



September 11, 2020

Bikram Kahlon, PE
Senior Traffic Engineer
City of Chico
411 Main Street
Chico, CA 95927

DRAFT Traffic Analysis & Technical Study – Guynn Avenue Bridge Replacement

Dear Mr. Kahlon,

This letter presents traffic volume information for use in air quality analysis and summarizes a traffic analysis and technical study performed to assess traffic conditions associated with the Guynn Avenue Bridge Replacement Project in Chico, CA. The proposed project consists of constructing a new two-lane bridge just west of the existing single-lane bridge. The existing bridge will remain in place to serve bicycle and pedestrian traffic.

TRAFFIC VOLUMES

Existing Conditions

Existing daily and peak hour traffic volumes were collected on August 25th and 26th, 2020. It should be noted that schools were not in session and select business were closed due to coronavirus containment measures. The counts collected on Guynn Avenue just north of the existing bridge indicate 737 daily vehicles, 1.8 percent trucks, a mean travel speed of 14.8 MPH, and an 85th percentile speed of 21.6 MPH.

The character of Guynn Avenue and the surrounding neighborhood has not significantly change in recent years. The 2020 collected data is slightly higher than the City of Chico's historical data (675 vehicle Daily volume in 2017) and is consistent with 2020 BCAG travel demand outputs (700 vehicle Daily volume). Therefore, no volume adjustments were made to the 2020 counts. It is important to note that the traffic volumes on Guynn Avenue are very low and minor differences associated with school related traffic and COVID-19 effects would not change any conclusions of this study. The detailed traffic count data is provided in **Attachment A**.

Opening Day Conditions

Opening Day Conditions are anticipated to occur in the year 2023 and represent how the local network will operate just after the construction of the new two-lane bridge. **Table 1** shows the future growth on Guynn Avenue as projected in the BCAG travel demand model based on development levels in the City of Chico General Plan.

Table 1. BCAG Model Growth Rate Calculations

| Location --> | Guynn Bridge |
|---------------------------------|---------------|
| | N/O Lindo Ave |
| 2020 BCAG Average Daily Traffic | 700 |
| 2040 BCAG Average Daily Traffic | 734 |
| Model Difference 2040-2020 | 34 |
| Total % Change | 5% |
| % Change per Year | 0.2% |

As shown in the table, it is anticipated that little growth will occur within the study area in the future. This is a reasonable estimate given the neighborhood is already built out with the exception of a few parcels. This analysis uses a 0.2% increase per year. It is anticipated that the daily segment volume will be 743 vehicles in the year 2023. Truck percentages would be essentially the same as exist today, around 2%, and travel speeds could increase slightly with a wider bridge (85th percentile speed estimated at 25 mph).

2040 Conditions

2040 traffic volume forecasts were developed by applying the 0.2% growth rate per year over the 20-year horizon. It is anticipated that the daily segment volume will be 774 vehicles in the year 2040. Again, truck percentages would be essentially the same as exist today, around 2%, and travel speeds could increase slightly compared to existing conditions with a wider bridge (85th percentile speed estimated at 25 mph).

VMT CALCULATIONS

This Vehicle Miles Travelled (VMT) analysis is based on local route evaluation specific to Guynn Avenue between West Lindo Avenue and Guynn Bridge Court. The current bridge essentially serves only the local neighborhood and traffic volumes are not anticipated to increase only by construction of a wider bridge. The conclusion of no substantial change in traffic volumes is supported by the *Technical Advisory on Evaluating Transportation Impacts in CEQA, December 2018*, published by the Governor’s Office of Planning and Research (OPR). That document states the “addition of roadway capacity on local or collector streets provided the project also substantially improves conditions for pedestrians, cyclists, and, if applicable, transit” is a “Project that would not likely lead to a substantial or measurable increase in vehicle travel, and therefore generally should not require an induced travel analysis” (pages 20 and 21).

This project does improve conditions for pedestrians and cyclists by dedicating the existing bridge to their use, where currently pedestrians and cyclists must share the single lane roadway with automobiles. Since travel would not be induced with the project, VMT would be the same under the “build” and “no build” scenarios. VMT was simply calculated by multiplying the daily traffic volume by the segment length.



Existing Conditions

Table 2 shows the Existing Conditions VMT estimate.

Table 2. Existing Conditions VMT

| Roadway | Location | Daily Volume (Veh) | Segment Length (Mi.) | Calculated VMT |
|-----------|---------------------------------------|--------------------|----------------------|----------------|
| Guynn Ave | Between Lindo Ave and Guynn Bridge Ct | 737 | 0.0322 | 23.7 |

As shown in the table, the VMT estimate for both existing and existing plus project conditions is approximately 23.7 vehicle miles per day.

Opening Day Conditions

Table 3 shows the Opening Day Conditions VMT estimate.

Table 3. Opening Day VMT

| Roadway | Location | Daily Volume (Veh) | Segment Length (Mi.) | Calculated VMT |
|-----------|---------------------------------------|--------------------|----------------------|----------------|
| Guynn Ave | Between Lindo Ave and Guynn Bridge Ct | 743 | 0.0322 | 23.9 |

As shown in the table, the Opening Day Conditions VMT estimate, with or without the project, is approximately 23.9 vehicle miles per day.

2040 Conditions

Table 4 shows the 2040 Conditions VMT estimate.

Table 4. 2040 Conditions VMT

| Roadway | Location | Daily Volume (Veh) | Segment Length (Mi.) | Calculated VMT |
|-----------|---------------------------------------|--------------------|----------------------|----------------|
| Guynn Ave | Between Lindo Ave and Guynn Bridge Ct | 774 | 0.0322 | 24.9 |

As shown in the table, the 2040 Conditions VMT estimate is approximately 24.9 vehicle miles per day, with or without the project.



LEVEL OF SERVICE ANALYSIS

Analysis Scenarios

Two analysis scenarios are included in this evaluation - “No Build” and “Build”.

Under the “No Build” scenario, the Guynn Avenue road segment and the W. Lindo Avenue / Guynn Avenue intersection were analyzed based on existing lane configurations and traffic controls. The Guynn Avenue bridge is currently a short single-lane bridge with alternating two-way traffic (uncontrolled).

Under the “Build” scenario, a new two-lane bridge will be constructed just west of the existing single-lane bridge. The existing bridge will be utilized by bicycles and pedestrians under this scenario. The intersection with W. Lindo Avenue will also be shifted to the west, but the proposed configuration is assumed to be the same as exists today, a single lane stop-controlled approach to W. Lindo Avenue.

