

Martin Avenue / Chestnut Road

The Martin Avenue approach to Chestnut Road presently operates at a very good LOS A during the weekday morning and evening peak hours under stop control. The level of service on Martin Avenue would remain the same under all options except Option 4. Under Option 4 the stop sign on Martin would be removed and traffic would flow uncontrolled between Chestnut and Martin.

8. Conclusions

Based on the preceding Parking Replacement Study for the Village Hall parking lot, the following conclusions and recommendations are made:

- The Village Hall parking lot has a capacity of 137 spaces dedicated to Village Hall staff, public safety vehicles, seniors, visitors, handicapped, and rentals by permit.
- The Village is looking to sell the southern two-thirds of the parking lot for a 24-unit townhome development, resulting in the elimination of 97 public parking spaces (71% of lot capacity).
- The Village is exploring the possibility of converting the Homewood-Flossmoor Park District Auditorium into a performing arts center (PAC) with a potential 900-seat capacity and selling the 30-space Dixie Highway public lot (18136 Dixie Hwy) for a mixed-use development.
- The smaller (40-space) Village Hall lot will have a lower accessible parking requirement of 2 spaces by Code (vs. current 5-space requirement), which provides a small reduction in the number of off-site parking spaces needed.
- **Of the 40 spaces that remain at the north end of the Village Hall lot, 20 should be reserved for public safety vehicles, seniors, and the handicapped at all times to preserve the status quo. The remaining 20 spaces should be reserved for Village Hall staff on weekdays only.**
- In total, approximately 30 spaces currently used by Village Hall visitors and staff would need to be replaced off-site on weekdays.
- Should the Village choose to replace the 64 permit spaces in the Village Hall lot, an additional 64 parking spaces would need to be secured off-site on weekdays.
- For a capacity performance at the PAC, up to 268 spaces may be necessary off-site beyond the 20 spaces that would be available in the Village Hall lot on weekday evenings and weekends.
- While the Village may ultimately build a parking garage in the downtown area to permanently accommodate parkers displaced from the Village Hall lot and the parking needs of the PAC, more near-term parking solutions are needed that are convenient to Village Hall.

Current Public Parking Supply and Demand

- The Village Hall lot is the only public parking lot within a one block radius of Village Hall (core study area).
- There are also 214 on-street public spaces within the core study area, most of which have 3-hour time regulations on weekdays and Saturdays.
- There are 5 public parking lots (123 total spaces) south of Ridge Road, two- to three-blocks from Village Hall, although the Dixie Hwy lot (30 spaces) will be lost to new development.
- The Village Hall lot is utilized to over 80% of capacity on weekday court days, approximately 66% of capacity on weekday non-court days and Saturday event days, and less than 50% of capacity on Saturday non-event days.

- The public lots south of Ridge Road are utilized to less than 30% of capacity on weekday court days, approximately 55% of capacity on weekday non-court days and Saturday non-event days, and in excess of 90% of capacity on Saturday event days.
- On-street parking in the core study area was utilized between 37% and 47% of capacity on all survey days.
- Private lots within a block of Village Hall with excess parking vacancy on weekdays include the St. Joseph School lot (12% peak utilization) and the La Banque Hotel lot (32% peak utilization).
- Private lots within a block of Village Hall with excess parking vacancy on weekday evenings and Saturdays include the St. Joseph School lot (41% peak utilization) and the SSMTD Harwood Avenue commuter lot (18% peak utilization).

Current Traffic Operations

- All intersections in the core study area generally operate at a satisfactory level of service during the weekday morning and evening peak commuting hours.
- The exception is the turning movements from Elm Road onto Dixie Highway in the evening peak hour, which experiences longer delays and a poor level of service under stop control.
- The eastbound traffic movement on Ridge Road at its signal-controlled intersection with Dixie Highway also experiences longer delays during the peak hours.

Projected Public Parking Supply and Demand

- The total public parking supply in the study area is sufficient to meet the projected parking demand from the displacement of parking in the Village Hall lot and additional parking demand from the PAC at all times except for Saturdays. However, most of this parking is either on the street or in lots more distant from Village Hall/PAC to the south of Ridge Road.
- On Saturdays, up to 207 additional spaces would be needed to meet the peak demand.
- Currently there is adequate parking in the nearby private lots on Saturdays to accommodate this additional parking need if arrangements can be made to utilize this parking.
- There is also a sufficient amount of parking available on the streets surrounding the Village Hall block to accommodate visitor parking for the townhomes, particularly on weekday evenings and weekends, as it does not appear from the site plan that visitor parking will be provided on-site.

Parking Options

- Several parking options were evaluated to replace the public parking displaced from the Village Hall lot and accommodate the parking needs of the PAC, including use of public street parking, leasing or acquiring private parking, creating additional street parking, closing Chestnut at Dixie, and reconfiguring Elm and Chestnut into a one-way couplet.
- Each of these parking options result in differing levels of benefit, cost and traffic implications.

Recommended Parking Options

- The *recommended* parking option has multiple components and is a hybrid of Options 1, 2, and 3. It could also be implemented with Option 4 without adverse traffic implications. The recommended option, which is shown in **Figure 27**, replaces parking in the most convenient locations and sets the stage for developing structured parking in the future.
 1. Replace the displaced Village Hall visitor parking in the 7 parking stalls on the west side of Dixie Highway (between Elm and Chestnut) by posting “Village Hall Visitors” signage and modifying the parking regulations to 30-minutes during Village Hours operating hours (8:00 AM-5:00 PM Mon-Fr; 8:00 AM-Noon Sat).
 2. Replace the remaining 23 spaces displaced from the Village Hall lot and used by Village Hall staff by leasing 23 spaces on weekdays from St. Joseph Church on the opposite side of Dixie Highway, or developing an agreement to use the spaces without leasing.
 3. Obtain written consent from St. Joseph Church for use of their lot for PAC performances and downtown events on weekday evenings and Saturdays.
 4. Acquire the SSMTD Harwood Avenue commuter lot as a potential future site for a parking deck. Until the deck is built, continue to utilize the lot as a Village revenue-generating commuter permit lot on weekdays until 6:00 PM. Open the lot for public use (free of charge) on weekday evenings and weekends for downtown events and PAC performances.
 5. Near-term PAC parking options should include the Village Hall lot (20 spaces), Harwood Avenue commuter lot (120 spaces), St. Joseph Church lot (124 spaces), and street parking spaces.
 6. Long-term PAC parking options should include the Village Hall lot, Harwood Avenue deck, and street parking spaces.
 7. Relocate up to 25 of the permit parking spaces from the Village Hall lot to the Harwood commuter lot.
 8. Restripe Harwood between Chestnut and Ridge to provide 10 parallel parking stalls along the west side of the road. Regulate these spaces on weekdays for commuter permit parking and relocate 10 of the permit spaces displaced from the Village Hall lot to this location.
 9. Relocate the remaining 29 permit spaces displaced from the Village Hall lot into a combination of the Hickory public lot, Kroner/Harwood public lot, Dixie/Kroner public lot, and/or street parking spaces on Chestnut.
 10. Restripe Dixie Highway between Vincennes and Chestnut to improve traffic flow from Elm by replacing the bike lanes with a two-way center lane and shared-lane markings.
 11. This option could be implement in combination with the closure of Chestnut between Martin and Dixie Highway (Option 4) without adverse traffic implications.



Figure 27

Recommended Parking Replacement Option

- A *secondary* parking option is suggested should the SSMTD commuter lot not be available for purchase and not have additional permit parking available for rent. This option is shown in **Figure 28** and is a hybrid of Options 1, 2, 3, and 5. It also attempts to replace parking in locations convenient to Village Hall, just not quite as convenient as the recommended option. The secondary option could not be implemented with Option 4.
 1. Replace the displaced Village Hall visitor parking in the 7 parking stalls on the west side of Dixie Highway (between Elm and Chestnut) by posting “Village Hall Visitors” signage and modifying the parking regulations to 30-minutes during Village Hours operating hours (8:00 AM-5:00 PM Mon-Fr; 8:00 AM-Noon Sat).
 2. Replace the remaining 23 spaces displaced from the Village Hall lot and used by Village Hall staff by leasing 23 spaces on weekdays from St. Joseph Church on the opposite side of Dixie Highway, or developing an agreement to use the spaces without leasing.
 3. Convert Elm and Chestnut to a one-way counterclockwise couplet (Option 5) and convert Harwood to one-way southbound flow between Elm and Chestnut. Install one-way signs and Do Not Enter signs.
 4. Restripe Harwood between Elm and Ridge to provide 10 parallel parking stalls along the west side of the road from Chestnut to Ridge (Option 3), 12 parallel stalls along the east side of the road from Elm to Chestnut (Option 5), and one-way traffic flow markings (Option 5). Regulate these spaces on weekdays for commuter permit parking and relocate 22 of the permit spaces displaced from the Village Hall lot to this location.
 5. Restripe Elm and Chestnut to provide additional parking (net gain=7 spaces) per Option 5.
 6. Relocate the remaining 42 permit spaces displaced from the Village Hall lot into a combination of the on-street spaces on Elm and Chestnut, Hickory public lot, Kroner/Harwood public lot, and/or Dixie/Kroner public lot.
 7. Restripe Dixie Highway between Vincennes and Chestnut to provide northbound left-turn lane at Elm, eliminate northbound left-turn lane at Chestnut, and replace bicycle lanes with shared lane markings.
 8. Restripe Chestnut to provide separate left- and right-turn lanes at Dixie Highway.
 9. Remove stop controls on Elm at Dixie and on Chestnut at Harwood.
 10. Near-term PAC parking options should include the Village Hall lot (20 spaces), St. Joseph Church lot (124 spaces), public lots south of Ridge Road (93 spaces), and street parking spaces.
 11. Long-term PAC parking options should include the Village Hall lot, new parking deck (location to be determined), public lots south of Ridge Road (93 spaces), and street parking spaces.
 12. This option would preclude the closure of Chestnut between Martin and Dixie Highway (Option 4).

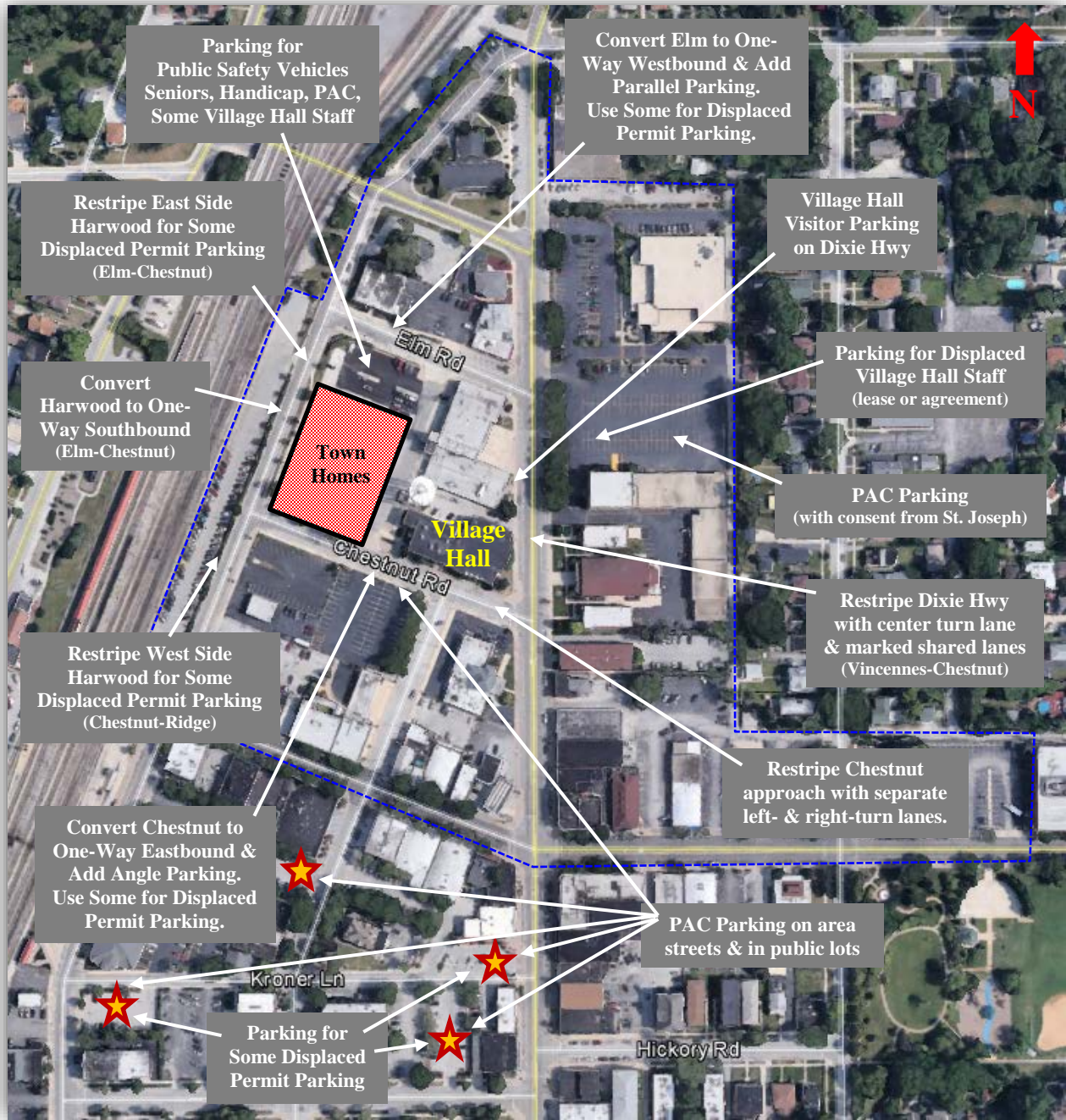


Figure 28

Secondary Parking Replacement Option

Appendix

Parking Occupancy Tables
Village Hall Lot Townhome Site Plan
Other Development Plans
Traffic Count Summary Sheets
Level of Service Criteria
Capacity Analysis Summary Sheets
Existing Conditions
Projected Conditions

Parking Occupancy Tables

Table A
Village of Homewood - Village Hall Parking Replacement Study
Off-Street Parking Occupancy Counts

Monday, September 17, 2018

Parking Lot	Capacity	Number of Spaces Occupied											
		7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM
1 StateNets Lot	10	4	5	5	5	5	5	4	5	5	4	3	3
2 Cancer Support Center Lot	23	2	4	8	13	14	14	15	17	17	17	9	4
3 SSMTD Harwood Ave Commuter Lot	120	61	84	88	90	93	93	94	92	91	90	54	22
4a Village Hall Lot (permit)	64	29	39	48	53	50	47	46	44	42	39	27	19
4b Village Hall (non-permit)	73	38	49	56	63	57	54	49	45	45	40	36	28
5 La Banque Hotel Lot	56	10	10	11	12	10	9	12	13	14	16	12	13
6 Ridge/Harwood Lot	38	3	5	9	10	10	10	9	8	8	5	4	4
7 Martin Square Lot	20	1	2	4	4	5	5	5	5	5	4	2	2
8 Homewood Public Library Lot	76	2	12	20	39	49	45	39	42	42	38	34	26
9 St. Joseph School Lot	124	3	6	8	7	6	5	4	7	9	8	10	8
10 Eldridge & Eldridge Lot	37	1	2	4	6	6	4	3	5	5	5	5	3
11 Golden Eagle Office Center Lot	82	11	25	43	48	51	44	43	40	34	30	24	20
12 First Presbyterian Church Lot	116	0	0	0	2	2	2	1	2	2	4	10	25
13 Martin Ave Public Lot	20	1	2	2	4	4	1	2	3	2	2	1	1
14 Dixie/Kroner Public Lot	21	5	6	8	10	10	13	12	14	18	17	20	19
15 Hickory Public Lot	30	3	8	15	14	12	14	12	11	12	16	23	23
16 SSMTD Park Ave Commuter Lot	347	221	306	310	318	316	316	311	309	302	288	202	134
17 Kroner/Harwood Public Lot	22	1	1	3	3	3	3	4	4	3	3	2	1
18 Dixie Hwy Public Lot	30	1	1	1	0	0	0	1	0	1	2	3	4
TOTAL	1309	397	667	643	701	703	684	666	667	667	629	482	369

█ Peak Occupancy of Individual Lot

█ Combined Peak Occupancy of All Lots

Table B
Village of Homewood - Village Hall Parking Replacement Study
Off-Street Parking Occupancy Counts

Monday, September 17, 2018

Parking Lot	Capacity	Number of Spaces Occupied											
		7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM
1 StateNets Lot	10	40%	50%	50%	50%	50%	50%	40%	50%	50%	40%	30%	30%
2 Cancer Support Center Lot	23	9%	17%	35%	57%	61%	61%	65%	74%	74%	74%	39%	17%
3 SSMTD Harwood Ave Commuter Lot	120	51%	70%	73%	75%	78%	78%	78%	77%	76%	75%	45%	18%
4a Village Hall Lot (permit)	64	45%	61%	75%	83%	78%	73%	72%	69%	66%	61%	42%	30%
4b Village Hall (non-permit)	73	52%	67%	77%	86%	78%	74%	67%	62%	62%	55%	49%	38%
5 La Banque Hotel Lot	56	18%	18%	20%	21%	18%	16%	21%	23%	25%	29%	21%	23%
6 Ridge/Harwood Lot	38	8%	13%	24%	26%	26%	26%	24%	21%	21%	13%	11%	11%
7 Martin Square Lot	20	5%	10%	20%	20%	25%	25%	25%	25%	25%	20%	10%	10%
8 Homewood Public Library Lot	76	3%	16%	26%	51%	64%	59%	51%	55%	55%	50%	45%	34%
9 St. Joseph School Lot	124	2%	5%	6%	6%	5%	4%	3%	6%	7%	6%	8%	6%
10 Eldridge & Eldridge Lot	37	3%	5%	11%	16%	16%	11%	8%	14%	14%	14%	14%	8%
11 Golden Eagle Office Center Lot	82	13%	30%	52%	59%	62%	54%	52%	49%	41%	37%	29%	24%
12 First Presbyterian Church Lot	116	0%	0%	0%	2%	2%	2%	1%	2%	2%	3%	9%	22%
13 Martin Ave Public Lot	20	5%	10%	10%	20%	20%	5%	10%	15%	10%	10%	5%	5%
14 Dixie/Kroner Public Lot	21	24%	29%	38%	48%	48%	62%	57%	67%	66%	81%	95%	90%
15 Hickory Public Lot	30	10%	27%	50%	47%	40%	47%	40%	37%	40%	53%	77%	77%
16 SSMTD Park Ave Commuter Lot	347	64%	88%	89%	92%	91%	91%	90%	89%	87%	83%	58%	39%
17 Kroner/Harwood Public Lot	22	5%	5%	14%	14%	14%	14%	18%	18%	14%	14%	9%	5%
18 Dixie Hwy Public Lot	30	3%	3%	3%	0%	0%	0%	0%	3%	3%	7%	10%	13%
TOTAL	1309	30%	43%	49%	54%	54%	52%	51%	51%	50%	48%	37%	27%

█ Peak Occupancy of Individual Lot

█ Combined Peak Occupancy of All Lots

Table C
Village of Homewood - Village Hall Parking Replacement Study
Off-Street Parking Occupancy Counts

Thursday, September 20, 2018

Parking Lot	Capacity	Number of Spaces Occupied											
		7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM
1 StateNets Lot	10	2	5	5	5	5	5	5	5	5	4	3	3
2 Cancer Support Center Lot	23	2	3	7	14	15	10	12	8	9	9	5	6
3 SSMTD Harwood Ave Commuter Lot	120	55	83	85	90	91	91	91	91	89	88	52	10
4a Village Hall Lot (permit)	64	30	36	36	38	41	39	42	39	41	40	23	5
4b Village Hall (non-permit)	73	33	42	42	45	48	45	43	42	38	44	27	26
5 La Banque Hotel Lot	56	13	11	13	10	12	17	18	16	14	13	17	32
6 Ridge/Harwood Lot	38	2	4	10	11	13	13	14	17	16	12	9	6
7 Martin Square Lot	20	2	3	5	5	6	6	6	5	6	6	8	8
8 Homewood Public Library Lot	76	2	11	15	23	28	32	27	35	31	35	41	32
9 St. Joseph School Lot	124	3	4	6	6	6	7	8	10	8	11	15	7
10 Eldridge & Eldridge Lot	37	1	4	5	6	6	4	5	6	6	6	6	4
11 Golden Eagle Office Center Lot	82	12	29	42	45	52	47	46	44	42	38	32	34
12 First Presbyterian Church Lot	116	0	0	2	2	0	7	11	11	10	5	1	0
13 Martin Ave Public Lot	20	0	2	8	6	9	12	11	10	7	9	8	17
14 Dixie/Kroner Public Lot	21	4	6	7	8	10	15	16	16	13	15	20	20
15 Hickory Public Lot	30	2	6	8	9	8	16	18	17	18	21	28	29
16 SSMTD Park Ave Commuter Lot	347	210	311	320	326	331	337	329	327	318	304	212	153
17 Kroner/Harwood Public Lot	22	1	4	9	12	13	18	20	20	16	17	16	13
18 Dixie Hwy Public Lot	30	1	0	0	1	1	2	4	6	10	9	10	11
TOTAL	1309	375	564	625	662	695	723	726	725	697	687	534	416

█ Peak Occupancy of Individual Lot

█ Combined Peak Occupancy of All Lots

Table D
Village of Homewood - Village Hall Parking Replacement Study
Off-Street Parking Occupancy Counts

Thursday, September 20, 2018

Parking Lot	Capacity	Number of Spaces Occupied											
		7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM
1 StateNets Lot	10	20%	50%	50%	50%	50%	50%	50%	50%	40%	30%	30%	30%
2 Cancer Support Center Lot	23	9%	13%	30%	61%	65%	43%	52%	35%	39%	39%	22%	26%
3 SSMTD Harwood Ave Commuter Lot	120	46%	69%	71%	75%	76%	76%	76%	76%	74%	73%	43%	8%
4a Village Hall Lot (permit)	64	47%	56%	58%	59%	64%	61%	66%	61%	64%	63%	36%	8%
4b Village Hall (non-permit)	73	45%	58%	58%	62%	68%	62%	59%	58%	52%	60%	37%	36%
5 La Banque Hotel Lot	56	23%	20%	23%	18%	21%	30%	32%	29%	25%	23%	30%	57%
6 Ridge/Harwood Lot	38	5%	11%	26%	29%	34%	34%	37%	45%	42%	32%	24%	16%
7 Martin Square Lot	20	10%	15%	25%	25%	30%	30%	30%	25%	30%	30%	40%	40%
8 Homewood Public Library Lot	76	3%	14%	20%	30%	37%	42%	36%	46%	41%	46%	54%	42%
9 St. Joseph School Lot	124	2%	3%	5%	5%	5%	6%	6%	8%	6%	9%	12%	6%
10 Eldridge & Eldridge Lot	37	3%	11%	14%	16%	16%	11%	14%	16%	16%	16%	16%	11%
11 Golden Eagle Office Center Lot	82	15%	35%	51%	55%	63%	57%	56%	54%	51%	46%	39%	41%
12 First Presbyterian Church Lot	116	0%	0%	2%	2%	0%	8%	9%	9%	9%	4%	1%	0%
13 Martin Ave Public Lot	20	0%	10%	40%	30%	45%	60%	55%	50%	35%	45%	40%	65%
14 Dixie/Kroner Public Lot	21	19%	29%	33%	33%	48%	71%	76%	76%	62%	71%	95%	95%
15 Hickory Public Lot	30	7%	20%	27%	30%	27%	53%	60%	57%	60%	70%	93%	97%
16 SSMTD Park Ave Commuter Lot	347	61%	90%	92%	94%	95%	95%	95%	94%	92%	88%	61%	44%
17 Kroner/Harwood Public Lot	22	5%	18%	41%	55%	59%	82%	91%	91%	73%	77%	73%	59%
18 Dixie Hwy Public Lot	30	3%	0%	0%	3%	3%	7%	13%	20%	33%	30%	33%	37%
TOTAL	1309	29%	43%	48%	51%	53%	55%	55%	55%	53%	52%	41%	32%

█ Peak Occupancy of Individual Lot

█ Combined Peak Occupancy of All Lots

Table E
Village of Homewood - Village Hall Parking Replacement Study
Off-Street Parking Occupancy Counts

Saturday, September 15, 2018

Parking Lot	Capacity	Number of Spaces Occupied											
		11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM
1 StateNets Lot	10	3	4	3	3	3	3	3	4	3	3	3	3
2 Cancer Support Center Lot	23	9	9	9	8	8	8	7	6	8	8	5	4
3 SSMTD Harwood Ave Commuter Lot	120	4	3	2	2	2	2	2	2	2	2	2	2
4 Village Hall Lot (no permits in effect)	137	73	62	33	44	37	30	27	25	30	30	27	29
5 La Banque Hotel Lot	56	50	42	30	25	28	33	30	31	37	37	33	27
6 Ridge/Harwood Lot	38	7	7	9	8	5	5	4	4	3	3	3	3
7 Martin Square Lot	20	5	5	3	1	0	1	1	2	2	2	3	3
8 Homewood Public Library Lot	76	43	47	40	32	35	25	6	0	0	0	0	0
9 St. Joseph School Lot	124	6	11	21	23	20	21	26	10	2	4	2	2
10 Eldridge & Eldridge Lot	37	3	4	3	3	0	1	0	0	0	0	0	0
11 Golden Eagle Office Center Lot	82	15	16	10	9	9	7	7	6	8	8	7	7
12 First Presbyterian Church Lot	116	1	1	1	1	1	1	0	0	0	0	0	0
13 Martin Ave Public Lot	20	13	12	10	13	11	6	4	7	16	15	16	14
14 Dixie/Kroner Public Lot	21	19	17	18	19	19	18	16	15	18	18	21	21
15 Hickory Public Lot	30	22	19	20	20	17	13	14	18	19	20	14	10
16 SSMTD Park Ave Commuter Lot	347	41	48	44	49	51	55	43	40	32	30	29	23
17 Kroner/Harwood Public Lot	22	11	9	11	10	6	6	4	4	2	2	2	2
18 Dixie Hwy Public Lot	30	5	6	2	4	4	3	1	1	0	0	1	1
TOTAL	1309	330	322	269	274	256	238	195	175	182	182	168	151

Peak Occupancy of Individual Lot

Combined Peak Occupancy of All Lots

Table F
Village of Homewood - Village Hall Parking Replacement Study
Off-Street Parking Occupancy Counts

Saturday, September 15, 2018

Parking Lot	Capacity	Number of Spaces Occupied											
		11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM
1 StateNets Lot	10	30%	40%	30%	30%	30%	30%	30%	40%	30%	30%	30%	30%
2 Cancer Support Center Lot	23	39%	39%	39%	35%	35%	35%	30%	26%	35%	35%	22%	17%
3 SSMTD Harwood Ave Commuter Lot	120	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
4 Village Hall Lot (no permits in effect)	137	53%	45%	24%	32%	27%	22%	20%	18%	22%	22%	20%	21%
5 La Banque Hotel Lot	56	89%	75%	54%	45%	50%	59%	54%	55%	66%	66%	59%	48%
6 Ridge/Harwood Lot	38	18%	18%	24%	21%	13%	13%	11%	11%	8%	8%	8%	8%
7 Martin Square Lot	20	25%	25%	15%	5%	0%	5%	5%	10%	10%	10%	15%	15%
8 Homewood Public Library Lot	76	57%	62%	53%	42%	46%	33%	3%	0%	0%	0%	0%	0%
9 St. Joseph School Lot	124	5%	9%	17%	19%	16%	17%	21%	8%	2%	3%	2%	2%
10 Eldridge & Eldridge Lot	37	8%	11%	8%	8%	0%	3%	0%	0%	0%	0%	0%	0%
11 Golden Eagle Office Center Lot	82	18%	20%	12%	11%	11%	9%	9%	7%	10%	10%	9%	9%
12 First Presbyterian Church Lot	116	1%	1%	1%	1%	1%	1%	0%	0%	0%	0%	0%	0%
13 Martin Ave Public Lot	20	65%	60%	50%	65%	55%	30%	20%	35%	80%	75%	80%	70%
14 Dixie/Kroner Public Lot	21	90%	81%	86%	90%	90%	86%	76%	71%	86%	86%	100%	100%
15 Hickory Public Lot	30	73%	63%	67%	67%	57%	43%	47%	60%	63%	67%	47%	33%
16 SSMTD Park Ave Commuter Lot	347	12%	14%	13%	14%	15%	16%	12%	12%	9%	9%	8%	7%
17 Kroner/Harwood Public Lot	22	50%	41%	50%	45%	27%	27%	18%	18%	9%	9%	9%	9%
18 Dixie Hwy Public Lot	30	17%	20%	7%	13%	13%	10%	3%	3%	0%	0%	3%	3%
TOTAL	1309	25%	25%	21%	21%	20%	18%	15%	13%	14%	14%	13%	12%

Peak Occupancy of Individual Lot

Combined Peak Occupancy of All Lots

Table G
Village of Homewood - Village Hall Parking Replacement Study
Off-Street Parking Occupancy Counts

Saturday, September 29, 2018

Parking Lot	Capacity	Number of Spaces Occupied											
		11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM
1 StateNets Lot	10	2	2	2	3	3	3	3	3	2	2	2	2
2 Cancer Support Center Lot	23	9	8	6	8	7	6	6	6	6	6	6	6
3 SSMTD Harwood Ave Commuter Lot	120	3	3	2	2	3	3	3	2	1	1	1	1
4 Village Hall Lot (no permits in effect)	137	61	70	92	91	93	75	86	83	81	65	54	36
5 La Banque Hotel Lot	56	32	41	48	50	52	45	50	49	53	45	40	41
6 Ridge/Harwood Lot	38	8	7	5	6	5	7	6	6	9	7	7	5
7 Martin Square Lot	20	2	4	4	3	2	2	1	5	4	6	7	4
8 Homewood Public Library Lot	76	24	42	64	55	28	21	4	1	1	1	1	1
9 St. Joseph School Lot	124	5	13	25	20	9	31	51	27	9	7	10	8
10 Eldridge & Eldridge Lot	37	2	3	2	2	2	1	0	0	0	0	0	0
11 Golden Eagle Office Center Lot	82	23	15	17	12	14	11	7	6	7	7	7	7
12 First Presbyterian Church Lot	116	12	10	3	3	2	1	1	1	1	0	0	0
13 Martin Ave Public Lot ¹	20	0	0	0	0	0	0	0	0	0	0	0	0
14 Dixie/Kroner Public Lot	21	20	20	19	20	19	20	20	20	21	18	11	13
15 Hickory Public Lot	30	29	29	27	29	29	28	29	29	29	22	10	6
16 SSMTD Park Ave Commuter Lot	347	49	51	58	62	54	53	43	37	26	25	20	14
17 Kroner/Harwood Public Lot	22	21	20	21	21	20	21	21	21	22	18	13	3
18 Dixie Hwy Public Lot	30	18	24	25	33	38	38	31	32	30	23	13	1
TOTAL	1309	320	362	420	420	380	366	362	328	302	253	202	148

Peak Occupancy of Individual Lot

¹ Martin Ave Public Lot closed for Fall Fest

Combined Peak Occupancy of All Lots

Table H
Village of Homewood - Village Hall Parking Replacement Study
Off-Street Parking Occupancy Counts

