

APPENDIX I
Traffic Impact Analysis (May 19, 2022)

May 19, 2022

Mr. David Schiepe
Lawrence Family Trust
P.O. Box 7200
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LLG Reference: 2.21.4413.1

Subject: **Focused Traffic Impact Analysis for the
Heacock Logistics Parking Lot Project**
Moreno Valley, California

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Dear Mr. Schiepe:

Linscott, Law & Greenspan, Engineers (LLG) is pleased to submit this Focused Traffic Impact Analysis for the proposed Heacock Logistics Parking Lot Project (herein referred to as “Project”), located on the northeast corner of Heacock Street and the Perris Valley Storm Drain in the City of Moreno Valley, California. The 9.14 acre project site is currently vacant. **Figure 1** presents a Vicinity Map, which illustrates the general location of the project site and depicts the surrounding street system and **Figure 2** presents an existing site aerial.

The Focused Traffic Impact Analysis for the proposed Project will satisfy the *City of Moreno Valley Transportation Impact Analysis Preparation Guide for Vehicle Miles Traveled and Level of Service Assessment*, dated June 2020 and will focus to the key study intersections of Heacock Street at Nandina Avenue and Webster Avenue at Harley Knox Boulevard, as well as the one (1) Project driveway located along Heacock Street. Two (2) proposed Project Options have been evaluated without and with the Heacock Street Extension. The Scope of Work for this focused traffic impact analysis, which is included in **Appendix A**, was developed in conjunction with City of Moreno Valley staff. Included in this focused traffic impact analysis are the following:

- 1) Existing traffic counts,
- 2) Estimated Project (both options) traffic generation/distribution/assignment,
- 3) Estimated cumulative project traffic generation/distribution/assignment,
- 4) AM and PM peak hour analyses for existing traffic conditions,
- 5) AM and PM peak hour analyses for Year 2023 traffic conditions without and with the proposed Project (both Project Options) without the Heacock Street extension,

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- 6) AM and PM peak hour analyses for Year 2023 traffic conditions without and with the proposed Project (both Project Options) with the Heacock Street Extension,
- 7) Recommended Improvements (if any),
- 8) Site access evaluation, and
- 9) Vehicle Miles Traveled (VMT) screening assessment.

Our method of analysis, findings, and recommendations are detailed in the following sections of this letter report.

PROJECT DESCRIPTION

Figure 3 presents the proposed site plan for the proposed Project, prepared by CASC Engineering and Consulting. As shown in *Figure 3*, the proposed Project will consist of a parking lot designed with up to 440 parking stalls (12' x 30'). The proposed parking lot will provide parking for one of the following two (2) Project Options:

- Project Option No. 1: The 9.14 acre site will provide automobile parking for up to 440 automobiles. Up to twelve (12) shuttles would operate throughout the day to bring the drivers from the site to their business and/or from their business to the site. The site will operate 24-hours per day, seven days a week and the proposed driveway on Heacock Street will be gated (i.e. code accessed).
- Project Option No. 2: The 9.14 acre site will provide semi-truck trailer parking (short-term for the truck and trailer) for up to 220 semi-trucks (i.e. one semi-truck would be parked in two automobile parking stalls) and up to two (2) regular parking stalls. Up to twelve (12) shuttles would operate throughout the day to bring the truck drivers from the site to their business and/or from their business to the site. The site will operate 24-hours per day, seven days a week and the proposed driveway on Heacock Street will be gated (i.e. code accessed).

Access to the Project site will be provided via one (1) full-access gated driveway located along Heacock Street.

EXISTING TRAFFIC CONDITIONS

Existing Lane Geometrics

Figure 4 presents an inventory of the existing roadway conditions for the two (2) key study intersections. This figure identifies the number of travel lanes for key arterials, as well as intersection configurations and controls for the key area study intersections.

Existing Public Transit

The Riverside Transit Agency operates Bus Route 19 within the vicinity of the project site (i.e. located east of the proposed project site). Bus Route 19 operates on weekdays along Perris Boulevard between the Moreno Valley Mall and the Perris Station Transit Center. During the AM and PM peak periods, Route 19 has approximate headways that range from 15 to 60 minutes in the northbound and southbound directions.

Existing Traffic Volumes

AM peak hour and PM peak hour traffic counts were collected by Counts Unlimited on January 11, 2022 at the two (2) key study intersections in order to develop the baseline peak hour traffic volume data for the intersection analysis. **Figure 5** illustrates the existing AM and PM peak hour traffic volumes at the two (2) key study intersections. The existing AM and PM peak hour traffic volumes illustrated in **Figure 5** are comprised of passenger vehicles, large 2-axle trucks, 3-axle trucks and 4+-axle trucks. The truck traffic turning movements were converted to passenger car equivalents (P.C.E.'s) using City of Moreno Valley approved factors (i.e. P.C.E. factor of 1.5, 2.0 and 3.0 for large 2-axle trucks, 3-axle trucks and 4+-axle trucks, respectively).

Appendix B contains the detailed peak hour traffic count sheets for the two (2) key study intersections.

LEVEL OF SERVICE METHODOLOGY

In conformance with City of Moreno Valley requirements, AM and PM peak hour operating conditions for the signalized and unsignalized intersections were evaluated using the *Highway Capacity Manual 6th Edition* (HCM 6) methodology.

Highway Capacity Manual (HCM) Method of Analysis (Signalized Intersections)

Based on the HCM operations method of analysis, level of service for signalized intersections and approaches is defined in terms of control delay, which is a measure of the increase in travel time due to traffic signal control, driver discomfort, and fuel consumption. Control delay includes the delay associated with vehicles slowing in advance of an intersection, the time spent stopped on an intersection approach, the time spent as vehicles move up in the queue, and the time needed for vehicles to accelerate to their desired speed. LOS criteria for traffic signals are stated in terms of the control delay in seconds per vehicle. The LOS thresholds established for the automobile mode at a signalized intersection are shown in **Table 1**.

Highway Capacity Manual (HCM) Method of Analysis (Unsignalized Intersections)

The HCM 6 unsignalized methodology for stop-controlled intersections was utilized for the analysis of the unsignalized intersections. This methodology estimates the average control delay for each of the subject movements and determines the level of service for each movement. For all-way stop controlled intersections, the overall average control delay measured in seconds per vehicle, and level of service is then calculated for the entire intersection. For one-way and two-way stop-controlled (minor street stop-controlled) intersections, this methodology estimates the worst side street delay, measured in seconds per vehicle and determines the level of service for that approach. The HCM control delay value translates to a LOS estimate, which is a relative measure of the intersection performance. The six qualitative categories of Level of Service have been defined along with the corresponding HCM control delay value range, as shown in **Table 2**.

LEVEL OF SERVICE STANDARDS AND IMPACT CRITERIA

City of Moreno Valley

The City of Moreno Valley Circulation Element recognizes that LOS “C” is optimal. However, it also allows peak hour levels of service in the LOS “D” range at certain locations. These locations include areas of high employment concentration, roads in the vicinity of freeway on/off ramps and/or other locations in already developed areas of the City with geometric constraints that prevent LOS “C” from being achieved. *Figure 5.2-7* from the *City of Moreno Valley General Plan, Final Program EIR, July 2006* depicts the LOS standards that are applicable to all segments of the Circulation Element. According to this figure, LOS “D” is the level of service standard for the intersection of Heacock Street at Nandina Avenue and for the proposed Project driveway along Heacock Street.

According to the *Transportation Impact Analysis Preparation Guide for Vehicle Miles Traveled and Level of Service Assessment*, dated June 2020, improvements at a signalized intersection shall be identified if either of the following are met:

- Any signalized study intersection operating at acceptable LOS without project traffic in which the addition of project traffic causes the intersection to degrade to unacceptable LOS shall identify improvements to provide acceptable LOS; OR
- Any signalized study intersection that is operating at unacceptable LOS without project traffic where the project increases delay by 5.0 or more seconds shall identify improvements to offset the increase in delay.

According to the *Transportation Impact Analysis Preparation Guide for Vehicle Miles Traveled and Level of Service Assessment*, dated June 2020, improvements at an unsignalized intersection shall be identified if either of the following are met:

- The addition of project related traffic causes the intersection to degrade from an acceptable LOS to unacceptable LOS; OR
- The project adds 5.0 seconds or more of delay to an intersection that is already projected to operate without project traffic at unacceptable LOS AND the intersection meets the peak hour traffic signal warrant after the addition of project traffic.

City of Perris

Based on the City of Perris General Plan Policy II.A, the following target Levels of Service are to be maintained:

- LOS "D" along all City maintained roads (including intersections) and LOS "D" along I-215 and SR-74 (including intersections with local streets and roads). An exception to the local road standard is LOS "E", at intersections of any Arterials and Expressways with SR-74, the Ramona-Cajalco Expressway or at I-215 Freeway ramps.
- LOS "E" may be allowed within the boundaries of the Downtown Specific Plan Area to the extent that it would support transit-oriented development and walkable communities. Increased congestion in this area will facilitate an increase in transit ridership and encourage development of a complementary mix of land uses within a comfortable walking distance from light rail stations.

Based on the above, LOS D is the level of service standard for the intersection of Webster Avenue at Harley Knox Boulevard.

PROJECT TRAFFIC CHARACTERISTICS

Project Trip Generation

Traffic generation is expressed in vehicle trip ends, defined as one-way vehicular movements, either entering or exiting the generating land use. Generation equations and/or rates used in the traffic forecasting procedure are typically found in the 11th Edition of *Trip Generation*, published by the Institute of Transportation Engineers (ITE) [Washington D.C., 2021]. Since trip generation rates for the category of the two (2) proposed Project Options are not specifically contained within the ITE *Trip Generation* manual, the trip generation potential was estimated based on empirical trip rates developed from counts/observations conducted at similar existing sites applied to the proposed Project's characteristics (i.e. total site acreage for Project

Option No. 1 or maximum parking spaces for Project Option No. 2). The following describes the details of the counts/observations conducted to develop trip generation rates for both Project Option No. 1 and Project Option No. 2.

Trip Rates – Project Option No. 1 (Automobile Parking)

- Traffic counts were conducted at ACE Vehicle Auctions, which is located at 495 Harley Knox Boulevard in the City of Perris and provides 8.33 acres for automobile parking.
- 24-hour traffic counts/observations were conducted at the two driveways along Harley Knox Boulevard on Tuesday August 10, 2021, Wednesday August 11, 2021, and Thursday August 12, 2021 to develop automobile parking trip rates to apply to Project Option No. 1.
- The three days of counts (cars, trucks and/or shuttles) were averaged to determine a baseline weekday trip generation for ACE Vehicle Auctions.
- The averaged traffic counts indicated that ACE Vehicle Auctions generated 216 daily trips, 31 trips during the AM peak hour (16 inbound and 15 outbound) and 5 trips during the PM peak hour (2 inbound and 3 outbound). These trips include the conversion of truck-related trips to passenger car equivalents (PCE) utilizing a factor of 2.0.
- The aforementioned trips were then divided by the size of the ACE Vehicle Auctions property (i.e. 8.33 acres) to determine the daily, AM peak hour and PM peak hour trip rates per acre for a “typical” weekday.

Trip Rates – Project Option No. 2 (Semi-Truck Trailer Parking)

- Traffic counts were conducted at CFL Trucking, which is located at 11215 Riverside Drive in the City of Jurupa Valley and provides 346 parking spaces for trucks.
- 24-hour traffic counts were conducted at the one driveway along Riverside Drive on Tuesday March 30, 2021 to develop truck trip rates to apply to Project Option No. 2.
- The traffic counts indicated that the truck only component of CFL Trucking generated 723 daily trips, 49 trips during the AM peak hour (12 inbound and 37 outbound) and 57 trips during the PM peak hour (35 inbound and 22 outbound). These trips include the conversion of truck-related trips to passenger car equivalents (PCE) utilizing a factor of 1.5 for 2-axle trucks, 2.0 for 3-axle trucks and 3.0 for 4+-axle trucks.

- The aforementioned trips were then divided by the number of parking spaces provided at the CFL Trucking property (i.e. 346 spaces) to determine the daily, AM peak hour and PM peak hour truck trip rates per parking space for a “typical” weekday.

It should be noted that the procedures described above that were utilized to develop the empirical rates for Project Options No. 1 and No. 2 are generally consistent with the trip generation study procedures contained within the *ITE Trip Generation Handbook*. It should be further noted, that even though only one site was studied for each Project Option, the use of empirical rates developed specifically for the proposed Project land uses are typically the most accurate approach for establishing the proposed Project’s trip generation potential.

Appendix C contains the traffic counts/observations conducted at CFL Trucking in the City of Jurupa Valley on Tuesday March 30, 2021, as well as the traffic counts/observations conducted at ACE Vehicle Auctions in the City of Perris on Tuesday August 10, 2021, Wednesday August 11, 2021, and Thursday August 12, 2021.

Trip Generation Forecast – Project Option No. 1 (Automobile Parking)

Table 3 summarizes the trip generation rates and associated forecast for proposed Project Option No. 1 for a typical weekday. As shown in the upper portion of *Table 3*, the trip generation potential of proposed Project Option No. 1 was estimated based on the average of counts (cars and trucks) conducted over three days (Tuesday August 10, 2021, Wednesday August 11, 2021, and Thursday August 12, 2021) at ACE Vehicle Auctions, which is located at 495 Harley Knox Boulevard in the City of Perris. Both vehicle trip rates and passenger car equivalent (PCE) trip rates are shown.

As shown in the middle portion of *Table 3*, proposed Project Option No. 1 is forecast to generate 158 vehicle (Non PCE) daily trips, with 19 vehicle (Non PCE) trips (10 inbound, 9 outbound) produced in the AM peak hour and 4 vehicle (Non PCE) trips (1 inbound, 3 outbound) produced in the PM peak hour on a “typical” weekday.

As shown in the last row of *Table 3*, proposed Project Option No. 1 is forecast to generate 237 PCE daily trips, with 34 PCE trips (18 inbound, 16 outbound) produced in the AM peak hour and 5 PCE trips (2 inbound, 3 outbound) produced in the PM peak hour on a “typical” weekday.

Trip Generation Forecast – Project Option No. 2 (Semi-Truck Trailer Parking)

Table 4 summarizes the trip generation rates and associated forecast for proposed Project Option No. 2 for a typical weekday. As shown in the upper portion of **Table 4**, the trip generation potential of proposed Project Option No. 2 (truck component) was estimated based on truck counts conducted on Tuesday March 30, 2021 at CFL Trucking, which is located at 11215 Riverside Drive in the City of Jurupa Valley. Both vehicle trip rates and passenger car equivalent (PCE) trip rates are shown for the truck component. The trip generation potential of the project shuttle is based on the proposed operations provided by the project applicant.

As shown in the middle portion of **Table 4**, proposed Project Option No. 2 is forecast to generate 213 vehicle (Non PCE) daily trips, with 15 vehicle (Non PCE) trips (5 inbound, 10 outbound) produced in the AM peak hour and 18 vehicle (Non PCE) trips (10 inbound, 8 outbound) produced in the PM peak hour on a “typical” weekday.

As shown in the last row of **Table 4**, proposed Project Option No. 2 is forecast to generate 484 PCE daily trips, with 33 PCE trips (8 inbound, 25 outbound) produced in the AM peak hour and 37 PCE trips (23 inbound, 14 outbound) produced in the PM peak hour on a “typical” weekday.

Trip Distribution and Assignment

Figure 6 presents the traffic distribution pattern for the proposed Project without the Heacock Street Extension. **Figure 7** presents the traffic distribution pattern for the proposed Project with the Heacock Street Extension. Project traffic volumes both entering and exiting the site have been distributed and assigned to the adjacent street system based on the following considerations:

- the site's proximity to major traffic carriers and regional access routes,
- expected localized traffic flow patterns based on adjacent street channelization, and presence of traffic signals, and
- ingress/egress availability at the Project site.

The anticipated AM and PM peak hour traffic volumes associated with proposed Project Option No. 1, without and with the Heacock Street Extension are presented in **Figures 8** and **9**, respectively. The anticipated AM and PM peak hour traffic volumes associated with proposed Project Option No. 2, without and with the Heacock Street Extension are presented in **Figures 10** and **11**, respectively. The traffic volume assignments presented in **Figure 8** reflect the traffic distribution characteristics shown in **Figure 6** and the traffic generation forecast presented in **Table 3** (PCE trips). The traffic volume assignments presented in **Figure 9** reflect

the traffic distribution characteristics shown in *Figure 7* and the traffic generation forecast presented in *Table 3* (PCE trips). The traffic volume assignments presented in *Figure 10* reflect the traffic distribution characteristics shown in *Figure 6* and the traffic generation forecast presented in *Table 4* (PCE trips). The traffic volume assignments presented in *Figure 11* reflect the traffic distribution characteristics shown in *Figure 7* and the traffic generation forecast presented in *Table 4* (PCE trips).

FUTURE YEAR 2023 TRAFFIC CONDITIONS

Year 2023 Ambient Traffic Growth (Without Heacock Street Extension)

Horizon year, background traffic growth estimates without the Heacock Street Extension have been calculated using an ambient growth factor. The ambient traffic growth factor is intended to include unknown and future cumulative projects in the study area, as well as account for regular growth in traffic volumes due to the development of projects outside the study area. The future growth in traffic volumes has been calculated at two percent (2.0%) per year. Applied to existing Year 2022 traffic volumes results in a two percent (2.0%) growth in existing volumes to horizon Year 2023.

Year 2023 Ambient Traffic Growth (With Heacock Street Extension)

In order to account for the shift in background volumes due to the construction of the Heacock Street Extension, traffic volume forecasts for Year 2023 Cumulative with the Heacock Street Extension were obtained through utilization of the RivTAM travel demand model.

Volume Development

Using the RivTAM travel demand model, projected traffic volumes were obtained for each intersection. The model produces peak period and off-peak period volumes (6 AM – 9 AM, 9 AM – 3 PM, 3 PM – 7 PM and 7 PM – 6 AM). Before converting the model peak period link volumes to future turning movement volumes for analysis, the model volumes must be reviewed and adjusted. The first step is to obtain the approach and departure volumes from the model for each leg of the analyzed intersections. The next step converts the model approach and departure volumes from AM and PM peak period volumes to peak hour volumes. The AM peak hour volumes are calculated by multiplying the AM peak period volumes by 38%. Similarly, the PM peak hour volumes are calculated by multiplying the PM period volumes by 28%. These are the percentages of vehicles that are assumed to occur in the peak hour of the peak period. These factors are derived from SCAG research.

The next step is to determine the difference between the base year (2012) peak hour model volumes and the Buildout (2040) peak hour model volumes. This “difference” represents the projected growth in traffic on each approach to the Buildout of the General Plan using the RivTAM travel demand model.

B-turn Methodology

The base year turning movement counts for each intersection must be converted to approach and departure volumes for each leg of the intersection. Once the base counts are in this format, the difference between the Buildout model and base model are then added to the base year counts for each corresponding approach and departure volume. This step provides the adjusted volumes that will be used to determine the Buildout turning movement volumes. The next process in the forecasting of future turning volumes applies the B-turn methodology. The B-turn methodology is generally described in the “*National Cooperative Highway Research Program Report (NCHRP) 255: Highway Traffic Data for Urbanized Area Project Planning and Design*”, Chapter 8. The B-turn method uses the base year turning percentages (from traffic counts) and proceeds through an iterative computational technique to produce a final set of future year turning volumes. The computations involve alternatively balancing the rows (approaches) and the columns (departures) of a turning movement matrix until an acceptable convergence is obtained. Future year link volumes are fixed using this method and the turning movements are adjusted to match. The results must be checked for reasonableness and manual adjustments are sometimes necessary. It should be noted that the growth was interpolated between 2012 and 2040 in order to derive Year 2023 Cumulative traffic volumes with the Heacock Street Extension.

Finally, it should be noted that all provided volumes are from a General Plan level model that was not specifically developed for analysis of individual intersection turning movements. Therefore each projected volume was reviewed carefully and adjustments were applied as warranted based on local conditions and professional judgment.

Copies of the traffic model post-processing worksheets for the key study intersections are contained in **Appendix D**. Please note that the post-processing methodology utilized in this report is consistent with SCAG requirements.

Cumulative Projects Traffic Characteristics

In order to make a realistic estimate of future on-street conditions prior to implementation of the proposed Project (both Options), the status of other known development projects (cumulative projects) within a one-mile radius of the proposed

project has been researched at the City of Moreno Valley and the City of Perris. With this information, the potential impact of the proposed Project (both Options) can be evaluated within the context of the cumulative impact of all ongoing development. Based on our research, there are five (5) cumulative projects in the City of Moreno Valley and five (5) cumulative projects in the City of Perris within a one-mile radius of the Project site. These ten (10) cumulative projects have been included as part of the cumulative background setting.

Table 5 provides the location and a brief description for each of the ten (10) cumulative projects. **Figure 12** graphically illustrates the location of the cumulative projects. These cumulative projects are expected to generate vehicular traffic, which may affect the operating conditions of the key study intersections.

Table 6 presents the development totals and resultant trip generation for the cumulative projects. As shown in **Table 6**, the cumulative projects are forecast to generate a total of 19,180 daily trips, with 1,003 trips (542 inbound and 461 outbound) forecast during the AM peak hour and 1,161 trips (508 inbound and 653 outbound) forecast during the PM peak hour.

The AM and PM peak hour traffic volumes associated with the ten (10) cumulative projects, without the Heacock Street Extension are presented in **Figure 13**. The AM and PM peak hour traffic volumes associated with the ten (10) cumulative projects, with the Heacock Street Extension are presented in **Figure 14**.

Year 2023 Traffic Volumes

Figure 15 illustrates the Year 2023 Cumulative AM and PM peak hour traffic volumes without the Heacock Street Extension. **Figure 16** illustrates the Year 2023 Cumulative AM and PM peak hour traffic volumes with the Heacock Street Extension.

Figures 17 and 18 illustrate the Year 2023 Cumulative Plus Project Option No. 1 AM and PM peak hour traffic volumes without and with the Heacock Street Extension, respectively. **Figures 19 and 20** illustrate the Year 2023 Cumulative Plus Project Option No. 2 AM and PM peak hour traffic volumes without and with the Heacock Street Extension, respectively.

YEAR 2023 PLUS PROJECT OPTION NO. 1 CAPACITY ANALYSIS

Project Option No. 1 (Automobile Parking) – Without Heacock St. Extension

Table 7 summarizes the peak hour level of service results at the two (2) key study intersections and the one (1) Project driveway for Year 2023 Cumulative Plus Project Option No. 1 traffic conditions without the Heacock Street Extension. Review of column (1) of *Table 7* indicates that the two (2) key study intersections currently operate at acceptable LOS B or better during the AM and PM peak hours. Review of column (2) of *Table 7* indicates that the two (2) key study intersections are forecast to continue to operate in the Year 2023 at acceptable LOS B or better during the AM and PM peak hours. Review of columns (3) and (4) of *Table 7* indicates that traffic associated with proposed Project Option No. 1 ***will not*** significantly impact either of the two (2) key study intersections when compared to the LOS standards and significant impact criteria specified in this letter report. The two (2) key study intersections are forecast to continue to operate at acceptable LOS B or better during the AM and PM peak hours with Project Option No. 1 (without the Heacock Street Extension). Further review of column (3) of *Table 7* indicates that the one (1) Project driveway along Heacock Street is forecast to operate at acceptable LOS A during the AM and PM peak hours under Year 2023 plus project traffic conditions (Option No. 1 without the Heacock Street Extension).

Project Option No. 1 (Automobile Parking) – With Heacock St. Extension

Table 8 summarizes the peak hour level of service results at the two (2) key study intersections and the one (1) Project driveway for Year 2023 Cumulative Plus Project Option No. 1 traffic conditions with the Heacock Street Extension. Review of column (2) of *Table 8* indicates that the two (2) key study intersections are forecast to continue to operate in the Year 2023 at acceptable LOS B or better during the AM and PM peak hours. Review of columns (3) and (4) of *Table 8* indicates that traffic associated with proposed Project Option No. 1 ***will not*** significantly impact either of the two (2) key study intersections when compared to the LOS standards and significant impact criteria specified in this letter report. The two (2) key study intersections are forecast to continue to operate at acceptable LOS B or better during the AM and PM peak hours with Project Option No. 1 (with the Heacock Street Extension). Further review of column (3) of *Table 8* indicates that the one (1) Project driveway along Heacock Street is forecast to operate at acceptable LOS B or better during the AM and PM peak hours under Year 2023 plus project traffic conditions (Option No. 1 with the Heacock Street Extension).

Appendix E contains the existing, Year 2023 Cumulative and Year 2023 Cumulative plus Project Option No. 1 AM peak hour and PM peak hour HCM/LOS calculation

worksheets for the two (2) key study intersections and the one (1) Project driveway without and with the Heacock Street Extension.

YEAR 2023 PLUS PROJECT OPTION NO. 2 CAPACITY ANALYSIS

Project Option No. 2 (Semi-Truck Trailer Parking) – Without Heacock St. Extension

Table 9 summarizes the peak hour level of service results at the two (2) key study intersections and the one (1) Project driveway for Year 2023 Cumulative Plus Project Option No. 2 traffic conditions without the Heacock Street Extension. Review of column (2) of *Table 9* indicates that the two (2) key study intersections are forecast to continue to operate in the Year 2023 at acceptable LOS B or better during the AM and PM peak hours. Review of columns (3) and (4) of *Table 9* indicates that traffic associated with proposed Project Option No. 2 ***will not*** significantly impact either of the two (2) key study intersections when compared to the LOS standards and significant impact criteria specified in this letter report. The two (2) key study intersections are forecast to continue to operate at acceptable LOS B or better during the AM and PM peak hours with Project Option No. 2 (without the Heacock Street Extension). Further review of column (3) of *Table 9* indicates that the one (1) Project driveway along Heacock Street is forecast to operate at acceptable LOS A during the AM and PM peak hours under Year 2023 plus project traffic conditions (Option No. 2 without the Heacock Street Extension).

Project Option No. 2 (Semi-Truck Trailer Parking) – With Heacock St. Extension

Table 10 summarizes the peak hour level of service results at the two (2) key study intersections and the one (1) Project driveway for Year 2023 Cumulative Plus Project Option No. 2 traffic conditions with the Heacock Street Extension. Review of column (2) of *Table 10* indicates that the two (2) key study intersections are forecast to continue to operate in the Year 2023 at acceptable LOS B or better during the AM and PM peak hours. Review of columns (3) and (4) of *Table 10* indicates that traffic associated with proposed Project Option No. 2 ***will not*** significantly impact either of the two (2) key study intersections when compared to the LOS standards and significant impact criteria specified in this letter report. The two (2) key study intersections are forecast to continue to operate at acceptable LOS B or better during the AM and PM peak hours with Project Option No. 2 (with the Heacock Street Extension). Further review of column (3) of *Table 10* indicates that the one (1) Project driveway along Heacock Street is forecast to operate at acceptable LOS B or better during the AM and PM peak hours under Year 2023 plus project traffic conditions (Option No. 2 with the Heacock Street Extension).

Appendix E also contains the Year 2023 Cumulative plus Project Option No. 2 AM peak hour and PM peak hour HCM/LOS calculation worksheets for the two (2) key study intersections and the one (1) Project driveway without and with the Heacock Street Extension.

RECOMMENDED IMPROVEMENTS

The results of the “Year 2023 Plus Project (Option No. 1 and Option No. 2)” intersection capacity analyses presented previously in *Tables 7, 8, 9* and *10* indicates that the proposed Project (both Options) *will not* significantly impact either of the two (2) key study intersections without and with the Heacock Street Extension. Given that there are no significant project impacts, no improvements are required under Year 2023 Plus Project (both Options) traffic conditions.

SITE ACCESS EVALUATION

Access to the Project site will be provided via one (1) full-access gated driveway located along Heacock Street. As shown in *Figure 3*, the proposed gate is located 87-feet from the Heacock Street curb line. As presented previously in *Tables 7, 8, 9* and *10*, the proposed Project driveway is forecast to operate at acceptable LOS B or better during the AM peak hour and PM peak under both Project Options without and with the Heacock Street Extension. Further, based on the low amount of project volume entering the site under both Project Options, project vehicles will not queue back onto Heacock Street, as the queue is expected to be no more than one project vehicle. As such, project access will be adequate.

VEHICLE MILES TRAVELED (VMT) ASSESSMENT

According to the *City of Moreno Valley Transportation Impact Analysis Preparation Guide for Vehicle Miles Traveled and Level of Service Assessment*, dated June 2020, some projects and activities will not require a TIA that includes VMT. This presumption is based on the substantial evidence provided in the OPR Technical Advisory supporting SB 743 implementation or is related to projects that are local serving which, by definition, would decrease the number of trips or the distance those trips travel to access the development (and are VMT-reducing projects). The following activities generally will not require a TIA that includes VMT:

- Projects located in a Transit Priority Areas (TPA)
- Projects located in a low-VMT generating area

- Local-serving K-12 schools
- Local parks
- Day care centers
- Local-serving gas stations
- Local-serving banks
- Local-serving hotels (e.g. non-destination hotels)
- Student housing projects
- Local serving community colleges that are consistent with the assumptions noted in the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)
- Projects generating less than 400 daily vehicle trips, exclusive of any existing daily vehicle trips generated by the site.
 - This generally corresponds to the following “typical” development potentials:
 - 42 single family housing units
 - 60 multi-family, condominiums, or townhouse housing units
 - 41,000 sq. ft. of office
 - 10,500 sq. ft. general retail
 - 57,500 sq. ft. of light industrial
 - 112,500 sq. ft. of warehousing
 - 285,700 sq. ft. of high cube transload and short-term storage warehouse

Project Option No. 1 (Automobile Parking)

Based on the aforementioned City of Moreno Valley criteria, the daily vehicle trips associated with proposed Project Option No. 1 are below the thresholds requiring the preparation of a VMT analysis report (i.e. 158 daily vehicle trips). Therefore, based on the aforementioned criteria, Project Option No. 1 can be screened from further VMT analysis and Project Option No. 1 can be presumed a less than significant impact on VMT, per the City’s guidelines.

Project Option No. 2 (Semi-Truck Trailer Parking)

Based on the aforementioned City of Moreno Valley criteria, the daily vehicle trips associated with proposed Project Option No. 2 are below the thresholds requiring the

preparation of a VMT analysis report (i.e. 213 daily vehicle trips). Therefore, based on the aforementioned criteria, Project Option No. 2 can be screened from further VMT analysis and Project Option No. 2 can be presumed a less than significant impact on VMT, per the City's guidelines.

CONCLUSION

The results of the Focused Traffic Impact Analysis indicate that the proposed Heacock Logistics Parking Lot Project (both Project Option No. 1 and Project Option No. 2) will not significantly impact the existing surrounding roadway network without and with the Heacock Street Extension. The two (2) key study intersections and the one (1) Project driveway are forecast to operate in the Year 2023 at acceptable levels of service during the AM peak hour and PM peak hour under both Project Options without and with the Heacock Street Extension. In addition, based on the low amount of project volume entering the site under both Project Options, project vehicles will not queue back onto Heacock Street, as the queue is expected to be no more than one project vehicle. As such, project access will be adequate. Lastly, Project Option No. 1 and Project Option No. 2 can be screened from further VMT analysis and both Project Options can be presumed a less than significant impact on VMT, per the City's guidelines.

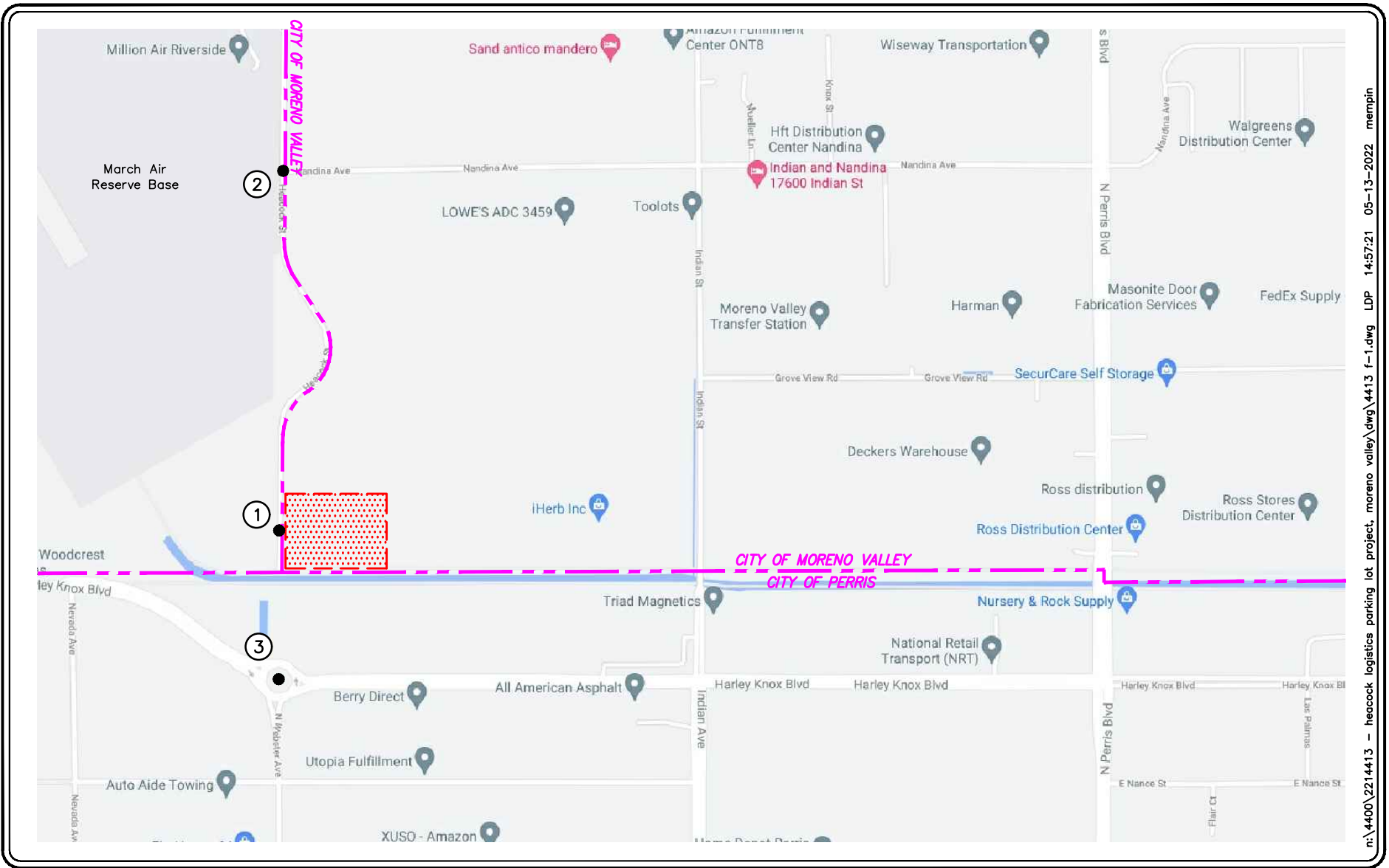
We appreciate the opportunity to provide this Focused Traffic Impact Analysis. Should you have any questions, please call us at (949) 825-6175.

Sincerely,
Linscott, Law & Greenspan, Engineers

Keil D. Maberry
Principal
California Registration: TR 1802

Daniel A. Kloos, P.E.
Associate Principal
California Registration: TR 2200





SOURCE: GOOGLE

KEY

- = STUDY INTERSECTION
- = PROJECT SITE

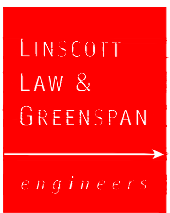


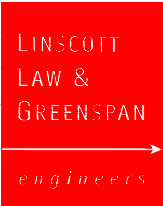
FIGURE 1

VICINITY MAP

HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY



n:\4400\2214413 - heacock logistics parking lot project, moreno valley\dwg\4413 f2-1.dwg LDP 15:56:18 12-12-2021 tucker



SOURCE: GOOGLE

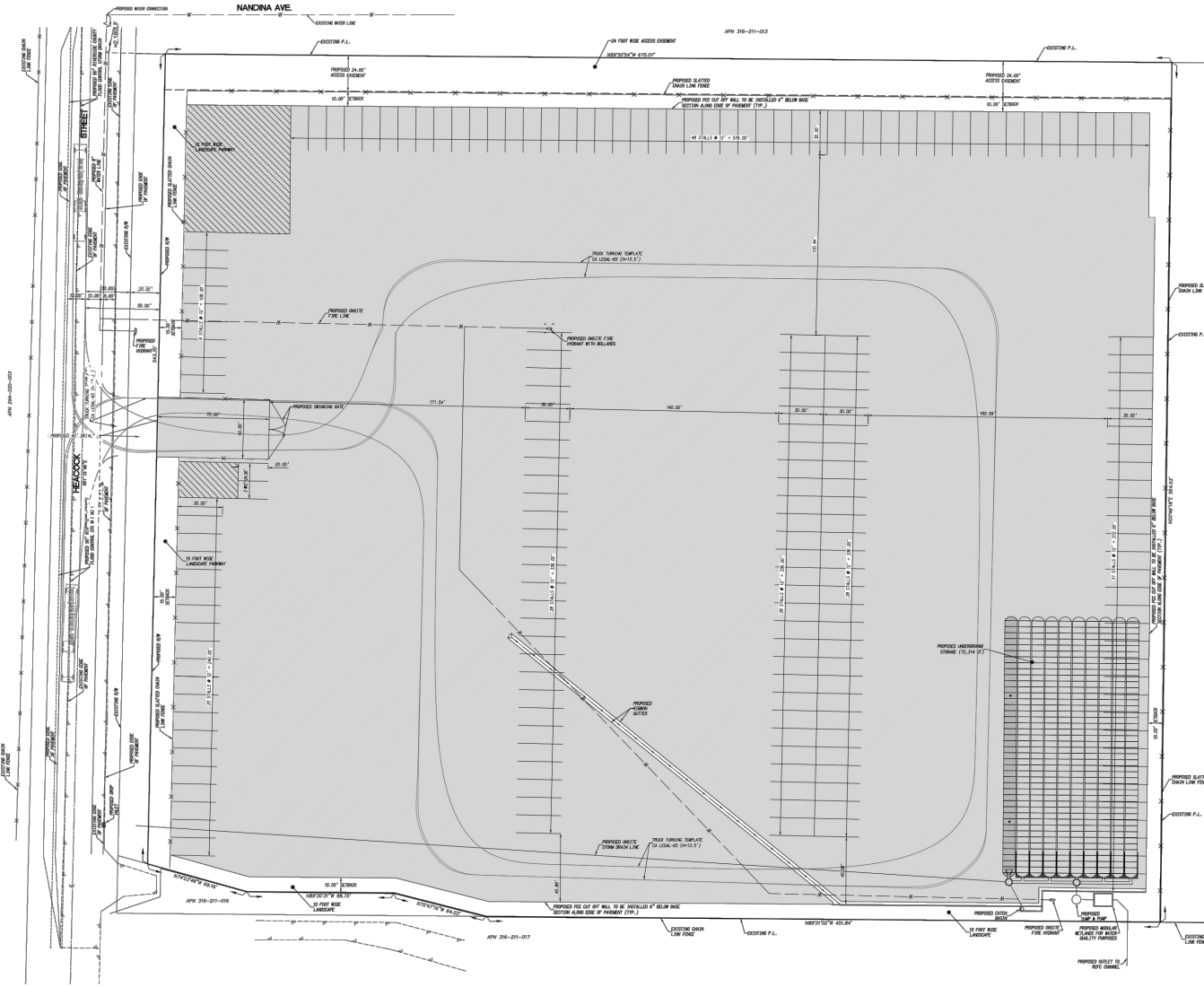
KEY

 = PROJECT SITE

FIGURE 2

EXISTING SITE AERIAL

HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY



SOURCE: CASC ENGINEERING AND CONSULTING

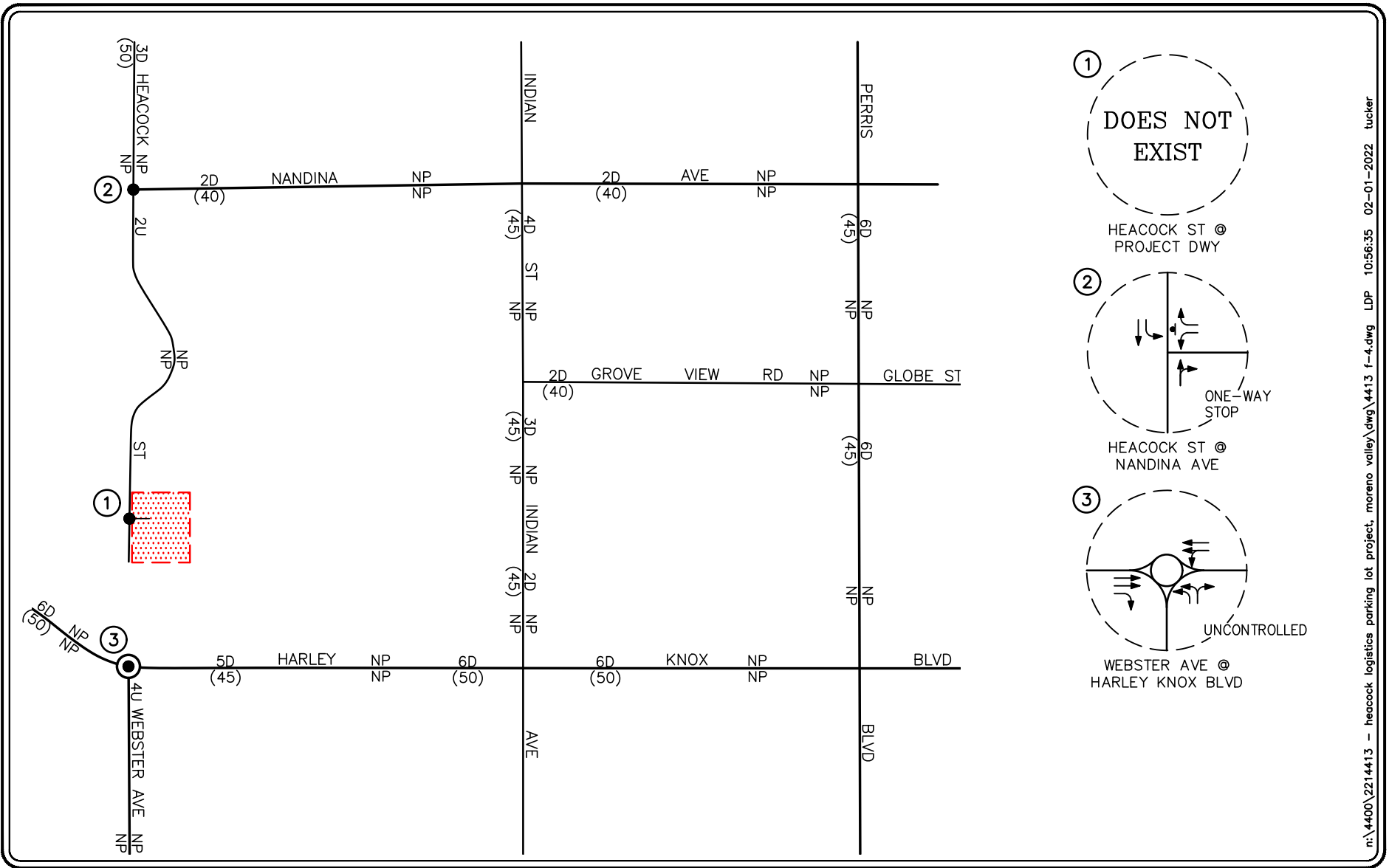
FIGURE 3

LINSCOTT
LAW &
GREENSPAN
engineers

NO SCALE

PROPOSED SITE PLAN

HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY



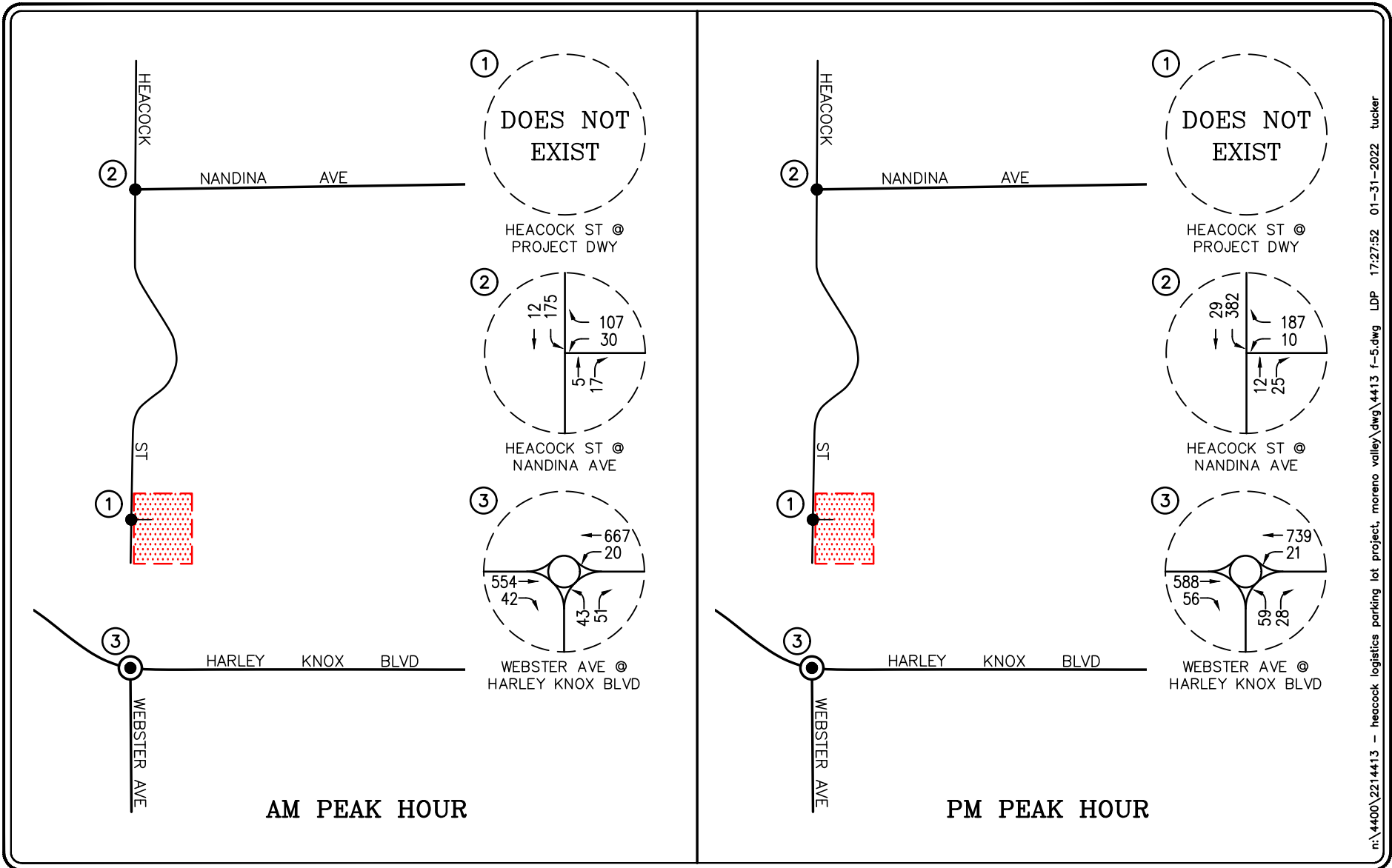
**LINSCOTT
LAW &
GREENSPAN**
engineers

- KEY**
- ① = STUDY INTERSECTION
 - ← = APPROACH LANE ASSIGNMENT
 - ⊙ = ROUNDABOUT, ▼ = STOP SIGN
 - P = PARKING, NP = NO PARKING
 - U = UNDIVIDED, D = DIVIDED
 - 2 = NUMBER OF TRAVEL LANES
 - (XX) = POSTED SPEED LIMIT (MPH)
 - [Red Hatched Box] = PROJECT SITE

