8-13-2024 Posting Date
SUM-State Road Widening
PID No. 121863
City of Cuyahoga Falls
Response Due Date: 8-29-2024

Communications Restrictions

Please note the following policy concerning communication between Consultants and the City of Cuyahoga Falls during the announcement and selection process:

During the time period between advertisement and the announcement of final consultant selection, communication with consultants (or their agents) shall be limited as follows:

Communications which are strictly prohibited:

Any discussions or marketing activities related to this specific project.

Allowable communications include:

Technical or scope of services questions specific to the project or RFP requirements.

Project Description

The City of Cuyahoga Falls is requesting Letters of Interest (LoI) from Consultants for engineering services. The services involve completion of an abbreviated ODOT Project Development Process (PDP) for the reconstruction of State Road in the City. Staged submittals to ODOT for review will be abbreviated as is typical for LPA-Let projects such as this one. The improvements are anticipated to include the widening and replacement of pavement from Quick Road to Boulder Boulevard. Services include construction detailed drawings involving pavement replacement, sidewalks and ramps where needed, signage, pavement markings, light poles, and traffic signals including interconnect and pre-emption. This project will be an LPA Let project. Improvements will be in accordance with recommendations presented in the attached traffic study from October 2023 for this corridor, and will also include considerations for pedestrian and bicycle facilities.

Estimated Construction Cost: $15,000,000.00

Prequalification Requirements

Prequalification requirements for this agreement are listed below. For all prequalification categories other than Cost Accounting – Unlimited the requirement may be met by the prime consultant or a subconsultant.

Also, please note that only individuals (not firms) are prequalified for right of way acquisition and construction inspection. In instances where prequalification for these services is required, a prequalified individual, either employed by the prime consultant or a subconsultant, must be named in order to meet the requirement.

For agreements that require prequalification in Cost Accounting – Unlimited the prime consultant and **all subconsultants that provide engineering and design related services**

must be prequalified in this category. Engineering and Design Related Services are defined as follows:

Program management, construction management, feasibility studies, preliminary engineering, design engineering, surveying, mapping, or architectural related services with respect to a highway construction project subject to 23 U.S.C. 112(a) as defined in 23 U.S.C 112(b)(2)(A); and

Professional services of an architectural or engineering nature, as defined by State law (ORC 5526), which are required to or may logically or justifiably be performed or approved by a person licensed, registered, or certified to provide the services with respect to a highway construction project to 23 U.S.C. 112(a) and defined in 40 U.S.C. 1102(2).

DESIGN SERVICES:

Complex Roadway Design; Complex Right of Way Plan Development; Title Research; Subsurface Utility Engineering; Geotechnical Engineering Services; Geotechnical Testing Laboratory; Geotechnical Field Exploration Services; Geotechnical Drilling Inspection Services; Limited Highway Lighting Design

ENVIRONMENTAL SERVICES:

Environmental Document Preparation - CE; Environmental Document Preparation - Section 4(f); Ecological Surveys; Waterway Permits; Air Quality Analyses; Noise Analyses and Abatement Design; Archaeological Investigations; History/Architectural Investigations; ESA Screening, Phase I ESA and Phase II ESA

COST ACCOUNTING SYSTEM

Unlimited (Prime Consultant Only)

Selection Subfactors

There are no selection subfactors for this project.

Contract Type and Payment Method

This contract will be administrated by the City, and the contract type and payment method will be determined during the scope of services and negotiation process.

Estimated Date of Authorization

It is anticipated that the selected Consultant will be authorized to proceed by September 2024.

Completion Schedule

It is anticipated that City of Cuyahoga Falls will submit PS&E Package to ODOT District 4 by August 17, 2027.

Suspended or Debarred Firms

Firms included on the current Federal list of firms suspended or debarred are not eligible for selection.

Terms and Conditions

The City of Cuyahoga Falls terms and conditions will be included in all agreements selected under this request for letters of interest.

Compliance with Title VI of the Civil Rights Act of 1964

The City of Cuyahoga Falls, in accordance with Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, all bidders including disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, national origin, sex, age, disability, low-income status, or limited English proficiency in consideration for an award.

Selection Procedures

The LPA will directly select a consultant based on the Letter of Interest (LoI). The requirements for the LoI and the Programmatic Consultant Selection Rating Form that will be used to select the consultant are shown below.

Firms interested in being considered for selection should respond by submitting Eight (8) copies of the Letter of Interest to the following address **by 4:30 PM on the response due date** listed above. Alternatively, an electronic version may be submitted via email to the City Engineer, Tony Demasi, at demasitv@cityofcf.com. The electronic version shall be a PDF attachment and follow the same guidelines as the hard copy requirements. It is the responsibility of the consultant to follow up after electronic submission, prior to the deadline, to verify the email and the attachments were received. (Main Office: 330-971-8180, or demasitv@cityofcf.com)

Tony Demasi, City Engineer
City of Cuyahoga Falls
2310 Second Street
Cuyahoga Falls, Ohio 44223

Responses received after 4:30 PM on the response due date will not be considered.

Scope of Services

The Scope of Services document is included below.

Requirements for Letters of Interest, Programmatic Selection Process

A. Instructions for Preparing and Submitting a Letter of Interest

1. Provide the information requested in the Letter of Interest Content (Item B below), in the same order listed, in a letter signed by an officer of the firm. Do not

send additional forms, resumes, brochures, or other material.

2. Letters of Interest shall be limited to ten (10) 8½" x 11" single sided pages plus two (2) pages for the Project Approach (Item B.5 below).

3. Please adhere to the following requirements in preparing and binding letters of interest:

   a. Please use a minimum font size of 12-point and maintain margins of 1" on all four sides.
   b. Page numbers must be centered at the bottom of each page.
   c. Use 8½" x 11" paper only.
   d. Bind letters of interest by stapling at the upper left hand corner only. Do not utilize any other binding system.
   e. Do not provide tabbed inserts or other features that may interfere with machine copying.

B. Letter of Interest Content

1. List the types of services for which your firm is currently prequalified by the Ohio Department of Transportation.

2. List significant subconsultants, their current prequalification categories and the percentage of work to be performed by each subconsultant.

3. List the Project Manager and other key staff members, including key subconsultant staff. Include project engineers for important disciplines and staff members that will be responsible for the work, and the project responsibility of each.

   Address the experience of the key staff members on similar projects, and the staff qualifications relative to the selection subfactors noted.

4. Describe the capacity of your staff and their ability to perform the work in a timely manner, relative to present workload, and the availability of the assigned staff.

5. Provide a description of your Project Approach, not to exceed two pages. Confirm that the firm has visited the site and address your firm's: 1) Technical approach; 2) Understanding of the project; 3) Qualifications for the project; 4) Knowledge and experience concerning relevant ODOT and local standards, procedures and guidance documents; 5) Innovative ideas; 6) Project specific plan for ensuring increased quality, reduced project delivery time and reduced project costs.

Items 1 thru 4 must be included within the 10-page body of the LoI. Remaining space within the ten (10) pages may be utilized to provide personnel resumes or additional information concerning general qualifications.

Consultant Selection Rating Form
for
Programmatic Selections

Project:
PID:
Project Type:_____
District:
Selection Committee Members:

Firm Name:

Category	Total Value	Scoring Criteria	Score
Management & Team			
Project Manager	10	See Note 1, Exhibit 1	
Strength/Experience of Assigned Staff including Subconsultants	25	See Note 2, Exhibit 1	
Firm's Current Workload/ Availability of Personnel	10	See Note 4, Exhibit 1	
Consultant's Past Performance	30	See Note 3, Exhibit 1	
Project Approach	25		
Total	100		

If Applicable: Adequate good faith efforts made to meet DBE goal Y/N

Exhibit 1 - Consultant Selection Rating Form Notes

1. The proposed project manager for each consultant shall be ranked, with the highest ranked project manager receiving the greatest number of points, and lower ranked project managers receiving commensurately lower scores. The rankings and scores should be based on each project manager's experience on similar projects and past performance for the LPA and other agencies. The selection committee may contact ODOT and outside agencies if necessary. Any subfactors identified should be weighed heavily in the differential scoring.

   Differential scoring should consider the relative importance of the project manager's role in the success of a given project. The project manager's role in a simple project may be less important than for a complex project, and differential scoring should reflect this, with higher differentials assigned to projects that require a larger role for the project manager.

2. The experience and strength of the assigned staff, including subconsultant staff, should be ranked and scored as noted for Number 1 above, with higher differential scores assigned on more difficult projects. Any subfactors identified in the project notification should be weighed heavily in the differential scoring.

   As above, other agencies may be contacted.

3. The consultants' past performance on similar projects shall be ranked and scored on a relative, differential scoring type basis, with the highest ranked consultant receiving a commensurately greater number of points. The selection team should consider ODOT CES performance ratings if available, and consult other agencies as appropriate. The use of CES ratings shall place emphasis on the specific type of services requested.

   The differential scoring should consider the complexity of the project and any subfactors identified in the project notification.

4. The consultant's workload and availability of qualified personnel, equipment and facilities shall be ranked and scored on a relative, differential scoring type basis. The scoring shall consider quantifiable concerns regarding the ability of a firm (or firms) rated higher in other categories to complete the work with staff members named in the letter of interest.

Scope of Services

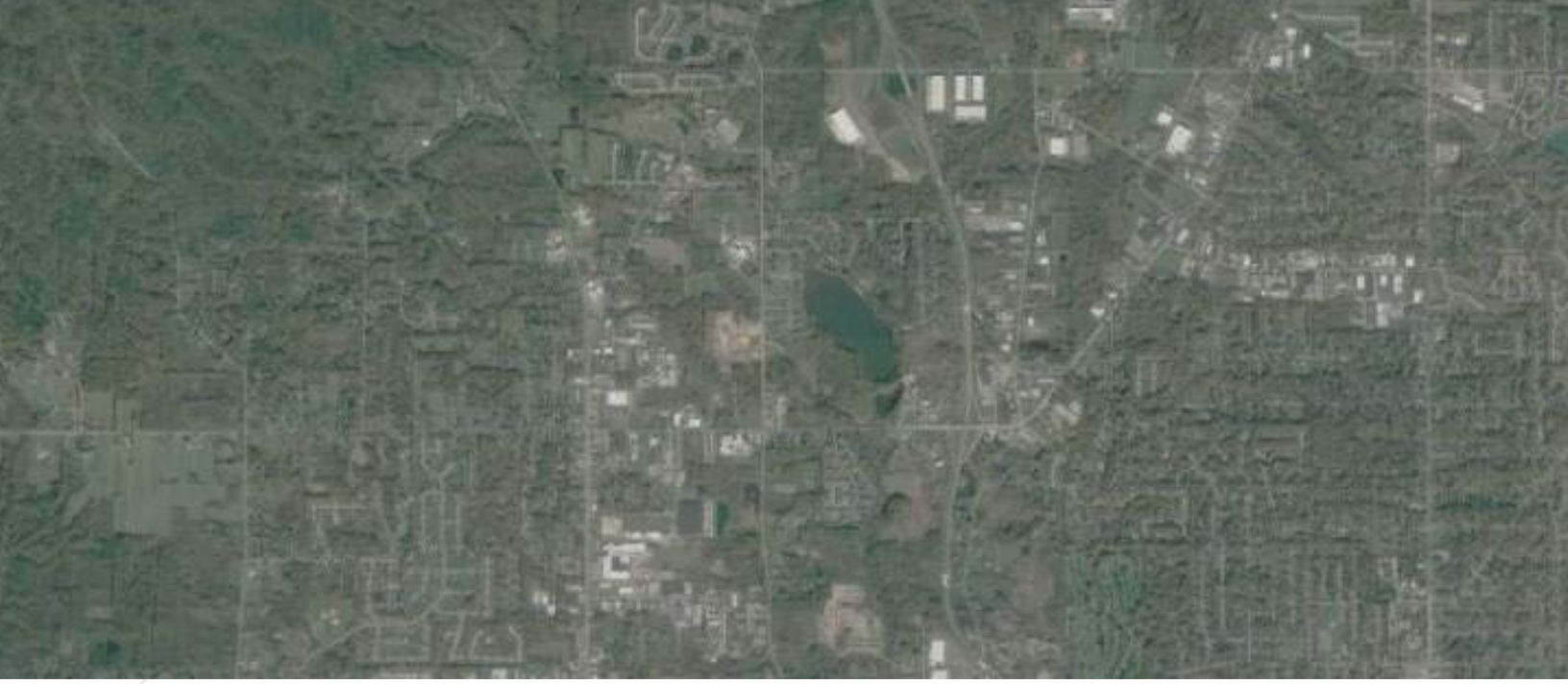
This project includes widening State Road (CR 16) between Quick Road (CR 41) and Boulder Boulevard. The project will be constructed based on the recommendations in the “State Road Corridor Study” completed by GPD Group in October, 2023. Widening will occur by constructing a center two way left turn lane between Quick Road and Boulder Boulevard, approximately 1.5 miles. In addition to the two way left turn lane, a single lane roundabout will be constructed at the State Road and Quick Road intersection. A sidewalk will be built on the west side of State Road from Quick Road to Boulder Boulevard.

The road is classified as a Minor Arterial and has a variable Right of Way between widths of 80 - 120 feet. The existing road has graded shoulders and limited underground storm sewer.

The State Road corridor (between Quick Road and Boulder Boulevard) in the City of Cuyahoga Falls has an ADT of approximately 10,063 vehicles. This project proposes to eliminate the operational, safety and congestion deficiencies identified in the October 2023 traffic study by adding a center two-way left turn lane to provide turning traffic a way to exit the travel lane to allow thru motorists to continue traveling with no delay, and improve the operation of the State Road/Quick Road intersection by use of a roundabout.

Current project schedule

Initial Project Scope Complete	07/01/2024
Environmental Document Approved	07/01/2026
District R/W Certification	09/10/2027
Local Let PS&E Package to District	08/17/2027
Plan Package Received in C.O.	09/17/2027
Sale	11/12/2027
Award	12/17/2027
Estimated Begin Construction	04/01/2028
Estimate End construction	08/31/2029



CORRIDOR STUDY

CITY OF CUYAHOGA FALLS, SUMMIT COUNTY, OHIO

STATE ROAD CORRIDOR STUDY

PREPARED BY GPD GROUP FOR: CITY OF CUYAHOGA FALLS

OCTOBER 2023

GPD GROUP®
Glaus, Pyle, Schomer, Burns & DeHaven, Inc.

STATE ROAD CORRIDOR STUDY

City of Cuyahoga Falls, Summit County

Prepared For:

City of Cuyahoga Falls
2310 Second Street
Cuyahoga Falls, Ohio 44221

Prepared By:

GPD Group
520 South Main Street, Suite 2531
Akron, Ohio 44311

October 2023

Engineer's Seal

Prepared By:

Curtis J. Deibel, P.E., RSP2
Registration No. 81305
Certification No. 299

Prepared Under The Responsible Charge of:

Michael A. Hobbs, P.E., PTOE
Registration No. 68713
Certification No. 1346

November 3, 2023
Date

GPD GROUP
Glaus, Pyle, Schomer, Burns & DeHaven, Inc.

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I. Purpose:

At the request of the City of Cuyahoga Falls, GPD Group was tasked with completing a Corridor Study for the State Road Corridor, between Quick Road and Boulder Boulevard. The purpose of this study is to investigate possible improvements to improve the State Road corridor from both an operations and safety perspective throughout the study area. This study will determine if any operational or safety deficiencies exist within the study area and what improvements are necessary to correct any deficiencies that are identified.