Traffic volumes are not anticipated to increase with construction of the new bridge as volumes are low and the current bridge is not congested. Changes to the configuration would not create any re-routing of traffic to the new bridge or intersection with W. Lindo Avenue.

Each analysis scenario was analyzed during the following three timeframes:

- ▶ Existing (2020) Conditions
- ▶ Opening Day (2023) Conditions
- ▶ 2040 Conditions

Analysis Methodology

Level of service (LOS) is a term commonly used by transportation practitioners to measure and describe the operational characteristics of intersections, roadway segments, and other facilities. This term equates seconds of delay per vehicle at intersections to letter grades “A” through “F” with “A” representing optimum conditions and “F” representing breakdown or over capacity flows.

Intersections

The complete methodology for intersection level of service analysis is established in the *Highway Capacity Manual (HCM) 6th Edition*, published by the Transportation Research Board (TRB). **Table 5** presents the delay thresholds for each level of service grade at signalized and unsignalized intersections.



Table 5: Level of Service Definition for Intersections

| Level of Service | Brief Description | Average Delay (seconds per vehicle) | |
|------------------|--|-------------------------------------|----------------------------|
| | | Signalized Intersections | Unsignalized Intersections |
| A | Free flow conditions. | < 10 | < 10 |
| B | Stable conditions with some affect from other vehicles. | 10 to 20 | 10 to 15 |
| C | Stable conditions with significant affect from other vehicles. | 20 to 35 | 15 to 25 |
| D | High density traffic conditions still with stable flow. | 35 to 55 | 25 to 35 |
| E | At or near capacity flows. | 55 to 80 | 35 to 50 |
| F | Over capacity conditions. | > 80 | > 50 |

Source: Highway Capacity Manual (2010), Chapters 18 through 21

Level of service calculations were performed for the study intersections using Vistro 2020 software package with analysis and results reported in accordance with *HCM 6th Edition* methodology.

Note that the level of service for intersections is the same under “build” and “no build” scenarios as the computation software specific to intersections does not evaluate the effects of a single lane bridge adjacent to the intersection. It is noted that minor delays occur around the W. Lindo Avenue/Guynn Avenue intersection when conflicting traffic arrives at the same time, however, the effects were observed to be minor enough that intersection levels of service would not change as a result.

Roadway Segments

Roadway segment level of service thresholds were established in the City of Chico *General Plan Update Draft Environmental Impact Report (EIR)*, September 2010. Thresholds were established for PM peak hour roadway segment volumes and are shown in **Table 6**.

Table 6: PM Peak Hour Roadway Segment LOS Thresholds

| Facility Type | Level of Service (Two-Way Traffic Volumes) | | | | | |
|--|--|-------|------------|------------|------------|-----------------|
| | A | B | C | D | E | F |
| Minor 2-Lane Highway | 90 | 200 | 680 | 1,410 | 1,740 | > 1,740 |
| Major 2-Lane Highway | 120 | 290 | 790 | 1,600 | 2,050 | > 2,050 |
| 4-Lane, Multilane Highway ¹ | 1,070 | 1,760 | 2,530 | 3,280 | 3,650 | > 3,650 |
| Major 2-Lane Collector | - | - | 550 | 1,180 | 1,520 | > 1,520 |
| 1- Lane Collector² | - | - | 275 | 590 | 760 | > 760 |
| 2-Lane Arterial | - | - | 970 | 1,760 | 1,870 | > 1,870 |
| 4-Lane Arterial, Undivided | - | - | 1,750 | 2,740 | 2,890 | > 2,890 |
| 4-Lane Arterial, Divided | - | - | 1,920 | 3,540 | 3,740 | > 3,740 |

Notes: 1. LOS capacity threshold is for one direction.

2. Half of Major 2-Lane Collector

Source: *General Plan Update Draft EIR*, City of Chico, September 2010



The City of Chico does not have any LOS thresholds for local streets or one-lane roads. Therefore, this study uses one-half of the traffic volume threshold stated for a 2-Lane Collector for the single-lane bridge condition.

Level of Service Policy

The City of Chico *2030 General Plan* Circulation Element establishes the following level of service standards for roadways and intersections:

- ▶ Policy CIRC-1.4 (Level of Service Standards) – Maintain LOS D or better for roadways and intersections at the peak PM period, except as specified below:
 - » LOS E is acceptable for City streets and intersections under the following circumstances:
 - » Downtown streets within the boundaries identified in Figure DT-1 of the Downtown Element.
 - » Arterials served by scheduled transit.
 - » Arterials not served by scheduled transit, if bicycle and pedestrian facilities are provided within or adjacent to the roadway.
- ▶ Utilize Caltrans LOS standards for Caltrans’ facilities.
- ▶ There are no LOS standards for private roads.

Therefore, Level of Service (LOS) “D” was used as the threshold criteria.

Existing Conditions

Intersection Level of Service:

Table 7 presents the Existing Conditions level of service analysis and the calculation sheets are provided in **Attachment B**.

Table 7. Existing Intersection Level of Service

| Intersection | Intersection Control | AM Peak | | PM Peak | |
|-----------------------------|----------------------|---------|-------|---------|-------|
| | | LOS | Delay | LOS | Delay |
| Guynn Avenue / Lindo Avenue | Side-Street STOP | | | | |
| <i>Southbound Approach</i> | | A | 8.9 | A | 9.2 |
| <i>Eastbound Left</i> | | A | 7.3 | A | 7.3 |

As shown in the table, the stop-controlled approaches and yielding movements operate at acceptable levels of service (LOS “A”) under Existing Conditions.



Roadway Level of Service:

Table 8 shows the Existing Conditions peak hour bi-directional roadway segment volumes.

Table 8. Existing Road Segment Level of Service

| Roadway | Location | Peak Hour | Volume | LOS |
|-----------|---------------------------------------|-----------|--------|-------------|
| Guynn Ave | Between Lindo Ave and Guynn Bridge Ct | AM Peak | 62 | C or Better |
| | | PM Peak | 74 | C or Better |

As shown in the table, both the AM and PM peak hour traffic volumes are within acceptable level of service conditions (LOS "C" or better) on the roadway segment.

Opening Day Conditions

Intersection Level of Service:

Table 9 presents the Opening Day level of service analysis and the calculation sheets are provided in **Attachment C**.

Table 9. Opening Day Intersection Level of Service

| Intersection | Intersection Control | AM Peak | | PM Peak | |
|-----------------------------|----------------------|---------|-------|---------|-------|
| | | LOS | Delay | LOS | Delay |
| Guynn Avenue / Lindo Avenue | Side-Street STOP | | | | |
| <i>Southbound Approach</i> | | A | 8.9 | A | 9.2 |
| <i>Eastbound Left</i> | | A | 7.3 | A | 7.3 |

As shown in the table, the stop-controlled approaches and yielding movements operate at acceptable levels of service (LOS "A") under Opening Day Conditions.