Saturday, September 29, 2018

Parking Lot	Capacity	Number of Spaces Occupied											
		11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM
1 StateNets Lot	10	20%	20%	20%	30%	30%	30%	30%	30%	20%	20%	20%	20%
2 Cancer Support Center Lot	23	39%	35%	26%	35%	30%	26%	26%	26%	26%	26%	26%	26%
3 SSMTD Harwood Ave Commuter Lot	120	3%	3%	2%	2%	3%	3%	3%	2%	1%	1%	1%	1%
4 Village Hall Lot (no permits in effect)	137	45%	51%	67%	66%	68%	55%	63%	61%	59%	47%	39%	26%
5 La Banque Hotel Lot	56	57%	73%	86%	89%	93%	80%	89%	88%	95%	80%	71%	73%
6 Ridge/Harwood Lot	38	21%	18%	13%	16%	13%	18%	16%	16%	24%	18%	18%	13%
7 Martin Square Lot	20	10%	20%	20%	15%	10%	10%	5%	25%	20%	30%	35%	20%
8 Homewood Public Library Lot	76	32%	55%	84%	72%	37%	28%	5%	1%	1%	1%	1%	1%
9 St. Joseph School Lot	124	4%	10%	20%	16%	7%	25%	41%	22%	7%	6%	8%	6%
10 Eldridge & Eldridge Lot	37	5%	8%	5%	5%	5%	3%	0%	0%	0%	0%	0%	0%
11 Golden Eagle Office Center Lot	82	28%	18%	21%	15%	17%	13%	9%	7%	9%	9%	9%	9%
12 First Presbyterian Church Lot	116	10%	9%	3%	3%	2%	1%	1%	1%	1%	0%	0%	0%
13 Martin Ave Public Lot ¹	20	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
14 Dixie/Kroner Public Lot	21	95%	95%	90%	95%	90%	95%	95%	95%	100%	86%	52%	62%
15 Hickory Public Lot	30	97%	97%	90%	97%	97%	93%	97%	97%	97%	73%	33%	20%
16 SSMTD Park Ave Commuter Lot	347	14%	15%	17%	18%	16%	15%	12%	11%	7%	7%	6%	4%
17 Kroner/Harwood Public Lot	22	95%	91%	95%	95%	91%	95%	95%	95%	100%	82%	59%	14%
18 Dixie Hwy Public Lot	30	60%	80%	83%	110%	127%	127%	103%	107%	100%	77%	43%	3%
TOTAL	1309	24%	28%	32%	32%	29%	28%	28%	25%	23%	19%	15%	11%

Peak Occupancy of Individual Lot

¹ Martin Ave Public Lot closed for Fall Fest

Combined Peak Occupancy of All Lots

Table I
Village of Homewood - Village Hall Parking Replacement Study
On-Street Parking Occupancy Counts

Monday, September 17, 2018

Block	Side of Street	Capacity	Parking Regulation	Number of Spaces Occupied											
				7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM
1 Vincennes St (Pine - Dixie)	E	6	3-Hour, 9 AM-5 PM, M-SAT	0	2	4	2	3	4	3	3	3	2	2	2
1 Vincennes St (Pine - Dixie)	W	15	3-Hour, 9 AM-5 PM, M-SAT	2	4	5	8	9	9	11	8	9	6	1	2
2 Dixie Hwy (Vincennes - Elm)	E	8	3-Hour, 9 AM-5 PM, M-SAT	0	0	0	0	0	1	0	0	0	0	0	0
2 Dixie Hwy (Vincennes - Elm)	W	7	3-Hour, 9 AM-5 PM, M-SAT	0	0	0	0	0	1	2	1	0	1	0	0
3 Dixie Hwy (Elm - Chestnut)	E	3	EMS/Fire Personnel Only. No Parking School Days 8A-4P	0	0	0	0	0	1	0	0	0	1	0	0
3 Dixie Hwy (Elm - Chestnut)	W	7	3-Hour, 9 AM-5 PM, M-SAT	0	1	3	3	1	2	0	1	1	1	0	0
4 Dixie Hwy (Chestnut - Ridge)	E	10	3-Hour, 9 AM-5 PM, M-SAT	0	3	5	4	6	5	3	4	5	5	3	8
4 Dixie Hwy (Chestnut - Ridge)	W	4	3-Hour, 9 AM-5 PM, M-SAT	0	1	3	3	1	2	0	1	0	0	1	0
5 Harwood Ave (Pine - Dixie)	E	12	Reserved for 17900 Dixie Hwy Office Center	1	2	4	4	4	3	3	2	2	1	1	0
5 Harwood Ave (Pine - Dixie)	W	22	15 spaces by permit	1	1	1	1	1	1	0	0	1	1	1	0
6 Harwood Ave (Dixie - Elm)	E	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0
6 Harwood Ave (Dixie - Elm)	W	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0
7 Harwood Ave (Elm - Chestnut)	E	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0
7 Harwood Ave (Elm - Chestnut)	W	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0
8 Harwood Ave (Chestnut - Ridge)	E	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0
8 Harwood Ave (Chestnut - Ridge)	W	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0
9 Dixie Hwy (Harwood - Vincennes)	N	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0
9 Dixie Hwy (Harwood - Vincennes)	S	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0
10 Elm Rd (Harwood - Dixie)	N	12	3-Hour, 9 AM-5 PM, M-SAT	0	0	4	5	3	4	4	4	5	4	3	2
10 Elm Rd (Harwood - Dixie)	S	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0
11 Chestnut Rd (Harwood - Martin)	N	8	3-Hour, 9 AM-5 PM, M-SAT	0	2	5	4	1	3	3	4	3	3	1	1
11 Chestnut Rd (Harwood - Martin)	S	8	3-Hour, 9 AM-5 PM, M-SAT	0	0	0	1	2	2	1	2	0	1	1	0
12 Chestnut Rd (Martin - Dixie)	N	3	15-min Parking	0	0	2	1	2	2	1	1	1	1	0	0
12 Chestnut Rd (Martin - Dixie)	S	2	1-Hour, 9 AM-5 PM, M-SAT	0	0	0	0	0	1	0	0	0	0	0	0
13 Ridge Rd (Harwood - Martin)	N	11	9 spaces 3-Hr, 9A-5P, M-SAT, 2 spaces guest drop-off	2	5	7	6	5	7	6	5	7	8	6	6
13 Ridge Rd (Harwood - Martin)	S	11	3-Hour, 9 AM-5 PM, M-SAT	4	4	5	7	6	5	4	6	5	7	9	6
14 Ridge Rd (Martin - Dixie)	N	5	3-Hour, 9 AM-5 PM, M-SAT	1	2	1	1	2	3	3	4	2	4	3	4
14 Ridge Rd (Martin - Dixie)	S	8	3-Hour, 9 AM-5 PM, M-SAT	0	1	2	4	4	3	3	5	5	4	5	3
15 Ridge Rd (Dixie - Gottschalk)	N	10	3-Hour, 9 AM-5 PM, M-SAT	0	2	8	6	5	7	5	6	4	5	3	9
15 Ridge Rd (Dixie - Gottschalk)	S	13	3-Hour, 9 AM-5 PM, M-SAT	2	4	8	8	10	8	7	8	11	9	5	5
16 Ridge Rd (Gottschalk - Homewood)	N	8	3-Hour, 9 AM-5 PM, M-SAT	1	2	3	2	1	1	3	2	0	1	0	1
16 Ridge Rd (Gottschalk - Homewood)	S	12	3-Hour, 9 AM-5 PM, M-SAT	0	2	2	1	1	2	1	2	1	2	2	0
17 Martin Ave (Chestnut - Ridge)	E	4	3-Hour, 9 AM-5 PM, M-SAT; No Parking SAT 6A-1P	0	0	1	1	0	1	0	1	0	0	0	0
17 Martin Ave (Chestnut - Ridge)	W	5	3-Hour, 9 AM-5 PM, M-SAT; No Parking SAT 6A-1P	0	0	0	0	0	0	1	1	0	0	1	1
TOTAL		214		14	38	71	72	67	79	64	70	65	68	48	49

█ Peak Occupancy of Individual Street Segment

█ Combined Peak Occupancy of All Streets

Table J
Village of Homewood - Village Hall Parking Replacement Study
On-Street Parking Occupancy Counts

Monday, September 17, 2018

Block	Side of Street	Capacity	Parking Regulation	Number of Spaces Occupied											
				7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM
1 Vincennes St (Pine - Dixie)	E	6	3-Hour, 9 AM-5 PM, M-SAT	0%	33%	67%	33%	50%	67%	50%	50%	50%	33%	33%	33%
1 Vincennes St (Pine - Dixie)	W	15	3-Hour, 9 AM-5 PM, M-SAT	13%	27%	33%	53%	60%	60%	73%	53%	60%	40%	7%	13%
2 Dixie Hwy (Vincennes - Elm)	E	8		0%	0%	0%	0%	0%	13%	0%	0%	0%	0%	0%	0%
2 Dixie Hwy (Vincennes - Elm)	W	7		0%	0%	0%	0%	0%	14%	29%	14%	0%	14%	0%	0%
3 Dixie Hwy (Elm - Chestnut)	E	3		0%	0%	0%	0%	0%	33%	0%	0%	0%	33%	0%	0%
3 Dixie Hwy (Elm - Chestnut)	W	7		0%	14%	43%	43%	14%	29%	0%	14%	14%	14%	0%	0%
4 Dixie Hwy (Chestnut - Ridge)	E	10	3-Hour, 9 AM-5 PM, M-SAT	0%	30%	50%	40%	60%	50%	30%	40%	50%	30%	80%	80%
4 Dixie Hwy (Chestnut - Ridge)	W	4		0%	25%	75%	75%	25%	50%	0%	25%	0%	0%	25%	0%
5 Harwood Ave (Pine - Dixie)	E	12	Reserved for 17900 Dixie Hwy Office Center	8%	17%	33%	33%	33%	25%	25%	17%	17%	8%	8%	0%
5 Harwood Ave (Pine - Dixie)	W	22	15 spaces by permit	5%	5%	5%	5%	5%	5%	0%	0%	5%	5%	5%	0%
6 Harwood Ave (Dixie - Elm)	E	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
6 Harwood Ave (Dixie - Elm)	W	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
7 Harwood Ave (Elm - Chestnut)	E	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
7 Harwood Ave (Elm - Chestnut)	W	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8 Harwood Ave (Chestnut - Ridge)	E	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8 Harwood Ave (Chestnut - Ridge)	W	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
9 Dixie Hwy (Harwood - Vincennes)	N	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
9 Dixie Hwy (Harwood - Vincennes)	S	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
10 Elm Rd (Harwood - Dixie)	N	12	3-Hour, 9 AM-5 PM, M-SAT	0%	0%	33%	42%	25%	33%	33%	42%	33%	25%	17%	0%
10 Elm Rd (Harwood - Dixie)	S	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
11 Chestnut Rd (Harwood - Martin)	N	8	3-Hour, 9 AM-5 PM, M-SAT	0%	25%	63%	50%	13%	38%	38%	50%	38%	38%	13%	13%
11 Chestnut Rd (Harwood - Martin)	S	8	3-Hour, 9 AM-5 PM, M-SAT	0%	0%	0%	13%	25%	25%	13%	25%	0%	13%	13%	0%
12 Chestnut Rd (Martin - Dixie)	N	3	15-min Parking	0%	0%	67%	33%	67%	67%	33%	33%	33%	33%	0%	0%
12 Chestnut Rd (Martin - Dixie)	S	2	1-Hour, 9 AM-5 PM, M-SAT	0%	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%	0%
13 Ridge Rd (Harwood - Martin)	N	11	9 spaces 3-Hr, 9A-5P, M-SAT, 2 spaces guest drop-off	18%	45%	64%	55%	45%	64%	55%	45%	64%	73%	55%	55%
13 Ridge Rd (Harwood - Martin)	S	11	3-Hour, 9 AM-5 PM, M-SAT	36%	36%	45%	64%	55%	45%	36%	55%	45%	64%	82%	55%
14 Ridge Rd (Martin - Dixie)	N	5		20%	40%	20%	20%	40%	60%	60%	80%	40%	80%	60%	80%
14 Ridge Rd (Martin - Dixie)	S	8	3-Hour, 9 AM-5 PM, M-SAT	0%	13%	25%	50%	50%	38%	38%	63%	63%	50%	63%	36%
15 Ridge Rd (Dixie - Gottschalk)	N	10	3-Hour, 9 AM-5 PM, M-SAT	0%	20%	60%	60%	50%	70%	50%	60%	40%	50%	30%	80%
15 Ridge Rd (Dixie - Gottschalk)	S	13	3-Hour, 9 AM-5 PM, M-SAT	15%	31%	62%	62%	77%	62%	54%	62%	65%	69%	36%	36%
16 Ridge Rd (Gottschalk - Homewood)	N	8	3-Hour, 9 AM-5 PM, M-SAT	13%	25%	36%	25%	13%	13%	36%	25%	0%	13%	0%	13%
16 Ridge Rd (Gottschalk - Homewood)	S	12	3-Hour, 9 AM-5 PM, M-SAT	0%	17%	17%	8%	8%	17%	8%	17%	8%	17%	17%	0%
17 Martin Ave (Chestnut - Ridge)	E	4	3-Hour, 9 AM-5 PM, M-SAT; No Parking SAT 6A-1P	0%	0%	25%	25%	0%	25%	0%	25%	0%	0%	0%	0%
17 Martin Ave (Chestnut - Ridge)	W	5	3-Hour, 9 AM-5 PM, M-SAT; No Parking SAT 6A-1P	0%	0%	0%	0%	0%	20%	20%	0%	0%	20%	20%	0%
TOTAL		214		7%	18%	33%	34%	31%	37%	30%	33%	30%	32%	22%	23%

█ Peak Occupancy of Individual Street Segment

█ Combined Peak Occupancy of All Streets

Table K
Village of Homewood - Village Hall Parking Replacement Study
On-Street Parking Occupancy Counts

Thursday, September 20, 2018

Block	Side of Street	Capacity	Parking Regulation	Number of Spaces Occupied											
				7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM
1 Vincennes St (Pine - Dixie)	E	6	3-Hour, 9 AM-5 PM, M-SAT	2	4	3	3	2	1	1	2	2	2	1	0
1 Vincennes St (Pine - Dixie)	W	15	3-Hour, 9 AM-5 PM, M-SAT	4	6	11	9	11	11	13	10	11	8	4	2
2 Dixie Hwy (Vincennes - Elm)	E	8	3-Hour, 9 AM-5 PM, M-SAT	0	0	0	0	0	1	0	0	0	0	0	0
2 Dixie Hwy (Vincennes - Elm)	W	7	3-Hour, 9 AM-5 PM, M-SAT	0	0	0	1	2	3	0	1	1	0	0	0
3 Dixie Hwy (Elm - Chestnut)	E	3	EMS/Fire Personnel Only, No Parking School Days 8A-4P	1	1	1	0	1	1	0	0	0	1	1	2
3 Dixie Hwy (Elm - Chestnut)	W	7	3-Hour, 9 AM-5 PM, M-SAT	0	0	0	0	1	2	1	1	2	0	1	2
4 Dixie Hwy (Chestnut - Ridge)	E	10	3-Hour, 9 AM-5 PM, M-SAT	0	3	7	6	6	5	5	4	2	7	10	8
4 Dixie Hwy (Chestnut - Ridge)	W	4	3-Hour, 9 AM-5 PM, M-SAT	0	1	1	2	1	0	0	0	0	2	4	4
5 Harwood Ave (Pine - Dixie)	E	12	Reserved for 17900 Dixie Hwy Office Center	0	0	4	6	6	3	3	1	2	1	2	1
5 Harwood Ave (Pine - Dixie)	W	22	15 spaces by permit	1	1	1	1	2	1	2	3	3	3	2	1
6 Harwood Ave (Dixie - Elm)	E	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0
6 Harwood Ave (Dixie - Elm)	W	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0
7 Harwood Ave (Elm - Chestnut)	E	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0
7 Harwood Ave (Elm - Chestnut)	W	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0
8 Harwood Ave (Chestnut - Ridge)	E	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0
8 Harwood Ave (Chestnut - Ridge)	W	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0
9 Dixie Hwy (Harwood - Vincennes)	N	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0
9 Dixie Hwy (Harwood - Vincennes)	S	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0
10 Elm Rd (Harwood - Dixie)	N	12	3-Hour, 9 AM-5 PM, M-SAT	0	0	3	4	6	9	6	4	7	5	3	3
10 Elm Rd (Harwood - Dixie)	S	0	No Parking	0	0	0	0	0	0	0	1	0	0	0	0
11 Chestnut Rd (Harwood - Martin)	N	8	3-Hour, 9 AM-5 PM, M-SAT	1	2	0	2	2	1	1	2	2	1	0	2
11 Chestnut Rd (Harwood - Martin)	S	8	3-Hour, 9 AM-5 PM, M-SAT	0	1	0	3	2	2	1	1	3	2	1	1
12 Chestnut Rd (Martin - Dixie)	N	3	15-min Parking	0	1	1	2	2	0	2	1	1	2	2	1
12 Chestnut Rd (Martin - Dixie)	S	2	1-Hour, 9 AM-5 PM, M-SAT	1	1	1	1	1	1	1	1	1	1	1	1
13 Ridge Rd (Harwood - Martin)	N	11	9 spaces: 3-Hr, 9A-5P, M-SAT, 2 spaces guest drop-off	2	3	4	4	5	7	7	6	7	6	6	9
13 Ridge Rd (Harwood - Martin)	S	11	3-Hour, 9 AM-5 PM, M-SAT	3	4	4	6	6	6	7	8	7	9	11	11
14 Ridge Rd (Martin - Dixie)	N	5	3-Hour, 9 AM-5 PM, M-SAT	0	2	3	2	4	3	1	2	1	3	4	5
14 Ridge Rd (Martin - Dixie)	S	8	3-Hour, 9 AM-5 PM, M-SAT	1	2	2	5	3	5	7	6	6	8	7	8
15 Ridge Rd (Dixie - Gottschalk)	N	10	3-Hour, 9 AM-5 PM, M-SAT	2	4	6	5	6	7	8	7	9	8	10	10
15 Ridge Rd (Dixie - Gottschalk)	S	13	3-Hour, 9 AM-5 PM, M-SAT	3	4	5	7	10	8	10	8	6	9	11	12
16 Ridge Rd (Gottschalk - Homewood)	N	8	3-Hour, 9 AM-5 PM, M-SAT	2	2	2	0	2	3	2	1	1	1	1	0
16 Ridge Rd (Gottschalk - Homewood)	S	12	3-Hour, 9 AM-5 PM, M-SAT	0	1	0	2	1	2	1	2	3	1	1	2
17 Martin Ave (Chestnut - Ridge)	E	4	3-Hour, 9 AM-5 PM, M-SAT; No Parking SAT 6A-1P	0	0	1	1	1	0	1	1	0	1	1	1
17 Martin Ave (Chestnut - Ridge)	W	5	3-Hour, 9 AM-5 PM, M-SAT; No Parking SAT 6A-1P	2	2	2	2	2	2	2	2	0	0	0	0
TOTAL		214		25	45	62	75	88	83	82	76	75	81	85	87

█ Peak Occupancy of Individual Street Segment

█ Combined Peak Occupancy of All Streets

Table L
Village of Homewood - Village Hall Parking Replacement Study
On-Street Parking Occupancy Counts

Thursday, September 20, 2018

Block	Side of Street	Capacity	Parking Regulation	Number of Spaces Occupied											
				7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM
1 Vincennes St (Pine - Dixie)	E	6	3-Hour, 9 AM-5 PM, M-SAT	33%	67%	50%	50%	33%	17%	17%	33%	33%	33%	17%	0%
1 Vincennes St (Pine - Dixie)	W	15	3-Hour, 9 AM-5 PM, M-SAT	27%	40%	73%	60%	73%	73%	87%	67%	73%	53%	27%	13%
2 Dixie Hwy (Vincennes - Elm)	E	8	3-Hour, 9 AM-5 PM, M-SAT	0%	0%	0%	0%	0%	13%	0%	0%	0%	0%	0%	0%
2 Dixie Hwy (Vincennes - Elm)	W	7	3-Hour, 9 AM-5 PM, M-SAT	0%	0%	0%	14%	25%	43%	0%	14%	14%	0%	0%	0%
3 Dixie Hwy (Elm - Chestnut)	E	3	3-Hour, 9 AM-5 PM, M-SAT	33%	33%	33%	0%	33%	33%	0%	0%	33%	0%	67%	0%
3 Dixie Hwy (Elm - Chestnut)	W	7	3-Hour, 9 AM-5 PM, M-SAT	0%	0%	0%	14%	25%	43%	14%	14%	25%	0%	14%	25%
4 Dixie Hwy (Chestnut - Ridge)	E	10	3-Hour, 9 AM-5 PM, M-SAT	0%	30%	70%	80%	80%	50%	50%	40%	20%	70%	100%	80%
4 Dixie Hwy (Chestnut - Ridge)	W	4	3-Hour, 9 AM-5 PM, M-SAT	0%	25%	25%	50%	25%	0%	0%	0%	0%	50%	100%	100%
5 Harwood Ave (Pine - Dixie)	E	12	Reserved for 17900 Dixie Hwy Office Center	0%	0%	33%	50%	50%	25%	25%	8%	17%	8%	17%	8%
5 Harwood Ave (Pine - Dixie)	W	22	15 spaces by permit	5%	5%	5%	5%	9%	5%	9%	14%	14%	14%	9%	5%
6 Harwood Ave (Dixie - Elm)	E	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
6 Harwood Ave (Dixie - Elm)	W	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
7 Harwood Ave (Elm - Chestnut)	E	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
7 Harwood Ave (Elm - Chestnut)	W	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8 Harwood Ave (Chestnut - Ridge)	E	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8 Harwood Ave (Chestnut - Ridge)	W	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
9 Dixie Hwy (Harwood - Vincennes)	N	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
9 Dixie Hwy (Harwood - Vincennes)	S	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
10 Elm Rd (Harwood - Dixie)	N	12	3-Hour, 9 AM-5 PM, M-SAT	0%	0%	25%	33%	67%	75%	50%	33%	58%	42%	25%	25%
10 Elm Rd (Harwood - Dixie)	S	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
11 Chestnut Rd (Harwood - Martin)	N	8	3-Hour, 9 AM-5 PM, M-SAT	13%	25%	0%	25%	25%	13%	13%	25%	25%	13%	0%	25%
11 Chestnut Rd (Harwood - Martin)	S	8	3-Hour, 9 AM-5 PM, M-SAT	0%	13%	0%	38%	25%	25%	13%	13%	38%	25%	13%	13%
12 Chestnut Rd (Martin - Dixie)	N	3	15-min Parking	0%	33%	33%	67%	67%	0%	67%	33%	33%	67%	67%	33%
12 Chestnut Rd (Martin - Dixie)	S	2	1-Hour, 9 AM-5 PM, M-SAT	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
13 Ridge Rd (Harwood - Martin)	N	11	9 spaces: 3-Hr, 9A-5P, M-SAT, 2 spaces guest drop-off	18%	27%	36%	36%	45%	64%	64%	55%	64%	55%	73%	82%
13 Ridge Rd (Harwood - Martin)	S	11	3-Hour, 9 AM-5 PM, M-SAT	27%	36%	36%	55%	55%	55%	64%	73%	64%	82%	100%	100%
14 Ridge Rd (Martin - Dixie)	N	5	3-Hour, 9 AM-5 PM, M-SAT	0%	40%	60%	40%	80%	60%	20%	40%	20%	60%	80%	100%
14 Ridge Rd (Martin - Dixie)	S	8	3-Hour, 9 AM-5 PM, M-SAT	13%	25%	25%	63%	38%	63%	88%	75%	75%	100%	88%	100%
15 Ridge Rd (Dixie - Gottschalk)	N	10	3-Hour, 9 AM-5 PM, M-SAT	20%	40%	60%	60%	60%	70%	80%	70%	90%	80%	100%	100%
15 Ridge Rd (Dixie - Gottschalk)	S	13	3-Hour, 9 AM-5 PM, M-SAT	23%	31%	38%	54%	77%	62%	77%	62%	46%	69%	86%	92%
16 Ridge Rd (Gottschalk - Homewood)	N	8	3-Hour, 9 AM-5 PM, M-SAT	25%	25%	25%	0%	25%	38%	25%	13%	13%	13%	0%	0%
16 Ridge Rd (Gottschalk - Homewood)	S	12	3-Hour, 9 AM-5 PM, M-SAT	0%	8%	0%	17%	8%	17%	8%	17%	25%	8%	8%	17%
17 Martin Ave (Chestnut - Ridge)	E	4	3-Hour, 9 AM-5 PM, M-SAT; No Parking SAT 6A-1P	0%	0%	25%	25%	25%	0%	25%	25%	0%	0%	25%	25%
17 Martin Ave (Chestnut - Ridge)	W	5	3-Hour, 9 AM-5 PM, M-SAT; No Parking SAT 6A-1P	40%	40%	40%	40%	40%	40%	40%	40%	0%	0%	0%	20%
TOTAL		214		12%	21%	29%	35%	41%	39%	38%	36%	35%	38%	40%	41%

█ Peak Occupancy of Individual Street Segment

█ Combined Peak Occupancy of All Streets

Table M
Village of Homewood - Village Hall Parking Replacement Study
On-Street Parking Occupancy Counts

Saturday, September 15, 2018

Block	Side of Street	Capacity	Parking Regulation	Number of Spaces Occupied													
				11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM		
1 Vincennes St (Pine - Dixie)	E	6	3-Hour, 9 AM-5 PM, M-SAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1 Vincennes St (Pine - Dixie)	W	15	3-Hour, 9 AM-5 PM, M-SAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Dixie Hwy (Vincennes - Elm)	E	8	3-Hour, 9 AM-5 PM, M-SAT	0	2	2	1	0	0	0	1	1	1	0	0	0	0
2 Dixie Hwy (Vincennes - Elm)	W	7	3-Hour, 9 AM-5 PM, M-SAT	2	1	0	2	3	2	3	3	3	3	4	4	4	4
3 Dixie Hwy (Elm - Chestnut)	E	3	EMS/Fire Personnel Only, No Parking School Days 8A-4P	3	4	4	2	3	2	3	3	3	3	4	4	4	4
3 Dixie Hwy (Elm - Chestnut)	W	7	3-Hour, 9 AM-5 PM, M-SAT	1	2	5	4	2	3	3	2	4	2	4	3	3	3
4 Dixie Hwy (Chestnut - Ridge)	E	10	3-Hour, 9 AM-5 PM, M-SAT	7	6	9	7	10	10	9	10	9	9	8	6	6	6
4 Dixie Hwy (Chestnut - Ridge)	W	4	3-Hour, 9 AM-5 PM, M-SAT	3	4	3	2	4	3	1	2	4	4	4	4	4	4
5 Harwood Ave (Pine - Dixie)	E	12	Reserved for 17900 Dixie Hwy Office Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 Harwood Ave (Pine - Dixie)	W	22	15 spaces by permit	2	2	2	2	1	0	0	0	0	0	0	0	0	0
6 Harwood Ave (Dixie - Elm)	E	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Harwood Ave (Dixie - Elm)	W	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 Harwood Ave (Elm - Chestnut)	E	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 Harwood Ave (Elm - Chestnut)	W	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Harwood Ave (Chestnut - Ridge)	E	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Harwood Ave (Chestnut - Ridge)	W	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 Dixie Hwy (Harwood - Vincennes)	N	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 Dixie Hwy (Harwood - Vincennes)	S	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 Elm Rd (Harwood - Dixie)	N	12	3-Hour, 9 AM-5 PM, M-SAT	3	4	5	3	3	2	0	1	3	2	0	0	0	0
10 Elm Rd (Harwood - Dixie)	S	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Chestnut Rd (Harwood - Martin)	N	8	3-Hour, 9 AM-5 PM, M-SAT	8	6	1	3	0	2	1	2	0	1	1	1	1	1
11 Chestnut Rd (Harwood - Martin)	S	8	3-Hour, 9 AM-5 PM, M-SAT	6	5	1	2	1	4	3	4	1	3	2	3	3	3
12 Chestnut Rd (Martin - Dixie)	N	3	15-min Parking	1	2	0	2	0	1	2	3	3	1	1	0	0	0
12 Chestnut Rd (Martin - Dixie)	S	2	1-Hour, 9 AM-5 PM, M-SAT	2	2	0	1	0	0	2	2	2	0	1	2	2	2
13 Ridge Rd (Harwood - Martin)	N	11	9 spaces: 3-Hr, 9A-5P, M-SAT; 2 spaces guest drop-off	9	8	6	9	9	8	4	7	6	6	8	5	5	5
13 Ridge Rd (Harwood - Martin)	S	11	3-Hour, 9 AM-5 PM, M-SAT	8	9	7	7	9	7	3	6	8	8	6	6	6	6
14 Ridge Rd (Martin - Dixie)	N	5	3-Hour, 9 AM-5 PM, M-SAT	4	5	3	5	5	4	3	5	5	4	6	4	4	4
14 Ridge Rd (Martin - Dixie)	S	8	3-Hour, 9 AM-5 PM, M-SAT	6	7	5	8	8	4	1	5	8	9	7	7	7	7
15 Ridge Rd (Dixie - Gottschalk)	N	10	3-Hour, 9 AM-5 PM, M-SAT	9	11	11	9	8	10	4	8	10	10	9	9	9	9
15 Ridge Rd (Dixie - Gottschalk)	S	13	3-Hour, 9 AM-5 PM, M-SAT	9	10	12	12	11	9	11	12	10	9	11	12	12	12
16 Ridge Rd (Gottschalk - Homewood)	N	8	3-Hour, 9 AM-5 PM, M-SAT	1	3	2	2	0	1	0	1	3	3	2	2	2	2
16 Ridge Rd (Gottschalk - Homewood)	S	12	3-Hour, 9 AM-5 PM, M-SAT	7	8	8	8	5	6	2	4	3	6	4	5	5	5
17 Martin Ave (Chestnut - Ridge)	E	4	3-Hour, 9 AM-5 PM, M-SAT; No Parking SAT 6A-1P	0	0	0	0	1	2	1	0	0	2	3	1	1	1
17 Martin Ave (Chestnut - Ridge)	W	5	3-Hour, 9 AM-5 PM, M-SAT; No Parking SAT 6A-1P	0	0	0	0	0	1	1	3	1	1	3	3	3	3
TOTAL		214		91	101	86	89	80	80	54	81	84	85	84	77	77	77

Peak Occupancy of Individual Street Segment

Combined Peak Occupancy of All Streets

Table N
Village of Homewood - Village Hall Parking Replacement Study
On-Street Parking Occupancy Counts