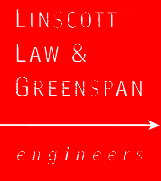
FIGURE 4

EXISTING ROADWAY CONDITIONS AND INTERSECTION CONTROLS

HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY



n:\4400\2214413 - heacock logistics parking lot project, moreno valley\dwg\4413 f-5.dwg LDP 17:27:52 01-31-2022 tucker



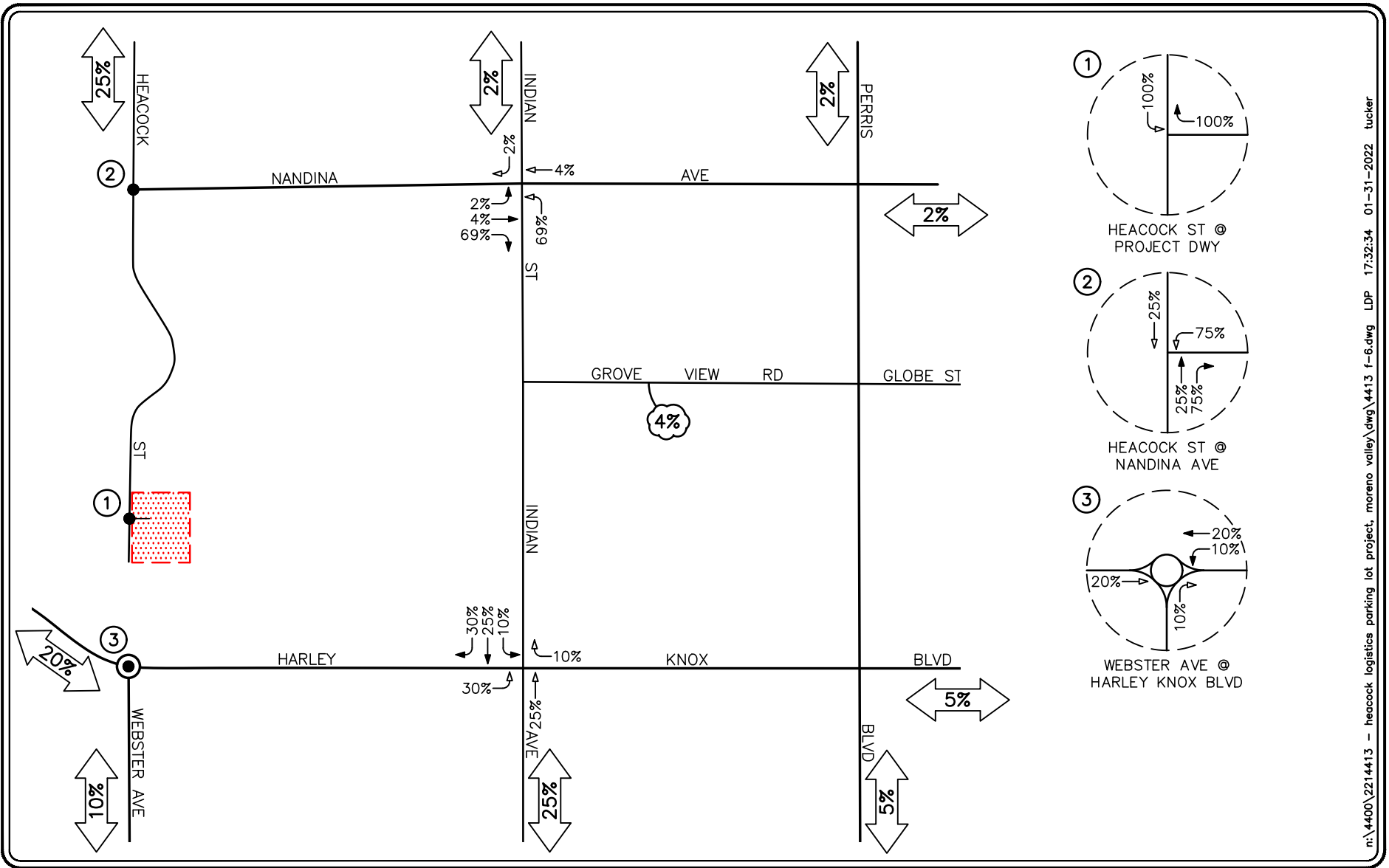
KEY

① = STUDY INTERSECTION

▨ = PROJECT SITE

FIGURE 5

EXISTING PEAK HOUR TRAFFIC VOLUMES
HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY



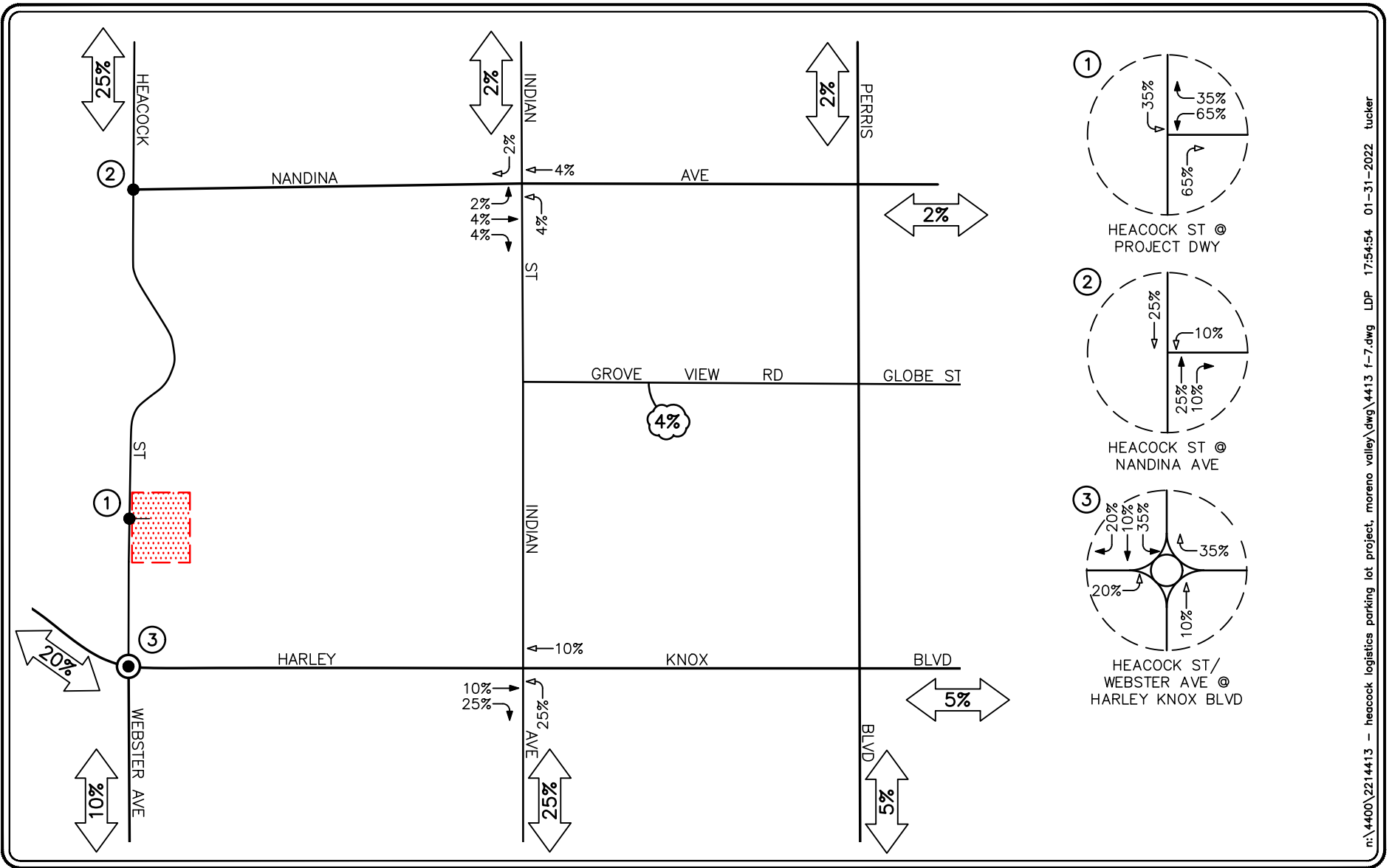
n:\4400\2214413 - heacock logistics parking lot project, moreno valley\dwg\4413 f-6.dwg LDP 17:32:34 01-31-2022 tucker

LINSCOTT
LAW &
GREENSPAN
engineers

- KEY**
- ⊕ = STUDY INTERSECTION
 - ↖ = INBOUND PERCENTAGE
 - ↗ = OUTBOUND PERCENTAGE
 - ▨ = PROJECT SITE

FIGURE 6
PROJECT TRAFFIC
DISTRIBUTION PATTERN
(WITHOUT HEACOCK STREET EXTENSION)

HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY



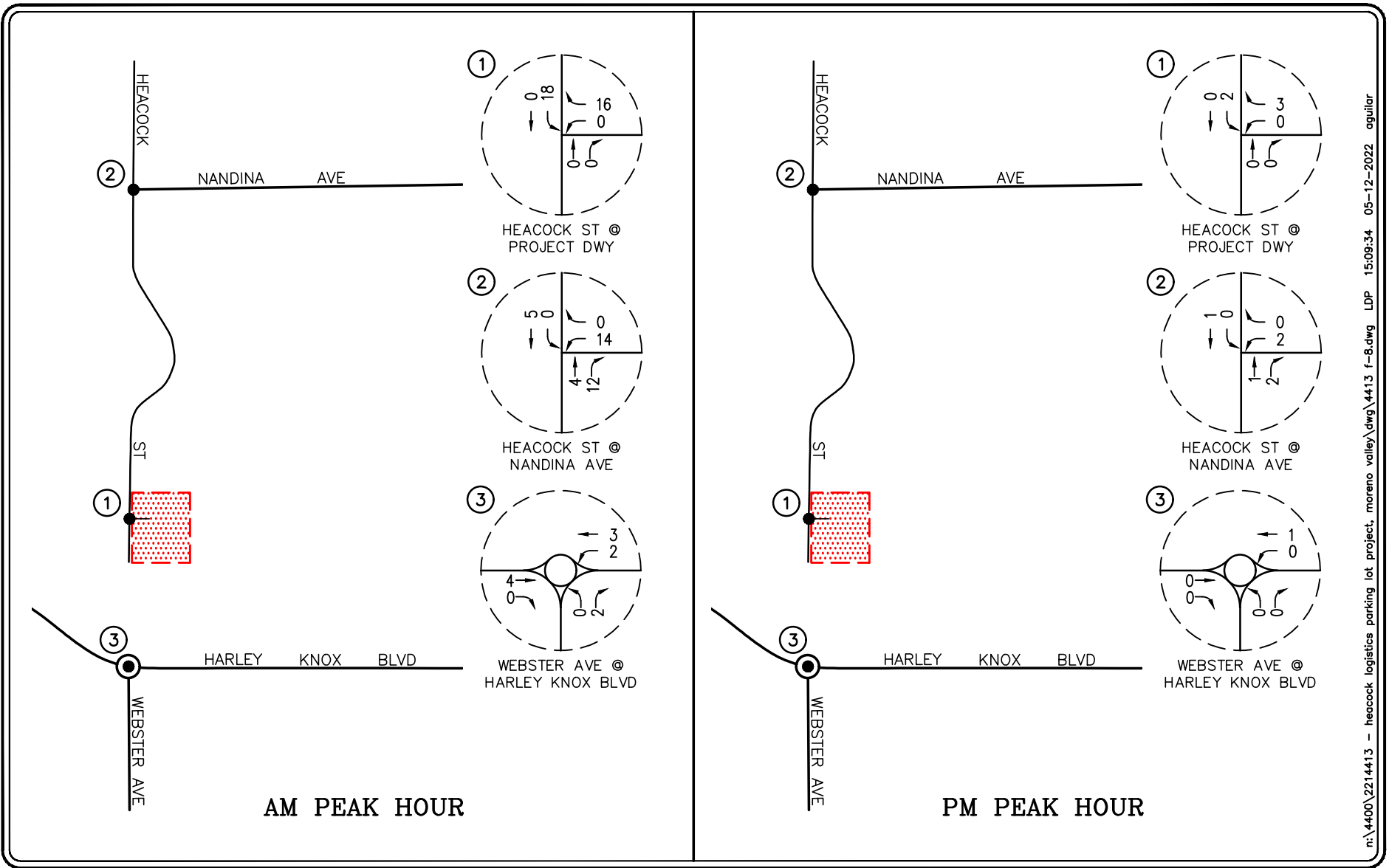
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LINSCOTT
LAW &
GREENSPAN
engineers

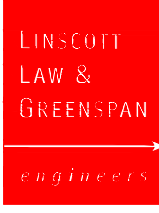

- KEY**
- ⊕ = STUDY INTERSECTION
 - ↖ = INBOUND PERCENTAGE
 - ↗ = OUTBOUND PERCENTAGE
 - ▨ = PROJECT SITE

FIGURE 7 PROJECT TRAFFIC DISTRIBUTION PATTERN (WITH HEACOCK STREET EXTENSION)

HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY



ni:\4400\2214413 - heacock logistics parking lot project, moreno valley\dwg\4413 f-8.dwg LDP 15:09:34 05-12-2022 aguilera



 NO SCALE



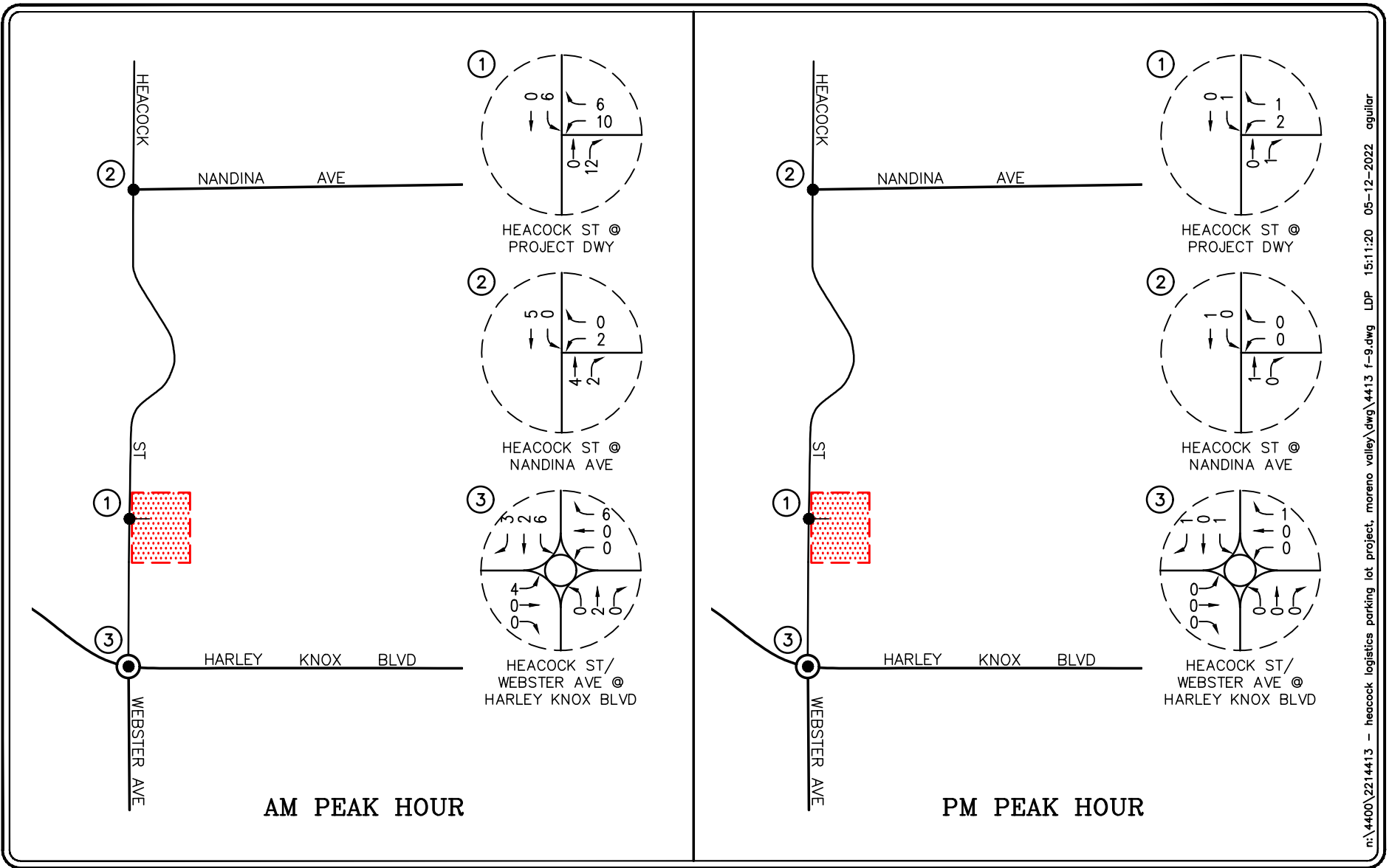
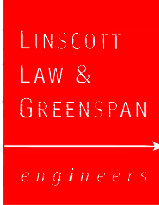

- KEY**
-  = STUDY INTERSECTION
 -  = PROJECT SITE

FIGURE 8
PROJECT OPTION NO. 1 PEAK HOUR TRAFFIC VOLUMES WITHOUT HEACOCK STREET EXTENSION
 HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY



ni:\4400\2214413 - heacock logistics parking lot project, moreno valley\dwg\4413 f-9.dwg LDP 15:11:20 05-12-2022 aguilera





NO SCALE

KEY

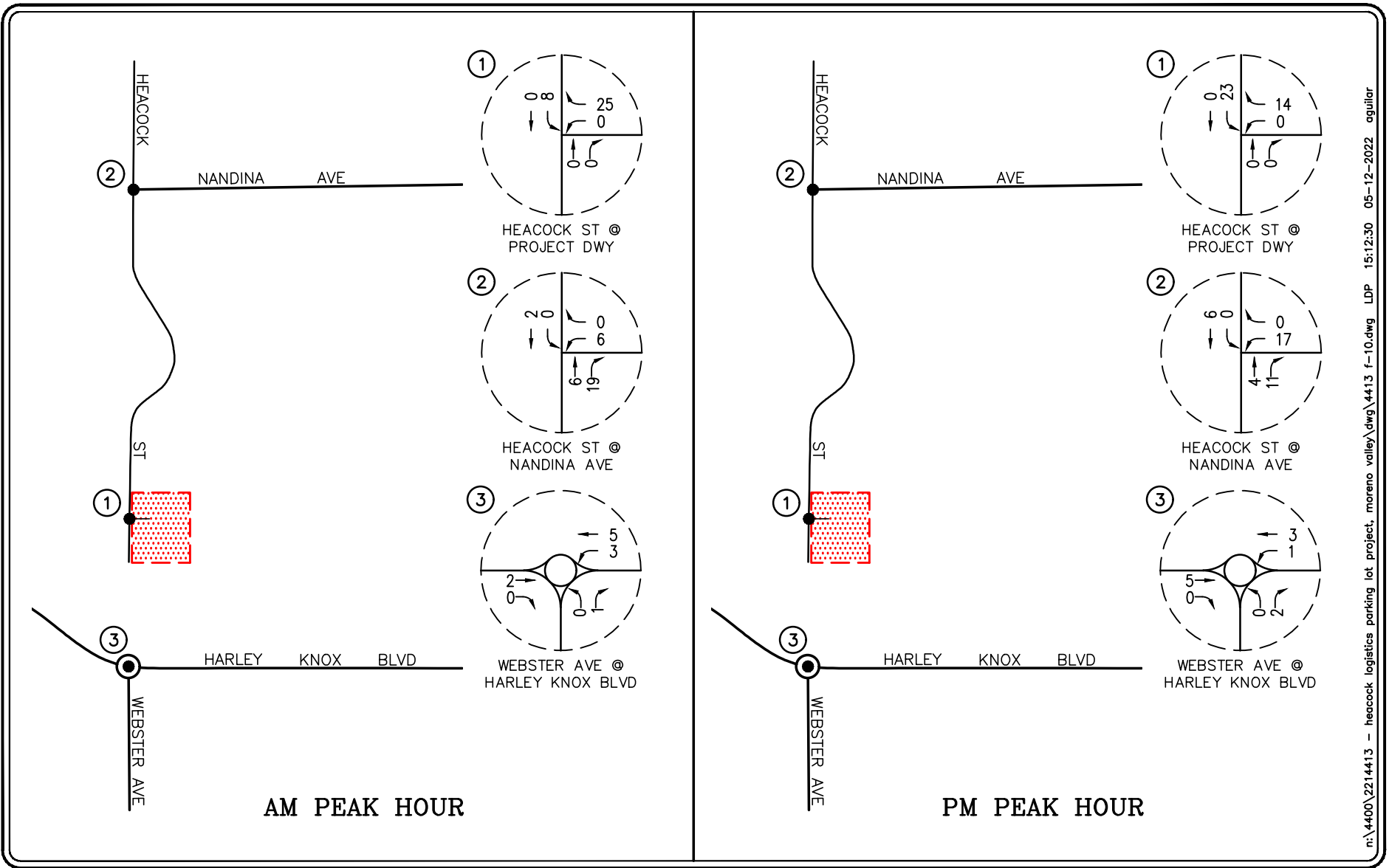
⊕ = STUDY INTERSECTION

▒ = PROJECT SITE

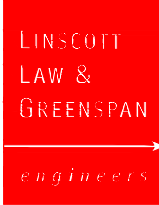
FIGURE 9


PROJECT OPTION NO. 1 PEAK HOUR TRAFFIC VOLUMES WITH HEACOCK STREET EXTENSION

HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY



n:\4400\2214413 - heacock logistics parking lot project, moreno valley\dwg\4413 f-10.dwg LDP 15:12:30 05-12-2022 aguilar





NO SCALE

KEY

= STUDY INTERSECTION


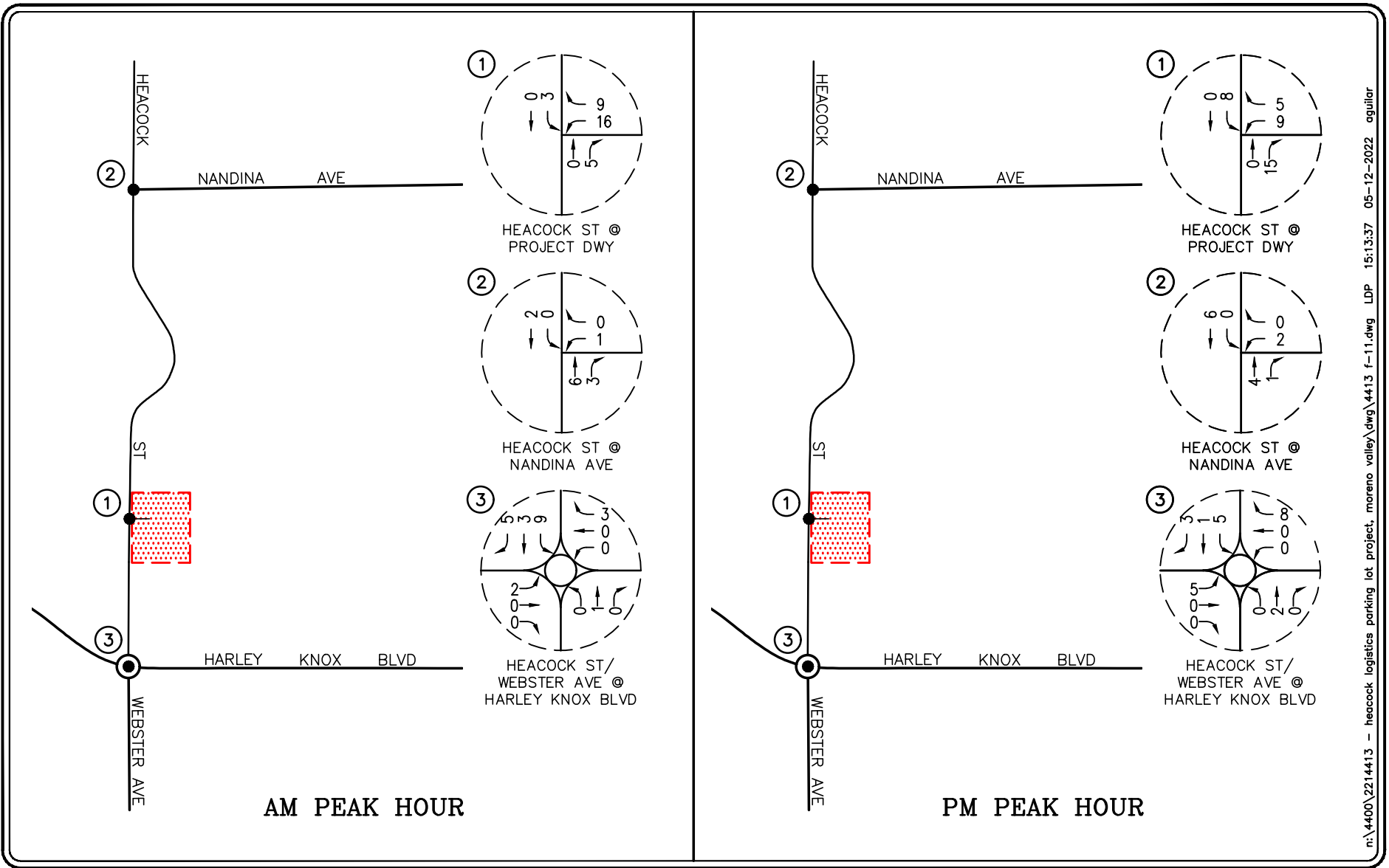
 = PROJECT SITE

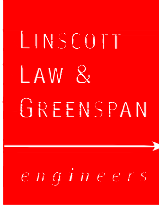
FIGURE 10

PROJECT OPTION NO. 2 PEAK HOUR TRAFFIC VOLUMES WITHOUT HEACOCK STREET EXTENSION


HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY



n:\4400\2214413 - heacock logistics parking lot project, moreno valley\dwg\4413 f-11.dwg LDP 15:13:37 05-12-2022 aguilera



LINSCOTT
LAW &
GREENSPAN
engineers



N
NO SCALE

KEY

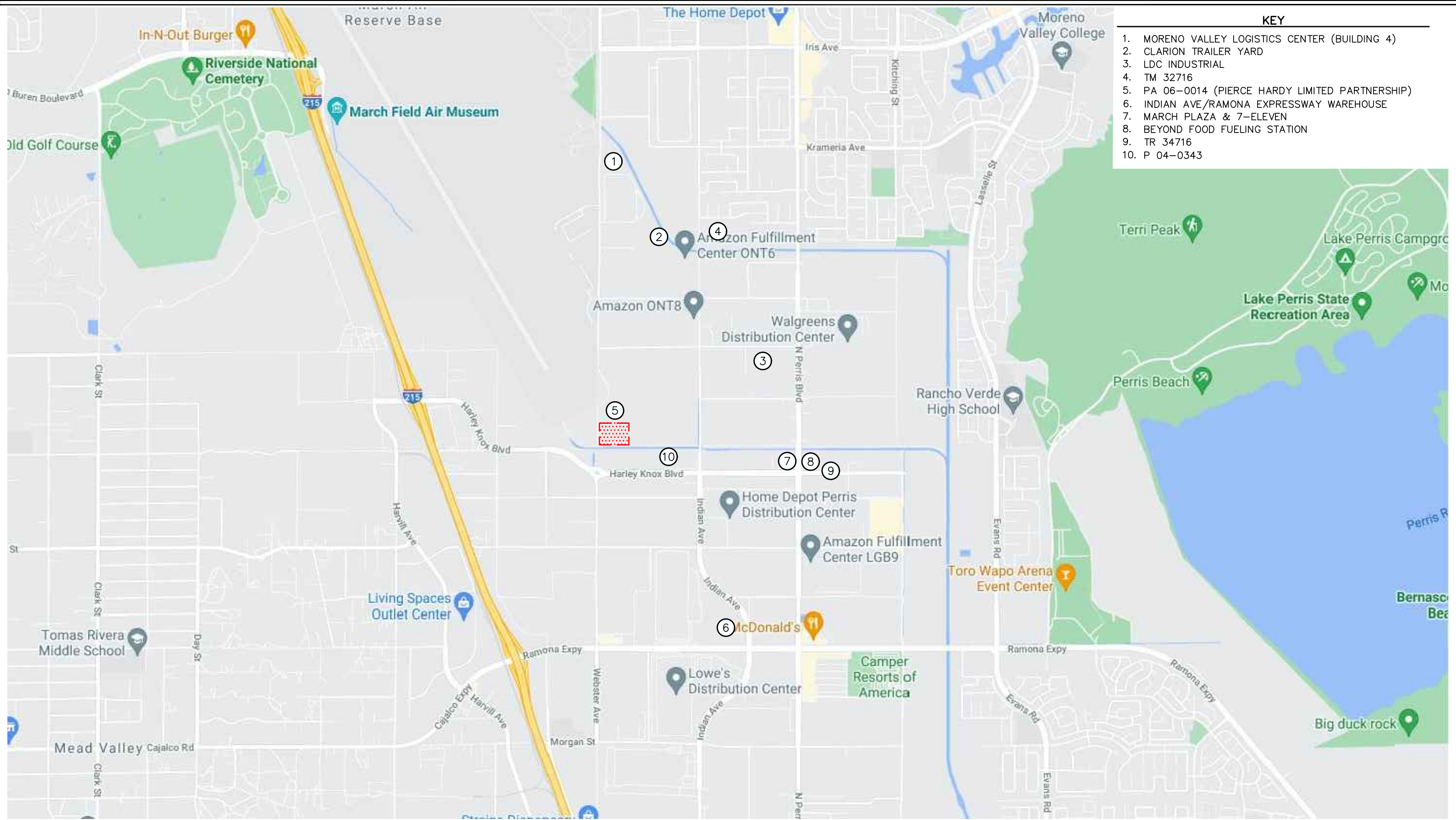
① = STUDY INTERSECTION

▒ = PROJECT SITE

FIGURE 11

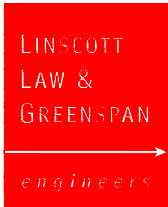
**PROJECT OPTION NO. 2 PEAK HOUR TRAFFIC VOLUMES
WITH HEACOCK STREET EXTENSION**

HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY



- KEY**
1. MORENO VALLEY LOGISTICS CENTER (BUILDING 4)
 2. CLARION TRAILER YARD
 3. LDC INDUSTRIAL
 4. TM 32716
 5. PA 06-0014 (PIERCE HARDY LIMITED PARTNERSHIP)
 6. INDIAN AVE/RAMONA EXPRESSWAY WAREHOUSE
 7. MARCH PLAZA & 7-ELEVEN
 8. BEYOND FOOD FUELING STATION
 9. TR 34716
 10. P 04-0343

n:\4400\2214413 - heacock logistics parking lot project, moreno valley\dwg\4413 f-12.dwg LDP 17:44:47 01-31-2022 tucker

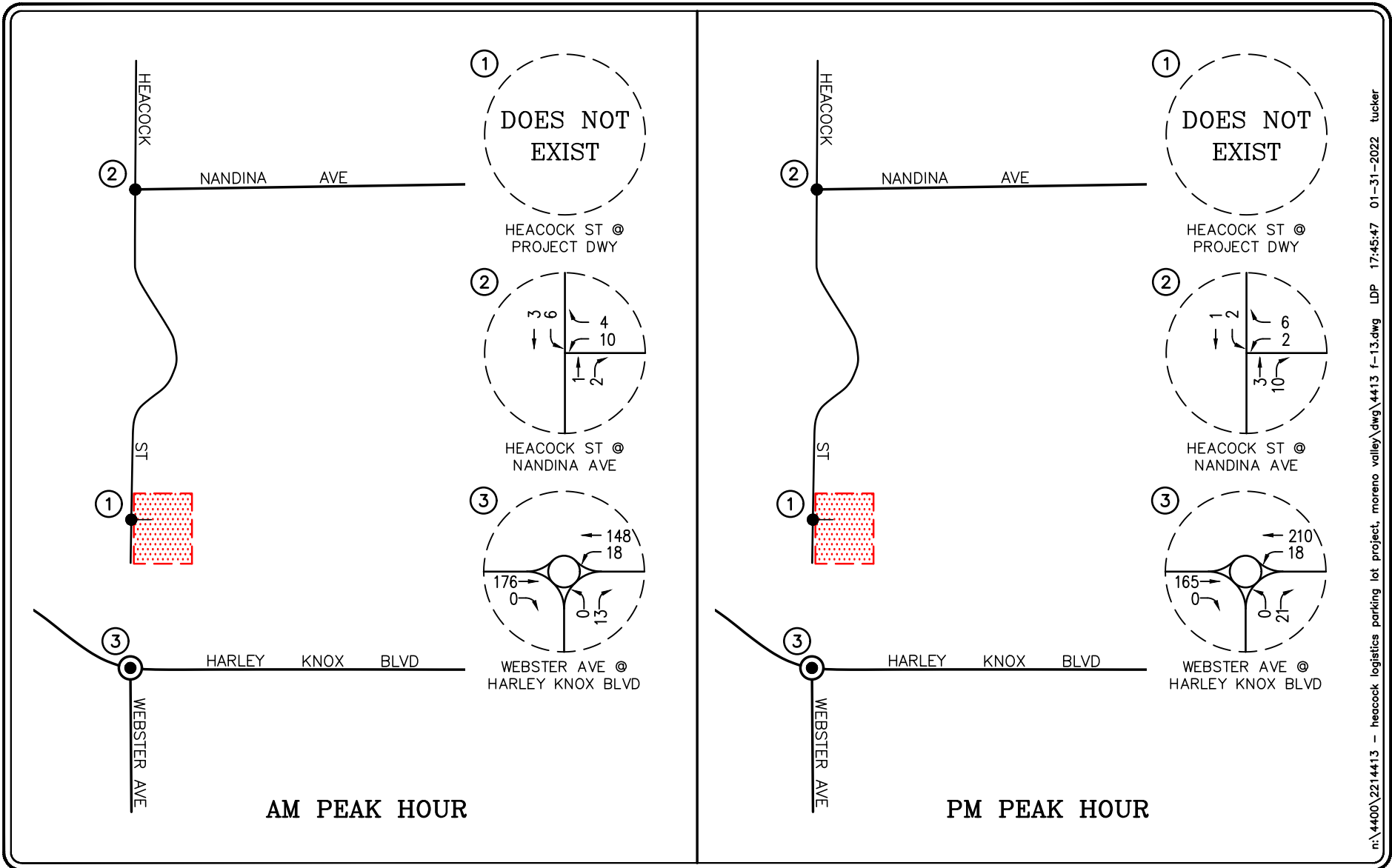


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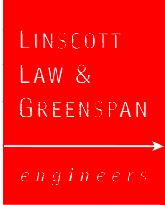
- # = CUMULATIVE PROJECT LOCATION
- [Red Hatched Box] = PROJECT SITE


FIGURE 12

LOCATION OF CUMULATIVE PROJECTS
HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY



n:\4400\2214413 - heacock logistics parking lot project, moreno valley\dwg\4413 f-13.dwg LDP 17:45:47 01-31-2022 tucker





NO SCALE

KEY

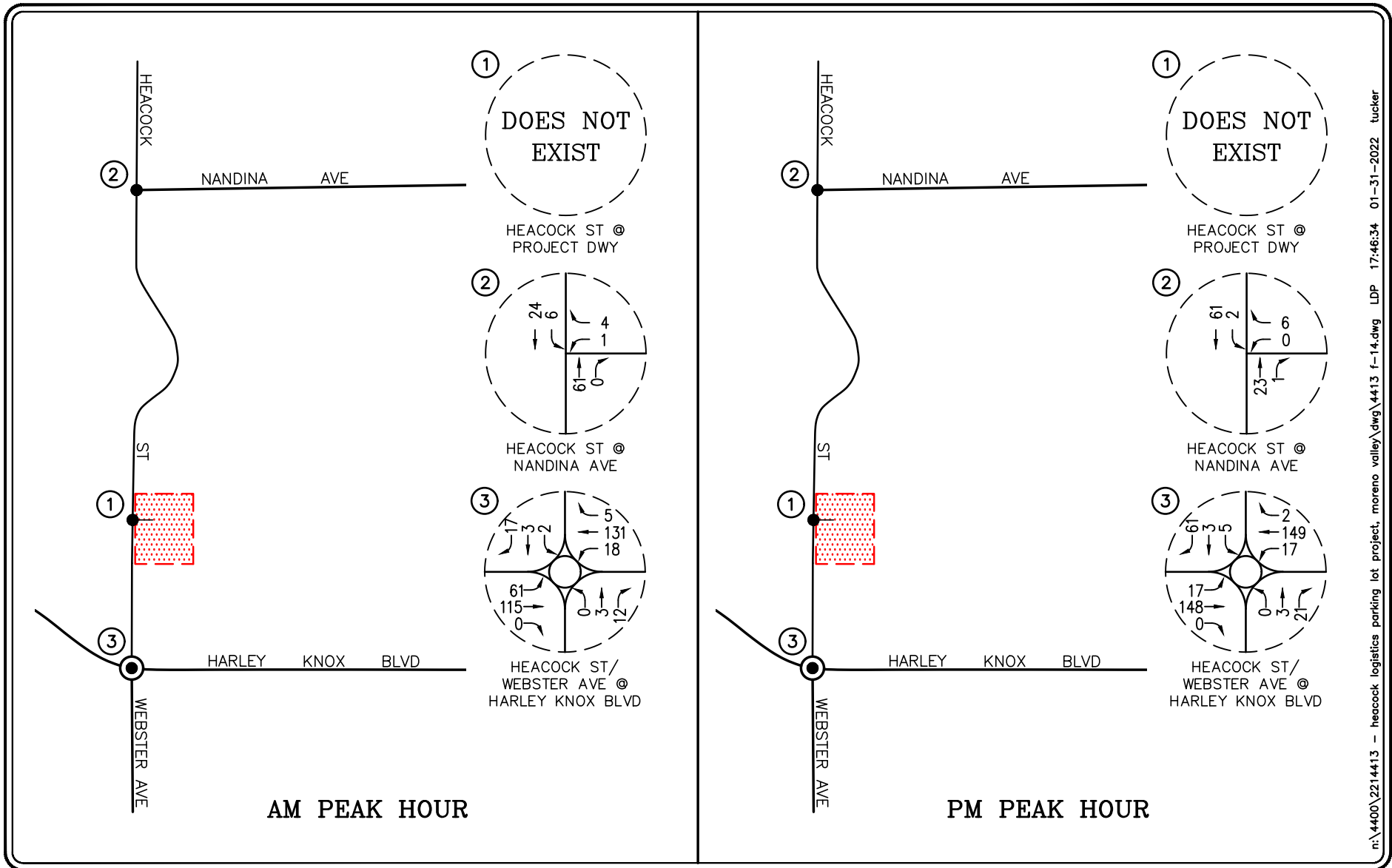
① = STUDY INTERSECTION

▨ = PROJECT SITE

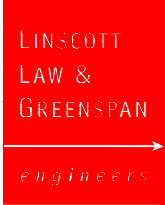
FIGURE 13


CUMULATIVE PROJECTS PEAK HOUR TRAFFIC VOLUMES WITHOUT HEACOCK STREET EXTENSION

HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY



n:\4400\2214413 - heacock logistics parking lot project, moreno valley\dwg\4413 f-14.dwg LDP 17:46:34 01-31-2022 tucker





NO SCALE

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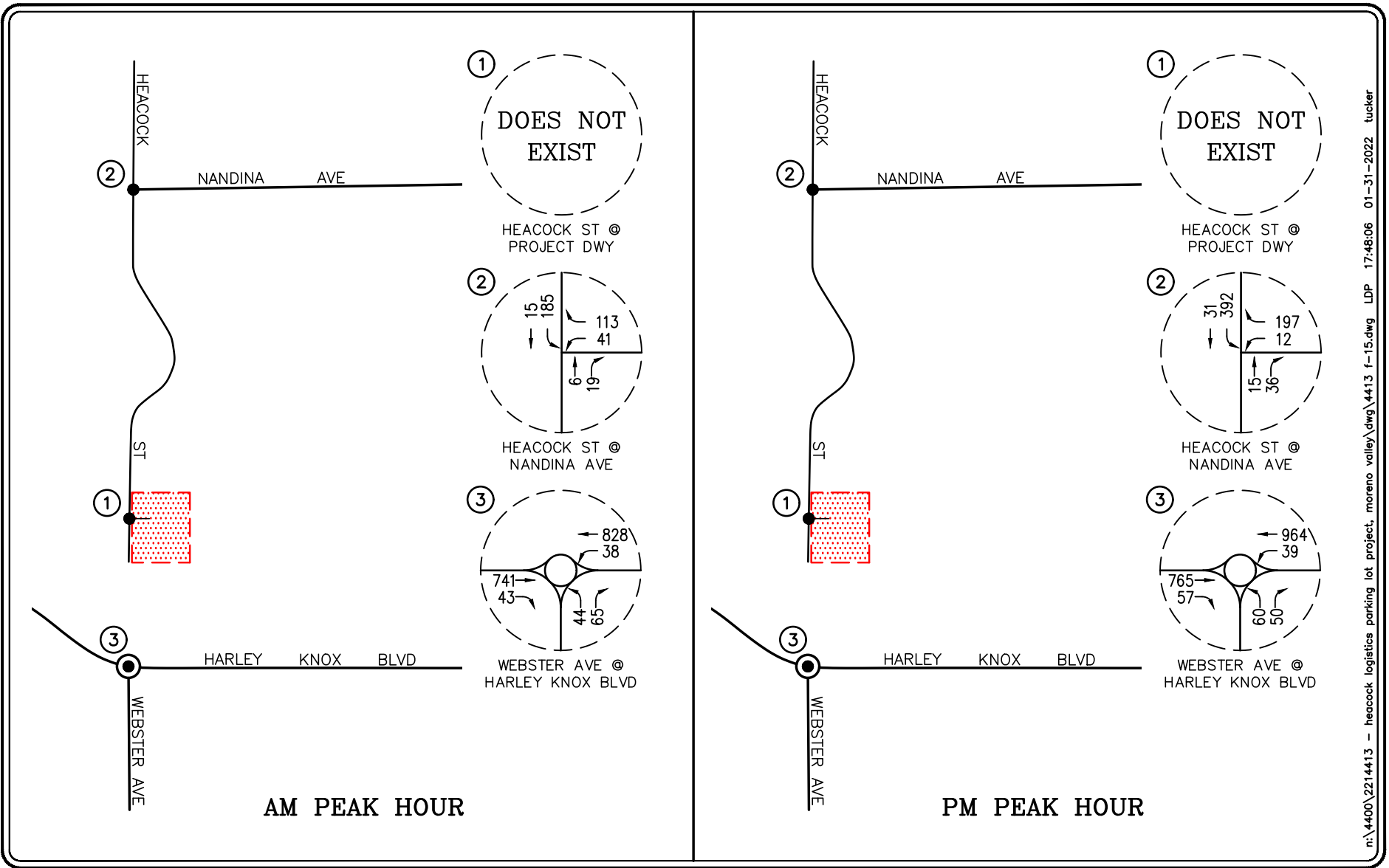
① = STUDY INTERSECTION