Roadway Level of Service:

Table 10 shows the Opening Day Conditions peak hour bi-directional roadway volumes.

Table 10. Opening Day Road Segment Level of Service

| Roadway | Location | Peak Hour | Volume | LOS |
|-----------|---------------------------------------|-----------|--------|-------------|
| Guynn Ave | Between Lindo Ave and Guynn Bridge Ct | AM Peak | 63 | C or Better |
| | | PM Peak | 75 | C or Better |

As shown in the table, both the AM and PM peak hour traffic volumes are within acceptable level of service conditions (LOS "C" or better) on the roadway segment.



2040 Conditions

Intersection Level of Service:

Table 11 presents the 2040 level of service analysis and the calculation sheets are provided in **Attachment D**.

Table 11. 2040 Intersection Level of Service

| Intersection | Intersection Control | AM Peak | | PM Peak | |
|-----------------------------|----------------------|---------|-------|---------|-------|
| | | LOS | Delay | LOS | Delay |
| Guynn Avenue / Lindo Avenue | Side-Street STOP | | | | |
| <i>Southbound Approach</i> | | A | 9.0 | A | 9.3 |
| <i>Eastbound Left</i> | | A | 7.3 | A | 7.3 |

As shown in the table, the stop-controlled approaches and yielding movements operate at acceptable levels of service (LOS “A”) under 2040 Conditions.

Roadway Level of Service:

Table 12 shows the 2040 Conditions peak hour bi-directional roadway volumes.

Table 12. 2040 Road Segment Level of Service

| Roadway | Location | Peak Hour | Volume | LOS |
|-----------|--|-----------|--------|-------------|
| Guynn Ave | Between Lindo Ave and Guynn Bridge Ct | AM Peak | 65 | C or Better |
| | | PM Peak | 78 | C or Better |

As shown in the table, both the AM and PM peak hour traffic volumes are within acceptable level of service conditions (LOS “C” or better) on the roadway segment.

Conclusions

Following is a list of the key study findings:

- ▶ The proposed project will construct a new two-lane bridge on Guynn Avenue just west of the existing single-lane bridge. The existing bridge will remain to serve cyclists and pedestrians.
- ▶ The Guynn Avenue / Lindo Avenue intersection and the Guynn Avenue roadway segment just north of Lindo Avenue currently operate at acceptable levels of service under Existing Condition volumes with or without construction of the new bridge.
- ▶ The Guynn Avenue / Lindo Avenue intersection and the Guynn Avenue roadway segment just north of Lindo Avenue will operate at acceptable levels of service under Opening Day Condition volumes with or without construction of the new bridge.



- ▶ The Guynn Avenue / Lindo Avenue intersection and the Guynn Avenue roadway segment just north of Lindo Avenue will operate at acceptable levels of service under 2040 Condition volumes with or without construction of the new bridge.
- ▶ VMT will be unaffected by construction of a wider bridge structure. The estimated daily VMT for each project scenario is:
 - » Existing Conditions – 23.7 miles per day
 - » Opening Day Conditions – 23.9 miles per day
 - » 2040 Conditions – 24.9 miles per day
- ▶ Under SB 743 legislation, transportation impacts are now evaluated based on the change in VMT rather than level of service. Since the project will not induce new VMT, the project would have a less-than-significant impact on transportation facilities related to the amount of travel.
- ▶ The project improves local bicycle and pedestrian access and does not include any elements that would be counter to long-term multimodal plans or regional goals and policies. It would therefore have no impact on multimodal transportation facilities.

Please do not hesitate to contact us at (530) 897-0199 with any questions.

Sincerely,
Headway Transportation, LLC

Loren E. Chilson, PE
Principal

Attachments:

- ▶ Attachment A – 2020 Volume Data
- ▶ Attachment B – Existing Conditions LOS Calculations
- ▶ Attachment C – Opening Day Conditions LOS Calculations
- ▶ Attachment D – 2040 Conditions LOS Calculations



Printed: 08/28/2020 at 11:26
TrafficViewer Pro v1.6.4.124

Daily Vehicle Volume Report

Study Date: Tuesday, 08/25/2020 / Wednesday, 08/26/2020
Unit ID: TW #2
Location: Guynn Ave
Comments: Just North of Bridge

| | Southbound Volume | Northbound Volume | Total Volume |
|----------------|----------------------|----------------------|-----------------|
| 15:00 - 15:59 | 6 | 43 | 49 |
| 16:00 - 16:59 | 37 | 13 | 50 |
| 17:00 - 17:59 | 32 | 42 | 74 |
| 18:00 - 18:59 | 29 | 13 | 42 |
| 19:00 - 19:59 | 17 | 21 | 38 |
| 20:00 - 20:59 | 21 | 11 | 32 |
| 21:00 - 21:59 | 0 | 16 | 16 |
| 22:00 - 22:59 | 5 | 0 | 5 |
| 23:00 - 23:59 | 3 | 5 | 8 |
| 00:00 - 00:59 | 3 | 2 | 5 |
| 01:00 - 01:59 | 0 | 0 | 0 |
| 02:00 - 02:59 | 0 | 0 | 0 |
| 03:00 - 03:59 | 0 | 2 | 2 |
| 04:00 - 04:59 | 0 | 4 | 4 |
| 05:00 - 05:59 | 10 | 0 | 10 |
| 06:00 - 06:59 | 9 | 13 | 22 |
| 07:00 - 07:59 | 29 | 29 | 58 |
| 08:00 - 08:59 | 20 | 17 | 37 |
| 09:00 - 09:59 | 0 | 40 | 40 |
| 10:00 - 10:59 | 28 | 20 | 48 |
| 11:00 - 11:59 | 21 | 22 | 43 |
| 12:00 - 12:59 | 5 | 53 | 58 |
| 13:00 - 13:59 | 19 | 29 | 48 |
| 14:00 - 14:59 | 33 | 15 | 48 |
| Totals | 327 | 410 | 737 |
| AM Peak Time | 07:13 - 08:12 | | |
| AM Peak Volume | 62 | | |
| PM Peak Time | 17:00 - 17:59 | | |
| PM Peak Volume | 74 | | |

Attachment A - Count Data: Guynn Ave

Printed: 08/27/2020 at 10:56 TrafficViewer Pro
v1.6.4.124

Daily Total Speeds (MPH)