Saturday, September 15, 2018

Block	Side of Street	Capacity	Parking Regulation	Number of Spaces Occupied													
				11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM		
1 Vincennes St (Pine - Dixie)	E	6	3-Hour, 9 AM-5 PM, M-SAT	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1 Vincennes St (Pine - Dixie)	W	15	3-Hour, 9 AM-5 PM, M-SAT	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
2 Dixie Hwy (Vincennes - Elm)	E	8	3-Hour, 9 AM-5 PM, M-SAT	0%	25%	25%	13%	0%	0%	0%	13%	13%	13%	0%	0%	0%	0%
2 Dixie Hwy (Vincennes - Elm)	W	7	3-Hour, 9 AM-5 PM, M-SAT	29%	14%	0%	29%	0%	14%	0%	0%	0%	14%	0%	0%	0%	0%
3 Dixie Hwy (Elm - Chestnut)	E	3	3-Hour, 9 AM-5 PM, M-SAT	100%	133%	133%	67%	100%	67%	100%	100%	100%	100%	133%	133%	133%	133%
3 Dixie Hwy (Elm - Chestnut)	W	7	3-Hour, 9 AM-5 PM, M-SAT	14%	29%	71%	57%	29%	43%	43%	29%	57%	29%	57%	43%	43%	43%
4 Dixie Hwy (Chestnut - Ridge)	E	10	3-Hour, 9 AM-5 PM, M-SAT	70%	60%	90%	70%	100%	100%	90%	100%	90%	90%	80%	80%	80%	80%
4 Dixie Hwy (Chestnut - Ridge)	W	4	3-Hour, 9 AM-5 PM, M-SAT	75%	100%	75%	50%	100%	75%	25%	50%	100%	100%	100%	100%	100%	100%
5 Harwood Ave (Pine - Dixie)	E	12	Reserved for 17900 Dixie Hwy Office Center	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
5 Harwood Ave (Pine - Dixie)	W	22	15 spaces by permit	9%	9%	9%	9%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%
6 Harwood Ave (Dixie - Elm)	E	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
6 Harwood Ave (Dixie - Elm)	W	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
7 Harwood Ave (Elm - Chestnut)	E	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
7 Harwood Ave (Elm - Chestnut)	W	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8 Harwood Ave (Chestnut - Ridge)	E	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8 Harwood Ave (Chestnut - Ridge)	W	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
9 Dixie Hwy (Harwood - Vincennes)	N	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
9 Dixie Hwy (Harwood - Vincennes)	S	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
10 Elm Rd (Harwood - Dixie)	N	12	3-Hour, 9 AM-5 PM, M-SAT	25%	33%	42%	25%	25%	17%	0%	8%	25%	17%	0%	0%	0%	0%
10 Elm Rd (Harwood - Dixie)	S	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
11 Chestnut Rd (Harwood - Martin)	N	8	3-Hour, 9 AM-5 PM, M-SAT	100%	75%	13%	38%	0%	25%	13%	25%	0%	13%	13%	13%	13%	13%
11 Chestnut Rd (Harwood - Martin)	S	8	3-Hour, 9 AM-5 PM, M-SAT	75%	63%	13%	25%	13%	50%	38%	50%	13%	38%	25%	38%	38%	38%
12 Chestnut Rd (Martin - Dixie)	N	3	15-min Parking	33%	67%	0%	67%	0%	33%	67%	100%	100%	33%	33%	0%	0%	0%
12 Chestnut Rd (Martin - Dixie)	S	2	1-Hour, 9 AM-5 PM, M-SAT	100%	100%	0%	50%	0%	0%	100%	100%	100%	0%	50%	100%	100%	100%
13 Ridge Rd (Harwood - Martin)	N	11	9 spaces: 3-Hr, 9A-5P, M-SAT; 2 spaces guest drop-off	82%	73%	55%	82%	82%	73%	36%	64%	55%	73%	45%	45%	45%	45%
13 Ridge Rd (Harwood - Martin)	S	11	3-Hour, 9 AM-5 PM, M-SAT	73%	82%	64%	64%	82%	64%	27%	55%	73%	73%	55%	55%	55%	55%
14 Ridge Rd (Martin - Dixie)	N	5	3-Hour, 9 AM-5 PM, M-SAT	80%	100%	60%	100%	100%	80%	60%	100%	100%	80%	120%	80%	80%	80%
14 Ridge Rd (Martin - Dixie)	S	8	3-Hour, 9 AM-5 PM, M-SAT	75%	88%	63%	100%	100%	50%	13%	63%	100%	113%	88%	88%	88%	88%
15 Ridge Rd (Dixie - Gottschalk)	N	10	3-Hour, 9 AM-5 PM, M-SAT	90%	110%	110%	90%	80%	100%	40%	80%	100%	100%	90%	90%	90%	90%
15 Ridge Rd (Dixie - Gottschalk)	S	13	3-Hour, 9 AM-5 PM, M-SAT	69%	77%	92%	92%	85%	69%	85%	92%	77%	69%	85%	92%	92%	92%
16 Ridge Rd (Gottschalk - Homewood)	N	8	3-Hour, 9 AM-5 PM, M-SAT	13%	38%	25%	25%	0%	13%	0%	13%	38%	38%	25%	25%	25%	25%
16 Ridge Rd (Gottschalk - Homewood)	S	12	3-Hour, 9 AM-5 PM, M-SAT	58%	67%	67%	50%	42%	50%	17%	33%	25%	50%	33%	42%	42%	42%
17 Martin Ave (Chestnut - Ridge)	E	4	3-Hour, 9 AM-5 PM, M-SAT; No Parking SAT 6A-1P	0%	0%	0%	0%	25%	50%	25%	0%	0%	50%	75%	25%	25%	25%
17 Martin Ave (Chestnut - Ridge)	W	5	3-Hour, 9 AM-5 PM, M-SAT; No Parking SAT 6A-1P	0%	0%	0%	0%	0%	20%	20%	60%	20%	60%	60%	60%	60%	60%
TOTAL		214		43%	47%	40%	42%	37%	37%	25%	38%	39%	40%	39%	38%	38%	38%

Peak Occupancy of Individual Street Segment

Combined Peak Occupancy of All Streets

Table O
 Village of Homewood - Village Hall Parking Replacement Study
 On-Street Parking Occupancy Counts

Saturday, September 29, 2018

Block	Side of Street	Capacity	Parking Regulation	Number of Spaces Occupied											
				11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM
1 Vincennes St (Pine - Dixie)	E	6	3-Hour, 9 AM-5 PM, M-SAT	0	2	4	2	3	4	3	3	3	2	2	2
1 Vincennes St (Pine - Dixie)	W	15	3-Hour, 9 AM-5 PM, M-SAT	2	4	5	8	9	9	11	8	8	6	1	2
2 Dixie Hwy (Vincennes - Elm)	E	8	3-Hour, 9 AM-5 PM, M-SAT	0	0	0	0	0	1	0	0	0	0	0	0
2 Dixie Hwy (Vincennes - Elm)	W	7	3-Hour, 9 AM-5 PM, M-SAT	0	0	0	0	0	1	2	1	0	1	0	0
3 Dixie Hwy (Elm - Chestnut)	E	3	EMS/Fire Personnel Only, No Parking School Days 8A-4P	0	0	0	0	0	1	0	0	0	1	0	0
3 Dixie Hwy (Elm - Chestnut)	W	7	3-Hour, 9 AM-5 PM, M-SAT	0	1	3	3	1	2	0	1	1	1	0	0
4 Dixie Hwy (Chestnut - Ridge)	E	10	3-Hour, 9 AM-5 PM, M-SAT	0	3	5	4	6	5	3	4	5	5	3	8
4 Dixie Hwy (Chestnut - Ridge)	W	4	3-Hour, 9 AM-5 PM, M-SAT	0	1	3	3	1	2	0	1	0	0	1	0
5 Harwood Ave (Pine - Dixie)	E	12	Reserved for 17900 Dixie Hwy Office Center	1	2	4	4	4	3	3	2	2	1	1	0
5 Harwood Ave (Pine - Dixie)	W	22	15 spaces by permit	1	1	1	1	1	1	0	0	1	1	1	0
6 Harwood Ave (Dixie - Elm)	E	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0
6 Harwood Ave (Dixie - Elm)	W	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0
7 Harwood Ave (Elm - Chestnut)	E	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0
7 Harwood Ave (Elm - Chestnut)	W	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0
8 Harwood Ave (Chestnut - Ridge)	E	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0
8 Harwood Ave (Chestnut - Ridge)	W	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0
9 Dixie Hwy (Harwood - Vincennes)	N	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0
9 Dixie Hwy (Harwood - Vincennes)	S	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0
10 Elm Rd (Harwood - Dixie)	N	12	3-Hour, 9 AM-5 PM, M-SAT	0	0	4	5	3	4	4	4	5	4	3	2
10 Elm Rd (Harwood - Dixie)	S	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0
11 Chestnut Rd (Harwood - Martin)	N	8	3-Hour, 9 AM-5 PM, M-SAT	0	2	5	4	1	3	3	4	3	3	1	1
11 Chestnut Rd (Harwood - Martin)	S	8	3-Hour, 9 AM-5 PM, M-SAT	0	0	0	1	2	2	1	2	0	1	1	0
12 Chestnut Rd (Martin - Dixie)	N	3	15-min Parking	0	0	2	1	2	2	1	1	1	1	0	0
12 Chestnut Rd (Martin - Dixie)	S	2	1-Hour, 9 AM-5 PM, M-SAT	0	0	0	0	0	1	0	0	0	0	0	0
13 Ridge Rd (Harwood - Martin)	N	11	9 spaces: 3-Hr, 9A-5P, M-SAT; 2 spaces guest drop-off	2	5	7	6	5	7	6	5	7	8	6	6
13 Ridge Rd (Harwood - Martin)	S	11	3-Hour, 9 AM-5 PM, M-SAT	4	4	5	7	6	5	4	6	5	7	9	6
14 Ridge Rd (Martin - Dixie)	N	5	3-Hour, 9 AM-5 PM, M-SAT	1	2	1	1	2	3	3	4	2	4	3	4
14 Ridge Rd (Martin - Dixie)	S	8	3-Hour, 9 AM-5 PM, M-SAT	0	1	2	4	4	3	3	5	5	4	5	3
15 Ridge Rd (Dixie - Gottschalk)	N	10	3-Hour, 9 AM-5 PM, M-SAT	0	2	6	6	5	7	5	6	4	5	3	9
15 Ridge Rd (Dixie - Gottschalk)	S	13	3-Hour, 9 AM-5 PM, M-SAT	2	4	8	8	10	8	7	8	11	9	5	5
16 Ridge Rd (Gottschalk - Homewood)	N	6	3-Hour, 9 AM-5 PM, M-SAT	1	2	3	2	1	1	3	2	0	1	0	1
16 Ridge Rd (Gottschalk - Homewood)	S	12	3-Hour, 9 AM-5 PM, M-SAT	0	2	2	1	1	2	1	2	1	2	2	0
17 Martin Ave (Chestnut - Ridge)	E	4	3-Hour, 9 AM-5 PM, M-SAT; No Parking SAT 6A-1P	0	0	1	1	0	1	0	1	0	0	0	0
17 Martin Ave (Chestnut - Ridge)	W	5	3-Hour, 9 AM-5 PM, M-SAT; No Parking SAT 6A-1P	0	0	0	0	0	0	1	0	0	1	1	0
TOTAL		214		14	38	71	72	67	79	64	70	65	68	41	49

█ Peak Occupancy of Individual Street Segment

█ Combined Peak Occupancy of All Streets

Table P
 Village of Homewood - Village Hall Parking Replacement Study
 On-Street Parking Occupancy Counts

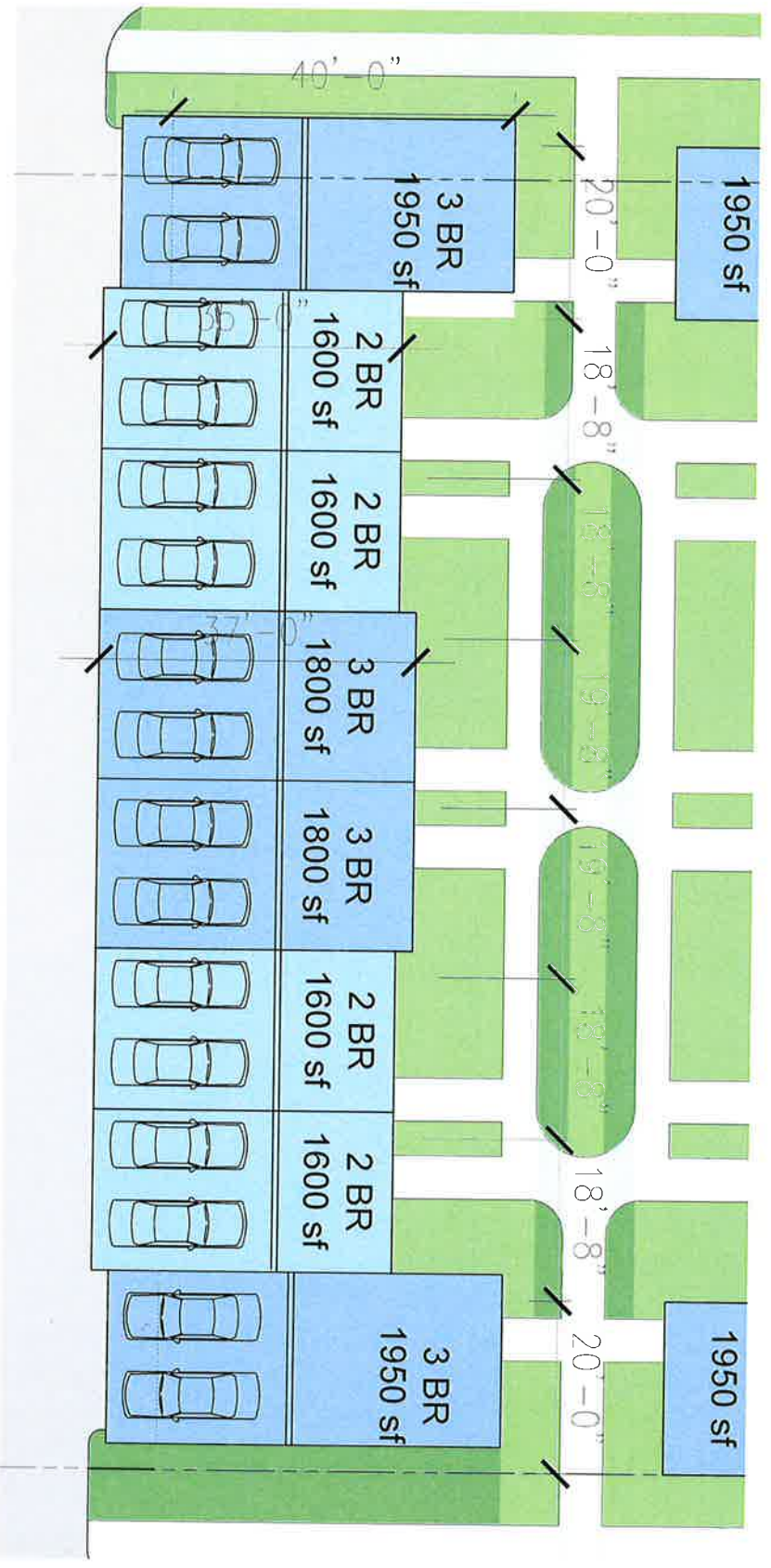
Saturday, September 29, 2018

Block	Side of Street	Capacity	Parking Regulation	Number of Spaces Occupied											
				11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM
1 Vincennes St (Pine - Dixie)	E	6	3-Hour, 9 AM-5 PM, M-SAT	0%	33%	67%	33%	50%	67%	50%	50%	60%	33%	33%	33%
1 Vincennes St (Pine - Dixie)	W	15	3-Hour, 9 AM-5 PM, M-SAT	13%	27%	33%	53%	60%	60%	73%	53%	60%	40%	7%	13%
2 Dixie Hwy (Vincennes - Elm)	E	8	3-Hour, 9 AM-5 PM, M-SAT	0%	0%	0%	0%	0%	13%	0%	0%	0%	0%	0%	0%
2 Dixie Hwy (Vincennes - Elm)	W	7	3-Hour, 9 AM-5 PM, M-SAT	0%	0%	0%	0%	0%	14%	29%	14%	0%	14%	0%	0%
3 Dixie Hwy (Elm - Chestnut)	E	3	3-Hour, 9 AM-5 PM, M-SAT	0%	0%	0%	0%	0%	33%	0%	0%	0%	33%	0%	0%
3 Dixie Hwy (Elm - Chestnut)	W	7	3-Hour, 9 AM-5 PM, M-SAT	0%	14%	43%	43%	14%	29%	0%	14%	14%	14%	0%	0%
4 Dixie Hwy (Chestnut - Ridge)	E	10	3-Hour, 9 AM-5 PM, M-SAT	0%	30%	60%	40%	60%	50%	30%	40%	50%	30%	80%	0%
4 Dixie Hwy (Chestnut - Ridge)	W	4	3-Hour, 9 AM-5 PM, M-SAT	0%	25%	75%	75%	25%	50%	0%	25%	0%	0%	25%	0%
5 Harwood Ave (Pine - Dixie)	E	12	Reserved for 17900 Dixie Hwy Office Center	8%	17%	33%	33%	33%	25%	25%	17%	17%	8%	8%	0%
5 Harwood Ave (Pine - Dixie)	W	22	15 spaces by permit	5%	5%	5%	5%	5%	5%	0%	5%	5%	5%	5%	0%
6 Harwood Ave (Dixie - Elm)	E	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
6 Harwood Ave (Dixie - Elm)	W	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
7 Harwood Ave (Elm - Chestnut)	E	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
7 Harwood Ave (Elm - Chestnut)	W	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8 Harwood Ave (Chestnut - Ridge)	E	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8 Harwood Ave (Chestnut - Ridge)	W	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
9 Dixie Hwy (Harwood - Vincennes)	N	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
9 Dixie Hwy (Harwood - Vincennes)	S	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
10 Elm Rd (Harwood - Dixie)	N	12	3-Hour, 9 AM-5 PM, M-SAT	0%	0%	33%	42%	25%	33%	33%	42%	33%	25%	17%	0%
10 Elm Rd (Harwood - Dixie)	S	0	No Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
11 Chestnut Rd (Harwood - Martin)	N	8	3-Hour, 9 AM-5 PM, M-SAT	0%	25%	63%	50%	13%	38%	38%	50%	38%	38%	13%	13%
11 Chestnut Rd (Harwood - Martin)	S	8	3-Hour, 9 AM-5 PM, M-SAT	0%	0%	0%	13%	25%	25%	13%	25%	0%	13%	13%	0%
12 Chestnut Rd (Martin - Dixie)	N	3	15-min Parking	0%	0%	67%	33%	67%	67%	33%	33%	33%	33%	0%	0%
12 Chestnut Rd (Martin - Dixie)	S	2	1-Hour, 9 AM-5 PM, M-SAT	0%	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%	0%
13 Ridge Rd (Harwood - Martin)	N	11	9 spaces: 3-Hr, 9A-5P, M-SAT; 2 spaces guest drop-off	18%	45%	64%	55%	45%	64%	55%	45%	64%	73%	55%	55%
13 Ridge Rd (Harwood - Martin)	S	11	3-Hour, 9 AM-5 PM, M-SAT	36%	36%	45%	64%	55%	45%	36%	55%	45%	64%	82%	55%
14 Ridge Rd (Martin - Dixie)	N	5	3-Hour, 9 AM-5 PM, M-SAT	20%	40%	20%	20%	40%	60%	60%	80%	40%	80%	60%	80%
14 Ridge Rd (Martin - Dixie)	S	8	3-Hour, 9 AM-5 PM, M-SAT	0%	13%	25%	50%	50%	38%	38%	63%	63%	60%	53%	38%
15 Ridge Rd (Dixie - Gottschalk)	N	10	3-Hour, 9 AM-5 PM, M-SAT	0%	20%	60%	60%	50%	70%	50%	60%	40%	50%	30%	90%
15 Ridge Rd (Dixie - Gottschalk)	S	13	3-Hour, 9 AM-5 PM, M-SAT	15%	31%	62%	62%	77%	62%	44%	62%	65%	69%	36%	36%
16 Ridge Rd (Gottschalk - Homewood)	N	8	3-Hour, 9 AM-5 PM, M-SAT	13%	25%	39%	25%	13%	13%	38%	25%	0%	13%	0%	13%
16 Ridge Rd (Gottschalk - Homewood)	S	12	3-Hour, 9 AM-5 PM, M-SAT	0%	17%	17%	8%	8%	17%	8%	17%	8%	17%	17%	0%
17 Martin Ave (Chestnut - Ridge)	E	4	3-Hour, 9 AM-5 PM, M-SAT; No Parking SAT 6A-1P	0%	0%	25%	25%	0%	25%	0%	25%	0%	0%	0%	0%
17 Martin Ave (Chestnut - Ridge)	W	5	3-Hour, 9 AM-5 PM, M-SAT; No Parking SAT 6A-1P	0%	0%	0%	0%	0%	20%	20%	0%	0%	20%	20%	0%
TOTAL		214		7%	18%	33%	34%	31%	37%	30%	33%	30%	32%	22%	23%

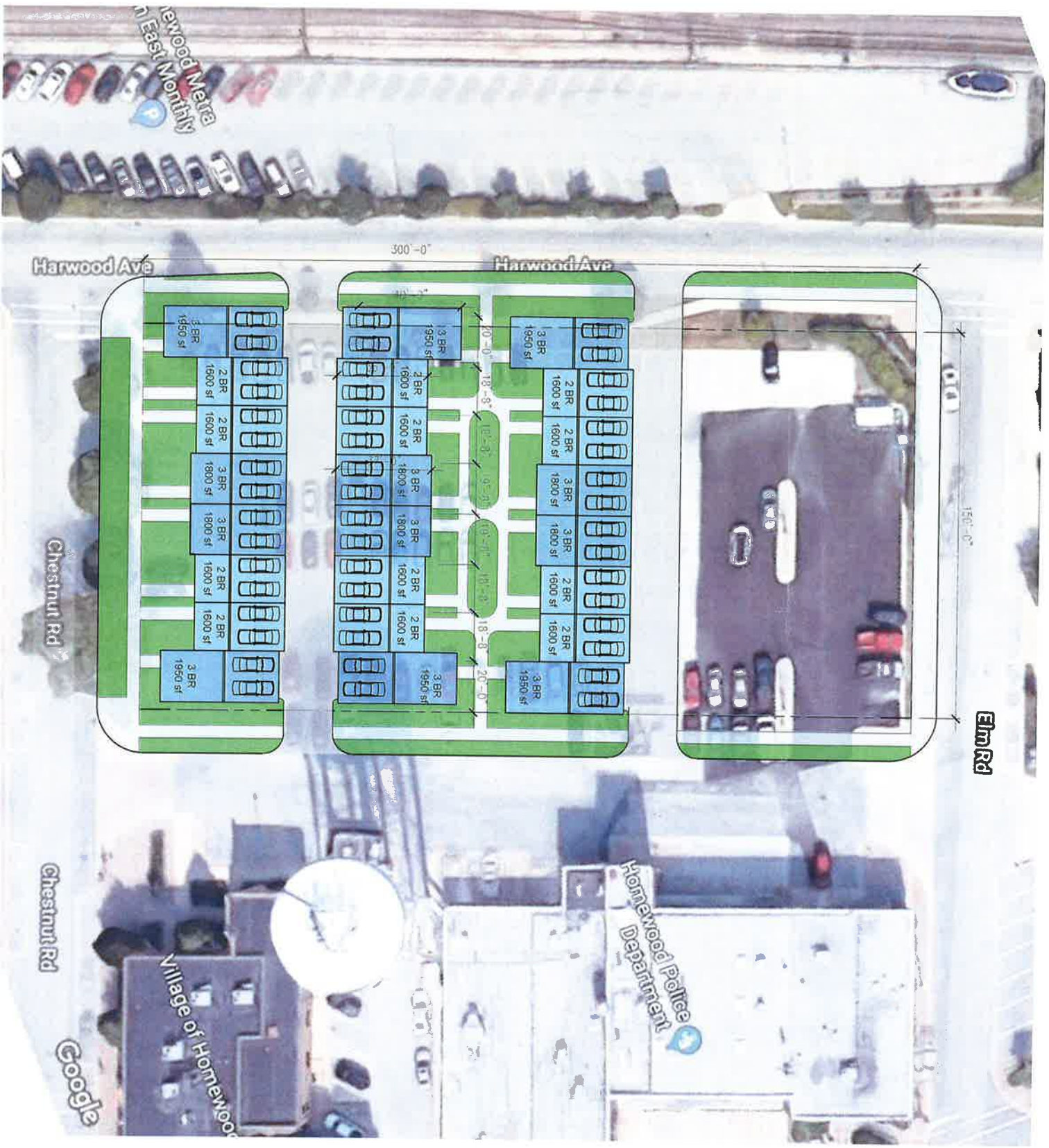
█ Peak Occupancy of Individual Street Segment

█ Combined Peak Occupancy of All Streets

Village Hall Lot Townhome Site Plan



Enlarged Plan



Site Plan

24 townhomes

Other Development Plans



HOMEWOOD T.O.D. MIXED USE

SITE PLAN

NORTH
Scale: 1" = 20'

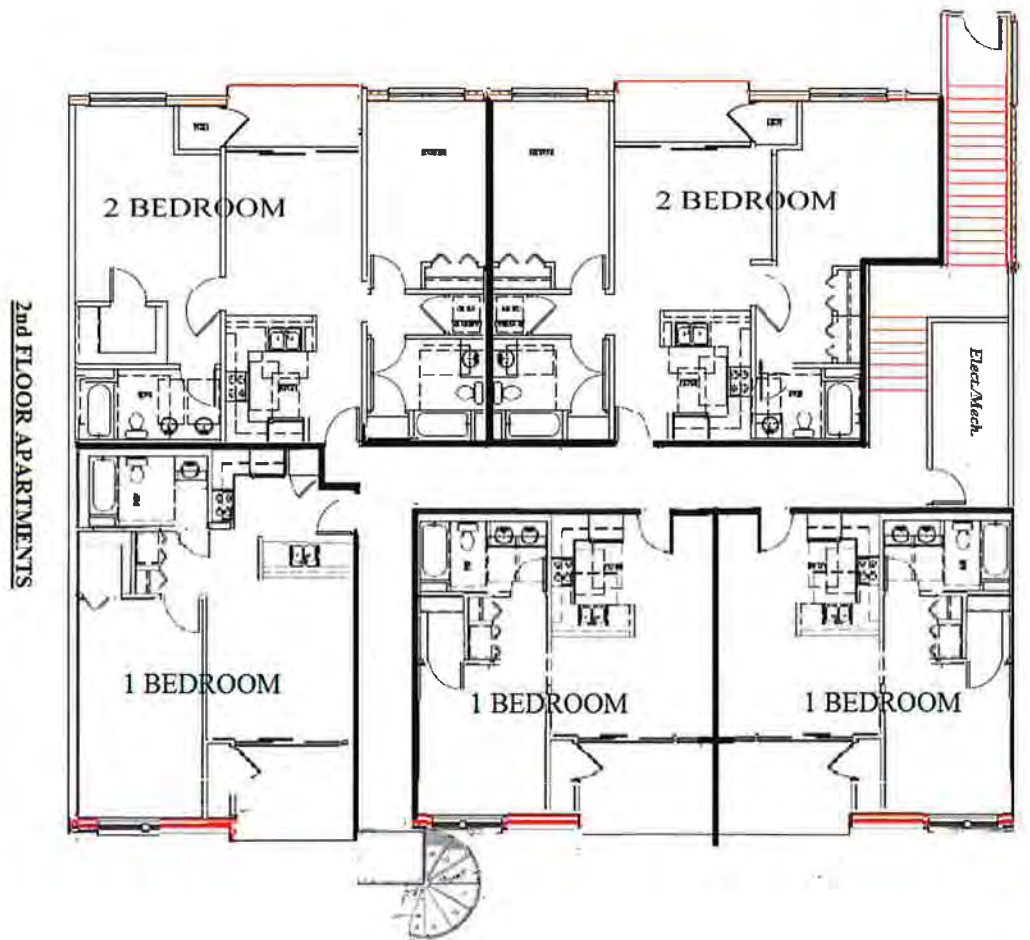
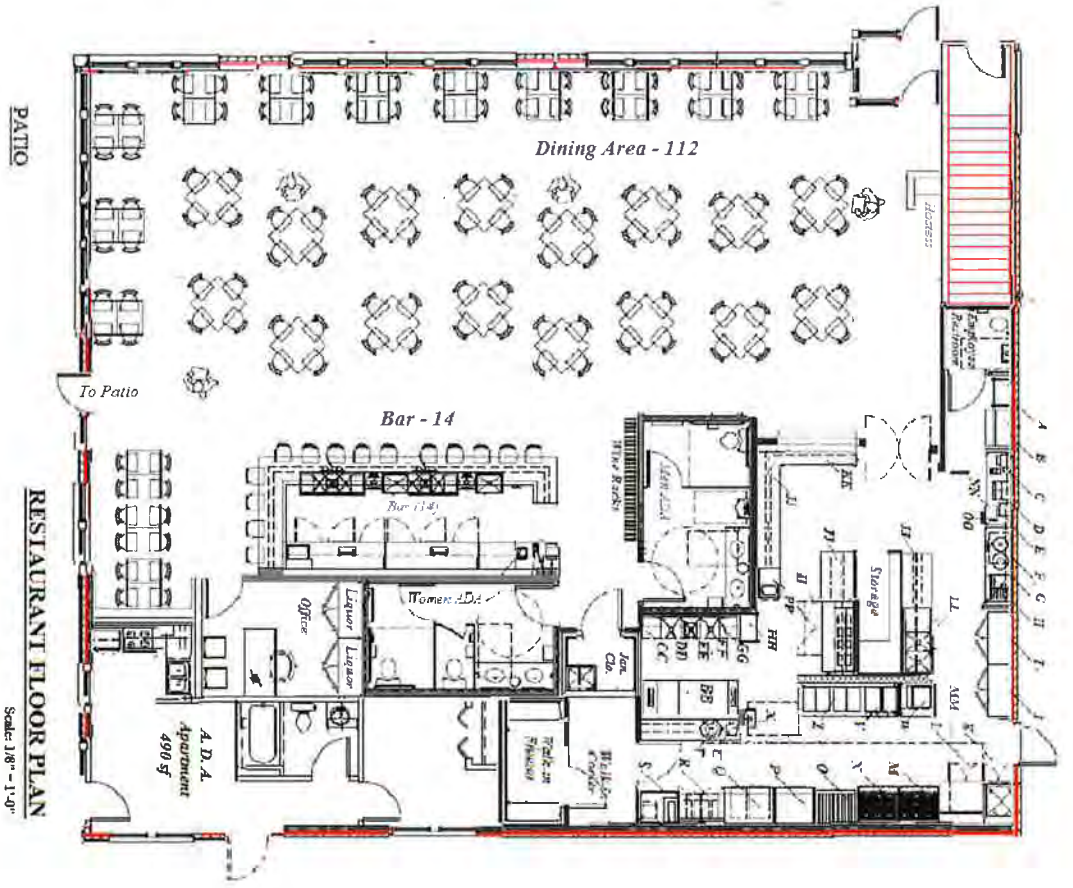
ATTACHMENT 5: MESAROS 11/18/17

SDC STUDIO ARCHITECTS
ALL RIGHTS RESERVED



1-29-18
Boypatz's

Steinmarch



1-29-18
Steinmark

Traffic Count Summary Sheets



Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990 epurguette@kloainc.com

Count Name: Elm & Dixie
Site Code:
Start Date: 10/02/2018
Page No: 1

Turning Movement Data

Start Time	Elm Rd Eastbound						Westbound Approach Westbound						Dixie Hwy Northbound						Dixie Hwy Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
6:30 AM	0	10	0	0	0	10	0	0	0	1	0	1	0	1	137	0	0	138	0	0	39	1	0	40	189
6:45 AM	0	11	0	2	0	13	0	0	0	0	1	0	0	0	145	2	0	147	0	0	68	1	0	69	229
Hourly Total	0	21	0	2	0	23	0	0	0	1	1	1	0	1	282	2	0	285	0	0	107	2	0	109	418
7:00 AM	0	9	0	3	0	12	0	0	0	1	0	1	0	1	163	0	0	164	0	1	93	2	0	96	273
7:15 AM	0	16	0	0	0	16	0	1	0	0	0	1	0	0	171	1	0	172	0	0	82	0	1	82	271
7:30 AM	0	9	0	1	1	10	0	0	0	1	0	1	0	0	185	3	0	188	0	1	82	1	0	84	283
7:45 AM	0	21	1	2	0	24	0	1	0	0	0	1	0	0	146	1	0	147	0	0	67	0	0	67	239
Hourly Total	0	55	1	6	1	62	0	2	0	2	0	4	0	1	665	5	0	671	0	2	324	3	1	329	1066
8:00 AM	0	9	0	3	0	12	0	1	0	0	1	1	0	1	182	0	0	183	0	2	79	0	0	81	277
8:15 AM	0	13	0	1	0	14	0	1	0	1	2	2	0	0	153	5	0	158	0	1	92	1	0	94	268
8:30 AM	0	11	1	2	0	14	0	1	0	0	0	1	0	0	113	6	1	119	0	0	70	4	0	74	208
8:45 AM	0	7	0	1	0	8	0	1	0	1	0	2	0	2	130	4	0	136	0	0	91	2	0	93	239
Hourly Total	0	40	1	7	0	48	0	4	0	2	3	6	0	3	578	15	1	596	0	3	332	7	0	342	992
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	15	1	2	0	18	0	9	0	1	0	10	0	2	113	11	0	126	0	2	154	2	0	158	312
4:15 PM	0	9	0	2	0	11	0	4	0	1	0	5	0	1	128	4	0	133	0	3	161	0	0	164	313
4:30 PM	0	8	2	2	0	12	0	3	0	3	1	6	0	4	112	11	0	127	0	6	180	1	1	187	332
4:45 PM	0	11	0	2	0	13	0	12	0	2	0	14	0	2	111	13	0	126	0	1	172	1	1	174	327
Hourly Total	0	43	3	8	0	54	0	28	0	7	1	35	0	9	464	39	0	512	0	12	667	4	2	683	1284
5:00 PM	0	14	1	4	1	19	0	5	0	2	0	7	0	2	139	5	0	146	1	2	159	4	0	166	338
5:15 PM	0	16	0	1	1	17	0	8	1	5	1	14	0	2	103	4	0	109	0	3	187	2	0	192	332
5:30 PM	0	7	0	4	0	11	0	4	0	2	3	6	0	0	135	16	0	151	0	0	161	3	0	164	332
5:45 PM	0	13	2	1	0	16	0	6	1	1	1	8	0	1	114	5	0	120	0	5	201	1	0	207	351
Hourly Total	0	50	3	10	2	63	0	23	2	10	5	35	0	5	491	30	0	526	1	10	708	10	0	729	1353
6:00 PM	0	15	1	0	0	16	0	5	0	7	1	12	0	1	96	5	0	102	0	0	184	1	0	185	315
6:15 PM	0	13	2	2	0	17	0	3	0	3	2	6	0	2	89	3	0	94	0	4	116	2	0	122	239
Grand Total	0	237	11	35	3	283	0	65	2	32	13	99	0	22	2665	99	1	2786	1	31	2438	29	3	2499	5667
Approach %	0.0	83.7	3.9	12.4	-	-	0.0	65.7	2.0	32.3	-	-	0.0	0.8	95.7	3.6	-	-	0.0	1.2	97.6	1.2	-	-	-
Total %	0.0	4.2	0.2	0.6	-	5.0	0.0	1.1	0.0	0.6	-	1.7	0.0	0.4	47.0	1.7	-	49.2	0.0	0.5	43.0	0.5	-	44.1	-
Lights	0	235	11	35	-	281	0	65	2	32	-	99	0	22	2563	99	-	2684	1	31	2341	29	-	2402	5466
% Lights	-	99.2	100.0	100.0	-	99.3	-	100.0	100.0	100.0	-	100.0	-	100.0	96.2	100.0	-	96.3	100.0	100.0	96.0	100.0	-	96.1	96.5
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	74	0	-	74	0	0	57	0	-	57	131
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	2.8	0.0	-	2.7	0.0	0.0	2.3	0.0	-	2.3	2.3
Single-Unit Trucks	0	2	0	0	-	2	0	0	0	0	-	0	0	0	17	0	-	17	0	0	22	0	-	22	41
% Single-Unit Trucks	-	0.8	0.0	0.0	-	0.7	-	0.0	0.0	0.0	-	0.0	-	0.0	0.6	0.0	-	0.6	0.0	0.0	0.9	0.0	-	0.9	0.7
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	11	0	-	11	0	0	17	0	-	17	28



Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990 epurguette@kloainc.com

Count Name: Elm & Dixie
Site Code:
Start Date: 10/02/2018
Page No: 4

Turning Movement Peak Hour Data (7:15 AM)

Start Time	Elm Rd Eastbound						Westbound Approach Westbound						Dixie Hwy Northbound						Dixie Hwy Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:15 AM	0	16	0	0	0	16	0	1	0	0	0	1	0	0	171	1	0	172	0	0	82	0	1	82	271
7:30 AM	0	9	0	1	1	10	0	0	0	1	0	1	0	0	185	3	0	188	0	1	82	1	0	84	283
7:45 AM	0	21	1	2	0	24	0	1	0	0	0	1	0	0	146	1	0	147	0	0	67	0	0	67	239
8:00 AM	0	9	0	3	0	12	0	1	0	0	1	1	0	1	182	0	0	183	0	2	79	0	0	81	277
Total	0	55	1	6	1	62	0	3	0	1	1	4	0	1	684	5	0	690	0	3	310	1	1	314	1070
Approach %	0.0	88.7	1.6	9.7	-	-	0.0	75.0	0.0	25.0	-	-	0.0	0.1	99.1	0.7	-	-	0.0	1.0	98.7	0.3	-	-	-
Total %	0.0	5.1	0.1	0.6	-	5.8	0.0	0.3	0.0	0.1	-	0.4	0.0	0.1	63.9	0.5	-	64.5	0.0	0.3	29.0	0.1	-	29.3	-
PHF	0.000	0.655	0.250	0.500	-	0.646	0.000	0.750	0.000	0.250	-	1.000	0.000	0.250	0.924	0.417	-	0.918	0.000	0.375	0.945	0.250	-	0.935	0.945
Lights	0	55	1	6	-	62	0	3	0	1	-	4	0	1	646	5	-	652	0	3	283	1	-	287	1005
% Lights	-	100.0	100.0	100.0	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	94.4	100.0	-	94.5	-	100.0	91.3	100.0	-	91.4	93.9
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	31	0	-	31	0	0	16	0	-	16	47
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	4.5	0.0	-	4.5	-	0.0	5.2	0.0	-	5.1	4.4
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	4	0	-	4	0	0	7	0	-	7	11
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.6	0.0	-	0.6	-	0.0	2.3	0.0	-	2.2	1.0
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	3	0	-	3	0	0	4	0	-	4	7
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.4	0.0	-	0.4	-	0.0	1.3	0.0	-	1.3	0.7
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



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Count Name: Elm & Dixie
Site Code:
Start Date: 10/02/2018
Page No: 6

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Elm Rd Eastbound						Westbound Approach Westbound						Dixie Hwy Northbound						Dixie Hwy Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
5:00 PM	0	14	1	4	1	19	0	5	0	2	0	7	0	2	139	5	0	146	1	2	159	4	0	166	338
5:15 PM	0	16	0	1	1	17	0	8	1	5	1	14	0	2	103	4	0	109	0	3	187	2	0	192	332
5:30 PM	0	7	0	4	0	11	0	4	0	2	3	6	0	0	135	16	0	151	0	0	161	3	0	164	332
5:45 PM	0	13	2	1	0	16	0	6	1	1	1	8	0	1	114	5	0	120	0	5	201	1	0	207	351
Total	0	50	3	10	2	63	0	23	2	10	5	35	0	5	491	30	0	526	1	10	708	10	0	729	1353
Approach %	0.0	79.4	4.8	15.9	-	-	0.0	65.7	5.7	28.6	-	-	0.0	1.0	93.3	5.7	-	-	0.1	1.4	97.1	1.4	-	-	-
Total %	0.0	3.7	0.2	0.7	-	4.7	0.0	1.7	0.1	0.7	-	2.6	0.0	0.4	36.3	2.2	-	38.9	0.1	0.7	52.3	0.7	-	53.9	-
PHF	0.000	0.781	0.375	0.625	-	0.829	0.000	0.719	0.500	0.500	-	0.625	0.000	0.625	0.883	0.469	-	0.871	0.250	0.500	0.881	0.625	-	0.880	0.964
Lights	0	50	3	10	-	63	0	23	2	10	-	35	0	5	485	30	-	520	1	10	696	10	-	717	1335
% Lights	-	100.0	100.0	100.0	-	100.0	-	100.0	100.0	100.0	-	100.0	-	100.0	98.8	100.0	-	98.9	100.0	100.0	98.3	100.0	-	98.4	98.7
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	3	0	-	3	0	0	7	0	-	7	10
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.6	0.0	-	0.6	0.0	0.0	1.0	0.0	-	1.0	0.7
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	3	0	-	3	0	0	2	0	-	2	5
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.6	0.0	-	0.6	0.0	0.0	0.3	0.0	-	0.3	0.4
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	2	0	-	2	2
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.3	0.0	-	0.3	0.1
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	1
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.1	0.0	-	0.1	0.1
Pedestrians	-	-	-	-	2	-	-	-	-	-	5	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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Count Name: Chestnut & Dixie
Site Code:
Start Date: 10/02/2018
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Turning Movement Data

Start Time	Chestnut Rd Eastbound					Dixie Hwy Northbound					Dixie Hwy Southbound					Int. Total
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	
6:30 AM	0	9	1	0	10	0	11	127	0	138	0	44	0	8	44	192
6:45 AM	0	9	1	0	10	0	8	148	0	156	0	73	0	3	73	239
Hourly Total	0	18	2	0	20	0	19	275	0	294	0	117	0	11	117	431
7:00 AM	0	2	2	1	4	0	4	152	0	156	0	95	0	1	95	255
7:15 AM	0	9	7	0	16	0	7	167	0	174	0	79	2	0	81	271
7:30 AM	0	7	2	1	9	0	7	181	0	188	0	84	1	0	85	282
7:45 AM	0	4	1	0	5	0	3	151	0	154	0	69	2	0	71	230
Hourly Total	0	22	12	2	34	0	21	651	0	672	0	327	5	1	332	1038
8:00 AM	0	8	6	0	14	0	6	175	0	181	0	81	0	1	81	276
8:15 AM	0	4	1	0	5	0	9	162	0	171	0	88	4	3	92	268
8:30 AM	0	1	1	0	2	0	7	118	0	125	0	66	4	2	70	197
8:45 AM	0	2	4	0	6	0	4	134	0	138	0	91	1	0	92	236
Hourly Total	0	15	12	0	27	0	26	589	0	615	0	326	9	6	335	977
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	4	5	4	9	0	3	123	0	126	0	166	2	2	168	303
4:15 PM	0	8	5	0	13	0	9	123	1	132	0	160	2	0	162	307
4:30 PM	0	2	9	1	11	0	5	123	0	128	0	188	1	2	189	328
4:45 PM	0	5	7	0	12	0	7	130	0	137	0	184	3	0	187	336
Hourly Total	0	19	26	5	45	0	24	499	1	523	0	698	8	4	706	1274
5:00 PM	0	5	8	1	13	0	6	139	0	145	0	171	2	0	173	331
5:15 PM	0	4	14	4	18	0	4	109	0	113	0	192	0	4	192	323
5:30 PM	0	5	4	1	9	0	2	142	0	144	0	169	0	1	169	322
5:45 PM	0	3	14	0	17	0	7	120	0	127	0	204	2	1	206	350
Hourly Total	0	17	40	6	57	0	19	510	0	529	0	736	4	6	740	1326
6:00 PM	0	4	13	1	17	0	7	101	0	108	0	190	1	0	191	316
6:15 PM	0	5	2	1	7	0	8	91	0	99	0	120	2	0	122	228
Grand Total	0	100	107	15	207	0	124	2716	1	2840	0	2514	29	28	2543	5590
Approach %	0.0	48.3	51.7	-	-	0.0	4.4	95.6	-	-	0.0	98.9	1.1	-	-	-
Total %	0.0	1.8	1.9	-	3.7	0.0	2.2	48.6	-	50.8	0.0	45.0	0.5	-	45.5	-
Lights	0	99	105	-	204	0	124	2613	-	2737	0	2414	29	-	2443	5384
% Lights	-	99.0	98.1	-	98.6	-	100.0	96.2	-	96.4	-	96.0	100.0	-	96.1	96.3
Buses	0	0	0	-	0	0	0	75	-	75	0	59	0	-	59	134
% Buses	-	0.0	0.0	-	0.0	-	0.0	2.8	-	2.6	-	2.3	0.0	-	2.3	2.4
Single-Unit Trucks	0	1	1	-	2	0	0	15	-	15	0	21	0	-	21	38
% Single-Unit Trucks	-	1.0	0.9	-	1.0	-	0.0	0.6	-	0.5	-	0.8	0.0	-	0.8	0.7
Articulated Trucks	0	0	1	-	1	0	0	12	-	12	0	20	0	-	20	33
% Articulated Trucks	-	0.0	0.9	-	0.5	-	0.0	0.4	-	0.4	-	0.8	0.0	-	0.8	0.6
Bicycles on Road	0	0	0	-	0	0	0	1	-	1	0	0	0	-	0	1



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Count Name: Chestnut & Dixie
Site Code:
Start Date: 10/02/2018
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Turning Movement Peak Hour Data (7:15 AM)

Start Time	Chestnut Rd Eastbound					Dixie Hwy Northbound					Dixie Hwy Southbound					Int. Total
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	
7:15 AM	0	9	7	0	16	0	7	167	0	174	0	79	2	0	81	271
7:30 AM	0	7	2	1	9	0	7	181	0	188	0	84	1	0	85	282
7:45 AM	0	4	1	0	5	0	3	151	0	154	0	69	2	0	71	230
8:00 AM	0	8	6	0	14	0	6	175	0	181	0	81	0	1	81	276
Total	0	28	16	1	44	0	23	674	0	697	0	313	5	1	318	1059
Approach %	0.0	63.6	36.4	-	-	0.0	3.3	96.7	-	-	0.0	98.4	1.6	-	-	-
Total %	0.0	2.6	1.5	-	4.2	0.0	2.2	63.6	-	65.8	0.0	29.6	0.5	-	30.0	-
PHF	0.000	0.778	0.571	-	0.688	0.000	0.821	0.931	-	0.927	0.000	0.932	0.625	-	0.935	0.939
Lights	0	27	14	-	41	0	23	635	-	658	0	284	5	-	289	988
% Lights	-	96.4	87.5	-	93.2	-	100.0	94.2	-	94.4	-	90.7	100.0	-	90.9	93.3
Buses	0	0	0	-	0	0	0	32	-	32	0	16	0	-	16	48
% Buses	-	0.0	0.0	-	0.0	-	0.0	4.7	-	4.6	-	5.1	0.0	-	5.0	4.5
Single-Unit Trucks	0	1	1	-	2	0	0	5	-	5	0	5	0	-	5	12
% Single-Unit Trucks	-	3.6	6.3	-	4.5	-	0.0	0.7	-	0.7	-	1.6	0.0	-	1.6	1.1
Articulated Trucks	0	0	1	-	1	0	0	2	-	2	0	8	0	-	8	11
% Articulated Trucks	-	0.0	6.3	-	2.3	-	0.0	0.3	-	0.3	-	2.6	0.0	-	2.5	1.0
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	1	-	-	-	-	0	-	-	-	-	1	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	100.0	-	-



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Count Name: Chestnut & Dixie
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Turning Movement Peak Hour Data (5:00 PM)

Start Time	Chestnut Rd Eastbound					Dixie Hwy Northbound					Dixie Hwy Southbound					Int. Total
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	
5:00 PM	0	5	8	1	13	0	6	139	0	145	0	171	2	0	173	331
5:15 PM	0	4	14	4	18	0	4	109	0	113	0	192	0	4	192	323
5:30 PM	0	5	4	1	9	0	2	142	0	144	0	169	0	1	169	322
5:45 PM	0	3	14	0	17	0	7	120	0	127	0	204	2	1	206	350
Total	0	17	40	6	57	0	19	510	0	529	0	736	4	6	740	1326
Approach %	0.0	29.8	70.2	-	-	0.0	3.6	96.4	-	-	0.0	99.5	0.5	-	-	-
Total %	0.0	1.3	3.0	-	4.3	0.0	1.4	38.5	-	39.9	0.0	55.5	0.3	-	55.8	-
PHF	0.000	0.850	0.714	-	0.792	0.000	0.679	0.898	-	0.912	0.000	0.902	0.500	-	0.898	0.947
Lights	0	17	40	-	57	0	19	504	-	523	0	726	4	-	730	1310
% Lights	-	100.0	100.0	-	100.0	-	100.0	98.8	-	98.9	-	98.6	100.0	-	98.6	98.8
Buses	0	0	0	-	0	0	0	3	-	3	0	7	0	-	7	10
% Buses	-	0.0	0.0	-	0.0	-	0.0	0.6	-	0.6	-	1.0	0.0	-	0.9	0.8
Single-Unit Trucks	0	0	0	-	0	0	0	1	-	1	0	3	0	-	3	4
% Single-Unit Trucks	-	0.0	0.0	-	0.0	-	0.0	0.2	-	0.2	-	0.4	0.0	-	0.4	0.3
Articulated Trucks	0	0	0	-	0	0	0	1	-	1	0	0	0	-	0	1
% Articulated Trucks	-	0.0	0.0	-	0.0	-	0.0	0.2	-	0.2	-	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	0	0	-	0	0	0	1	-	1	0	0	0	-	0	1
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.0	0.2	-	0.2	-	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	6	-	-	-	-	0	-	-	-	-	6	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	100.0	-	-



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Count Name: Ridge & Dixie
Site Code:
Start Date: 10/02/2018
Page No: 1

Turning Movement Data

Start Time	Ridge Rd Eastbound						Ridge Rd Westbound						Dixie Hwy Northbound						Dixie Hwy Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
6:30 AM	0	10	6	1	0	17	0	10	27	41	0	78	0	11	84	15	0	110	0	12	31	1	2	44	249
6:45 AM	0	7	15	3	1	25	0	11	29	42	0	82	0	7	99	8	1	114	0	22	50	0	4	72	293
Hourly Total	0	17	21	4	1	42	0	21	56	83	0	160	0	18	183	23	1	224	0	34	81	1	6	116	542
7:00 AM	0	16	14	4	0	34	0	26	31	61	0	118	0	7	77	16	0	100	0	24	68	2	2	94	346
7:15 AM	0	8	15	0	0	23	0	14	42	63	2	119	0	12	104	11	2	127	0	26	54	5	5	85	354
7:30 AM	0	11	24	2	1	37	0	11	24	59	0	94	0	8	111	18	2	137	0	27	59	0	2	86	354
7:45 AM	0	8	11	3	0	22	0	12	24	43	1	79	0	6	97	18	3	121	0	21	51	1	0	73	295
Hourly Total	0	43	64	9	1	116	0	63	121	226	3	410	0	33	389	63	7	485	0	98	232	8	9	338	1349
8:00 AM	0	8	20	3	0	31	0	23	40	59	3	122	0	7	114	13	1	134	0	24	54	5	3	83	370
8:15 AM	0	15	22	2	1	39	0	19	20	33	1	72	0	4	119	19	0	142	0	29	60	3	3	92	345
8:30 AM	0	8	12	7	0	27	0	19	23	45	2	87	0	5	70	22	0	97	0	17	47	1	0	65	276
8:45 AM	0	14	21	5	4	40	0	27	21	49	2	97	0	9	75	25	4	109	0	27	60	2	4	89	335
Hourly Total	0	45	75	17	5	137	0	88	104	186	8	378	0	25	378	79	5	482	0	97	221	11	10	329	1326
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	19	30	4	0	53	0	38	25	31	1	94	0	7	73	36	1	116	0	61	99	4	2	164	427
4:15 PM	0	12	24	5	5	41	0	33	42	37	3	112	0	16	85	31	2	132	0	68	105	4	0	177	462
4:30 PM	0	12	34	8	0	54	0	29	44	47	0	120	0	6	69	28	3	103	1	62	125	1	0	189	466
4:45 PM	0	15	23	4	5	42	0	45	43	52	4	140	0	5	70	28	2	103	0	69	116	3	9	188	473
Hourly Total	0	58	111	21	10	190	0	145	154	167	8	466	0	34	297	123	8	454	1	260	445	12	11	718	1828
5:00 PM	0	18	36	8	7	62	0	35	52	51	1	138	0	10	81	23	0	114	0	66	103	2	4	171	485
5:15 PM	0	11	34	11	4	56	0	51	40	26	9	117	0	16	70	45	4	131	0	76	136	5	10	217	521
5:30 PM	0	13	35	7	12	55	0	55	51	49	6	155	0	12	78	34	1	124	0	63	106	0	15	169	503
5:45 PM	0	10	35	1	2	46	0	48	46	51	4	145	0	10	66	29	1	105	0	94	125	5	6	224	520
Hourly Total	0	52	140	27	25	219	0	189	189	177	20	555	0	48	295	131	6	474	0	299	470	12	35	781	2029
6:00 PM	0	11	42	8	1	61	0	45	44	45	2	134	0	10	50	37	2	97	0	70	120	3	8	193	485
6:15 PM	0	16	18	4	1	38	0	41	41	34	2	116	0	6	49	41	3	96	0	42	84	1	1	127	377
Grand Total	0	242	471	90	44	803	0	592	709	918	43	2219	0	174	1641	497	32	2312	1	900	1653	48	80	2602	7936
Approach %	0.0	30.1	58.7	11.2	-	-	0.0	26.7	32.0	41.4	-	-	0.0	7.5	71.0	21.5	-	-	0.0	34.6	63.5	1.8	-	-	-
Total %	0.0	3.0	5.9	1.1	-	10.1	0.0	7.5	8.9	11.6	-	28.0	0.0	2.2	20.7	6.3	-	29.1	0.0	11.3	20.8	0.6	-	32.8	-
Lights	0	241	465	90	-	796	0	581	702	894	-	2177	0	157	1562	484	-	2203	1	870	1586	45	-	2502	7678
% Lights	-	99.6	98.7	100.0	-	99.1	-	98.1	99.0	97.4	-	98.1	-	90.2	95.2	97.4	-	95.3	100.0	96.7	95.9	93.8	-	96.2	96.7
Buses	0	1	1	0	-	2	0	6	4	11	-	21	0	17	65	7	-	89	0	7	51	1	-	59	171
% Buses	-	0.4	0.2	0.0	-	0.2	-	1.0	0.6	1.2	-	0.9	-	9.8	4.0	1.4	-	3.8	0.0	0.8	3.1	2.1	-	2.3	2.2
Single-Unit Trucks	0	0	3	0	-	3	0	2	2	6	-	10	0	0	11	2	-	13	0	4	12	2	-	18	44
% Single-Unit Trucks	-	0.0	0.6	0.0	-	0.4	-	0.3	0.3	0.7	-	0.5	-	0.0	0.7	0.4	-	0.6	0.0	0.4	0.7	4.2	-	0.7	0.6
Articulated Trucks	0	0	0	0	-	0	0	2	0	7	-	9	0	0	2	3	-	5	0	19	4	0	-	23	37



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Count Name: Ridge & Dixie
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Turning Movement Peak Hour Data (7:15 AM)

Start Time	Ridge Rd Eastbound						Ridge Rd Westbound						Dixie Hwy Northbound						Dixie Hwy Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:15 AM	0	8	15	0	0	23	0	14	42	63	2	119	0	12	104	11	2	127	0	26	54	5	5	85	354
7:30 AM	0	11	24	2	1	37	0	11	24	59	0	94	0	8	111	18	2	137	0	27	59	0	2	86	354
7:45 AM	0	8	11	3	0	22	0	12	24	43	1	79	0	6	97	18	3	121	0	21	51	1	0	73	295
8:00 AM	0	8	20	3	0	31	0	23	40	59	3	122	0	7	114	13	1	134	0	24	54	5	3	83	370
Total	0	35	70	8	1	113	0	60	130	224	6	414	0	33	426	60	8	519	0	98	218	11	10	327	1373
Approach %	0.0	31.0	61.9	7.1	-	-	0.0	14.5	31.4	54.1	-	-	0.0	6.4	82.1	11.6	-	-	0.0	30.0	66.7	3.4	-	-	-
Total %	0.0	2.5	5.1	0.6	-	8.2	0.0	4.4	9.5	16.3	-	30.2	0.0	2.4	31.0	4.4	-	37.8	0.0	7.1	15.9	0.8	-	23.8	-
PHF	0.000	0.795	0.729	0.667	-	0.764	0.000	0.652	0.774	0.889	-	0.848	0.000	0.688	0.934	0.833	-	0.947	0.000	0.907	0.924	0.550	-	0.951	0.928
Lights	0	35	69	8	-	112	0	56	126	216	-	398	0	29	396	55	-	480	0	88	198	9	-	295	1285
% Lights	-	100.0	98.6	100.0	-	99.1	-	93.3	96.9	96.4	-	96.1	-	87.9	93.0	91.7	-	92.5	-	89.8	90.8	81.8	-	90.2	93.6
Buses	0	0	0	0	-	0	0	3	2	5	-	10	0	4	27	5	-	36	0	3	13	0	-	16	62
% Buses	-	0.0	0.0	0.0	-	0.0	-	5.0	1.5	2.2	-	2.4	-	12.1	6.3	8.3	-	6.9	-	3.1	6.0	0.0	-	4.9	4.5
Single-Unit Trucks	0	0	1	0	-	1	0	0	1	1	-	2	0	0	2	0	-	2	0	1	4	2	-	7	12
% Single-Unit Trucks	-	0.0	1.4	0.0	-	0.9	-	0.0	0.8	0.4	-	0.5	-	0.0	0.5	0.0	-	0.4	-	1.0	1.8	18.2	-	2.1	0.9
Articulated Trucks	0	0	0	0	-	0	0	1	0	2	-	3	0	0	1	0	-	1	0	6	3	0	-	9	13
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	1.7	0.0	0.9	-	0.7	-	0.0	0.2	0.0	-	0.2	-	6.1	1.4	0.0	-	2.8	0.9
Bicycles on Road	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.8	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	-	1	-	-	-	-	-	6	-	-	-	-	-	8	-	-	-	-	-	10	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: Ridge & Dixie
Site Code:
Start Date: 10/02/2018
Page No: 6

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Ridge Rd Eastbound						Ridge Rd Westbound						Dixie Hwy Northbound						Dixie Hwy Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
5:00 PM	0	18	36	8	7	62	0	35	52	51	1	138	0	10	81	23	0	114	0	66	103	2	4	171	485
5:15 PM	0	11	34	11	4	56	0	51	40	26	9	117	0	16	70	45	4	131	0	76	136	5	10	217	521
5:30 PM	0	13	35	7	12	55	0	55	51	49	6	155	0	12	78	34	1	124	0	63	106	0	15	169	503
5:45 PM	0	10	35	1	2	46	0	48	46	51	4	145	0	10	66	29	1	105	0	94	125	5	6	224	520
Total	0	52	140	27	25	219	0	189	189	177	20	555	0	48	295	131	6	474	0	299	470	12	35	781	2029
Approach %	0.0	23.7	63.9	12.3	-	-	0.0	34.1	34.1	31.9	-	-	0.0	10.1	62.2	27.6	-	-	0.0	38.3	60.2	1.5	-	-	-
Total %	0.0	2.6	6.9	1.3	-	10.8	0.0	9.3	9.3	8.7	-	27.4	0.0	2.4	14.5	6.5	-	23.4	0.0	14.7	23.2	0.6	-	38.5	-
PHF	0.000	0.722	0.972	0.614	-	0.883	0.000	0.859	0.909	0.868	-	0.895	0.000	0.750	0.910	0.728	-	0.905	0.000	0.795	0.864	0.600	-	0.872	0.974
Lights	0	51	139	27	-	217	0	188	188	176	-	552	0	45	291	129	-	465	0	296	463	12	-	771	2005
% Lights	-	98.1	99.3	100.0	-	99.1	-	99.5	99.5	99.4	-	99.5	-	93.8	98.6	98.5	-	98.1	-	99.0	98.5	100.0	-	98.7	98.8
Buses	0	1	0	0	-	1	0	1	1	0	-	2	0	3	3	0	-	6	0	1	6	0	-	7	16
% Buses	-	1.9	0.0	0.0	-	0.5	-	0.5	0.5	0.0	-	0.4	-	6.3	1.0	0.0	-	1.3	-	0.3	1.3	0.0	-	0.9	0.8
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	1	-	1	0	0	1	1	-	2	0	0	1	0	-	1	4
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.6	-	0.2	-	0.0	0.3	0.8	-	0.4	-	0.0	0.2	0.0	-	0.1	0.2
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	2	0	0	-	2	2
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.7	0.0	0.0	-	0.3	0.1
Bicycles on Road	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	1	-	1	0	0	0	0	-	0	2
% Bicycles on Road	-	0.0	0.7	0.0	-	0.5	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.8	-	0.2	-	0.0	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	-	25	-	-	-	-	-	20	-	-	-	-	-	6	-	-	-	-	-	35	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: Harwood & Elm
Site Code:
Start Date: 10/02/2018
Page No: 1

Turning Movement Data

Start Time	Elm Rd Westbound					Harwood Avenue Northbound					Harwood Avenue Southbound					Int. Total
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	
6:30 AM	0	2	0	1	2	0	0	10	1	10	0	3	17	0	20	32
6:45 AM	0	0	0	0	0	0	0	11	0	11	0	4	27	0	31	42
Hourly Total	0	2	0	1	2	0	0	21	1	21	0	7	44	0	51	74
7:00 AM	0	1	0	0	1	0	0	6	0	6	0	0	28	0	28	35
7:15 AM	0	0	0	3	0	0	0	16	0	16	0	0	23	0	23	39
7:30 AM	0	1	0	0	1	0	0	11	0	11	0	2	33	0	35	47
7:45 AM	0	0	0	0	0	0	0	19	0	19	0	2	32	0	34	53
Hourly Total	0	2	0	3	2	0	0	52	0	52	0	4	116	0	120	174
8:00 AM	0	0	0	1	0	0	0	13	0	13	0	0	26	0	26	39
8:15 AM	0	1	0	0	1	0	0	16	0	16	0	2	32	0	34	51
8:30 AM	0	1	0	1	1	0	0	10	0	10	0	0	27	0	27	38
8:45 AM	0	2	0	2	2	0	0	6	0	6	0	3	36	0	39	47
Hourly Total	0	4	0	4	4	0	0	45	0	45	0	5	121	0	126	175
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	2	0	1	2	0	0	17	0	17	0	1	45	0	46	65
4:15 PM	0	2	0	1	2	0	1	7	0	8	0	1	54	0	55	65
4:30 PM	0	4	0	1	4	0	0	9	0	9	0	0	59	0	59	72
4:45 PM	0	4	0	2	4	0	0	14	0	14	0	0	56	0	56	74
Hourly Total	0	12	0	5	12	0	1	47	0	48	0	2	214	0	216	276
5:00 PM	0	7	0	1	7	0	0	16	0	16	0	2	58	0	60	83
5:15 PM	0	6	0	3	6	0	0	13	0	13	0	2	62	0	64	83
5:30 PM	0	2	0	0	2	0	0	13	0	13	0	0	57	0	57	72
5:45 PM	0	4	0	0	4	0	1	9	0	10	0	1	60	0	61	75
Hourly Total	0	19	0	4	19	0	1	51	0	52	0	5	237	0	242	313
6:00 PM	0	1	0	1	1	0	0	14	0	14	0	2	48	0	50	65
6:15 PM	0	1	0	0	1	0	0	13	0	13	0	0	35	0	35	49
Grand Total	0	41	0	18	41	0	2	243	1	245	0	25	815	0	840	1126
Approach %	0.0	100.0	0.0	-	-	0.0	0.8	99.2	-	-	0.0	3.0	97.0	-	-	-
Total %	0.0	3.6	0.0	-	3.6	0.0	0.2	21.6	-	21.8	0.0	2.2	72.4	-	74.6	-
Lights	0	41	0	-	41	0	1	242	-	243	0	25	804	-	829	1113
% Lights	-	100.0	-	-	100.0	-	50.0	99.6	-	99.2	-	100.0	98.7	-	98.7	98.8
Buses	0	0	0	-	0	0	0	0	-	0	0	0	5	-	5	5
% Buses	-	0.0	-	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.6	-	0.6	0.4
Single-Unit Trucks	0	0	0	-	0	0	0	1	-	1	0	0	6	-	6	7
% Single-Unit Trucks	-	0.0	-	-	0.0	-	0.0	0.4	-	0.4	-	0.0	0.7	-	0.7	0.6
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	-	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	-	0	0	1	0	-	1	0	0	0	-	0	1



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Count Name: Chestnut & Harwood
Site Code:
Start Date: 10/02/2018
Page No: 1