▨ = PROJECT SITE

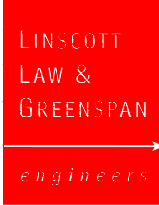
FIGURE 14


**CUMULATIVE PROJECTS PEAK HOUR TRAFFIC VOLUMES
WITH HEACOCK STREET EXTENSION**

HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY



n:\4400\2214413 - heacock logistics parking lot project, moreno valley\dwg\4413 f-15.dwg LDP 17:48:06 01-31-2022 tucker





NO SCALE

KEY

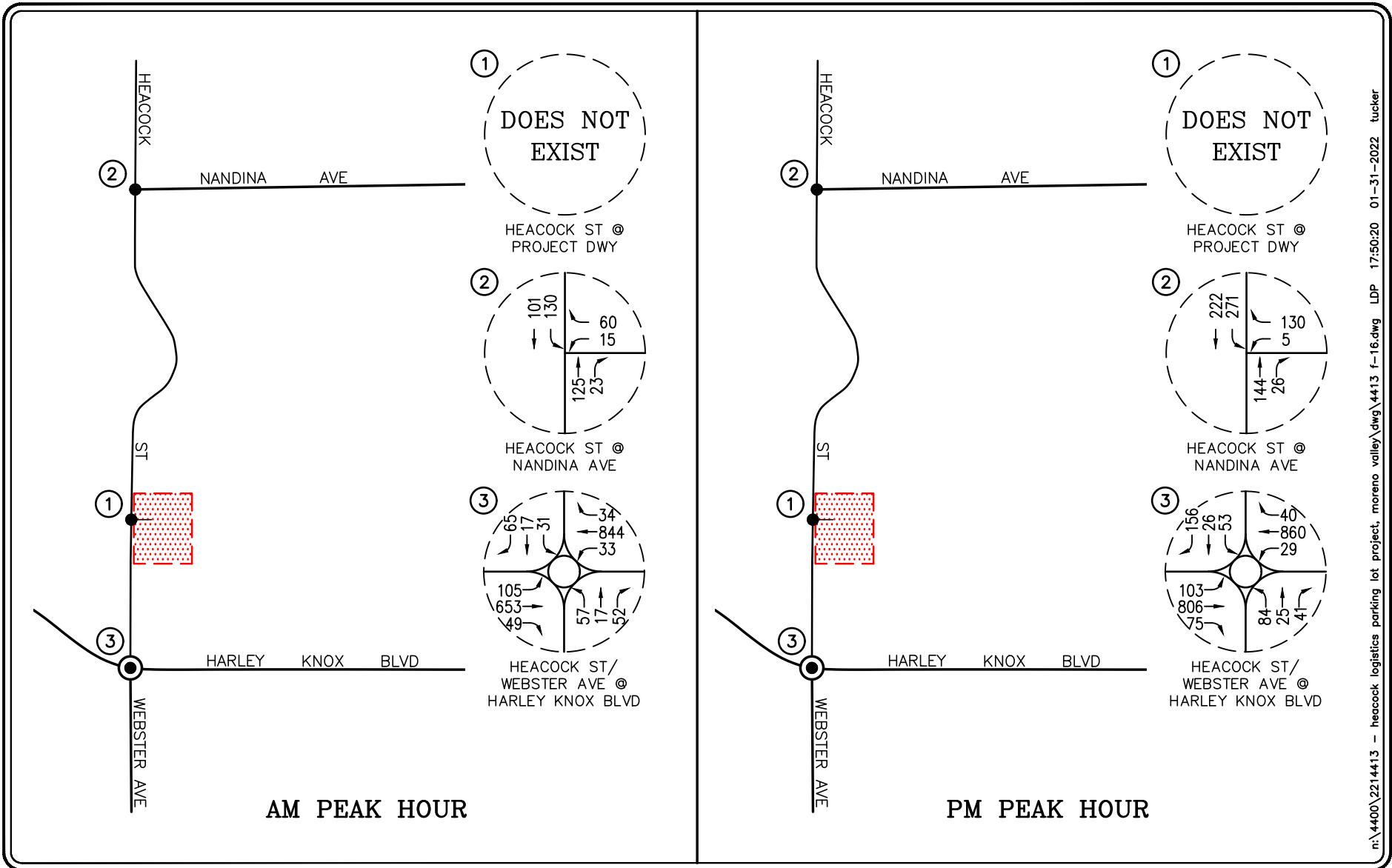
① = STUDY INTERSECTION

▨ = PROJECT SITE

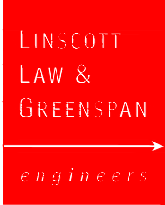
FIGURE 15


YEAR 2023 CUMULATIVE PEAK HOUR TRAFFIC VOLUMES WITHOUT HEACOCK STREET EXTENSION

HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY



n:\4400\2214413 - heacock logistics parking lot project, moreno valley\dwg\4413 f-16.dwg_LDP 17:50:20 01-31-2022 tucker





NO SCALE

KEY

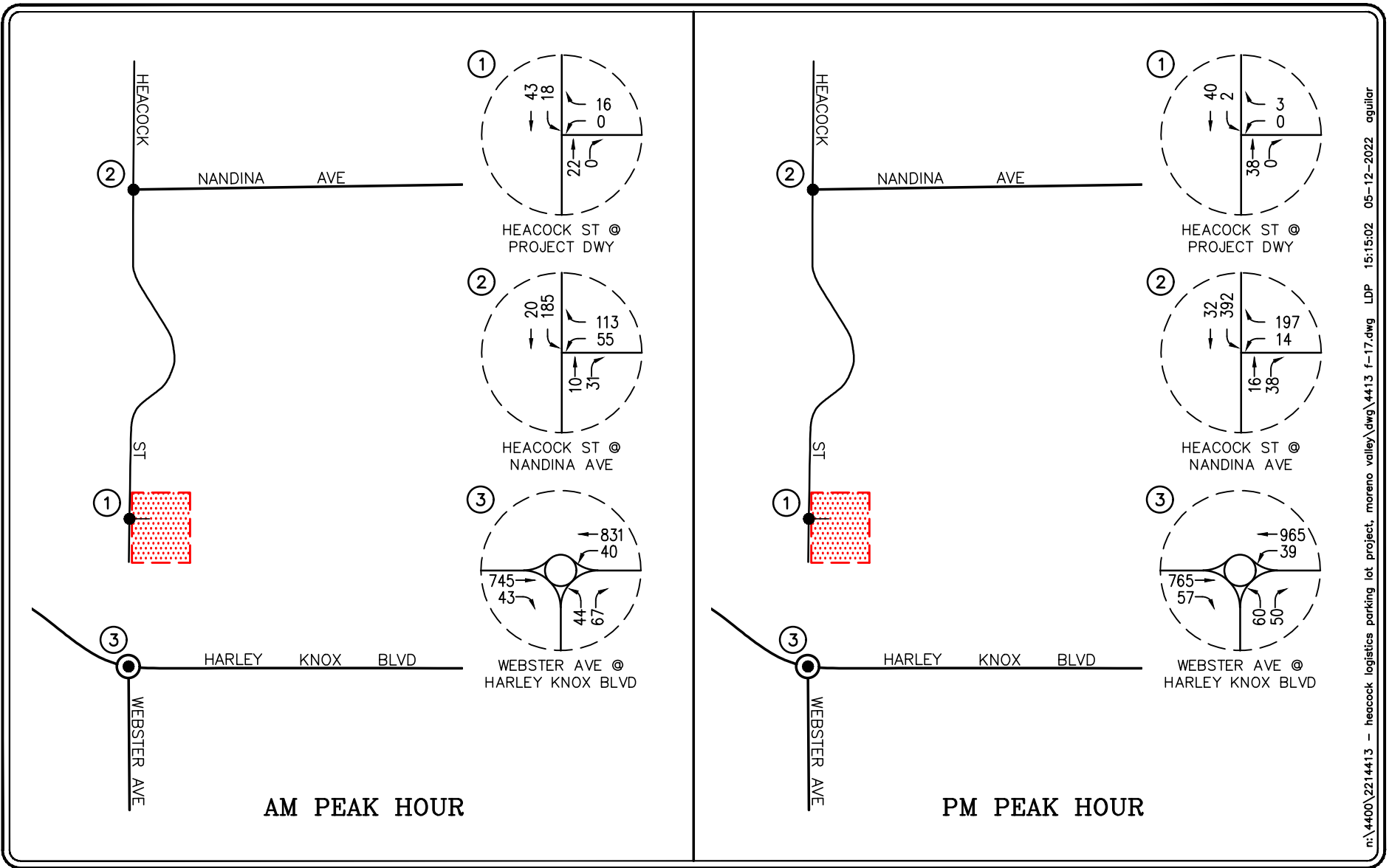
① = STUDY INTERSECTION

▨ = PROJECT SITE

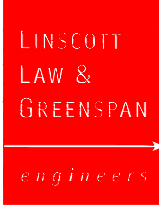
FIGURE 16


YEAR 2023 CUMULATIVE PEAK HOUR TRAFFIC VOLUMES WITH HEACOCK STREET EXTENSION

HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY



n:\4400\2214413 - heacock logistics parking lot project, moreno valley\dwg\4413 f-17.dwg LDP 15:15:02 05-12-2022 aguilar





NO SCALE

KEY

= STUDY INTERSECTION


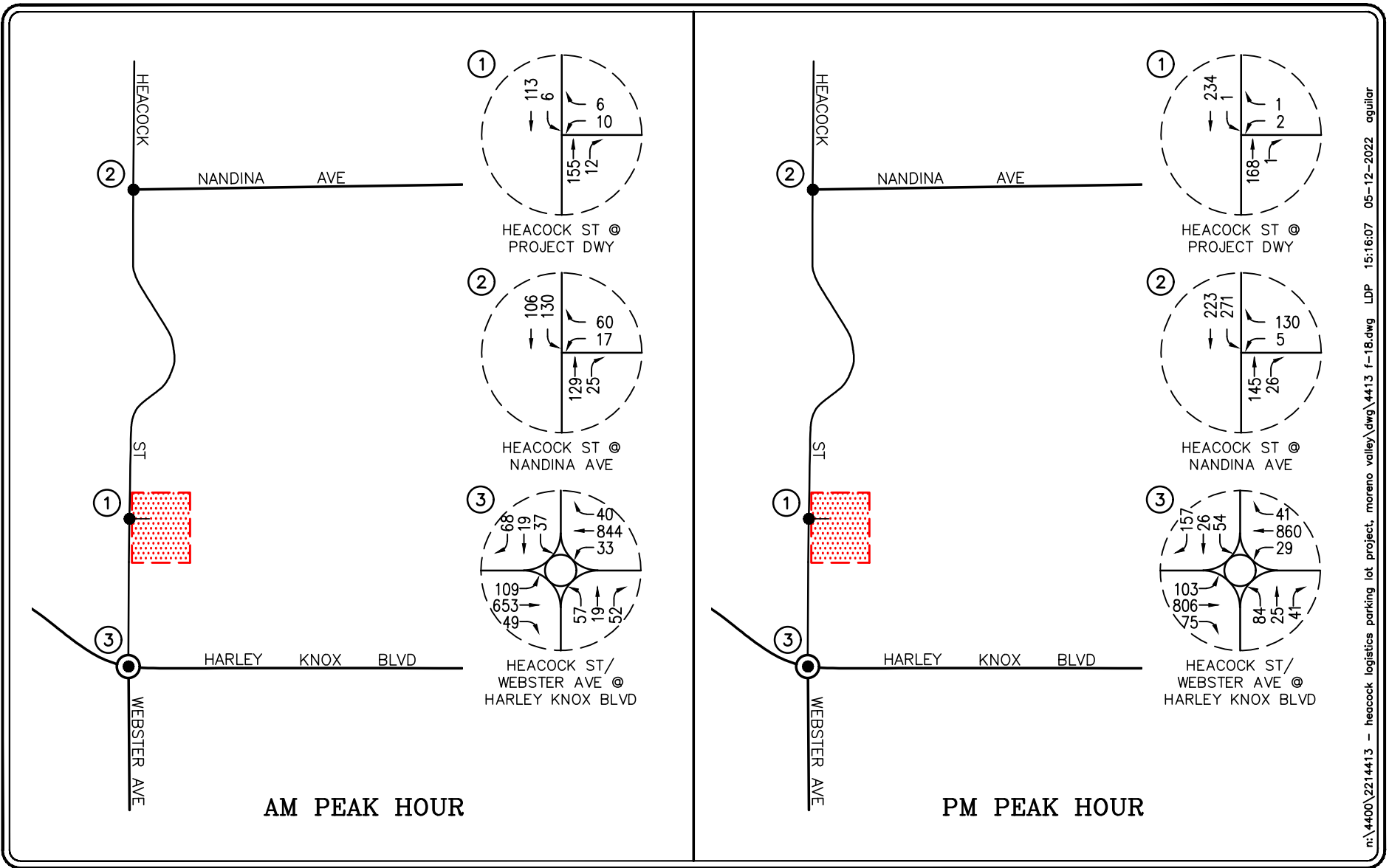
 = PROJECT SITE

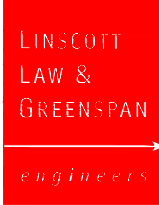
FIGURE 17


YEAR 2023 CUMULATIVE PLUS PROJECT OPTION NO. 1 PEAK HOUR TRAFFIC VOLUMES WITHOUT HEACOCK STREET EXTENSION

HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY



n:\4400\2214413 - heacock logistics parking lot project, moreno valley\dwg\4413 f-18.dwg LDP 15:16:07 05-12-2022 aguilar





NO SCALE

KEY

= STUDY INTERSECTION


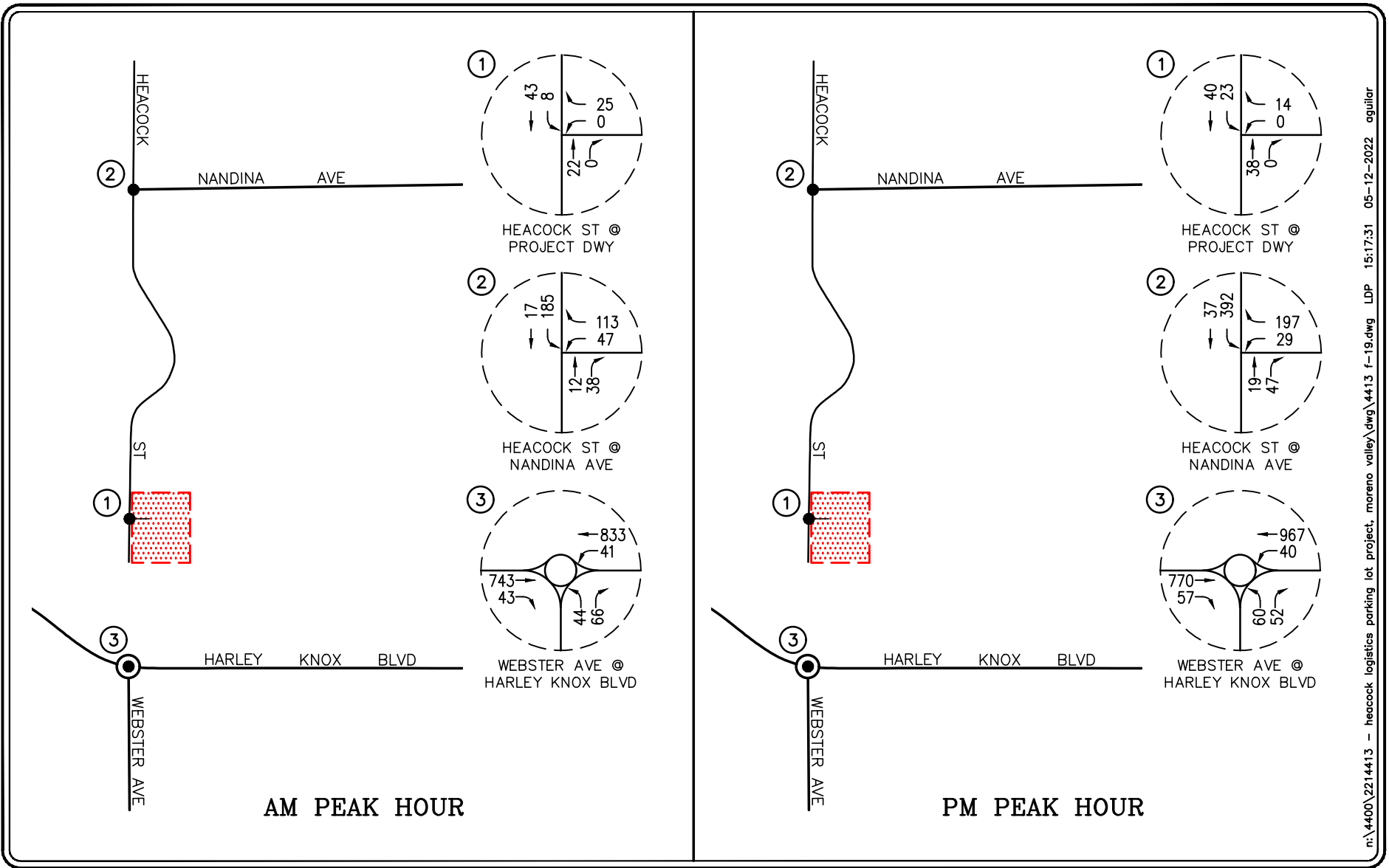
 = PROJECT SITE

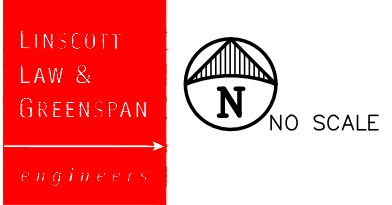
FIGURE 18

YEAR 2023 CUMULATIVE PLUS PROJECT OPTION NO. 1 PEAK HOUR TRAFFIC VOLUMES WITH HEACOCK STREET EXTENSION

HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY



n:\4400\2214413 - heacock logistics parking lot project, moreno valley\dwg\4413 f-19.dwg LDP 15:17:31 05-12-2022 aguilar



KEY

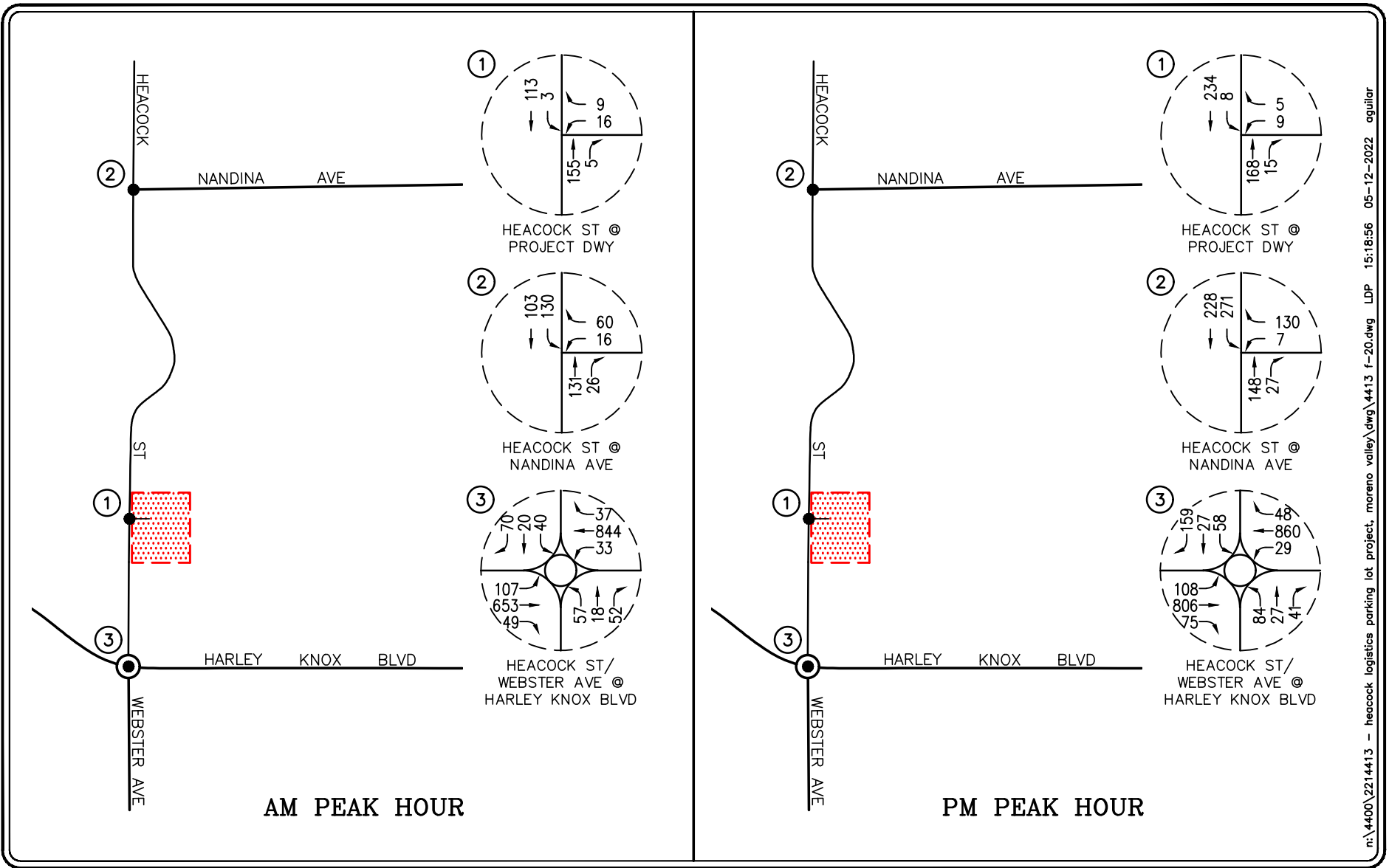
① = STUDY INTERSECTION

▨ = PROJECT SITE

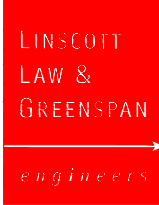
FIGURE 19


YEAR 2023 CUMULATIVE PLUS PROJECT OPTION NO. 2 PEAK HOUR TRAFFIC VOLUMES WITHOUT HEACOCK STREET EXTENSION

HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY



n:\4400\2214413 - heacock logistics parking lot project, moreno valley\dwg\4413 f-20.dwg LDP 15:18:56 05-12-2022 aguilar





NO SCALE

KEY

⊕ = STUDY INTERSECTION

▒ = PROJECT SITE

FIGURE 20

YEAR 2023 CUMULATIVE PLUS PROJECT OPTION NO. 2 PEAK HOUR TRAFFIC VOLUMES WITH HEACOCK STREET EXTENSION

HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY

TABLE 1
LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS (HCM 6 METHODOLOGY)¹
HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY

Level of Service (LOS)	Control Delay Per Vehicle (seconds/vehicle)	Level of Service Description
A	≤ 10.0	This level of service occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
B	> 10.0 and ≤ 20.0	This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of average delay.
C	> 20.0 and ≤ 35.0	Average traffic delays. These higher delays may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.
D	> 35.0 and ≤ 55.0	Long traffic delays At level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	> 55.0 and ≤ 80.0	Very long traffic delays This level is considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent occurrences.
F	≥ 80.0	Severe congestion This level, considered to be unacceptable to most drivers, often occurs with over saturation, that is, when arrival flow rates exceed the capacity of the intersection. It may also occur at high v/c ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing factors to such delay levels.

¹ Source: *Highway Capacity Manual 6*, Chapter 19: Signalized Intersections.

TABLE 2
LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS (HCM 6 METHODOLOGY)^{2,3}
HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY

Level of Service (LOS)	Highway Capacity Manual Delay Value (sec/veh)	Level of Service Description
A	≤ 10.0	Little or no delay
B	> 10.0 and ≤ 15.0	Short traffic delays
C	> 15.0 and ≤ 25.0	Average traffic delays
D	> 25.0 and ≤ 35.0	Long traffic delays
E	> 35.0 and ≤ 50.0	Very long traffic delays
F	> 50.0	Severe congestion

² Source: *Highway Capacity Manual 6*, Chapter 20: Two-Way Stop-Controlled Intersections. The LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for major-street approaches or for the intersection as a whole.

³ Source: *Highway Capacity Manual 6*, Chapter 21: All-Way Stop-Controlled Intersections. For approaches and intersection-wide assessment, LOS is defined solely by control delay.

TABLE 3
PROJECT TRAFFIC GENERATION FORECAST – OPTION NO. 1 (AUTOMOBILE PARKING)
HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY

ITE Land Use Code / Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
<i>Generation Factors⁴</i>							
▪ Heacock Logistics Parking Lot (Vehicle TE/Acre)	17.287	1.080	0.961	2.041	0.120	0.360	0.480
▪ Heacock Logistics Parking Lot (PCE TE/Acre)	25.930	1.921	1.800	3.721	0.240	0.360	0.600
<i>Proposed Project Option No. 1 Vehicle Generation Forecast</i>							
▪ Heacock Logistics Parking Lot Vehicle Trips (9.14 Acres)	158	10	9	19	1	3	4
Total Option No. 1 Trip Generation Potential (Non PCE Trips)	158	10	9	19	1	3	4
<i>Proposed Project Option No. 1 PCE Generation Forecast</i>							
▪ Heacock Logistics Parking Lot Vehicle Trips (9.14 Acres)	237	18	16	34	2	3	5
Total Option No. 1 Trip Generation Potential (PCE Trips)	237	18	16	34	2	3	5

Notes:

- Vehicle TE/Acre = Vehicle trip end per acre
- PCE = passenger car equivalent
- PCE TE/Acre = PCE Trip end per acre

⁴ The trip rates are based on the average of counts (cars and trucks) conducted over three days (Tuesday August 10, 2021, Wednesday August 11, 2021, and Thursday August 12, 2021) at ACE Vehicle Auctions, which is located at 495 Harley Knox Boulevard in the City of Perris. The ACE Vehicle Auctions site is approximately 8.33 acres. A PCE factor of 2.0 was applied to all trucks entering and exiting the site.

TABLE 4
PROJECT TRAFFIC GENERATION FORECAST – OPTION NO. 2 (SEMI-TRUCK TRAILER PARKING)
HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY

ITE Land Use Code / Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
<i>Generation Factors⁵</i>							
▪ Heacock Logistics Parking Lot (Vehicle TE/Parking Space)	0.86	0.02	0.04	0.06	0.04	0.03	0.07
▪ Heacock Logistics Parking Lot (PCE TE/Parking Space)	2.09	0.03	0.11	0.14	0.10	0.06	0.16
<i>Proposed Project Option No. 2 Vehicle Generation Forecast</i>							
▪ Heacock Logistics Parking Lot – Vehicle Trips (220 Spaces)	189	4	9	13	9	7	16
▪ Heacock Logistics Parking Lot – Shuttle Trips (12 Shuttles) ⁶	24	1	1	2	1	1	2
Total Option No. 2 Trip Generation Potential (Non PCE Trips)	213	5	10	15	10	8	18
<i>Proposed Project Option No. 2 PCE Generation Forecast</i>							
▪ Heacock Logistics Parking Lot – Truck Trips (220 Spaces)	460	7	24	31	22	13	35
▪ Heacock Logistics Parking Lot – Shuttle Trips (12 Shuttles) ⁶	24	1	1	2	1	1	2
Total Option No. 2 Trip Generation Potential (PCE Trips)	484	8	25	33	23	14	37

Notes:

- Vehicle TE/Parking Space = Vehicle trip end per parking space
- PCE = passenger car equivalent
- PCE TE/Parking Space = PCE Trip end per parking space

⁵ The trip rates are based on truck counts conducted on Tuesday March 30, 2021 at CFL Trucking, which is located at 11215 Riverside Drive in the City of Jurupa Valley. The CFL Trucking site has a total of 346 spaces.

⁶ Based on the proposed operations, there will be a total of 12 shuttles operating throughout the day. To provide a conservative forecast, it was assumed that one (1) shuttle will access the site during both the AM and PM peak hours.

TABLE 5
LOCATION AND DESCRIPTION OF CUMULATIVE PROJECTS⁷
HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY

No.	Description	Location/Address	Size
<i>City of Moreno Valley</i>			
1.	March Valley Logistics Center (Building 4)	East of Heacock Street, south of channel	166,010 SF Light Industrial
2.	Clarion Trailer Yard	North of Cardinal Avenue, east of Heacock Street	137-Stall Trailer Parking Yard
3.	LDC Industrial	24773 Nandina Avenue	95,857 SF General Light Industrial
4.	TM 32716	East of Indian Street, South of Superior Avenue	57 DU Single-Family
5.	PA 06-0014 (Pierce Hardy Limited Partnership)	East of Heacock Street, north of Heacock Logistics Parking Lot	67,000 SF Lumber Yard
<i>City of Perris</i>			
6.	Indian Ave / Ramona Expressway Warehouse	North of Ramona Expressway, west of Indian Avenue	426,000 SF Warehousing
7.	March Plaza & 7-Eleven	North of Harley Knox Boulevard, west of Perris Boulevard	47,253 SF Retail
8.	Beyond Food Fueling Station	North of Harley Knox Boulevard, east of Perris Boulevard	16 VFP Gas Station 6 VFP Trailer Truck Gas Station 7,250 SF Convenience Store 1,800 SF Car Wash
9.	TR 34716	Harley Knox Boulevard, east of Perris Boulevard	318 DU Single-Family
10.	P 04-0343	North of Harley Knox Boulevard, west of Indian Avenue	41,650 SF Warehousing

⁷ Source: City of Moreno Valley Public Works Department and City of Perris Planning Website.

TABLE 6
CUMULATIVE PROJECTS TRAFFIC GENERATION FORECAST⁸
HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY

No.	Cumulative Project Description	Daily Two-Way	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
1.	March Valley Logistics Center (Building 4) ⁹	1,468	171	23	194	25	179	204
2.	Clarion Trailer Yard ¹⁰	768	22	21	43	19	19	38
3.	LDC Industrial	592	55	36	91	24	56	80
4.	TM 32716	538	10	30	40	34	20	54
5.	PA 06-0014 (Pierce Hardy Limited Partnership)	145	13	2	15	3	13	16
6.	Indian Ave / Ramona Expressway Warehouse	953	52	44	96	34	67	101
7.	March Plaza & 7-Eleven	4,781	72	53	125	105	107	212
8.	Beyond Food Fueling Station	6,846	84	83	167	74	74	148
9.	TR 34716	2,999	58	165	223	188	111	299
10.	P 04-0343	90	5	4	9	2	7	9
Total Cumulative Projects Trip Generation Forecast		19,180	542	461	1,003	508	653	1,161

⁸ Unless otherwise noted, Source: *Trip Generation Manual, 11th Edition*, Institute of Transportation Engineers (ITE) [Washington, D.C. (2021)].

⁹ Source: *Moreno Valley Logistics Center Traffic Impact Analysis*, prepared by Urban Crossroads, dated June 17, 2016.

¹⁰ Source: *Clarion Trailer Yard (Plot Plan PEN19-0213) Focused Traffic Assessment*, prepared by Urban Crossroads, dated June 16, 2020.

TABLE 7
YEAR 2023 CUMULATIVE PLUS PROJECT (WITHOUT HEACOCK EXTENSION) PEAK HOUR INTERSECTION CAPACITY ANALYSIS SUMMARY
PROJECT OPTION NO. 1 (AUTOMOBILE PARKING)
HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY

Key Intersection	Time Period	Minimum Acceptable LOS	(1) Existing Traffic Conditions		(2) Year 2023 Cumulative Traffic Conditions W/O Heacock Ext.		(3) Year 2023 Cumulative Plus Project Option No. 1 Traffic Conditions W/O Heacock Ext.		(4) Impact		(5) Year 2023 Cumulative Plus Project Option No. 1 W/O Heacock Ext. With Improvements	
			HCM	LOS	HCM	LOS	HCM	LOS	Increase	LOS	HCM	LOS
1. Heacock Street at Project Driveway ¹¹	AM	D	--	--	--	--	8.5 s/v	A	--	No	--	--
	PM		--	--	--	--	8.5 s/v	A	--	No	--	--
2. Heacock Street at Nandina Avenue	AM	D	9.9 s/v	A	10.4 s/v	B	11.1 s/v	B	0.7 s/v	No	--	--
	PM		10.3 s/v	B	10.7 s/v	B	10.9 s/v	B	0.2 s/v	No	--	--
3. Webster Avenue at Harley Knox Boulevard	AM	D	5.0 s/v	A	5.8 s/v	A	5.8 s/v	A	0.0 s/v	No	--	--
	PM		5.8 s/v	A	7.3 s/v	A	7.3 s/v	A	0.0 s/v	No	--	--

Notes:

- s/v = seconds per vehicle (delay)
- LOS = Level of Service
- **Bold HCM/LOS values** indicate adverse service levels based on the LOS standards defined in this report
- The delay reported for the unsignalized intersections (i.e. intersections #1 and #2) is the worst side-street approach delay

¹¹ This is a future intersection and will only exist under “Plus Project” traffic scenarios. As such, this intersection has not been analyzed under Existing or Year 2023 Cumulative traffic conditions.

TABLE 8
YEAR 2023 CUMULATIVE PLUS PROJECT (WITH HEACOCK EXTENSION) PEAK HOUR INTERSECTION CAPACITY ANALYSIS SUMMARY
PROJECT OPTION NO. 1 (AUTOMOBILE PARKING)
HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY

Key Intersection	Time Period	Minimum Acceptable LOS	(1)		(2)		(3)		(4)		(5)	
			Existing Traffic Conditions		Year 2023 Cumulative Traffic Conditions With Heacock Ext.		Year 2023 Cumulative Plus Project Option No. 1 Traffic Conditions With Heacock Ext.		Impact		Year 2023 Cumulative Plus Project Option No. 1 With Heacock Ext. With Improvements	
			HCM	LOS	HCM	LOS	HCM	LOS	Increase	LOS	HCM	LOS
1. Heacock Street at Project Driveway ¹²	AM	D	--	--	--	--	10.0 s/v	A	--	No	--	--
	PM		--	--	--	--	10.5 s/v	B	--	No	--	--
2. Heacock Street at Nandina Avenue	AM	D	9.9 s/v	A	10.7 s/v	B	10.9 s/v	B	0.2 s/v	No	--	--
	PM		10.3 s/v	B	10.9 s/v	B	10.9 s/v	B	0.0 s/v	No	--	--
3. Heacock Street/Webster Avenue at Harley Knox Boulevard	AM	D	5.0 s/v	A	6.8 s/v	A	6.9 s/v	A	0.1 s/v	No	--	--
	PM		5.8 s/v	A	9.6 s/v	A	9.7 s/v	A	0.1 s/v	No	--	--

Notes:

- s/v = seconds per vehicle (delay)
- LOS = Level of Service
- **Bold HCM/LOS values** indicate adverse service levels based on the LOS standards defined in this report
- The delay reported for the unsignalized intersections (i.e. intersections #1 and #2) is the worst side-street approach delay

¹² This is a future intersection and will only exist under “Plus Project” traffic scenarios. As such, this intersection has not been analyzed under Existing or Year 2023 Cumulative traffic conditions.

TABLE 9
YEAR 2023 CUMULATIVE PLUS PROJECT (WITHOUT HEACOCK EXTENSION) PEAK HOUR INTERSECTION CAPACITY ANALYSIS SUMMARY
PROJECT OPTION NO. 2 (SEMI-TRUCK TRAILER PARKING)
HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY

Key Intersection	Time Period	Minimum Acceptable LOS	(1)		(2)		(3)		(4)		(5)	
			Existing Traffic Conditions		Year 2023 Cumulative Traffic Conditions W/O Heacock Ext.		Year 2023 Cumulative Plus Project Option No. 2 Traffic Conditions W/O Heacock Ext.		Impact		Year 2023 Cumulative Plus Project Option No. 2 W/O Heacock Ext. With Improvements	
			HCM	LOS	HCM	LOS	HCM	LOS	Increase	LOS	HCM	LOS
1. Heacock Street at Project Driveway ¹³	AM	D	--	--	--	--	8.5 s/v	A	--	No	--	--
	PM		--	--	--	--	8.5 s/v	A	--	No	--	--
2. Heacock Street at Nandina Avenue	AM	D	9.9 s/v	A	10.4 s/v	B	10.9 s/v	B	0.5 s/v	No	--	--
	PM		10.3 s/v	B	10.7 s/v	B	12.7 s/v	B	2.0 s/v	No	--	--
3. Webster Avenue at Harley Knox Boulevard	AM	D	5.0 s/v	A	5.8 s/v	A	5.9 s/v	A	0.1 s/v	No	--	--
	PM		5.8 s/v	A	7.3 s/v	A	7.3 s/v	A	0.0 s/v	No	--	--

Notes:

- s/v = seconds per vehicle (delay)
- LOS = Level of Service
- **Bold HCM/LOS values** indicate adverse service levels based on the LOS standards defined in this report
- The delay reported for the unsignalized intersections (i.e. intersections #1 and #2) is the worst side-street approach delay

¹³ This is a future intersection and will only exist under “Plus Project” traffic scenarios. As such, this intersection has not been analyzed under Existing or Year 2023 Cumulative traffic conditions.

TABLE 10
YEAR 2023 CUMULATIVE PLUS PROJECT (WITH HEACOCK EXTENSION) PEAK HOUR INTERSECTION CAPACITY ANALYSIS SUMMARY
PROJECT OPTION NO. 2 (SEMI-TRUCK TRAILER PARKING)
HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY

Key Intersection	Time Period	Minimum Acceptable LOS	(1)		(2)		(3)		(4)		(5)	
			Existing Traffic Conditions		Year 2023 Cumulative Traffic Conditions With Heacock Ext.		Year 2023 Cumulative Plus Project Option No. 2 Traffic Conditions With Heacock Ext.		Impact		Year 2023 Cumulative Plus Project Option No. 2 With Heacock Ext. With Improvements	
			HCM	LOS	HCM	LOS	HCM	LOS	Increase	LOS	HCM	LOS
1. Heacock Street at Project Driveway ¹⁴	AM	D	--	--	--	--	10.0 s/v	A	--	No	--	--
	PM		--	--	--	--	10.7 s/v	B	--	No	--	--
2. Heacock Street at Nandina Avenue	AM	D	9.9 s/v	A	10.7 s/v	B	10.8 s/v	B	0.1 s/v	No	--	--
	PM		10.3 s/v	B	10.9 s/v	B	11.3 s/v	B	0.4 s/v	No	--	--
3. Heacock Street/Webster Avenue at Harley Knox Boulevard	AM	D	5.0 s/v	A	6.8 s/v	A	6.9 s/v	A	0.1 s/v	No	--	--
	PM		5.8 s/v	A	9.6 s/v	A	9.9 s/v	A	0.3 s/v	No	--	--

Notes:

- s/v = seconds per vehicle (delay)
- LOS = Level of Service
- **Bold HCM/LOS values** indicate adverse service levels based on the LOS standards defined in this report
- The delay reported for the unsignalized intersections (i.e. intersections #1 and #2) is the worst side-street approach delay

¹⁴ This is a future intersection and will only exist under “Plus Project” traffic scenarios. As such, this intersection has not been analyzed under Existing or Year 2023 Cumulative traffic conditions.

APPENDIX A

TRAFFIC STUDY SCOPE OF WORK

EXHIBIT A

Project Scoping Form

This scoping form shall be submitted to the Lead Agency to assist in identifying infrastructure improvements that may be required to support traffic from the proposed project.

Project Identification:

Case Number:	PEN21-0102
Related Cases:	XXX
SP No.	XXX
EIR No.	XXX
GPA No.	XXX
CZ No.	XXX
Project Name:	Heacock Logistics Parking Lot Project
Project Address:	Northeast corner of Heacock Street and the Perris Valley Storm Drain. See <i>Figure 1-1 (Vicinity Map)</i>
Project Opening Year:	2023
Project Description:	See the Project Description attached at the end of this TIA Project Scoping Form. See <i>Figure 2-1 (Existing Site Aerial)</i> and <i>Figure 2-2 (Proposed Site Plan)</i> .

	Consultant:	Developer:
Name:	Linscott, Law & Greenspan Engineers	Lawrence Family Trust
Address:	2 Executive Circle, Suite 250 Irvine, CA 92614	PO Box 7200 Beverly Hills, CA 90212
Telephone:	(949) 825-6175	
Email:	kloos@llgengineers.com	rocket512@hotmail.com

Trip Generation Information:

Trip Generation Data Source: Based on proposed operations of the Project; See Tables 3 and 4.

The City of Moreno Valley reserves the right to use, share, and reproduce the information including, but not limited to, traffic counts, exhibits, and surveys provided in all submitted traffic studies and VMT assessments.

Walter J. ...
 1/18/2022

Current General Plan Land Use:

Proposed General Plan Land Use:

Open Space (OS)

Parking Lot

Current Zoning:

Proposed Zoning:

Open Space/Park (SP 208 CZ)

Parking Lot

See **Table 4** For **Project Option No. 2**

	Existing Trip Generation			Proposed Trip Generation Daily = 484 PCE Trips		
	In	Out	Total	In	Out	Total
AM Trips	--	--	--	8 PCE Trips	25 PCE Trips	33 PCE Trips
PM Trips	--	--	--	23 PCE Trips	14 PCE Trips	37 PCE Trips

Non-PCE Trips: Daily = 213 Trips; AM Peak Hour = 15 Trips ; PM Peak Hour = 18 Trips

Trip Internalization: Yes No (_____% Trip Discount)

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

See **Table 3** for **Project Option No. 1**: Daily = 237 PCE Trips; AM Peak Hour = 34 PCE Trips ; PM Peak Hour = 5 PCE Trips
 Non-PCE Trips: Daily = 158 Trips; AM Peak Hour = 19 Trips ; PM Peak Hour = 4 Trips

Potential Screening Checks

Is your project screened from specific analyses (see Page 3 of the guidelines related to LOS assessment and Pages 22-23 for VMT screening criteria).

Is the project screened from LOS assessment? Yes No

LOS screening justification (see Page 3 of the guidelines): _____

The project (both options) will generate less than 100 peak hour trips, however, City of Moreno Valley Staff is requesting the preparation of a focused traffic impact study.

See **Table 1** for traffic impact analysis scenarios and **Table 2** for list of key study intersections.

Is the project screened from VMT assessment? Yes No

VMT screening justification (see Pages 22-23 of the guidelines): _____
 The project (both Options) will generate less than 400 daily vehicle trips.