Study Date: Tuesday, 08/25/2020 / Wednesday, 08/26/2020
Unit ID: TW #2
Location: Guynn Ave
Comments: Just North of Bridge

| | 5-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45-49 | 50-54 | 55-59 | 60-64 | 65-69 | 70-74 | 75-79 | 80-99 | Total |
|-------------------------|-------------|-------------|-------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 15:00 - 15:59 | 13 | 25 | 6 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 49 |
| 16:00 - 16:59 | 38 | 8 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50 |
| 17:00 - 17:59 | 48 | 19 | 5 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 74 |
| 18:00 - 18:59 | 36 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 42 |
| 19:00 - 19:59 | 13 | 13 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 38 |
| 20:00 - 20:59 | 14 | 11 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 32 |
| 21:00 - 21:59 | 6 | 6 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |
| 22:00 - 22:59 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 23:00 - 23:59 | 5 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 00:00 - 00:59 | 0 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 01:00 - 01:59 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 02:00 - 02:59 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:00 - 03:59 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 04:00 - 04:59 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 05:00 - 05:59 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 06:00 - 06:59 | 9 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 22 |
| 07:00 - 07:59 | 34 | 15 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 58 |
| 08:00 - 08:59 | 14 | 11 | 9 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 37 |
| 09:00 - 09:59 | 0 | 20 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40 |
| 10:00 - 10:59 | 32 | 12 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 48 |
| 11:00 - 11:59 | 22 | 11 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 43 |
| 12:00 - 12:59 | 26 | 10 | 16 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 58 |
| 13:00 - 13:59 | 19 | 10 | 14 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 48 |
| 14:00 - 14:59 | 30 | 11 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 48 |
| Totals | 375 | 209 | 125 | 23 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 737 |
| Percent of Total | 50.9 | 28.4 | 17.0 | 3.1 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100 |

| | | | | | |
|---------------------|----------|---------------------------|--------------|------------------|----------|
| Standard Deviation: | 6.0 MPH | Ten Mile Pace: | 15 to 24 MPH | 85th Percentile: | 21.6 MPH |
| Mean Speed: | 14.9 MPH | Percent in Ten Mile Pace: | 45.3% | 15th Percentile: | 7.9 MPH |
| Median Speed: | 14.8 MPH | | | 90th Percentile: | 23.1 MPH |
| Modal Speed: | 10.0 MPH | | | 95th Percentile: | 24.5 MPH |



Date Collected: 8/26/2020

AM Peak Hour

7:15 - 8:15

Vehicle Volumes

| | 0 Northbound | | | Guynn Ave Southbound | | | Lindo Ave Eastbound | | | Lindo Ave Westbound | | | TOTAL |
|-----------------|--------------|------|-------|----------------------|------|-------|---------------------|------|-------|---------------------|------|-------|-------|
| | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| 7:00 AM | 15 | | | 3 | | 2 | 2 | 4 | | | 3 | 2 | 16 |
| | 30 | | | 1 | | 4 | 3 | 7 | | | 4 | 1 | 20 |
| | 45 | | | 10 | | 6 | 5 | 4 | | | 3 | 1 | 29 |
| | 60 | | | 4 | | 2 | 4 | 7 | | | 7 | 7 | 31 |
| | 75 | | | 2 | | 3 | 7 | 8 | | | 3 | 3 | 26 |
| | 90 | | | 1 | | 1 | 2 | 5 | | | 4 | 0 | 13 |
| | 105 | | | 1 | | 1 | 1 | 3 | | | 4 | 1 | 11 |
| 9:00 AM | 120 | | | 4 | | 3 | 7 | 6 | | | 2 | 1 | 23 |
| Peak Hour Count | 0 | 0 | 0 | 17 | 0 | 15 | 19 | 26 | 0 | 0 | 17 | 12 | 106 |

PH Count
96
106
99
81
73

PHF 0.85

Truck Volumes

| | 0 Northbound | | | Guynn Ave Southbound | | | Lindo Ave Eastbound | | | Lindo Ave Westbound | | | TOTAL |
|-----------------|--------------|------|-------|----------------------|------|-------|---------------------|------|-------|---------------------|------|-------|-------|
| | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| | 15 | | | 0 | | 0 | 0 | 0 | | | 0 | 0 | 0 |
| | 30 | | | 0 | | 1 | 0 | 0 | | | 0 | 0 | 1 |
| | 45 | | | 0 | | 0 | 0 | 0 | | | 0 | 0 | 0 |
| | 60 | | | 0 | | 0 | 0 | 0 | | | 0 | 0 | 0 |
| | 75 | | | 0 | | 0 | 0 | 0 | | | 0 | 0 | 0 |
| | 90 | | | 0 | | 0 | 0 | 0 | | | 0 | 0 | 0 |
| | 105 | | | 0 | | 0 | 0 | 0 | | | 0 | 0 | 0 |
| | 120 | | | 0 | | 0 | 0 | 0 | | | 0 | 0 | 0 |
| Peak Hour Count | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |

T% 1%

Pedestrian Counts

| | Guynn Ave North Leg | | 0 South Leg | | Lindo Ave East Leg | | Lindo Ave West Leg | | TOTAL | |
|-----------------|---------------------|----|-------------|----|--------------------|----|--------------------|----|-------|---|
| | EB | WB | EB | WB | NB | SB | NB | SB | | |
| | 15 | 0 | 0 | | | 0 | 1 | 0 | 0 | 1 |
| | 30 | 0 | 0 | | | 0 | 1 | 0 | 0 | 1 |
| | 45 | 0 | 0 | | | 0 | 0 | 1 | 0 | 1 |
| | 60 | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 |
| | 75 | 0 | 0 | | | 2 | 0 | 0 | 0 | 2 |
| | 90 | 0 | 0 | | | 0 | 0 | 0 | 1 | 1 |
| | 105 | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 |
| | 120 | 0 | 0 | | | 0 | 1 | 0 | 2 | 3 |
| Peak Hour Count | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 0 | 4 |

Bicycle Counts

| | 0 Northbound | | | Guynn Ave Southbound | | | Lindo Ave Eastbound | | | Lindo Ave Westbound | | | TOTAL |
|-----------------|--------------|------|-------|----------------------|------|-------|---------------------|------|-------|---------------------|------|-------|-------|
| | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| | 15 | | | 0 | | 1 | 0 | 0 | | | 0 | 0 | 1 |
| | 30 | | | 1 | | 1 | 1 | 0 | | | 0 | 0 | 3 |
| | 45 | | | 2 | | 0 | 0 | 0 | | | 0 | 0 | 2 |
| | 60 | | | 0 | | 0 | 0 | 1 | | | 1 | 0 | 2 |
| | 75 | | | 0 | | 1 | 0 | 0 | | | 2 | 0 | 3 |
| | 90 | | | 0 | | 0 | 1 | 0 | | | 3 | 0 | 4 |
| | 105 | | | 0 | | 0 | 0 | 1 | | | 0 | 0 | 1 |
| | 120 | | | 0 | | 0 | 0 | 0 | | | 0 | 0 | 0 |
| Peak Hour Count | 0 | 0 | 0 | 3 | 0 | 2 | 1 | 1 | 0 | 0 | 3 | 0 | 10 |