Turning Movement Data

Start Time	Chestnut Road Westbound					Harwood Avenue Northbound					Harwood Avenue Southbound					Int. Total
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	
6:30 AM	0	2	0	5	2	0	9	9	0	18	0	0	16	0	16	36
6:45 AM	0	2	0	6	2	0	12	15	0	27	0	2	26	0	28	57
Hourly Total	0	4	0	11	4	0	21	24	0	45	0	2	42	0	44	93
7:00 AM	0	1	0	3	1	0	6	5	0	11	0	1	28	0	29	41
7:15 AM	0	3	0	13	3	0	16	10	0	26	0	1	18	0	19	48
7:30 AM	0	2	0	4	2	0	8	5	0	13	0	1	35	0	36	51
7:45 AM	0	4	0	1	4	0	22	10	0	32	0	1	34	0	35	71
Hourly Total	0	10	0	21	10	0	52	30	0	82	0	4	115	0	119	211
8:00 AM	0	1	0	5	1	0	14	13	0	27	0	0	23	0	23	51
8:15 AM	0	5	0	1	5	0	13	10	0	23	0	3	34	0	37	65
8:30 AM	0	4	1	3	5	0	12	6	0	18	0	1	26	0	27	50
8:45 AM	0	4	0	2	4	0	7	1	0	8	0	3	37	0	40	52
Hourly Total	0	14	1	11	15	0	46	30	0	76	0	7	120	0	127	218
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	1	5	1	3	7	0	15	2	0	17	0	0	51	0	51	75
4:15 PM	0	4	0	0	4	0	9	10	0	19	0	0	62	0	62	85
4:30 PM	0	7	0	4	7	0	9	5	0	14	0	2	68	0	70	91
4:45 PM	0	7	0	6	7	0	14	6	0	20	0	4	61	0	65	92
Hourly Total	1	23	1	13	25	0	47	23	0	70	0	6	242	0	248	343
5:00 PM	0	10	1	1	11	0	14	6	0	20	0	2	61	0	63	94
5:15 PM	0	8	0	7	8	0	14	14	0	28	0	3	76	0	79	115
5:30 PM	0	4	1	4	5	0	5	8	0	13	0	2	73	0	75	93
5:45 PM	1	5	0	4	6	0	15	4	0	19	0	4	62	0	66	91
Hourly Total	1	27	2	16	30	0	48	32	0	80	0	11	272	0	283	393
6:00 PM	0	7	0	4	7	0	10	9	0	19	0	3	74	0	77	103
6:15 PM	0	8	1	0	9	0	16	7	0	23	0	1	38	0	39	71
Grand Total	2	93	5	76	100	0	240	155	0	395	0	34	903	0	937	1432
Approach %	2.0	93.0	5.0	-	-	0.0	60.8	39.2	-	-	0.0	3.6	96.4	-	-	-
Total %	0.1	6.5	0.3	-	7.0	0.0	16.8	10.8	-	27.6	0.0	2.4	63.1	-	65.4	-
Lights	2	93	4	-	99	0	237	152	-	389	0	32	893	-	925	1413
% Lights	100.0	100.0	80.0	-	99.0	-	98.8	98.1	-	98.5	-	94.1	98.9	-	98.7	98.7
Buses	0	0	0	-	0	0	0	0	-	0	0	0	5	-	5	5
% Buses	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.6	-	0.5	0.3
Single-Unit Trucks	0	0	0	-	0	0	1	2	-	3	0	2	5	-	7	10
% Single-Unit Trucks	0.0	0.0	0.0	-	0.0	-	0.4	1.3	-	0.8	-	5.9	0.6	-	0.7	0.7
Articulated Trucks	0	0	0	-	0	0	0	1	-	1	0	0	0	-	0	1
% Articulated Trucks	0.0	0.0	0.0	-	0.0	-	0.0	0.6	-	0.3	-	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	0	1	-	1	0	2	0	-	2	0	0	0	-	0	3



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Site Code:
Start Date: 10/02/2018
Page No: 1

Turning Movement Data

Start Time	Eastbound Approach Eastbound						Ridge Rd Westbound						Harwood Avenue Northbound						Harwood Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
6:30 AM	0	0	0	0	26	0	0	20	1	11	2	32	0	0	21	16	9	37	0	1	20	0	3	21	90
6:45 AM	0	0	0	0	20	0	0	19	1	7	1	27	0	0	33	23	13	56	0	2	24	0	5	26	109
Hourly Total	0	0	0	0	46	0	0	39	2	18	3	59	0	0	54	39	22	93	0	3	44	0	8	47	199
7:00 AM	0	0	0	0	16	0	0	26	1	6	1	33	1	0	16	29	9	46	0	3	26	0	4	29	108
7:15 AM	0	0	0	0	24	0	0	38	1	10	6	49	1	0	31	25	18	57	0	1	24	0	6	25	131
7:30 AM	0	0	0	0	16	0	0	24	3	3	1	30	1	0	23	35	9	59	0	0	34	0	5	34	123
7:45 AM	0	0	0	0	8	0	0	26	0	5	0	31	0	0	31	24	5	55	0	1	35	0	1	36	122
Hourly Total	0	0	0	0	64	0	0	114	5	24	8	143	3	0	101	113	41	217	0	5	119	0	16	124	484
8:00 AM	0	0	0	0	17	0	0	32	2	8	0	42	0	0	27	35	13	62	0	1	27	0	4	28	132
8:15 AM	0	0	0	0	3	0	0	15	0	3	0	18	0	0	25	37	1	62	0	2	34	0	0	36	116
8:30 AM	0	0	0	0	8	0	0	24	1	3	1	28	0	0	17	30	5	47	0	1	28	1	1	30	105
8:45 AM	0	0	0	0	1	0	0	22	1	1	0	24	0	1	9	39	5	49	0	1	35	0	0	36	109
Hourly Total	0	0	0	0	29	0	0	93	4	15	1	112	0	1	78	141	24	220	0	5	124	1	5	130	462
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	0	0	3	0	0	35	1	4	4	40	0	0	20	48	15	68	0	10	50	0	1	60	168
4:15 PM	0	0	0	0	0	0	0	49	0	7	0	56	0	0	14	43	0	57	0	4	53	0	0	57	170
4:30 PM	0	0	0	0	7	0	0	42	2	0	2	44	0	1	16	45	14	62	0	7	68	0	2	75	181
4:45 PM	0	0	0	0	7	0	0	42	0	3	4	45	0	0	15	43	9	58	0	3	63	1	1	67	170
Hourly Total	0	0	0	0	17	0	0	168	3	14	10	185	0	1	65	179	38	245	0	24	234	1	4	259	689
5:00 PM	0	0	0	0	5	0	0	47	0	5	5	52	0	0	20	55	5	75	0	8	67	0	1	75	202
5:15 PM	0	0	0	0	21	0	0	45	1	3	13	49	0	0	20	45	23	65	0	16	71	0	4	87	201
5:30 PM	0	0	0	0	14	0	0	58	2	1	6	61	0	0	17	44	21	61	0	10	62	0	2	72	194
5:45 PM	0	0	0	0	10	0	0	48	0	5	6	53	0	0	13	45	14	58	0	12	68	0	1	80	191
Hourly Total	0	0	0	0	50	0	0	198	3	14	30	215	0	0	70	189	63	259	0	46	268	0	8	314	788
6:00 PM	0	0	0	0	28	0	0	39	2	11	8	52	0	0	17	43	28	60	0	15	64	0	4	79	191
6:15 PM	0	0	0	0	12	0	0	41	0	3	4	44	0	1	18	38	13	57	0	5	38	0	0	43	144
Grand Total	0	0	0	0	246	0	0	692	19	99	64	810	3	3	403	742	229	1151	0	103	891	2	45	996	2957
Approach %	0.0	0.0	0.0	0.0	-	-	0.0	85.4	2.3	12.2	-	-	0.3	0.3	35.0	64.5	-	-	0.0	10.3	89.5	0.2	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	0.0	23.4	0.6	3.3	-	27.4	0.1	0.1	13.6	25.1	-	38.9	0.0	3.5	30.1	0.1	-	33.7	-
Lights	0	0	0	0	-	0	0	687	2	96	-	785	3	3	400	737	-	1143	0	103	880	2	-	985	2913
% Lights	-	-	-	-	-	-	-	99.3	10.5	97.0	-	96.9	100.0	100.0	99.3	99.3	-	99.3	-	100.0	98.8	100.0	-	98.9	98.5
Buses	0	0	0	0	-	0	0	2	15	0	-	17	0	0	0	0	-	0	0	0	5	0	-	5	22
% Buses	-	-	-	-	-	-	-	0.3	78.9	0.0	-	2.1	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.6	0.0	-	0.5	0.7
Single-Unit Trucks	0	0	0	0	-	0	0	3	0	2	-	5	0	0	2	5	-	7	0	0	6	0	-	6	18
% Single-Unit Trucks	-	-	-	-	-	-	-	0.4	0.0	2.0	-	0.6	0.0	0.0	0.5	0.7	-	0.6	-	0.0	0.7	0.0	-	0.6	0.6
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0



Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

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Count Name: Harwood & Ridge
Site Code:
Start Date: 10/02/2018
Page No: 4

Turning Movement Peak Hour Data (7:15 AM)

Start Time	Eastbound Approach Eastbound						Ridge Rd Westbound						Harwood Avenue Northbound						Harwood Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:15 AM	0	0	0	0	24	0	0	38	1	10	6	49	1	0	31	25	18	57	0	1	24	0	6	25	131
7:30 AM	0	0	0	0	16	0	0	24	3	3	1	30	1	0	23	35	9	59	0	0	34	0	5	34	123
7:45 AM	0	0	0	0	8	0	0	26	0	5	0	31	0	0	31	24	5	55	0	1	35	0	1	36	122
8:00 AM	0	0	0	0	17	0	0	32	2	8	0	42	0	0	27	35	13	62	0	1	27	0	4	28	132
Total	0	0	0	0	65	0	0	120	6	26	7	152	2	0	112	119	45	233	0	3	120	0	16	123	508
Approach %	0.0	0.0	0.0	0.0	-	-	0.0	78.9	3.9	17.1	-	-	0.9	0.0	48.1	51.1	-	-	0.0	2.4	97.6	0.0	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	0.0	23.6	1.2	5.1	-	29.9	0.4	0.0	22.0	23.4	-	45.9	0.0	0.6	23.6	0.0	-	24.2	-
PHF	0.000	0.000	0.000	0.000	-	0.000	0.000	0.789	0.500	0.650	-	0.776	0.500	0.000	0.903	0.850	-	0.940	0.000	0.750	0.857	0.000	-	0.854	0.962
Lights	0	0	0	0	-	0	0	119	1	23	-	143	2	0	112	118	-	232	0	3	117	0	-	120	495
% Lights	-	-	-	-	-	-	-	99.2	16.7	88.5	-	94.1	100.0	-	100.0	99.2	-	99.6	-	100.0	97.5	-	-	97.6	97.4
Buses	0	0	0	0	-	0	0	0	3	0	-	3	0	0	0	0	-	0	0	0	1	0	-	1	4
% Buses	-	-	-	-	-	-	-	0.0	50.0	0.0	-	2.0	0.0	-	0.0	0.0	-	0.0	-	0.0	0.8	-	-	0.8	0.8
Single-Unit Trucks	0	0	0	0	-	0	0	1	0	2	-	3	0	0	0	1	-	1	0	0	2	0	-	2	6
% Single-Unit Trucks	-	-	-	-	-	-	-	0.8	0.0	7.7	-	2.0	0.0	-	0.0	0.8	-	0.4	-	0.0	1.7	-	-	1.6	1.2
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	-	-	-	-	-	-	0.0	0.0	0.0	-	0.0	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	2	1	-	3	0	0	0	0	-	0	0	0	0	0	-	0	3
% Bicycles on Road	-	-	-	-	-	-	-	0.0	33.3	3.8	-	2.0	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	-	0.0	0.6
Pedestrians	-	-	-	-	65	-	-	-	-	-	7	-	-	-	-	-	45	-	-	-	-	-	16	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: Harwood & Ridge
Site Code:
Start Date: 10/02/2018
Page No: 6

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Eastbound Approach Eastbound						Ridge Rd Westbound						Harwood Avenue Northbound						Harwood Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
5:00 PM	0	0	0	0	5	0	0	47	0	5	5	52	0	0	20	55	5	75	0	8	67	0	1	75	202
5:15 PM	0	0	0	0	21	0	0	45	1	3	13	49	0	0	20	45	23	65	0	16	71	0	4	87	201
5:30 PM	0	0	0	0	14	0	0	58	2	1	6	61	0	0	17	44	21	61	0	10	62	0	2	72	194
5:45 PM	0	0	0	0	10	0	0	48	0	5	6	53	0	0	13	45	14	58	0	12	68	0	1	80	191
Total	0	0	0	0	50	0	0	198	3	14	30	215	0	0	70	189	63	259	0	46	268	0	8	314	788
Approach %	0.0	0.0	0.0	0.0	-	-	0.0	92.1	1.4	6.5	-	-	0.0	0.0	27.0	73.0	-	-	0.0	14.6	85.4	0.0	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	0.0	25.1	0.4	1.8	-	27.3	0.0	0.0	8.9	24.0	-	32.9	0.0	5.8	34.0	0.0	-	39.8	-
PHF	0.000	0.000	0.000	0.000	-	0.000	0.000	0.853	0.375	0.700	-	0.881	0.000	0.000	0.875	0.859	-	0.863	0.000	0.719	0.944	0.000	-	0.902	0.975
Lights	0	0	0	0	-	0	0	197	0	14	-	211	0	0	69	187	-	256	0	46	267	0	-	313	780
% Lights	-	-	-	-	-	-	-	99.5	0.0	100.0	-	98.1	-	-	98.6	98.9	-	98.8	-	100.0	99.6	-	-	99.7	99.0
Buses	0	0	0	0	-	0	0	1	3	0	-	4	0	0	0	0	-	0	0	0	1	0	-	1	5
% Buses	-	-	-	-	-	-	-	0.5	100.0	0.0	-	1.9	-	-	0.0	0.0	-	0.0	-	0.0	0.4	-	-	0.3	0.6
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	2	-	2	0	0	0	0	-	0	2
% Single-Unit Trucks	-	-	-	-	-	-	-	0.0	0.0	0.0	-	0.0	-	-	0.0	1.1	-	0.8	-	0.0	0.0	-	-	0.0	0.3
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	-	-	-	-	-	-	0.0	0.0	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	0.0	0.0	-	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	1
% Bicycles on Road	-	-	-	-	-	-	-	0.0	0.0	0.0	-	0.0	-	-	1.4	0.0	-	0.4	-	0.0	0.0	-	-	0.0	0.1
Pedestrians	-	-	-	-	50	-	-	-	-	-	30	-	-	-	-	-	63	-	-	-	-	-	8	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Homewood, IL Weather: Cool and Dry
 Chestnut Rd and Martin Ave
 Tuesday October 2, 2018

10/03/18
 09:20:55

URNS/TEAPAC[Ver 3.61.12] - 15-Minute Counts: All Vehicles - by Mvmt

Intersection # 1 chestnut/martin

Begin Time	N-Approach			E-Approach			S-Approach			W-Approach			Int Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
630	0	0	0	0	0	1	0	0	1	0	0	0	2
645	0	0	0	0	0	0	0	0	0	0	0	0	0
700	0	0	0	0	0	0	0	0	0	0	0	0	0
715	0	0	0	0	0	1	2	0	0	0	0	0	3
730	0	0	0	0	0	0	1	0	0	0	0	0	1
745	0	0	0	0	0	0	0	0	0	0	0	0	0
800	0	0	0	0	0	0	1	0	0	0	0	0	1
815	0	0	0	0	0	1	0	0	0	1	0	0	2
830	0	0	0	0	0	0	0	0	0	0	0	0	0
845	0	0	0	0	0	2	0	0	0	0	0	0	2
1600	0	0	0	0	0	1	0	0	0	0	0	0	1
1615	0	0	0	0	0	1	2	0	0	1	0	0	4
1630	0	0	0	0	0	0	3	0	0	0	0	0	3
1645	0	0	0	0	0	2	0	0	0	2	0	0	4
1700	0	0	0	0	0	1	2	0	0	0	0	0	3
1715	0	0	0	0	0	0	1	0	0	2	0	0	3
1730	0	0	0	0	0	2	1	0	0	0	0	0	3
1745	0	0	0	0	0	1	3	0	0	1	0	0	5
1800	0	0	0	0	0	2	1	0	0	1	0	0	4
1815	0	0	0	0	0	0	0	0	0	3	0	0	3
Total	0	0	0	0	0	15	17	0	1	11	0	0	44

Homewood, IL Weather: Cool and Dry
 Chestnut Rd and Martin Ave
 Tuesday October 2, 2018

10/03/18
 09:20:55

URNS/TEAPAC[Ver 3.61.12] - 60-Minute Volumes: by Movement

Intersection # 1 chestnut/martin

Begin Time	N-Approach			E-Approach			S-Approach			W-Approach			Int Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
630	0	0	0	0	0	2	2	0	1	0	0	0	5
645	0	0	0	0	0	1	3	0	0	0	0	0	4
700	0	0	0	0	0	1	3	0	0	0	0	0	4
715	0	0	0	0	0	1	4	0	0	0	0	0	5
730	0	0	0	0	0	1	2	0	0	1	0	0	4
745	0	0	0	0	0	1	1	0	0	1	0	0	3
800	0	0	0	0	0	3	1	0	0	1	0	0	5
815	0	0	0	0	0	3	0	0	0	1	0	0	4*
830	0	0	0	0	0	2	0	0	0	0	0	0	2*
845	0	0	0	0	0	2	0	0	0	0	0	0	2*
1600	0	0	0	0	0	4	5	0	0	3	0	0	12
1615	0	0	0	0	0	4	7	0	0	3	0	0	14
1630	0	0	0	0	0	3	6	0	0	4	0	0	13
1645	0	0	0	0	0	5	4	0	0	4	0	0	13
1700	0	0	0	0	0	4	7	0	0	3	0	0	14
1715	0	0	0	0	0	5	6	0	0	4	0	0	15
1730	0	0	0	0	0	5	5	0	0	5	0	0	15
1745	0	0	0	0	0	3	4	0	0	5	0	0	12*
1800	0	0	0	0	0	2	1	0	0	4	0	0	7*
1815	0	0	0	0	0	0	0	0	0	3	0	0	3*

Homewood, IL Weather: Cool and Dry
 Chestnut Rd and LaBanque Hotel Access
 Tuesday October 2, 2018

10/03/18
 09:33:35

URNS/TEAPAC[Ver 3.61.12] - 15-Minute Counts: All Vehicles - by Mvmt

Intersection # 3 chestnut/labarquehotel

Begin Time	N-Approach			E-Approach			S-Approach			W-Approach			Int Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
630	0	0	0	0	0	1	1	0	0	0	0	0	2
645	0	0	0	0	0	1	1	0	0	2	0	0	4
700	0	0	0	0	0	0	0	0	0	1	0	0	1
715	0	0	0	0	0	0	2	0	1	0	0	0	3
730	0	0	0	0	0	1	1	0	1	0	0	0	3
745	0	0	0	0	0	2	1	0	2	1	0	0	6
800	0	0	0	0	0	1	0	0	0	2	0	0	3
815	0	0	0	0	0	1	1	0	0	1	0	0	3
830	0	0	0	0	0	1	0	0	0	2	0	0	3
845	0	0	0	0	0	2	2	0	0	1	0	0	5
1600	0	0	0	0	0	0	1	0	0	0	0	0	1
1615	0	0	0	0	0	2	3	0	0	0	0	0	5
1630	0	0	0	0	0	3	2	0	0	1	0	0	6
1645	0	0	0	0	0	2	2	0	0	1	0	0	5
1700	0	0	0	0	0	1	2	0	1	3	0	0	7
1715	0	0	0	0	0	2	0	0	1	2	0	0	5
1730	0	0	0	0	0	0	0	0	1	2	0	0	3
1745	0	0	0	0	0	1	2	0	0	1	0	0	4
1800	0	0	0	0	0	2	3	0	2	3	0	0	10
1815	0	0	0	0	0	1	1	0	1	0	0	0	3
Total	0	0	0	0	0	24	25	0	10	23	0	0	82

Homewood, IL Weather: Cool and Dry
 Chestnut Rd and LaBanque Hotel Access
 Tuesday October 2, 2018

10/03/18
 09:33:35

URNS/TEAPAC[Ver 3.61.12] - 60-Minute Volumes: by Movement

Intersection # 3 chestnut/labaquehotel

Begin Time	N-Approach			E-Approach			S-Approach			W-Approach			Int Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
630	0	0	0	0	0	2	4	0	1	3	0	0	10
645	0	0	0	0	0	2	4	0	2	3	0	0	11
700	0	0	0	0	0	3	4	0	4	2	0	0	13
715	0	0	0	0	0	4	4	0	4	3	0	0	15
730	0	0	0	0	0	5	3	0	3	4	0	0	15
745	0	0	0	0	0	5	2	0	2	6	0	0	15
800	0	0	0	0	0	5	3	0	0	6	0	0	14
815	0	0	0	0	0	4	3	0	0	4	0	0	11*
830	0	0	0	0	0	3	2	0	0	3	0	0	8*
845	0	0	0	0	0	2	2	0	0	1	0	0	5*
1600	0	0	0	0	0	7	8	0	0	2	0	0	17
1615	0	0	0	0	0	8	9	0	1	5	0	0	23
1630	0	0	0	0	0	8	6	0	2	7	0	0	23
1645	0	0	0	0	0	5	4	0	3	8	0	0	20
1700	0	0	0	0	0	4	4	0	3	8	0	0	19
1715	0	0	0	0	0	5	5	0	4	8	0	0	22
1730	0	0	0	0	0	4	6	0	4	6	0	0	20
1745	0	0	0	0	0	4	6	0	3	4	0	0	17*
1800	0	0	0	0	0	3	4	0	3	3	0	0	13*
1815	0	0	0	0	0	1	1	0	1	0	0	0	3*

Homewood, IL Weather: Cool and Dry
 Chestnut Rd and Village Hall Access
 Tuesday October 2, 2018

10/03/18
 09:24:42

URNS/TEAPAC[Ver 3.61.12] - 15-Minute Counts: All Vehicles - by Mvmt

Intersection # 2 chestnut/villagehall

Begin Time	N-Approach			E-Approach			S-Approach			W-Approach			Int Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
630	0	0	0	6	0	0	0	0	0	0	0	0	6
645	0	0	0	6	0	0	0	0	0	0	0	6	12
700	0	0	2	4	0	0	0	0	0	0	0	4	10
715	0	0	5	5	0	0	0	0	0	0	0	2	12
730	1	0	2	7	0	0	0	0	0	0	0	2	12
745	0	0	2	2	0	0	0	0	0	0	0	6	10
800	0	0	2	4	0	0	0	0	0	0	0	2	8
815	1	0	0	3	0	0	0	0	0	0	0	1	5
830	0	0	1	1	0	0	0	0	0	0	0	1	3
845	1	0	1	1	0	0	0	0	0	0	0	0	3
1600	3	0	2	0	0	0	0	0	0	0	0	0	5
1615	1	0	1	1	0	0	0	0	0	0	0	2	5
1630	4	0	4	5	0	0	0	0	0	0	0	1	14
1645	0	0	4	3	0	0	0	0	0	0	0	2	9
1700	5	0	6	0	0	0	0	0	0	0	0	0	11
1715	4	0	5	1	0	0	0	0	0	0	0	2	12
1730	2	0	2	0	0	0	0	0	0	0	0	1	5
1745	2	0	5	3	0	0	0	0	0	0	0	0	10
1800	4	0	6	2	0	0	0	0	0	0	0	2	14
1815	0	0	0	2	0	0	0	0	0	0	0	0	2
Total	28	0	50	56	0	0	0	0	0	0	0	34	168

Homewood, IL Weather: Cool and Dry
 Elm Rd and Cancer Support Center Access
 Tuesday October 2, 2018

10/03/18
 09:41:02

URNS/TEAPAC[Ver 3.61.12] - 15-Minute Counts: All Vehicles - by Mvmt

Intersection # 4 elm/cancersupport

Begin Time	N-Approach			E-Approach			S-Approach			W-Approach			Int Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
630	0	0	0	0	0	0	0	0	0	0	0	0	0
645	0	0	0	0	0	0	0	0	0	0	0	0	0
700	0	0	0	0	0	0	0	0	0	0	0	0	0
715	0	0	0	0	0	0	0	0	0	0	0	0	0
730	0	0	0	0	0	0	0	0	0	0	0	1	1
745	0	0	1	0	0	0	0	0	0	0	0	1	2
800	0	0	0	1	0	0	0	0	0	0	0	0	1
815	0	0	0	0	0	0	0	0	0	0	0	1	1
830	0	0	2	2	0	0	0	0	0	0	0	0	4
845	0	0	0	1	0	0	0	0	0	0	0	1	2
1600	0	0	2	0	0	0	0	0	0	0	0	0	2
1615	1	0	1	1	0	0	0	0	0	0	0	1	4
1630	0	0	1	1	0	0	0	0	0	0	0	0	2
1645	1	0	1	2	0	0	0	0	0	0	0	1	5
1700	4	0	1	1	0	0	0	0	0	0	0	1	7
1715	0	0	2	0	0	0	0	0	0	0	0	1	3
1730	0	0	2	0	0	0	0	0	0	0	0	0	2
1745	1	0	0	0	0	0	0	0	0	0	0	0	1
1800	0	0	0	0	0	0	0	0	0	0	0	0	0
1815	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	7	0	13	9	0	0	0	0	0	0	0	8	37

Homewood, IL Weather: Cool and Dry
 Elm Rd and Village Hall Lot Driveway
 Tuesday October 2, 2018

10/03/18
 09:45:37

URNS/TEAPAC[Ver 3.61.12] - 15-Minute Counts: All Vehicles - by Mvmt

Intersection # 5 elm/villagehall

Begin Time	N-Approach			E-Approach			S-Approach			W-Approach			Int Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
630	0	0	0	0	0	0	0	0	0	3	0	0	3
645	0	0	0	0	0	1	1	0	0	3	0	0	5
700	0	0	0	0	0	2	6	0	0	0	0	0	8
715	0	0	0	0	0	0	0	0	0	0	0	0	0
730	0	0	0	0	0	0	2	0	0	1	0	0	3
745	0	0	0	0	0	0	0	0	0	1	0	0	1
800	0	0	0	0	0	0	1	0	0	1	0	0	2
815	0	0	0	0	0	0	0	0	1	0	0	0	1
830	0	0	0	0	0	2	0	0	0	0	0	0	2
845	0	0	0	0	0	0	0	0	0	1	0	0	1
1600	0	0	0	0	0	0	2	0	0	1	0	0	3
1615	0	0	0	0	0	0	1	0	0	0	0	0	1
1630	0	0	0	0	0	1	2	0	0	0	0	0	3
1645	0	0	0	0	0	0	1	0	0	0	0	0	1
1700	0	0	0	0	0	1	1	0	1	1	0	0	4
1715	0	0	0	0	0	0	0	0	0	1	0	0	1
1730	0	0	0	0	0	0	0	0	1	0	0	0	1
1745	0	0	0	0	0	0	1	0	0	0	0	0	1
1800	0	0	0	0	0	2	1	0	0	1	0	0	4
1815	0	0	0	0	0	1	0	0	0	0	0	0	1
Total	0	0	0	0	0	10	19	0	3	14	0	0	46

Homewood, IL Weather: Cool and Dry
 Elm Rd and Village Hall Lot Driveway
 Tuesday October 2, 2018

10/03/18
 09:45:37

URNS/TEAPAC[Ver 3.61.12] - 60-Minute Volumes: by Movement

Intersection # 5 elm/villagehall

Begin Time	N-Approach			E-Approach			S-Approach			W-Approach			Int Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
630	0	0	0	0	0	3	7	0	0	6	0	0	16
645	0	0	0	0	0	3	9	0	0	4	0	0	16
700	0	0	0	0	0	2	8	0	0	2	0	0	12
715	0	0	0	0	0	0	3	0	0	3	0	0	6
730	0	0	0	0	0	0	3	0	1	3	0	0	7
745	0	0	0	0	0	2	1	0	1	2	0	0	6
800	0	0	0	0	0	2	1	0	1	2	0	0	6
815	0	0	0	0	0	2	0	0	1	1	0	0	4*
830	0	0	0	0	0	2	0	0	0	1	0	0	3*
845	0	0	0	0	0	0	0	0	0	1	0	0	1*
1600	0	0	0	0	0	1	6	0	0	1	0	0	8
1615	0	0	0	0	0	2	5	0	1	1	0	0	9
1630	0	0	0	0	0	2	4	0	1	2	0	0	9
1645	0	0	0	0	0	1	2	0	2	2	0	0	7
1700	0	0	0	0	0	1	2	0	2	2	0	0	7
1715	0	0	0	0	0	2	2	0	1	2	0	0	7
1730	0	0	0	0	0	3	2	0	1	1	0	0	7
1745	0	0	0	0	0	3	2	0	0	1	0	0	6*
1800	0	0	0	0	0	3	1	0	0	1	0	0	5*
1815	0	0	0	0	0	1	0	0	0	0	0	0	1*

Level of Service Criteria

LEVEL OF SERVICE CRITERIA

Signalized Intersections		
Level of Service	Interpretation	Average Control Delay (seconds per vehicle)
A	Favorable progression. Most vehicles arrive during the green indication and travel through the intersection without stopping.	≤10
B	Good progression, with more vehicles stopping than for Level of Service A.	>10 - 20
C	Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear. Number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.	>20 - 35
D	The volume-to-capacity ratio is high and either progression is ineffective or the cycle length is too long. Many vehicles stop and individual cycle failures are noticeable.	>35 - 55
E	Progression is unfavorable. The volume-to-capacity ratio is high and the cycle length is long. Individual cycle failures are frequent.	>55 - 80
F	The volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.	>80.0
Unsignalized Intersections		
Level of Service	Average Control Delay (Seconds/Vehicle)	
A	0 - 10	
B	> 10 - 15	
C	> 15 - 25	
D	> 25 - 35	
E	> 35 - 50	
F	> 50	




















Source: *Highway Capacity Manual*, 2010

Capacity Analysis Summary Sheets

Existing Conditions
Projected Conditions

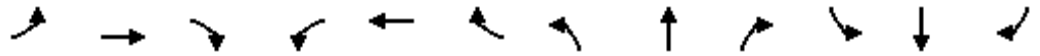
Lanes, Volumes, Timings
1: Dixie Hwy & Ridge Rd

12/12/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	70	8	60	130	224	33	426	60	98	218	11
Future Volume (vph)	35	70	8	60	130	224	33	426	60	98	218	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	145		0	130		0	100		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			90			70			135		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99		0.99	0.97		1.00	1.00		1.00	1.00	
Frt		0.990			0.905			0.981				0.993
Flt Protected		0.985		0.950			0.950			0.950		
Satd. Flow (prot)	0	1811	0	1687	1608	0	1612	1732	0	1641	1722	0
Flt Permitted		0.773		0.622			0.606			0.251		
Satd. Flow (perm)	0	1414	0	1088	1608	0	1026	1732	0	432	1722	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30				30
Link Distance (ft)		296			495			476				391
Travel Time (s)		6.7			11.3			10.8				8.9
Confl. Peds. (#/hr)	10		8	8		10	1		6	6		1
Confl. Bikes (#/hr)						1						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	7%	3%	4%	12%	7%	8%	10%	9%	18%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	122	0	65	381	0	35	523	0	105	246	0
Turn Type	Perm	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0		9.5	24.0		9.5	24.0		9.5	24.0	
Total Split (s)	24.0	24.0		12.0	36.0		12.0	52.0		12.0	52.0	
Total Split (%)	24.0%	24.0%		12.0%	36.0%		12.0%	52.0%		12.0%	52.0%	
Yellow Time (s)	4.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lag	Lag		Lead			Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes			Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effect Green (s)		15.0		26.0	23.2		36.6	29.1		39.3	32.3	
Actuated g/C Ratio		0.20		0.35	0.31		0.49	0.39		0.53	0.44	

Lanes, Volumes, Timings
1: Dixie Hwy & Ridge Rd

12/12/2018

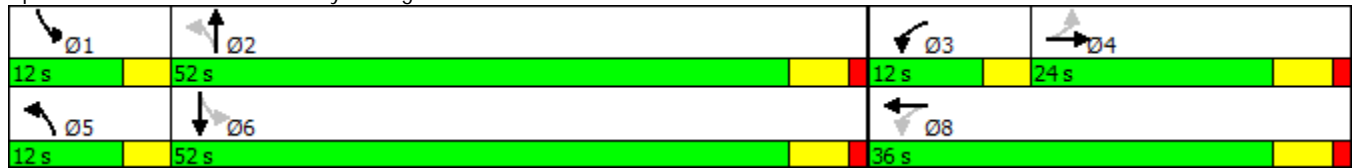


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.43		0.15	0.76		0.06	0.77		0.29	0.33	
Control Delay		37.8		21.2	37.2		8.5	29.4		10.6	16.7	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		37.8		21.2	37.2		8.5	29.4		10.6	16.7	
LOS		D		C	D		A	C		B	B	
Approach Delay		37.8			34.9			28.1			14.9	
Approach LOS		D			C			C			B	
Queue Length 50th (ft)		55		21	166		7	217		22	80	
Queue Length 95th (ft)		128		60	#366		21	368		49	149	
Internal Link Dist (ft)		216			415			396			311	
Turn Bay Length (ft)				145			130			100		
Base Capacity (vph)		385		458	731		603	1133		385	1129	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.32		0.14	0.52		0.06	0.46		0.27	0.22	