II. Project Setting:

Study Area

The limits of the corridor encompass State Road with a southern terminus of Quick Road and a northern terminus of Boulder Boulevard. The land uses surrounding the study corridor are primarily residential land uses with some commercial and industrial land uses. See **Figure 1** for the project location map and **Figure 2** for an aerial photograph.

Existing Roadway System

State Road currently exists as a two-lane asphalt roadway with one travel lane in each direction with left turn lanes at some intersections throughout the study area. The current posted speed limit on State Road is 35 miles per hour (mph). According to information obtained from the Ohio Department of Transportation's (ODOT) website, State Road is classified as a minor arterial roadway.

Quick Road currently exists as a two-lane asphalt roadway with one travel lane in each direction throughout the study area. The current posted speed limit on Quick Road is 35 mph. According to information obtained from ODOT's website, Quick Road is classified as a local roadway.

Ten existing intersections are currently located within the study area that are of special interest to this project. The ten existing intersections included in this study are as follows:

Quick Road / State Road Connector Intersection:

> This intersection is currently unsignalized with the State Road Connector approach operating under stop control. The intersection consists of three approaches with the following lane configurations: WB State Road Connector – one lane (left-right), NB Quick Road – one lane (left-thru), and SB Quick Road – one lane (thru-right).

State Road / Quick Road / Audi Dealership Southern Drive Intersection:

This intersection is currently unsignalized with the approaches of Quick Road and Audi Dealership Southern Drive operating under stop control. The intersection consists of four approaches with the following lane configurations: EB Quick Road – one lane (thru-right), WB Audi Dealership Northern Drive – one lane (left-thru-right), NB State Road – two lanes (left, thru-right), and SB State Road – two lanes (left, thru-right).

State Road / Quick Road Connector / Audi Dealership Northern Drive Intersection:

This intersection is currently unsignalized with the approaches of Quick Road Connector and Audi Dealership Northern Drive operating under stop control. The intersection consists of four approaches with the following lane configurations: EB Quick Road Connector – one lane (left-thru-right), WB Audi Dealership Northern Drive – one lane (left-thru-right), NB State Road – one lane (left-thru-right), and SB State Road – two lanes (left, thru-right).

State Road / Falls Industrial Parkway Intersection:

This intersection is currently unsignalized with the Falls Industrial Parkway approach operating under stop control. The intersection consists of three approaches with the following lane configurations: WB Falls Industrial Parkway – one lane (left-right), NB State Road – one lane (left-thru), and SB State Road – one lane (thru-right).

State Road / Woodridge Elementary School Southern Drive Intersection:

This intersection is currently unsignalized with the Woodridge Elementary School Southern Drive approach operating under stop control. The intersection consists of three approaches with the following lane configurations: EB Woodridge Elementary School Southern Drive – one lane (left-right), NB State Road – one lane (left-thru), and SB State Road – one lane (thru-right).

State Road / Woodridge Elementary School Northern Drive Intersection:

This intersection is currently unsignalized with the Woodridge Elementary School Northern Drive approach operating under stop control. The intersection consists of three approaches with the following lane configurations: EB Woodridge Elementary School Northern Drive – one lane (left-right), NB State Road – two lanes (left, thru), and SB State Road – one lane (thru-right).

State Road / Salt Creek Run Intersection:

This intersection is currently unsignalized with the Salt Creek Run approach operating under stop control. The intersection consists of three approaches with the following lane configurations: EB Salt Creek Run – one lane (left-right), NB State Road – one lane (left-thru), and SB State Road – one lane (thru-right).

State Road / Buckeye Sports Drive / Storr-it Drive Intersection:

This intersection is currently unsignalized with the approaches of Buckeye Sports Drive and Storr-it Drive operating under stop control. The intersection consists of four approaches with the following lane configurations: EB Buckeye Sports Drive – one lane (left-thru-right), WB Storr-it Drive – one lane (left-thru-right), NB State Road – one lane (left-thru-right), and SB State Road – one lane (left-thru-right).

State Road / Falls Commerce Parkway / J&K Lawn Equipment Drive Intersection:

This intersection is currently unsignalized with the approaches of Falls Commerce Parkway and J&K Lawn Equipment Drive operating under stop control. The intersection consists of four approaches with the following lane configurations: EB J&K Lawn Equipment Drive – one lane (left-right), WB Falls Commerce Pkwy – one lane (left-right), NB State Road – one lane (left-thru-right), and SB State Road – one lane (left-thru-right).

State Road / Boulder Boulevard Intersection:

This intersection is currently unsignalized with the Boulder Boulevard approach operating under stop control. The intersection consists of three approaches with the following lane configurations: EB Boulder Boulevard – one lane (left-right), NB State Road – one lane (left-thru), and SB State Road – one lane (thru-right).

III. Traffic Volumes:

For this study, GPD performed turning movement traffic counts at nine (9) study intersections from 7:00 AM – 7:00 PM. These traffic counts were conducted between 08/30/2023 and 09/14/2023. Based on the turning movement counts, the AM peak hour of the State Road corridor was found to occur from 7:15 AM – 8:15 AM, while the PM peak hour was found to occur from 4:30 PM – 5:30 PM. See **Appendix A** for printouts of the turning movement counts.

'No-Build' Traffic Volumes

Design hour volumes (DHVs) were developed for the study area using the peak hour to design hour factors that are published by the ODOT Office of Statewide Planning and Research. The design hour factors utilized to develop the DHVs are dependent upon the roadway's functional classification as well as the day of the week and month the count was performed. These design hour factors were then applied to the raw turning movement counts to convert the existing volumes to design hour volumes. For this study, the following design hour factors were used, based on the date the intersection was counted:

- August Wednesday DHV = 1.12
- August Thursday DHV = 1.10
- September Tuesday and Wednesday DHV = 1.13
- September Thursday DHV = 1.10

Future traffic projections were obtained from ODOT's Traffic Forecast Modeling System (TFMS) tool which is contained in **Appendix B**. Based on the results from the TFMS, surrounding land uses and engineering judgment a +1.00% annual growth rate was determined to be appropriate for the study area. The +1.00% growth rate was then applied to the design hourly volumes to develop the Opening Year 2028 and Design Year 2048 volumes. **Figure 3** shows the Opening Year 2028 peak hour traffic volumes while **Figure 4** shows the Design Year 2048 peak hour traffic volumes.

IV. Traffic Analysis:

Safety Analysis

Crash data was obtained from ODOT's GIS Crash Analysis Tool (GCAT) for the calendar years of 2018-2022 for the entire study area. A total of 26 crashes were reported within the study area and were analyzed as part of this project. These crashes include 13 rear-end, 4 left turn, 2 sideswipe – passing, 2 angle, 1 sideswipe – meeting, 1 right turn, 1 fixed object, 1 backing, and 1 head-on related crash. 73% of the crashes occurred in daylight, 65% occurred on dry pavement, and 35% of the crashes were injury crashes. See **Appendix C** for collision diagrams of the study area and **Appendix D** for crash data summary and charts.

The leading crash types within the study area are the 13 rear-end related crashes. Crash diagrams included in **Appendix C** show that most of the rear-end related crashes occur at nearby minor roads/driveways, the rear-end crashes in the study area may be contributed to vehicles stopped to make a left or a right turn from the single-lane major road approach onto the minor road/driveway. The addition of the two-way left turn lane (TWLTL) may mitigate this issue by providing a turning lane to separate turning vehicles from through traffic until turning vehicles find a gap in the opposing traffic. No other identifiable crash patterns were noted along the corridor.

Traffic Signal Warrant Analysis

Utilizing the existing and proposed traffic volumes, as specified in Section 402-2 of the ODOT Traffic Engineering Manual (TEM), traffic signal warrant analyses were performed for each of the study intersections along the corridor. The nine (9) traffic signal warrants provided in the 2012 Ohio Manual of Uniform Traffic Control Devices (OMUTCD) define the minimum conditions under which installing traffic control signals is justified. Due to the availability of 12-hour traffic volumes, OMUTCD Warrant #'s 1,2 and 3 were deemed applicable and were analyzed as part of this study. Detailed descriptions of each of these warrants are described as follows.

Warrant #1 Eight-Hour Vehicular Volume

> The Eight-Hour Vehicular Volume warrant is intended for application where the volume of intersection traffic is the principal reason for consideration of the signal installation. Three conditions are possible to satisfy this particular warrant. Condition A applies specifically to minimum vehicular volume requirements. Condition B deals with the interruption of continuous traffic flow. Condition C represents a combination of Conditions A and B being met at reduced volume requirements.

Warrant #2 Four-Hour Vehicular Volume

> The Four-Hour Vehicular Volume warrant is satisfied when for four hours of an average day, minimum volumes are reached on both the major street (total of both approaches) and the highest volume minor street approach (one direction only).

Warrant #3 Peak Hour Vehicular Volume

> The Peak Hour Vehicular Volume warrant is intended for application when traffic conditions are such that for one hour of the day, minor street traffic suffers undue delay in entering or crossing the major street. The Peak Hour Vehicular Volume warrant is satisfied when the minimum required volumes on the major and highest volume minor approach are met for any one hour (any four consecutive 15-minute periods) on an average day.

To determine whether the current traffic conditions of the study intersections warrant a traffic signal, the existing traffic volumes were compared to the 100% volume thresholds for the above warrants as well as other criteria. The results of the Existing Year 2023 traffic signal warrant analysis are shown in **Table 1**. See **Appendix E** for the traffic signal warrant analysis.

Table 1: Traffic Signal Warrant Analysis Summary – Existing Year 2023 Conditions

Intersection	Signal Warrant		
	Warrant #1 (Eight-Hour Vehicular Volume)	**Warrant #2** (Four-Hour Vehicular Volume)	**Warrant #3** (Peak Hour Vehicular Volume)
State Road / Boulder Boulevard	Not Satisfied	Not Satisfied	Not Satisfied
State Road / Falls Commerce Pkwy / J&K Lawn Equipment Drive	Not Satisfied	Not Satisfied	Not Satisfied
State Road / Buckeye Sports Drive / Storr-It Drive	Not Satisfied	Not Satisfied	Not Satisfied
State Road / Salt Creek Run	Not Satisfied	Not Satisfied	Not Satisfied
State Road / Woodridge Elementary School Northern Drive	Not Satisfied	Not Satisfied	Not Satisfied
State Road / Woodridge Elementary School Southern Drive	Not Satisfied	Not Satisfied	Not Satisfied
State Road / Falls Industrial Parkway	Not Satisfied	Not Satisfied	Not Satisfied
State Road / Quick Road Connector / Audi Dealership Northern Drive	Not Satisfied	Not Satisfied	Not Satisfied
State Road / Quick Road / Audi Dealership Southern Drive	Not Satisfied	**Satisfied**	**Satisfied**

As shown in **Table 1**, the Existing Year 2023 'No-Build' traffic signal warrant analysis determined that a traffic signal is warranted at the State Road / Quick Road / Audi Dealership Southern Drive intersection based on signal warrants #2 and #3. The remaining study intersections did not meet any volume-based warrants under the Existing Year 2023 'No-Build' conditions.

Future traffic projections along the State Road corridor show a 1.00% per year anticipated growth rate, therefore, Opening Year 2028 traffic signal warrant analyses were performed to determine if a traffic signal would be warranted in the future condition. The results are shown in **Table 2**. See **Appendix E** for the traffic signal warrant analysis.

Table 2: Traffic Signal Warrant Analysis Summary – Opening Year 2028 Conditions	
Intersection	**Signal Warrant**
	Warrant #3 (Peak Hour Vehicular Volume)
State Road / Boulder Boulevard	Not Satisfied
State Road / Falls Commerce Pkwy / J&K Lawn Equipment Drive	Not Satisfied
State Road / Buckeye Sports Drive / Storr-It Drive	Not Satisfied
State Road / Salt Creek Run	Not Satisfied
State Road / Woodridge Elementary School Northern Drive	Not Satisfied
State Road / Woodridge Elementary School Southern Drive	Not Satisfied
State Road / Falls Industrial Parkway	Not Satisfied
State Road / Quick Road Connector / Audi Dealership Northern Drive	Not Satisfied
State Road / Quick Road / Audi Dealership Southern Drive	Not Satisfied
Quick Road / State Road Connector	**Satisfied**

As shown in **Table 2,** the signal warrant analysis results for the Opening Year 2028 'Build' conditions determined that the anticipated volume do not meet the minimum thresholds to warrant traffic signals at these intersections.

Auxiliary Turn Lane Warrants

Auxiliary turn lane warrant analyses were performed for the unsignalized study intersections to determine whether a right turn lane or left turn lane will be warranted under the Design Year 2048 traffic conditions. ODOT publishes the Location & Design Manual (L&D), Volume 1 which includes warrant charts for auxiliary turn lanes. These warrant charts were utilized as an initial screening to determine if auxiliary turn lanes will be required at the unsignalized study intersections. The results of the Design Year 2048 auxiliary turn lane analyses are summarized in **Table 3**. See **Appendix F** for the auxiliary turn lane warrant charts.

Table 3: Auxiliary Turn Lane Warrant Analysis Summary - Design Year 2048 Conditions	
Intersection	**Auxiliary Turn Lane Warrant**
State Road / Boulder Boulevard	
Northbound Left Turn Lane	**Satisfied**
Southbound Right Turn Lane	Not Satisfied
State Road / Falls Commerce Pkwy / J&K Lawn Equipment Drive	
Northbound Left Turn Lane	Not Satisfied
Northbound Right Turn Lane	Not Satisfied
Southbound Left Turn Lane	Not Satisfied
Southbound Right Turn Lane	Not Satisfied
State Road / Buckeye Sports Drive / Storr-It Drive	
Northbound Left Turn Lane	Not Satisfied
Northbound Right Turn Lane	Not Satisfied
Southbound Left Turn Lane	**Satisfied**
Southbound Right Turn Lane	Not Satisfied
State Road / Salt Creek Run	
Northbound Left Turn Lane	**Satisfied**
Westbound Right Turn Lane	**Satisfied**
State Road / Woodridge Elementary School Northern Drive	
Northbound Left Turn Lane	Not Satisfied
Southbound Right Turn Lane	Not Satisfied
State Road / Woodridge Elementary School Northern Drive	
Northbound Left Turn Lane	Not Satisfied
Southbound Right Turn Lane	Not Satisfied
State Road / Falls Industrial Parkway	
Northbound Right Turn Lane	Not Satisfied
Southbound Left Turn Lane	**Satisfied**

As shown in **Table 3**, the auxiliary turn lane warrant analysis determined that northbound left turn lanes are anticipated to be warranted during the Design Year 2048 at the intersections of State Rd / Boulder Blvd and State Rd / Salt Creek Run. Also, southbound left turn lanes were also determined to be warranted at the intersection of State Road / Falls Industrial Pkwy and State Road / Buckeye Sports Drive / Storr-It Drive. Additionally, a southbound right turn lane at the intersection of State Rd / Salt Creek Run was found to be warranted. However, the addition of the southbound right turn lane at this intersection will have a minimal impact on the analysis results and no crashes were associated with this southbound right turning movement. Therefore, the construction of this turn lane is not recommended.