Date Collected: 8/26/2020

PM Peak Hour

4:00 - 5:00

Vehicle Volumes

| | 0 Northbound | | | Guynn Ave Southbound | | | Lindo Ave Eastbound | | | Lindo Ave Westbound | | | TOTAL | PH Count |
|-----------------|--------------|------|-------|----------------------|------|-------|---------------------|------|-------|---------------------|------|-------|-------|----------|
| | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | | |
| 4:00 PM | 15 | | | 1 | | 5 | 3 | 6 | | | 8 | 3 | 26 | |
| | 30 | | | 1 | | 5 | 4 | 11 | | | 11 | 1 | 33 | |
| | 45 | | | 1 | | 4 | 10 | 10 | | | 10 | 3 | 38 | |
| | 60 | | | 3 | | 4 | 2 | 14 | | | 4 | 3 | 30 | 127 |
| | 75 | | | 1 | | 2 | 4 | 4 | | | 9 | 4 | 24 | 125 |
| | 90 | | | 8 | | 0 | 5 | 8 | | | 7 | 3 | 31 | 123 |
| | 105 | | | 5 | | 5 | 5 | 9 | | | 2 | 2 | 28 | 113 |
| 6:00 PM | 120 | | | 2 | | 5 | 5 | 7 | | | 5 | 4 | 28 | 111 |
| Peak Hour Count | 0 | 0 | 0 | 6 | 0 | 18 | 19 | 41 | 0 | 0 | 33 | 10 | 127 | |

PHF 0.84

Truck Volumes

| | 0 Northbound | | | Guynn Ave Southbound | | | Lindo Ave Eastbound | | | Lindo Ave Westbound | | | TOTAL |
|-----------------|--------------|------|-------|----------------------|------|-------|---------------------|------|-------|---------------------|------|-------|-------|
| | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| 15 | | | | 0 | | 0 | 0 | 0 | | | 0 | 0 | 0 |
| 30 | | | | 0 | | 0 | 0 | 0 | | | 0 | 0 | 0 |
| 45 | | | | 0 | | 0 | 0 | 0 | | | 0 | 0 | 0 |
| 60 | | | | 0 | | 0 | 0 | 0 | | | 0 | 0 | 0 |
| 75 | | | | 0 | | 0 | 0 | 0 | | | 0 | 0 | 0 |
| 90 | | | | 0 | | 0 | 0 | 0 | | | 0 | 0 | 0 |
| 105 | | | | 0 | | 0 | 0 | 0 | | | 0 | 0 | 0 |
| 120 | | | | 0 | | 0 | 0 | 0 | | | 0 | 0 | 0 |
| Peak Hour Count | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

T% 0%

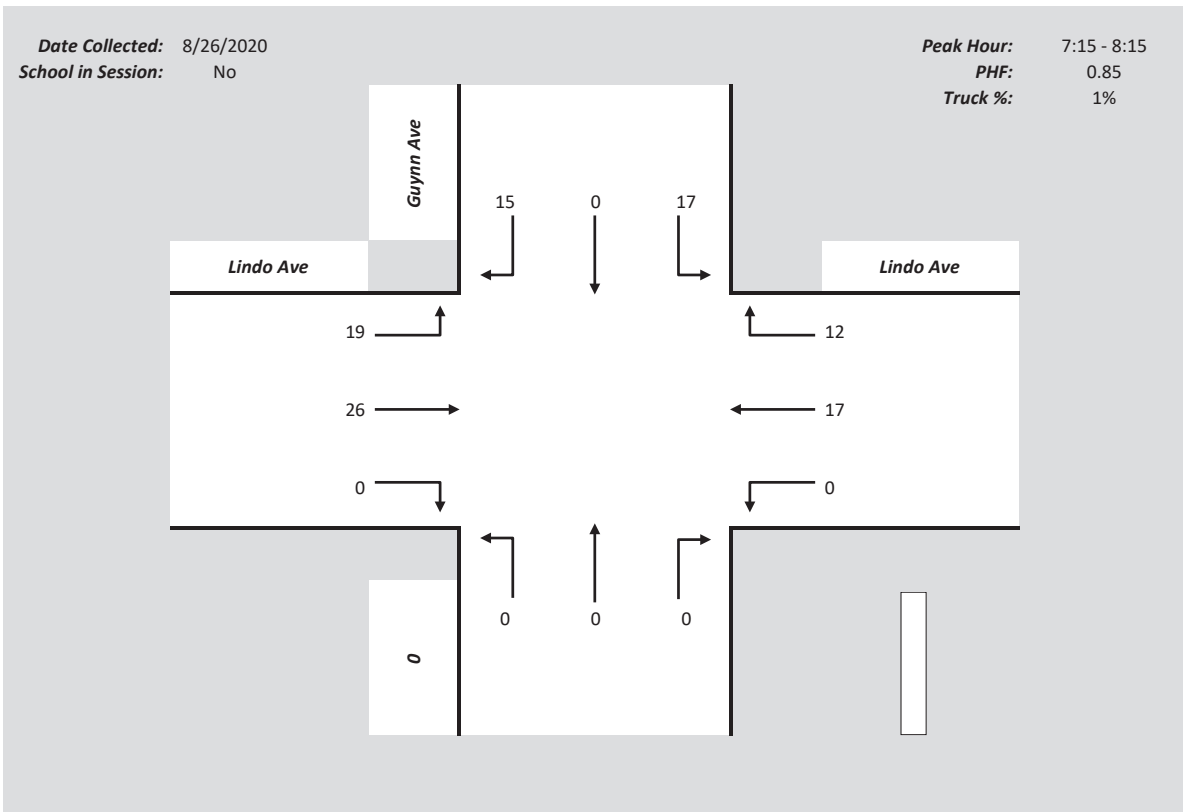
Pedestrian Counts

| | Guynn Ave North Leg | | 0 South Leg | | Lindo Ave East Leg | | Lindo Ave West Leg | | TOTAL |
|-----------------|---------------------|----|-------------|----|--------------------|----|--------------------|----|-------|
| | EB | WB | EB | WB | NB | SB | NB | SB | |
| 15 | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 |
| 30 | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 |
| 45 | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 |
| 60 | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 |
| 75 | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 |
| 90 | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 |
| 105 | 0 | 0 | | | 0 | 1 | 0 | 0 | 1 |
| 120 | 0 | 0 | | | 0 | 0 | 0 | 1 | 1 |
| Peak Hour Count | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