Level of Service Scoping

- Proposed Trip Distribution (Attach Graphic for Detailed Distribution):
 See **Figure 5-1** (without Heacock Extension) and **Figure 5-2** (with Heacock Extension)

North	South	East	West
27%	35%	18%	20%

Link level of service and data collection:

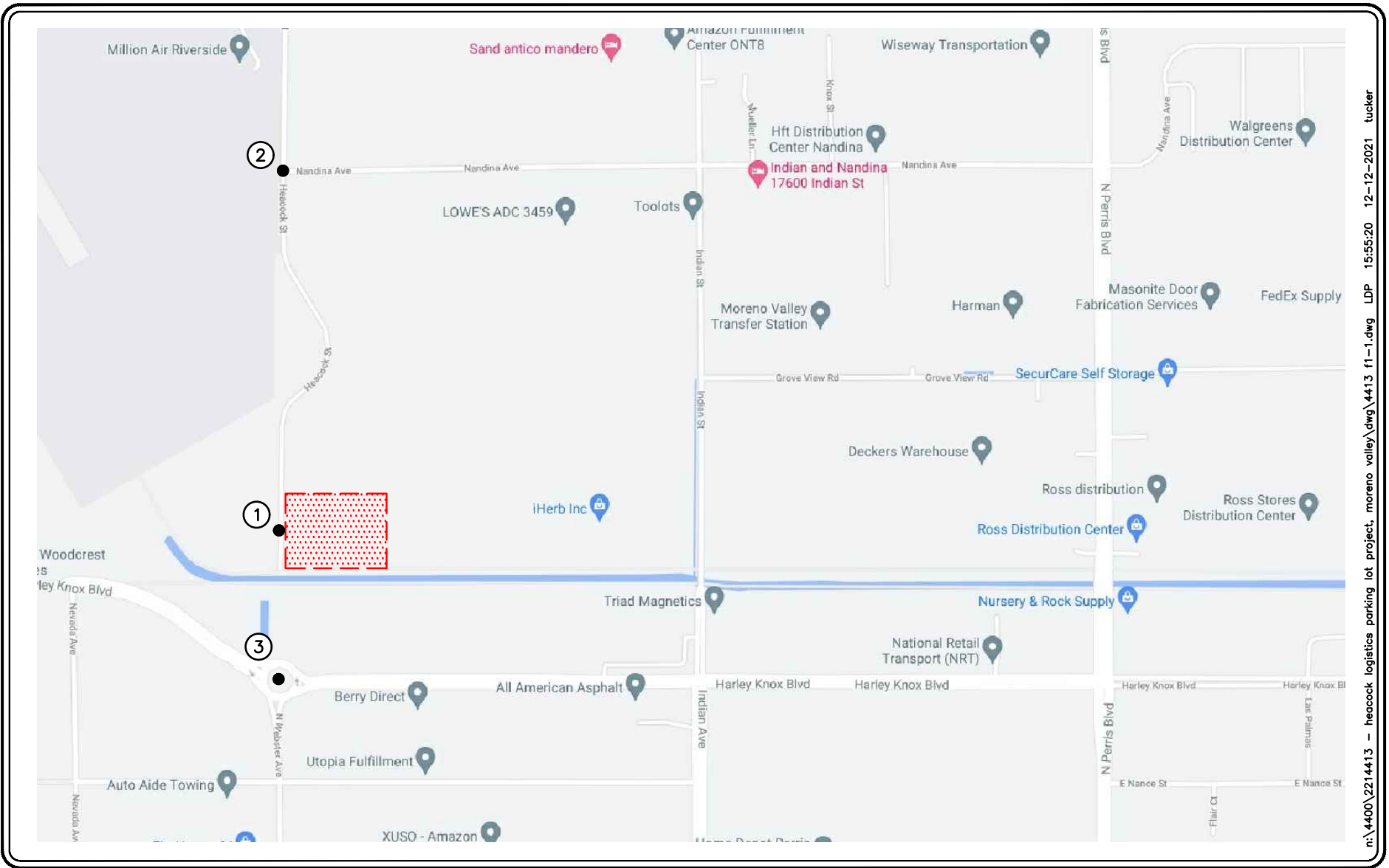
_____ will be required
 will not be required

- Attach list of study intersections (and roadway segments if applicable) (Refer to **Table 2**)
- Attach site plan (Refer to attached **Figure 2-2**)
- Other specific items to be addressed:
 - Site access
 - On-site circulation
 - Parking
 - Consistency with Plans supporting Bikes/Peds/Transit
 - Other _____
- Date of Traffic Counts January 11, 2022
- Attach proposed analysis scenarios (years plus proposed forecasting approach) - Refer to **Table 1**
- Attach proposed phasing approach (if the project is phased)

VMT Scoping Not Applicable - See VMT Screening Justification Section Above

For projects that are not screened, identify the following:

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



SOURCE: GOOGLE

KEY



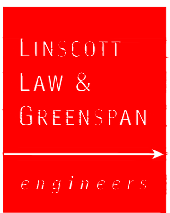
-  = STUDY INTERSECTION
-  = PROJECT SITE

FIGURE 1-1

VICINITY MAP

HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY





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LINSCOTT
LAW &
GREENSPAN
engineers



NO SCALE

SOURCE: GOOGLE

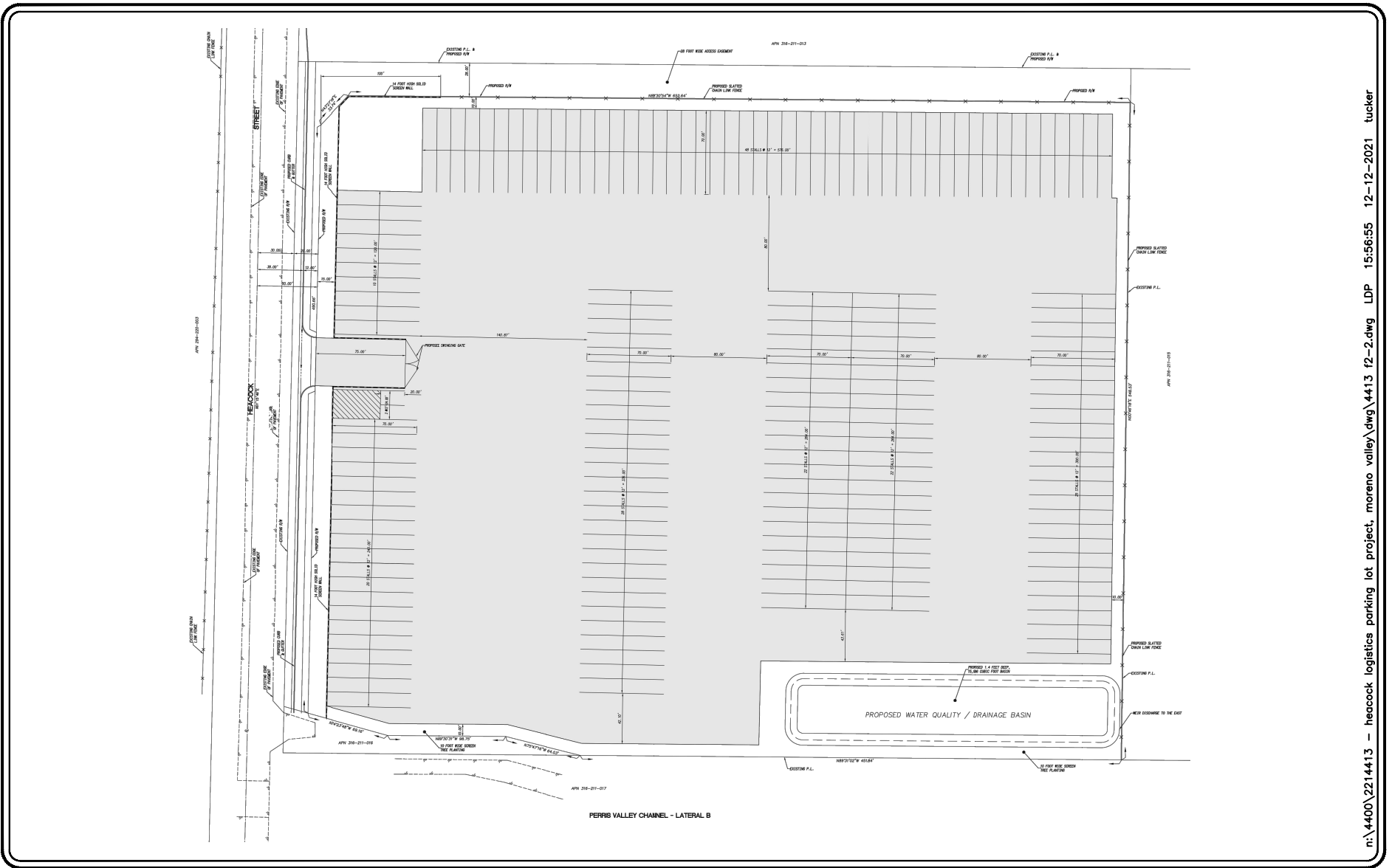
KEY

 = PROJECT SITE

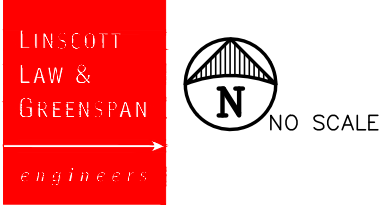
FIGURE 2-1

EXISTING SITE AERIAL

HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY



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SOURCE: CASC ENGINEERING AND CONSULTING

FIGURE 2-2

PROPOSED SITE PLAN HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY

PROJECT DESCRIPTION

HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY

The proposed Project will consist of a parking lot designed with up to 440 parking stalls (12' x 30'). The proposed parking lot will provide parking for one of the following two (2) Project Options:

- Project Option No. 1: The 9.14 acre site will provide automobile parking for up to 440 automobiles with 12 shuttles operating throughout the day.
- Project Option No. 2: The 9.14 acre site will provide semi-truck trailer parking (short-term storage) for up to 220 semi-trucks with 12 shuttles operating throughout the day (i.e. one semi-truck would be parked in two automobile parking stalls).

Access to the Project site will be provided via one (1) full-access driveway located along Heacock Street.

TABLE 1
TRAFFIC IMPACT ANALYSIS SCENARIOS
HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY

Traffic Impact Analysis Scenarios
A. Existing Traffic Conditions;
B. Year 2023 Cumulative Traffic Conditions (existing + ambient growth + cumulative projects);
C. Year 2023 Cumulative plus Project Traffic Conditions; and
D. Scenario (C) with Improvements, if necessary.

➤ **Year 2023 Forecasting**

- Ambient Growth Rate = 2.0% per year
 - Cumulative Projects = obtain information regarding cumulative projects in the vicinity of the proposed project from City of Moreno Valley staff.
- The traffic analysis scenarios for B and C listed above will be prepared for both without and with the Heacock Extension.

TABLE 2
LIST OF STUDY INTERSECTIONS
HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY

Key Study Intersections
1. Heacock Street at Project Driveway No. 1 (<i>Future</i>) (Moreno Valley/Riverside County)
2. Heacock Street at Nandina Avenue (Moreno Valley/Riverside County)
3. Webster Avenue at Harley Knox Boulevard (Perris)

TABLE 3
PROJECT TRAFFIC GENERATION FORECAST – OPTION NO. 1 (AUTOMOBILE PARKING)
HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY

ITE Land Use Code / Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
<i>Generation Factors¹</i>							
▪ Heacock Logistics Parking Lot (Vehicle TE/Acre)	17.287	1.080	0.961	2.041	0.120	0.360	0.480
▪ Heacock Logistics Parking Lot (PCE TE/Acre)	25.930	1.921	1.800	3.721	0.240	0.360	0.600
<i>Proposed Project Option No. 1 Vehicle Generation Forecast</i>							
▪ Heacock Logistics Parking Lot Vehicle Trips (9.14 Acres)	158	10	9	19	1	3	4
Total Option No. 1 Trip Generation Potential (Non PCE Trips)	158	10	9	19	1	3	4
<i>Proposed Project Option No. 1 PCE Generation Forecast</i>							
▪ Heacock Logistics Parking Lot Vehicle Trips (9.14 Acres)	237	18	16	34	2	3	5
Total Option No. 1 Trip Generation Potential (PCE Trips)	237	18	16	34	2	3	5

Notes:

- Vehicle TE/Acre = Vehicle trip end per acre
- PCE = passenger car equivalent
- PCE TE/Acre = PCE Trip end per acre

¹ The trip rates are based on the average of counts (cars and trucks) conducted over three days (Tuesday August 10, 2021, Wednesday August 11, 2021, and Thursday August 12, 2021) at ACE Vehicle Auctions, which is located at 495 Harley Knox Boulevard in the City of Perris. The ACE Vehicle Auctions site is approximately 8.33 acres. A PCE factor of 2.0 was applied to all trucks entering and exiting the site.

TABLE 4
PROJECT TRAFFIC GENERATION FORECAST – OPTION NO. 2 (SEMI-TRUCK TRAILER PARKING)
HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY

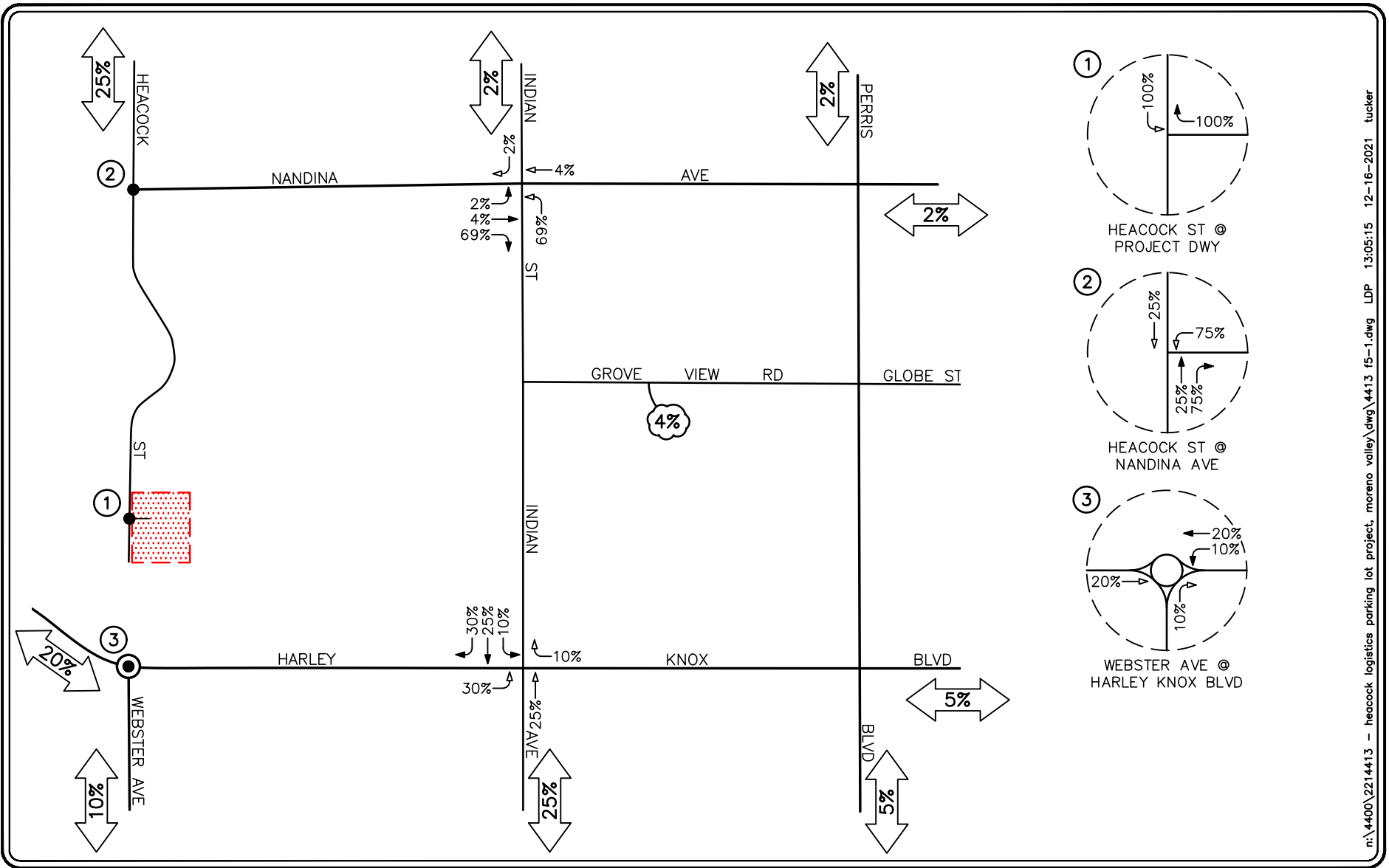
ITE Land Use Code / Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
<i>Generation Factors²</i>							
▪ Heacock Logistics Parking Lot (Vehicle TE/Parking Space)	0.86	0.02	0.04	0.06	0.04	0.03	0.07
▪ Heacock Logistics Parking Lot (PCE TE/Parking Space)	2.09	0.03	0.11	0.14	0.10	0.06	0.16
<i>Proposed Project Option No. 2 Vehicle Generation Forecast</i>							
▪ Heacock Logistics Parking Lot – Vehicle Trips (220 Spaces)	189	4	9	13	9	7	16
▪ Heacock Logistics Parking Lot – Shuttle Trips (12 Shuttles) ³	24	1	1	2	1	1	2
Total Option No. 2 Trip Generation Potential (Non PCE Trips)	213	5	10	15	10	8	18
<i>Proposed Project Option No. 2 PCE Generation Forecast</i>							
▪ Heacock Logistics Parking Lot – Truck Trips (220 Spaces)	460	7	24	31	22	13	35
▪ Heacock Logistics Parking Lot – Shuttle Trips (12 Shuttles) ³	24	1	1	2	1	1	2
Total Option No. 2 Trip Generation Potential (PCE Trips)	484	8	25	33	23	14	37

Notes:

- Vehicle TE/Parking Space = Vehicle trip end per parking space
- PCE = passenger car equivalent
- PCE TE/Parking Space = PCE Trip end per parking space

² The trip rates are based on truck counts conducted on Tuesday March 30, 2021 at CFL Trucking, which is located at 11215 Riverside Drive in the City of Jurupa Valley. The CFL Trucking site has a total of 346 spaces.

³ Based on the proposed operations, there will be a total of 12 shuttles operating throughout the day. To provide a conservative forecast, it was assumed that one (1) shuttle will access the site during both the AM and PM peak hours.



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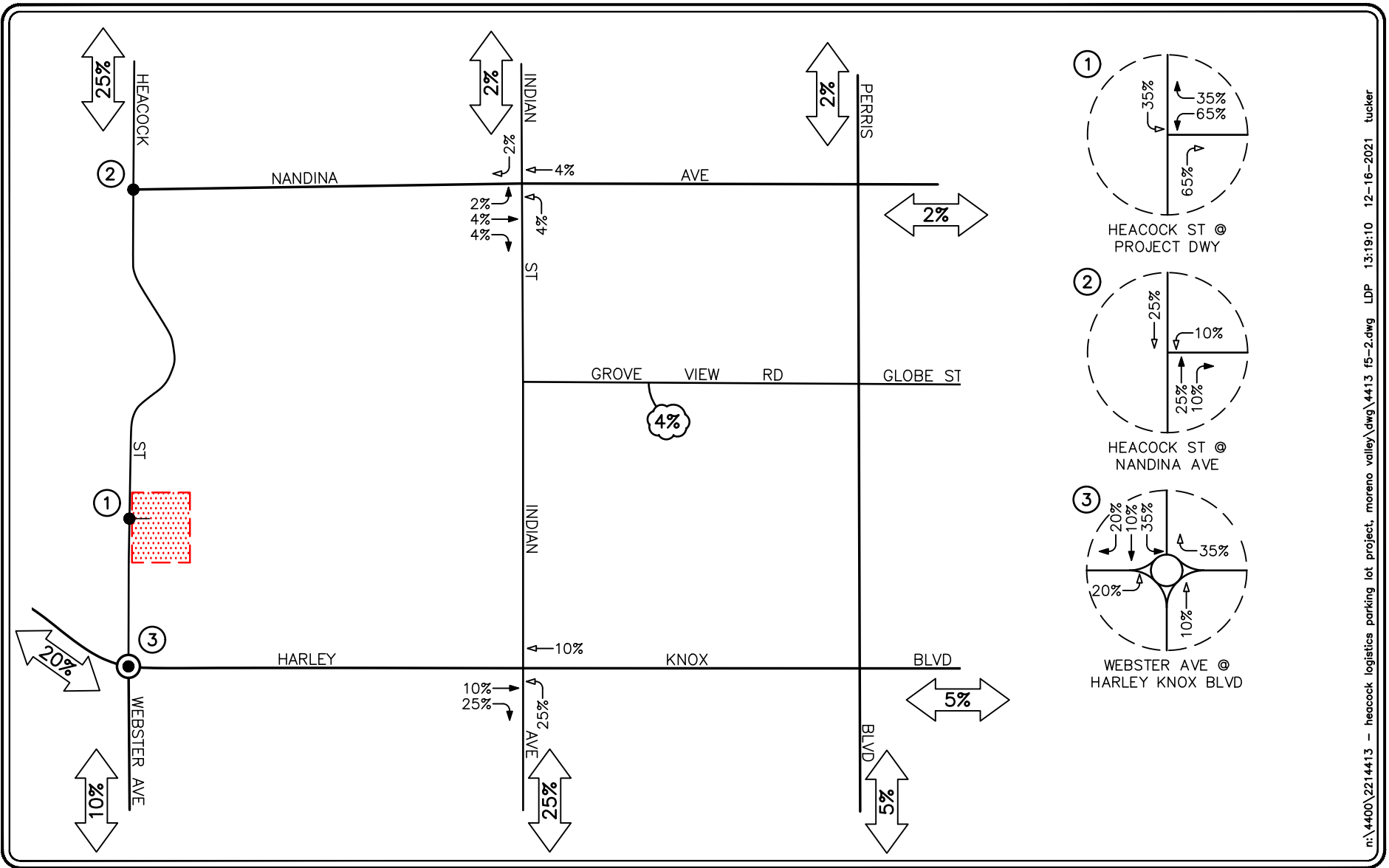
**LINSCOTT
LAW &
GREENSPAN**
engineers

NO SCALE

- KEY**
- ⊕ = STUDY INTERSECTION
 - ↔ = INBOUND PERCENTAGE
 - ← = OUTBOUND PERCENTAGE
 - ▨ = PROJECT SITE

FIGURE 5-1
PROJECT TRAFFIC
DISTRIBUTION PATTERN
(WITHOUT HEACOCK EXTENSION)

HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY



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LINSCOTT
LAW &
GREENSPAN
engineers

NO SCALE

- KEY**
- ① = STUDY INTERSECTION
 - ↖ ↗ = INBOUND PERCENTAGE
 - ↙ ↘ = OUTBOUND PERCENTAGE
 - ▨ = PROJECT SITE

FIGURE 5-2
PROJECT TRAFFIC
DISTRIBUTION PATTERN
(WITH HEACOCK EXTENSION)

HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY

APPENDIX B
EXISTING TRAFFIC COUNT DATA

City of Moreno Valley
 N/S: Heacock Street
 E/W: Nandina Avenue
 Weather: Clear

File Name : 01_MRV_Heacock_Nandina AM
 Site Code : 05722012
 Start Date : 1/11/2022
 Page No : 1

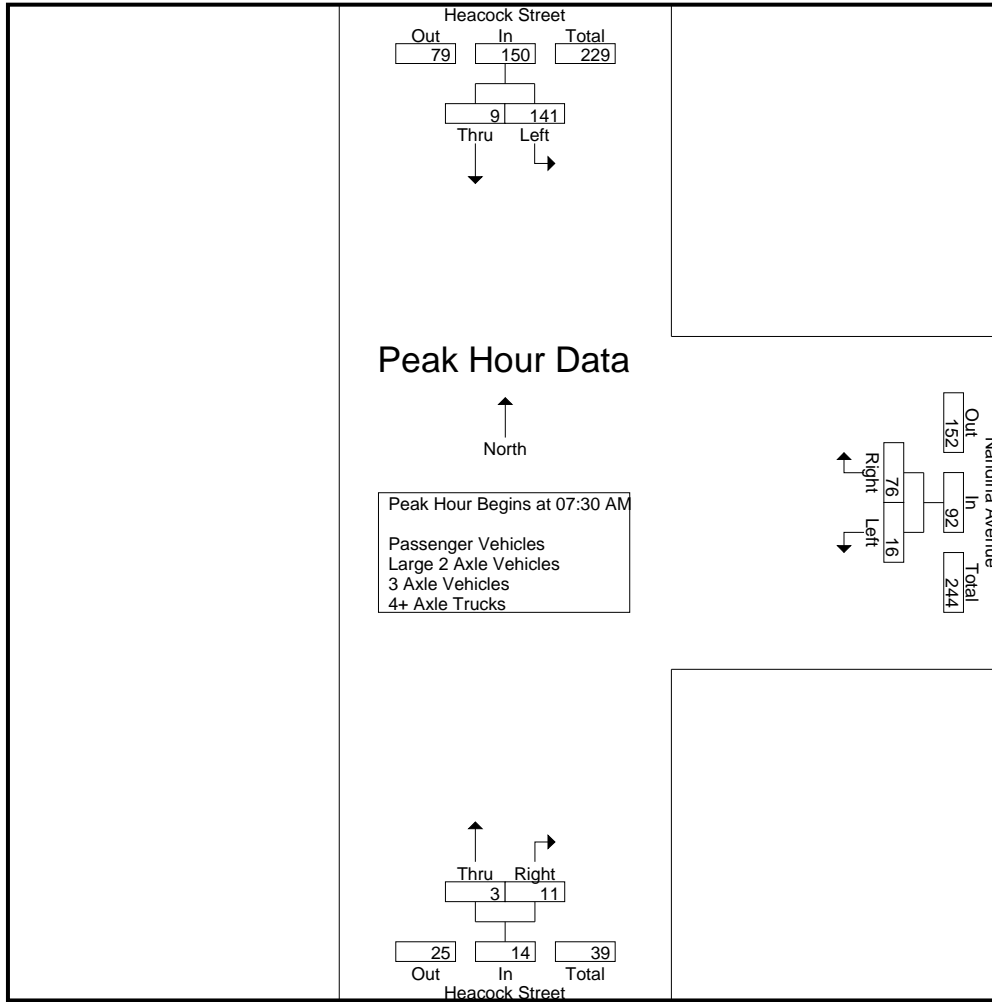
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	24	0	24	1	18	19	0	2	2	45
07:15 AM	31	3	34	0	18	18	1	2	3	55
07:30 AM	53	2	55	4	24	28	0	1	1	84
07:45 AM	31	2	33	2	18	20	0	4	4	57
Total	139	7	146	7	78	85	1	9	10	241
08:00 AM	30	1	31	3	21	24	0	4	4	59
08:15 AM	27	4	31	7	13	20	3	2	5	56
08:30 AM	21	2	23	1	19	20	0	5	5	48
08:45 AM	29	0	29	4	12	16	4	0	4	49
Total	107	7	114	15	65	80	7	11	18	212
Grand Total	246	14	260	22	143	165	8	20	28	453
Apprch %	94.6	5.4		13.3	86.7		28.6	71.4		
Total %	54.3	3.1	57.4	4.9	31.6	36.4	1.8	4.4	6.2	
Passenger Vehicles	184	9	193	10	95	105	4	10	14	312
% Passenger Vehicles	74.8	64.3	74.2	45.5	66.4	63.6	50	50	50	68.9
Large 2 Axle Vehicles	13	1	14	0	6	6	0	2	2	22
% Large 2 Axle Vehicles	5.3	7.1	5.4	0	4.2	3.6	0	10	7.1	4.9
3 Axle Vehicles	21	2	23	0	14	14	2	5	7	44
% 3 Axle Vehicles	8.5	14.3	8.8	0	9.8	8.5	25	25	25	9.7
4+ Axle Trucks	28	2	30	12	28	40	2	3	5	75
% 4+ Axle Trucks	11.4	14.3	11.5	54.5	19.6	24.2	25	15	17.9	16.6

Start Time	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	53	2	55	4	24	28	0	1	1	84
07:45 AM	31	2	33	2	18	20	0	4	4	57
08:00 AM	30	1	31	3	21	24	0	4	4	59
08:15 AM	27	4	31	7	13	20	3	2	5	56
Total Volume	141	9	150	16	76	92	3	11	14	256
% App. Total	94	6		17.4	82.6		21.4	78.6		
PHF	.665	.563	.682	.571	.792	.821	.250	.688	.700	.762

City of Moreno Valley
 N/S: Heacock Street
 E/W: Nandina Avenue
 Weather: Clear

File Name : 01_MRV_Heacock_Nandina AM
 Site Code : 05722012
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:15 AM			07:30 AM			07:45 AM		
+0 mins.	31	3	34	4	24	28	0	4	4
+15 mins.	53	2	55	2	18	20	0	4	4
+30 mins.	31	2	33	3	21	24	3	2	5
+45 mins.	30	1	31	7	13	20	0	5	5
Total Volume	145	8	153	16	76	92	3	15	18
% App. Total	94.8	5.2		17.4	82.6		16.7	83.3	
PHF	.684	.667	.695	.571	.792	.821	.250	.750	.900

City of Moreno Valley
 N/S: Heacock Street
 E/W: Nandina Avenue
 Weather: Clear

File Name : 01_MRV_Heacock_Nandina AM
 Site Code : 05722012
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Groups Printed- Passenger Vehicles

Start Time	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	17	0	17	0	13	13	0	0	0	30
07:15 AM	25	1	26	0	13	13	0	2	2	41
07:30 AM	46	1	47	3	17	20	0	0	0	67
07:45 AM	22	2	24	2	15	17	0	2	2	43
Total	110	4	114	5	58	63	0	4	4	181
08:00 AM	25	1	26	0	12	12	0	3	3	41
08:15 AM	22	3	25	4	10	14	2	1	3	42
08:30 AM	11	1	12	0	12	12	0	2	2	26
08:45 AM	16	0	16	1	3	4	2	0	2	22
Total	74	5	79	5	37	42	4	6	10	131
Grand Total	184	9	193	10	95	105	4	10	14	312
Apprch %	95.3	4.7		9.5	90.5		28.6	71.4		
Total %	59	2.9	61.9	3.2	30.4	33.7	1.3	3.2	4.5	

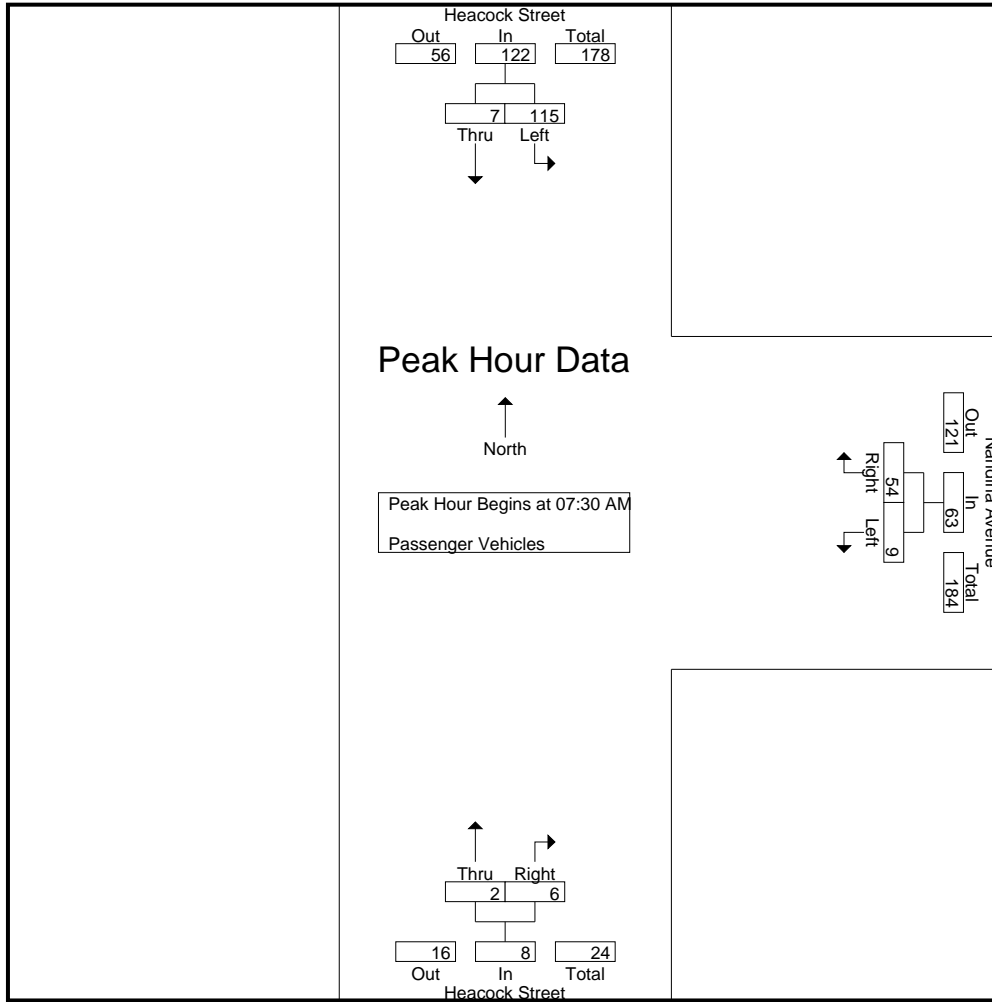
Start Time	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:30 AM	46	1	47	3	17	20	0	0	0	67
07:45 AM	22	2	24	2	15	17	0	2	2	43
08:00 AM	25	1	26	0	12	12	0	3	3	41
08:15 AM	22	3	25	4	10	14	2	1	3	42
Total Volume	115	7	122	9	54	63	2	6	8	193
% App. Total	94.3	5.7		14.3	85.7		25	75		
PHF	.625	.583	.649	.563	.794	.788	.250	.500	.667	.720

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:30 AM

City of Moreno Valley
 N/S: Heacock Street
 E/W: Nandina Avenue
 Weather: Clear

File Name : 01_MRV_Heacock_Nandina AM
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Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:30 AM			07:30 AM			07:30 AM		
+0 mins.	46	1	47	3	17	20	0	0	0
+15 mins.	22	2	24	2	15	17	0	2	2
+30 mins.	25	1	26	0	12	12	0	3	3
+45 mins.	22	3	25	4	10	14	2	1	3
Total Volume	115	7	122	9	54	63	2	6	8
% App. Total	94.3	5.7		14.3	85.7		25	75	
PHF	.625	.583	.649	.563	.794	.788	.250	.500	.667

City of Moreno Valley
 N/S: Heacock Street
 E/W: Nandina Avenue
 Weather: Clear

File Name : 01_MRV_Heacock_Nandina AM
 Site Code : 05722012
 Start Date : 1/11/2022
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Groups Printed- Large 2 Axle Vehicles

Start Time	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	1	0	1	0	0	0	0	1	1	2
07:15 AM	1	0	1	0	1	1	0	0	0	2
07:30 AM	1	1	2	0	1	1	0	1	1	4
07:45 AM	3	0	3	0	1	1	0	0	0	4
Total	6	1	7	0	3	3	0	2	2	12
08:00 AM	2	0	2	0	1	1	0	0	0	3
08:15 AM	0	0	0	0	1	1	0	0	0	1
08:30 AM	2	0	2	0	0	0	0	0	0	2
08:45 AM	3	0	3	0	1	1	0	0	0	4
Total	7	0	7	0	3	3	0	0	0	10
Grand Total	13	1	14	0	6	6	0	2	2	22
Apprch %	92.9	7.1		0	100		0	100		
Total %	59.1	4.5	63.6	0	27.3	27.3	0	9.1	9.1	

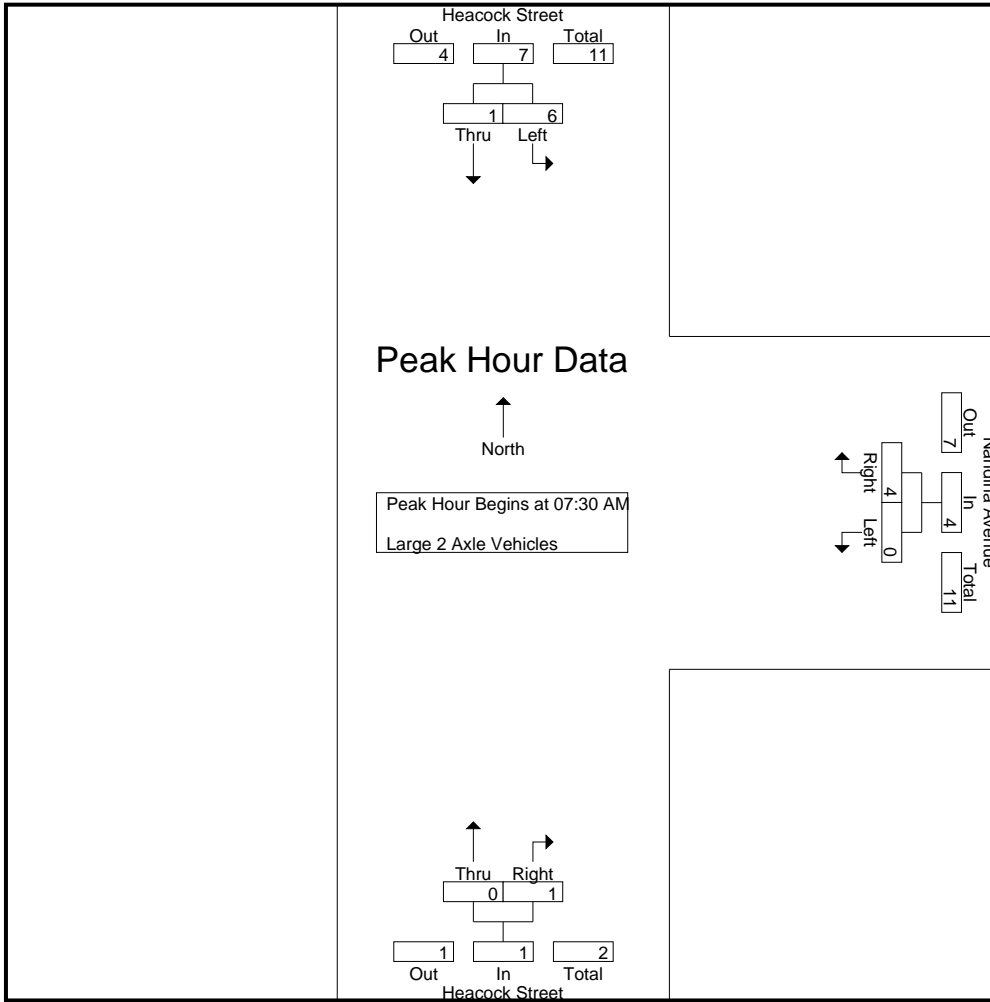
Start Time	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:30 AM	1	1	2	0	1	1	0	1	1	4
07:45 AM	3	0	3	0	1	1	0	0	0	4
08:00 AM	2	0	2	0	1	1	0	0	0	3
08:15 AM	0	0	0	0	1	1	0	0	0	1
Total Volume	6	1	7	0	4	4	0	1	1	12
% App. Total	85.7	14.3		0	100		0	100		
PHF	.500	.250	.583	.000	1.00	1.00	.000	.250	.250	.750

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:30 AM

City of Moreno Valley
 N/S: Heacock Street
 E/W: Nandina Avenue
 Weather: Clear

File Name : 01_MRV_Heacock_Nandina AM
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Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:30 AM			07:30 AM			07:30 AM		
+0 mins.	1	1	2	0	1	1	0	1	1
+15 mins.	3	0	3	0	1	1	0	0	0
+30 mins.	2	0	2	0	1	1	0	0	0
+45 mins.	0	0	0	0	1	1	0	0	0
Total Volume	6	1	7	0	4	4	0	1	1
% App. Total	85.7	14.3		0	100		0	100	
PHF	.500	.250	.583	.000	1.000	1.000	.000	.250	.250

City of Moreno Valley
 N/S: Heacock Street
 E/W: Nandina Avenue
 Weather: Clear

File Name : 01_MRV_Heacock_Nandina AM
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Groups Printed- 3 Axle Vehicles

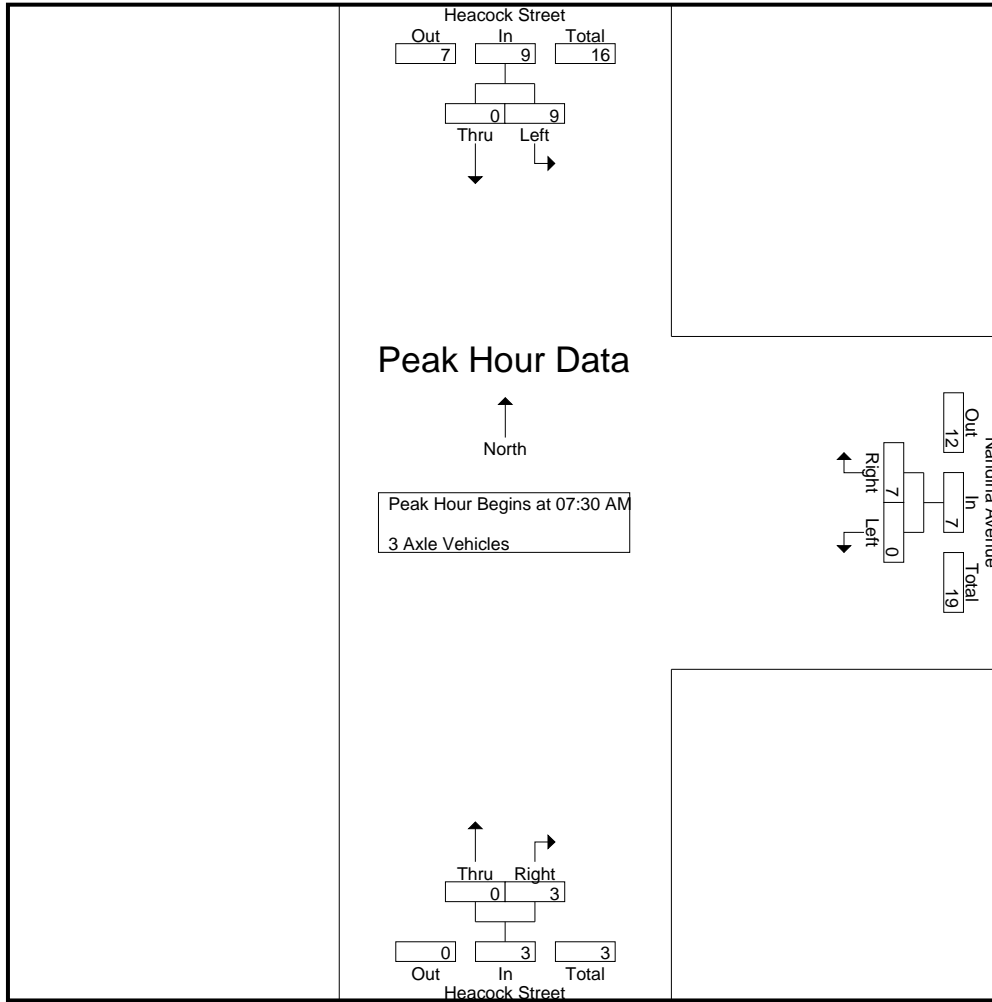
Start Time	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	3	0	3	0	1	1	0	1	1	5
07:15 AM	3	2	5	0	1	1	1	0	1	7
07:30 AM	3	0	3	0	3	3	0	0	0	6
07:45 AM	1	0	1	0	1	1	0	2	2	4
Total	10	2	12	0	6	6	1	3	4	22
08:00 AM	2	0	2	0	3	3	0	0	0	5
08:15 AM	3	0	3	0	0	0	0	1	1	4
08:30 AM	4	0	4	0	3	3	0	1	1	8
08:45 AM	2	0	2	0	2	2	1	0	1	5
Total	11	0	11	0	8	8	1	2	3	22
Grand Total	21	2	23	0	14	14	2	5	7	44
Apprch %	91.3	8.7		0	100		28.6	71.4		
Total %	47.7	4.5	52.3	0	31.8	31.8	4.5	11.4	15.9	

Start Time	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:30 AM	3	0	3	0	3	3	0	0	0	6
07:45 AM	1	0	1	0	1	1	0	2	2	4
08:00 AM	2	0	2	0	3	3	0	0	0	5
08:15 AM	3	0	3	0	0	0	0	1	1	4
Total Volume	9	0	9	0	7	7	0	3	3	19
% App. Total	100	0		0	100		0	100		
PHF	.750	.000	.750	.000	.583	.583	.000	.375	.375	.792

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 07:30 AM

City of Moreno Valley
 N/S: Heacock Street
 E/W: Nandina Avenue
 Weather: Clear

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Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:30 AM			07:30 AM			07:30 AM		
+0 mins.	3	0	3	0	3	3	0	0	0
+15 mins.	1	0	1	0	1	1	0	2	2
+30 mins.	2	0	2	0	3	3	0	0	0
+45 mins.	3	0	3	0	0	0	0	1	1
Total Volume	9	0	9	0	7	7	0	3	3
% App. Total	100	0		0	100		0	100	
PHF	.750	.000	.750	.000	.583	.583	.000	.375	.375

City of Moreno Valley
 N/S: Heacock Street
 E/W: Nandina Avenue
 Weather: Clear

File Name : 01_MRV_Heacock_Nandina AM
 Site Code : 05722012
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Groups Printed- 4+ Axle Trucks

Start Time	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	3	0	3	1	4	5	0	0	0	8
07:15 AM	2	0	2	0	3	3	0	0	0	5
07:30 AM	3	0	3	1	3	4	0	0	0	7
07:45 AM	5	0	5	0	1	1	0	0	0	6
Total	13	0	13	2	11	13	0	0	0	26
08:00 AM	1	0	1	3	5	8	0	1	1	10
08:15 AM	2	1	3	3	2	5	1	0	1	9
08:30 AM	4	1	5	1	4	5	0	2	2	12
08:45 AM	8	0	8	3	6	9	1	0	1	18
Total	15	2	17	10	17	27	2	3	5	49
Grand Total	28	2	30	12	28	40	2	3	5	75
Apprch %	93.3	6.7		30	70		40	60		
Total %	37.3	2.7	40	16	37.3	53.3	2.7	4	6.7	