HCS Intersection Capacity Analysis

Intersection capacity analyses were performed for the Opening Year 2028 and Design Year 2048 'No-Build' and 'Build' scenarios to determine the operating conditions that would be expected at the study intersections. The quality of the operating conditions experienced by an intersection is measured in terms of Level-of-Service (LOS). Levels-of-Service can range from LOS A to LOS F.

Level-of-Service A, B, C, D and E are considered acceptable in an area within the Metropolitan Planning Organization (MPO) for movements and approaches while the overall intersection must operate at LOS D or better. This intersection is located within the Akron Metropolitan Area Transportation Study (AMATS) MPO area. Level-of-Service F is considered unacceptable with significant levels of delay experienced by vehicles. The thresholds related to average control delay for unsignalized intersections are as follows:

Level-of- Service	***Delay Threshold – Unsignalized and Roundabout (Sec)***
A	< 10
B	> 10 – 15
C	> 15 – 25
D	> 25 – 35
E	> 35 – 50
F	> 50

The analysis is performed utilizing the computer program HCS 2023 which is developed by McTrans Corporation and based on the Highway Capacity Manual, 7th Edition. Based on criteria established by ODOT, Highway Capacity Software (HCS) is used to determine the required number of lanes and the lane assignments at intersections (i.e. the needed intersection capacity). The existing peak hour factors and heavy vehicle percentage were utilized throughout the capacity analysis.

Opening Year 2028 Capacity Analysis

Table 4 summarizes the HCS Intersection Capacity Analysis and details the Levels-of-Service and delay experienced for the Opening Year 2028 'No-Build' and 'Build' traffic conditions for the unsignalized study intersections. See **Appendix G** for the HCS analysis printouts.

Table 4: HCS Intersection Capacity Analysis Summary
Opening Year 2028 'No-Build' vs. 'Build' Conditions – *Unsignalized Intersections*

Intersection / Movement	'No-Build' Condition				'Build' Condition			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)
State Road / Boulder Boulevard								
Eastbound Left-Right	D	25.2	D	30.4	C	16.6	C	18.1
Eastbound Approach	*D*	*25.2*	*D*	*30.4*	*C*	*16.6*	*C*	*18.1*
Northbound Left	A	9.8	A	9.3	A	9.8	A	9.3
Northbound Approach	*A*	*0.0*	*A*	*0.5*	*A*	*0.0*	*A*	*0.2*
State Road / Falls Commerce Pkwy / J&K Lawn Equipment Drive								
Eastbound Left-Thru-Right	A*	0.0	C	19.4	A*	0.0	C	15.6
Eastbound Approach	*A*	*0.0*	*C*	*19.4*	*A*	*0.0*	*C*	*15.6*
Westbound Left-Thru-Right	C	18.1	C	17.3	C	18.0	B	14.2
Westbound Approach	*C*	*18.1*	*C*	*17.3*	*C*	*18.0*	*B*	*14.2*
Northbound Left-Thru-Right	A	8.1	A	9.0	A	8.1	A	9.0
Northbound Approach	*A*	*0.0*	*A*	*0.0*	*A*	*0.0*	*A*	*0.0*
Southbound Left-Thru-Right	B	10.9	B	10.1	B	10.9	B	10.1
Southbound Approach	*A*	*0.5*	*A*	*0.3*	*A*	*0.3*	*A*	*0.1*
State Road / Buckeye Sports Drive / Storr-It Drive								
Eastbound Left-Thru-Right	C	15.4	C	22.4	C	15.3	C	22.3
Eastbound Approach	*C*	*15.4*	*C*	*22.4*	*C*	*15.3*	*C*	*22.3*
Westbound Left-Thru-Right	C	16.5	C	15.9	C	16.5	C	15.9
Westbound Approach	*C*	*16.5*	*C*	*15.9*	*C*	*16.5*	*C*	*15.9*
Northbound Left-Thru-Right	A	8.3	A	9.0	A	8.3	A	9.0
Northbound Approach	*A*	*0.3*	*A*	*0.2*	*A*	*0.1*	*A*	*0.1*
Southbound Left-Thru-Right	A	9.2	A	9.4	A	9.2	A	9.4
Southbound Approach	*A*	*0.1*	*A*	*0.2*	*A*	*0.1*	*A*	*0.1*
State Road / Salt Creek Run								
Eastbound Left-Right	D	25.4	D	30.4	C	16.6	C	17.7
Eastbound Approach	*D*	*25.4*	*D*	*30.4*	*C*	*16.6*	*C*	*17.7*
Northbound Left	A	8.6	A	9.2	A	8.6	A	9.2
Northbound Approach	*A*	*0.1*	*A*	*0.6*	*A*	*0.1*	*A*	*0.3*

*Zero volume approach

Table 4: HCS Intersection Capacity Analysis Summary
Opening Year 2028 'No-Build' vs. 'Build' Conditions – *Unsignalized Intersections* (Cont.)

Intersection / Movement	'No-Build' Condition				'Build' Condition			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)
State Road / Woodridge Elem. Northern Drive								
Eastbound Left-Right	C	18.6	C	20.5	B	14.5	B	14.9
Eastbound Approach	*C*	*18.6*	*C*	*20.5*	*B*	*14.5*	*B*	*14.9*
Northbound Left	A	8.0	A	8.5	A	8.0	A	8.5
Northbound Approach	*A*	*0.2*	*A*	*0.0*	*A*	*0.2*	*A*	*0.0*
State Road / Woodridge Elem. Southern Drive								
Eastbound Left-Right	B	12.9	B	12.3	B	11.5	B	12.3
Eastbound Approach	*B*	*12.9*	*B*	*12.3*	*B*	*11.5*	*B*	*12.3*
Northbound Left	A	8.0	A	8.6	A	8.0	A	8.6
Northbound Approach	*A*	*0.4*	*A*	*0.0*	*A*	*0.2*	*A*	*0.0*
State Road / Falls Industrial Pkwy								
Westbound Left-Right	C	21.6	D	27.0	C	15.8	C	17.1
Westbound Approach	*C*	*21.6*	*D*	*27.0*	*C*	*15.8*	*C*	*17.1*
Southbound Left	A	9.6	A	9.2	A	9.6	A	9.2
Southbound Approach	*A*	*1.1*	*A*	*0.4*	*A*	*0.7*	*A*	*0.2*

As shown in **Table 4**, all movements and approaches are anticipated to operate with acceptable LOS D or better under the Opening Year 2028 'No-Build' and 'Build' traffic conditions for both AM peak and PM peak. The 'Build' traffic conditions analysis results show improvements in the level of service and delays experienced at the study corridor, this indicates that the addition of the TWLTL will have a positive impact on both the operational and safety conditions throughout the corridor.

Table 5 summarizes the HCS Intersection Capacity Analysis and details the Levels-of-Service and delay experienced for the Opening Year 2028 'No-Build' traffic conditions for the existing unsignalized intersections at the State Road / Quick Road triangle of intersections. **Table 6** summarizes the HCS Intersection Capacity Analysis and details the Levels-of-Service and delay experienced for the Opening Year 2028 'Build' traffic conditions for the proposed roundabout at the State Road / Quick Road triangle of intersection. See **Appendix G** for the HCS analysis printouts.

Table 5: HCS Intersection Capacity Analysis Summary
Opening Year 2028 'No-Build' Conditions – *State Rd / Quick Rd Triangle*

Intersection / Movement	'No-Build' Condition				'Build' Condition			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)
State Road / Quick Road Connector / Audi North Drive								
Eastbound Left-Thru-Right	C	23.9	D	26.2				
Eastbound Approach	*C*	*23.9*	*D*	*26.2*				
Westbound Left-Thru-Right	B	12.6	C	16.8				
Westbound Approach	*B*	*12.6*	*C*	*16.8*				
Northbound Left-Thru-Right	A	8.0	A	8.8				
Northbound Approach	*A*	*0.0*	*A*	*0.0*				
Southbound Left	A	8.8	A	8.3				
Southbound Approach	*A*	*0.1*	*A*	*0.0*				
State Road / Quick Road / Audi South Drive								
Eastbound Left-Thru-Right	C	15.6	C	17.3				
Eastbound Approach	*C*	*15.6*	*C*	*17.3*				
Westbound Left-Thru-Right	B	13.3	E	39.6				
Westbound Approach	*B*	*13.3*	*E*	*39.6*				
Northbound Left	A	9.6	B	10.0				
Northbound Approach	*A*	*3.4*	*A*	*2.9*				
Southbound Left	A	9.1	A	8.3				
Southbound Approach	*A*	*0.2*	*A*	*0.0*				
Quick Road / State Road Connector								
Westbound Left-Right	B	10.5	A	9.5				
Westbound Approach	*B*	*10.5*	*A*	*9.5*				
Southbound Left	A	8.1	A	7.7				
Southbound Approach	*A*	*0.9*	*A*	*0.2*				

As shown in **Table 5**, all movements and approaches at the State Road / Quick Road triangle are anticipated to operate with acceptable LOS E or better under the Opening Year 2028 'No-Build' traffic conditions for both AM and PM Peak Hours.

Table 6: HCS Intersection Capacity Analysis Summary
Opening Year 2028 'Build' Conditions – *State Rd / Quick Rd - Roundabout*

Intersection / Movement	'No-Build' Condition				'Build' Condition			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)
State Road / Quick Road Connector / Audi North Drive								
Eastbound Left-Thru-Right					A	8.0	A	8.1
Eastbound Approach					*A*	*8.0*	*A*	*8.1*
Westbound Left-Thru-Right					A	8.1	A	5.8
Westbound Approach					*A*	*8.1*	*A*	*5.8*
Northbound Left-Thru-Right					C	17.0	A	8.2
Northbound Approach					*C*	*17.0*	*A*	*8.2*
Southbound Left-Thru-Right					A	9.7	B	11.3
Southbound Approach					*A*	*9.7*	*B*	*11.3*
Intersection Total					***C***	***13.9***	***A***	***9.5***

As shown in **Table 6**, all movements and approaches at the proposed State Road / Quick Road roundabout are anticipated to operate with acceptable LOS C or better under the Opening Year 2028 'Build' traffic conditions for both AM and PM Peak Hours. This indicates that the construction of the proposed roundabout would reduce the delay associated with the heavy left-turning movement from State Road into Quick Road.

Design Year 2048 Capacity Analysis

Table 7 summarizes the HCS Intersection Capacity Analysis and details the Levels-of-Service and delay experienced for the Design Year 2048 'No-Build' and 'Build' traffic conditions for the unsignalized study intersections. See **Appendix G** for the HCS analysis printouts.

Table 7: HCS Intersection Capacity Analysis Summary
Design Year 2048 'No-Build' vs. 'Build' Conditions – *Unsignalized Intersections*

Intersection / Movement	'No-Build' Condition				'Build' Condition			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)
State Road / Boulder Boulevard								
Eastbound Left-Right	E	38.5	E	49.4	C	19.8	C	21.9
Eastbound Approach	*E*	*38.5*	*E*	*49.4*	*C*	*19.8*	*C*	*21.9*
Northbound Left	B	10.3	A	9.9	B	10.3	A	9.9
Northbound Approach	*A*	*0.0*	*A*	*0.6*	*A*	*0.0*	*A*	*0.3*
State Road / Falls Commerce Pkwy / J&K Lawn Equipment Drive								
Eastbound Left-Thru-Right	A*	0.0	C	23.2	A*	0.0	C	17.6
Eastbound Approach	*A*	*0.0*	*C*	*23.2*	*A*	*0.0*	*C*	*17.6*
Westbound Left-Thru-Right	C	21.5	C	23.0	C	19.7	C	16.4
Westbound Approach	*C*	*21.5*	*C*	*23.0*	*C*	*19.7*	*C*	*16.4*
Northbound Left-Thru-Right	A	8.3	A	9.5	A	8.3	A	9.5
Northbound Approach	*A*	*0.0*	*A*	*0.0*	*A*	*0.0*	*A*	*0.0*
Southbound Left-Thru-Right	B	11.9	B	10.8	B	11.9	B	10.8
Southbound Approach	*A*	*0.7*	*A*	*0.4*	*A*	*0.3*	*A*	*0.1*
State Road / Buckeye Sports Drive / Storr-It Drive								
Eastbound Left-Thru-Right	C	17.3	D	30.4	C	17.2	D	30.1
Eastbound Approach	*C*	*17.3*	*D*	*30.4*	*C*	*17.2*	*D*	*30.1*
Westbound Left-Thru-Right	C	19.3	C	18.8	C	19.3	C	18.7
Westbound Approach	*C*	*19.3*	*C*	*18.8*	*C*	*19.3*	*C*	*18.7*
Northbound Left-Thru-Right	A	8.5	A	9.5	A	8.5	A	9.5
Northbound Approach	*A*	*0.4*	*A*	*0.2*	*A*	*0.1*	*A*	*0.1*
Southbound Left-Thru-Right	A	9.8	A	9.9	A	9.8	A	9.9
Southbound Approach	*A*	*0.1*	*A*	*0.3*	*A*	*0.1*	*A*	*0.1*

*Zero volume approach

Table 7: HCS Intersection Capacity Analysis Summary
Design Year 2048 'No-Build' vs. 'Build' Conditions – *Unsignalized Intersections* (Cont.)

Intersection / Movement	'No-Build' Condition				'Build' Condition			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)
State Road / Salt Creek Run								
Eastbound Left-Right	E	41.6	F	52.6	C	20.3	C	21.6
Eastbound Approach	*E*	*41.6*	*F*	*52.6*	*C*	*20.3*	*C*	*21.6*
Northbound Left	A	8.9	A	9.8	A	8.9	A	9.8
Northbound Approach	*A*	*0.2*	*A*	*0.7*	*A*	*0.1*	*A*	*0.3*
State Road / Woodridge Elem. Northern Drive								
Eastbound Left-Right	C	23.0	D	26.5	C	16.1	C	16.8
Eastbound Approach	*C*	*23.0*	*D*	*26.5*	*C*	*16.1*	*C*	*16.8*
Northbound Left	A	8.2	A	8.9	A	8.2	A	8.9
Northbound Approach	*A*	*0.2*	*A*	*0.0*	*A*	*0.2*	*A*	*0.0*
State Road / Woodridge Elem. Southern Drive								
Eastbound Left-Right	B	13.6	B	13.5	B	11.9	B	13.5
Eastbound Approach	*B*	*13.6*	*B*	*13.5*	*B*	*11.9*	*B*	*13.5*
Northbound Left	A	8.2	A	9.0	A	8.2	A	9.0
Northbound Approach	*A*	*0.5*	*A*	*0.0*	*A*	*0.2*	*A*	*0.0*
State Road / Falls Industrial Pkwy								
Westbound Left-Right	D	28.5	E	47.9	C	18.1	C	21.3
Westbound Approach	*D*	*28.5*	*E*	*47.9*	*C*	*18.1*	*C*	*21.3*
Southbound Left	B	10.3	A	9.6	B	10.3	A	9.6
Southbound Approach	*A*	*1.4*	*A*	*0.5*	*A*	*0.8*	*A*	*0.2*

As shown in **Table 7**, under the 'No-Build' traffic conditions, all movements and approaches are anticipated to operate with acceptable LOS E or better for both AM peak and PM peak, except for the eastbound approach at the State Road / Salt Creek Run intersection which is anticipated to operate with an unacceptable LOS F during the PM peak hour. Under the 'Build' traffic conditions, all movements and approaches are anticipated to operate with acceptable LOS D or better for both AM peak and PM peak. When compared to the 'No-Build' traffic conditions analysis results, the implementation of the TWLTL will provide better operations and safety conditions along State Road as it provides refuge for vehicles trying to make left turning maneuvers which will help improve safety and reduce delays.