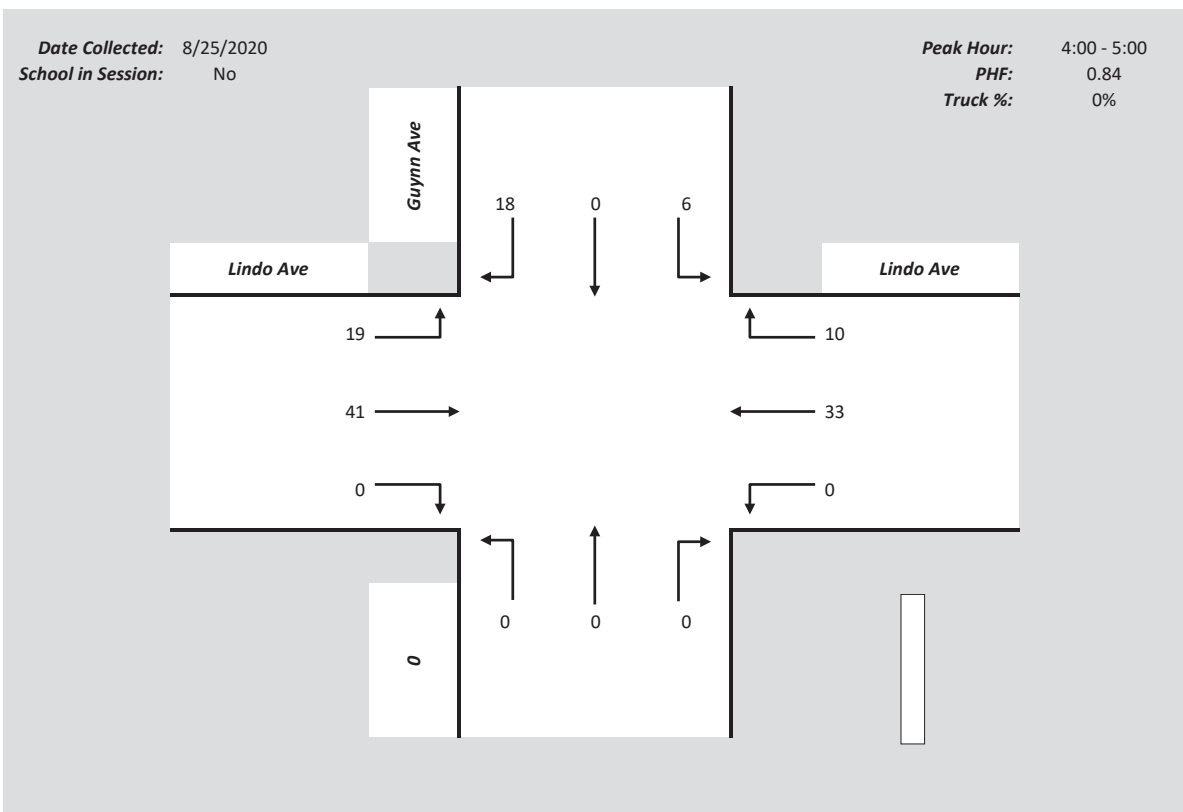
Bicycle Counts

| | 0 Northbound | | | Guynn Ave Southbound | | | Lindo Ave Eastbound | | | Lindo Ave Westbound | | | TOTAL |
|-----------------|--------------|------|-------|----------------------|------|-------|---------------------|------|-------|---------------------|------|-------|-------|
| | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| 15 | | | | 0 | | 1 | 1 | 0 | | | 0 | 0 | 2 |
| 30 | | | | 0 | | 0 | 0 | 0 | | | 2 | 0 | 2 |
| 45 | | | | 0 | | 0 | 0 | 0 | | | 0 | 0 | 0 |
| 60 | | | | 0 | | 0 | 0 | 0 | | | 1 | 0 | 1 |
| 75 | | | | 0 | | 1 | 0 | 2 | | | 0 | 0 | 3 |
| 90 | | | | 0 | | 0 | 0 | 0 | | | 0 | 0 | 0 |
| 105 | | | | 0 | | 1 | 0 | 0 | | | 0 | 0 | 1 |
| 120 | | | | 0 | | 0 | 0 | 1 | | | 0 | 0 | 1 |
| Peak Hour Count | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 3 | 0 | 5 |

AM PEAK HOUR TURNING MOVEMENT VOLUME



PM PEAK HOUR TURNING MOVEMENT VOLUME



Attachment B - Existing LOS

Generated with **PTV VISTRO**

Guynn Avenue Bridge

Version 2020 (SP 0-6)

Existing AM

Intersection Level Of Service Report Intersection 1: Guynn Ave / Lindo Ave

| | | | |
|------------------|-----------------|---------------------------|-------|
| Control Type: | Two-way stop | Delay (sec / veh): | 9.2 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | A |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.023 |

Intersection Setup

| Name | Guynn Ave | | Lindo Ave | | Lindo Ave | |
|------------------------------|------------|--------|-----------|--------|-----------|--------|
| Approach | Southbound | | Eastbound | | Westbound | |
| Lane Configuration | ↔ | | ↕ | | ↔ | |
| Turning Movement | Left | Right | Left | Thru | Thru | 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] | 15.00 | | 25.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | Yes | | Yes | | Yes | |

Volumes

| Name | Guynn Ave | | Lindo Ave | | Lindo Ave | |
|---|-----------|--------|-----------|--------|-----------|--------|
| Base Volume Input [veh/h] | 17 | 15 | 19 | 26 | 17 | 12 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 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] | 17 | 15 | 19 | 26 | 17 | 12 |
| Peak Hour Factor | 0.8500 | 0.8500 | 0.8500 | 0.8500 | 0.8500 | 0.8500 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 5 | 4 | 6 | 8 | 5 | 4 |
| Total Analysis Volume [veh/h] | 20 | 18 | 22 | 31 | 20 | 14 |
| Pedestrian Volume [ped/h] | 0 | | 1 | | 3 | |

Attachment B - Existing LOS

Generated with **PTV VISTRO**

Guynn Avenue Bridge

Version 2020 (SP 0-6)