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 74.1
 Natural Cycle: 70
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.77
 Intersection Signal Delay: 27.8
 Intersection LOS: C
 Intersection Capacity Utilization 79.4%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Dixie Hwy & Ridge Rd



HCM Unsignalized Intersection Capacity Analysis

2: Dixie Hwy & Chestnut Rd

12/12/2018

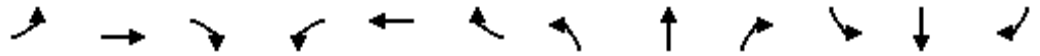


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	28	16	23	674	313	5
Future Volume (Veh/h)	28	16	23	674	313	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	30	17	24	717	333	5
Pedestrians	1				1	
Lane Width (ft)	12.0				12.0	
Walking Speed (ft/s)	3.5				3.5	
Percent Blockage	0				0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)				391		
pX, platoon unblocked	0.76					
vC, conflicting volume	1102	336	339			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	977	336	339			
tC, single (s)	6.4	6.3	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.4	2.2			
p0 queue free %	85	98	98			
cM capacity (veh/h)	205	683	1219			
Direction, Lane #	EB 1	NB 1	NB 2	SB 1		
Volume Total	47	24	717	338		
Volume Left	30	24	0	0		
Volume Right	17	0	0	5		
cSH	275	1219	1700	1700		
Volume to Capacity	0.17	0.02	0.42	0.20		
Queue Length 95th (ft)	15	2	0	0		
Control Delay (s)	20.8	8.0	0.0	0.0		
Lane LOS	C	A				
Approach Delay (s)	20.8	0.3		0.0		
Approach LOS	C					
Intersection Summary						
Average Delay			1.0			
Intersection Capacity Utilization			45.5%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

3: Dixie Hwy & Elm Rd

12/12/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	55	1	6	3	0	1	1	684	5	3	310	1
Future Volume (Veh/h)	55	1	6	3	0	1	1	684	5	3	310	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	58	1	6	3	0	1	1	720	5	3	326	1
Pedestrians		1									1	
Lane Width (ft)		12.0									12.0	
Walking Speed (ft/s)		3.5									3.5	
Percent Blockage		0									0	
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								768				
pX, platoon unblocked	0.79	0.79		0.79	0.79	0.79				0.79		
vC, conflicting volume	1060	1060	328	1064	1058	724	328			725		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	942	943	328	947	941	516	328			518		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	69	100	99	98	100	100	100			100		
cM capacity (veh/h)	190	206	713	187	207	441	1230			835		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	65	4	726	330								
Volume Left	58	3	1	3								
Volume Right	6	1	5	1								
cSH	204	219	1230	835								
Volume to Capacity	0.32	0.02	0.00	0.00								
Queue Length 95th (ft)	33	1	0	0								
Control Delay (s)	30.7	21.8	0.0	0.1								
Lane LOS	D	C	A	A								
Approach Delay (s)	30.7	21.8	0.0	0.1								
Approach LOS	D	C										
Intersection Summary												
Average Delay			1.9									
Intersection Capacity Utilization			47.7%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

4: Harwood Ave & Ridge Rd

12/12/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔			↔			↔	
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	0	0	120	6	26	2	112	119	3	120	2
Future Volume (vph)	0	0	0	120	6	26	2	112	119	3	120	2
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	0	0	125	6	27	2	117	124	3	125	2

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	158	243	130
Volume Left (vph)	125	2	3
Volume Right (vph)	27	124	2
Hadj (s)	0.16	-0.27	0.03
Departure Headway (s)	4.9	4.2	4.6
Degree Utilization, x	0.21	0.28	0.17
Capacity (veh/h)	685	823	739
Control Delay (s)	9.2	8.9	8.5
Approach Delay (s)	9.2	8.9	8.5
Approach LOS	A	A	A

Intersection Summary		
Delay		8.9
Level of Service		A
Intersection Capacity Utilization	31.9%	ICU Level of Service
Analysis Period (min)		15

HCM Unsignalized Intersection Capacity Analysis

5: Harwood Ave & Chestnut Rd

12/12/2018



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	10	2	60	38	3	110
Future Volume (Veh/h)	10	2	60	38	3	110
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78
Hourly flow rate (vph)	13	3	77	49	4	141
Pedestrians	23					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	2					
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	274	124			149	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	274	124			149	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	98	100			100	
cM capacity (veh/h)	698	906			1401	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	16	126	145			
Volume Left	13	0	4			
Volume Right	3	49	0			
cSH	730	1700	1401			
Volume to Capacity	0.02	0.07	0.00			
Queue Length 95th (ft)	2	0	0			
Control Delay (s)	10.0	0.0	0.2			
Lane LOS	B		A			
Approach Delay (s)	10.0	0.0	0.2			
Approach LOS	B					
Intersection Summary						
Average Delay			0.7			
Intersection Capacity Utilization			20.1%	ICU Level of Service		A
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis

6: Harwood Ave & Elm Rd

12/12/2018

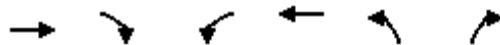


Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	1	0	0	59	4	114
Future Volume (Veh/h)	1	0	0	59	4	114
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	1	0	0	70	5	136
Pedestrians	4					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	150	4			74	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	150	4			74	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	836	1075			1520	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	1	70	141			
Volume Left	1	0	5			
Volume Right	0	70	0			
cSH	836	1700	1520			
Volume to Capacity	0.00	0.04	0.00			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	9.3	0.0	0.3			
Lane LOS	A		A			
Approach Delay (s)	9.3	0.0	0.3			
Approach LOS	A					
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			19.2%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

9: Martin Ave & Chestnut Rd




















12/12/2018



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	42	2	1	27	1	4
Future Volume (Veh/h)	42	2	1	27	1	4
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	46	2	1	29	1	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			48		78	47
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			48		78	47
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1559		924	1022
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	48	30	5			
Volume Left	0	1	1			
Volume Right	2	0	4			
cSH	1700	1559	1001			
Volume to Capacity	0.03	0.00	0.00			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	0.0	0.2	8.6			
Lane LOS		A	A			
Approach Delay (s)	0.0	0.2	8.6			
Approach LOS			A			
Intersection Summary						
Average Delay			0.6			
Intersection Capacity Utilization			13.3%	ICU Level of Service	A	
Analysis Period (min)			15			

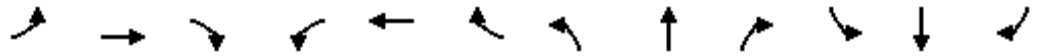
Lanes, Volumes, Timings
1: Dixie Hwy & Ridge Rd

12/12/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	52	140	27	189	189	177	48	295	131	299	470	12
Future Volume (vph)	52	140	27	189	189	177	48	295	131	299	470	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	145		0	130		0	100		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			90			70			135		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98		0.99	0.94		0.98	0.98		0.98	1.00	
Frt		0.983			0.928			0.954			0.996	
Flt Protected		0.988		0.950			0.950			0.950		
Satd. Flow (prot)	0	1801	0	1770	1632	0	1703	1736	0	1770	1851	0
Flt Permitted		0.808		0.460			0.338			0.264		
Satd. Flow (perm)	0	1453	0	850	1632	0	593	1736	0	482	1851	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		296			495			476			391	
Travel Time (s)		6.7			11.3			10.8			8.9	
Confl. Peds. (#/hr)	35		6	6		35	25		20	20		25
Confl. Bikes (#/hr)			1						1			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	6%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	226	0	195	377	0	49	439	0	308	497	0
Turn Type	Perm	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0		9.5	24.0		9.5	24.0		9.5	24.0	
Total Split (s)	24.0	24.0		12.0	36.0		12.0	52.0		12.0	52.0	
Total Split (%)	24.0%	24.0%		12.0%	36.0%		12.0%	52.0%		12.0%	52.0%	
Yellow Time (s)	4.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lag	Lag		Lead			Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes			Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effect Green (s)		17.1		31.5	29.0		34.6	25.3		38.8	31.5	
Actuated g/C Ratio		0.22		0.40	0.37		0.44	0.32		0.49	0.40	

Lanes, Volumes, Timings
1: Dixie Hwy & Ridge Rd

12/12/2018

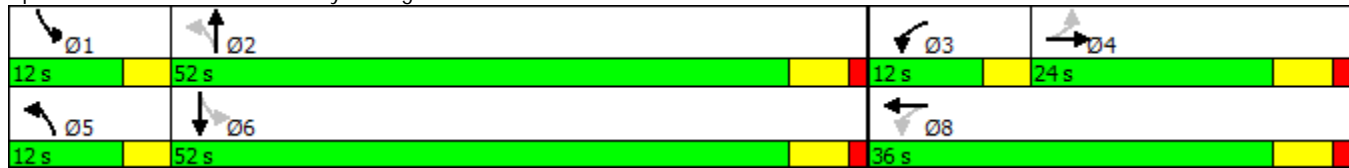


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.72		0.45	0.63		0.14	0.79		0.81	0.67	
Control Delay		45.3		21.6	27.8		10.5	34.8		32.1	26.0	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		45.3		21.6	27.8		10.5	34.8		32.1	26.0	
LOS		D		C	C		B	C		C	C	
Approach Delay		45.3			25.7			32.4			28.3	
Approach LOS		D			C			C			C	
Queue Length 50th (ft)		101		61	145		12	196		87	218	
Queue Length 95th (ft)		#248		139	299		27	297		#180	334	
Internal Link Dist (ft)		216			415			396			311	
Turn Bay Length (ft)				145			130			100		
Base Capacity (vph)		337		441	631		396	1029		378	1097	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.67		0.44	0.60		0.12	0.43		0.81	0.45	

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 78.7
 Natural Cycle: 75
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 30.4
 Intersection LOS: C
 Intersection Capacity Utilization 93.8%
 ICU Level of Service F
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Dixie Hwy & Ridge Rd



HCM Unsignalized Intersection Capacity Analysis

2: Dixie Hwy & Chestnut Rd

12/12/2018

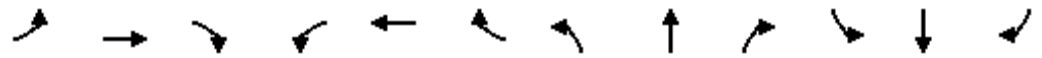


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	17	40	19	510	736	4
Future Volume (Veh/h)	17	40	19	510	736	4
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	18	42	20	537	775	4
Pedestrians	6				6	
Lane Width (ft)	12.0				12.0	
Walking Speed (ft/s)	3.5				3.5	
Percent Blockage	1				1	
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)				391		
pX, platoon unblocked	0.84					
vC, conflicting volume	1366	783	785			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1341	783	785			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	87	89	98			
cM capacity (veh/h)	137	391	829			
Direction, Lane #	EB 1	NB 1	NB 2	SB 1		
Volume Total	60	20	537	779		
Volume Left	18	20	0	0		
Volume Right	42	0	0	4		
cSH	251	829	1700	1700		
Volume to Capacity	0.24	0.02	0.32	0.46		
Queue Length 95th (ft)	23	2	0	0		
Control Delay (s)	23.8	9.5	0.0	0.0		
Lane LOS	C	A				
Approach Delay (s)	23.8	0.3		0.0		
Approach LOS	C					
Intersection Summary						
Average Delay			1.2			
Intersection Capacity Utilization			49.1%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

3: Dixie Hwy & Elm Rd

12/12/2018

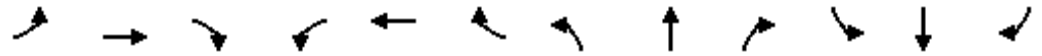


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	50	3	10	23	2	10	5	491	30	10	708	10
Future Volume (Veh/h)	50	3	10	23	2	10	5	491	30	10	708	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	52	3	10	24	2	10	5	511	31	10	738	10
Pedestrians		2										
Lane Width (ft)		12.0										
Walking Speed (ft/s)		3.5										
Percent Blockage		0										
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								768				
pX, platoon unblocked	0.91	0.91		0.91	0.91	0.91				0.91		
vC, conflicting volume	1312	1317	745	1311	1306	526	750			542		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1294	1299	745	1292	1287	429	750			446		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	57	98	98	80	99	98	99			99		
cM capacity (veh/h)	121	144	413	121	147	569	857			1023		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	65	36	547	758								
Volume Left	52	24	5	10								
Volume Right	10	10	31	10								
cSH	137	156	857	1023								
Volume to Capacity	0.47	0.23	0.01	0.01								
Queue Length 95th (ft)	54	21	0	1								
Control Delay (s)	52.8	34.8	0.2	0.3								
Lane LOS	F	D	A	A								
Approach Delay (s)	52.8	34.8	0.2	0.3								
Approach LOS	F	D										
Intersection Summary												
Average Delay			3.5									
Intersection Capacity Utilization			55.2%		ICU Level of Service					B		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

4: Harwood Ave & Ridge Rd

12/12/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	0	0	198	3	14	2	70	189	46	268	2
Future Volume (vph)	0	0	0	198	3	14	2	70	189	46	268	2
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	0	0	0	202	3	14	2	71	193	47	273	2

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	219	266	322
Volume Left (vph)	202	2	47
Volume Right (vph)	14	193	2
Hadj (s)	0.18	-0.40	0.06
Departure Headway (s)	5.5	4.6	4.9
Degree Utilization, x	0.33	0.34	0.44
Capacity (veh/h)	607	747	698
Control Delay (s)	11.2	9.9	11.7
Approach Delay (s)	11.2	9.9	11.7
Approach LOS	B	A	B

Intersection Summary		
Delay		11.0
Level of Service		B
Intersection Capacity Utilization	56.5%	ICU Level of Service
Analysis Period (min)		15

HCM Unsignalized Intersection Capacity Analysis

5: Harwood Ave & Chestnut Rd

12/12/2018



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	27	2	48	32	11	272
Future Volume (Veh/h)	27	2	48	32	11	272
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	32	2	56	38	13	320
Pedestrians	16					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	2					
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	437	91			110	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	437	91			110	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	94	100			99	
cM capacity (veh/h)	563	952			1458	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	34	94	333			
Volume Left	32	0	13			
Volume Right	2	38	0			
cSH	577	1700	1458			
Volume to Capacity	0.06	0.06	0.01			
Queue Length 95th (ft)	5	0	1			
Control Delay (s)	11.6	0.0	0.4			
Lane LOS	B		A			
Approach Delay (s)	11.6	0.0	0.4			
Approach LOS	B					
Intersection Summary						
Average Delay			1.1			
Intersection Capacity Utilization			31.6%	ICU Level of Service	A	
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis

6: Harwood Ave & Elm Rd

12/12/2018

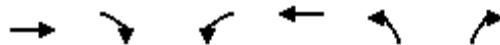


Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	19	0	0	51	5	237
Future Volume (Veh/h)	19	0	0	51	5	237
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	20	0	0	54	5	252
Pedestrians	4					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	266	4			58	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	266	4			58	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	97	100			100	
cM capacity (veh/h)	718	1075			1540	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	20	54	257			
Volume Left	20	0	5			
Volume Right	0	54	0			
cSH	718	1700	1540			
Volume to Capacity	0.03	0.03	0.00			
Queue Length 95th (ft)	2	0	0			
Control Delay (s)	10.2	0.0	0.2			
Lane LOS	B		A			
Approach Delay (s)	10.2	0.0	0.2			
Approach LOS	B					
Intersection Summary						
Average Delay			0.7			
Intersection Capacity Utilization		26.5%		ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

9: Martin Ave & Chestnut Rd

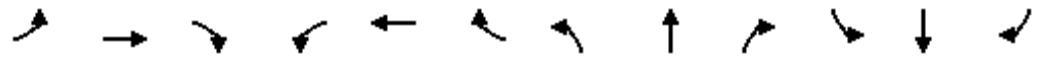
12/12/2018



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↩			↩	↩	
Traffic Volume (veh/h)	50	3	4	19	1	7
Future Volume (Veh/h)	50	3	4	19	1	7
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	54	3	4	21	1	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None		None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			57		84	56
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			57		84	56
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	99
cM capacity (veh/h)			1547		915	1011
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	57	25	9			
Volume Left	0	4	1			
Volume Right	3	0	8			
cSH	1700	1547	999			
Volume to Capacity	0.03	0.00	0.01			
Queue Length 95th (ft)	0	0	1			
Control Delay (s)	0.0	1.2	8.6			
Lane LOS		A	A			
Approach Delay (s)	0.0	1.2	8.6			
Approach LOS			A			
Intersection Summary						
Average Delay			1.2			
Intersection Capacity Utilization			14.4%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings
1: Dixie Hwy & Ridge Rd

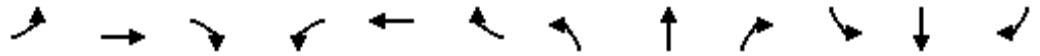
12/12/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕	↕		↕	↕	
Traffic Volume (vph)	35	70	8	62	130	224	33	434	63	99	224	11
Future Volume (vph)	35	70	8	62	130	224	33	434	63	99	224	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	145		0	130		0	100		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	70			90			70			135		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99		0.98	0.97		1.00	1.00		1.00	1.00	
Frt		0.990			0.905			0.981				0.993
Flt Protected		0.985		0.950			0.950			0.950		
Satd. Flow (prot)	0	1811	0	1687	1609	0	1612	1732	0	1641	1722	0
Flt Permitted		0.781		0.633			0.602			0.256		
Satd. Flow (perm)	0	1429	0	1107	1609	0	1019	1732	0	440	1722	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		296			495			476			391	
Travel Time (s)		6.7			11.3			10.8			8.9	
Confl. Peds. (#/hr)	10		8	8		10	1		6	6		1
Confl. Bikes (#/hr)						1						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	7%	3%	4%	12%	7%	8%	10%	9%	18%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	122	0	67	381	0	35	535	0	106	253	0
Turn Type	Perm	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0		9.5	24.0		9.5	24.0		9.5	24.0	
Total Split (s)	31.0	31.0		10.0	41.0		9.0	50.0		9.0	50.0	
Total Split (%)	31.0%	31.0%		10.0%	41.0%		9.0%	50.0%		9.0%	50.0%	
Yellow Time (s)	4.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lag	Lag		Lead			Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes			Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effect Green (s)		16.1		26.2	23.5		35.8	28.9		36.6	31.0	
Actuated g/C Ratio		0.22		0.36	0.33		0.50	0.40		0.51	0.43	

Lanes, Volumes, Timings
 1: Dixie Hwy & Ridge Rd

12/12/2018

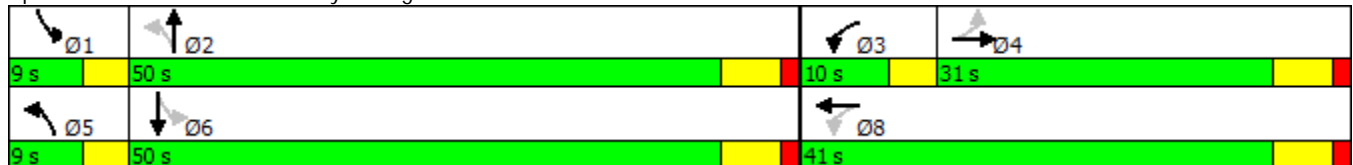


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.38		0.15	0.73		0.06	0.77		0.33	0.34	
Control Delay		32.9		19.1	33.0		9.4	28.9		12.2	17.3	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		32.9		19.1	33.0		9.4	28.9		12.2	17.3	
LOS		C		B	C		A	C		B	B	
Approach Delay		32.9			30.9			27.7			15.8	
Approach LOS		C			C			C			B	
Queue Length 50th (ft)		50		20	152		7	204		21	78	
Queue Length 95th (ft)		117		57	312		24	396		57	163	
Internal Link Dist (ft)		216			415			396			311	
Turn Bay Length (ft)				145			130			100		
Base Capacity (vph)		543		459	856		553	1130		322	1124	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.22		0.15	0.45		0.06	0.47		0.33	0.23	

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 72.3
 Natural Cycle: 75
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.77
 Intersection Signal Delay: 26.2
 Intersection LOS: C
 Intersection Capacity Utilization 80.0%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 1: Dixie Hwy & Ridge Rd



HCM Unsignalized Intersection Capacity Analysis

2: Dixie Hwy & Chestnut Rd

12/12/2018



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	28	16	23	682	320	5
Future Volume (Veh/h)	28	16	23	682	320	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	30	17	24	726	340	5
Pedestrians	1				1	
Lane Width (ft)	12.0				12.0	
Walking Speed (ft/s)	3.5				3.5	
Percent Blockage	0				0	
Right turn flare (veh)						
Median type				None	TWLTL	
Median storage (veh)					2	
Upstream signal (ft)				391		
pX, platoon unblocked	0.74					
vC, conflicting volume	1118	344	346			
vC1, stage 1 conf vol	344					
vC2, stage 2 conf vol	775					
vCu, unblocked vol	983	344	346			
tC, single (s)	6.4	6.3	4.1			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.4	2.2			
p0 queue free %	92	97	98			
cM capacity (veh/h)	391	676	1212			
Direction, Lane #	EB 1	NB 1	NB 2	SB 1		
Volume Total	47	24	726	345		
Volume Left	30	24	0	0		
Volume Right	17	0	0	5		
cSH	462	1212	1700	1700		
Volume to Capacity	0.10	0.02	0.43	0.20		
Queue Length 95th (ft)	8	2	0	0		
Control Delay (s)	13.7	8.0	0.0	0.0		
Lane LOS	B	A				
Approach Delay (s)	13.7	0.3		0.0		
Approach LOS	B					
Intersection Summary						
Average Delay			0.7			
Intersection Capacity Utilization			45.9%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

3: Dixie Hwy & Elm Rd

12/12/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Volume (veh/h)	59	4	9	3	1	4	3	690	5	3	314	2
Future Volume (Veh/h)	59	4	9	3	1	4	3	690	5	3	314	2
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	62	4	9	3	1	4	3	726	5	3	331	2
Pedestrians		1										1
Lane Width (ft)		12.0										12.0
Walking Speed (ft/s)		3.5										3.5
Percent Blockage		0										0
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh								2			2	
Upstream signal (ft)								768				
pX, platoon unblocked	0.76	0.76		0.76	0.76	0.76				0.76		
vC, conflicting volume	1076	1076	333	1082	1074	730	334			731		
vC1, stage 1 conf vol	339	339		734	734							
vC2, stage 2 conf vol	738	737		348	340							
vCu, unblocked vol	946	945	333	953	943	491	334			493		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	83	99	99	99	100	99	100			100		
cM capacity (veh/h)	373	373	708	376	375	441	1224			826		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	75	8	3	731	3	333
Volume Left	62	3	3	0	3	0
Volume Right	9	4	0	5	0	2
cSH	395	406	1224	1700	826	1700
Volume to Capacity	0.19	0.02	0.00	0.43	0.00	0.20
Queue Length 95th (ft)	17	2	0	0	0	0
Control Delay (s)	16.2	14.0	7.9	0.0	9.4	0.0
Lane LOS	C	B	A		A	
Approach Delay (s)	16.2	14.0	0.0		0.1	
Approach LOS	C	B				

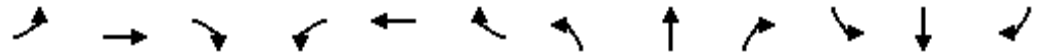
Intersection Summary

Average Delay		1.2	
Intersection Capacity Utilization	51.2%		ICU Level of Service
Analysis Period (min)	15		A

HCM Unsignalized Intersection Capacity Analysis

4: Harwood Ave & Ridge Rd

12/12/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	0	0	120	6	26	2	112	119	4	122	2
Future Volume (vph)	0	0	0	120	6	26	2	112	119	4	122	2
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	0	0	125	6	27	2	117	124	4	127	2

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	158	243	133
Volume Left (vph)	125	2	4
Volume Right (vph)	27	124	2
Hadj (s)	0.16	-0.27	0.03
Departure Headway (s)	4.9	4.2	4.6
Degree Utilization, x	0.21	0.28	0.17
Capacity (veh/h)	683	822	739
Control Delay (s)	9.2	8.9	8.6
Approach Delay (s)	9.2	8.9	8.6
Approach LOS	A	A	A

Intersection Summary		
Delay		8.9
Level of Service		A
Intersection Capacity Utilization	31.8%	ICU Level of Service
Analysis Period (min)		15

HCM Unsignalized Intersection Capacity Analysis

5: Harwood Ave & Chestnut Rd

12/12/2018



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	10	2	60	38	2	113
Future Volume (Veh/h)	10	2	60	38	2	113
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78
Hourly flow rate (vph)	13	3	77	49	3	145
Pedestrians	23					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	2					
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	276	124			149	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	276	124			149	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	98	100			100	
cM capacity (veh/h)	697	906			1401	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	16	126	148			
Volume Left	13	0	3			
Volume Right	3	49	0			
cSH	728	1700	1401			
Volume to Capacity	0.02	0.07	0.00			
Queue Length 95th (ft)	2	0	0			
Control Delay (s)	10.1	0.0	0.2			
Lane LOS	B		A			
Approach Delay (s)	10.1	0.0	0.2			
Approach LOS	B					
Intersection Summary						
Average Delay			0.6			
Intersection Capacity Utilization			20.1%	ICU Level of Service		A
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis

6: Harwood Ave & Elm Rd

12/12/2018



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰			↱		↕
Traffic Volume (veh/h)	2	0	0	59	3	115
Future Volume (Veh/h)	2	0	0	59	3	115
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	2	0	0	70	4	137
Pedestrians	4					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	149	4			74	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	149	4			74	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	838	1075			1520	

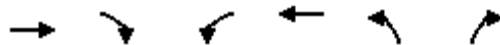
Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	2	70	141
Volume Left	2	0	4
Volume Right	0	70	0
cSH	838	1700	1520
Volume to Capacity	0.00	0.04	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	9.3	0.0	0.2
Lane LOS	A		A
Approach Delay (s)	9.3	0.0	0.2
Approach LOS	A		

Intersection Summary			
Average Delay			0.2
Intersection Capacity Utilization	18.5%	ICU Level of Service	A
Analysis Period (min)			15

HCM Unsignalized Intersection Capacity Analysis

9: Martin Ave & Chestnut Rd




















12/12/2018



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	→			←	←	↘
Traffic Volume (veh/h)	42	2	1	27	1	4
Future Volume (Veh/h)	42	2	1	27	1	4
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	46	2	1	29	1	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			48		78	47
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			48		78	47
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1559		924	1022
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	48	30	5			
Volume Left	0	1	1			
Volume Right	2	0	4			
cSH	1700	1559	1001			
Volume to Capacity	0.03	0.00	0.00			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	0.0	0.2	8.6			
Lane LOS		A	A			
Approach Delay (s)	0.0	0.2	8.6			
Approach LOS			A			
Intersection Summary						
Average Delay			0.6			
Intersection Capacity Utilization			13.3%	ICU Level of Service	A	
Analysis Period (min)			15			

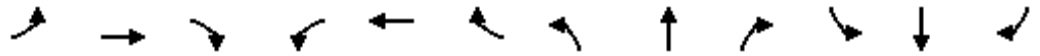
Lanes, Volumes, Timings
1: Dixie Hwy & Ridge Rd

12/12/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	52	140	27	236	189	292	48	396	144	300	539	12
Future Volume (vph)	52	140	27	236	189	292	48	396	144	300	539	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	145		0	130		0	100		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	70			90			70			135		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99		0.99	0.93		0.98	0.98			1.00	
Frt		0.983			0.909			0.960			0.997	
Flt Protected		0.988		0.950			0.950			0.950		
Satd. Flow (prot)	0	1801	0	1770	1575	0	1703	1752	0	1770	1854	0
Flt Permitted		0.583		0.471			0.341			0.161		
Satd. Flow (perm)	0	1053	0	870	1575	0	599	1752	0	300	1854	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		296			495			476			391	
Travel Time (s)		6.7			11.3			10.8			8.9	
Confl. Peds. (#/hr)	35		6	6		35	25		20	20		25
Confl. Bikes (#/hr)			1						1			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	6%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	226	0	243	496	0	49	556	0	309	568	0
Turn Type	Perm	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0		9.5	24.0		9.5	24.0		9.5	24.0	
Total Split (s)	31.0	31.0		10.0	41.0		9.0	43.0		16.0	50.0	
Total Split (%)	31.0%	31.0%		10.0%	41.0%		9.0%	43.0%		16.0%	50.0%	
Yellow Time (s)	4.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lag	Lag		Lead			Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes			Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effect Green (s)		22.8		35.4	32.9		41.2	33.1		51.6	44.0	
Actuated g/C Ratio		0.24		0.38	0.35		0.44	0.35		0.55	0.47	

Lanes, Volumes, Timings
1: Dixie Hwy & Ridge Rd

12/12/2018

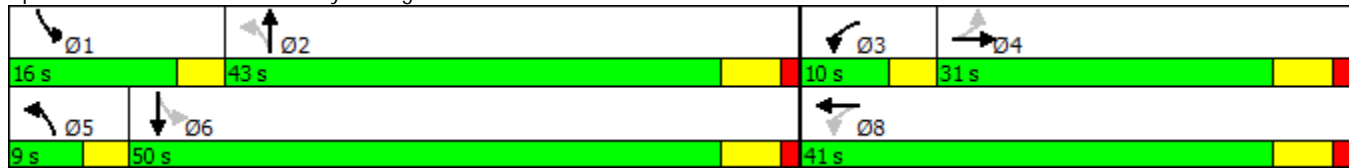


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.89		0.62	0.90		0.15	0.90		0.86	0.66	
Control Delay		70.8		31.2	51.6		11.9	49.0		40.5	25.1	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		70.8		31.2	51.6		11.9	49.0		40.5	25.1	
LOS		E		C	D		B	D		D	C	
Approach Delay		70.8			44.9			46.0			30.5	
Approach LOS		E			D			D			C	
Queue Length 50th (ft)		138		111	297		13	322		103	285	
Queue Length 95th (ft)		#274		175	#491		30	#515		#258	412	
Internal Link Dist (ft)		216			415			396			311	
Turn Bay Length (ft)				145			130			100		
Base Capacity (vph)		283		390	592		327	696		362	895	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.80		0.62	0.84		0.15	0.80		0.85	0.63	

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 94.1
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 42.4
 Intersection LOS: D
 Intersection Capacity Utilization 107.3%
 ICU Level of Service G
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Dixie Hwy & Ridge Rd



HCM Unsignalized Intersection Capacity Analysis

2: Dixie Hwy & Chestnut Rd

12/12/2018



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	17	40	19	726	806	4
Future Volume (Veh/h)	17	40	19	726	806	4
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	18	42	20	764	848	4
Pedestrians	6				6	
Lane Width (ft)	12.0				12.0	
Walking Speed (ft/s)	3.5				3.5	
Percent Blockage	1				1	
Right turn flare (veh)						
Median type				None	TWLTL	
Median storage (veh)					2	
Upstream signal (ft)				391		
pX, platoon unblocked	0.72					
vC, conflicting volume	1666	856	858			
vC1, stage 1 conf vol	856					
vC2, stage 2 conf vol	810					
vCu, unblocked vol	1729	856	858			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3	2.2			
p0 queue free %	94	88	97			
cM capacity (veh/h)	289	355	778			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	60	20	764	852
Volume Left	18	20	0	0
Volume Right	42	0	0	4
cSH	333	778	1700	1700
Volume to Capacity	0.18	0.03	0.45	0.50
Queue Length 95th (ft)	16	2	0	0
Control Delay (s)	18.2	9.7	0.0	0.0
Lane LOS	C	A		
Approach Delay (s)	18.2	0.2		0.0
Approach LOS	C			

Intersection Summary			
Average Delay		0.8	
Intersection Capacity Utilization		52.7%	ICU Level of Service
Analysis Period (min)		15	A