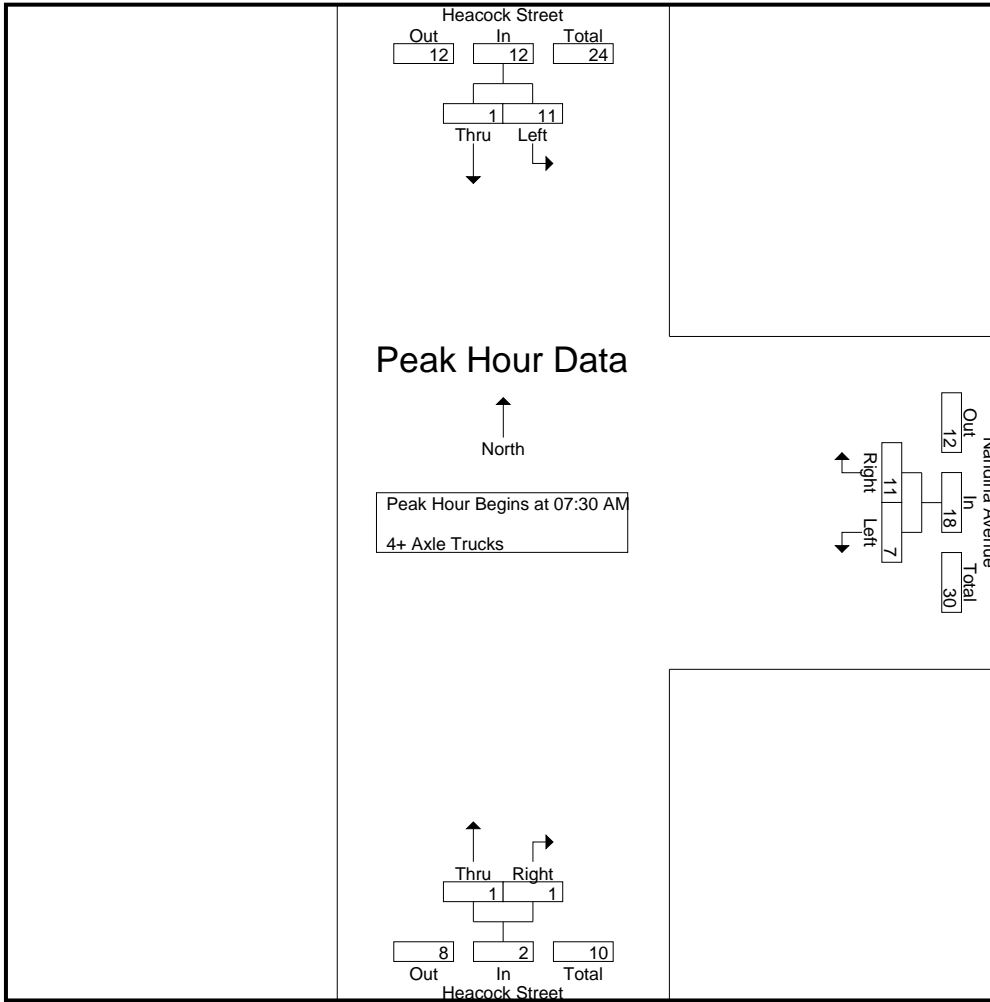
Start Time	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:30 AM	3	0	3	1	3	4	0	0	0	7
07:45 AM	5	0	5	0	1	1	0	0	0	6
08:00 AM	1	0	1	3	5	8	0	1	1	10
08:15 AM	2	1	3	3	2	5	1	0	1	9
Total Volume	11	1	12	7	11	18	1	1	2	32
% App. Total	91.7	8.3		38.9	61.1		50	50		
PHF	.550	.250	.600	.583	.550	.563	.250	.250	.500	.800

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:30 AM

City of Moreno Valley
 N/S: Heacock Street
 E/W: Nandina Avenue
 Weather: Clear

File Name : 01_MRV_Heacock_Nandina AM
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Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:30 AM			07:30 AM			07:30 AM		
+0 mins.	3	0	3	1	3	4	0	0	0
+15 mins.	5	0	5	0	1	1	0	0	0
+30 mins.	1	0	1	3	5	8	0	1	1
+45 mins.	2	1	3	3	2	5	1	0	1
Total Volume	11	1	12	7	11	18	1	1	2
% App. Total	91.7	8.3		38.9	61.1		50	50	
PHF	.550	.250	.600	.583	.550	.563	.250	.250	.500

City of Moreno Valley
 N/S: Heacock Street
 E/W: Nandina Avenue
 Weather: Clear

File Name : 01_MRV_Heacock_Nandina PM
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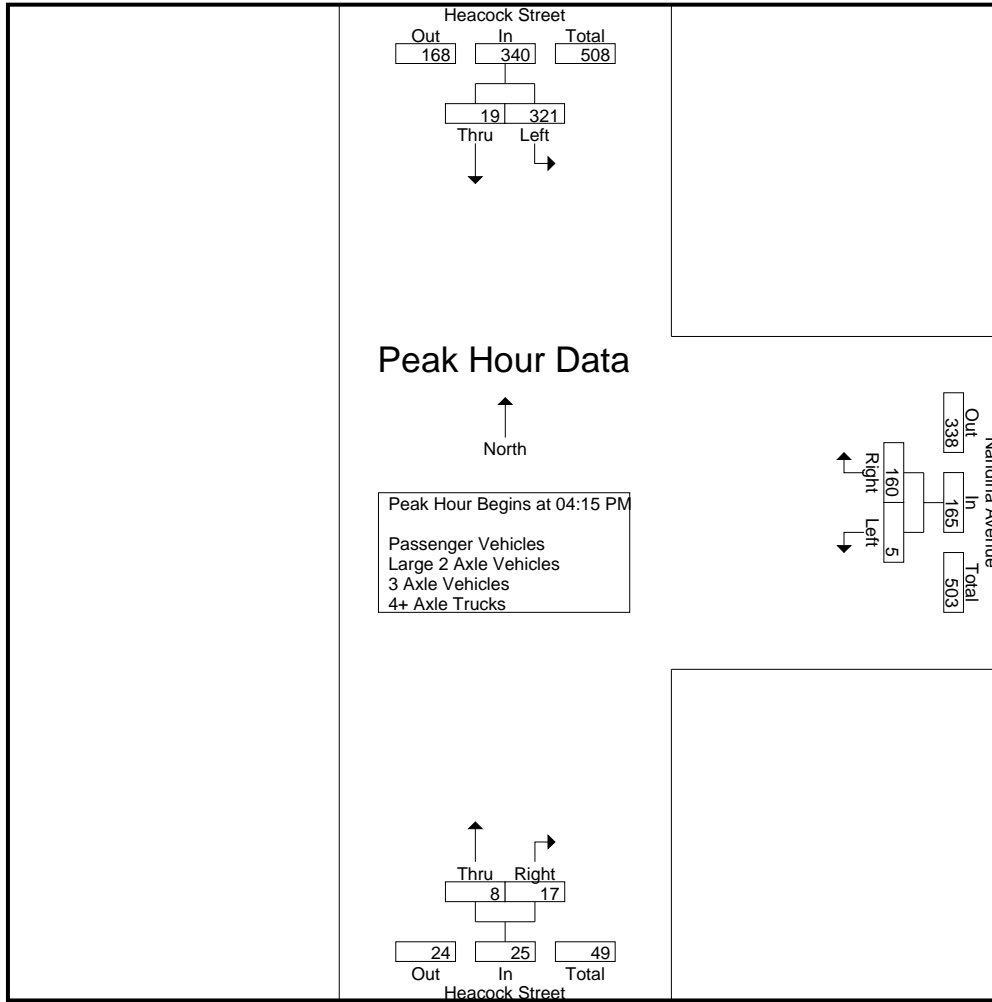
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	56	5	61	1	22	23	4	1	5	89
04:15 PM	64	5	69	3	42	45	4	5	9	123
04:30 PM	85	6	91	0	71	71	2	2	4	166
04:45 PM	77	2	79	2	28	30	0	3	3	112
Total	282	18	300	6	163	169	10	11	21	490
05:00 PM	95	6	101	0	19	19	2	7	9	129
05:15 PM	93	2	95	0	16	16	2	0	2	113
05:30 PM	54	3	57	0	19	19	1	2	3	79
05:45 PM	47	1	48	4	10	14	2	2	4	66
Total	289	12	301	4	64	68	7	11	18	387
Grand Total	571	30	601	10	227	237	17	22	39	877
Apprch %	95	5		4.2	95.8		43.6	56.4		
Total %	65.1	3.4	68.5	1.1	25.9	27	1.9	2.5	4.4	
Passenger Vehicles	502	17	519	3	197	200	11	13	24	743
% Passenger Vehicles	87.9	56.7	86.4	30	86.8	84.4	64.7	59.1	61.5	84.7
Large 2 Axle Vehicles	6	4	10	2	1	3	2	1	3	16
% Large 2 Axle Vehicles	1.1	13.3	1.7	20	0.4	1.3	11.8	4.5	7.7	1.8
3 Axle Vehicles	33	3	36	3	13	16	2	4	6	58
% 3 Axle Vehicles	5.8	10	6	30	5.7	6.8	11.8	18.2	15.4	6.6
4+ Axle Trucks	30	6	36	2	16	18	2	4	6	60
% 4+ Axle Trucks	5.3	20	6	20	7	7.6	11.8	18.2	15.4	6.8

Start Time	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	64	5	69	3	42	45	4	5	9	123
04:30 PM	85	6	91	0	71	71	2	2	4	166
04:45 PM	77	2	79	2	28	30	0	3	3	112
05:00 PM	95	6	101	0	19	19	2	7	9	129
Total Volume	321	19	340	5	160	165	8	17	25	530
% App. Total	94.4	5.6		3	97		32	68		
PHF	.845	.792	.842	.417	.563	.581	.500	.607	.694	.798

City of Moreno Valley
 N/S: Heacock Street
 E/W: Nandina Avenue
 Weather: Clear

File Name : 01_MRV_Heacock_Nandina PM
 Site Code : 05722012
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM			04:00 PM			04:15 PM		
+0 mins.	85	6	91	1	22	23	4	5	9
+15 mins.	77	2	79	3	42	45	2	2	4
+30 mins.	95	6	101	0	71	71	0	3	3
+45 mins.	93	2	95	2	28	30	2	7	9
Total Volume	350	16	366	6	163	169	8	17	25
% App. Total	95.6	4.4		3.6	96.4		32	68	
PHF	.921	.667	.906	.500	.574	.595	.500	.607	.694

City of Moreno Valley
 N/S: Heacock Street
 E/W: Nandina Avenue
 Weather: Clear

File Name : 01_MRV_Heacock_Nandina PM
 Site Code : 05722012
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Groups Printed- Passenger Vehicles

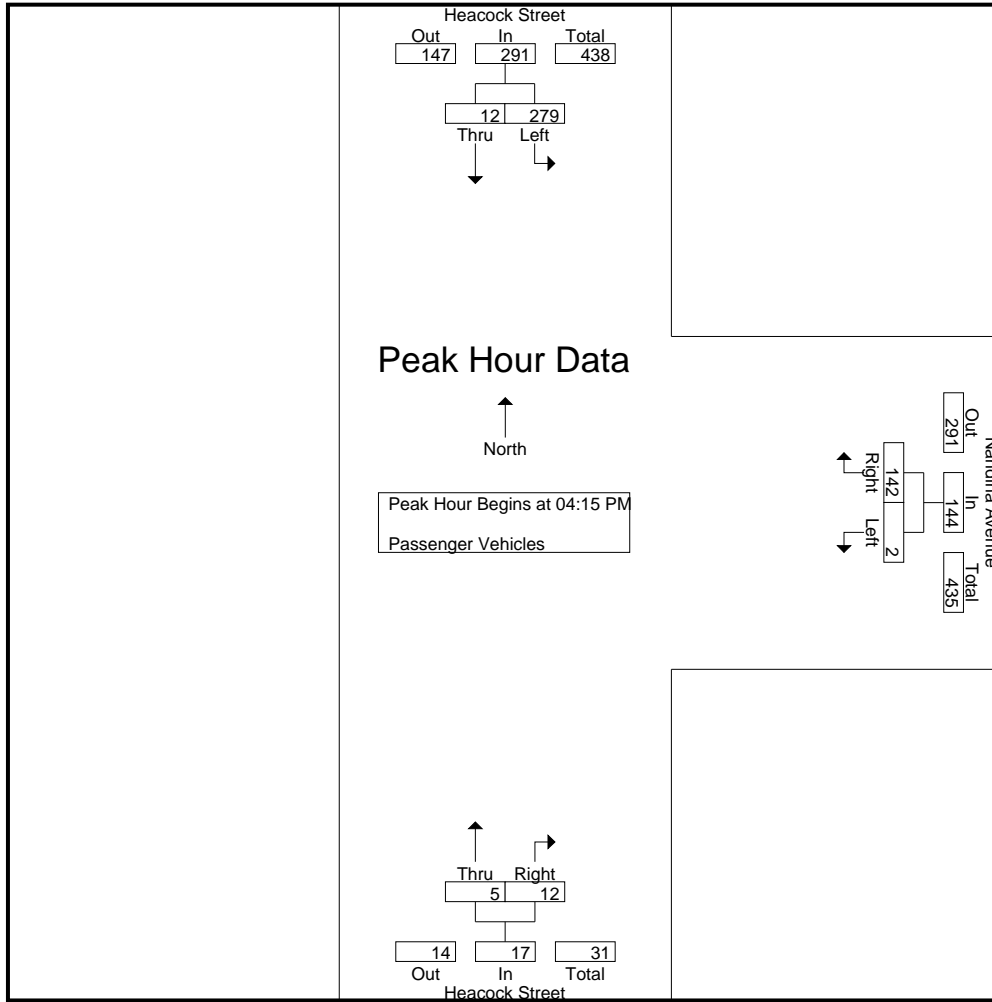
Start Time	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	49	3	52	0	19	19	2	1	3	74
04:15 PM	61	2	63	1	34	35	2	3	5	103
04:30 PM	76	5	81	0	65	65	2	2	4	150
04:45 PM	60	1	61	1	26	27	0	3	3	91
Total	246	11	257	2	144	146	6	9	15	418
05:00 PM	82	4	86	0	17	17	1	4	5	108
05:15 PM	80	1	81	0	14	14	1	0	1	96
05:30 PM	51	1	52	0	16	16	1	0	1	69
05:45 PM	43	0	43	1	6	7	2	0	2	52
Total	256	6	262	1	53	54	5	4	9	325
Grand Total	502	17	519	3	197	200	11	13	24	743
Apprch %	96.7	3.3		1.5	98.5		45.8	54.2		
Total %	67.6	2.3	69.9	0.4	26.5	26.9	1.5	1.7	3.2	

Start Time	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:15 PM	61	2	63	1	34	35	2	3	5	103
04:30 PM	76	5	81	0	65	65	2	2	4	150
04:45 PM	60	1	61	1	26	27	0	3	3	91
05:00 PM	82	4	86	0	17	17	1	4	5	108
Total Volume	279	12	291	2	142	144	5	12	17	452
% App. Total	95.9	4.1		1.4	98.6		29.4	70.6		
PHF	.851	.600	.846	.500	.546	.554	.625	.750	.850	.753

Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 04:15 PM

City of Moreno Valley
 N/S: Heacock Street
 E/W: Nandina Avenue
 Weather: Clear

File Name : 01_MRV_Heacock_Nandina PM
 Site Code : 05722012
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Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	61	2	63	1	34	35	2	3	5
+15 mins.	76	5	81	0	65	65	2	2	4
+30 mins.	60	1	61	1	26	27	0	3	3
+45 mins.	82	4	86	0	17	17	1	4	5
Total Volume	279	12	291	2	142	144	5	12	17
% App. Total	95.9	4.1		1.4	98.6		29.4	70.6	
PHF	.851	.600	.846	.500	.546	.554	.625	.750	.850

City of Moreno Valley
 N/S: Heacock Street
 E/W: Nandina Avenue
 Weather: Clear

File Name : 01_MRV_Heacock_Nandina PM
 Site Code : 05722012
 Start Date : 1/11/2022
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

Start Time	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	0	2	2	1	1	2	1	0	1	5
04:15 PM	1	0	1	0	0	0	1	0	1	2
04:30 PM	1	1	2	0	0	0	0	0	0	2
04:45 PM	0	1	1	1	0	1	0	0	0	2
Total	2	4	6	2	1	3	2	0	2	11
05:00 PM	0	0	0	0	0	0	0	1	1	1
05:15 PM	1	0	1	0	0	0	0	0	0	1
05:30 PM	2	0	2	0	0	0	0	0	0	2
05:45 PM	1	0	1	0	0	0	0	0	0	1
Total	4	0	4	0	0	0	0	1	1	5
Grand Total	6	4	10	2	1	3	2	1	3	16
Apprch %	60	40		66.7	33.3		66.7	33.3		
Total %	37.5	25	62.5	12.5	6.2	18.8	12.5	6.2	18.8	

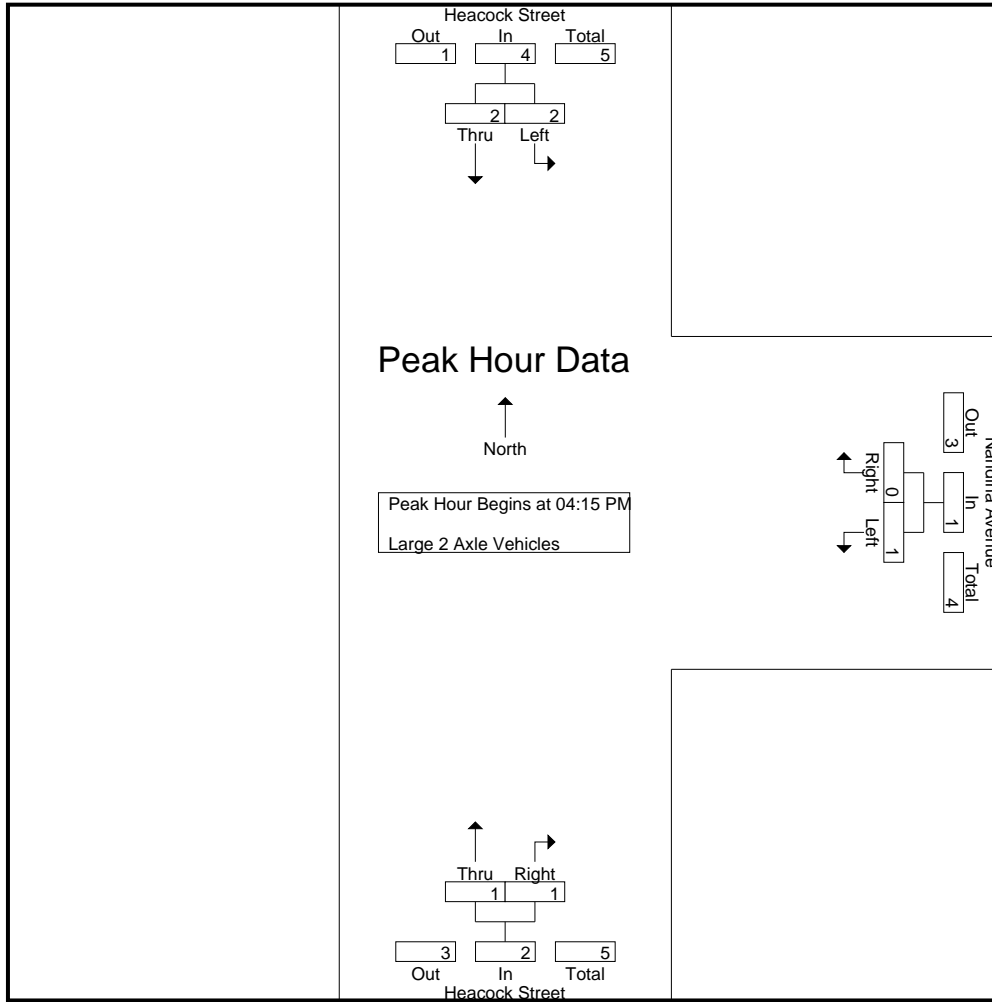
Start Time	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:15 PM	1	0	1	0	0	0	1	0	1	2
04:30 PM	1	1	2	0	0	0	0	0	0	2
04:45 PM	0	1	1	1	0	1	0	0	0	2
05:00 PM	0	0	0	0	0	0	0	1	1	1
Total Volume	2	2	4	1	0	1	1	1	2	7
% App. Total	50	50		100	0		50	50		
PHF	.500	.500	.500	.250	.000	.250	.250	.250	.500	.875

Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:15 PM

City of Moreno Valley
 N/S: Heacock Street
 E/W: Nandina Avenue
 Weather: Clear

File Name : 01_MRV_Heacock_Nandina PM
 Site Code : 05722012
 Start Date : 1/11/2022
 Page No : 2



Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	1	0	1	0	0	0	1	0	1
+15 mins.	1	1	2	0	0	0	0	0	0
+30 mins.	0	1	1	1	0	1	0	0	0
+45 mins.	0	0	0	0	0	0	0	1	1
Total Volume	2	2	4	1	0	1	1	1	2
% App. Total	50	50		100	0		50	50	
PHF	.500	.500	.500	.250	.000	.250	.250	.250	.500

City of Moreno Valley
 N/S: Heacock Street
 E/W: Nandina Avenue
 Weather: Clear

File Name : 01_MRV_Heacock_Nandina PM
 Site Code : 05722012
 Start Date : 1/11/2022
 Page No : 1

Groups Printed- 3 Axle Vehicles

Start Time	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	4	0	4	0	2	2	1	0	1	7
04:15 PM	1	1	2	0	3	3	1	1	2	7
04:30 PM	6	0	6	0	5	5	0	0	0	11
04:45 PM	7	0	7	0	1	1	0	0	0	8
Total	18	1	19	0	11	11	2	1	3	33
05:00 PM	6	0	6	0	0	0	0	0	0	6
05:15 PM	7	0	7	0	0	0	0	0	0	7
05:30 PM	1	2	3	0	1	1	0	1	1	5
05:45 PM	1	0	1	3	1	4	0	2	2	7
Total	15	2	17	3	2	5	0	3	3	25
Grand Total	33	3	36	3	13	16	2	4	6	58
Apprch %	91.7	8.3		18.8	81.2		33.3	66.7		
Total %	56.9	5.2	62.1	5.2	22.4	27.6	3.4	6.9	10.3	

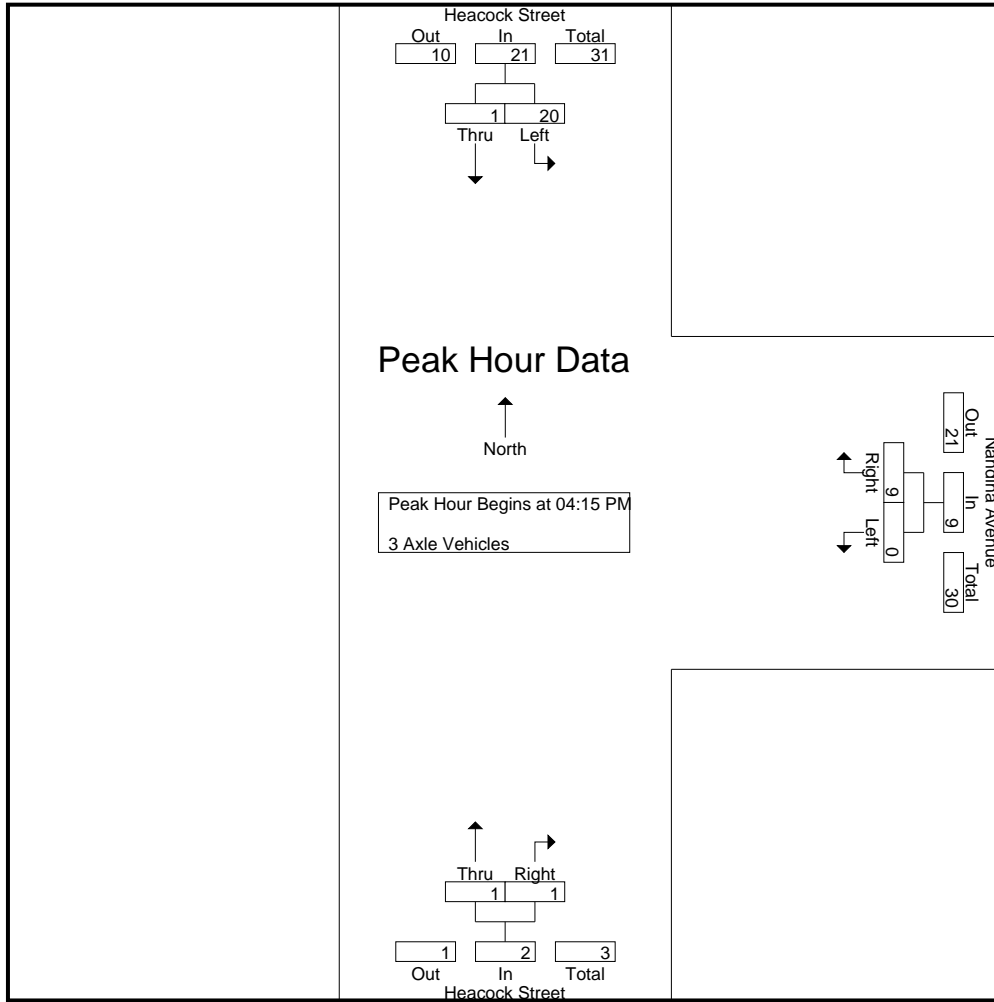
Start Time	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:15 PM	1	1	2	0	3	3	1	1	2	7
04:30 PM	6	0	6	0	5	5	0	0	0	11
04:45 PM	7	0	7	0	1	1	0	0	0	8
05:00 PM	6	0	6	0	0	0	0	0	0	6
Total Volume	20	1	21	0	9	9	1	1	2	32
% App. Total	95.2	4.8		0	100		50	50		
PHF	.714	.250	.750	.000	.450	.450	.250	.250	.250	.727

Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:15 PM

City of Moreno Valley
 N/S: Heacock Street
 E/W: Nandina Avenue
 Weather: Clear

File Name : 01_MRV_Heacock_Nandina PM
 Site Code : 05722012
 Start Date : 1/11/2022
 Page No : 2



Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	1	1	2	0	3	3	1	1	2
+15 mins.	6	0	6	0	5	5	0	0	0
+30 mins.	7	0	7	0	1	1	0	0	0
+45 mins.	6	0	6	0	0	0	0	0	0
Total Volume	20	1	21	0	9	9	1	1	2
% App. Total	95.2	4.8		0	100		50	50	
PHF	.714	.250	.750	.000	.450	.450	.250	.250	.250

City of Moreno Valley
 N/S: Heacock Street
 E/W: Nandina Avenue
 Weather: Clear

File Name : 01_MRV_Heacock_Nandina PM
 Site Code : 05722012
 Start Date : 1/11/2022
 Page No : 1

Groups Printed- 4+ Axle Trucks

Start Time	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	3	0	3	0	0	0	0	0	0	3
04:15 PM	1	2	3	2	5	7	0	1	1	11
04:30 PM	2	0	2	0	1	1	0	0	0	3
04:45 PM	10	0	10	0	1	1	0	0	0	11
Total	16	2	18	2	7	9	0	1	1	28
05:00 PM	7	2	9	0	2	2	1	2	3	14
05:15 PM	5	1	6	0	2	2	1	0	1	9
05:30 PM	0	0	0	0	2	2	0	1	1	3
05:45 PM	2	1	3	0	3	3	0	0	0	6
Total	14	4	18	0	9	9	2	3	5	32
Grand Total	30	6	36	2	16	18	2	4	6	60
Apprch %	83.3	16.7		11.1	88.9		33.3	66.7		
Total %	50	10	60	3.3	26.7	30	3.3	6.7	10	

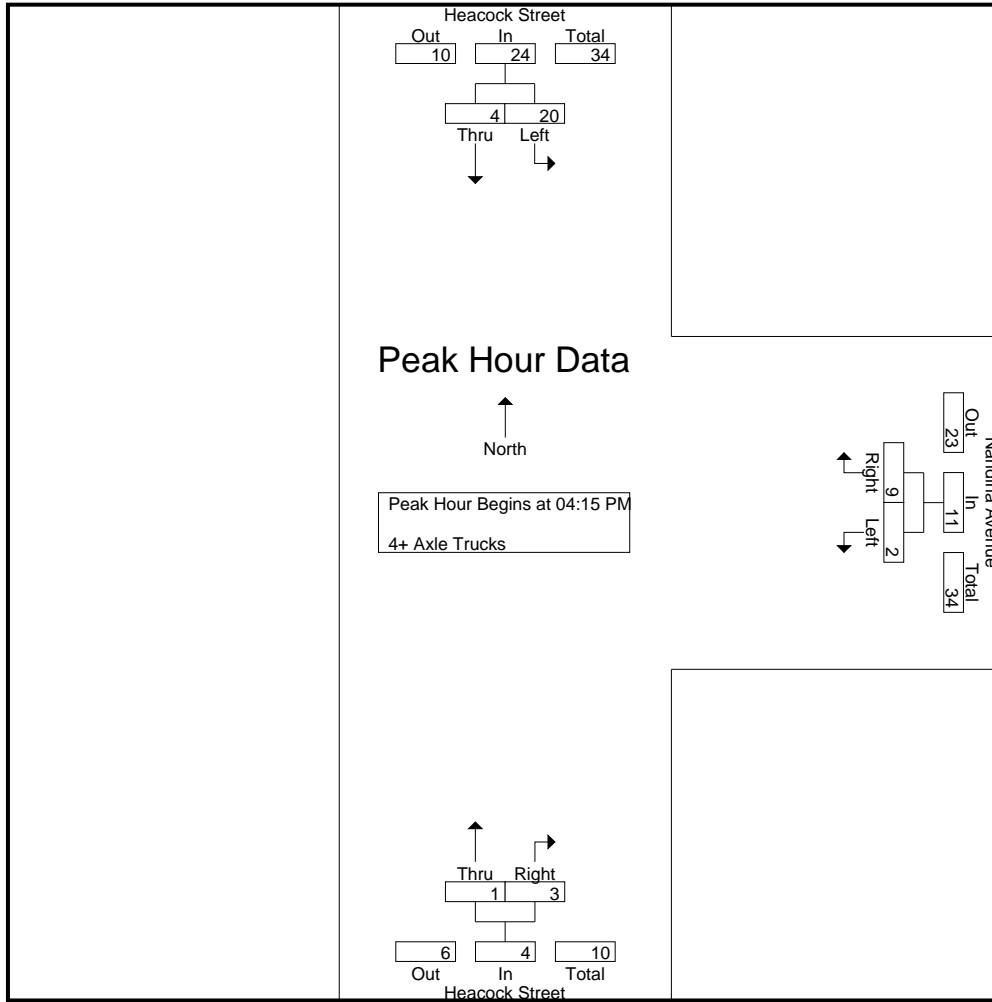
Start Time	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:15 PM	1	2	3	2	5	7	0	1	1	11
04:30 PM	2	0	2	0	1	1	0	0	0	3
04:45 PM	10	0	10	0	1	1	0	0	0	11
05:00 PM	7	2	9	0	2	2	1	2	3	14
Total Volume	20	4	24	2	9	11	1	3	4	39
% App. Total	83.3	16.7		18.2	81.8		25	75		
PHF	.500	.500	.600	.250	.450	.393	.250	.375	.333	.696

Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:15 PM

City of Moreno Valley
 N/S: Heacock Street
 E/W: Nandina Avenue
 Weather: Clear

File Name : 01_MRV_Heacock_Nandina PM
 Site Code : 05722012
 Start Date : 1/11/2022
 Page No : 2



Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	1	2	3	2	5	7	0	1	1
+15 mins.	2	0	2	0	1	1	0	0	0
+30 mins.	10	0	10	0	1	1	0	0	0
+45 mins.	7	2	9	0	2	2	1	2	3
Total Volume	20	4	24	2	9	11	1	3	4
% App. Total	83.3	16.7		18.2	81.8		25	75	
PHF	.500	.500	.600	.250	.450	.393	.250	.375	.333

City of Perris
 N/S: Webster Avenue
 E/W: Harley Knox Boulevard
 Weather: Clear

File Name : 02_PER_Webster_Harley Knox AM
 Site Code : 05722012
 Start Date : 1/11/2022
 Page No : 1

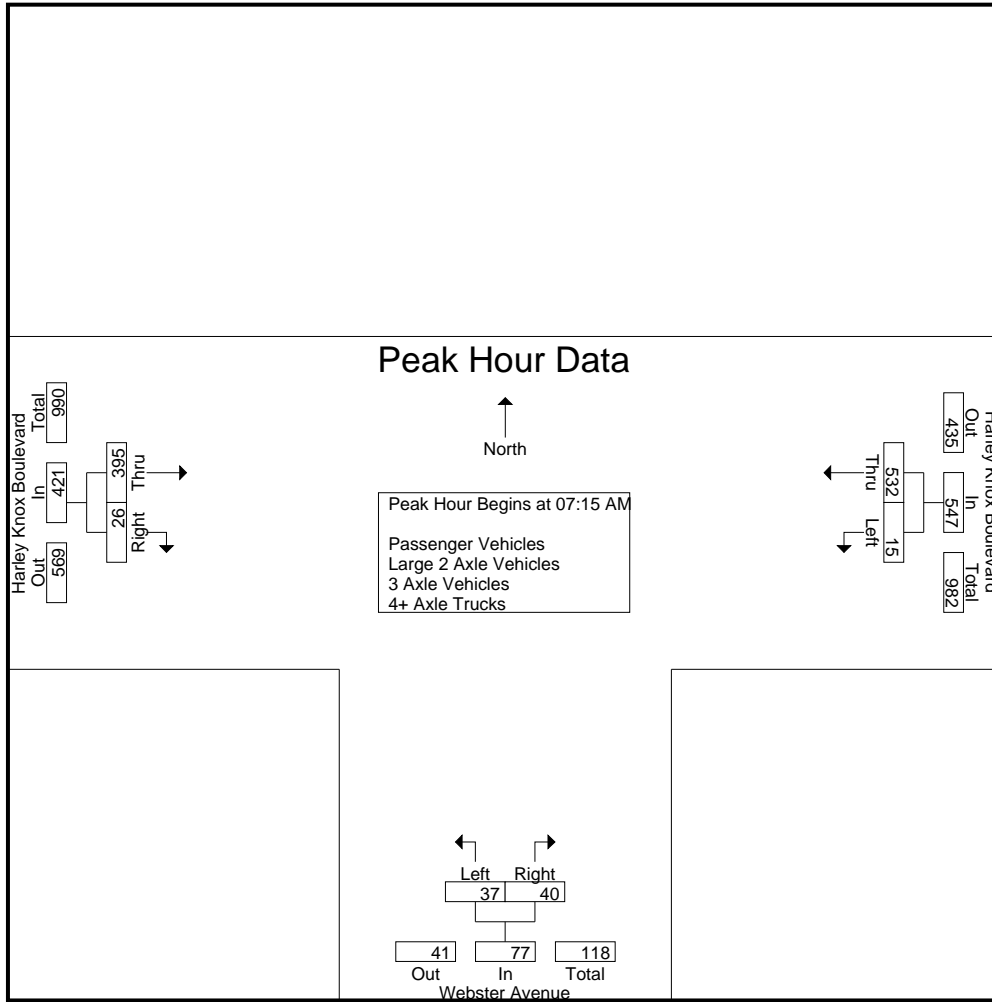
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	2	93	95	9	8	17	94	6	100	212
07:15 AM	1	126	127	10	7	17	100	2	102	246
07:30 AM	5	149	154	8	8	16	101	7	108	278
07:45 AM	3	141	144	10	15	25	93	13	106	275
Total	11	509	520	37	38	75	388	28	416	1011
08:00 AM	6	116	122	9	10	19	101	4	105	246
08:15 AM	7	91	98	8	8	16	107	9	116	230
08:30 AM	4	90	94	9	6	15	88	8	96	205
08:45 AM	1	56	57	9	3	12	71	4	75	144
Total	18	353	371	35	27	62	367	25	392	825
Grand Total	29	862	891	72	65	137	755	53	808	1836
Apprch %	3.3	96.7		52.6	47.4		93.4	6.6		
Total %	1.6	46.9	48.5	3.9	3.5	7.5	41.1	2.9	44	
Passenger Vehicles	19	684	703	57	55	112	514	38	552	1367
% Passenger Vehicles	65.5	79.4	78.9	79.2	84.6	81.8	68.1	71.7	68.3	74.5
Large 2 Axle Vehicles	3	40	43	6	3	9	50	1	51	103
% Large 2 Axle Vehicles	10.3	4.6	4.8	8.3	4.6	6.6	6.6	1.9	6.3	5.6
3 Axle Vehicles	0	40	40	2	2	4	39	1	40	84
% 3 Axle Vehicles	0	4.6	4.5	2.8	3.1	2.9	5.2	1.9	5	4.6
4+ Axle Trucks	7	98	105	7	5	12	152	13	165	282
% 4+ Axle Trucks	24.1	11.4	11.8	9.7	7.7	8.8	20.1	24.5	20.4	15.4

Start Time	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	1	126	127	10	7	17	100	2	102	246
07:30 AM	5	149	154	8	8	16	101	7	108	278
07:45 AM	3	141	144	10	15	25	93	13	106	275
08:00 AM	6	116	122	9	10	19	101	4	105	246
Total Volume	15	532	547	37	40	77	395	26	421	1045
% App. Total	2.7	97.3		48.1	51.9		93.8	6.2		
PHF	.625	.893	.888	.925	.667	.770	.978	.500	.975	.940

City of Perris
 N/S: Webster Avenue
 E/W: Harley Knox Boulevard
 Weather: Clear

File Name : 02_PER_Webster_Harley Knox AM
 Site Code : 05722012
 Start Date : 1/11/2022
 Page No : 2



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

	07:15 AM			07:15 AM			07:30 AM		
+0 mins.	1	126	127	10	7	17	101	7	108
+15 mins.	5	149	154	8	8	16	93	13	106
+30 mins.	3	141	144	10	15	25	101	4	105
+45 mins.	6	116	122	9	10	19	107	9	116
Total Volume	15	532	547	37	40	77	402	33	435
% App. Total	2.7	97.3		48.1	51.9		92.4	7.6	
PHF	.625	.893	.888	.925	.667	.770	.939	.635	.938

City of Perris
 N/S: Webster Avenue
 E/W: Harley Knox Boulevard
 Weather: Clear

File Name : 02_PER_Webster_Harley Knox AM
 Site Code : 05722012
 Start Date : 1/11/2022
 Page No : 1

Groups Printed- Passenger Vehicles

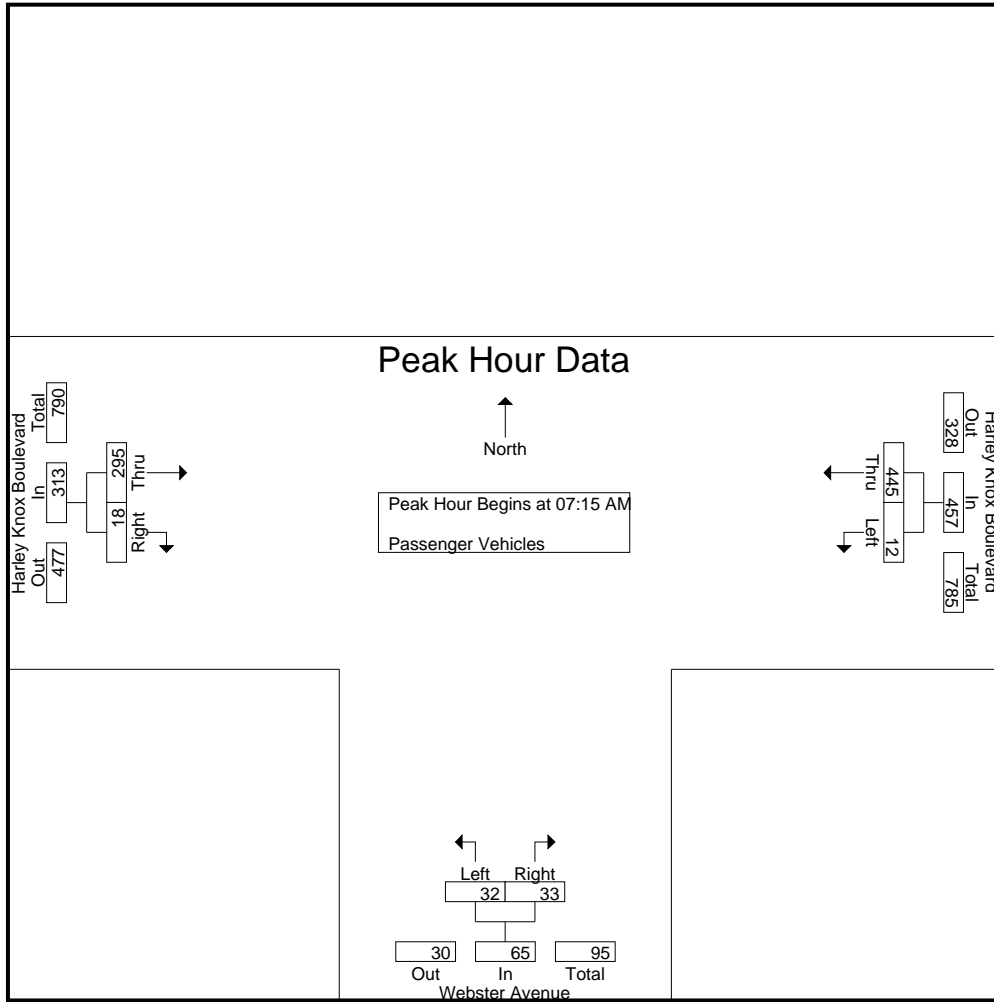
Start Time	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	1	80	81	6	7	13	69	6	75	169
07:15 AM	1	108	109	9	7	16	76	2	78	203
07:30 AM	4	125	129	8	7	15	81	5	86	230
07:45 AM	3	123	126	8	11	19	72	7	79	224
Total	9	436	445	31	32	63	298	20	318	826
08:00 AM	4	89	93	7	8	15	66	4	70	178
08:15 AM	4	67	71	6	8	14	55	6	61	146
08:30 AM	2	55	57	6	4	10	57	5	62	129
08:45 AM	0	37	37	7	3	10	38	3	41	88
Total	10	248	258	26	23	49	216	18	234	541
Grand Total	19	684	703	57	55	112	514	38	552	1367
Apprch %	2.7	97.3		50.9	49.1		93.1	6.9		
Total %	1.4	50	51.4	4.2	4	8.2	37.6	2.8	40.4	

Start Time	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:15 AM	1	108	109	9	7	16	76	2	78	203
07:30 AM	4	125	129	8	7	15	81	5	86	230
07:45 AM	3	123	126	8	11	19	72	7	79	224
08:00 AM	4	89	93	7	8	15	66	4	70	178
Total Volume	12	445	457	32	33	65	295	18	313	835
% App. Total	2.6	97.4		49.2	50.8		94.2	5.8		
PHF	.750	.890	.886	.889	.750	.855	.910	.643	.910	.908

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 07:15 AM

City of Perris
 N/S: Webster Avenue
 E/W: Harley Knox Boulevard
 Weather: Clear

File Name : 02_PER_Webster_Harley Knox AM
 Site Code : 05722012
 Start Date : 1/11/2022
 Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:15 AM			07:15 AM			07:15 AM		
+0 mins.	1	108	109	9	7	16	76	2	78
+15 mins.	4	125	129	8	7	15	81	5	86
+30 mins.	3	123	126	8	11	19	72	7	79
+45 mins.	4	89	93	7	8	15	66	4	70
Total Volume	12	445	457	32	33	65	295	18	313
% App. Total	2.6	97.4		49.2	50.8		94.2	5.8	
PHF	.750	.890	.886	.889	.750	.855	.910	.643	.910

City of Perris
 N/S: Webster Avenue
 E/W: Harley Knox Boulevard
 Weather: Clear

File Name : 02_PER_Webster_Harley Knox AM
 Site Code : 05722012
 Start Date : 1/11/2022
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

Start Time	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	1	5	6	1	1	2	8	0	8	16
07:15 AM	0	4	4	1	0	1	4	0	4	9
07:30 AM	1	0	1	0	0	0	5	0	5	6
07:45 AM	0	3	3	1	1	2	3	0	3	8
Total	2	12	14	3	2	5	20	0	20	39
08:00 AM	0	8	8	1	0	1	5	0	5	14
08:15 AM	0	7	7	0	0	0	14	1	15	22
08:30 AM	0	10	10	1	1	2	5	0	5	17
08:45 AM	1	3	4	1	0	1	6	0	6	11
Total	1	28	29	3	1	4	30	1	31	64
Grand Total	3	40	43	6	3	9	50	1	51	103
Apprch %	7	93		66.7	33.3		98	2		
Total %	2.9	38.8	41.7	5.8	2.9	8.7	48.5	1	49.5	

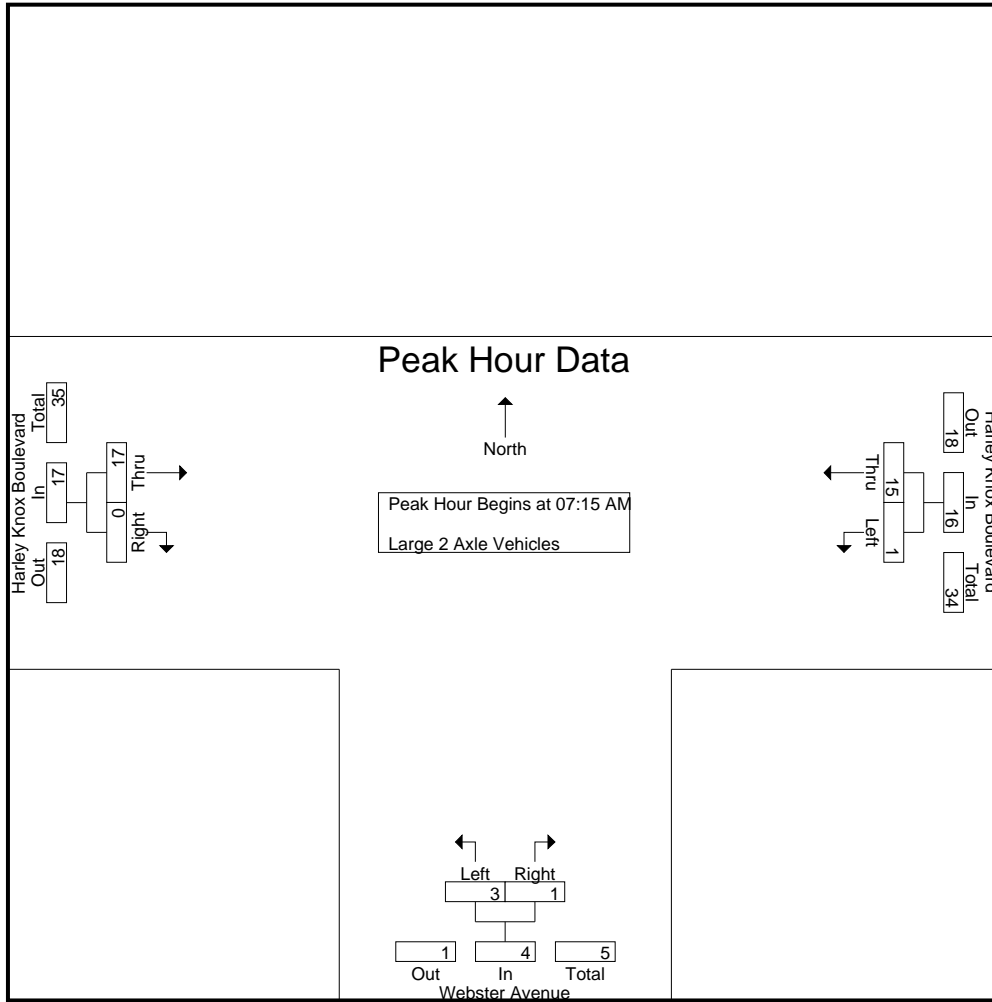
Start Time	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:15 AM	0	4	4	1	0	1	4	0	4	9
07:30 AM	1	0	1	0	0	0	5	0	5	6
07:45 AM	0	3	3	1	1	2	3	0	3	8
08:00 AM	0	8	8	1	0	1	5	0	5	14
Total Volume	1	15	16	3	1	4	17	0	17	37
% App. Total	6.2	93.8		75	25		100	0		
PHF	.250	.469	.500	.750	.250	.500	.850	.000	.850	.661