Existing AM

Intersection Settings

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

Movement, Approach, & Intersection Results

| | | | | | | |
|---------------------------------------|------|------|------|------|------|------|
| V/C, Movement V/C Ratio | 0.02 | 0.02 | 0.01 | 0.00 | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh] | 9.25 | 8.59 | 7.30 | 0.00 | 0.00 | 0.00 |
| Movement LOS | A | A | A | A | A | A |
| 95th-Percentile Queue Length [veh/ln] | 0.12 | 0.12 | 0.04 | 0.04 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln] | 3.11 | 3.11 | 1.06 | 1.06 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh] | 8.94 | | 3.03 | | 0.00 | |
| Approach LOS | A | | A | | A | |
| d_I, Intersection Delay [s/veh] | 4.00 | | | | | |
| Intersection LOS | A | | | | | |

Attachment B - Existing LOS

Generated with **PTV VISTRO**

Guynn Avenue Bridge

Version 2020 (SP 0-6)

Existing PM

Intersection Level Of Service Report Intersection 1: Guynn Ave / Lindo Ave

| | | | |
|------------------|-----------------|---------------------------|-------|
| Control Type: | Two-way stop | Delay (sec / veh): | 9.4 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | A |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.025 |

Intersection Setup

| Name | Guynn Ave | | Lindo Ave | | Lindo Ave | |
|------------------------------|---|--------|--|--------|---|--------|
| Approach | Southbound | | Eastbound | | Westbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Left | Right | Left | Thru | Thru | 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] | 15.00 | | 25.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | Yes | | Yes | | Yes | |

Volumes

| Name | Guynn Ave | | Lindo Ave | | Lindo Ave | |
|---|-----------|--------|-----------|--------|-----------|--------|
| Base Volume Input [veh/h] | 18 | 6 | 19 | 41 | 33 | 10 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 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] | 18 | 6 | 19 | 41 | 33 | 10 |
| Peak Hour Factor | 0.8400 | 0.8400 | 0.8400 | 0.8400 | 0.8400 | 0.8400 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 5 | 2 | 6 | 12 | 10 | 3 |
| Total Analysis Volume [veh/h] | 21 | 7 | 23 | 49 | 39 | 12 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

Attachment B - Existing LOS

Generated with **PTV VISTRO**

Guynn Avenue Bridge

Version 2020 (SP 0-6)

Existing PM

Intersection Settings

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

Movement, Approach, & Intersection Results

| | | | | | | |
|---------------------------------------|------|------|------|------|------|------|
| V/C, Movement V/C Ratio | 0.02 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh] | 9.39 | 8.63 | 7.33 | 0.00 | 0.00 | 0.00 |
| Movement LOS | A | A | A | A | A | A |
| 95th-Percentile Queue Length [veh/ln] | 0.10 | 0.10 | 0.04 | 0.04 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln] | 2.45 | 2.45 | 1.12 | 1.12 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh] | 9.20 | | 2.34 | | 0.00 | |
| Approach LOS | A | | A | | A | |
| d_I, Intersection Delay [s/veh] | 2.82 | | | | | |
| Intersection LOS | A | | | | | |

Attachment C - Opening Day LOS

Generated with **PTV VISTRO**

Guynn Avenue Bridge

Version 2020 (SP 0-6)

Opening Day AM

Intersection Level Of Service Report Intersection 1: Guynn Ave / Lindo Ave

Control Type: Two-way stop
Analysis Method: HCM 6th Edition
Analysis Period: 15 minutes

Delay (sec / veh): 9.3
Level Of Service: A
Volume to Capacity (v/c): 0.023

Intersection Setup

| Name | Guynn Ave | | Lindo Ave | | Lindo Ave | |
|------------------------------|------------|--------|-----------|--------|-----------|--------|
| Approach | Southbound | | Eastbound | | Westbound | |
| Lane Configuration | ↔ | | ↕ | | ↔ | |
| Turning Movement | Left | Right | Left | Thru | Thru | 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] | 15.00 | | 25.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | Yes | | Yes | | Yes | |

Volumes

| Name | Guynn Ave | | Lindo Ave | | Lindo Ave | |
|---|-----------|--------|-----------|--------|-----------|--------|
| Base Volume Input [veh/h] | 17 | 15 | 19 | 26 | 17 | 12 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Growth Factor | 1.0200 | 1.0200 | 1.0200 | 1.0200 | 1.0200 | 1.0200 |
| 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] | 17 | 15 | 19 | 27 | 17 | 12 |
| Peak Hour Factor | 0.8500 | 0.8500 | 0.8500 | 0.8500 | 0.8500 | 0.8500 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 5 | 4 | 6 | 8 | 5 | 4 |
| Total Analysis Volume [veh/h] | 20 | 18 | 22 | 32 | 20 | 14 |
| Pedestrian Volume [ped/h] | 0 | | 1 | | 3 | |

Attachment C - Opening Day LOS

Generated with **PTV VISTRO**

Guynn Avenue Bridge

Version 2020 (SP 0-6)

Opening Day AM

Intersection Settings

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

Movement, Approach, & Intersection Results

| | | | | | | |
|---------------------------------------|------|------|------|------|------|------|
| V/C, Movement V/C Ratio | 0.02 | 0.02 | 0.01 | 0.00 | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh] | 9.25 | 8.59 | 7.30 | 0.00 | 0.00 | 0.00 |
| Movement LOS | A | A | A | A | A | A |
| 95th-Percentile Queue Length [veh/ln] | 0.12 | 0.12 | 0.04 | 0.04 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln] | 3.11 | 3.11 | 1.06 | 1.06 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh] | 8.94 | | 2.98 | | 0.00 | |
| Approach LOS | A | | A | | A | |
| d_I, Intersection Delay [s/veh] | 3.97 | | | | | |
| Intersection LOS | A | | | | | |

Attachment C - Opening Day LOS

Generated with **PTV VISTRO**

Guynn Avenue Bridge

Version 2020 (SP 0-6)

Opening Day PM

Intersection Level Of Service Report Intersection 1: Guynn Ave / Lindo Ave

| | | | |
|------------------|-----------------|---------------------------|-------|
| Control Type: | Two-way stop | Delay (sec / veh): | 9.4 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | A |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.025 |

Intersection Setup

| Name | Guynn Ave | | Lindo Ave | | Lindo Ave | |
|------------------------------|------------|--------|-----------|--------|-----------|--------|
| Approach | Southbound | | Eastbound | | Westbound | |
| Lane Configuration | ↔ | | ↕ | | ↔ | |
| Turning Movement | Left | Right | Left | Thru | Thru | 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] | 15.00 | | 25.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | Yes | | Yes | | Yes | |