HCM Unsignalized Intersection Capacity Analysis

3: Dixie Hwy & Elm Rd

12/12/2018

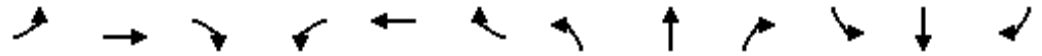


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↘		↗	↘	
Traffic Volume (veh/h)	53	5	13	23	4	12	135	516	89	34	775	63
Future Volume (Veh/h)	53	5	13	23	4	12	135	516	89	34	775	63
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	55	5	14	24	4	13	141	538	93	35	807	66
Pedestrians		2										
Lane Width (ft)		12.0										
Walking Speed (ft/s)		3.5										
Percent Blockage		0										
Right turn flare (veh)												
Median type							TWLTL			TWLTL		
Median storage (veh)							2			2		
Upstream signal (ft)							768					
pX, platoon unblocked	0.93	0.93		0.93	0.93	0.93				0.93		
vC, conflicting volume	1747	1825	842	1760	1812	584	875			631		
vC1, stage 1 conf vol	912	912		866	866							
vC2, stage 2 conf vol	835	913		894	945							
vCu, unblocked vol	1765	1849	842	1779	1834	518	875			568		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	72	98	96	83	98	97	82			96		
cM capacity (veh/h)	195	200	363	145	161	520	770			946		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	74	41	141	631	35	873						
Volume Left	55	24	141	0	35	0						
Volume Right	14	13	0	93	0	66						
cSH	214	190	770	1700	946	1700						
Volume to Capacity	0.35	0.22	0.18	0.37	0.04	0.51						
Queue Length 95th (ft)	37	20	17	0	3	0						
Control Delay (s)	30.5	29.1	10.7	0.0	9.0	0.0						
Lane LOS	D	D	B		A							
Approach Delay (s)	30.5	29.1	2.0		0.3							
Approach LOS	D	D										
Intersection Summary												
Average Delay			2.9									
Intersection Capacity Utilization			67.4%		ICU Level of Service					C		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

4: Harwood Ave & Ridge Rd

12/12/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔			↔			↔	
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	0	0	198	3	14	2	70	189	63	269	2
Future Volume (vph)	0	0	0	198	3	14	2	70	189	63	269	2
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	0	0	0	202	3	14	2	71	193	64	274	2

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	219	266	340
Volume Left (vph)	202	2	64
Volume Right (vph)	14	193	2
Hadj (s)	0.18	-0.40	0.07
Departure Headway (s)	5.5	4.6	4.9
Degree Utilization, x	0.34	0.34	0.47
Capacity (veh/h)	601	742	697
Control Delay (s)	11.3	9.9	12.2
Approach Delay (s)	11.3	9.9	12.2
Approach LOS	B	A	B

Intersection Summary		
Delay		11.2
Level of Service		B
Intersection Capacity Utilization	57.5%	ICU Level of Service
Analysis Period (min)		15

HCM Unsignalized Intersection Capacity Analysis

5: Harwood Ave & Chestnut Rd

12/12/2018

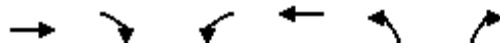


Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	27	2	48	32	10	290
Future Volume (Veh/h)	27	2	48	32	10	290
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	32	2	56	38	12	341
Pedestrians	16					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	2					
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	456	91			110	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	456	91			110	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	94	100			99	
cM capacity (veh/h)	549	952			1458	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	34	94	353			
Volume Left	32	0	12			
Volume Right	2	38	0			
cSH	563	1700	1458			
Volume to Capacity	0.06	0.06	0.01			
Queue Length 95th (ft)	5	0	1			
Control Delay (s)	11.8	0.0	0.3			
Lane LOS	B		A			
Approach Delay (s)	11.8	0.0	0.3			
Approach LOS	B					
Intersection Summary						
Average Delay			1.1			
Intersection Capacity Utilization			32.5%	ICU Level of Service	A	
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis

9: Martin Ave & Chestnut Rd

12/12/2018






















Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	→			←	←	↘
Traffic Volume (veh/h)	50	3	4	19	1	7
Future Volume (Veh/h)	50	3	4	19	1	7
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	54	3	4	21	1	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			57		84	56
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			57		84	56
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	99
cM capacity (veh/h)			1547		915	1011

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	57	25	9
Volume Left	0	4	1
Volume Right	3	0	8
cSH	1700	1547	999
Volume to Capacity	0.03	0.00	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	1.2	8.6
Lane LOS		A	A
Approach Delay (s)	0.0	1.2	8.6
Approach LOS			A

Intersection Summary			
Average Delay		1.2	
Intersection Capacity Utilization	14.4%	ICU Level of Service	A
Analysis Period (min)	15		

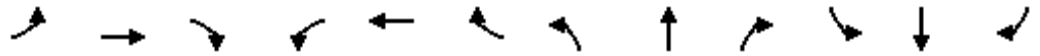
Lanes, Volumes, Timings
1: Dixie Hwy & Ridge Rd

12/12/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	79	11	62	151	203	35	432	63	99	224	11
Future Volume (vph)	35	79	11	62	151	203	35	432	63	99	224	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	145		0	130		0	100		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	70			90			70			135		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99		0.99	0.97		1.00	1.00		1.00	1.00	
Frt		0.988			0.914			0.981				0.993
Flt Protected		0.986		0.950			0.950			0.950		
Satd. Flow (prot)	0	1808	0	1687	1630	0	1612	1732	0	1641	1722	0
Flt Permitted		0.796		0.607			0.602			0.261		
Satd. Flow (perm)	0	1453	0	1062	1630	0	1019	1732	0	449	1722	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		296			495			476			391	
Travel Time (s)		6.7			11.3			10.8			8.9	
Confl. Peds. (#/hr)	10		8	8		10	1		6	6		1
Confl. Bikes (#/hr)						1						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	7%	3%	4%	12%	7%	8%	10%	9%	18%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	135	0	67	380	0	38	533	0	106	253	0
Turn Type	Perm	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0		9.5	24.0		9.5	24.0		9.5	24.0	
Total Split (s)	30.0	30.0		10.0	40.0		9.0	51.0		9.0	51.0	
Total Split (%)	30.0%	30.0%		10.0%	40.0%		9.0%	51.0%		9.0%	51.0%	
Yellow Time (s)	4.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lag	Lag		Lead			Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes			Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effect Green (s)		15.7		25.9	23.1		35.7	28.9		36.5	31.0	
Actuated g/C Ratio		0.22		0.36	0.32		0.50	0.40		0.51	0.43	

Lanes, Volumes, Timings
1: Dixie Hwy & Ridge Rd

12/12/2018

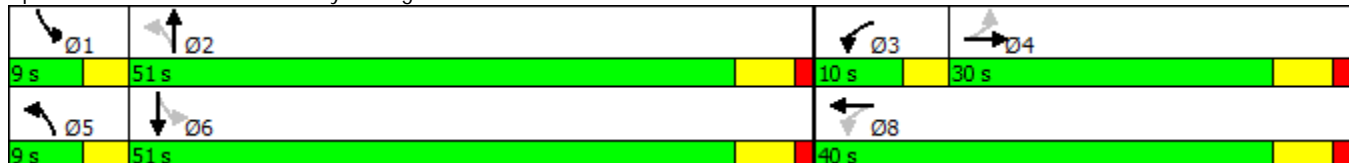


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.43		0.15	0.73		0.07	0.77		0.32	0.34	
Control Delay		34.1		19.5	33.0		9.1	28.2		11.8	16.9	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		34.1		19.5	33.0		9.1	28.2		11.8	16.9	
LOS		C		B	C		A	C		B	B	
Approach Delay		34.1			31.0			26.9			15.4	
Approach LOS		C			C			C			B	
Queue Length 50th (ft)		55		20	150		7	199		20	77	
Queue Length 95th (ft)		129		58	314		25	386		55	160	
Internal Link Dist (ft)		216			415			396			311	
Turn Bay Length (ft)				145			130			100		
Base Capacity (vph)		533		444	847		556	1152		328	1145	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.25		0.15	0.45		0.07	0.46		0.32	0.22	

Intersection Summary

Area Type:	Other
Cycle Length:	100
Actuated Cycle Length:	71.9
Natural Cycle:	75
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.77
Intersection Signal Delay:	26.0
Intersection LOS:	C
Intersection Capacity Utilization:	80.2%
ICU Level of Service:	D
Analysis Period (min):	15

Splits and Phases: 1: Dixie Hwy & Ridge Rd



HCM Unsignalized Intersection Capacity Analysis

2: Dixie Hwy & Chestnut Rd

12/12/2018



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				↑	↑	
Traffic Volume (veh/h)	0	0	0	682	320	0
Future Volume (Veh/h)	0	0	0	682	320	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	0	0	726	340	0
Pedestrians	1				1	
Lane Width (ft)	0.0				12.0	
Walking Speed (ft/s)	3.5				3.5	
Percent Blockage	0				0	
Right turn flare (veh)						
Median type				None	TWLTL	
Median storage (veh)					2	
Upstream signal (ft)				391		
pX, platoon unblocked	0.74					
vC, conflicting volume	1068	341	341			
vC1, stage 1 conf vol	341					
vC2, stage 2 conf vol	727					
vCu, unblocked vol	913	341	341			
tC, single (s)	6.4	6.3	4.1			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.4	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	423	679	1218			
Direction, Lane #	NB 1	SB 1				
Volume Total	726	340				
Volume Left	0	0				
Volume Right	0	0				
cSH	1700	1700				
Volume to Capacity	0.43	0.20				
Queue Length 95th (ft)	0	0				
Control Delay (s)	0.0	0.0				
Lane LOS						
Approach Delay (s)	0.0	0.0				
Approach LOS						
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			39.2%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

3: Dixie Hwy & Elm Rd

12/12/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Volume (veh/h)	81	4	9	3	1	4	3	690	5	3	309	2
Future Volume (Veh/h)	81	4	9	3	1	4	3	690	5	3	309	2
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	85	4	9	3	1	4	3	726	5	3	325	2
Pedestrians		1									1	
Lane Width (ft)		12.0									12.0	
Walking Speed (ft/s)		3.5									3.5	
Percent Blockage		0									0	
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage (veh)								2			2	
Upstream signal (ft)								768				
pX, platoon unblocked	0.75	0.75		0.75	0.75	0.75				0.75		
vC, conflicting volume	1070	1070	327	1076	1068	730	328			731		
vC1, stage 1 conf vol	333	333		734	734							
vC2, stage 2 conf vol	738	737		342	334							
vCu, unblocked vol	928	927	327	936	925	474	328			476		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	77	99	99	99	100	99	100			100		
cM capacity (veh/h)	375	373	714	379	376	443	1230			824		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	98	8	3	731	3	327
Volume Left	85	3	3	0	3	0
Volume Right	9	4	0	5	0	2
cSH	392	408	1230	1700	824	1700
Volume to Capacity	0.25	0.02	0.00	0.43	0.00	0.19
Queue Length 95th (ft)	24	1	0	0	0	0
Control Delay (s)	17.2	14.0	7.9	0.0	9.4	0.0
Lane LOS	C	B	A		A	
Approach Delay (s)	17.2	14.0	0.0		0.1	
Approach LOS	C	B				

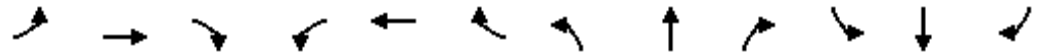
Intersection Summary

Average Delay		1.6	
Intersection Capacity Utilization	54.0%		ICU Level of Service A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis

4: Harwood Ave & Ridge Rd

12/12/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	0	0	120	6	49	15	122	119	15	120	2
Future Volume (vph)	0	0	0	120	6	49	15	122	119	15	120	2
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	0	0	125	6	51	16	127	124	16	125	2

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	182	267	143
Volume Left (vph)	125	16	16
Volume Right (vph)	51	124	2
Hadj (s)	0.09	-0.23	0.05
Departure Headway (s)	4.9	4.3	4.7
Degree Utilization, x	0.25	0.32	0.19
Capacity (veh/h)	679	797	718
Control Delay (s)	9.5	9.4	8.8
Approach Delay (s)	9.5	9.4	8.8
Approach LOS	A	A	A

Intersection Summary		
Delay		9.3
Level of Service		A
Intersection Capacity Utilization	35.5%	ICU Level of Service
Analysis Period (min)		15

HCM Unsignalized Intersection Capacity Analysis

5: Harwood Ave & Chestnut Rd

12/12/2018



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	22	2	80	27	8	112
Future Volume (Veh/h)	22	2	80	27	8	112
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78
Hourly flow rate (vph)	28	3	103	35	10	144
Pedestrians	23					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	2					
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	308	144			161	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	308	144			161	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	96	100			99	
cM capacity (veh/h)	665	884			1387	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	31	138	154			
Volume Left	28	0	10			
Volume Right	3	35	0			
cSH	681	1700	1387			
Volume to Capacity	0.05	0.08	0.01			
Queue Length 95th (ft)	4	0	1			
Control Delay (s)	10.5	0.0	0.6			
Lane LOS	B		A			
Approach Delay (s)	10.5	0.0	0.6			
Approach LOS	B					
Intersection Summary						
Average Delay			1.3			
Intersection Capacity Utilization			22.5%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

6: Harwood Ave & Elm Rd

12/12/2018






















Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰			↱		↱
Traffic Volume (veh/h)	2	0	0	81	4	119
Future Volume (Veh/h)	2	0	0	81	4	119
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	2	0	0	96	5	142
Pedestrians	4					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	156	4			100	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	156	4			100	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	829	1075			1487	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	2	96	147
Volume Left	2	0	5
Volume Right	0	96	0
cSH	829	1700	1487
Volume to Capacity	0.00	0.06	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	9.4	0.0	0.3
Lane LOS	A		A
Approach Delay (s)	9.4	0.0	0.3
Approach LOS	A		

Intersection Summary			
Average Delay		0.2	
Intersection Capacity Utilization	19.6%	ICU Level of Service	A
Analysis Period (min)	15		

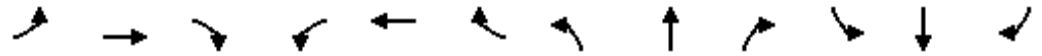
Lanes, Volumes, Timings
1: Dixie Hwy & Ridge Rd

12/12/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	52	148	29	236	206	275	50	394	144	300	539	12
Future Volume (vph)	52	148	29	236	206	275	50	394	144	300	539	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	145		0	130		0	100		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	70			90			70			135		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99		0.99	0.93		0.98	0.98			1.00	
Frt		0.983			0.914			0.960			0.997	
Flt Protected		0.989		0.950			0.950			0.950		
Satd. Flow (prot)	0	1802	0	1770	1590	0	1703	1752	0	1770	1854	0
Flt Permitted		0.611		0.461			0.300			0.155		
Satd. Flow (perm)	0	1104	0	852	1590	0	527	1752	0	289	1854	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		296			495			476			391	
Travel Time (s)		6.7			11.3			10.8			8.9	
Confl. Peds. (#/hr)	35		6	6		35	25		20	20		25
Confl. Bikes (#/hr)			1						1			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	6%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	237	0	243	496	0	52	554	0	309	568	0
Turn Type	Perm	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0		9.5	24.0		9.5	24.0		9.5	24.0	
Total Split (s)	31.0	31.0		10.0	41.0		10.0	43.0		16.0	49.0	
Total Split (%)	31.0%	31.0%		10.0%	41.0%		10.0%	43.0%		16.0%	49.0%	
Yellow Time (s)	4.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lag	Lag		Lead			Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes			Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effect Green (s)		23.4		36.0	33.5		41.9	33.2		51.6	41.5	
Actuated g/C Ratio		0.25		0.38	0.35		0.44	0.35		0.54	0.44	

Lanes, Volumes, Timings
1: Dixie Hwy & Ridge Rd

12/12/2018

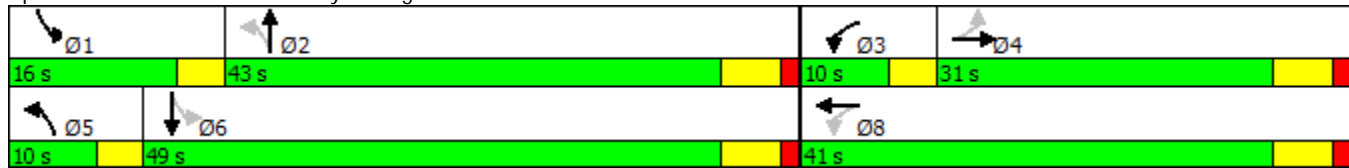


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.87		0.63	0.88		0.17	0.90		0.88	0.70	
Control Delay		66.3		31.3	48.9		12.1	49.4		44.0	28.2	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		66.3		31.3	48.9		12.1	49.4		44.0	28.2	
LOS		E		C	D		B	D		D	C	
Approach Delay		66.3			43.1			46.2			33.8	
Approach LOS		E			D			D			C	
Queue Length 50th (ft)		145		111	295		14	321		108	290	
Queue Length 95th (ft)		#283		175	#488		32	#511		#265	420	
Internal Link Dist (ft)		216			415			396			311	
Turn Bay Length (ft)				145			130			100		
Base Capacity (vph)		294		387	593		316	691		354	850	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.81		0.63	0.84		0.16	0.80		0.87	0.67	

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 94.7
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 42.8
 Intersection LOS: D
 Intersection Capacity Utilization 107.4%
 ICU Level of Service G
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Dixie Hwy & Ridge Rd



HCM Unsignalized Intersection Capacity Analysis

2: Dixie Hwy & Chestnut Rd

12/12/2018

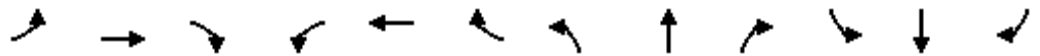


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				↑	↑	
Traffic Volume (veh/h)	0	0	0	721	806	0
Future Volume (Veh/h)	0	0	0	721	806	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	0	0	759	848	0
Pedestrians	6				6	
Lane Width (ft)	0.0				12.0	
Walking Speed (ft/s)	3.5				3.5	
Percent Blockage	0				1	
Right turn flare (veh)						
Median type				None	TWLTL	
Median storage (veh)					2	
Upstream signal (ft)				391		
pX, platoon unblocked	0.72					
vC, conflicting volume	1619	854	854			
vC1, stage 1 conf vol	854					
vC2, stage 2 conf vol	765					
vCu, unblocked vol	1665	854	854			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	305	358	785			
Direction, Lane #	NB 1	SB 1				
Volume Total	759	848				
Volume Left	0	0				
Volume Right	0	0				
cSH	1700	1700				
Volume to Capacity	0.45	0.50				
Queue Length 95th (ft)	0	0				
Control Delay (s)	0.0	0.0				
Lane LOS						
Approach Delay (s)	0.0	0.0				
Approach LOS						
Intersection Summary						
Average Delay	0.0					
Intersection Capacity Utilization	45.8%			ICU Level of Service	A	
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis

3: Dixie Hwy & Elm Rd

12/12/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↘		↗	↘	
Traffic Volume (veh/h)	78	5	13	23	4	12	137	516	89	11	771	62
Future Volume (Veh/h)	78	5	13	23	4	12	137	516	89	11	771	62
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	81	5	14	24	4	13	143	538	93	11	803	65
Pedestrians		2										
Lane Width (ft)		12.0										
Walking Speed (ft/s)		3.5										
Percent Blockage		0										
Right turn flare (veh)												
Median type							TWLTL			TWLTL		
Median storage (veh)							2			2		
Upstream signal (ft)							768					
pX, platoon unblocked	0.85	0.85		0.85	0.85	0.85				0.85		
vC, conflicting volume	1698	1776	838	1712	1762	584	870			631		
vC1, stage 1 conf vol	860	860		870	870							
vC2, stage 2 conf vol	839	917		842	892							
vCu, unblocked vol	1733	1824	838	1749	1808	427	870			481		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	61	98	96	85	98	98	82			99		
cM capacity (veh/h)	210	212	366	160	174	536	773			931		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	100	41	143	631	11	868						
Volume Left	81	24	143	0	11	0						
Volume Right	14	13	0	93	0	65						
cSH	224	208	773	1700	931	1700						
Volume to Capacity	0.45	0.20	0.18	0.37	0.01	0.51						
Queue Length 95th (ft)	53	18	17	0	1	0						
Control Delay (s)	33.5	26.5	10.7	0.0	8.9	0.0						
Lane LOS	D	D	B		A							
Approach Delay (s)	33.5	26.5	2.0		0.1							
Approach LOS	D	D										
Intersection Summary												
Average Delay			3.4									
Intersection Capacity Utilization			69.3%	ICU Level of Service	C							
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

4: Harwood Ave & Ridge Rd

12/12/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	0	0	198	3	33	2	70	189	72	269	2
Future Volume (vph)	0	0	0	198	3	33	2	70	189	72	269	2
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	0	0	0	202	3	34	2	71	193	73	274	2

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	239	266	349
Volume Left (vph)	202	2	73
Volume Right (vph)	34	193	2
Hadj (s)	0.12	-0.40	0.07
Departure Headway (s)	5.5	4.7	5.0
Degree Utilization, x	0.37	0.35	0.49
Capacity (veh/h)	605	728	687
Control Delay (s)	11.7	10.2	12.7
Approach Delay (s)	11.7	10.2	12.7
Approach LOS	B	B	B

Intersection Summary

Delay		11.6	
Level of Service		B	
Intersection Capacity Utilization		58.9%	ICU Level of Service
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

5: Harwood Ave & Chestnut Rd

12/12/2018



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	37	8	67	12	14	289
Future Volume (Veh/h)	37	8	67	12	14	289
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	44	9	79	14	16	340
Pedestrians	16					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	2					
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	474	102			109	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	474	102			109	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	92	99			99	
cM capacity (veh/h)	535	939			1459	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	53	93	356			
Volume Left	44	0	16			
Volume Right	9	14	0			
cSH	577	1700	1459			
Volume to Capacity	0.09	0.05	0.01			
Queue Length 95th (ft)	8	0	1			
Control Delay (s)	11.9	0.0	0.4			
Lane LOS	B		A			
Approach Delay (s)	11.9	0.0	0.4			
Approach LOS	B					
Intersection Summary						
Average Delay			1.6			
Intersection Capacity Utilization			32.7%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

6: Harwood Ave & Elm Rd

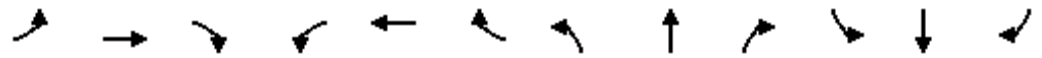
12/12/2018



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	156	0	0	76	12	269
Future Volume (Veh/h)	156	0	0	76	12	269
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	166	0	0	81	13	286
Pedestrians	4					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	316	4			85	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	316	4			85	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	75	100			99	
cM capacity (veh/h)	669	1075			1506	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	166	81	299			
Volume Left	166	0	13			
Volume Right	0	81	0			
cSH	669	1700	1506			
Volume to Capacity	0.25	0.05	0.01			
Queue Length 95th (ft)	24	0	1			
Control Delay (s)	12.2	0.0	0.4			
Lane LOS	B		A			
Approach Delay (s)	12.2	0.0	0.4			
Approach LOS	B					
Intersection Summary						
Average Delay			3.9			
Intersection Capacity Utilization			36.8%		ICU Level of Service	A
Analysis Period (min)	15					

Lanes, Volumes, Timings
1: Dixie Hwy & Ridge Rd

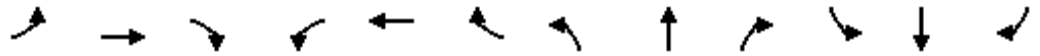
12/12/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗		↖	↗		↖	↗	
Traffic Volume (vph)	35	70	8	62	151	203	35	430	63	99	228	11
Future Volume (vph)	35	70	8	62	151	203	35	430	63	99	228	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	145		0	130		0	100		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	70			90			70			135		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99		0.98	0.97		1.00	1.00		1.00	1.00	
Frt		0.990			0.914			0.981				0.993
Flt Protected		0.985		0.950			0.950			0.950		
Satd. Flow (prot)	0	1811	0	1687	1630	0	1612	1732	0	1641	1722	0
Flt Permitted		0.782		0.635			0.600			0.265		
Satd. Flow (perm)	0	1431	0	1110	1630	0	1016	1732	0	456	1722	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		296			495			476			391	
Travel Time (s)		6.7			11.3			10.8			8.9	
Confl. Peds. (#/hr)	10		8	8		10	1		6	6		1
Confl. Bikes (#/hr)						1						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	7%	3%	4%	12%	7%	8%	10%	9%	18%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	122	0	67	380	0	38	530	0	106	257	0
Turn Type	Perm	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0		9.5	24.0		9.5	24.0		9.5	24.0	
Total Split (s)	31.0	31.0		9.0	40.0		9.0	51.0		9.0	51.0	
Total Split (%)	31.0%	31.0%		9.0%	40.0%		9.0%	51.0%		9.0%	51.0%	
Yellow Time (s)	4.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lag	Lag		Lead			Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes			Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effect Green (s)		16.1		25.5	22.8		35.6	28.8		36.5	30.9	
Actuated g/C Ratio		0.23		0.36	0.32		0.50	0.40		0.51	0.43	

Lanes, Volumes, Timings
1: Dixie Hwy & Ridge Rd

12/12/2018

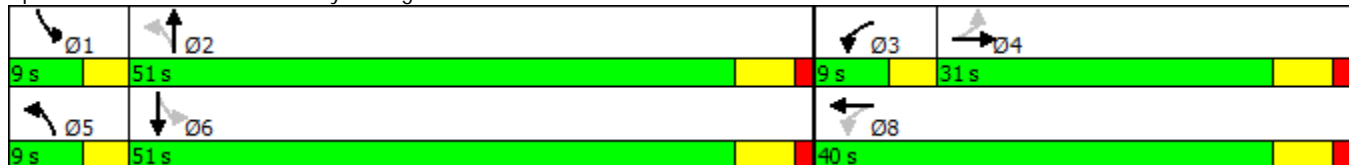


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.38		0.15	0.73		0.07	0.76		0.32	0.35	
Control Delay		32.2		19.5	33.4		9.1	27.8		11.6	16.9	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		32.2		19.5	33.4		9.1	27.8		11.6	16.9	
LOS		C		B	C		A	C		B	B	
Approach Delay		32.2			31.3			26.5			15.4	
Approach LOS		C			C			C			B	
Queue Length 50th (ft)		49		20	150		7	198		20	78	
Queue Length 95th (ft)		117		58	314		25	382		55	162	
Internal Link Dist (ft)		216			415			396			311	
Turn Bay Length (ft)				145			130			100		
Base Capacity (vph)		550		445	853		557	1159		332	1153	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.22		0.15	0.45		0.07	0.46		0.32	0.22	

Intersection Summary

Area Type:	Other
Cycle Length:	100
Actuated Cycle Length:	71.5
Natural Cycle:	75
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.76
Intersection Signal Delay:	25.7
Intersection LOS:	C
Intersection Capacity Utilization:	79.6%
ICU Level of Service:	D
Analysis Period (min):	15

Splits and Phases: 1: Dixie Hwy & Ridge Rd



HCM Unsignalized Intersection Capacity Analysis

2: Dixie Hwy & Chestnut Rd

12/12/2018

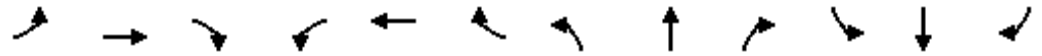


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	88	21	0	682	300	0
Future Volume (Veh/h)	88	21	0	682	300	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	94	22	0	726	319	0
Pedestrians	1			1		
Lane Width (ft)	12.0			12.0		
Walking Speed (ft/s)	3.5			3.5		
Percent Blockage	0			0		
Right turn flare (veh)						
Median type				TWLTL	TWLTL	
Median storage (veh)				2	2	
Upstream signal (ft)				391		
pX, platoon unblocked	0.74					
vC, conflicting volume	1047	320	320			
vC1, stage 1 conf vol	320					
vC2, stage 2 conf vol	727					
vCu, unblocked vol	886	320	320			
tC, single (s)	6.4	6.3	4.1			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.4	2.2			
p0 queue free %	78	97	100			
cM capacity (veh/h)	427	697	1239			
Direction, Lane #	EB 1	EB 2	NB 1	SB 1		
Volume Total	94	22	726	319		
Volume Left	94	0	0	0		
Volume Right	0	22	0	0		
cSH	427	697	1700	1700		
Volume to Capacity	0.22	0.03	0.43	0.19		
Queue Length 95th (ft)	21	2	0	0		
Control Delay (s)	15.8	10.3	0.0	0.0		
Lane LOS	C	B				
Approach Delay (s)	14.8		0.0	0.0		
Approach LOS	B					
Intersection Summary						
Average Delay			1.5			
Intersection Capacity Utilization			47.4%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

3: Dixie Hwy & Elm Rd

12/12/2018

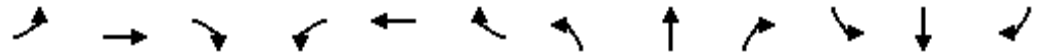


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔		↗	↘		↗	↘	
Traffic Volume (veh/h)	0	0	0	3	1	4	3	745	5	7	309	7
Future Volume (Veh/h)	0	0	0	3	1	4	3	745	5	7	309	7
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	0	0	3	1	4	3	784	5	7	325	7
Pedestrians		1									1	
Lane Width (ft)		0.0									12.0	
Walking Speed (ft/s)		3.5									3.5	
Percent Blockage		0									0	
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage (veh)								2			2	
Upstream signal (ft)								768				
pX, platoon unblocked	0.76	0.76		0.76	0.76	0.76				0.76		
vC, conflicting volume	1139	1138	330	1132	1140	788	333			789		
vC1, stage 1 conf vol	344	344		792	792							
vC2, stage 2 conf vol	796	795		339	347							
vCu, unblocked vol	1026	1025	330	1016	1027	564	333			566		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	99	100	99	100			99		
cM capacity (veh/h)	339	344	712	350	349	399	1226			773		
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2							
Volume Total	8	3	789	7	332							
Volume Left	3	3	0	7	0							
Volume Right	4	0	5	0	7							
cSH	373	1226	1700	773	1700							
Volume to Capacity	0.02	0.00	0.46	0.01	0.20							
Queue Length 95th (ft)	2	0	0	1	0							
Control Delay (s)	14.9	7.9	0.0	9.7	0.0							
Lane LOS	B	A		A								
Approach Delay (s)	14.9	0.0		0.2								
Approach LOS	B											
Intersection Summary												
Average Delay			0.2									
Intersection Capacity Utilization			49.8%	ICU Level of Service		A						
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

4: Harwood Ave & Ridge Rd

12/12/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	0	0	120	6	49	2	112	119	3	122	2
Future Volume (vph)	0	0	0	120	6	49	2	112	119	3	122	2
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	0	0	125	6	51	2	117	124	3	127	2

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	182	243	132
Volume Left (vph)	125	2	3
Volume Right (vph)	51	124	2
Hadj (s)	0.09	-0.27	0.03
Departure Headway (s)	4.8	4.3	4.7
Degree Utilization, x	0.24	0.29	0.17
Capacity (veh/h)	694	808	726
Control Delay (s)	9.4	9.0	8.6
Approach Delay (s)	9.4	9.0	8.6
Approach LOS	A	A	A

Intersection Summary		
Delay		9.0
Level of Service		A
Intersection Capacity Utilization	32.8%	ICU Level of Service
Analysis Period (min)		15

HCM Unsignalized Intersection Capacity Analysis

5: Harwood Ave & Chestnut Rd

12/12/2018



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			↔			↔
Traffic Volume (veh/h)	0	0	1	116	8	112
Future Volume (Veh/h)	0	0	1	116	8	112
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78
Hourly flow rate (vph)	0	0	1	149	10	144
Pedestrians	23					
Lane Width (ft)	0.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	262	98			173	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	262	98			173	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			99	
cM capacity (veh/h)	721	957			1404	
Direction, Lane #	NB 1	SB 1				
Volume Total	150	154				
Volume Left	0	10				
Volume Right	149	0				
cSH	1700	1404				
Volume to Capacity	0.09	0.01				
Queue Length 95th (ft)	0	1				
Control Delay (s)	0.0	0.5				
Lane LOS		A				
Approach Delay (s)	0.0	0.5				
Approach LOS						
Intersection Summary						
Average Delay			0.3			
Intersection Capacity Utilization			15.8%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