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:15 AM

City of Perris
 N/S: Webster Avenue
 E/W: Harley Knox Boulevard
 Weather: Clear

File Name : 02_PER_Webster_Harley Knox AM
 Site Code : 05722012
 Start Date : 1/11/2022
 Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:15 AM			07:15 AM			07:15 AM		
+0 mins.	0	4	4	1	0	1	4	0	4
+15 mins.	1	0	1	0	0	0	5	0	5
+30 mins.	0	3	3	1	1	2	3	0	3
+45 mins.	0	8	8	1	0	1	5	0	5
Total Volume	1	15	16	3	1	4	17	0	17
% App. Total	6.2	93.8		75	25		100	0	
PHF	.250	.469	.500	.750	.250	.500	.850	.000	.850

City of Perris
 N/S: Webster Avenue
 E/W: Harley Knox Boulevard
 Weather: Clear

File Name : 02_PER_Webster_Harley Knox AM
 Site Code : 05722012
 Start Date : 1/11/2022
 Page No : 1

Groups Printed- 3 Axle Vehicles

Start Time	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	0	1	1	1	0	1	1	0	1	3
07:15 AM	0	5	5	0	0	0	1	0	1	6
07:30 AM	0	4	4	0	0	0	6	0	6	10
07:45 AM	0	2	2	0	1	1	3	0	3	6
Total	0	12	12	1	1	2	11	0	11	25
08:00 AM	0	6	6	0	1	1	6	0	6	13
08:15 AM	0	7	7	0	0	0	12	0	12	19
08:30 AM	0	9	9	1	0	1	5	1	6	16
08:45 AM	0	6	6	0	0	0	5	0	5	11
Total	0	28	28	1	1	2	28	1	29	59
Grand Total	0	40	40	2	2	4	39	1	40	84
Apprch %	0	100		50	50		97.5	2.5		
Total %	0	47.6	47.6	2.4	2.4	4.8	46.4	1.2	47.6	

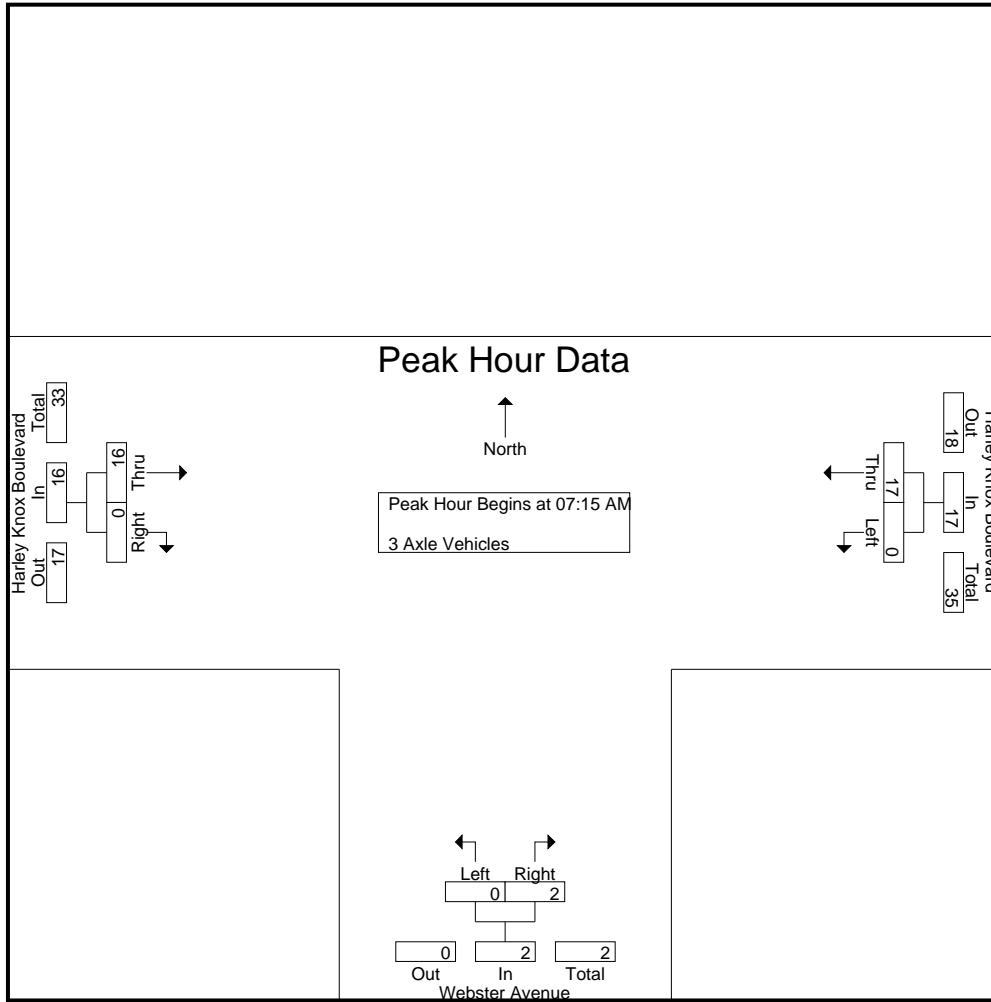
Start Time	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:15 AM	0	5	5	0	0	0	1	0	1	6
07:30 AM	0	4	4	0	0	0	6	0	6	10
07:45 AM	0	2	2	0	1	1	3	0	3	6
08:00 AM	0	6	6	0	1	1	6	0	6	13
Total Volume	0	17	17	0	2	2	16	0	16	35
% App. Total	0	100		0	100		100	0		
PHF	.000	.708	.708	.000	.500	.500	.667	.000	.667	.673

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:15 AM

City of Perris
 N/S: Webster Avenue
 E/W: Harley Knox Boulevard
 Weather: Clear

File Name : 02_PER_Webster_Harley Knox AM
 Site Code : 05722012
 Start Date : 1/11/2022
 Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:15 AM			07:15 AM			07:15 AM		
+0 mins.	0	5	5	0	0	0	1	0	1
+15 mins.	0	4	4	0	0	0	6	0	6
+30 mins.	0	2	2	0	1	1	3	0	3
+45 mins.	0	6	6	0	1	1	6	0	6
Total Volume	0	17	17	0	2	2	16	0	16
% App. Total	0	100		0	100		100	0	
PHF	.000	.708	.708	.000	.500	.500	.667	.000	.667

City of Perris
 N/S: Webster Avenue
 E/W: Harley Knox Boulevard
 Weather: Clear

File Name : 02_PER_Webster_Harley Knox AM
 Site Code : 05722012
 Start Date : 1/11/2022
 Page No : 1

Groups Printed- 4+ Axle Trucks

Start Time	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	0	7	7	1	0	1	16	0	16	24
07:15 AM	0	9	9	0	0	0	19	0	19	28
07:30 AM	0	20	20	0	1	1	9	2	11	32
07:45 AM	0	13	13	1	2	3	15	6	21	37
Total	0	49	49	2	3	5	59	8	67	121
08:00 AM	2	13	15	1	1	2	24	0	24	41
08:15 AM	3	10	13	2	0	2	26	2	28	43
08:30 AM	2	16	18	1	1	2	21	2	23	43
08:45 AM	0	10	10	1	0	1	22	1	23	34
Total	7	49	56	5	2	7	93	5	98	161
Grand Total	7	98	105	7	5	12	152	13	165	282
Apprch %	6.7	93.3		58.3	41.7		92.1	7.9		
Total %	2.5	34.8	37.2	2.5	1.8	4.3	53.9	4.6	58.5	

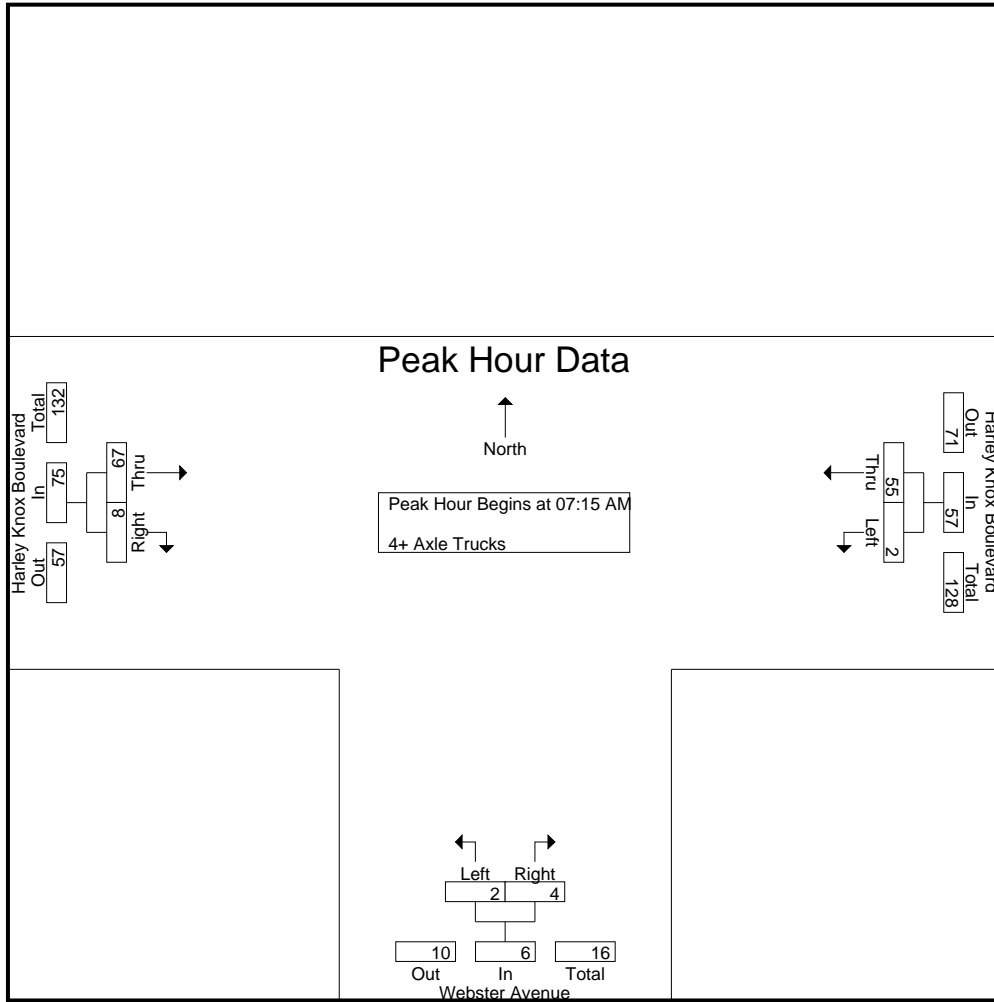
Start Time	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:15 AM	0	9	9	0	0	0	19	0	19	28
07:30 AM	0	20	20	0	1	1	9	2	11	32
07:45 AM	0	13	13	1	2	3	15	6	21	37
08:00 AM	2	13	15	1	1	2	24	0	24	41
Total Volume	2	55	57	2	4	6	67	8	75	138
% App. Total	3.5	96.5		33.3	66.7		89.3	10.7		
PHF	.250	.688	.713	.500	.500	.500	.698	.333	.781	.841

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:15 AM

City of Perris
 N/S: Webster Avenue
 E/W: Harley Knox Boulevard
 Weather: Clear

File Name : 02_PER_Webster_Harley Knox AM
 Site Code : 05722012
 Start Date : 1/11/2022
 Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:15 AM			07:15 AM			07:15 AM		
+0 mins.	0	9	9	0	0	0	19	0	19
+15 mins.	0	20	20	0	1	1	9	2	11
+30 mins.	0	13	13	1	2	3	15	6	21
+45 mins.	2	13	15	1	1	2	24	0	24
Total Volume	2	55	57	2	4	6	67	8	75
% App. Total	3.5	96.5		33.3	66.7		89.3	10.7	
PHF	.250	.688	.713	.500	.500	.500	.698	.333	.781

City of Perris
 N/S: Webster Avenue
 E/W: Harley Knox Boulevard
 Weather: Clear

File Name : 02_PER_Webster_Harley Knox PM
 Site Code : 05722012
 Start Date : 1/11/2022
 Page No : 1

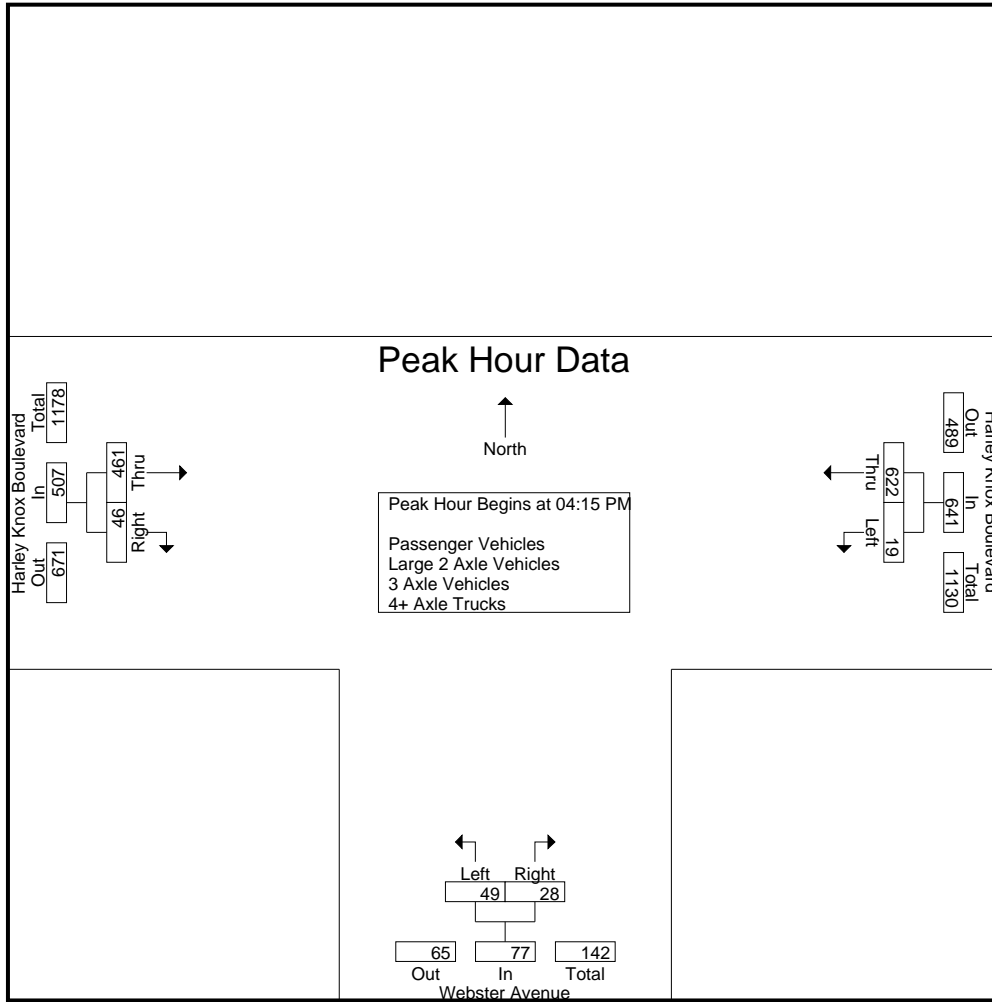
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	3	150	153	14	6	20	109	8	117	290
04:15 PM	7	108	115	13	4	17	116	13	129	261
04:30 PM	2	204	206	19	10	29	133	16	149	384
04:45 PM	5	157	162	10	5	15	102	6	108	285
Total	17	619	636	56	25	81	460	43	503	1220
05:00 PM	5	153	158	7	9	16	110	11	121	295
05:15 PM	7	101	108	8	6	14	98	7	105	227
05:30 PM	7	136	143	3	12	15	105	11	116	274
05:45 PM	5	83	88	7	3	10	95	12	107	205
Total	24	473	497	25	30	55	408	41	449	1001
Grand Total	41	1092	1133	81	55	136	868	84	952	2221
Apprch %	3.6	96.4		59.6	40.4		91.2	8.8		
Total %	1.8	49.2	51	3.6	2.5	6.1	39.1	3.8	42.9	
Passenger Vehicles	36	951	987	70	54	124	711	63	774	1885
% Passenger Vehicles	87.8	87.1	87.1	86.4	98.2	91.2	81.9	75	81.3	84.9
Large 2 Axle Vehicles	0	23	23	1	0	1	23	3	26	50
% Large 2 Axle Vehicles	0	2.1	2	1.2	0	0.7	2.6	3.6	2.7	2.3
3 Axle Vehicles	2	21	23	1	0	1	54	8	62	86
% 3 Axle Vehicles	4.9	1.9	2	1.2	0	0.7	6.2	9.5	6.5	3.9
4+ Axle Trucks	3	97	100	9	1	10	80	10	90	200
% 4+ Axle Trucks	7.3	8.9	8.8	11.1	1.8	7.4	9.2	11.9	9.5	9

Start Time	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	7	108	115	13	4	17	116	13	129	261
04:30 PM	2	204	206	19	10	29	133	16	149	384
04:45 PM	5	157	162	10	5	15	102	6	108	285
05:00 PM	5	153	158	7	9	16	110	11	121	295
Total Volume	19	622	641	49	28	77	461	46	507	1225
% App. Total	3	97		63.6	36.4		90.9	9.1		
PHF	.679	.762	.778	.645	.700	.664	.867	.719	.851	.798

City of Perris
 N/S: Webster Avenue
 E/W: Harley Knox Boulevard
 Weather: Clear

File Name : 02_PER_Webster_Harley Knox PM
 Site Code : 05722012
 Start Date : 1/11/2022
 Page No : 2



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

	04:15 PM			04:00 PM			04:15 PM		
+0 mins.	7	108	115	14	6	20	116	13	129
+15 mins.	2	204	206	13	4	17	133	16	149
+30 mins.	5	157	162	19	10	29	102	6	108
+45 mins.	5	153	158	10	5	15	110	11	121
Total Volume	19	622	641	56	25	81	461	46	507
% App. Total	3	97		69.1	30.9		90.9	9.1	
PHF	.679	.762	.778	.737	.625	.698	.867	.719	.851

City of Perris
 N/S: Webster Avenue
 E/W: Harley Knox Boulevard
 Weather: Clear

File Name : 02_PER_Webster_Harley Knox PM
 Site Code : 05722012
 Start Date : 1/11/2022
 Page No : 1

Groups Printed- Passenger Vehicles

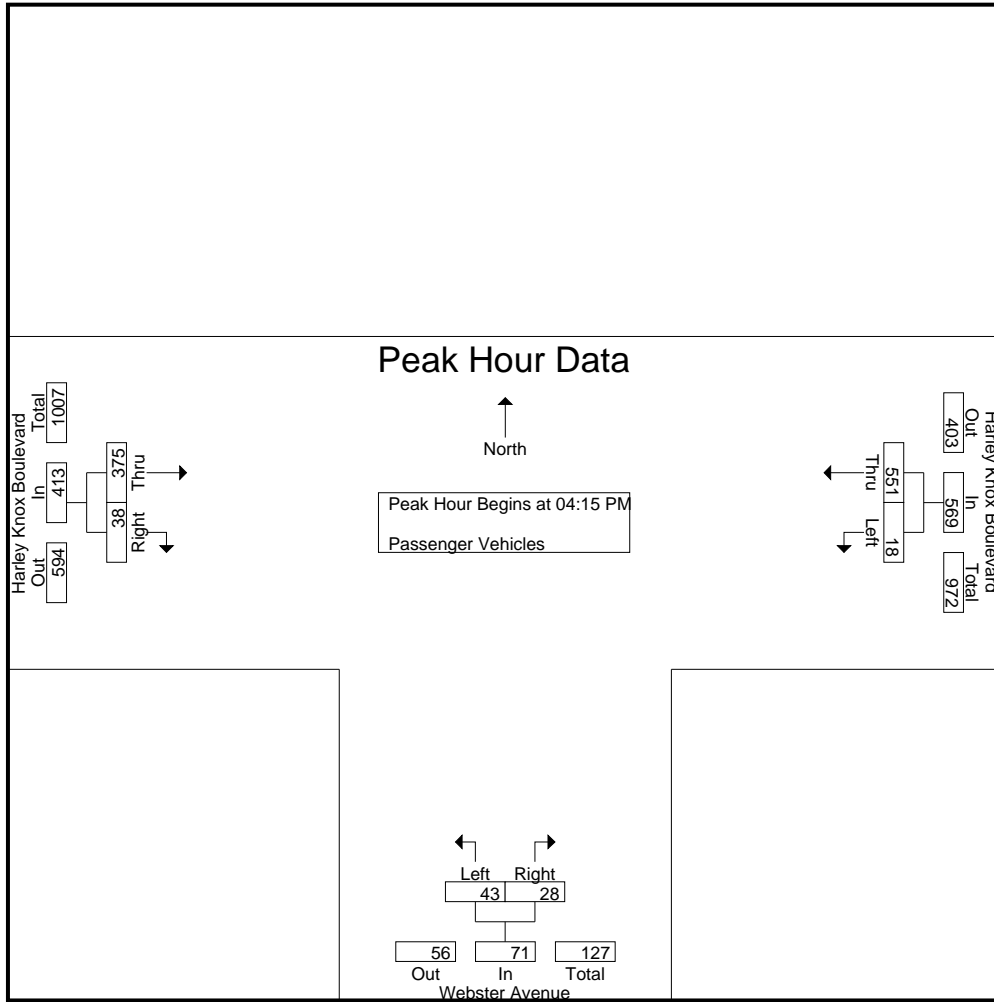
Start Time	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	2	129	131	14	6	20	87	5	92	243
04:15 PM	7	93	100	12	4	16	101	9	110	226
04:30 PM	2	185	187	18	10	28	114	15	129	344
04:45 PM	4	141	145	8	5	13	81	4	85	243
Total	15	548	563	52	25	77	383	33	416	1056
05:00 PM	5	132	137	5	9	14	79	10	89	240
05:15 PM	7	81	88	6	5	11	84	2	86	185
05:30 PM	5	117	122	2	12	14	85	7	92	228
05:45 PM	4	73	77	5	3	8	80	11	91	176
Total	21	403	424	18	29	47	328	30	358	829
Grand Total	36	951	987	70	54	124	711	63	774	1885
Apprch %	3.6	96.4		56.5	43.5		91.9	8.1		
Total %	1.9	50.5	52.4	3.7	2.9	6.6	37.7	3.3	41.1	

Start Time	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:15 PM	7	93	100	12	4	16	101	9	110	226
04:30 PM	2	185	187	18	10	28	114	15	129	344
04:45 PM	4	141	145	8	5	13	81	4	85	243
05:00 PM	5	132	137	5	9	14	79	10	89	240
Total Volume	18	551	569	43	28	71	375	38	413	1053
% App. Total	3.2	96.8		60.6	39.4		90.8	9.2		
PHF	.643	.745	.761	.597	.700	.634	.822	.633	.800	.765

Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 04:15 PM

City of Perris
 N/S: Webster Avenue
 E/W: Harley Knox Boulevard
 Weather: Clear

File Name : 02_PER_Webster_Harley Knox PM
 Site Code : 05722012
 Start Date : 1/11/2022
 Page No : 2



Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	7	93	100	12	4	16	101	9	110
+15 mins.	2	185	187	18	10	28	114	15	129
+30 mins.	4	141	145	8	5	13	81	4	85
+45 mins.	5	132	137	5	9	14	79	10	89
Total Volume	18	551	569	43	28	71	375	38	413
% App. Total	3.2	96.8		60.6	39.4		90.8	9.2	
PHF	.643	.745	.761	.597	.700	.634	.822	.633	.800

City of Perris
 N/S: Webster Avenue
 E/W: Harley Knox Boulevard
 Weather: Clear

File Name : 02_PER_Webster_Harley Knox PM
 Site Code : 05722012
 Start Date : 1/11/2022
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

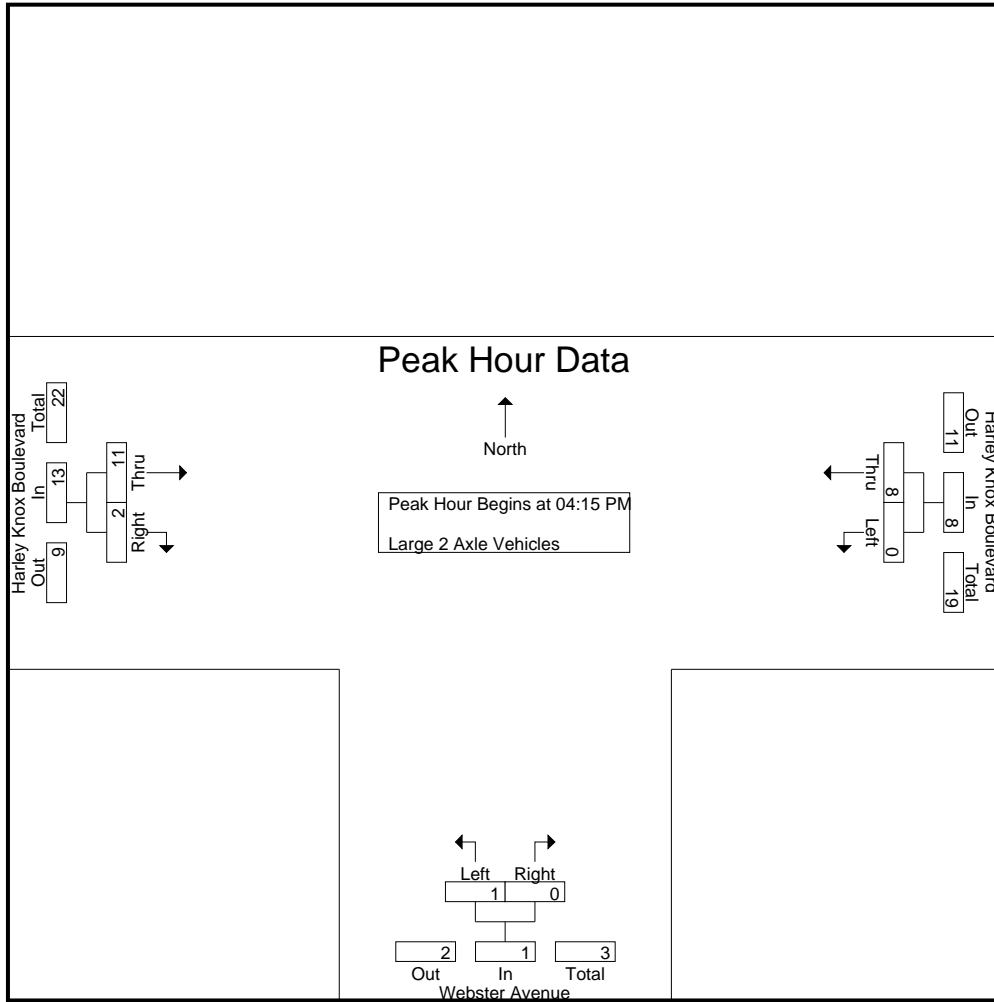
Start Time	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	0	6	6	0	0	0	8	0	8	14
04:15 PM	0	1	1	1	0	1	2	2	4	6
04:30 PM	0	3	3	0	0	0	3	0	3	6
04:45 PM	0	0	0	0	0	0	2	0	2	2
Total	0	10	10	1	0	1	15	2	17	28
05:00 PM	0	4	4	0	0	0	4	0	4	8
05:15 PM	0	5	5	0	0	0	3	0	3	8
05:30 PM	0	3	3	0	0	0	0	0	0	3
05:45 PM	0	1	1	0	0	0	1	1	2	3
Total	0	13	13	0	0	0	8	1	9	22
Grand Total	0	23	23	1	0	1	23	3	26	50
Apprch %	0	100		100	0		88.5	11.5		
Total %	0	46	46	2	0	2	46	6	52	

Start Time	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:15 PM	0	1	1	1	0	1	2	2	4	6
04:30 PM	0	3	3	0	0	0	3	0	3	6
04:45 PM	0	0	0	0	0	0	2	0	2	2
05:00 PM	0	4	4	0	0	0	4	0	4	8
Total Volume	0	8	8	1	0	1	11	2	13	22
% App. Total	0	100		100	0		84.6	15.4		
PHF	.000	.500	.500	.250	.000	.250	.688	.250	.813	.688

Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 04:15 PM

City of Perris
 N/S: Webster Avenue
 E/W: Harley Knox Boulevard
 Weather: Clear

File Name : 02_PER_Webster_Harley Knox PM
 Site Code : 05722012
 Start Date : 1/11/2022
 Page No : 2



Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	0	1	1	1	0	1	2	2	4
+15 mins.	0	3	3	0	0	0	3	0	3
+30 mins.	0	0	0	0	0	0	2	0	2
+45 mins.	0	4	4	0	0	0	4	0	4
Total Volume	0	8	8	1	0	1	11	2	13
% App. Total	0	100		100	0		84.6	15.4	
PHF	.000	.500	.500	.250	.000	.250	.688	.250	.813

City of Perris
 N/S: Webster Avenue
 E/W: Harley Knox Boulevard
 Weather: Clear

File Name : 02_PER_Webster_Harley Knox PM
 Site Code : 05722012
 Start Date : 1/11/2022
 Page No : 1

Groups Printed- 3 Axle Vehicles

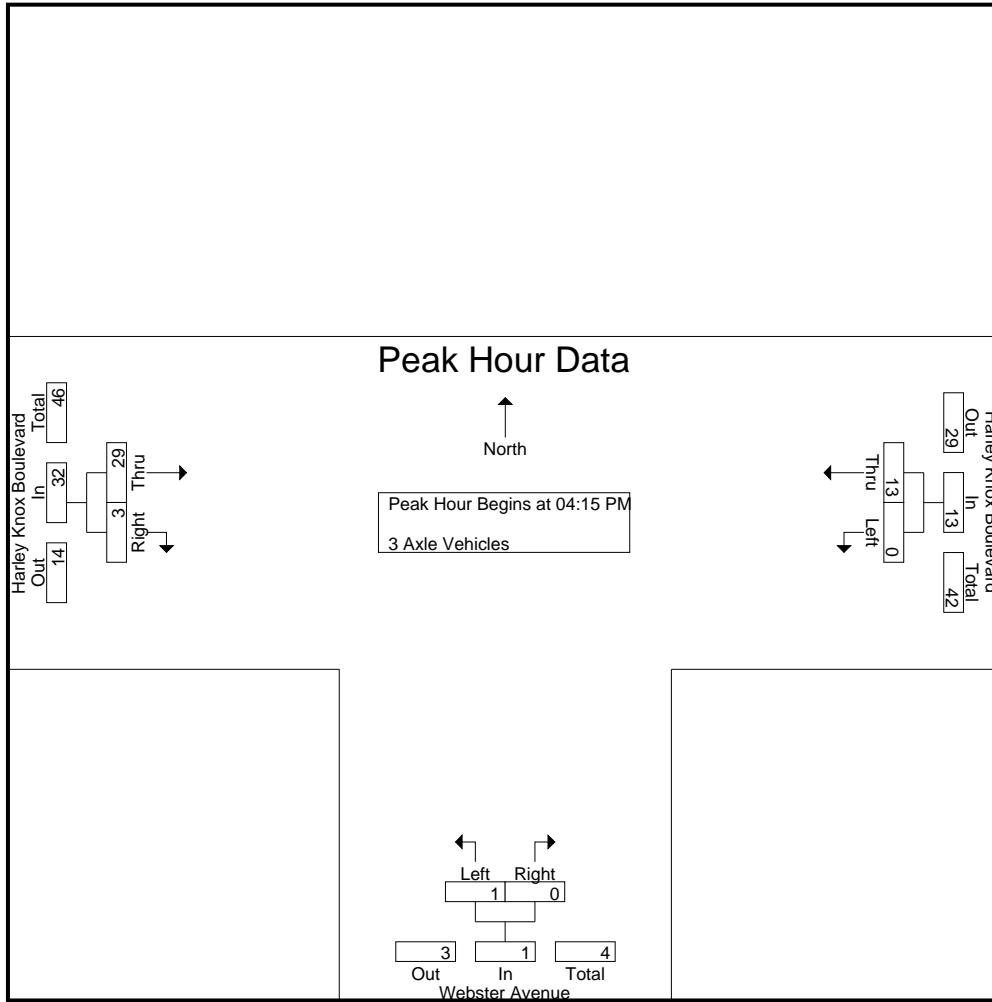
Start Time	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	0	3	3	0	0	0	7	0	7	10
04:15 PM	0	4	4	0	0	0	2	0	2	6
04:30 PM	0	2	2	0	0	0	9	1	10	12
04:45 PM	0	3	3	1	0	1	6	2	8	12
Total	0	12	12	1	0	1	24	3	27	40
05:00 PM	0	4	4	0	0	0	12	0	12	16
05:15 PM	0	3	3	0	0	0	4	3	7	10
05:30 PM	2	2	4	0	0	0	10	2	12	16
05:45 PM	0	0	0	0	0	0	4	0	4	4
Total	2	9	11	0	0	0	30	5	35	46
Grand Total	2	21	23	1	0	1	54	8	62	86
Apprch %	8.7	91.3		100	0		87.1	12.9		
Total %	2.3	24.4	26.7	1.2	0	1.2	62.8	9.3	72.1	

Start Time	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:15 PM	0	4	4	0	0	0	2	0	2	6
04:30 PM	0	2	2	0	0	0	9	1	10	12
04:45 PM	0	3	3	1	0	1	6	2	8	12
05:00 PM	0	4	4	0	0	0	12	0	12	16
Total Volume	0	13	13	1	0	1	29	3	32	46
% App. Total	0	100		100	0		90.6	9.4		
PHF	.000	.813	.813	.250	.000	.250	.604	.375	.667	.719

Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 04:15 PM

City of Perris
 N/S: Webster Avenue
 E/W: Harley Knox Boulevard
 Weather: Clear

File Name : 02_PER_Webster_Harley Knox PM
 Site Code : 05722012
 Start Date : 1/11/2022
 Page No : 2



Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	0	4	4	0	0	0	2	0	2
+15 mins.	0	2	2	0	0	0	9	1	10
+30 mins.	0	3	3	1	0	1	6	2	8
+45 mins.	0	4	4	0	0	0	12	0	12
Total Volume	0	13	13	1	0	1	29	3	32
% App. Total	0	100		100	0		90.6	9.4	
PHF	.000	.813	.813	.250	.000	.250	.604	.375	.667

City of Perris
 N/S: Webster Avenue
 E/W: Harley Knox Boulevard
 Weather: Clear

File Name : 02_PER_Webster_Harley Knox PM
 Site Code : 05722012
 Start Date : 1/11/2022
 Page No : 1

Groups Printed- 4+ Axle Trucks

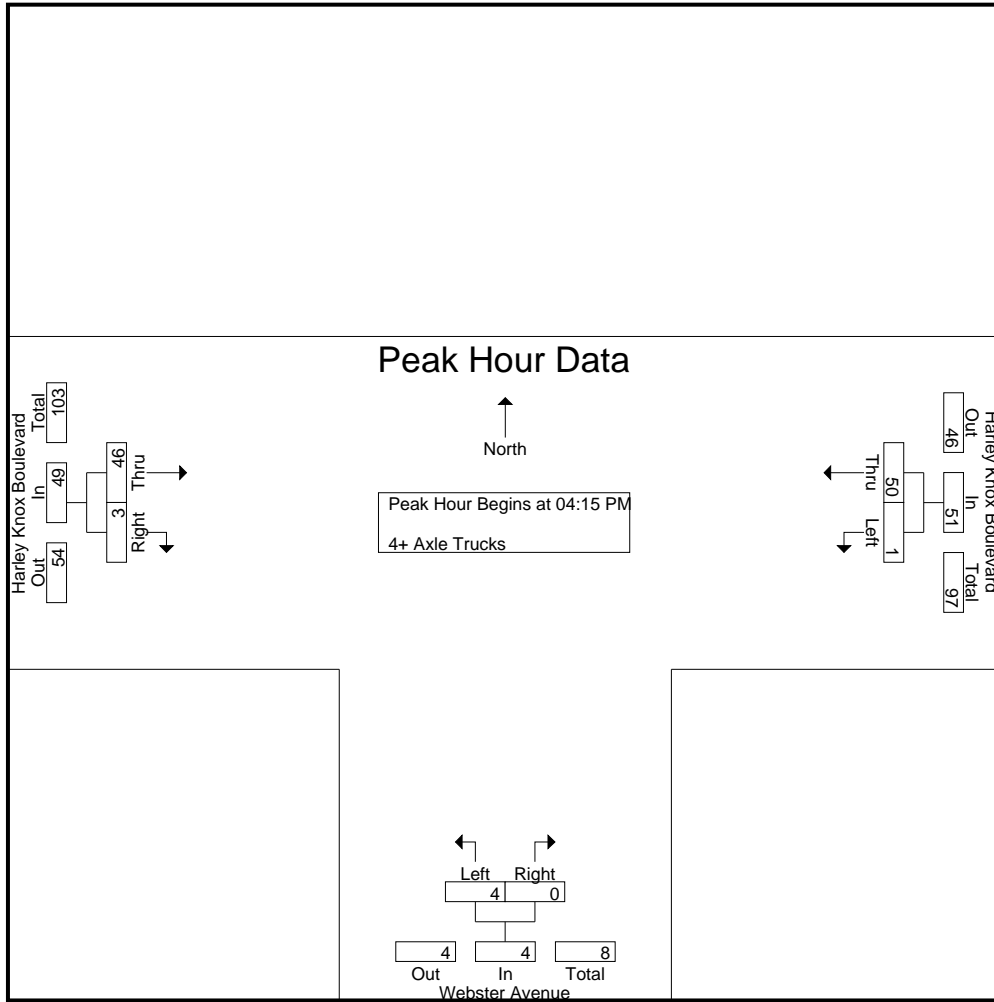
Start Time	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	1	12	13	0	0	0	7	3	10	23
04:15 PM	0	10	10	0	0	0	11	2	13	23
04:30 PM	0	14	14	1	0	1	7	0	7	22
04:45 PM	1	13	14	1	0	1	13	0	13	28
Total	2	49	51	2	0	2	38	5	43	96
05:00 PM	0	13	13	2	0	2	15	1	16	31
05:15 PM	0	12	12	2	1	3	7	2	9	24
05:30 PM	0	14	14	1	0	1	10	2	12	27
05:45 PM	1	9	10	2	0	2	10	0	10	22
Total	1	48	49	7	1	8	42	5	47	104
Grand Total	3	97	100	9	1	10	80	10	90	200
Apprch %	3	97		90	10		88.9	11.1		
Total %	1.5	48.5	50	4.5	0.5	5	40	5	45	

Start Time	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:15 PM	0	10	10	0	0	0	11	2	13	23
04:30 PM	0	14	14	1	0	1	7	0	7	22
04:45 PM	1	13	14	1	0	1	13	0	13	28
05:00 PM	0	13	13	2	0	2	15	1	16	31
Total Volume	1	50	51	4	0	4	46	3	49	104
% App. Total	2	98		100	0		93.9	6.1		
PHF	.250	.893	.911	.500	.000	.500	.767	.375	.766	.839

Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 04:15 PM

City of Perris
 N/S: Webster Avenue
 E/W: Harley Knox Boulevard
 Weather: Clear

File Name : 02_PER_Webster_Harley Knox PM
 Site Code : 05722012
 Start Date : 1/11/2022
 Page No : 2



Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	0	10	10	0	0	0	11	2	13
+15 mins.	0	14	14	1	0	1	7	0	7
+30 mins.	1	13	14	1	0	1	13	0	13
+45 mins.	0	13	13	2	0	2	15	1	16
Total Volume	1	50	51	4	0	4	46	3	49
% App. Total	2	98		100	0		93.9	6.1	
PHF	.250	.893	.911	.500	.000	.500	.767	.375	.766

TABLE B-1
TRAFFIC COUNT CONVERSION TO P.C.E.'S - 2022 AM PEAK HOUR
2.21.4413.1 - HEACOCK LOGISTICS PARKING LOT, MORENO VALLEY

2. Heacock Street at Nandina Avenue											
Movements	Vehicles	Large 2-Axle Trucks			3-Axle Trucks			4+ Axle Trucks			Total
		Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	
NBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
NBT	2	0	1.5	0	0	2.0	0	1	3.0	3	5
NBR	6	1	1.5	2	3	2.0	6	1	3.0	3	17
SBL	115	6	1.5	9	9	2.0	18	11	3.0	33	175
SBT	7	1	1.5	2	0	2.0	0	1	3.0	3	12
SBR	0	0	1.5	0	0	2.0	0	0	3.0	0	0
EBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
EBT	0	0	1.5	0	0	2.0	0	0	3.0	0	0
EBR	0	0	1.5	0	0	2.0	0	0	3.0	0	0
WBL	9	0	1.5	0	0	2.0	0	7	3.0	21	30
WBT	0	0	1.5	0	0	2.0	0	0	3.0	0	0
WBR	54	4	1.5	6	7	2.0	14	11	3.0	33	107

3. Webster Avenue at Harley Knox Boulevard											
Movements	Vehicles	Large 2-Axle Trucks			3-Axle Trucks			4+ Axle Trucks			Total
		Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	
NBL	32	3	1.5	5	0	2.0	0	2	3.0	6	43
NBT	0	0	1.5	0	0	2.0	0	0	3.0	0	0
NBR	33	1	1.5	2	2	2.0	4	4	3.0	12	51
SBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
SBT	0	0	1.5	0	0	2.0	0	0	3.0	0	0
SBR	0	0	1.5	0	0	2.0	0	0	3.0	0	0
EBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
EBT	295	17	1.5	26	16	2.0	32	67	3.0	201	554
EBR	18	0	1.5	0	0	2.0	0	8	3.0	24	42
WBL	12	1	1.5	2	0	2.0	0	2	3.0	6	20
WBT	445	15	1.5	23	17	2.0	34	55	3.0	165	667
WBR	0	0	1.5	0	0	2.0	0	0	3.0	0	0

TABLE B-2
TRAFFIC COUNT CONVERSION TO P.C.E.'S - 2022 PM PEAK HOUR
2.21.4413.1 - HEACOCK LOGISTICS PARKING LOT, MORENO VALLEY

2. Heacock Street at Nandina Avenue											
Movements	Vehicles	Large 2-Axle Trucks			3-Axle Trucks			4+ Axle Trucks			Total
		Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	
NBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
NBT	5	1	1.5	2	1	2.0	2	1	3.0	3	12
NBR	12	1	1.5	2	1	2.0	2	3	3.0	9	25
SBL	279	2	1.5	3	20	2.0	40	20	3.0	60	382
SBT	12	2	1.5	3	1	2.0	2	4	3.0	12	29
SBR	0	0	1.5	0	0	2.0	0	0	3.0	0	0
EBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
EBT	0	0	1.5	0	0	2.0	0	0	3.0	0	0
EBR	0	0	1.5	0	0	2.0	0	0	3.0	0	0
WBL	2	1	1.5	2	0	2.0	0	2	3.0	6	10
WBT	0	0	1.5	0	0	2.0	0	0	3.0	0	0
WBR	142	0	1.5	0	9	2.0	18	9	3.0	27	187

3. Webster Avenue at Harley Knox Boulevard											
Movements	Vehicles	Large 2-Axle Trucks			3-Axle Trucks			4+ Axle Trucks			Total
		Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	
NBL	43	1	1.5	2	1	2.0	2	4	3.0	12	59
NBT	0	0	1.5	0	0	2.0	0	0	3.0	0	0
NBR	28	0	1.5	0	0	2.0	0	0	3.0	0	28
SBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
SBT	0	0	1.5	0	0	2.0	0	0	3.0	0	0
SBR	0	0	1.5	0	0	2.0	0	0	3.0	0	0
EBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
EBT	375	11	1.5	17	29	2.0	58	46	3.0	138	588
EBR	38	2	1.5	3	3	2.0	6	3	3.0	9	56
WBL	18	0	1.5	0	0	2.0	0	1	3.0	3	21
WBT	551	8	1.5	12	13	2.0	26	50	3.0	150	739
WBR	0	0	1.5	0	0	2.0	0	0	3.0	0	0