Table 8 summarizes the HCS Intersection Capacity Analysis and details the Levels-of-Service and delay experienced for the Design Year 2048 'No-Build' traffic conditions for the existing unsignalized intersections at the State Road / Quick Road triangle of intersections. **Table 9** summarizes the HCS Intersection Capacity Analysis and details the Levels-of-Service and delay experienced for the Design Year 2048 'Build' traffic conditions for the proposed roundabout at the State Road / Quick Road triangle of intersections. See **Appendix G** for the HCS analysis printouts.

Table 8: HCS Intersection Capacity Analysis Summary
Design Year 2048 'No-Build' Conditions – *Unsignalized*

Intersection / Movement	'No-Build' Condition				'Build' Condition			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)
State Road / Quick Road Connector / Audi North Drive								
Eastbound Left-Thru-Right	D	32.9	E	35.9				
Eastbound Approach	*D*	*32.9*	*E*	*35.9*				
Westbound Left-Thru-Right	B	13.9	C	21.7				
Westbound Approach	*B*	*13.9*	*C*	*21.7*				
Northbound Left-Thru-Right	A	8.2	A	9.2				
Northbound Approach	*A*	*0.0*	*A*	*0.0*				
Southbound Left	A	9.2	A	8.6				
Southbound Approach	*A*	*0.1*	*A*	*0.0*				
State Road / Quick Road / Audi South Drive								
Eastbound Left-Thru-Right	C	21.6	C	23.6				
Eastbound Approach	*C*	*21.6*	*C*	*23.6*				
Westbound Left-Thru-Right	B	15.0	F	100.7				
Westbound Approach	*B*	*15.0*	*F*	*100.7*				
Northbound Left	B	10.7	B	11.2				
Northbound Approach	*A*	*3.8*	*A*	*3.2*				
Southbound Left	A	9.6	A	8.6				
Southbound Approach	*A*	*0.3*	*A*	*0.0*				
Quick Road / State Road Connector								
Westbound Left-Right	B	11.1	A	9.8				
Westbound Approach	*B*	*11.1*	*A*	*9.8*				
Southbound Left	A	8.4	A	7.8				
Southbound Approach	*A*	*1.0*	*A*	*0.3*				

As shown in **Table 8**, all movements and approaches at the State Road / Quick Road triangle are anticipated to operate with acceptable LOS E or better under the Design Year 2048 'No-Build' traffic conditions for both AM and PM Peak Hours. except for the westbound approach at the State Road / Quick Road / Audi Dealership Southern intersection which is anticipated to operate with an unacceptable LOS F during the PM peak hour. This unsatisfactory LOS should be mitigated once the proposed roundabout is constructed and fully operational.

Table 9: HCS Intersection Capacity Analysis Summary
Design Year 2048 'Build' Conditions –*Roundabout*

Intersection / Movement	'No-Build' Condition				'Build' Condition			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)
State Road / Quick Road Connector / Audi North Drive								
Eastbound Left-Thru-Right					B	10.2	B	10.4
Eastbound Approach					*B*	*10.2*	*B*	*10.4*
Westbound Left-Thru-Right					B	10.0	A	6.7
Westbound Approach					*B*	*10.0*	*A*	*6.7*
Northbound Left-Thru-Right					E	35.5	B	10.2
Northbound Approach					*E*	*35.5*	*B*	*10.2*
Southbound Left-Thru-Right					B	13.2	C	16.9
Southbound Approach					*B*	*13.2*	*C*	*16.9*
Intersection Total					***D***	***26.3***	***B***	***13.1***

As shown in **Table 9**, all movements and approaches at the proposed State Road / Quick Road roundabout are anticipated to operate with acceptable LOS E or better under the Design Year 2048 'Build' traffic conditions for both AM and PM Peak Hours. This indicates that the construction of the proposed roundabout would reduce the delay associated with the heavy left-turning movement from State Road into Quick Road.

Turn Lane Storage Length Calculations

Turn lane storage length calculations were performed to determine the required storage length for each existing and warranted turn lane based on the Design Year 2048 peak hour traffic volumes. The required storage length is a function of site conditions, lane assignments, design speed, and the vehicular demand of the individual movement and is based on Figures 401-9 and 401-10 of the ODOT L&D Manual, Volume 1 – Roadside Design. **Table 10** shows the calculated turn lane storage lengths under the Design Year 2048 traffic conditions. See **Appendix H** for storage length calculations.

Table 10: Storage Length Calculation Summary – Design Year 2048 'Build' Conditions

Intersection / Movement	Storage Length (ft.)	
	Calculated Length	Recommended Length
State Road / Boulder Boulevard		
Northbound Left Turn Lane	100'	100'
State Road / Salt Creek Run		
Northbound Left Turn Lane	100'	100'
Westbound Right Turn Lane	100'	100'
State Road / Woodridge Elementary School Northern Drive		
Northbound Left Turn Lane	100'	100'
State Road / Falls Industrial Parkway		
Southbound Left Turn Lane	100'	100'

As shown in **Table 10**, all turn lanes are recommended to be provided at their calculated length. It should be noted that these turn lanes can be accommodated within the proposed TWLTL. Therefore, no additional roadway widening is required to accommodate these turn lanes.

VII. Recommended Corridor Improvements:

Based on the analysis performed at the intersection, several improvement recommendations have been identified to improve the existing traffic signal. The following list outlines those improvements:

Long Term Improvements:

1. Create a consistent three (3) lane cross-section, including a center two-way left turn lane, along State Road within the study area.

2. Reconstruct the existing pavement along the State Road corridor.

3. Convert the State Road / Quick Road intersection into a single-lane roundabout.

All long-term improvements will occur simultaneously throughout the study area. The existing crash pattern and capacity analysis performed on State Road point to the fact that a center two-way left turn lane would be beneficial along the study corridor and the existing capacity analysis shows that there is not currently a capacity concern along the corridor. The proposed

improvement would allow for a center two-way left turn lane to be constructed while maintaining one (1) travel lane in each direction. This center two-way left turn lane will provide left turners the ability to exit a travel lane and make a left turn from a dedicated left turn lane at all intersections and driveways throughout the study corridor, reducing the identified rear-end crash pattern.

The construction of a single-lane roundabout at the State Road / Quick Road intersection will eliminate the confusing nature of the three closely spaced intersections, which will eliminate a potential safety concern. Additionally, the single-lane roundabout will provide acceptable Levels-of-Service in the future at the intersection to provide efficient traffic operations.

See **Figure 5** for the proposed improvement exhibits for the corridor. The estimated cost for this project is approximately 15.0 million dollars. See **Appendix I** for an opinion of the probable cost of the above-listed improvements.

V. Summary and Recommendations:

At the request of the City of Cuyahoga Falls, GPD Group was tasked with completing a Corridor Study for the State Road Corridor, between Quick Road and Boulder Boulevard. The purpose of this study is to investigate possible improvements to improve the State Road corridor from both an operations and safety perspective throughout the study area. This study will determine if any operational or safety deficiencies exist within the study area and what improvements are necessary to correct any deficiencies that are identified.

In Summary,

1. Crash data was obtained from ODOT's GIS Crash Analysis Tool (GCAT) for the calendar years of 2018-2022 for the entire study area. A total of 26 crashes were reported within the study area and were analyzed as part of this project. These crashes include 13 rear-end, 4 left turn, 2 sideswipe – passing, 2 angle, 1 sideswipe – meeting, 1 right turn, 1 fixed object, 1 backing, and 1 head-on related crash. 73% of the crashes occurred in daylight, 65% occurred on dry pavement, and 35% of the crashes were injury crashes.

2. The Existing Year 2023 'No-Build' traffic signal warrant analysis determined that a traffic signal is warranted at the State Road / Quick Road / Audi Dealership Southern Drive intersection based on signal warrants #2 and #3. The remaining study intersections did not meet any volume-based warrants under the Existing Year 2023 'No-Build' conditions. The Opening Year 2028 signal warrant analysis yielded identical results as the Existing Year 2023 analysis.

3. The auxiliary turn lane warrant analysis determined that northbound left turn lanes are anticipated to be warranted during the Design Year 2048 at the intersections of State Rd / Boulder Blvd and State Rd / Salt Creek Run. Also, southbound left turn lanes were also determined to be warranted at the intersection of State Road / Falls Industrial Pkwy and State Road / Buckeye Sports Drive / Storr-It Drive. Additionally, a southbound right turn lane at the intersection of State Rd / Salt Creek Run was found to be warranted. However, the addition of the southbound right turn lane at this intersection will have a minimal impact on the analysis results and no crashes were associated with this southbound right turning movement. Therefore, the construction of this turn lane is not recommended.

4. Under Design Year 2048 'No-Build' traffic conditions, all movements and approaches are anticipated to operate with acceptable LOS E or better for both AM peak and PM peak, except for the eastbound

approach at the State Road / Salt Creek Run intersection which is anticipated to operate with an unacceptable LOS F during the PM peak hour. Under the 'Build' traffic conditions, all movements and approaches are anticipated to operate with acceptable LOS D or better for both AM peak and PM peak. When compared to the 'No-Build' traffic conditions analysis results, the implementation of the TWLTL will provide better operations and safety conditions along State Road as it provides refuge for vehicles trying to make left turning maneuvers which will help improve safety and reduce delays.

5. All movements and approaches at the proposed State Road / Quick Road roundabout are anticipated to operate with acceptable LOS E or better under the Design Year 2048 'Build' traffic conditions for both AM and PM Peak Hours. This indicates that the construction of the proposed roundabout would reduce the delay associated with the heavy left-turning movement from State Road into Quick Road.

6. All warranted turn lanes are recommended to be provided at their calculated length. It should be noted that these turn lanes can be accommodated within the proposed TWLTL. Therefore, no additional roadway widening is required to accommodate these turn lanes.

Based on the results of the analysis contained in this report, GPD Group recommends the following:

1. The City of Cuyahoga Falls should pursue the State Road Corridor Project outlined in this study.

2. The City of Cuyahoga Falls should create a financial plan and apply for safety funding to secure funds for the design and construction of the proposed improvements. The funding plan should address the funding of the entire project.

FIGURES

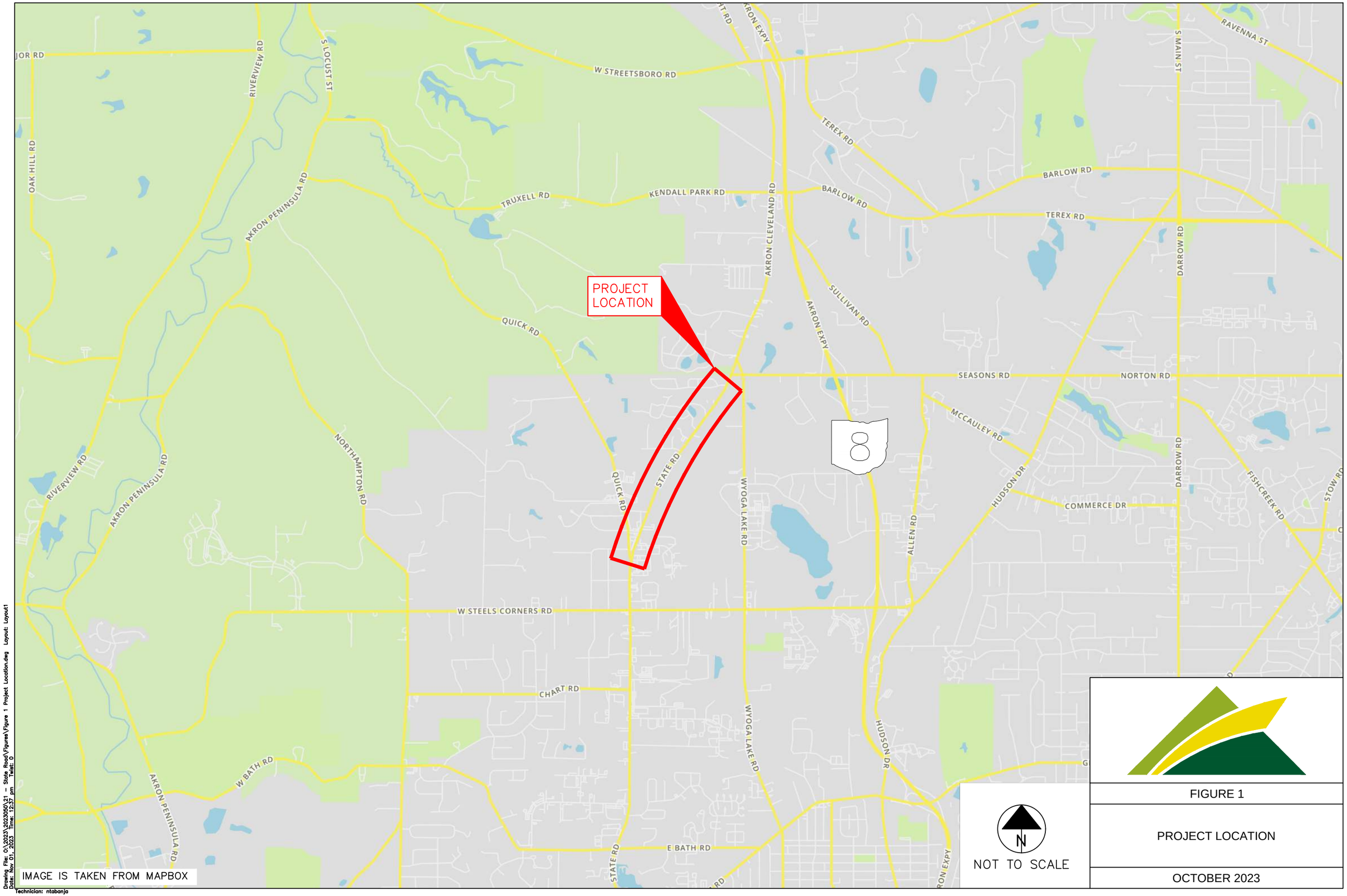


IMAGE IS TAKEN FROM MAPBOX

NOT TO SCALE

FIGURE 1

PROJECT LOCATION

OCTOBER 2023

Drawing File: O:\2023\2023050\21 - State Road\Figures\Figure 1 Project Location.dwg Layout: Layout1
Date: Nov 01, 2023 Time: 12:37 pm Twist: 0
Technician: ntabanja