Volumes

| Name | Guynn Ave | | Lindo Ave | | Lindo Ave | |
|---|-----------|--------|-----------|--------|-----------|--------|
| Base Volume Input [veh/h] | 18 | 6 | 19 | 41 | 33 | 10 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Growth Factor | 1.0200 | 1.0200 | 1.0200 | 1.0200 | 1.0200 | 1.0200 |
| 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] | 18 | 6 | 19 | 42 | 34 | 10 |
| Peak Hour Factor | 0.8400 | 0.8400 | 0.8400 | 0.8400 | 0.8400 | 0.8400 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 5 | 2 | 6 | 13 | 10 | 3 |
| Total Analysis Volume [veh/h] | 21 | 7 | 23 | 50 | 40 | 12 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

Attachment C - Opening Day LOS

Generated with **PTV VISTRO**

Guynn Avenue Bridge

Version 2020 (SP 0-6)

Opening Day PM

Intersection Settings

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

Movement, Approach, & Intersection Results

| | | | | | | |
|---------------------------------------|------|------|------|------|------|------|
| V/C, Movement V/C Ratio | 0.02 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh] | 9.41 | 8.63 | 7.33 | 0.00 | 0.00 | 0.00 |
| Movement LOS | A | A | A | A | A | A |
| 95th-Percentile Queue Length [veh/ln] | 0.10 | 0.10 | 0.04 | 0.04 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln] | 2.45 | 2.45 | 1.12 | 1.12 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh] | 9.21 | | 2.31 | | 0.00 | |
| Approach LOS | A | | A | | A | |
| d_I, Intersection Delay [s/veh] | 2.79 | | | | | |
| Intersection LOS | A | | | | | |

Attachment D - 2040 LOS

Generated with **PTV VISTRO**

Guynn Avenue Bridge

Version 2020 (SP 0-6)

2040 AM

**Intersection Level Of Service Report
Intersection 1: Guynn Ave / Lindo Ave**

| | | | |
|------------------|-----------------|---------------------------|-------|
| Control Type: | Two-way stop | Delay (sec / veh): | 9.3 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | A |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.024 |

Intersection Setup

| Name | Guynn Ave | | Lindo Ave | | Lindo Ave | |
|------------------------------|---|--------|--|--------|---|--------|
| Approach | Southbound | | Eastbound | | Westbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Left | Right | Left | Thru | Thru | 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] | 15.00 | | 25.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | Yes | | Yes | | Yes | |

Volumes

| Name | Guynn Ave | | Lindo Ave | | Lindo Ave | |
|---|-----------|--------|-----------|--------|-----------|--------|
| Base Volume Input [veh/h] | 17 | 15 | 19 | 26 | 17 | 12 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Growth Factor | 1.0500 | 1.0500 | 1.0500 | 1.0500 | 1.0500 | 1.0500 |
| 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] | 18 | 16 | 20 | 27 | 18 | 13 |
| Peak Hour Factor | 0.8500 | 0.8500 | 0.8500 | 0.8500 | 0.8500 | 0.8500 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 5 | 5 | 6 | 8 | 5 | 4 |
| Total Analysis Volume [veh/h] | 21 | 19 | 24 | 32 | 21 | 15 |
| Pedestrian Volume [ped/h] | 0 | | 1 | | 3 | |

Attachment D - 2040 LOS

Generated with **PTV VISTRO**

Guynn Avenue Bridge

Version 2020 (SP 0-6)

2040 AM

Intersection Settings

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

Movement, Approach, & Intersection Results

| | | | | | | |
|---------------------------------------|------|------|------|------|------|------|
| V/C, Movement V/C Ratio | 0.02 | 0.02 | 0.02 | 0.00 | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh] | 9.30 | 8.61 | 7.31 | 0.00 | 0.00 | 0.00 |
| Movement LOS | A | A | A | A | A | A |
| 95th-Percentile Queue Length [veh/ln] | 0.13 | 0.13 | 0.05 | 0.05 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln] | 3.30 | 3.30 | 1.16 | 1.16 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh] | 8.97 | | 3.13 | | 0.00 | |
| Approach LOS | A | | A | | A | |
| d_I, Intersection Delay [s/veh] | 4.05 | | | | | |
| Intersection LOS | A | | | | | |

Attachment D - 2040 LOS

Generated with **PTV VISTRO**

Guynn Avenue Bridge

Version 2020 (SP 0-6)

2040 PM

Intersection Level Of Service Report Intersection 1: Guynn Ave / Lindo Ave

| | | | |
|------------------|-----------------|---------------------------|-------|
| Control Type: | Two-way stop | Delay (sec / veh): | 9.5 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | A |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.028 |

Intersection Setup

| Name | Guynn Ave | | Lindo Ave | | Lindo Ave | |
|------------------------------|---|--------|--|--------|---|--------|
| Approach | Southbound | | Eastbound | | Westbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Left | Right | Left | Thru | Thru | 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] | 15.00 | | 25.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | Yes | | Yes | | Yes | |

Volumes

| Name | Guynn Ave | | Lindo Ave | | Lindo Ave | |
|---|-----------|--------|-----------|--------|-----------|--------|
| Base Volume Input [veh/h] | 18 | 6 | 19 | 41 | 33 | 10 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Growth Factor | 1.0500 | 1.0500 | 1.0500 | 1.0500 | 1.0500 | 1.0500 |
| 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 | 6 | 20 | 43 | 35 | 11 |
| Peak Hour Factor | 0.8400 | 0.8400 | 0.8400 | 0.8400 | 0.8400 | 0.8400 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 6 | 2 | 6 | 13 | 10 | 3 |
| Total Analysis Volume [veh/h] | 23 | 7 | 24 | 51 | 42 | 13 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

Attachment D - 2040 LOS

Generated with **PTV VISTRO**

Guynn Avenue Bridge

Version 2020 (SP 0-6)

2040 PM

Intersection Settings

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

Movement, Approach, & Intersection Results

| | | | | | | |
|---------------------------------------|------|------|------|------|------|------|
| V/C, Movement V/C Ratio | 0.03 | 0.01 | 0.02 | 0.00 | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh] | 9.45 | 8.66 | 7.34 | 0.00 | 0.00 | 0.00 |
| Movement LOS | A | A | A | A | A | A |
| 95th-Percentile Queue Length [veh/ln] | 0.11 | 0.11 | 0.05 | 0.05 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln] | 2.66 | 2.66 | 1.17 | 1.17 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh] | 9.27 | | 2.35 | | 0.00 | |
| Approach LOS | A | | A | | A | |
| d_I, Intersection Delay [s/veh] | 2.84 | | | | | |
| Intersection LOS | A | | | | | |