APPENDIX C

TRAFFIC COUNTS/OBSERVATIONS BACKUP DATA

APPENDIX C-1

**CFL TRUCKING – 11215 RIVERSIDE DRIVE
JURUPA VALLEY, CA**

TABLE C-2
PROJECT TRIP GENERATION RATES AND FORECAST
HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY

RATE FOR PCE TRIPS								
Parking Spaces 346	Truck Trips for 346 Parking Spaces <i>Passenger Vehicles Excluded</i> Rate	Daily 723 2.09	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
			12	37	49	35	22	57
			0.03	0.11	0.14	0.10	0.06	0.16
Project PCE Trips	220 Parking Spaces	460	7	24	31	22	13	35

RATE FOR NON PCE TRIPS								
Parking Spaces 346	Trips for 346 Parking Spaces Rate	Daily 299 0.86	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
			5	15	20	14	9	23
			0.02	0.04	0.06	0.04	0.03	0.07
Project PCE Trips	220 Parking Spaces	189	4	9	13	9	7	16

APPENDIX C-II

**ACE VEHICLE AUCTIONS – 495 HARLEY KNOX BOULEVARD
PERRIS, CA**

Driveway Counts												
Time of day	Driveway 1 - Tuesday, August 10, 2021				Driveway 2 - Tuesday, August 10, 2021				Total of Driveways 1 & 2 - Tuesday, August 10, 2021			
	Inbound		Outbound		Inbound		Outbound		Inbound		Outbound	
	Truck	Car	Truck	Car	Truck	Car	Truck	Car	Truck	Car	Truck	Car
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM	0	4	0	0	0	0	0	0	4	0	0	0
6:00 AM	0	0	0	0	0	0	1	0	0	0	0	1
6:15 AM	0	0	0	0	0	1	0	0	1	0	0	0
6:30 AM	1	5	0	0	0	0	1	1	5	0	1	1
6:45 AM	1	4	0	1	1	1	1	2	5	0	2	2
7:00 AM	1	2	1	0	2	0	1	1	3	2	2	1
7:15 AM	1	0	3	0	0	0	0	0	1	0	3	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	1	0	1	0	2	0	0	0	3	0	1	0
8:00 AM	3	0	4	1	1	0	0	0	4	0	4	1
8:15 AM	3	0	3	0	2	0	1	0	5	0	4	0
8:30 AM	1	0	2	1	1	2	0	0	2	2	2	1
8:45 AM	2	0	2	0	1	1	0	0	3	1	2	0
9:00 AM	2	0	6	1	0	0	1	0	2	0	7	1
9:15 AM	1	1	2	0	0	1	1	0	1	2	3	0
9:30 AM	0	0	2	1	1	2	0	0	1	2	2	1
9:45 AM	0	0	2	0	1	1	0	3	1	1	2	3
10:00 AM	1	1	1	0	0	0	0	1	1	1	1	1
10:15 AM	2	1	2	0	0	0	0	0	2	1	2	0
10:30 AM	0	3	1	0	2	1	0	1	2	4	1	1
10:45 AM	0	1	2	0	2	0	0	0	2	1	2	0
11:00 AM	2	0	0	2	0	0	0	2	2	0	0	4
11:15 AM	1	2	1	2	1	0	2	0	2	2	3	2
11:30 AM	2	0	0	0	1	0	1	1	3	0	1	1
11:45 AM	1	0	0	0	0	1	0	0	1	1	0	0

Driveway Counts												
Time of day	Driveway 1 - Tuesday, August 10, 2021				Driveway 2 - Tuesday, August 10, 2021				Total of Driveways 1 & 2 - Tuesday, August 10, 2021			
	Inbound		Outbound		Inbound		Outbound		Inbound		Outbound	
	Truck	Car	Truck	Car	Truck	Car	Truck	Car	Truck	Car	Truck	Car
12:00 PM	1	1	3	0	2	0	1	0	3	1	4	0
12:15 PM	3	1	0	0	0	0	0	0	3	1	0	0
12:30 PM	2	1	1	0	3	0	0	0	5	1	1	0
12:45 PM	2	0	1	0	1	0	1	1	3	0	2	1
1:00 PM	3	1	4	0	0	0	0	0	3	1	4	0
1:15 PM	2	0	3	2	1	0	0	3	3	0	3	5
1:30 PM	0	1	3	1	0	0	0	0	0	1	3	1
1:45 PM	1	1	0	2	0	0	1	0	1	1	1	2
2:00 PM	1	1	1	2	0	0	0	0	1	1	1	2
2:15 PM	1	0	1	1	0	0	0	1	1	0	1	2
2:30 PM	2	0	0	0	0	0	0	0	2	0	0	0
2:45 PM	0	0	2	0	0	0	0	0	0	0	2	0
3:00 PM	0	1	0	1	0	0	0	0	0	1	0	1
3:15 PM	0	2	0	0	0	0	1	1	0	2	1	1
3:30 PM	1	0	0	2	0	0	0	5	1	0	0	7
3:45 PM	0	0	0	0	0	0	0	2	0	0	0	2
4:00 PM	0	0	0	0	0	0	0	1	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	1	0	0	0	0	0	1	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	1	0	0	0	0	0	0	0	1
6:30 PM	0	1	0	0	0	0	0	0	0	1	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	0	0	0	0	0	0	0	1	0	0	0	1
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	0	0	0	1	0	0	0	0	0	0	0	1
8:00 PM	0	0	0	0	0	0	0	1	0	0	0	1
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
<i>Sum</i>	<i>45</i>	<i>36</i>	<i>54</i>	<i>23</i>	<i>25</i>	<i>11</i>	<i>11</i>	<i>28</i>	<i>70</i>	<i>47</i>	<i>65</i>	<i>51</i>

Driveway Counts												
Time of day	Driveway 1 - Wednesday, August 11, 2021				Driveway 2 - Wednesday, August 11, 2021				Total of Driveways 1 & 2 - Wednesday, August 11, 2021			
	Inbound		Outbound		Inbound		Outbound		Inbound		Outbound	
	Truck	Car	Truck	Car	Truck	Car	Truck	Car	Truck	Car	Truck	Car
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM	0	1	0	0	0	0	2	0	1	0	2	0
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	3	0	0	0	0	0	0	3	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	5	0	0	0	0	1	0	5	0	1	0
7:00 AM	0	1	0	0	0	0	0	0	1	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	1	0	0	0	0	0	0	1	0	0
7:45 AM	1	0	0	0	0	0	0	1	0	0	0	0
8:00 AM	0	0	1	0	1	1	0	0	1	1	2	0
8:15 AM	0	1	0	0	1	0	0	1	1	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	2	0	1	0	1	0	0	3	0	1	0	0
9:00 AM	1	0	0	0	1	0	1	0	2	0	1	0
9:15 AM	0	1	3	1	1	0	0	1	1	3	1	1
9:30 AM	0	0	2	0	0	0	0	0	0	2	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	1	0	1	0	0	1	0	1	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	2	0	0	0	0	0	0	2	0	0	0
10:45 AM	0	0	4	0	0	0	1	0	0	4	1	1
11:00 AM	1	2	0	1	0	0	0	1	2	0	1	1
11:15 AM	0	0	2	0	0	0	0	0	0	2	0	0
11:30 AM	0	0	1	0	1	0	1	0	1	0	2	0
11:45 AM	1	0	0	0	0	0	1	0	1	0	1	0

Driveway Counts												
Time of day	Driveway 1 - Wednesday, August 11, 2021				Driveway 2 - Wednesday, August 11, 2021				Total of Driveways 1 & 2 - Wednesday, August 11, 2021			
	Inbound		Outbound		Inbound		Outbound		Inbound		Outbound	
	Truck	Car	Truck	Car	Truck	Car	Truck	Car	Truck	Car	Truck	Car
12:00 PM	1	1	1	0	1	0	0	1	2	1	1	1
12:15 PM	0	1	0	0	0	0	0	0	0	1	0	0
12:30 PM	0	1	3	0	0	0	0	0	0	1	3	0
12:45 PM	0	0	0	1	0	0	1	0	0	0	1	1
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	1	1	0	1	1	1	0	1
1:30 PM	1	0	1	0	1	0	0	0	2	0	1	0
1:45 PM	1	0	0	0	0	0	0	0	1	0	0	0
2:00 PM	0	0	2	0	0	0	0	0	0	0	2	0
2:15 PM	0	0	0	1	0	0	0	0	0	0	0	1
2:30 PM	0	0	0	1	0	0	0	0	0	0	0	1
2:45 PM	1	0	0	1	0	0	0	5	1	0	0	6
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	1	0	0	0	0	0	1	0	1	0	1
3:30 PM	0	0	0	2	0	0	0	2	0	0	0	4
3:45 PM	0	1	0	0	0	0	0	0	0	1	0	0
4:00 PM	0	0	0	1	0	0	0	2	0	0	0	3
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	1	0	0	0	1
4:45 PM	0	1	0	0	0	0	0	0	0	1	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	0	0	0	0	0	1	0	0	0	1	0	0
7:15 PM	0	0	0	1	0	0	0	0	0	0	0	1
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM	0	0	0	0	0	0	0	1	0	0	0	1
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
<i>Sum</i>	<i>10</i>	<i>22</i>	<i>23</i>	<i>10</i>	<i>9</i>	<i>3</i>	<i>5</i>	<i>18</i>	<i>19</i>	<i>25</i>	<i>28</i>	<i>28</i>

Driveway Counts												
Time of day	Driveway 1 - Thursday, August 12, 2021				Driveway 2 - Thursday, August 12, 2021				Total of Driveways 1 & 2 - Thursday, August 12, 2021			
	Inbound		Outbound		Inbound		Outbound		Inbound		Outbound	
	Truck	Car	Truck	Car	Truck	Car	Truck	Car	Truck	Car	Truck	Car
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	0	0	0	1	0	0	0	0	0	0	0	1
5:00 AM	0	1	0	0	0	0	0	0	0	1	0	0
5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM	0	3	0	0	0	0	0	0	3	0	0	0
6:00 AM	0	3	0	0	0	0	2	0	3	0	2	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	4	0	0	0	0	0	0	4	0	0	0
6:45 AM	0	2	0	0	0	0	2	0	2	0	2	0
7:00 AM	0	1	0	0	0	0	0	0	1	0	0	0
7:15 AM	0	0	0	0	1	1	0	0	1	1	0	0
7:30 AM	0	0	0	0	0	0	0	1	0	0	0	1
7:45 AM	1	0	0	1	1	0	1	0	2	0	1	1
8:00 AM	0	0	1	0	1	0	0	0	1	0	1	0
8:15 AM	0	0	0	2	0	0	0	0	0	0	0	2
8:30 AM	0	2	2	0	0	0	0	0	2	2	2	0
8:45 AM	0	0	1	1	0	0	0	0	0	0	1	1
9:00 AM	0	1	0	0	0	0	0	0	1	0	0	0
9:15 AM	0	0	0	1	0	0	0	0	0	0	0	1
9:30 AM	1	0	1	0	0	0	1	0	1	0	2	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	1	0	0	0	1
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	2	0	1	0	0	0	0	2	0	0	1
10:45 AM	0	0	0	0	0	0	0	1	0	0	0	1
11:00 AM	1	1	0	0	0	0	0	0	1	1	0	0
11:15 AM	0	2	0	1	0	0	2	0	2	2	0	3
11:30 AM	1	3	0	1	0	0	1	0	1	3	1	1
11:45 AM	0	0	0	0	0	0	0	1	0	0	0	1

Driveway Counts												
Time of day	Driveway 1 - Thursday, August 12, 2021				Driveway 2 - Thursday, August 12, 2021				Total of Driveways 1 & 2 - Thursday, August 12, 2021			
	Inbound		Outbound		Inbound		Outbound		Inbound		Outbound	
	Truck	Car	Truck	Car	Truck	Car	Truck	Car	Truck	Car	Truck	Car
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	1	0	0	0	1	0
12:30 PM	0	1	0	0	0	0	0	1	0	1	0	1
12:45 PM	0	0	0	0	1	0	0	0	1	0	0	0
1:00 PM	1	0	2	1	0	0	1	0	1	0	3	1
1:15 PM	0	0	1	0	0	0	0	0	0	0	1	0
1:30 PM	0	1	0	0	0	0	0	0	0	1	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	1	0	1	0	0	0	1	0	1	0
2:15 PM	0	0	0	1	1	0	0	0	1	0	0	1
2:30 PM	0	1	2	2	0	0	0	1	0	1	2	3
2:45 PM	0	0	0	0	0	0	0	2	0	0	0	2
3:00 PM	0	2	0	1	0	0	0	0	0	2	0	1
3:15 PM	1	0	0	0	0	0	1	1	1	0	1	1
3:30 PM	0	0	0	1	0	0	0	1	0	0	0	2
3:45 PM	0	1	0	1	0	0	0	1	0	1	0	2
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	1	0	0	0	0	0	1	0	1
4:30 PM	1	0	0	1	0	0	0	0	1	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	1	0	0	0	0	0	0	0	1	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	1	0	0	0	1	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Sum	7	32	12	18	6	1	7	17	13	33	19	35

TABLE C-3
PROJECT TRIP GENERATION RATES AND FORECAST WITHOUT PCE FACTOR
HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY

Project Description	Daily	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
<i>Existing Ace Vehicle Auctions (Perris) Trip Generation Forecast (8.33 Acres):</i>							
Tuesday - Cars & Trucks (No PCE Factor)	233	17	14	31	1	2	3
Wednesday - Cars & Trucks (No PCE Factor)	100	6	3	9	1	4	5
Thursday - Cars & Trucks (No PCE Factor)	100	5	7	12	2	3	5
Average of 3 Days - Cars & Trucks	144	9	8	17	1	3	4
<i>Derived Vehicle Auction Parking Lot Trip Generation Rates:</i>							
Average of 3 Days - Cars & Trucks	17.287	1.080	0.961	2.041	0.120	0.360	0.480
<i>Proposed Heacock Logistics Parking Lot Trip Generation Forecast (9.14 Acres):</i>							
Average of 3 Days - Cars & Trucks	158	10	9	19	1	3	4

TABLE C-4
PROJECT TRIP GENERATION RATES AND FORECAST WITH PCE FACTOR
HEACOCK LOGISTICS PARKING LOT PROJECT, MORENO VALLEY

Project Description	Daily	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
<i>Existing Ace Vehicle Auctions (Perris) Trip Generation Forecast (8.33 Acres):</i>							
Tuesday - Cars & Trucks (2.0 PCE Factor)	368	31	26	57	1	2	3
Wednesday - Cars & Trucks (2.0 PCE Factor)	147	10	6	16	1	4	5
Thursday - Cars & Trucks (2.0 PCE Factor)	132	8	11	19	3	4	7
Average of 3 Days - Cars & Trucks	216	16	15	31	2	3	5
<i>Derived Vehicle Auction Parking Lot Trip Generation Rates:</i>							
Average of 3 Days - Cars & Trucks	25.93	1.921	1.800	3.721	0.240	0.360	0.600
<i>Proposed Heacock Logistics Parking Lot Trip Generation Forecast (9.14 Acres):</i>							
Average of 3 Days - Cars & Trucks	237	18	16	34	2	3	5

APPENDIX D
MODEL POST-PROCESSING WORKSHEETS

Figure 1
Year 2012 - AM Flow PCE
City of Perris

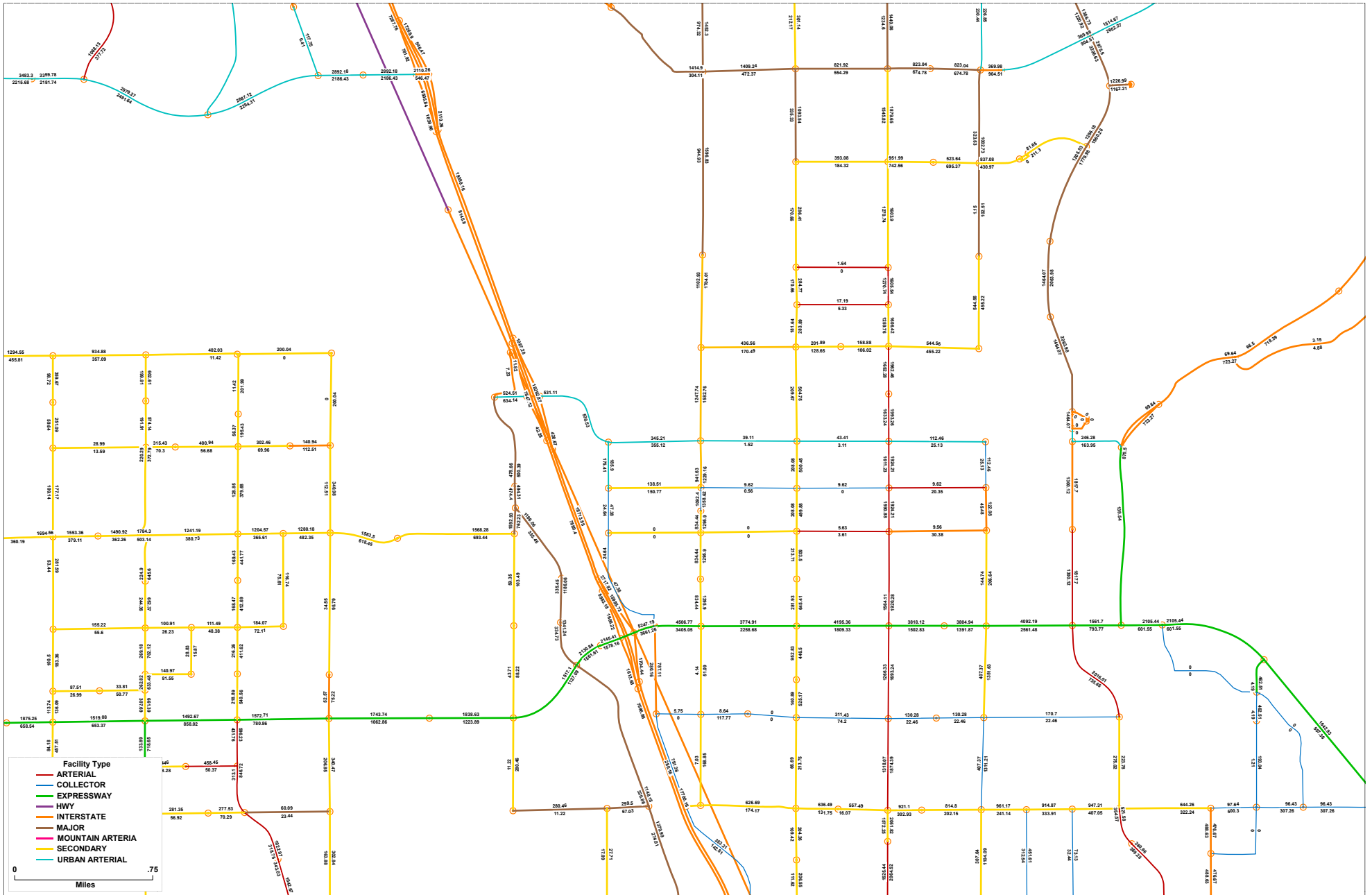


Figure 2
Year 2012 - PM Flow PCE
City of Perris

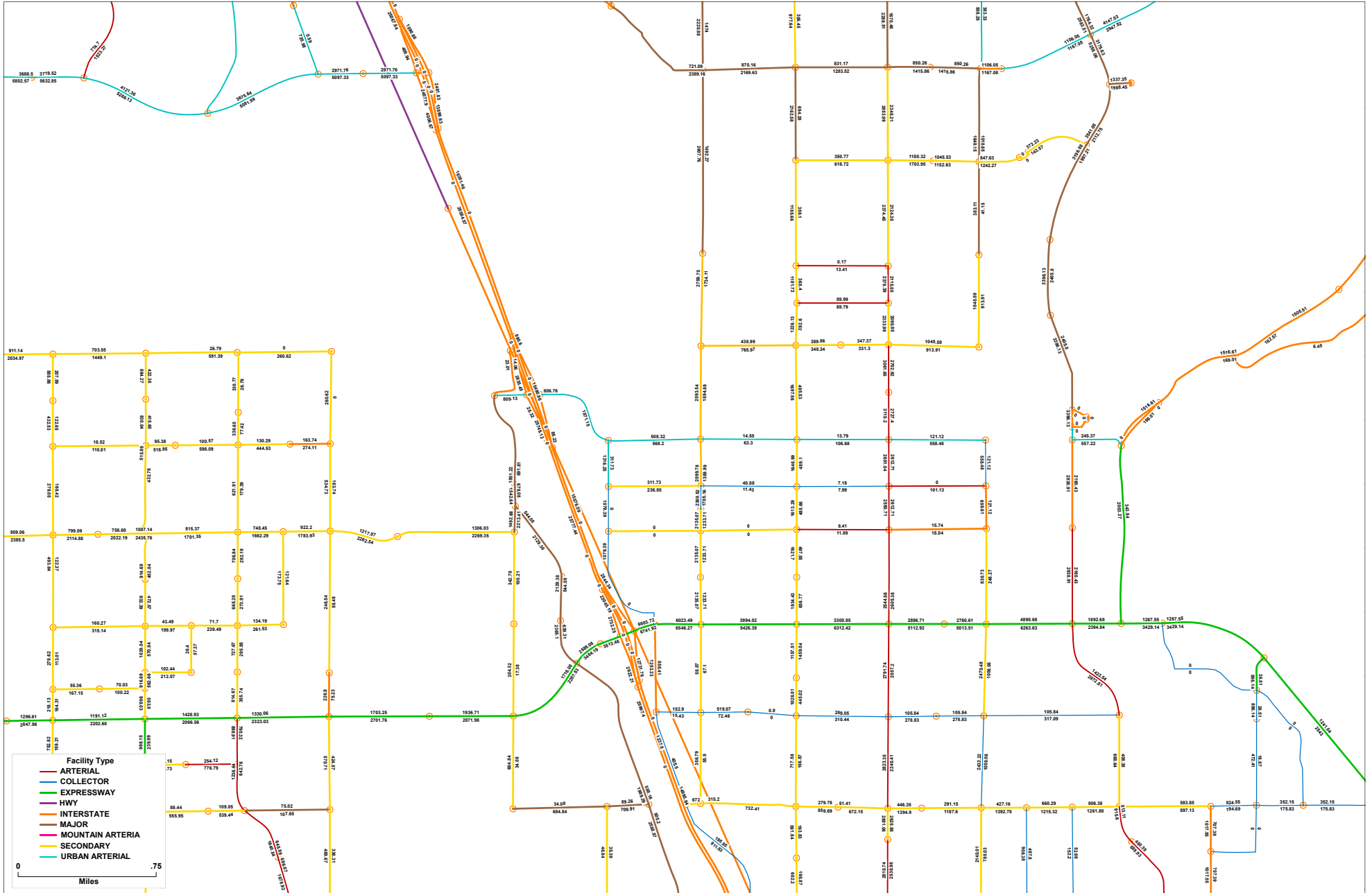


Figure 3
Year 2040 - AM Flow PCE
City of Perris

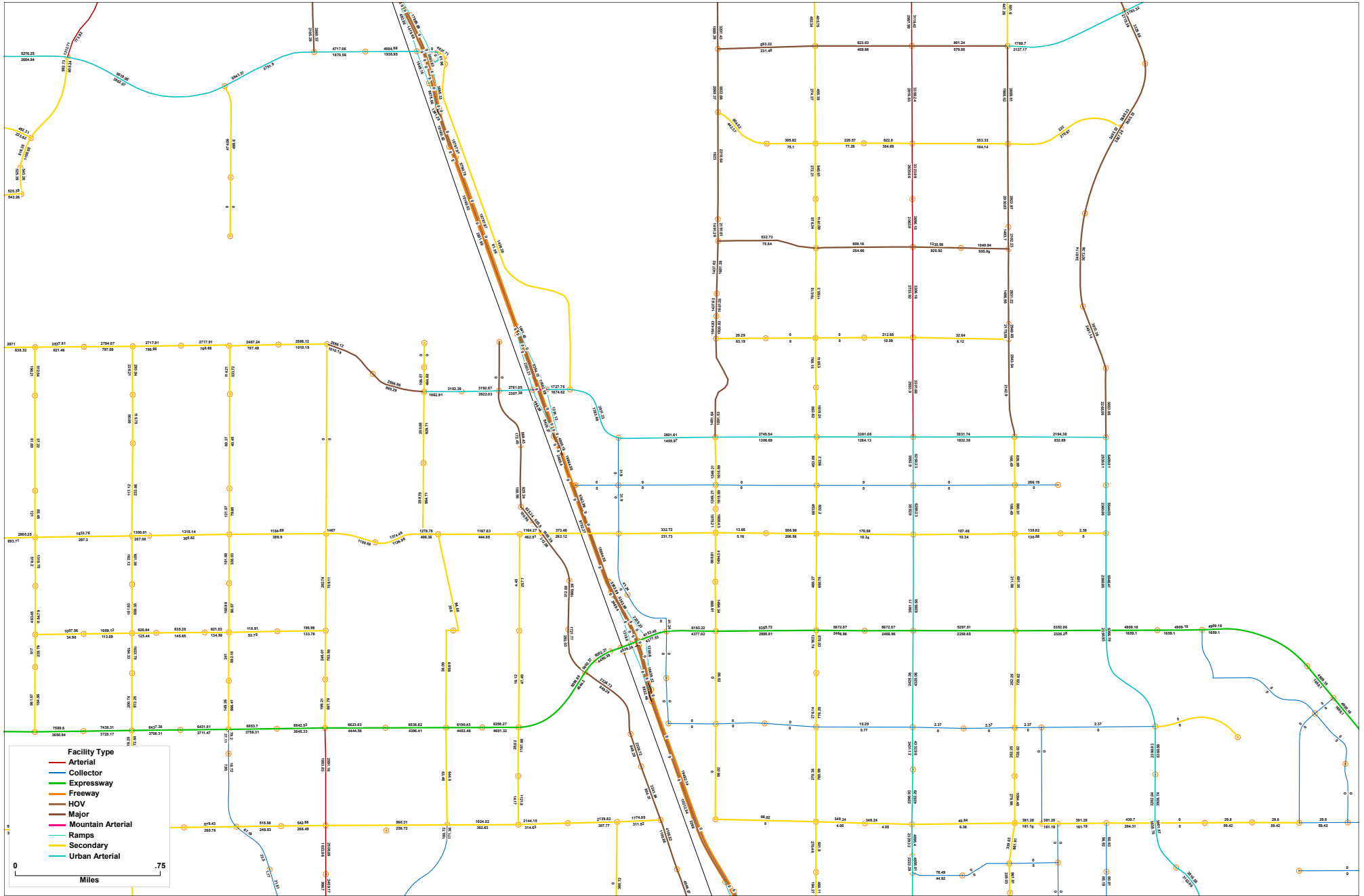
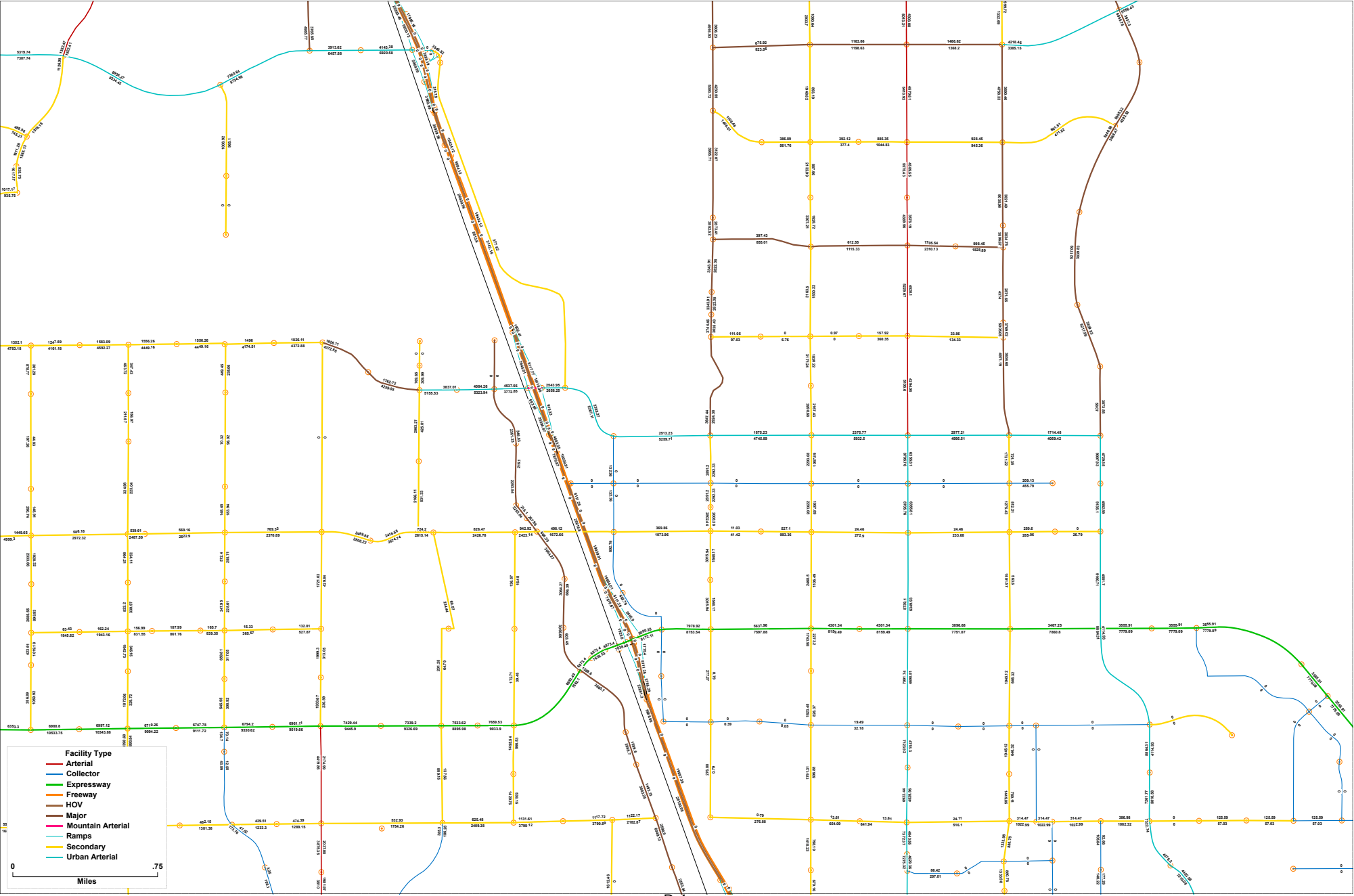


Figure 4
Year 2040 - PM Flow PCE
City of Perris



2. Heacock Street at Nandina Avenue

AM PEAK HOUR

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	APPROACH	FY TOTAL
-----	-----	----	-----	-----
NORTH	LEFT	0	NORTHBOUND	
BOUND	THRU	5	IN ...	86
	RIGHT	17	OUT ...	91
SOUTH	LEFT	175	SOUTHBOUND	
BOUND	THRU	12	IN ...	203
	RIGHT	0	OUT ...	120
EAST	LEFT	0	EASTBOUND	
BOUND	THRU	0	IN ...	0
	RIGHT	0	OUT ...	0
WEST	LEFT	30	WESTBOUND	
BOUND	THRU	0	IN ...	69
	RIGHT	107	OUT ...	147

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
-----	-----	----	-----
NORTH	LEFT	0	0
BOUND	THRU	5	64
	RIGHT	17	23
SOUTH	LEFT	175	124
BOUND	THRU	12	77
	RIGHT	0	0
EAST	LEFT	0	0
BOUND	THRU	0	0
	RIGHT	0	0
WEST	LEFT	30	14
BOUND	THRU	0	0
	RIGHT	107	56

3. Webster Avenue at Harley Knox Boulevard

AM PEAK HOUR

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	APPROACH	FY TOTAL
-----	-----	----	-----	-----
NORTH	LEFT	43	NORTHBOUND	
BOUND	THRU	2	IN ...	108
	RIGHT	51	OUT ...	73
SOUTH	LEFT	5	SOUTHBOUND	
BOUND	THRU	2	IN ...	53
	RIGHT	5	OUT ...	68
EAST	LEFT	5	EASTBOUND	
BOUND	THRU	554	IN ...	634
	RIGHT	42	OUT ...	798
WEST	LEFT	20	WESTBOUND	
BOUND	THRU	667	IN ...	739
	RIGHT	5	OUT ...	595

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
-----	-----	----	-----
NORTH	LEFT	43	57
BOUND	THRU	2	14
	RIGHT	51	40
SOUTH	LEFT	5	29
BOUND	THRU	2	14
	RIGHT	5	48
EAST	LEFT	5	44
BOUND	THRU	554	538
	RIGHT	42	49
WEST	LEFT	20	15
BOUND	THRU	667	713
	RIGHT	5	29

2. Heacock Street at Nandina Avenue

PM PEAK HOUR

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	APPROACH	FY TOTAL
-----	-----	----	-----	-----
NORTH	LEFT	0	NORTHBOUND	
BOUND	THRU	12	IN ...	138
	RIGHT	25	OUT ...	166
SOUTH	LEFT	382	SOUTHBOUND	
BOUND	THRU	29	IN ...	446
	RIGHT	0	OUT ...	245
EAST	LEFT	0	EASTBOUND	
BOUND	THRU	0	IN ...	0
	RIGHT	0	OUT ...	0
WEST	LEFT	10	WESTBOUND	
BOUND	THRU	0	IN ...	121
	RIGHT	187	OUT ...	294

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
-----	-----	----	-----
NORTH	LEFT	0	0
BOUND	THRU	12	121
	RIGHT	25	25
SOUTH	LEFT	382	269
BOUND	THRU	29	161
	RIGHT	0	0
EAST	LEFT	0	0
BOUND	THRU	0	0
	RIGHT	0	0
WEST	LEFT	10	5
BOUND	THRU	0	0
	RIGHT	187	124

3. Webster Avenue at Harley Knox Boulevard

PM PEAK HOUR

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	APPROACH	FY TOTAL
-----	-----	----	-----	-----
NORTH	LEFT	59	NORTHBOUND	
BOUND	THRU	2	IN ...	119
	RIGHT	28	OUT ...	105
SOUTH	LEFT	5	SOUTHBOUND	
BOUND	THRU	2	IN ...	130
	RIGHT	5	OUT ...	104
EAST	LEFT	5	EASTBOUND	
BOUND	THRU	588	IN ...	812
	RIGHT	56	OUT ...	870
WEST	LEFT	21	WESTBOUND	
BOUND	THRU	739	IN ...	734
	RIGHT	5	OUT ...	716

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
-----	-----	----	-----
NORTH	LEFT	59	84
BOUND	THRU	2	22
	RIGHT	28	20
SOUTH	LEFT	5	48
BOUND	THRU	2	23
	RIGHT	5	95
EAST	LEFT	5	86
BOUND	THRU	588	658
	RIGHT	56	75
WEST	LEFT	21	12
BOUND	THRU	739	711
	RIGHT	5	38

APPENDIX E

INTERSECTION LEVEL OF SERVICE CALCULATION WORKSHEETS

APPENDIX E-1

EXISTING TRAFFIC CONDITIONS

Intersection Level Of Service Report
Intersection 2: Heacock Street at Nandina Avenue

Control Type:	Two-way stop	Delay (sec / veh):	13.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.085

Intersection Setup

Name	Heacock Street		Heacock Street		Nandina Avenue	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↩		↪		↩↪	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Heacock Street		Heacock Street		Nandina Avenue	
Base Volume Input [veh/h]	5	17	175	12	30	107
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	17	175	12	30	107
Peak Hour Factor	0.7620	0.7620	0.7620	0.7620	0.7620	0.7620
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	6	57	4	10	35
Total Analysis Volume [veh/h]	7	22	230	16	39	140
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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




Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.15	0.00	0.09	0.13
d_M, Delay for Movement [s/veh]	0.00	0.00	7.66	0.00	13.61	8.91
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.51	0.00	0.28	0.45
95th-Percentile Queue Length [ft/ln]	0.00	0.00	12.70	0.00	6.96	11.36
d_A, Approach Delay [s/veh]	0.00		7.16		9.93	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	7.80					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 3: Webster Avenue at Harley Knox Boulevard

Control Type:	Roundabout	Delay (sec / veh):	5.0
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Webster Avenue		Harley Knox Boulevard		Harley Knox Boulevard	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Webster Avenue		Harley Knox Boulevard		Harley Knox Boulevard	
Base Volume Input [veh/h]	43	51	554	42	20	667
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	43	51	554	42	20	667
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	14	147	11	5	177
Total Analysis Volume [veh/h]	46	54	589	45	21	710
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Number of Conflicting Circulating Lanes	2		2		2	
Circulating Flow Rate [veh/h]	601		21		47	
Exiting Flow Rate [veh/h]	67		771		656	
Demand Flow Rate [veh/h]	43	51	554	42	20	667
Adjusted Demand Flow Rate [veh/h]	46	54	589	45	21	710

Lanes

Overwrite Calculated Critical Headway	No	No	No	No	No	No	No
User-Defined Critical Headway [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Overwrite Calculated Follow-Up Time	No	No	No	No	No	No	No
User-Defined Follow-Up Time [s]	3.00	3.00	3.00	3.00	3.00	3.00	3.00
A (intercept)	1350.00	1420.00	1350.00	1350.00	1420.00	1350.00	1420.00
B (coefficient)	0.00092	0.00085	0.00092	0.00092	0.00085	0.00092	0.00085
HV Adjustment Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Entry Flow Rate [veh/h]	47	56	301	301	46	351	396
Capacity of Entry and Bypass Lanes [veh/h]	777	853	1324	1324	1395	1293	1365
Pedestrian Impedance	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Capacity per Entry Lane [veh/h]	762	836	1298	1298	1368	1268	1338
X, volume / capacity	0.06	0.06	0.23	0.23	0.03	0.27	0.29

Movement, Approach, & Intersection Results

Lane LOS	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.19	0.21	0.87	0.87	0.10	1.10	1.21
95th-Percentile Queue Length [ft]	4.81	5.17	21.86	21.86	2.55	27.62	30.27
Approach Delay [s/veh]	5.12		4.59		5.24		
Approach LOS	A		A		A		
Intersection Delay [s/veh]	4.95						
Intersection LOS	A						

Intersection Level Of Service Report
Intersection 2: Heacock Street at Nandina Avenue

Control Type:	Two-way stop	Delay (sec / veh):	26.5
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.072

Intersection Setup

Name	Heacock Street		Heacock Street		Nandina Avenue	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↩		↩↪		↩↪	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Heacock Street		Heacock Street		Nandina Avenue	
Base Volume Input [veh/h]	12	25	382	29	10	187
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	25	382	29	10	187
Peak Hour Factor	0.7980	0.7980	0.7980	0.7980	0.7980	0.7980
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	8	120	9	3	59
Total Analysis Volume [veh/h]	15	31	479	36	13	234
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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




Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.31	0.00	0.07	0.22
d_M, Delay for Movement [s/veh]	0.00	0.00	8.32	0.00	26.47	9.44
Movement LOS	A	A	A	A	D	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	1.31	0.00	0.23	0.86
95th-Percentile Queue Length [ft/ln]	0.00	0.00	32.86	0.00	5.75	21.49
d_A, Approach Delay [s/veh]	0.00		7.74		10.34	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	8.09					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 3: Webster Avenue at Harley Knox Boulevard

Control Type:	Roundabout	Delay (sec / veh):	5.8
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Webster Avenue		Harley Knox Boulevard		Harley Knox Boulevard	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Webster Avenue		Harley Knox Boulevard		Harley Knox Boulevard	
Base Volume Input [veh/h]	59	28	588	56	21	739
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	59	28	588	56	21	739
Peak Hour Factor	0.7980	0.7980	0.7980	0.7980	0.7980	0.7980
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	9	184	18	7	232
Total Analysis Volume [veh/h]	74	35	737	70	26	926
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Number of Conflicting Circulating Lanes	2		2		2	
Circulating Flow Rate [veh/h]	752		27		75	
Exiting Flow Rate [veh/h]	98		1020		787	
Demand Flow Rate [veh/h]	59	28	588	56	21	739
Adjusted Demand Flow Rate [veh/h]	74	35	737	70	26	926

Lanes

Overwrite Calculated Critical Headway	No	No	No	No	No	No	No
User-Defined Critical Headway [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Overwrite Calculated Follow-Up Time	No	No	No	No	No	No	No
User-Defined Follow-Up Time [s]	3.00	3.00	3.00	3.00	3.00	3.00	3.00
A (intercept)	1350.00	1420.00	1350.00	1350.00	1420.00	1350.00	1420.00
B (coefficient)	0.00092	0.00085	0.00092	0.00092	0.00085	0.00092	0.00085
HV Adjustment Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Entry Flow Rate [veh/h]	59	53	376	376	72	457	515
Capacity of Entry and Bypass Lanes [veh/h]	677	750	1318	1318	1389	1260	1332
Pedestrian Impedance	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Capacity per Entry Lane [veh/h]	663	735	1292	1292	1362	1235	1306
X, volume / capacity	0.09	0.07	0.29	0.29	0.05	0.36	0.39

Movement, Approach, & Intersection Results

Lane LOS	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.29	0.22	1.19	1.19	0.16	1.68	1.86
95th-Percentile Queue Length [ft]	7.13	5.61	29.63	29.63	4.06	41.91	46.38
Approach Delay [s/veh]	6.02		5.12		6.40		
Approach LOS	A		A		A		
Intersection Delay [s/veh]	5.83						
Intersection LOS	A						

APPENDIX E-II

**YEAR 2023 CUMULATIVE (WITHOUT HEACOCK STREET EXTENSION)
TRAFFIC CONDITIONS**

Intersection Level Of Service Report
Intersection 2: Heacock Street at Nandina Avenue

Control Type:	Two-way stop	Delay (sec / veh):	14.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.125

Intersection Setup

Name	Heacock Street		Heacock Street		Nandina Avenue	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↬		↶↵		↶↵	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Heacock Street		Heacock Street		Nandina Avenue	
Base Volume Input [veh/h]	6	19	185	15	41	113
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	19	185	15	41	113
Peak Hour Factor	0.7620	0.7620	0.7620	0.7620	0.7620	0.7620
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	6	61	5	13	37
Total Analysis Volume [veh/h]	8	25	243	20	54	148
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.15	0.00	0.12	0.14
d_M, Delay for Movement [s/veh]	0.00	0.00	7.69	0.00	14.49	8.96
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.54	0.00	0.42	0.49
95th-Percentile Queue Length [ft/ln]	0.00	0.00	13.60	0.00	10.59	12.16
d_A, Approach Delay [s/veh]	0.00		7.11		10.44	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	7.99					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 3: Webster Avenue at Harley Knox Boulevard

Control Type:	Roundabout	Delay (sec / veh):	5.8
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Webster Avenue		Harley Knox Boulevard		Harley Knox Boulevard	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration	⇐⇐		⇐⇐		⇐⇐	
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Webster Avenue		Harley Knox Boulevard		Harley Knox Boulevard	
Base Volume Input [veh/h]	44	65	741	43	38	828
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	65	741	43	38	828
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	17	197	11	10	220
Total Analysis Volume [veh/h]	47	69	788	46	40	881
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Number of Conflicting Circulating Lanes	2		2		2	
Circulating Flow Rate [veh/h]	804		41		48	
Exiting Flow Rate [veh/h]	88		947		874	
Demand Flow Rate [veh/h]	44	65	741	43	38	828
Adjusted Demand Flow Rate [veh/h]	47	69	788	46	40	881

Lanes

Overwrite Calculated Critical Headway	No	No	No	No	No	No	No
User-Defined Critical Headway [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Overwrite Calculated Follow-Up Time	No	No	No	No	No	No	No
User-Defined Follow-Up Time [s]	3.00	3.00	3.00	3.00	3.00	3.00	3.00
A (intercept)	1350.00	1420.00	1350.00	1350.00	1420.00	1350.00	1420.00
B (coefficient)	0.00092	0.00085	0.00092	0.00092	0.00085	0.00092	0.00085
HV Adjustment Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Entry Flow Rate [veh/h]	48	71	402	402	47	442	498
Capacity of Entry and Bypass Lanes [veh/h]	645	718	1301	1301	1372	1292	1364
Pedestrian Impedance	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Capacity per Entry Lane [veh/h]	632	704	1275	1275	1345	1267	1337
X, volume / capacity	0.07	0.10	0.31	0.31	0.03	0.34	0.37

Movement, Approach, & Intersection Results

Lane LOS	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.24	0.33	1.33	1.33	0.11	1.54	1.70
95th-Percentile Queue Length [ft]	6.01	8.13	33.15	33.15	2.65	38.38	42.47
Approach Delay [s/veh]	6.31		5.48		6.04		
Approach LOS	A		A		A		
Intersection Delay [s/veh]	5.81						
Intersection LOS	A						

Intersection Level Of Service Report
Intersection 2: Heacock Street at Nandina Avenue

Control Type:	Two-way stop	Delay (sec / veh):	28.5
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.089

Intersection Setup

Name	Heacock Street		Heacock Street		Nandina Avenue	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↬		↶↵		↶↵	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Heacock Street		Heacock Street		Nandina Avenue	
Base Volume Input [veh/h]	15	36	392	31	12	197
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	36	392	31	12	197
Peak Hour Factor	0.7980	0.7980	0.7980	0.7980	0.7980	0.7980
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	11	123	10	4	62
Total Analysis Volume [veh/h]	19	45	491	39	15	247
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.32	0.00	0.09	0.24
d_M, Delay for Movement [s/veh]	0.00	0.00	8.43	0.00	28.46	9.60
Movement LOS	A	A	A	A	D	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	1.39	0.00	0.29	0.94
95th-Percentile Queue Length [ft/ln]	0.00	0.00	34.79	0.00	7.23	23.45
d_A, Approach Delay [s/veh]	0.00		7.81		10.68	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	8.11					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 3: Webster Avenue at Harley Knox Boulevard