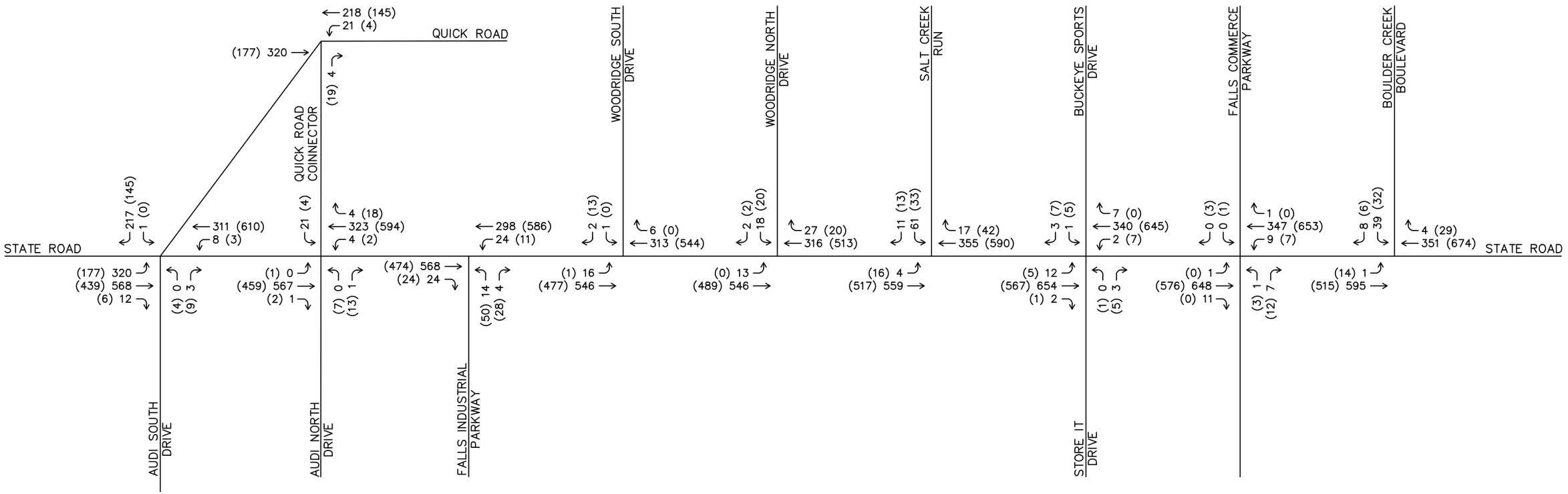
NOT TO SCALE

FIGURE 2

AERIAL PHOTOGRAPH

OCTOBER 2023

Drawing File: O:\2023\2023050\21 – State Road\Figures\Figure 2 Aerial Photograph.dwg Layout: Layout1
Date: Oct 03, 2023 Time: 12:48 pm Twist: 0
Technician: ddombrosky



LEGEND
– AM PEAK HOUR
(##) – PM PEAK HOUR

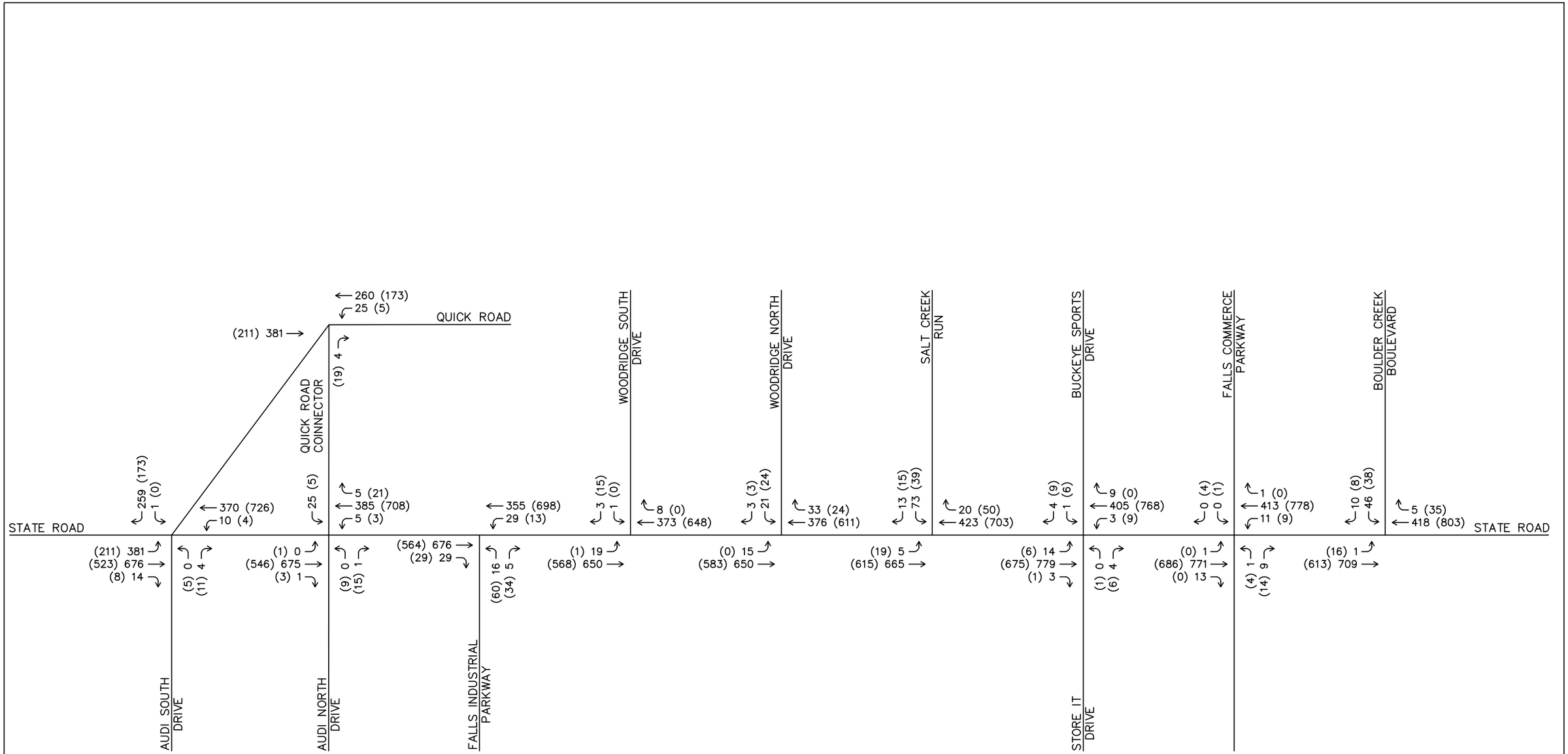
NOT TO SCALE

FIGURE 3

OPENING YEAR 2028
PEAK HOUR
TRAFFIC VOLUMES

OCTOBER 2023

Drawing File: O:\2023\2023050\21 - State Road\Figures\Figure 3.dwg Layout: Figure 3
Date: Oct 31, 2023 Time: 4:21 pm Twist: 0
Technician: ntabanja



LEGEND
– AM PEAK HOUR
(##) – PM PEAK HOUR

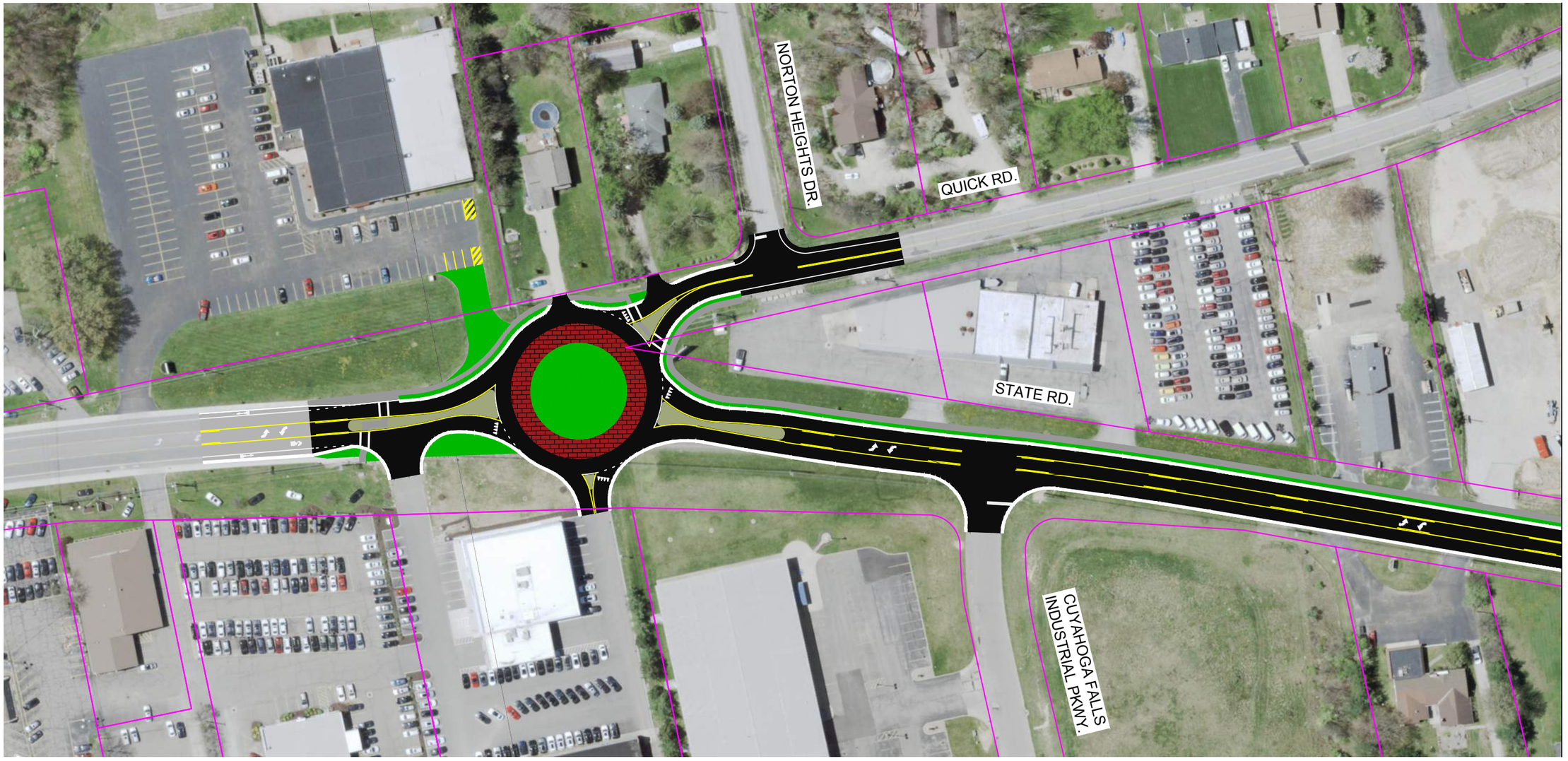
NOT TO SCALE

FIGURE 4

DESIGN YEAR 2048
PEAK HOUR
TRAFFIC VOLUMES

OCTOBER 2023

Drawing File: O:\2023\2023050\21 - State Road\Figures\Figure 4.dwg Layout: Figure 4
Date: Oct 31, 2023 Time: 4:23 pm Twist: 0
Technician: ntabanja



N

0 100

50 200

Horizontal Scale in Feet

LEGEND

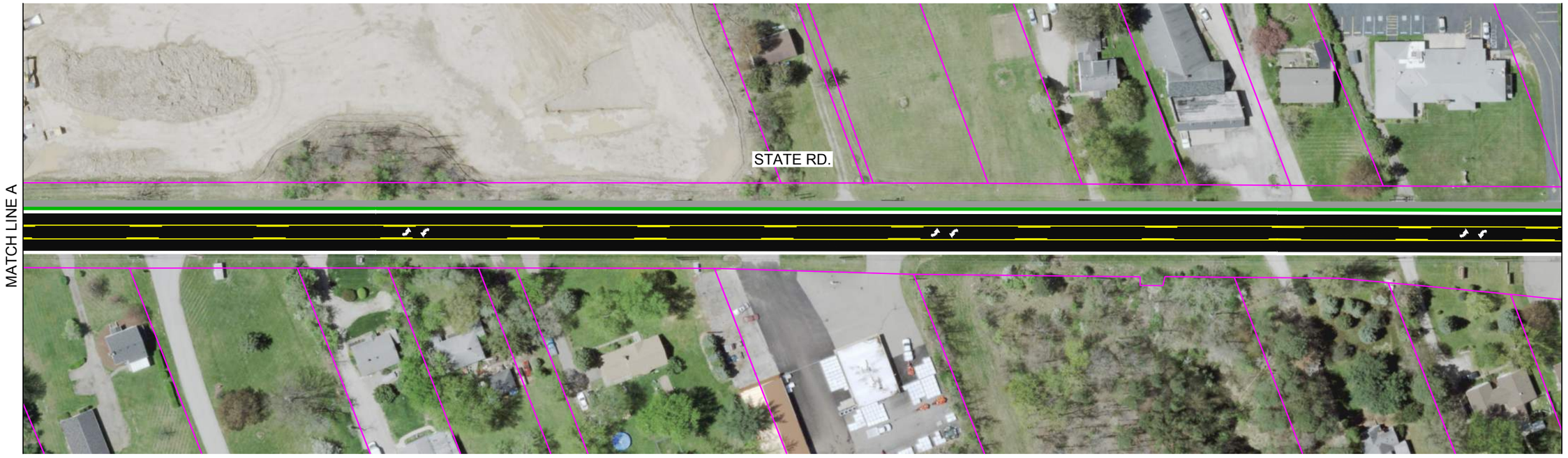
- RESURFACING AREA
- NEW/RECONSTRUCTED PAVEMENT
- RAISED PAVEMENT
- SIDEWALK
- CURB AND GUTTER
- TRUCK APRON
- EXISTING RIGHT OF WAY

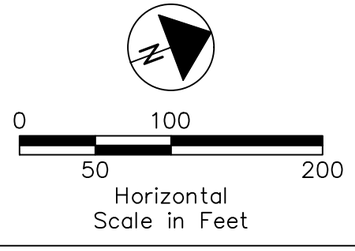
CITY OF CUYAHOGA FALLS

PROPOSED IMPROVEMENT RENDERING
SHEET 1 OF 5

JULY 2023

Drawing File: C:\Users\ddombrosky\appdata\local\temp\AcPublish_17804\State Street Rendering.dwg Layout: 1 of 5
Date: Jul 13, 2023 Time: 10:58 am Twist: 0
Technician: ddombrosky





LEGEND

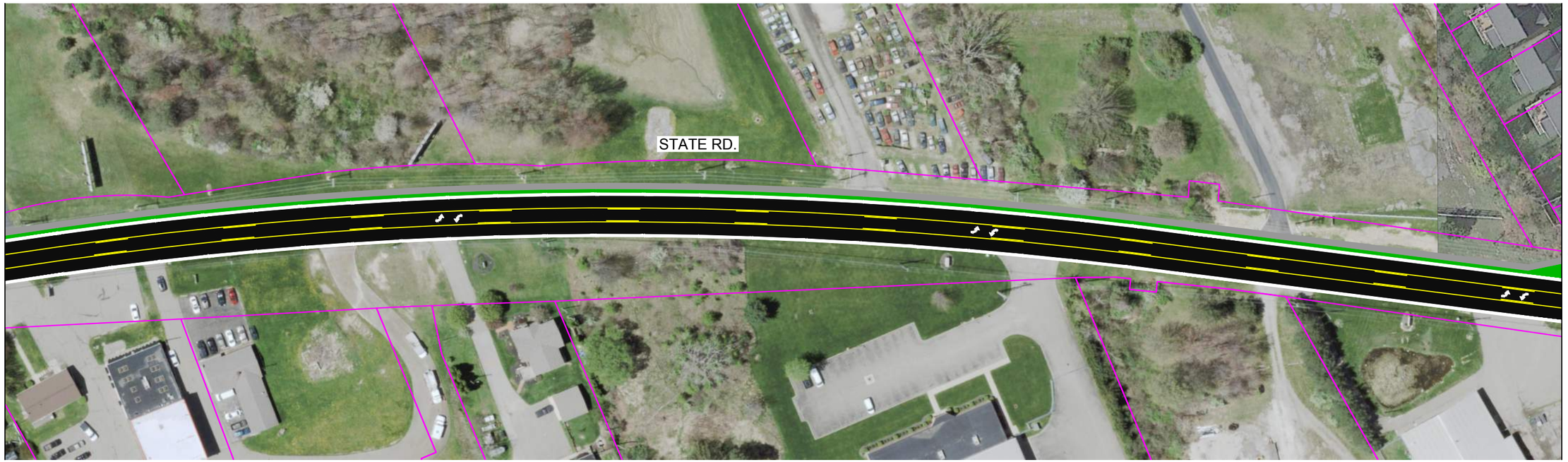
- RESURFACING AREA
- NEW/RECONSTRUCTED PAVEMENT
- RAISED PAVEMENT
- SIDEWALK
- CURB AND GUTTER
- TRUCK APRON
- EXISTING RIGHT OF WAY