6: Harwood Ave & Elm Rd

12/12/2018

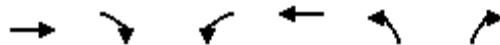


Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	12	0	0	0	0	115
Future Volume (Veh/h)	12	0	0	0	0	115
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	14	0	0	0	0	137
Pedestrians	4					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	141	4			4	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	141	4			4	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	98	100			100	
cM capacity (veh/h)	849	1075			1611	
Direction, Lane #	WB 1	SB 1				
Volume Total	14	137				
Volume Left	14	0				
Volume Right	0	0				
cSH	849	1700				
Volume to Capacity	0.02	0.08				
Queue Length 95th (ft)	1	0				
Control Delay (s)	9.3	0.0				
Lane LOS	A					
Approach Delay (s)	9.3	0.0				
Approach LOS	A					
Intersection Summary						
Average Delay			0.9			
Intersection Capacity Utilization			16.1%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

9: Martin Ave & Chestnut Rd




















12/12/2018



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↩					↩
Traffic Volume (veh/h)	105	1	0	0	0	4
Future Volume (Veh/h)	105	1	0	0	0	4
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	114	1	0	0	0	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None		None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			115		114	114
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			115		114	114
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1474		882	938
Direction, Lane #						
	EB 1	NB 1				
Volume Total	115	4				
Volume Left	0	0				
Volume Right	1	4				
cSH	1700	938				
Volume to Capacity	0.07	0.00				
Queue Length 95th (ft)	0	0				
Control Delay (s)	0.0	8.9				
Lane LOS		A				
Approach Delay (s)	0.0	8.9				
Approach LOS		A				
Intersection Summary						
Average Delay		0.3				
Intersection Capacity Utilization		15.6%	ICU Level of Service	A		
Analysis Period (min)		15				

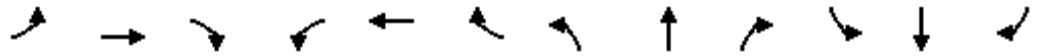
Lanes, Volumes, Timings
1: Dixie Hwy & Ridge Rd

12/12/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	52	140	27	236	206	275	50	390	144	303	496	12
Future Volume (vph)	52	140	27	236	206	275	50	390	144	303	496	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	145		0	130		0	100		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	70			90			70			135		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99		0.99	0.93		0.98	0.98			1.00	
Frt		0.983			0.914			0.960			0.997	
Flt Protected		0.988		0.950			0.950			0.950		
Satd. Flow (prot)	0	1801	0	1770	1590	0	1703	1752	0	1770	1853	0
Flt Permitted		0.609		0.466			0.351			0.153		
Satd. Flow (perm)	0	1100	0	861	1590	0	615	1752	0	285	1853	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		296			495			476			391	
Travel Time (s)		6.7			11.3			10.8			8.9	
Confl. Peds. (#/hr)	35		6	6		35	25		20	20		25
Confl. Bikes (#/hr)			1						1			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	6%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	226	0	243	496	0	52	550	0	312	523	0
Turn Type	Perm	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0		9.5	24.0		9.5	24.0		9.5	24.0	
Total Split (s)	30.0	30.0		11.0	41.0		11.0	42.0		17.0	48.0	
Total Split (%)	30.0%	30.0%		11.0%	41.0%		11.0%	42.0%		17.0%	48.0%	
Yellow Time (s)	4.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lag	Lag		Lead			Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes			Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effect Green (s)		22.4		36.0	33.5		42.1	32.8		52.0	41.5	
Actuated g/C Ratio		0.24		0.38	0.35		0.44	0.34		0.55	0.44	

Lanes, Volumes, Timings
1: Dixie Hwy & Ridge Rd

12/12/2018

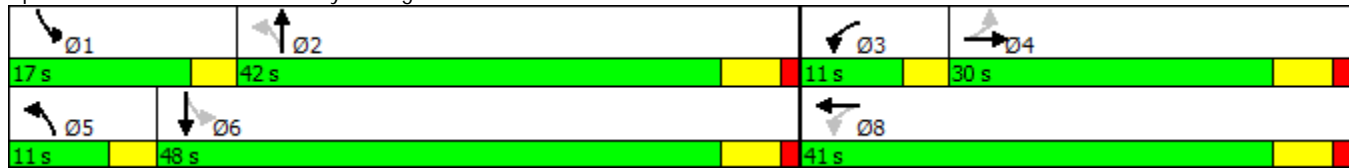


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.88		0.61	0.89		0.15	0.91		0.86	0.65	
Control Delay		68.9		30.4	49.7		11.8	51.0		41.9	26.9	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		68.9		30.4	49.7		11.8	51.0		41.9	26.9	
LOS		E		C	D		B	D		D	C	
Approach Delay		68.9			43.3			47.6			32.5	
Approach LOS		E			D			D			C	
Queue Length 50th (ft)		138		111	295		14	323		111	260	
Queue Length 95th (ft)		#274		175	#488		32	#517		#263	383	
Internal Link Dist (ft)		216			415			396			311	
Turn Bay Length (ft)				145			130			100		
Base Capacity (vph)		280		398	590		364	669		368	828	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.81		0.61	0.84		0.14	0.82		0.85	0.63	

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 95.1
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.91
 Intersection Signal Delay: 43.0
 Intersection LOS: D
 Intersection Capacity Utilization 106.9%
 ICU Level of Service G
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Dixie Hwy & Ridge Rd



HCM Unsignalized Intersection Capacity Analysis

2: Dixie Hwy & Chestnut Rd

12/12/2018

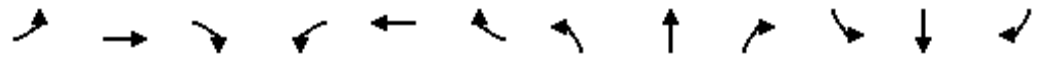


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	65	56	0	726	804	0
Future Volume (Veh/h)	65	56	0	726	804	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	68	59	0	764	846	0
Pedestrians	6			6		
Lane Width (ft)	12.0			12.0		
Walking Speed (ft/s)	3.5			3.5		
Percent Blockage	1			1		
Right turn flare (veh)						
Median type				TWLTL	TWLTL	
Median storage (veh)				2	2	
Upstream signal (ft)				391		
pX, platoon unblocked	0.72					
vC, conflicting volume	1622	852	852			
vC1, stage 1 conf vol	852					
vC2, stage 2 conf vol	770					
vCu, unblocked vol	1668	852	852			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3	2.2			
p0 queue free %	78	83	100			
cM capacity (veh/h)	303	357	782			
Direction, Lane #	EB 1	EB 2	NB 1	SB 1		
Volume Total	68	59	764	846		
Volume Left	68	0	0	0		
Volume Right	0	59	0	0		
cSH	303	357	1700	1700		
Volume to Capacity	0.22	0.17	0.45	0.50		
Queue Length 95th (ft)	21	15	0	0		
Control Delay (s)	20.3	17.1	0.0	0.0		
Lane LOS	C	C				
Approach Delay (s)	18.8		0.0	0.0		
Approach LOS	C					
Intersection Summary						
Average Delay			1.4			
Intersection Capacity Utilization			52.6%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

3: Dixie Hwy & Elm Rd

12/12/2018

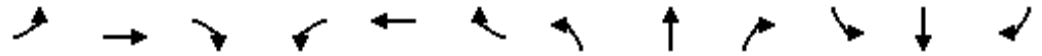


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔		↗	↘		↗	↘	
Traffic Volume (veh/h)	0	0	0	23	4	12	137	566	30	39	771	71
Future Volume (Veh/h)	0	0	0	23	4	12	137	566	30	39	771	71
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	0	0	24	4	13	143	590	31	41	803	74
Pedestrians		2										
Lane Width (ft)		0.0										
Walking Speed (ft/s)		3.5										
Percent Blockage		0										
Right turn flare (veh)												
Median type							TWLTL			TWLTL		
Median storage (veh)							2			2		
Upstream signal (ft)							768					
pX, platoon unblocked												
vC, conflicting volume	1815	1831	842	1776	1852	606	879				621	
vC1, stage 1 conf vol	924	924		892	892							
vC2, stage 2 conf vol	891	907		885	961							
vCu, unblocked vol	1815	1831	842	1776	1852	606	879				621	
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1				4.1	
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	100	100	100	85	97	97	81				96	
cM capacity (veh/h)	181	202	364	156	156	497	769				969	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2							
Volume Total	41	143	621	41	877							
Volume Left	24	143	0	41	0							
Volume Right	13	0	31	0	74							
cSH	199	769	1700	969	1700							
Volume to Capacity	0.21	0.19	0.37	0.04	0.52							
Queue Length 95th (ft)	19	17	0	3	0							
Control Delay (s)	27.7	10.8	0.0	8.9	0.0							
Lane LOS	D	B		A								
Approach Delay (s)	27.7	2.0		0.4								
Approach LOS	D											
Intersection Summary												
Average Delay			1.8									
Intersection Capacity Utilization			65.8%		ICU Level of Service			C				
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

4: Harwood Ave & Ridge Rd

12/12/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	0	0	198	3	33	2	70	189	62	269	2
Future Volume (vph)	0	0	0	198	3	33	2	70	189	62	269	2
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	0	0	0	202	3	34	2	71	193	63	274	2

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	239	266	339
Volume Left (vph)	202	2	63
Volume Right (vph)	34	193	2
Hadj (s)	0.12	-0.40	0.07
Departure Headway (s)	5.5	4.7	5.0
Degree Utilization, x	0.36	0.34	0.47
Capacity (veh/h)	608	731	687
Control Delay (s)	11.5	10.1	12.4
Approach Delay (s)	11.5	10.1	12.4
Approach LOS	B	B	B

Intersection Summary		
Delay		11.4
Level of Service		B
Intersection Capacity Utilization	58.4%	ICU Level of Service
Analysis Period (min)		15

HCM Unsignalized Intersection Capacity Analysis

5: Harwood Ave & Chestnut Rd

12/12/2018



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			↔			↔
Traffic Volume (veh/h)	0	0	1	87	15	289
Future Volume (Veh/h)	0	0	1	87	15	289
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	0	0	1	102	18	340
Pedestrians	16					
Lane Width (ft)	0.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	444	68			119	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	444	68			119	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			99	
cM capacity (veh/h)	564	995			1469	
Direction, Lane #	NB 1	SB 1				
Volume Total	103	358				
Volume Left	0	18				
Volume Right	102	0				
cSH	1700	1469				
Volume to Capacity	0.06	0.01				
Queue Length 95th (ft)	0	1				
Control Delay (s)	0.0	0.5				
Lane LOS		A				
Approach Delay (s)	0.0	0.5				
Approach LOS						
Intersection Summary						
Average Delay			0.4			
Intersection Capacity Utilization			26.0%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

6: Harwood Ave & Elm Rd

12/12/2018

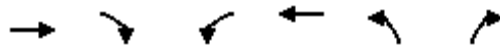


Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	172	0	0	0	0	276
Future Volume (Veh/h)	172	0	0	0	0	276
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	183	0	0	0	0	294
Pedestrians	4					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	298	4			4	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	298	4			4	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	74	100			100	
cM capacity (veh/h)	691	1075			1611	
Direction, Lane #	WB 1	SB 1				
Volume Total	183	294				
Volume Left	183	0				
Volume Right	0	0				
cSH	691	1700				
Volume to Capacity	0.26	0.17				
Queue Length 95th (ft)	27	0				
Control Delay (s)	12.1	0.0				
Lane LOS	B					
Approach Delay (s)	12.1	0.0				
Approach LOS	B					
Intersection Summary						
Average Delay			4.6			
Intersection Capacity Utilization			30.7%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

9: Martin Ave & Chestnut Rd




















12/12/2018



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↩					↩
Traffic Volume (veh/h)	114	7	0	0	0	7
Future Volume (Veh/h)	114	7	0	0	0	7
Sign Control	Free			Free Stop		
Grade	0%			0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	124	8	0	0	0	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			132		128	128
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			132		128	128
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	99
cM capacity (veh/h)			1453		866	922
Direction, Lane #	EB 1	NB 1				
Volume Total	132	8				
Volume Left	0	0				
Volume Right	8	8				
cSH	1700	922				
Volume to Capacity	0.08	0.01				
Queue Length 95th (ft)	0	1				
Control Delay (s)	0.0	8.9				
Lane LOS		A				
Approach Delay (s)	0.0	8.9				
Approach LOS		A				
Intersection Summary						
Average Delay			0.5			
Intersection Capacity Utilization			16.4%	ICU Level of Service	A	
Analysis Period (min)			15			

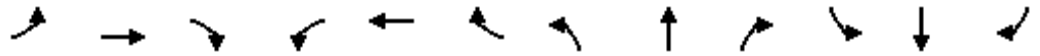
Lanes, Volumes, Timings
1: Dixie Hwy & Ridge Rd

12/12/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	75	8	62	130	224	33	434	65	94	225	11
Future Volume (vph)	35	75	8	62	130	224	33	434	65	94	225	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	145		0	130		0	100		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	70			90			70			135		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99		0.99	0.97		1.00	1.00		1.00	1.00	
Frt		0.991			0.905			0.980				0.993
Flt Protected		0.985		0.950			0.950			0.950		
Satd. Flow (prot)	0	1813	0	1687	1609	0	1612	1730	0	1641	1722	0
Flt Permitted		0.788		0.623			0.602			0.254		
Satd. Flow (perm)	0	1444	0	1090	1609	0	1019	1730	0	437	1722	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		296			495			476			391	
Travel Time (s)		6.7			11.3			10.8			8.9	
Confl. Peds. (#/hr)	10		8	8		10	1		6	6		1
Confl. Bikes (#/hr)						1						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	7%	3%	4%	12%	7%	8%	10%	9%	18%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	128	0	67	381	0	35	537	0	101	254	0
Turn Type	Perm	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0		9.5	24.0		9.5	24.0		9.5	24.0	
Total Split (s)	31.0	31.0		10.0	41.0		9.0	50.0		9.0	50.0	
Total Split (%)	31.0%	31.0%		10.0%	41.0%		9.0%	50.0%		9.0%	50.0%	
Yellow Time (s)	4.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lag	Lag		Lead			Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes			Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effect Green (s)		15.9		26.0	23.2		35.2	28.4		36.0	30.4	
Actuated g/C Ratio		0.22		0.36	0.32		0.49	0.40		0.50	0.42	

Lanes, Volumes, Timings
1: Dixie Hwy & Ridge Rd

12/12/2018

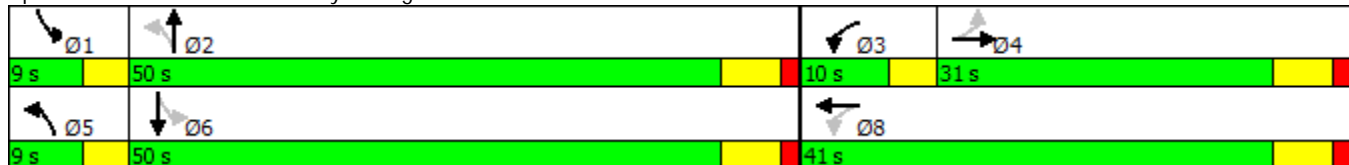


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.40		0.15	0.73		0.06	0.79		0.31	0.35	
Control Delay		33.2		19.2	33.1		9.4	29.6		11.9	17.3	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		33.2		19.2	33.1		9.4	29.6		11.9	17.3	
LOS		C		B	C		A	C		B	B	
Approach Delay		33.2			31.0			28.3			15.8	
Approach LOS		C			C			C			B	
Queue Length 50th (ft)		53		20	152		7	205		20	78	
Queue Length 95th (ft)		122		57	312		24	398		54	164	
Internal Link Dist (ft)		216			415			396			311	
Turn Bay Length (ft)				145			130			100		
Base Capacity (vph)		565		456	882		551	1127		323	1122	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.23		0.15	0.43		0.06	0.48		0.31	0.23	

Intersection Summary

Area Type:	Other
Cycle Length:	100
Actuated Cycle Length:	71.7
Natural Cycle:	75
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	26.6
Intersection LOS:	C
Intersection Capacity Utilization:	80.1%
ICU Level of Service:	D
Analysis Period (min):	15

Splits and Phases: 1: Dixie Hwy & Ridge Rd



HCM Unsignalized Intersection Capacity Analysis

2: Dixie Hwy & Chestnut Rd

12/12/2018





















Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	26	673	314	23
Future Volume (Veh/h)	0	0	26	673	314	23
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	0	28	716	334	24
Pedestrians	1				1	
Lane Width (ft)	0.0				12.0	
Walking Speed (ft/s)	3.5				3.5	
Percent Blockage	0				0	
Right turn flare (veh)						
Median type				None	TWLTL	
Median storage (veh)					2	
Upstream signal (ft)				391		
pX, platoon unblocked	0.74					
vC, conflicting volume	1120	347	359			
vC1, stage 1 conf vol	347					
vC2, stage 2 conf vol	773					
vCu, unblocked vol	984	347	359			
tC, single (s)	6.4	6.3	4.1			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.4	2.2			
p0 queue free %	100	100	98			
cM capacity (veh/h)	391	674	1200			
Direction, Lane #	NB 1	NB 2	SB 1			
Volume Total	28	716	358			
Volume Left	28	0	0			
Volume Right	0	0	24			
cSH	1200	1700	1700			
Volume to Capacity	0.02	0.42	0.21			
Queue Length 95th (ft)	2	0	0			
Control Delay (s)	8.1	0.0	0.0			
Lane LOS	A					
Approach Delay (s)	0.3		0.0			
Approach LOS						
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			38.8%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

3: Dixie Hwy & Elm Rd

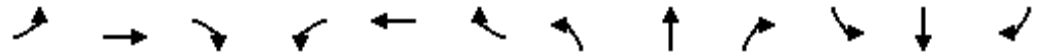
12/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	4	26	5	0	4	0	662	5	3	314	0
Future Volume (Veh/h)	79	4	26	5	0	4	0	662	5	3	314	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	83	4	27	5	0	4	0	697	5	3	331	0
Pedestrians		1									1	
Lane Width (ft)		12.0									12.0	
Walking Speed (ft/s)		3.5									3.5	
Percent Blockage		0									0	
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage (veh)								2			2	
Upstream signal (ft)								768				
pX, platoon unblocked	0.76	0.76		0.76	0.76	0.76					0.76	
vC, conflicting volume	1042	1040	332	1066	1038	700	332				702	
vC1, stage 1 conf vol	338	338		700	700							
vC2, stage 2 conf vol	704	702		366	338							
vCu, unblocked vol	899	896	332	929	892	450	332				452	
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1				4.1	
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	79	99	96	99	100	99	100				100	
cM capacity (veh/h)	393	389	709	389	392	463	1226				852	
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1	SB 2						
Volume Total	87	27	9	702	3	331						
Volume Left	83	0	5	0	3	0						
Volume Right	0	27	4	5	0	0						
cSH	393	709	419	1700	852	1700						
Volume to Capacity	0.22	0.04	0.02	0.41	0.00	0.19						
Queue Length 95th (ft)	21	3	2	0	0	0						
Control Delay (s)	16.8	10.3	13.8	0.0	9.2	0.0						
Lane LOS	C	B	B		A							
Approach Delay (s)	15.2		13.8	0.0	0.1							
Approach LOS	C		B									
Intersection Summary												
Average Delay			1.6									
Intersection Capacity Utilization			49.0%	ICU Level of Service	A							
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

4: Harwood Ave & Ridge Rd

12/12/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	0	0	120	6	26	2	112	119	8	137	2
Future Volume (vph)	0	0	0	120	6	26	2	112	119	8	137	2
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	0	0	125	6	27	2	117	124	8	143	2

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	158	243	153
Volume Left (vph)	125	2	8
Volume Right (vph)	27	124	2
Hadj (s)	0.16	-0.27	0.04
Departure Headway (s)	4.9	4.2	4.6
Degree Utilization, x	0.22	0.29	0.20
Capacity (veh/h)	676	816	738
Control Delay (s)	9.3	8.9	8.7
Approach Delay (s)	9.3	8.9	8.7
Approach LOS	A	A	A

Intersection Summary		
Delay		9.0
Level of Service		A
Intersection Capacity Utilization	31.6%	ICU Level of Service
Analysis Period (min)		15

HCM Unsignalized Intersection Capacity Analysis

5: Harwood Ave & Chestnut Rd

12/12/2018



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	30	5	98	0	0	112
Future Volume (Veh/h)	30	5	98	0	0	112
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78
Hourly flow rate (vph)	38	6	126	0	0	144
Pedestrians	23					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	2					
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	293	149			149	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	293	149			149	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	94	99			100	
cM capacity (veh/h)	683	878			1401	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	44	126	144			
Volume Left	38	0	0			
Volume Right	6	0	0			
cSH	704	1700	1700			
Volume to Capacity	0.06	0.07	0.08			
Queue Length 95th (ft)	5	0	0			
Control Delay (s)	10.5	0.0	0.0			
Lane LOS	B					
Approach Delay (s)	10.5	0.0	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay			1.5			
Intersection Capacity Utilization			19.5%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

6: Harwood Ave & Elm Rd

12/12/2018



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations				↗		↘
Traffic Volume (veh/h)	2	0	0	100	9	114
Future Volume (Veh/h)	2	0	0	100	9	114
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	2	0	0	119	11	136
Pedestrians	4					
Lane Width (ft)	0.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	162	4			123	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	162	4			123	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			99	
cM capacity (veh/h)	823	1080			1464	
Direction, Lane #	NB 1	SB 1				
Volume Total	119	147				
Volume Left	0	11				
Volume Right	119	0				
cSH	1700	1464				
Volume to Capacity	0.07	0.01				
Queue Length 95th (ft)	0	1				
Control Delay (s)	0.0	0.6				
Lane LOS		A				
Approach Delay (s)	0.0	0.6				
Approach LOS						
Intersection Summary						
Average Delay			Err			
Intersection Capacity Utilization			Err%	ICU Level of Service		H
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

9: Martin Ave & Chestnut Rd

12/12/2018



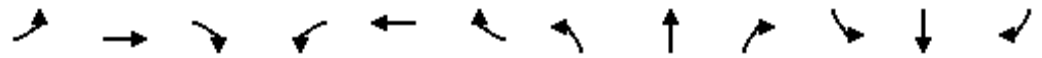
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				↔	↔	
Traffic Volume (veh/h)	0	0	1	48	4	0
Future Volume (Veh/h)	0	0	1	48	4	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	1	52	4	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None		None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			0		54	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			0		54	0
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1623		954	1085

Direction, Lane #	WB 1	NB 1
Volume Total	53	4
Volume Left	1	4
Volume Right	0	0
cSH	1623	954
Volume to Capacity	0.00	0.00
Queue Length 95th (ft)	0	0
Control Delay (s)	0.1	8.8
Lane LOS	A	A
Approach Delay (s)	0.1	8.8
Approach LOS		A

Intersection Summary			
Average Delay		0.7	
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Lanes, Volumes, Timings
1: Dixie Hwy & Ridge Rd

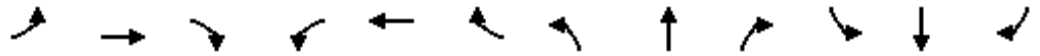
12/12/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗		↖	↗		↖	↗	
Traffic Volume (vph)	52	150	27	236	189	292	48	114	142	290	543	12
Future Volume (vph)	52	150	27	236	189	292	48	114	142	290	543	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	145		0	130		0	100		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	70			90			70			135		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99		0.99	0.93		0.98	0.96		0.97	1.00	
Frt		0.984			0.909			0.917			0.997	
Flt Protected		0.989		0.950			0.950			0.950		
Satd. Flow (prot)	0	1805	0	1770	1575	0	1703	1637	0	1770	1854	0
Flt Permitted		0.788		0.456			0.246			0.435		
Satd. Flow (perm)	0	1424	0	843	1575	0	434	1637	0	786	1854	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		296			495			476			391	
Travel Time (s)		6.7			11.3			10.8			8.9	
Confl. Peds. (#/hr)	35		6	6		35	25		20	20		25
Confl. Bikes (#/hr)			1						1			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	6%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	237	0	243	496	0	49	264	0	299	572	0
Turn Type	Perm	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0		9.5	24.0		9.5	24.0		9.5	24.0	
Total Split (s)	26.0	26.0		15.0	41.0		11.0	44.0		15.0	48.0	
Total Split (%)	26.0%	26.0%		15.0%	41.0%		11.0%	44.0%		15.0%	48.0%	
Yellow Time (s)	4.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lag	Lag		Lead			Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes			Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effect Green (s)		20.5		37.2	34.6		34.0	24.6		42.0	33.6	
Actuated g/C Ratio		0.24		0.43	0.40		0.39	0.28		0.49	0.39	

Lanes, Volumes, Timings
1: Dixie Hwy & Ridge Rd

12/12/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.70		0.51	0.79		0.18	0.57		0.59	0.79	
Control Delay		46.8		23.4	36.3		12.7	30.4		18.2	33.2	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		46.8		23.4	36.3		12.7	30.4		18.2	33.2	
LOS		D		C	D		B	C		B	C	
Approach Delay		46.8			32.1			27.6			28.1	
Approach LOS		D			C			C			C	
Queue Length 50th (ft)		128		92	250		13	123		96	297	
Queue Length 95th (ft)		#277		175	#491		30	194		149	432	
Internal Link Dist (ft)		216			415			396			311	
Turn Bay Length (ft)				145			130			100		
Base Capacity (vph)		337		489	652		287	736		516	921	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.70		0.50	0.76		0.17	0.36		0.58	0.62	

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 86.4
 Natural Cycle: 75
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.79
 Intersection Signal Delay: 31.4
 Intersection LOS: C
 Intersection Capacity Utilization 94.5%
 ICU Level of Service F
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Dixie Hwy & Ridge Rd

15 s	44 s	15 s	26 s
11 s	48 s	41 s	

HCM Unsignalized Intersection Capacity Analysis

2: Dixie Hwy & Chestnut Rd

12/12/2018

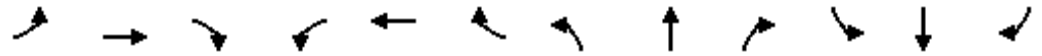


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	156	505	740	29
Future Volume (Veh/h)	0	0	156	505	740	29
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	0	164	532	779	31
Pedestrians	6				6	
Lane Width (ft)	0.0				12.0	
Walking Speed (ft/s)	3.5				3.5	
Percent Blockage	0				1	
Right turn flare (veh)						
Median type				None	TWLTL	
Median storage (veh)					2	
Upstream signal (ft)				391		
pX, platoon unblocked						
vC, conflicting volume	1666	800	816			
vC1, stage 1 conf vol	800					
vC2, stage 2 conf vol	866					
vCu, unblocked vol	1666	800	816			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	80			
cM capacity (veh/h)	268	385	812			
Direction, Lane #	NB 1	NB 2	SB 1			
Volume Total	164	532	810			
Volume Left	164	0	0			
Volume Right	0	0	31			
cSH	812	1700	1700			
Volume to Capacity	0.20	0.31	0.48			
Queue Length 95th (ft)	19	0	0			
Control Delay (s)	10.6	0.0	0.0			
Lane LOS	B					
Approach Delay (s)	2.5		0.0			
Approach LOS						
Intersection Summary						
Average Delay			1.1			
Intersection Capacity Utilization			56.0%	ICU Level of Service	B	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

3: Dixie Hwy & Elm Rd

12/12/2018

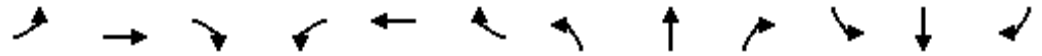


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↔			↕		↖	↗	
Traffic Volume (veh/h)	71	5	23	27	0	12	0	499	89	34	775	0
Future Volume (Veh/h)	71	5	23	27	0	12	0	499	89	34	775	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	74	5	24	28	0	13	0	520	93	35	807	0
Pedestrians		2										
Lane Width (ft)		12.0										
Walking Speed (ft/s)		3.5										
Percent Blockage		0										
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage (veh)								2			2	
Upstream signal (ft)								768				
pX, platoon unblocked												
vC, conflicting volume	1458	1492	809	1470	1446	566	809			613		
vC1, stage 1 conf vol	879	879		566	566							
vC2, stage 2 conf vol	580	613		904	879							
vCu, unblocked vol	1458	1492	809	1470	1446	566	809			613		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	73	98	94	89	100	98	100			96		
cM capacity (veh/h)	276	292	380	261	304	523	815			976		
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1	SB 2						
Volume Total	79	24	41	613	35	807						
Volume Left	74	0	28	0	35	0						
Volume Right	0	24	13	93	0	0						
cSH	277	380	311	1700	976	1700						
Volume to Capacity	0.28	0.06	0.13	0.36	0.04	0.47						
Queue Length 95th (ft)	29	5	11	0	3	0						
Control Delay (s)	23.1	15.1	18.3	0.0	8.8	0.0						
Lane LOS	C	C	C		A							
Approach Delay (s)	21.2		18.3	0.0	0.4							
Approach LOS	C		C									
Intersection Summary												
Average Delay			2.0									
Intersection Capacity Utilization			57.5%		ICU Level of Service					B		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

4: Harwood Ave & Ridge Rd

12/12/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	0	0	198	3	14	2	70	189	72	274	2
Future Volume (vph)	0	0	0	198	3	14	2	70	189	72	274	2
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	0	0	0	202	3	14	2	71	193	73	280	2

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	219	266	355
Volume Left (vph)	202	2	73
Volume Right (vph)	14	193	2
Hadj (s)	0.18	-0.40	0.07
Departure Headway (s)	5.5	4.6	5.0
Degree Utilization, x	0.34	0.34	0.49
Capacity (veh/h)	596	738	696
Control Delay (s)	11.4	10.0	12.6
Approach Delay (s)	11.4	10.0	12.6
Approach LOS	B	A	B

Intersection Summary		
Delay		11.4
Level of Service		B
Intersection Capacity Utilization	58.3%	ICU Level of Service
Analysis Period (min)		15

HCM Unsignalized Intersection Capacity Analysis

5: Harwood Ave & Chestnut Rd

12/12/2018



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	67	137	98	0	0	273
Future Volume (Veh/h)	67	137	98	0	0	273
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	79	161	115	0	0	321
Pedestrians	16					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	2					
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	452	131			131	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	452	131			131	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	86	82			100	
cM capacity (veh/h)	557	905			1432	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	240	115	321			
Volume Left	79	0	0			
Volume Right	161	0	0			
cSH	750	1700	1700			
Volume to Capacity	0.32	0.07	0.19			
Queue Length 95th (ft)	35	0	0			
Control Delay (s)	12.0	0.0	0.0			
Lane LOS	B					
Approach Delay (s)	12.0	0.0	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay			4.3			
Intersection Capacity Utilization			33.2%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

6: Harwood Ave & Elm Rd

12/12/2018



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations				↗		↖
Traffic Volume (veh/h)	0	0	0	90	60	265
Future Volume (Veh/h)	0	0	0	90	60	265
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	0	0	96	64	282
Pedestrians	4					
Lane Width (ft)	0.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	414	4			100	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	414	4			100	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			96	
cM capacity (veh/h)	569	1080			1493	
Direction, Lane #	NB 1	SB 1				
Volume Total	96	346				
Volume Left	0	64				
Volume Right	96	0				
cSH	1700	1493				
Volume to Capacity	0.06	0.04				
Queue Length 95th (ft)	0	3				
Control Delay (s)	0.0	1.7				
Lane LOS		A				
Approach Delay (s)	0.0	1.7				
Approach LOS						
Intersection Summary						
Average Delay			1.3			
Intersection Capacity Utilization			30.9%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

9: Martin Ave & Chestnut Rd

12/12/2018



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				↔		↔
Traffic Volume (veh/h)	0	0	7	178	0	7
Future Volume (Veh/h)	0	0	7	178	0	7
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	8	193	0	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None		None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			0	209	0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			0	209	0	
tC, single (s)			4.1	6.4	6.2	
tC, 2 stage (s)						
tF (s)			2.2	3.5	3.3	
p0 queue free %			100	100	99	
cM capacity (veh/h)			1623	776	1085	
Direction, Lane #	WB 1	NB 1				
Volume Total	201	8				
Volume Left	8	0				
Volume Right	0	8				
cSH	1623	1085				
Volume to Capacity	0.00	0.01				
Queue Length 95th (ft)	0	1				
Control Delay (s)	0.3	8.3				
Lane LOS	A	A				
Approach Delay (s)	0.3	8.3				
Approach LOS		A				
Intersection Summary						
Average Delay			0.6			
Intersection Capacity Utilization			13.1%	ICU Level of Service	A	
Analysis Period (min)			15			