Control Type:	Roundabout	Delay (sec / veh):	7.3
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Webster Avenue		Harley Knox Boulevard		Harley Knox Boulevard	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration	⇐⇐		⇐⇐		⇐⇐	
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Webster Avenue		Harley Knox Boulevard		Harley Knox Boulevard	
Base Volume Input [veh/h]	60	50	765	57	39	964
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	60	50	765	57	39	964
Peak Hour Factor	0.7980	0.7980	0.7980	0.7980	0.7980	0.7980
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	16	240	18	12	302
Total Analysis Volume [veh/h]	75	63	959	71	49	1208
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Number of Conflicting Circulating Lanes	2		2		2	
Circulating Flow Rate [veh/h]	978		50		77	
Exiting Flow Rate [veh/h]	122		1309		1042	
Demand Flow Rate [veh/h]	60	50	765	57	39	964
Adjusted Demand Flow Rate [veh/h]	75	63	959	71	49	1208

Lanes

Overwrite Calculated Critical Headway	No	No	No	No	No	No	No
User-Defined Critical Headway [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Overwrite Calculated Follow-Up Time	No	No	No	No	No	No	No
User-Defined Follow-Up Time [s]	3.00	3.00	3.00	3.00	3.00	3.00	3.00
A (intercept)	1350.00	1420.00	1350.00	1350.00	1420.00	1350.00	1420.00
B (coefficient)	0.00092	0.00085	0.00092	0.00092	0.00085	0.00092	0.00085
HV Adjustment Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Entry Flow Rate [veh/h]	75	67	490	490	73	603	680
Capacity of Entry and Bypass Lanes [veh/h]	549	619	1290	1290	1361	1259	1331
Pedestrian Impedance	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Capacity per Entry Lane [veh/h]	539	607	1265	1265	1335	1234	1305
X, volume / capacity	0.14	0.11	0.38	0.38	0.05	0.48	0.51

Movement, Approach, & Intersection Results

Lane LOS	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.47	0.36	1.80	1.80	0.17	2.67	3.02
95th-Percentile Queue Length [ft]	11.70	8.94	45.01	45.01	4.21	66.72	75.43
Approach Delay [s/veh]	7.84		6.24		8.07		
Approach LOS	A		A		A		
Intersection Delay [s/veh]	7.28						
Intersection LOS	A						

APPENDIX E-III

**YEAR 2023 CUMULATIVE (WITH HEACOCK STREET EXTENSION)
TRAFFIC CONDITIONS**

Intersection Level Of Service Report
Intersection 2: Heacock Street at Nandina Avenue

Control Type:	Two-way stop	Delay (sec / veh):	15.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.053

Intersection Setup

Name	Heacock Street		Heacock Street		Nandina Avenue	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↩		↪		↩↪	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Heacock Street		Heacock Street		Nandina Avenue	
Base Volume Input [veh/h]	125	23	130	101	15	60
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	125	23	130	101	15	60
Peak Hour Factor	0.7620	0.7620	0.7620	0.7620	0.7620	0.7620
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	41	8	43	33	5	20
Total Analysis Volume [veh/h]	164	30	171	133	20	79
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.12	0.00	0.05	0.09
d_M, Delay for Movement [s/veh]	0.00	0.00	7.98	0.00	15.06	9.59
Movement LOS	A	A	A	A	C	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.42	0.00	0.17	0.30
95th-Percentile Queue Length [ft/ln]	0.00	0.00	10.59	0.00	4.18	7.53
d_A, Approach Delay [s/veh]	0.00		4.49		10.69	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	4.06					
Intersection LOS	C					

Intersection Level Of Service Report

Intersection 3: Heacock Street/Webster Avenue at Harley Knox Boulevard

Control Type:	Roundabout	Delay (sec / veh):	6.8
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Webster Avenue			Heacock Street			Harley Knox Boulevard			Harley Knox Boulevard		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⇐⇐			⇐⇐			⇐⇐⇐			⇐⇐		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Webster Avenue			Heacock Street			Harley Knox Boulevard			Harley Knox Boulevard		
Base Volume Input [veh/h]	57	17	52	31	17	65	105	653	49	33	844	34
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	57	17	52	31	17	65	105	653	49	33	844	34
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	5	14	8	5	17	28	174	13	9	224	9
Total Analysis Volume [veh/h]	61	18	55	33	18	69	112	695	52	35	898	36
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Number of Conflicting Circulating Lanes	2			2			2			2		
Circulating Flow Rate [veh/h]	857			1014			88			195		
Exiting Flow Rate [veh/h]	107			169			1049			799		
Demand Flow Rate [veh/h]	57	17	52	31	17	65	105	653	49	33	844	34
Adjusted Demand Flow Rate [veh/h]	61	18	55	33	18	69	112	695	52	35	898	36

Lanes

Overwrite Calculated Critical Headway	No	No	No	No	No	No	No	No	No	No
User-Defined Critical Headway [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Overwrite Calculated Follow-Up Time	No	No	No	No	No	No	No	No	No	No
User-Defined Follow-Up Time [s]	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
A (intercept)	1350.00	1420.00	1350.00	1420.00	1350.00	1350.00	1420.00	1350.00	1420.00	1420.00
B (coefficient)	0.00092	0.00085	0.00092	0.00085	0.00092	0.00092	0.00085	0.00092	0.00085	0.00085
HV Adjustment Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Entry Flow Rate [veh/h]	65	73	53	71	412	412	54	465	524	524
Capacity of Entry and Bypass Lanes [veh/h]	614	686	532	600	1246	1246	1318	1129	1204	1204
Pedestrian Impedance	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Capacity per Entry Lane [veh/h]	602	673	521	589	1221	1221	1293	1107	1180	1180
X, volume / capacity	0.10	0.11	0.10	0.12	0.33	0.33	0.04	0.41	0.44	0.44

Movement, Approach, & Intersection Results

Lane LOS	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.35	0.35	0.32	0.40	1.46	1.46	0.13	2.05	2.25	2.25
95th-Percentile Queue Length [ft]	8.72	8.82	8.10	9.91	36.50	36.50	3.14	51.19	56.30	56.30
Approach Delay [s/veh]	6.84		7.79		5.87			7.56		
Approach LOS	A		A		A			A		
Intersection Delay [s/veh]	6.83									
Intersection LOS	A									

Intersection Level Of Service Report
Intersection 2: Heacock Street at Nandina Avenue

Control Type:	Two-way stop	Delay (sec / veh):	27.9
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.037

Intersection Setup

Name	Heacock Street		Heacock Street		Nandina Avenue	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↩		↪		↩↪	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Heacock Street		Heacock Street		Nandina Avenue	
Base Volume Input [veh/h]	144	26	271	222	5	130
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	144	26	271	222	5	130
Peak Hour Factor	0.7980	0.7980	0.7980	0.7980	0.7980	0.7980
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	45	8	85	70	2	41
Total Analysis Volume [veh/h]	180	33	340	278	6	163
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.25	0.00	0.04	0.19
d_M, Delay for Movement [s/veh]	0.00	0.00	8.54	0.00	27.89	10.28
Movement LOS	A	A	A	A	D	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.99	0.00	0.11	0.71
95th-Percentile Queue Length [ft/ln]	0.00	0.00	24.87	0.00	2.85	17.78
d_A, Approach Delay [s/veh]	0.00		4.70		10.90	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	4.75					
Intersection LOS	D					

Intersection Level Of Service Report

Intersection 3: Heacock Street/Webster Avenue at Harley Knox Boulevard

Control Type:	Roundabout	Delay (sec / veh):	9.6
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Webster Avenue			Heacock Street			Harley Knox Boulevard			Harley Knox Boulevard		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⇐⇐			⇐⇐			⇐⇐⇐			⇐⇐		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Webster Avenue			Heacock Street			Harley Knox Boulevard			Harley Knox Boulevard		
Base Volume Input [veh/h]	84	25	41	53	26	156	103	806	75	29	860	40
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	84	25	41	53	26	156	103	806	75	29	860	40
Peak Hour Factor	0.7980	0.7980	0.7980	0.7980	0.7980	0.7980	0.7980	0.7980	0.7980	0.7980	0.7980	0.7980
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	8	13	17	8	49	32	253	23	9	269	13
Total Analysis Volume [veh/h]	105	31	51	66	33	195	129	1010	94	36	1078	50
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Number of Conflicting Circulating Lanes	2			2			2			2		
Circulating Flow Rate [veh/h]	1229			1243			138			270		
Exiting Flow Rate [veh/h]	166			214			1406			1150		
Demand Flow Rate [veh/h]	84	25	41	53	26	156	103	806	75	29	860	40
Adjusted Demand Flow Rate [veh/h]	105	31	51	66	33	195	129	1010	94	36	1078	50

Lanes

Overwrite Calculated Critical Headway	No	No	No	No	No	No	No	No	No	No
User-Defined Critical Headway [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Overwrite Calculated Follow-Up Time	No	No	No	No	No	No	No	No	No	No
User-Defined Follow-Up Time [s]	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
A (intercept)	1350.00	1420.00	1350.00	1420.00	1350.00	1350.00	1420.00	1350.00	1420.00	1420.00
B (coefficient)	0.00092	0.00085	0.00092	0.00085	0.00092	0.00092	0.00085	0.00092	0.00085	0.00085
HV Adjustment Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Entry Flow Rate [veh/h]	108	84	101	199	581	581	96	559	630	630
Capacity of Entry and Bypass Lanes [veh/h]	436	500	431	494	1190	1190	1264	1053	1129	1129
Pedestrian Impedance	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Capacity per Entry Lane [veh/h]	428	490	422	484	1167	1167	1239	1033	1107	1107
X, volume / capacity	0.25	0.17	0.23	0.40	0.49	0.49	0.08	0.53	0.56	0.56

Movement, Approach, & Intersection Results

Lane LOS	B	A	B	B	A	A	A	B	B
95th-Percentile Queue Length [veh]	0.95	0.60	0.90	1.92	2.76	2.76	0.25	3.21	3.57
95th-Percentile Queue Length [ft]	23.87	14.91	22.51	48.07	69.04	69.04	6.15	80.33	89.31
Approach Delay [s/veh]	11.19		13.69		8.07			10.03	
Approach LOS	B		B		A			B	
Intersection Delay [s/veh]	9.64								
Intersection LOS	A								

APPENDIX E-IV

**YEAR 2023 CUMULATIVE PLUS PROJECT OPTION NO. 1
(WITHOUT HEACOCK STREET EXTENSION) TRAFFIC CONDITIONS**

Intersection Level Of Service Report
Intersection 1: Heacock Street at Project Driveway No. 1

Control Type:	Two-way stop	Delay (sec / veh):	8.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.016

Intersection Setup

Name	Heacock Street		Heacock Street		Project Driveway No. 1	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↩		↪		↔	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Heacock Street		Heacock Street		Project Driveway No. 1	
Base Volume Input [veh/h]	22	0	18	43	0	16
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	22	0	18	43	0	16
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	0	5	11	0	4
Total Analysis Volume [veh/h]	23	0	19	45	0	17
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.02
d_M, Delay for Movement [s/veh]	0.00	0.00	7.29	0.00	9.14	8.47
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.04	0.04	0.05	0.05
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.91	0.91	1.23	1.23
d_A, Approach Delay [s/veh]	0.00		2.16		8.47	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.72					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 2: Heacock Street at Nandina Avenue

Control Type:	Two-way stop	Delay (sec / veh):	15.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.171

Intersection Setup

Name	Heacock Street		Heacock Street		Nandina Avenue	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↬		↶↵		↶↵	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Heacock Street		Heacock Street		Nandina Avenue	
Base Volume Input [veh/h]	10	31	185	20	55	113
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	31	185	20	55	113
Peak Hour Factor	0.7620	0.7620	0.7620	0.7620	0.7620	0.7620
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	10	61	7	18	37
Total Analysis Volume [veh/h]	13	41	243	26	72	148
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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




Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.16	0.00	0.17	0.14
d_M, Delay for Movement [s/veh]	0.00	0.00	7.75	0.00	15.31	9.04
Movement LOS	A	A	A	A	C	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.56	0.00	0.61	0.50
95th-Percentile Queue Length [ft/ln]	0.00	0.00	13.88	0.00	15.26	12.39
d_A, Approach Delay [s/veh]	0.00		7.00		11.09	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	7.96					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 3: Webster Avenue at Harley Knox Boulevard

Control Type:	Roundabout	Delay (sec / veh):	5.8
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Webster Avenue		Harley Knox Boulevard		Harley Knox Boulevard	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Webster Avenue		Harley Knox Boulevard		Harley Knox Boulevard	
Base Volume Input [veh/h]	44	67	745	43	40	831
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	67	745	43	40	831
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	18	198	11	11	221
Total Analysis Volume [veh/h]	47	71	793	46	43	884
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Number of Conflicting Circulating Lanes	2		2		2	
Circulating Flow Rate [veh/h]	809		44		48	
Exiting Flow Rate [veh/h]	91		950		881	
Demand Flow Rate [veh/h]	44	67	745	43	40	831
Adjusted Demand Flow Rate [veh/h]	47	71	793	46	43	884

Lanes

Overwrite Calculated Critical Headway	No	No	No	No	No	No	No
User-Defined Critical Headway [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Overwrite Calculated Follow-Up Time	No	No	No	No	No	No	No
User-Defined Follow-Up Time [s]	3.00	3.00	3.00	3.00	3.00	3.00	3.00
A (intercept)	1350.00	1420.00	1350.00	1350.00	1420.00	1350.00	1420.00
B (coefficient)	0.00092	0.00085	0.00092	0.00092	0.00085	0.00092	0.00085
HV Adjustment Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Entry Flow Rate [veh/h]	48	73	405	405	47	445	502
Capacity of Entry and Bypass Lanes [veh/h]	642	714	1297	1297	1369	1292	1364
Pedestrian Impedance	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Capacity per Entry Lane [veh/h]	629	700	1272	1272	1342	1267	1337
X, volume / capacity	0.07	0.10	0.31	0.31	0.03	0.34	0.37

Movement, Approach, & Intersection Results

Lane LOS	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.24	0.34	1.34	1.34	0.11	1.55	1.72
95th-Percentile Queue Length [ft]	6.04	8.43	33.59	33.59	2.66	38.76	42.90
Approach Delay [s/veh]	6.36		5.52		6.07		
Approach LOS	A		A		A		
Intersection Delay [s/veh]	5.84						
Intersection LOS	A						

Intersection Level Of Service Report
Intersection 1: Heacock Street at Project Driveway No. 1

Control Type:	Two-way stop	Delay (sec / veh):	8.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

Intersection Setup

Name	Heacock Street		Heacock Street		Project Driveway No. 1	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Heacock Street		Heacock Street		Project Driveway No. 1	
Base Volume Input [veh/h]	38	0	2	40	0	3
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	38	0	2	40	0	3
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	0	1	11	0	1
Total Analysis Volume [veh/h]	40	0	2	42	0	3
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.30	0.00	8.95	8.50
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.01	0.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.10	0.10	0.22	0.22
d_A, Approach Delay [s/veh]	0.00		0.33		8.50	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.46					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 2: Heacock Street at Nandina Avenue

Control Type:	Two-way stop	Delay (sec / veh):	29.1
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.108

Intersection Setup

Name	Heacock Street		Heacock Street		Nandina Avenue	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↬		↶↵		↶↵	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Heacock Street		Heacock Street		Nandina Avenue	
Base Volume Input [veh/h]	16	38	392	32	14	197
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	38	392	32	14	197
Peak Hour Factor	0.7980	0.7980	0.7980	0.7980	0.7980	0.7980
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	12	123	10	4	62
Total Analysis Volume [veh/h]	20	48	491	40	18	247
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.32	0.00	0.11	0.24
d_M, Delay for Movement [s/veh]	0.00	0.00	8.45	0.00	29.10	9.62
Movement LOS	A	A	A	A	D	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	1.40	0.00	0.35	0.94
95th-Percentile Queue Length [ft/ln]	0.00	0.00	34.96	0.00	8.87	23.55
d_A, Approach Delay [s/veh]	0.00		7.81		10.94	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	8.16					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 3: Webster Avenue at Harley Knox Boulevard

Control Type:	Roundabout	Delay (sec / veh):	7.3
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Webster Avenue		Harley Knox Boulevard		Harley Knox Boulevard	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration	⇐⇐		⇐⇐		⇐⇐	
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Webster Avenue		Harley Knox Boulevard		Harley Knox Boulevard	
Base Volume Input [veh/h]	60	50	765	57	39	965
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	60	50	765	57	39	965
Peak Hour Factor	0.7980	0.7980	0.7980	0.7980	0.7980	0.7980
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	16	240	18	12	302
Total Analysis Volume [veh/h]	75	63	959	71	49	1209
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Number of Conflicting Circulating Lanes	2		2		2	
Circulating Flow Rate [veh/h]	978		50		77	
Exiting Flow Rate [veh/h]	122		1310		1042	
Demand Flow Rate [veh/h]	60	50	765	57	39	965
Adjusted Demand Flow Rate [veh/h]	75	63	959	71	49	1209

Lanes

Overwrite Calculated Critical Headway	No	No	No	No	No	No	No
User-Defined Critical Headway [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Overwrite Calculated Follow-Up Time	No	No	No	No	No	No	No
User-Defined Follow-Up Time [s]	3.00	3.00	3.00	3.00	3.00	3.00	3.00
A (intercept)	1350.00	1420.00	1350.00	1350.00	1420.00	1350.00	1420.00
B (coefficient)	0.00092	0.00085	0.00092	0.00092	0.00085	0.00092	0.00085
HV Adjustment Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Entry Flow Rate [veh/h]	75	67	490	490	73	604	681
Capacity of Entry and Bypass Lanes [veh/h]	549	619	1290	1290	1361	1259	1331
Pedestrian Impedance	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Capacity per Entry Lane [veh/h]	539	607	1265	1265	1335	1234	1305
X, volume / capacity	0.14	0.11	0.38	0.38	0.05	0.48	0.51

Movement, Approach, & Intersection Results

Lane LOS	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.47	0.36	1.80	1.80	0.17	2.67	3.02
95th-Percentile Queue Length [ft]	11.70	8.94	45.01	45.01	4.21	66.81	75.54
Approach Delay [s/veh]	7.84		6.24		8.07		
Approach LOS	A		A		A		
Intersection Delay [s/veh]	7.28						
Intersection LOS	A						

APPENDIX E-V

**YEAR 2023 CUMULATIVE PLUS PROJECT OPTION NO. 1
(WITH HEACOCK STREET EXTENSION) TRAFFIC CONDITIONS**

Intersection Level Of Service Report
Intersection 1: Heacock Street at Project Driveway No. 1

Control Type:	Two-way stop	Delay (sec / veh):	10.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.016

Intersection Setup

Name	Heacock Street		Heacock Street		Project Driveway No. 1	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Heacock Street		Heacock Street		Project Driveway No. 1	
Base Volume Input [veh/h]	155	12	6	113	10	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	155	12	6	113	10	6
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	41	3	2	30	3	2
Total Analysis Volume [veh/h]	163	13	6	119	11	6
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.02	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	7.58	0.00	10.35	9.23
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.01	0.01	0.07	0.07
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.32	0.32	1.75	1.75
d_A, Approach Delay [s/veh]	0.00		0.36		9.95	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.68					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 2: Heacock Street at Nandina Avenue

Control Type:	Two-way stop	Delay (sec / veh):	15.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.059

Intersection Setup

Name	Heacock Street		Heacock Street		Nandina Avenue	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	┌		┐		┌┐	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Heacock Street		Heacock Street		Nandina Avenue	
Base Volume Input [veh/h]	129	25	130	106	17	60
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	129	25	130	106	17	60
Peak Hour Factor	0.7620	0.7620	0.7620	0.7620	0.7620	0.7620
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	42	8	43	35	6	20
Total Analysis Volume [veh/h]	169	33	171	139	22	79
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.12	0.00	0.06	0.09
d_M, Delay for Movement [s/veh]	0.00	0.00	8.00	0.00	15.31	9.63
Movement LOS	A	A	A	A	C	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.43	0.00	0.19	0.30
95th-Percentile Queue Length [ft/ln]	0.00	0.00	10.67	0.00	4.70	7.59
d_A, Approach Delay [s/veh]	0.00		4.41		10.87	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	4.02					
Intersection LOS	C					

Intersection Level Of Service Report

Intersection 3: Heacock Street/Webster Avenue at Harley Knox Boulevard

Control Type:	Roundabout	Delay (sec / veh):	6.9
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Webster Avenue			Heacock Street			Harley Knox Boulevard			Harley Knox Boulevard		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⇐⇐⇐			⇐⇐⇐			⇐⇐⇐			⇐⇐⇐		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Webster Avenue			Heacock Street			Harley Knox Boulevard			Harley Knox Boulevard		
Base Volume Input [veh/h]	57	19	52	37	19	68	109	653	49	33	844	40
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	57	19	52	37	19	68	109	653	49	33	844	40
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	5	14	10	5	18	29	174	13	9	224	11
Total Analysis Volume [veh/h]	61	20	55	39	20	72	116	695	52	35	898	43
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Number of Conflicting Circulating Lanes	2			2			2			2		
Circulating Flow Rate [veh/h]	867			1014			96			201		
Exiting Flow Rate [veh/h]	109			183			1052			805		
Demand Flow Rate [veh/h]	57	19	52	37	19	68	109	653	49	33	844	40
Adjusted Demand Flow Rate [veh/h]	61	20	55	39	20	72	116	695	52	35	898	43

Lanes

Overwrite Calculated Critical Headway	No	No	No	No	No	No	No	No	No	No
User-Defined Critical Headway [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Overwrite Calculated Follow-Up Time	No	No	No	No	No	No	No	No	No	No
User-Defined Follow-Up Time [s]	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
A (intercept)	1350.00	1420.00	1350.00	1420.00	1350.00	1350.00	1420.00	1350.00	1420.00	1420.00
B (coefficient)	0.00092	0.00085	0.00092	0.00085	0.00092	0.00092	0.00085	0.00092	0.00085	0.00085
HV Adjustment Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Entry Flow Rate [veh/h]	66	74	61	74	414	414	54	468	528	
Capacity of Entry and Bypass Lanes [veh/h]	609	680	532	600	1237	1237	1309	1123	1198	
Pedestrian Impedance	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Capacity per Entry Lane [veh/h]	597	667	521	589	1212	1212	1284	1101	1174	
X, volume / capacity	0.11	0.11	0.11	0.12	0.33	0.33	0.04	0.42	0.44	

Movement, Approach, & Intersection Results

Lane LOS	A	A	A	A	A	A	A	A	A	
95th-Percentile Queue Length [veh]	0.36	0.36	0.38	0.42	1.49	1.49	0.13	2.09	2.30	
95th-Percentile Queue Length [ft]	8.96	9.05	9.52	10.40	37.17	37.17	3.17	52.27	57.50	
Approach Delay [s/veh]	6.93		7.94		5.95			7.67		
Approach LOS	A		A		A			A		
Intersection Delay [s/veh]	6.93									
Intersection LOS	A									

Intersection Level Of Service Report
Intersection 1: Heacock Street at Project Driveway No. 1

Control Type:	Two-way stop	Delay (sec / veh):	11.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

Intersection Setup

Name	Heacock Street		Heacock Street		Project Driveway No. 1	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Heacock Street		Heacock Street		Project Driveway No. 1	
Base Volume Input [veh/h]	168	1	1	234	2	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	168	1	1	234	2	1
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	44	0	0	62	1	0
Total Analysis Volume [veh/h]	177	1	1	246	2	1
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.58	0.00	11.18	9.18
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.01	0.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.05	0.05	0.34	0.34
d_A, Approach Delay [s/veh]	0.00		0.03		10.51	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.09					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 2: Heacock Street at Nandina Avenue

Control Type:	Two-way stop	Delay (sec / veh):	28.0
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.037

Intersection Setup

Name	Heacock Street		Heacock Street		Nandina Avenue	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↬		↶↵		↶↵	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Heacock Street		Heacock Street		Nandina Avenue	
Base Volume Input [veh/h]	145	26	271	223	5	130
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	145	26	271	223	5	130
Peak Hour Factor	0.7980	0.7980	0.7980	0.7980	0.7980	0.7980
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	45	8	85	70	2	41
Total Analysis Volume [veh/h]	182	33	340	279	6	163
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.25	0.00	0.04	0.19
d_M, Delay for Movement [s/veh]	0.00	0.00	8.54	0.00	28.01	10.29
Movement LOS	A	A	A	A	D	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	1.00	0.00	0.11	0.71
95th-Percentile Queue Length [ft/ln]	0.00	0.00	24.93	0.00	2.86	17.84
d_A, Approach Delay [s/veh]	0.00		4.69		10.92	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	4.74					
Intersection LOS	D					

Intersection Level Of Service Report

Intersection 3: Heacock Street/Webster Avenue at Harley Knox Boulevard

Control Type:	Roundabout	Delay (sec / veh):	9.7
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Webster Avenue			Heacock Street			Harley Knox Boulevard			Harley Knox Boulevard		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⇐⇐⇐			⇐⇐⇐			⇐⇐⇐			⇐⇐⇐		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Webster Avenue			Heacock Street			Harley Knox Boulevard			Harley Knox Boulevard		
Base Volume Input [veh/h]	84	25	41	54	26	157	103	806	75	29	860	41
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	84	25	41	54	26	157	103	806	75	29	860	41
Peak Hour Factor	0.7980	0.7980	0.7980	0.7980	0.7980	0.7980	0.7980	0.7980	0.7980	0.7980	0.7980	0.7980
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	8	13	17	8	49	32	253	23	9	269	13
Total Analysis Volume [veh/h]	105	31	51	68	33	197	129	1010	94	36	1078	51
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Number of Conflicting Circulating Lanes	2			2			2			2		
Circulating Flow Rate [veh/h]	1231			1243			140			270		
Exiting Flow Rate [veh/h]	166			215			1408			1152		
Demand Flow Rate [veh/h]	84	25	41	54	26	157	103	806	75	29	860	41
Adjusted Demand Flow Rate [veh/h]	105	31	51	68	33	197	129	1010	94	36	1078	51

Lanes

Overwrite Calculated Critical Headway	No	No	No	No	No	No	No	No	No	No
User-Defined Critical Headway [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Overwrite Calculated Follow-Up Time	No	No	No	No	No	No	No	No	No	No
User-Defined Follow-Up Time [s]	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
A (intercept)	1350.00	1420.00	1350.00	1420.00	1350.00	1350.00	1420.00	1350.00	1420.00	1420.00
B (coefficient)	0.00092	0.00085	0.00092	0.00085	0.00092	0.00092	0.00085	0.00092	0.00085	0.00085
HV Adjustment Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Entry Flow Rate [veh/h]	108	84	104	201	581	581	96	559	630	630
Capacity of Entry and Bypass Lanes [veh/h]	435	499	431	494	1188	1188	1261	1053	1129	1129
Pedestrian Impedance	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Capacity per Entry Lane [veh/h]	427	489	422	484	1164	1164	1237	1033	1107	1107
X, volume / capacity	0.25	0.17	0.24	0.41	0.49	0.49	0.08	0.53	0.56	0.56

Movement, Approach, & Intersection Results

Lane LOS	B	A	B	B	A	A	A	B	B
95th-Percentile Queue Length [veh]	0.96	0.60	0.92	1.95	2.77	2.77	0.25	3.22	3.58
95th-Percentile Queue Length [ft]	23.93	14.94	23.09	48.85	69.28	69.28	6.16	80.47	89.47
Approach Delay [s/veh]	11.21		13.78		8.09			10.04	
Approach LOS	B		B		A			B	
Intersection Delay [s/veh]	9.67								
Intersection LOS	A								

APPENDIX E-VI

**YEAR 2023 CUMULATIVE PLUS PROJECT OPTION NO. 2
(WITHOUT HEACOCK STREET EXTENSION) TRAFFIC CONDITIONS**

Intersection Level Of Service Report
Intersection 1: Heacock Street at Project Driveway No. 1

Control Type:	Two-way stop	Delay (sec / veh):	8.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.025

Intersection Setup

Name	Heacock Street		Heacock Street		Project Driveway No. 1	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↩		↪		↔	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Heacock Street		Heacock Street		Project Driveway No. 1	
Base Volume Input [veh/h]	22	0	8	43	0	25
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	22	0	8	43	0	25
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	0	2	11	0	7
Total Analysis Volume [veh/h]	23	0	8	45	0	26
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.02
d_M, Delay for Movement [s/veh]	0.00	0.00	7.27	0.00	9.03	8.50
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.02	0.02	0.08	0.08
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.38	0.38	1.90	1.90
d_A, Approach Delay [s/veh]	0.00		1.10		8.50	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.74					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 2: Heacock Street at Nandina Avenue

Control Type:	Two-way stop	Delay (sec / veh):	15.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.148

Intersection Setup

Name	Heacock Street		Heacock Street		Nandina Avenue	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↬		↶↵		↶↵	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Heacock Street		Heacock Street		Nandina Avenue	
Base Volume Input [veh/h]	12	38	185	17	47	113
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	38	185	17	47	113
Peak Hour Factor	0.7620	0.7620	0.7620	0.7620	0.7620	0.7620
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	12	61	6	15	37
Total Analysis Volume [veh/h]	16	50	243	22	62	148
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.16	0.00	0.15	0.14
d_M, Delay for Movement [s/veh]	0.00	0.00	7.78	0.00	15.10	9.08
Movement LOS	A	A	A	A	C	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.56	0.00	0.52	0.50
95th-Percentile Queue Length [ft/ln]	0.00	0.00	14.05	0.00	12.91	12.53
d_A, Approach Delay [s/veh]	0.00		7.14		10.86	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	7.71					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 3: Webster Avenue at Harley Knox Boulevard

Control Type:	Roundabout	Delay (sec / veh):	5.8
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Webster Avenue		Harley Knox Boulevard		Harley Knox Boulevard	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration	⇐⇐		⇐⇐		⇐⇐	
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Webster Avenue		Harley Knox Boulevard		Harley Knox Boulevard	
Base Volume Input [veh/h]	44	66	743	43	41	833
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	66	743	43	41	833
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	18	198	11	11	222
Total Analysis Volume [veh/h]	47	70	790	46	44	886
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Number of Conflicting Circulating Lanes	2		2		2	
Circulating Flow Rate [veh/h]	806		45		48	
Exiting Flow Rate [veh/h]	92		952		877	
Demand Flow Rate [veh/h]	44	66	743	43	41	833
Adjusted Demand Flow Rate [veh/h]	47	70	790	46	44	886

Lanes

Overwrite Calculated Critical Headway	No	No	No	No	No	No	No
User-Defined Critical Headway [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Overwrite Calculated Follow-Up Time	No	No	No	No	No	No	No
User-Defined Follow-Up Time [s]	3.00	3.00	3.00	3.00	3.00	3.00	3.00
A (intercept)	1350.00	1420.00	1350.00	1350.00	1420.00	1350.00	1420.00
B (coefficient)	0.00092	0.00085	0.00092	0.00092	0.00085	0.00092	0.00085
HV Adjustment Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Entry Flow Rate [veh/h]	48	72	403	403	47	446	503
Capacity of Entry and Bypass Lanes [veh/h]	644	716	1296	1296	1367	1292	1364
Pedestrian Impedance	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Capacity per Entry Lane [veh/h]	631	702	1270	1270	1341	1267	1337
X, volume / capacity	0.07	0.10	0.31	0.31	0.03	0.35	0.37

Movement, Approach, & Intersection Results

Lane LOS	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.24	0.33	1.34	1.34	0.11	1.56	1.72
95th-Percentile Queue Length [ft]	6.02	8.27	33.45	33.45	2.66	38.94	43.11
Approach Delay [s/veh]	6.33		5.52		6.08		
Approach LOS	A		A		A		
Intersection Delay [s/veh]	5.85						
Intersection LOS	A						

Intersection Level Of Service Report
Intersection 1: Heacock Street at Project Driveway No. 1

Control Type:	Two-way stop	Delay (sec / veh):	8.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.015

Intersection Setup

Name	Heacock Street		Heacock Street		Project Driveway No. 1	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Heacock Street		Heacock Street		Project Driveway No. 1	
Base Volume Input [veh/h]	38	0	23	40	0	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	38	0	23	40	0	14
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	0	6	11	0	4
Total Analysis Volume [veh/h]	40	0	24	42	0	15
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.02	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	7.33	0.00	9.28	8.54
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.05	0.05	0.04	0.04
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.16	1.16	1.11	1.11
d_A, Approach Delay [s/veh]	0.00		2.67		8.54	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.51					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 2: Heacock Street at Nandina Avenue

Control Type:	Two-way stop	Delay (sec / veh):	33.3
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.221

Intersection Setup

Name	Heacock Street		Heacock Street		Nandina Avenue	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Heacock Street		Heacock Street		Nandina Avenue	
Base Volume Input [veh/h]	19	47	392	37	29	197
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	47	392	37	29	197
Peak Hour Factor	0.7980	0.7980	0.7980	0.7980	0.7980	0.7980
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	15	123	12	9	62
Total Analysis Volume [veh/h]	24	59	491	46	36	247
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.32	0.00	0.22	0.24
d_M, Delay for Movement [s/veh]	0.00	0.00	8.51	0.00	33.29	9.69
Movement LOS	A	A	A	A	D	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	1.42	0.00	0.81	0.96
95th-Percentile Queue Length [ft/ln]	0.00	0.00	35.60	0.00	20.26	23.92
d_A, Approach Delay [s/veh]	0.00		7.79		12.69	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	8.61					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 3: Webster Avenue at Harley Knox Boulevard

Control Type:	Roundabout	Delay (sec / veh):	7.3
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Webster Avenue		Harley Knox Boulevard		Harley Knox Boulevard	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration	⇐⇐		⇐⇐		⇐⇐	
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Webster Avenue		Harley Knox Boulevard		Harley Knox Boulevard	
Base Volume Input [veh/h]	60	52	770	57	40	967
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	60	52	770	57	40	967
Peak Hour Factor	0.7980	0.7980	0.7980	0.7980	0.7980	0.7980
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	16	241	18	13	303
Total Analysis Volume [veh/h]	75	65	965	71	50	1212
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Number of Conflicting Circulating Lanes	2		2		2	
Circulating Flow Rate [veh/h]	984		51		77	
Exiting Flow Rate [veh/h]	123		1313		1051	
Demand Flow Rate [veh/h]	60	52	770	57	40	967
Adjusted Demand Flow Rate [veh/h]	75	65	965	71	50	1212

Lanes

Overwrite Calculated Critical Headway	No	No	No	No	No	No	No
User-Defined Critical Headway [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Overwrite Calculated Follow-Up Time	No	No	No	No	No	No	No
User-Defined Follow-Up Time [s]	3.00	3.00	3.00	3.00	3.00	3.00	3.00
A (intercept)	1350.00	1420.00	1350.00	1350.00	1420.00	1350.00	1420.00
B (coefficient)	0.00092	0.00085	0.00092	0.00092	0.00085	0.00092	0.00085
HV Adjustment Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Entry Flow Rate [veh/h]	76	68	493	493	73	606	683
Capacity of Entry and Bypass Lanes [veh/h]	546	616	1289	1289	1360	1259	1331
Pedestrian Impedance	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Capacity per Entry Lane [veh/h]	536	604	1263	1263	1334	1234	1305
X, volume / capacity	0.14	0.11	0.38	0.38	0.05	0.48	0.51

Movement, Approach, & Intersection Results

Lane LOS	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.48	0.37	1.82	1.82	0.17	2.69	3.04
95th-Percentile Queue Length [ft]	11.97	9.14	45.52	45.52	4.21	67.20	76.01
Approach Delay [s/veh]	7.91		6.28		8.10		
Approach LOS	A		A		A		
Intersection Delay [s/veh]	7.31						
Intersection LOS	A						

APPENDIX E-VII

**YEAR 2023 CUMULATIVE PLUS PROJECT OPTION NO. 2
(WITH HEACOCK STREET EXTENSION) TRAFFIC CONDITIONS**

Intersection Level Of Service Report
Intersection 1: Heacock Street at Project Driveway No. 1

Control Type:	Two-way stop	Delay (sec / veh):	10.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.024

Intersection Setup

Name	Heacock Street		Heacock Street		Project Driveway No. 1	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Heacock Street		Heacock Street		Project Driveway No. 1	
Base Volume Input [veh/h]	155	5	3	113	16	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	155	5	3	113	16	9
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	41	1	1	30	4	2
Total Analysis Volume [veh/h]	163	5	3	119	17	9
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.02	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	7.56	0.00	10.32	9.27
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.01	0.01	0.11	0.11
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.16	0.16	2.68	2.68
d_A, Approach Delay [s/veh]	0.00		0.19		9.96	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.89					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 2: Heacock Street at Nandina Avenue

Control Type:	Two-way stop	Delay (sec / veh):	15.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.057

Intersection Setup

Name	Heacock Street		Heacock Street		Nandina Avenue	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↩		↪		↩↪	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Heacock Street		Heacock Street		Nandina Avenue	
Base Volume Input [veh/h]	131	26	130	103	16	60
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	131	26	130	103	16	60
Peak Hour Factor	0.7620	0.7620	0.7620	0.7620	0.7620	0.7620
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	43	9	43	34	5	20
Total Analysis Volume [veh/h]	172	34	171	135	21	79
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.13	0.00	0.06	0.09
d_M, Delay for Movement [s/veh]	0.00	0.00	8.01	0.00	15.28	9.65
Movement LOS	A	A	A	A	C	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.43	0.00	0.18	0.31
95th-Percentile Queue Length [ft/ln]	0.00	0.00	10.71	0.00	4.48	7.63
d_A, Approach Delay [s/veh]	0.00		4.48		10.83	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	4.01					
Intersection LOS	C					

Intersection Level Of Service Report

Intersection 3: Heacock Street/Webster Avenue at Harley Knox Boulevard

Control Type:	Roundabout	Delay (sec / veh):	6.9
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Webster Avenue			Heacock Street			Harley Knox Boulevard			Harley Knox Boulevard		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⇐⇐			⇐⇐			⇐⇐⇐			⇐⇐		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Webster Avenue			Heacock Street			Harley Knox Boulevard			Harley Knox Boulevard		
Base Volume Input [veh/h]	57	18	52	40	20	70	107	653	49	33	844	37
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	57	18	52	40	20	70	107	653	49	33	844	37
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	5	14	11	5	19	28	174	13	9	224	10
Total Analysis Volume [veh/h]	61	19	55	43	21	74	114	695	52	35	898	39
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Number of Conflicting Circulating Lanes	2			2			2			2		
Circulating Flow Rate [veh/h]	869			1014			101			198		
Exiting Flow Rate [veh/h]	110			175			1054			809		
Demand Flow Rate [veh/h]	57	18	52	40	20	70	107	653	49	33	844	37
Adjusted Demand Flow Rate [veh/h]	61	19	55	43	21	74	114	695	52	35	898	39

Lanes

Overwrite Calculated Critical Headway	No	No	No	No	No	No	No	No	No	No
User-Defined Critical Headway [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Overwrite Calculated Follow-Up Time	No	No	No	No	No	No	No	No	No	No
User-Defined Follow-Up Time [s]	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
A (intercept)	1350.00	1420.00	1350.00	1420.00	1350.00	1350.00	1420.00	1350.00	1420.00	1420.00
B (coefficient)	0.00092	0.00085	0.00092	0.00085	0.00092	0.00092	0.00085	0.00092	0.00085	0.00085
HV Adjustment Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Entry Flow Rate [veh/h]	65	73	66	76	413	413	54	466	526	
Capacity of Entry and Bypass Lanes [veh/h]	607	679	532	600	1231	1231	1304	1126	1201	
Pedestrian Impedance	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Capacity per Entry Lane [veh/h]	595	666	521	589	1207	1207	1278	1104	1177	
X, volume / capacity	0.11	0.11	0.12	0.13	0.34	0.34	0.04	0.41	0.44	

Movement, Approach, & Intersection Results

Lane LOS	A	A	A	A	A	A	A	A	A	
95th-Percentile Queue Length [veh]	0.36	0.36	0.42	0.43	1.49	1.49	0.13	2.07	2.27	
95th-Percentile Queue Length [ft]	8.91	9.00	10.43	10.73	37.29	37.29	3.18	51.68	56.85	
Approach Delay [s/veh]	6.93		8.03		5.98			7.61		
Approach LOS	A		A		A			A		
Intersection Delay [s/veh]	6.93									
Intersection LOS	A									

Intersection Level Of Service Report
Intersection 1: Heacock Street at Project Driveway No. 1

Control Type:	Two-way stop	Delay (sec / veh):	11.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.016

Intersection Setup

Name	Heacock Street		Heacock Street		Project Driveway No. 1	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Heacock Street		Heacock Street		Project Driveway No. 1	
Base Volume Input [veh/h]	168	15	8	234	9	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	168	15	8	234	9	5
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	44	4	2	62	2	1
Total Analysis Volume [veh/h]	177	16	8	246	9	5
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.02	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	7.62	0.00	11.49	9.32
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.02	0.02	0.07	0.07
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.44	0.44	1.67	1.67
d_A, Approach Delay [s/veh]	0.00		0.24		10.72	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.46					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 2: Heacock Street at Nandina Avenue

Control Type:	Two-way stop	Delay (sec / veh):	28.8
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.056

Intersection Setup

Name	Heacock Street		Heacock Street		Nandina Avenue	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↬		↶↵		↶↵	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Heacock Street		Heacock Street		Nandina Avenue	
Base Volume Input [veh/h]	148	27	271	228	7	130
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	148	27	271	228	7	130
Peak Hour Factor	0.7980	0.7980	0.7980	0.7980	0.7980	0.7980
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	46	8	85	71	2	41
Total Analysis Volume [veh/h]	185	34	340	286	9	163
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.25	0.00	0.06	0.19
d_M, Delay for Movement [s/veh]	0.00	0.00	8.56	0.00	28.85	10.32
Movement LOS	A	A	A	A	D	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	1.00	0.00	0.18	0.72
95th-Percentile Queue Length [ft/ln]	0.00	0.00	25.04	0.00	4.43	17.94
d_A, Approach Delay [s/veh]	0.00		4.65		11.29	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	4.77					
Intersection LOS	D					

Intersection Level Of Service Report

Intersection 3: Heacock Street/Webster Avenue at Harley Knox Boulevard

Control Type:	Roundabout	Delay (sec / veh):	9.9
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Webster Avenue			Heacock Street			Harley Knox Boulevard			Harley Knox Boulevard		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⇐⇐⇐			⇐⇐⇐			⇐⇐⇐			⇐⇐⇐		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Webster Avenue			Heacock Street			Harley Knox Boulevard			Harley Knox Boulevard		
Base Volume Input [veh/h]	84	27	41	58	27	159	108	806	75	29	860	48
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	84	27	41	58	27	159	108	806	75	29	860	48
Peak Hour Factor	0.7980	0.7980	0.7980	0.7980	0.7980	0.7980	0.7980	0.7980	0.7980	0.7980	0.7980	0.7980
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	8	13	18	8	50	34	253	23	9	269	15
Total Analysis Volume [veh/h]	105	34	51	73	34	199	135	1010	94	36	1078	60
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Number of Conflicting Circulating Lanes	2			2			2			2		
Circulating Flow Rate [veh/h]	1242			1243			146			279		
Exiting Flow Rate [veh/h]	167			234			1410			1157		
Demand Flow Rate [veh/h]	84	27	41	58	27	159	108	806	75	29	860	48
Adjusted Demand Flow Rate [veh/h]	105	34	51	73	34	199	135	1010	94	36	1078	60

Lanes

Overwrite Calculated Critical Headway	No	No	No	No	No	No	No	No	No	No
User-Defined Critical Headway [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Overwrite Calculated Follow-Up Time	No	No	No	No	No	No	No	No	No	No
User-Defined Follow-Up Time [s]	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
A (intercept)	1350.00	1420.00	1350.00	1420.00	1350.00	1350.00	1420.00	1350.00	1420.00	1420.00
B (coefficient)	0.00092	0.00085	0.00092	0.00085	0.00092	0.00092	0.00085	0.00092	0.00085	0.00085
HV Adjustment Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Entry Flow Rate [veh/h]	108	87	110	203	584	584	96	563	635	635
Capacity of Entry and Bypass Lanes [veh/h]	431	494	431	494	1181	1181	1255	1044	1120	1120
Pedestrian Impedance	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Capacity per Entry Lane [veh/h]	423	485	422	484	1158	1158	1230	1024	1098	1098
X, volume / capacity	0.25	0.18	0.25	0.41	0.49	0.49	0.08	0.54	0.57	0.57

Movement, Approach, & Intersection Results

Lane LOS	B	A	B	B	A	A	A	B	B	
95th-Percentile Queue Length [veh]	0.97	0.63	1.00	1.99	2.83	2.83	0.25	3.32	3.70	
95th-Percentile Queue Length [ft]	24.25	15.77	24.88	49.63	70.69	70.69	6.20	83.06	92.39	
Approach Delay [s/veh]	11.37		13.93		8.21			10.28		
Approach LOS	B		B		A			B		
Intersection Delay [s/veh]	9.85									
Intersection LOS	A									