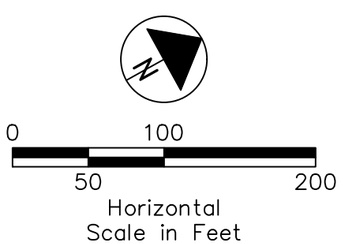
CITY OF CUYAHOGA FALLS

PROPOSED IMPROVEMENT RENDERING
SHEET 2 OF 5

JULY 2023

Drawing File: C:\Users\ddombrosky\appdata\local\temp\AcePublish_17804\State Street Rendering.dwg Layout: 2 of 5
Date: Jul 13, 2023 Time: 10:58 am Twist: 0
Technician: ddombrosky





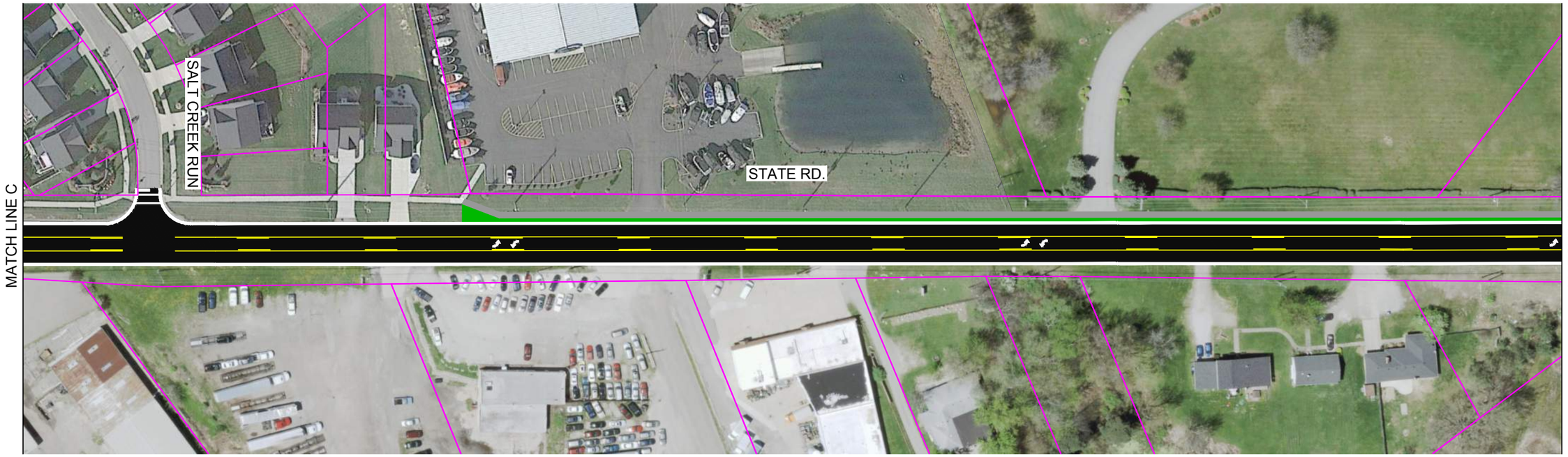
LEGEND	
	RESURFACING AREA
	NEW/RECONSTRUCTED PAVEMENT
	RAISED PAVEMENT
	SIDEWALK
	CURB AND GUTTER
	TRUCK APRON
	EXISTING RIGHT OF WAY

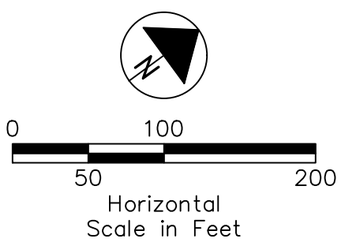
CITY OF CUYAHOGA FALLS

PROPOSED IMPROVEMENT RENDERING
SHEET 3 OF 5

JULY 2023

Drawing File: C:\Users\ddombrosky\AppData\Local\Temp\AcPublish_17804\State Street Rendering.dwg Layout: 3 of 5
Date: Jul 13, 2023 Time: 10:58 am Twist: 0
Technician: ddombrosky





LEGEND

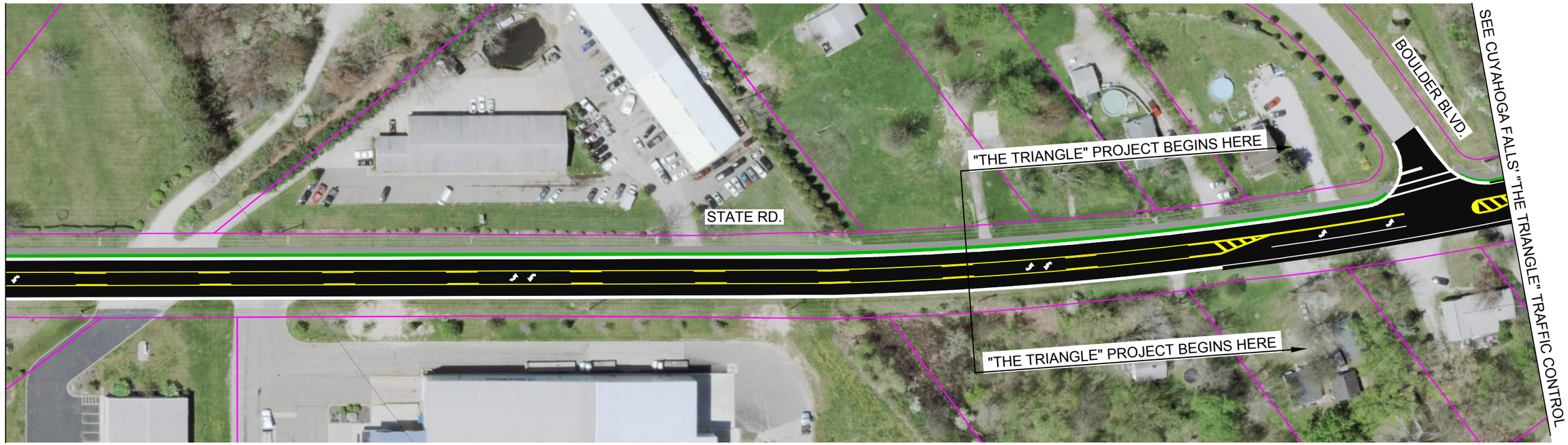
- RESURFACING AREA
- NEW/RECONSTRUCTED PAVEMENT
- RAISED PAVEMENT
- SIDEWALK
- CURB AND GUTTER
- TRUCK APRON
- EXISTING RIGHT OF WAY

CITY OF CUYAHOGA FALLS

PROPOSED IMPROVEMENT RENDERING
SHEET 4 OF 5

JULY 2023

Drawing File: C:\Users\ddombrosky\appdata\local\temp\AcPublish_17804\State Street Rendering.dwg Layout: 4 of 5
Date: Jul 13, 2023 Time: 10:58 am Twist: 0
Technician: ddombrosky



N

0 100

50 200

Horizontal
Scale in Feet

LEGEND

- RESURFACING AREA
- NEW/RECONSTRUCTED PAVEMENT
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CITY OF CUYAHOGA FALLS

PROPOSED IMPROVEMENT RENDERING
SHEET 5 OF 5

JULY 2023

Drawing File: C:\Users\ddombrosky\appdata\local\temp\AcPublish_17804\State Street Rendering.dwg Layout: 5 of 5
Date: Jul 13, 2023 Time: 10:58 am Twist: 0

Technician: ddombrosky

APPENDIX A
TURNING MOVEMENT COUNTS

GPD Group

520 South Main Street, Suite 2531
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Boulder Boulevard Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 1-State and Boulder 083123
Site Code : 71023050
Start Date : 8/31/2023
Page No : 1

Groups Printed- Passenger Vehicles - Trucks - Buses

	Boulder Boulevard Eastbound					Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	5	0	4	0	9	0	0	0	0	0	1	76	0	0	77	0	55	0	0	55	141
07:15 AM	11	0	1	0	12	0	0	0	0	0	0	128	0	0	128	0	66	2	0	68	208
07:30 AM	10	0	4	0	14	0	0	0	0	0	0	126	0	0	126	0	43	0	0	43	183
07:45 AM	7	0	2	0	9	0	0	0	0	0	0	164	0	0	164	0	130	0	0	130	303
Total	33	0	11	0	44	0	0	0	0	0	1	494	0	0	495	0	294	2	0	296	835
08:00 AM	6	0	0	0	6	0	0	0	0	0	1	97	0	0	98	0	65	2	0	67	171
08:15 AM	9	0	4	0	13	0	0	0	0	0	0	93	0	0	93	0	88	3	0	91	197
08:30 AM	3	0	1	0	4	0	0	0	0	0	0	113	0	0	113	0	68	2	0	70	187
08:45 AM	3	0	0	0	3	0	0	0	0	0	1	103	0	0	104	0	68	2	0	70	177
Total	21	0	5	0	26	0	0	0	0	0	2	406	0	0	408	0	289	9	0	298	732
09:00 AM	1	0	2	0	3	0	0	0	0	0	1	81	0	0	82	0	58	2	0	60	145
09:15 AM	1	0	2	0	3	0	0	0	0	0	1	60	0	0	61	0	63	0	0	63	127
09:30 AM	1	0	0	0	1	0	0	0	0	0	0	79	0	0	79	0	69	1	0	70	150
09:45 AM	4	0	3	0	7	0	0	0	0	0	1	58	0	0	59	0	62	1	0	63	129
Total	7	0	7	0	14	0	0	0	0	0	3	278	0	0	281	0	252	4	0	256	551
10:00 AM	4	0	3	0	7	0	0	0	0	0	1	59	0	0	60	0	61	1	0	62	129
10:15 AM	1	0	4	0	5	0	0	0	0	0	2	59	0	0	61	0	60	2	0	62	128
10:30 AM	2	0	3	0	5	0	0	0	0	0	1	60	0	0	61	0	62	1	0	63	129
10:45 AM	1	0	4	0	5	0	0	0	0	0	1	61	0	0	62	0	62	1	0	63	130
Total	8	0	14	0	22	0	0	0	0	0	5	239	0	0	244	0	245	5	0	250	516
11:00 AM	1	0	4	0	5	0	0	0	0	0	3	64	0	0	67	0	73	4	0	77	149
11:15 AM	4	0	2	0	6	0	0	0	0	0	1	67	0	0	68	0	68	4	0	72	146
11:30 AM	1	0	1	0	2	0	0	0	0	0	0	68	0	0	68	0	63	4	0	67	137
11:45 AM	1	0	2	0	3	0	0	0	0	0	2	70	1	0	73	0	71	1	0	72	148
Total	7	0	9	0	16	0	0	0	0	0	6	269	1	0	276	0	275	13	0	288	580
12:00 PM	0	0	1	0	1	0	0	1	0	1	0	77	1	0	78	0	68	6	0	74	154
12:15 PM	2	0	2	0	4	0	0	0	0	0	1	63	0	0	64	0	68	2	0	70	138
12:30 PM	2	0	1	0	3	0	0	0	0	0	1	98	0	0	99	0	72	2	0	74	176
12:45 PM	2	0	1	0	3	0	0	0	0	0	1	61	0	0	62	0	72	2	0	74	139
Total	6	0	5	0	11	0	0	1	0	1	3	299	1	0	303	0	280	12	0	292	607
01:00 PM	4	0	2	0	6	0	0	0	0	0	1	74	0	0	75	0	55	5	0	60	141
01:15 PM	2	0	3	0	5	0	0	0	0	0	3	80	0	0	83	0	63	3	0	66	154
01:30 PM	3	0	2	0	5	0	0	0	0	0	1	77	0	0	78	0	80	4	0	84	167
01:45 PM	5	0	1	0	6	0	0	0	0	0	4	86	0	0	90	0	78	5	0	83	179
Total	14	0	8	0	22	0	0	0	0	0	9	317	0	0	326	0	276	17	0	293	641
02:00 PM	3	0	0	0	3	0	0	0	0	0	1	91	0	0	92	0	74	6	0	80	175
02:15 PM	2	0	1	0	3	0	0	0	0	0	1	97	0	0	98	0	94	3	0	97	198
02:30 PM	3	0	0	0	3	0	0	0	0	0	1	96	0	0	97	0	68	2	0	70	170
02:45 PM	2	0	0	0	2	0	0	0	0	0	1	105	0	0	106	0	82	3	0	85	193
Total	10	0	1	0	11	0	0	0	0	0	4	389	0	0	393	0	318	14	0	332	736

GPD Group

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Telephone: (330) 572-2100

State Road / Boulder Boulevard Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 1-State and Boulder 083123
Site Code : 71023050
Start Date : 8/31/2023
Page No : 2

Groups Printed- Passenger Vehicles - Trucks - Buses

	Boulder Boulevard Eastbound					Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
03:00 PM	3	0	1	0	4	0	0	0	0	0	2	105	0	0	107	0	95	4	0	99	210
03:15 PM	3	0	2	0	5	0	0	0	0	0	2	109	0	0	111	0	111	7	0	118	234
03:30 PM	4	0	2	0	6	0	0	0	0	0	1	130	0	0	131	0	95	5	0	100	237
03:45 PM	3	0	3	0	6	0	0	0	0	0	0	117	0	0	117	0	133	10	0	143	266
Total	13	0	8	0	21	0	0	0	0	0	5	461	0	0	466	0	434	26	0	460	947
04:00 PM	4	0	3	0	7	0	0	0	0	0	1	110	0	0	111	0	117	3	0	120	238
04:15 PM	7	0	1	0	8	0	0	0	0	0	1	97	0	0	98	0	117	11	0	128	234
04:30 PM	5	0	1	0	6	0	0	0	0	0	4	109	0	0	113	0	127	13	0	140	259
04:45 PM	9	0	3	0	12	0	0	0	0	0	3	98	0	0	101	0	153	2	0	155	268
Total	25	0	8	0	33	0	0	0	0	0	9	414	0	0	423	0	514	29	0	543	999
05:00 PM	9	0	0	0	9	0	0	0	0	0	3	136	0	0	139	0	147	5	0	152	300
05:15 PM	4	0	1	0	5	0	0	0	0	0	2	102	0	0	104	0	157	5	0	162	271
05:30 PM	7	0	1	0	8	0	0	0	0	0	5	107	0	0	112	0	134	10	0	144	264
05:45 PM	17	0	0	0	17	0	0	0	0	0	0	76	0	0	76	0	122	5	0	127	220
Total	37	0	2	0	39	0	0	0	0	0	10	421	0	0	431	0	560	25	0	585	1055
06:00 PM	6	0	0	0	6	0	0	0	0	0	3	84	0	0	87	0	114	4	0	118	211
06:15 PM	5	0	2	0	7	0	0	0	0	0	2	66	0	0	68	0	107	8	0	115	190
06:30 PM	3	0	4	0	7	0	0	0	0	0	1	74	0	0	75	0	78	11	0	89	171
06:45 PM	1	0	1	0	2	0	0	0	0	0	0	58	0	0	58	0	80	2	0	82	142
Total	15	0	7	0	22	0	0	0	0	0	6	282	0	0	288	0	379	25	0	404	714
Grand Total	196	0	85	0	281	0	0	1	0	1	63	4269	2	0	4334	0	4116	181	0	4297	8913
Apprch %	69.8	0	30.2	0		0	0	100	0		1.5	98.5	0	0		0	95.8	4.2	0		
Total %	2.2	0	1	0	3.2	0	0	0	0	0	0.7	47.9	0	0	48.6	0	46.2	2	0	48.2	
Passenger Vehicles	192	0	79	0	271	0	0	0	0	0	61	4031	0	0	4092	0	3883	174	0	4057	8420
% Passenger Vehicles	98	0	92.9	0	96.4	0	0	0	0	0	96.8	94.4	0	0	94.4	0	94.3	96.1	0	94.4	94.5
Trucks	2	0	0	0	2	0	0	1	0	1	0	217	2	0	219	0	221	2	0	223	445
% Trucks	1	0	0	0	0.7	0	0	100	0	100	0	5.1	100	0	5.1	0	5.4	1.1	0	5.2	5
Buses	2	0	6	0	8	0	0	0	0	0	2	21	0	0	23	0	12	5	0	17	48
% Buses	1	0	7.1	0	2.8	0	0	0	0	0	3.2	0.5	0	0	0.5	0	0.3	2.8	0	0.4	0.5

GPD Group

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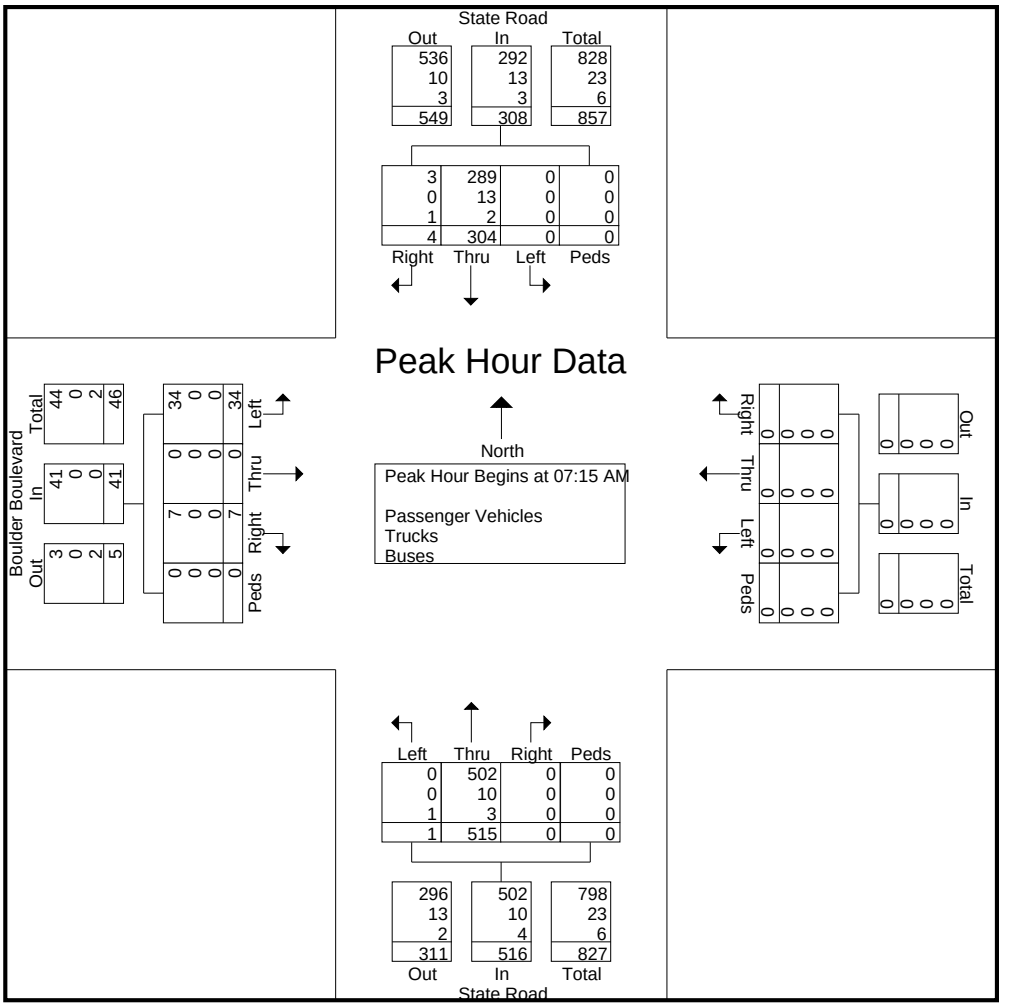
State Road / Boulder Boulevard Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 1-State and Boulder 083123
Site Code : 71023050
Start Date : 8/31/2023
Page No : 3

	Boulder Boulevard Eastbound					Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
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																					
07:15 AM	**11**	0	1	0	12	0	0	0	0	0	0	128	0	0	128	0	66	**2**	0	68	208
07:30 AM	10	0	**4**	0	**14**	0	0	0	0	0	0	126	0	0	126	0	43	0	0	43	183
07:45 AM	7	0	2	0	9	0	0	0	0	0	0	**164**	0	0	**164**	0	**130**	0	0	**130**	**303**
08:00 AM	6	0	0	0	6	0	0	0	0	0	**1**	97	0	0	98	0	65	2	0	67	171
Total Volume	34	0	7	0	41	0	0	0	0	0	1	515	0	0	516	0	304	4	0	308	865
% App. Total	82.9	0	17.1	0		0	0	0	0		0.2	99.8	0	0		0	98.7	1.3	0		
PHF	.773	.000	.438	.000	.732	.000	.000	.000	.000	.000	.250	.785	.000	.000	.787	.000	.585	.500	.000	.592	.714
Passenger Vehicles	34	0	7	0	41	0	0	0	0	0	0	502	0	0	502	0	289	3	0	292	835
% Passenger Vehicles	100	0	100	0	100	0	0	0	0	0	0	97.5	0	0	97.3	0	95.1	75.0	0	94.8	96.5
Trucks	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10	0	13	0	0	13	23
% Trucks	0	0	0	0	0	0	0	0	0	0	0	1.9	0	0	1.9	0	4.3	0	0	4.2	2.7
Buses	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	0	2	1	0	3	7
% Buses	0	0	0	0	0	0	0	0	0	0	100	0.6	0	0	0.8	0	0.7	25.0	0	1.0	0.8



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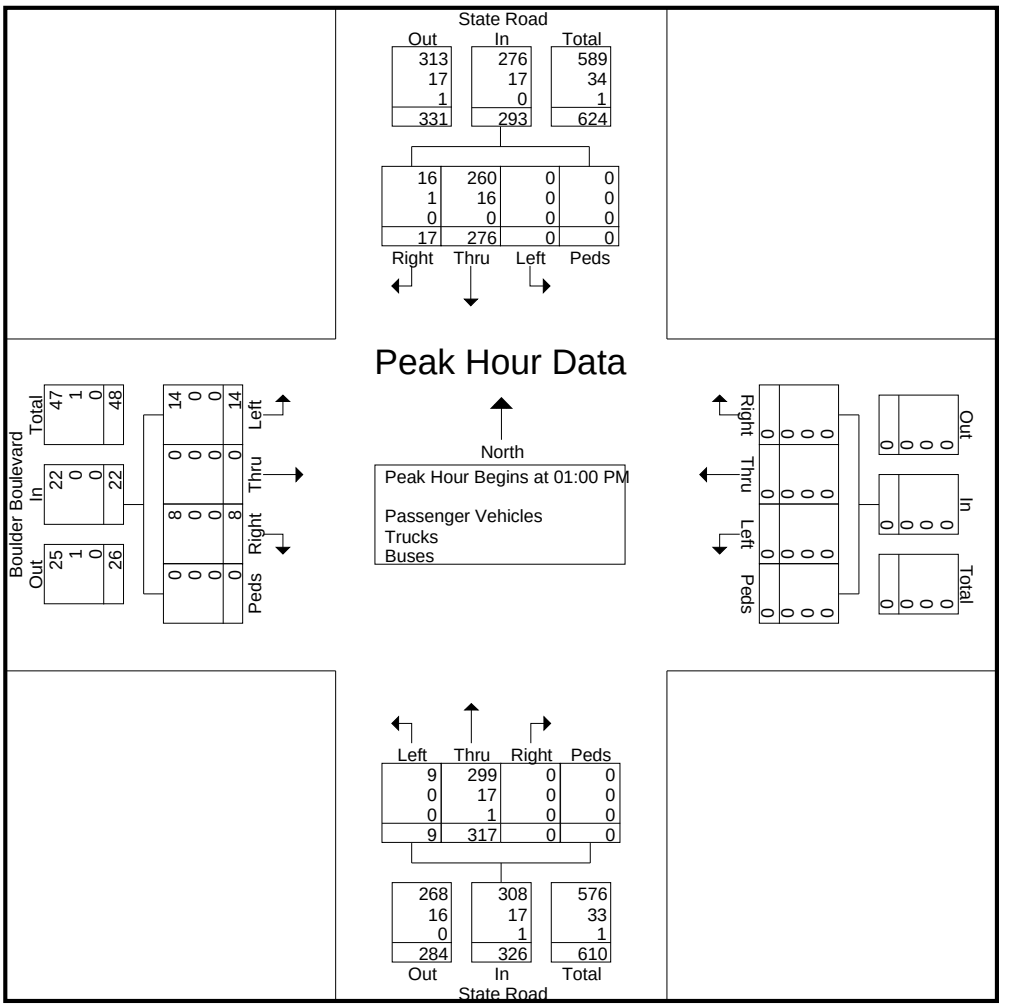
	Boulder Boulevard Eastbound					Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 01:00 PM																					
01:00 PM	4	0	2	0	**6**	0	0	0	0	0	1	74	0	0	75	0	55	**5**	0	60	141
01:15 PM	2	0	**3**	0	5	0	0	0	0	0	3	80	0	0	83	0	63	3	0	66	154
01:30 PM	3	0	2	0	5	0	0	0	0	0	1	77	0	0	78	0	**80**	4	0	**84**	167
01:45 PM	**5**	0	1	0	6	0	0	0	0	0	**4**	**86**	0	0	**90**	0	78	5	0	83	**179**
Total Volume	14	0	8	0	22	0	0	0	0	0	9	317	0	0	326	0	276	17	0	293	641
% App. Total	63.6	0	36.4	0		0	0	0	0		2.8	97.2	0	0		0	94.2	5.8	0		
PHF	.700	.000	.667	.000	.917	.000	.000	.000	.000	.000	.563	.922	.000	.000	.906	.000	.863	.850	.000	.872	.895
Passenger Vehicles	14	0	8	0	22	0	0	0	0	0	9	299	0	0	308	0	260	16	0	276	606
% Passenger Vehicles	100	0	100	0	100	0	0	0	0	0	100	94.3	0	0	94.5	0	94.2	94.1	0	94.2	94.5
Trucks	0	0	0	0	0	0	0	0	0	0	0	17	0	0	17	0	16	1	0	17	34
% Trucks	0	0	0	0	0	0	0	0	0	0	0	5.4	0	0	5.2	0	5.8	5.9	0	5.8	5.3
Buses	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
% Buses	0	0	0	0	0	0	0	0	0	0	0	0.3	0	0	0.3	0	0	0	0	0	0.2



GPD Group

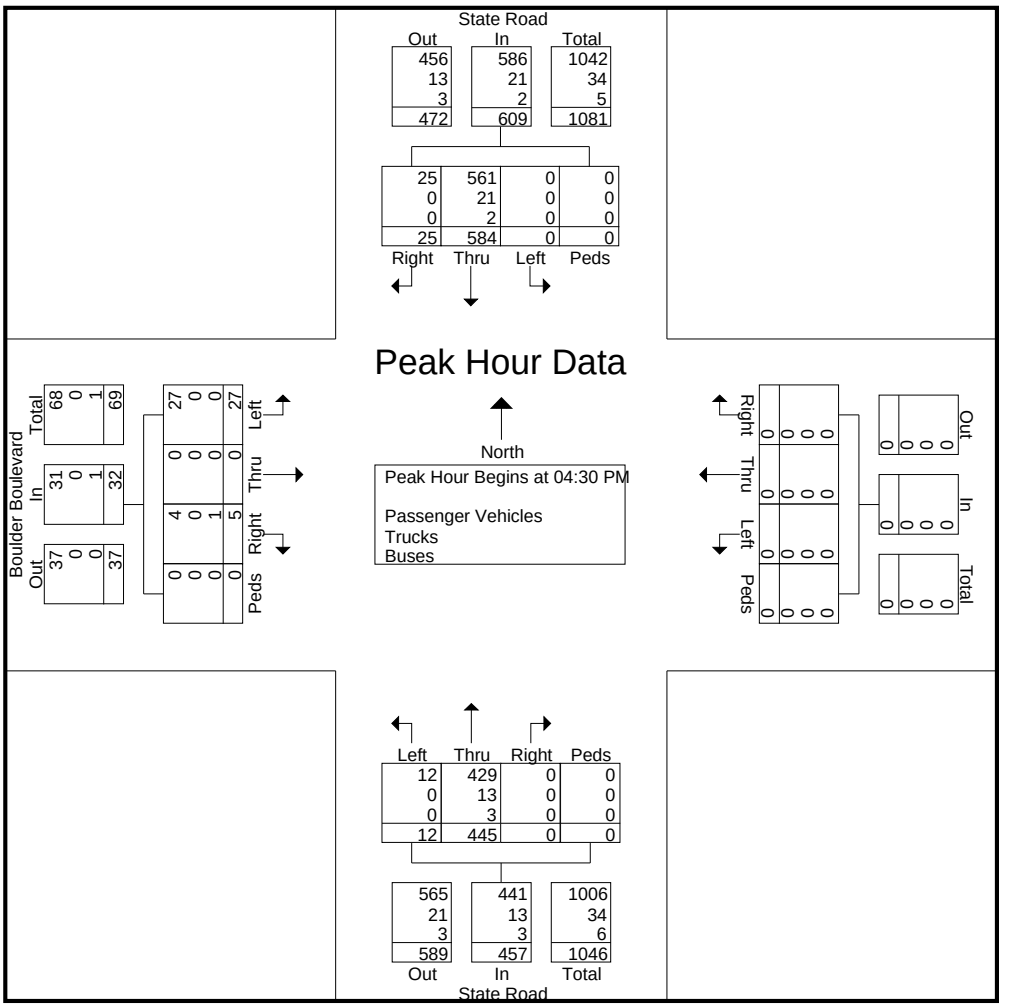
520 South Main Street, Suite 2531
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Boulder Boulevard Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 1-State and Boulder 083123
Site Code : 71023050
Start Date : 8/31/2023
Page No : 5

	Boulder Boulevard Eastbound					Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	5	0	1	0	6	0	0	0	0	0	**4**	109	0	0	113	0	127	**13**	0	140	259
04:45 PM	**9**	0	**3**	0	**12**	0	0	0	0	0	3	98	0	0	101	0	153	2	0	155	268
05:00 PM	9	0	0	0	9	0	0	0	0	0	3	**136**	0	0	**139**	0	147	5	0	152	**300**
05:15 PM	4	0	1	0	5	0	0	0	0	0	2	102	0	0	104	0	**157**	5	0	**162**	271
Total Volume	27	0	5	0	32	0	0	0	0	0	12	445	0	0	457	0	584	25	0	609	1098
% App. Total	84.4	0	15.6	0		0	0	0	0		2.6	97.4	0	0		0	95.9	4.1	0		
PHF	.750	.000	.417	.000	.667	.000	.000	.000	.000	.000	.750	.818	.000	.000	.822	.000	.930	.481	.000	.940	.915
Passenger Vehicles	27	0	4	0	31	0	0	0	0	0	12	429	0	0	441	0	561	25	0	586	1058
% Passenger Vehicles	100	0	80.0	0	96.9	0	0	0	0	0	100	96.4	0	0	96.5	0	96.1	100	0	96.2	96.4
Trucks	0	0	0	0	0	0	0	0	0	0	0	13	0	0	13	0	21	0	0	21	34
% Trucks	0	0	0	0	0	0	0	0	0	0	0	2.9	0	0	2.8	0	3.6	0	0	3.4	3.1
Buses	0	0	1	0	1	0	0	0	0	0	0	3	0	0	3	0	2	0	0	2	6
% Buses	0	0	20.0	0	3.1	0	0	0	0	0	0	0.7	0	0	0.7	0	0.3	0	0	0.3	0.5



GPD Group

520 South Main Street, Suite 2531
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Falls Commerce Parkway Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 2-State and Falls Commerce 091223
Site Code : 71043050
Start Date : 9/12/2023
Page No : 1

Groups Printed- Passenger Vehicles - Trucks - Buses

	Private Drive Eastbound					Falls Commerce Parkway Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	1	0	1	1	81	2	0	84	0	61	0	0	61	146
07:15 AM	0	0	0	0	0	0	0	2	0	2	0	159	3	0	162	2	62	0	0	64	228
07:30 AM	0	0	0	0	0	0	0	4	0	4	1	152	3	0	156	1	49	0	0	50	210
07:45 AM	0	0	0	0	0	1	0	0	0	1	0	138	3	0	141	5	102	1	0	108	250
Total	0	0	0	0	0	1	0	7	0	8	2	530	11	0	543	8	274	1	0	283	834
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	97	0	0	97	0	79	0	0	79	176
08:15 AM	0	0	0	0	0	1	0	0	0	1	0	96	1	0	97	0	83	0	0	83	181
08:30 AM	0	0	0	0	0	0	0	1	0	1	0	100	0	0	100	0	74	0	0	74	175
08:45 AM	0	0	0	0	0	1	0	0	0	1	0	102	0	0	102	1	71	0	0	72	175
Total	0	0	0	0	0	2	0	1	0	3	0	395	1	0	396	1	307	0	0	308	707
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	66	0	0	66	1	57	0	0	58	124
09:15 AM	1	0	0	0	1	1	0	1	0	2	0	71	0	0	71	3	62	0	0	65	139
09:30 AM	0	0	0	0	0	0	0	1	0	1	0	66	0	0	66	1	53	0	0	54	121
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	66	0	0	66	1	65	0	0	66	132
Total	1	0	0	0	1	1	0	2	0	3	0	269	0	0	269	6	237	0	0	243	516
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	64	0	0	64	0	52	0	0	52	116
10:15 AM	0	0	1	0	1	0	0	2	0	2	1	66	0	0	67	1	66	0	0	67	137
10:30 AM	0	0	1	0	1	0	0	1	0	1	1	59	0	0	60	1	65	0	0	66	128
10:45 AM	0	0	0	0	0	1	0	0	0	1	0	54	0	0	54	0	64	0	0	64	119
Total	0	0	2	0	2	1	0	3	0	4	2	243	0	0	245	2	247	0	0	249	500
11:00 AM	0	0	0	0	0	1	0	2	0	3	0	51	1	0	52	1	63	0	0	64	119
11:15 AM	0	0	1	0	1	1	0	1	0	2	0	72	1	0	73	0	57	0	0	57	133
11:30 AM	0	0	1	0	1	1	0	3	0	4	0	64	0	0	64	0	63	0	0	63	132
11:45 AM	0	0	0	0	0	0	0	2	0	2	0	79	1	0	80	4	66	0	0	70	152
Total	0	0	2	0	2	3	0	8	0	11	0	266	3	0	269	5	249	0	0	254	536
12:00 PM	0	0	0	0	0	2	0	1	0	3	0	56	0	0	56	1	74	0	0	75	134
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	56	1	0	57	1	55	0	0	56	113
12:30 PM	0	0	0	0	0	4	0	1	0	5	0	57	1	0	58	1	70	0	0	71	134
12:45 PM	0	0	0	0	0	1	0	1	0	2	0	53	0	0	53	0	66	0	0	66	121
Total	0	0	0	0	0	7	0	3	0	10	0	222	2	0	224	3	265	0	0	268	502
01:00 PM	1	0	0	0	1	1	0	0	0	1	0	54	1	0	55	1	62	1	0	64	121
01:15 PM	0	0	2	0	2	0	0	2	0	2	0	65	3	0	68	0	65	0	0	65	137
01:30 PM	0	0	1	0	1	0	0	0	0	0	0	77	1	0	78	1	52	5	0	58	137
01:45 PM	0	0	0	0	0	0	0	1	0	1	1	73	2	0	76	0	48	0	0	48	125
Total	1	0	3	0	4	1	0	3	0	4	1	269	7	0	277	2	227	6	0	235	520
02:00 PM	0	0	0	0	0	1	0	0	0	1	0	95	1	0	96	1	72	0	0	73	170
02:15 PM	0	0	0	0	0	0	0	3	0	3	0	69	0	0	69	3	78	0	0	81	153
02:30 PM	0	0	0	0	0	0	0	2	0	2	0	94	1	0	95	2	73	0	0	75	172

GPD Group

520 South Main Street, Suite 2531
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Falls Commerce Parkway Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 2-State and Falls Commerce 091223
Site Code : 71043050
Start Date : 9/12/2023
Page No : 2

Groups Printed- Passenger Vehicles - Trucks - Buses

	Private Drive Eastbound					Falls Commerce Parkway Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
02:45 PM	0	0	0	0	0	0	0	3	0	3	0	94	2	0	96	2	95	0	0	97	196
Total	0	0	0	0	0	1	0	8	0	9	0	352	4	0	356	8	318	0	0	326	691
03:00 PM	0	0	0	0	0	2	0	1	0	3	0	80	0	0	80	1	96	0	0	97	180
03:15 PM	0	0	0	0	0	1	0	0	0	1	0	102	1	0	103	0	80	0	0	80	184
03:30 PM	0	0	0	0	0	1	0	5	0	6	0	108	0	0	108	2	95	0	0	97	211
03:45 PM	0	0	0	0	0	0	0	5	0	5	0	92	0	0	92	0	106	0	0	106	203
Total	0	0	0	0	0	4	0	11	0	15	0	382	1	0	383	3	377	0	0	380	778
04:00 PM	0	0	0	0	0	3	0	3	0	6	0	104	0	0	104	1	110	0	0	111	221
04:15 PM	0	0	1	0	1	0	0	0	0	0	0	108	0	0	108	3	104	0	0	107	216
04:30 PM	1	0	1	0	2	2	0	4	0	6	0	124	0	0	124	5	107	0	0	112	244
04:45 PM	0	0	1	0	1	0	0	0	0	0	0	111	0	0	111	0	168	0	0	168	280
Total	1	0	3	0	4	5	0	7	0	12	0	447	0	0	447	9	489	0	0	498	961
05:00 PM	0	0	0	0	0	0	0	6	0	6	0	137	0	0	137	0	142	0	0	142	285
05:15 PM	0	0	1	0	1	1	0	0	0	1	0	114	0	0	114	1	133	0	0	134	250
05:30 PM	0	0	0	0	0	1	0	1	0	2	0	89	0	0	89	1	129	0	0	130	221
05:45 PM	0	0	1	0	1	1	0	1	0	2	0	72	0	0	72	0	71	0	0	71	146
Total	0	0	2	0	2	3	0	8	0	11	0	412	0	0	412	2	475	0	0	477	902
06:00 PM	0	1	0	0	1	0	0	0	0	0	0	86	0	0	86	1	96	0	0	97	184
06:15 PM	0	0	1	0	1	1	0	0	0	1	0	57	1	0	58	0	87	0	0	87	147
06:30 PM	0	0	1	0	1	0	0	0	0	0	0	44	0	0	44	0	73	0	0	73	118
06:45 PM	0	0	0	0	0	0	0	1	0	1	0	38	0	0	38	0	49	1	0	50	89
Total	0	1	2	0	3	1	0	1	0	2	0	225	1	0	226	1	305	1	0	307	538
Grand Total	3	1	14	0	18	30	0	62	0	92	5	4012	30	0	4047	50	3770	8	0	3828	7985
Apprch %	16.7	5.6	77.8	0		32.6	0	67.4	0		0.1	99.1	0.7	0		1.3	98.5	0.2	0		
Total %	0	0	0.2	0	0.2	0.4	0	0.8	0	1.2	0.1	50.2	0.4	0	50.7	0.6	47.2	0.1	0	47.9	
Passenger Vehicles	3	1	13	0	17	27	0	38	0	65	5	3768	29	0	3802	25	3561	8	0	3594	7478
% Passenger Vehicles	100	100	92.9	0	94.4	90	0	61.3	0	70.7	100	93.9	96.7	0	93.9	50	94.5	100	0	93.9	93.7
Trucks	0	0	1	0	1	3	0	24	0	27	0	225	1	0	226	25	190	0	0	215	469
% Trucks	0	0	7.1	0	5.6	10	0	38.7	0	29.3	0	5.6	3.3	0	5.6	50	5	0	0	5.6	5.9
Buses	0	0	0	0	0	0	0	0	0	0	0	19	0	0	19	0	19	0	0	19	38
% Buses	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0.5	0	0.5	0	0	0.5	0.5

GPD Group

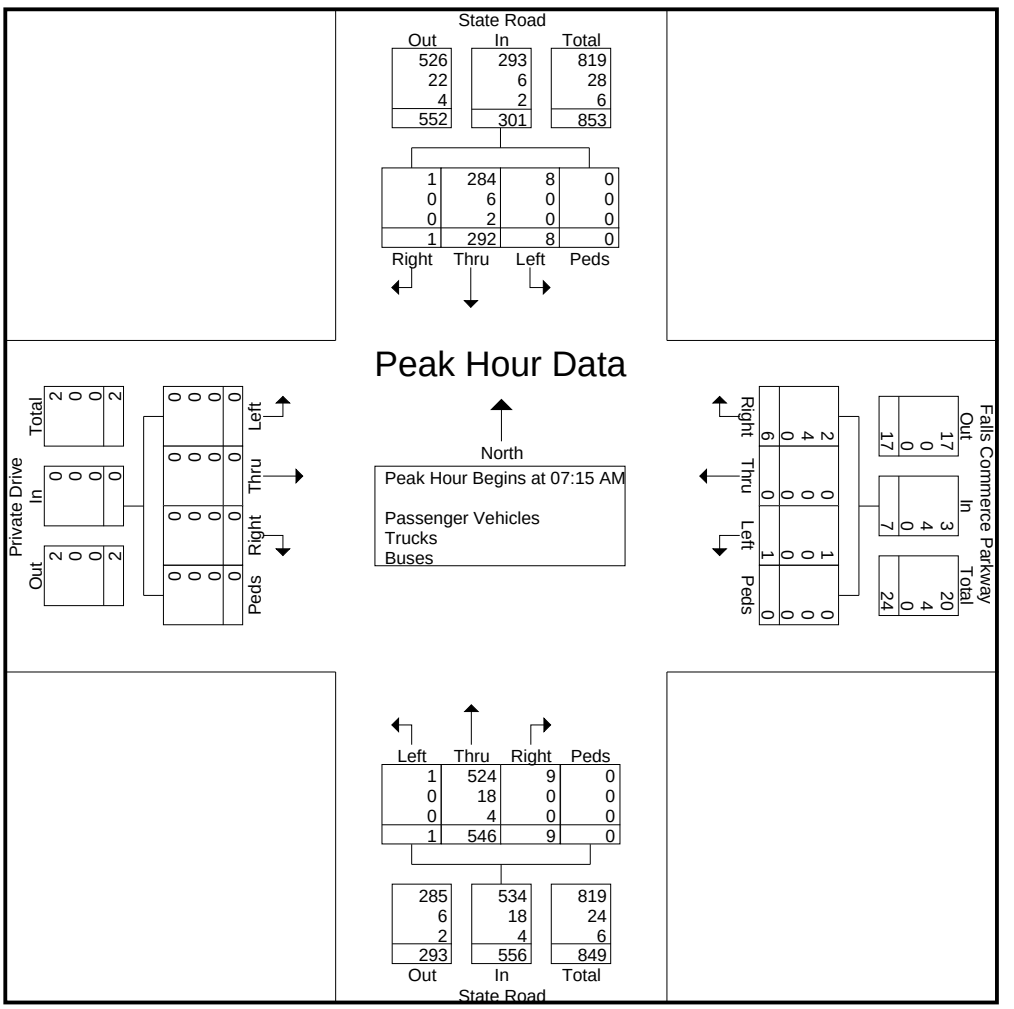
520 South Main Street, Suite 2531
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Falls Commerce Parkway Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 2-State and Falls Commerce 091223
Site Code : 71043050
Start Date : 9/12/2023
Page No : 3

	Private Drive Eastbound					Falls Commerce Parkway Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
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																					
07:15 AM	0	0	0	0	0	0	0	2	0	2	0	**159**	**3**	0	**162**	2	62	0	0	64	228
07:30 AM	0	0	0	0	0	0	0	**4**	0	**4**	**1**	152	3	0	156	1	49	0	0	50	210
07:45 AM	0	0	0	0	0	**1**	0	0	0	1	0	138	3	0	141	**5**	**102**	**1**	0	**108**	**250**
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	97	0	0	97	0	79	0	0	79	176
Total Volume	0	0	0	0	0	1	0	6	0	7	1	546	9	0	556	8	292	1	0	301	864
% App. Total	0	0	0	0		14.3	0	85.7	0		0.2	98.2	1.6	0		2.7	97	0.3	0		
PHF	.000	.000	.000	.000	.000	.250	.000	.375	.000	.438	.250	.858	.750	.000	.858	.400	.716	.250	.000	.697	.864
Passenger Vehicles	0	0	0	0	0	1	0	2	0	3	1	524	9	0	534	8	284	1	0	293	830
% Passenger Vehicles	0	0	0	0	0	100	0	33.3	0	42.9	100	96.0	100	0	96.0	100	97.3	100	0	97.3	96.1
Trucks	0	0	0	0	0	0	0	4	0	4	0	18	0	0	18	0	6	0	0	6	28
% Trucks	0	0	0	0	0	0	0	66.7	0	57.1	0	3.3	0	0	3.2	0	2.1	0	0	2.0	3.2
Buses	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	2	0	0	2	6
% Buses	0	0	0	0	0	0	0	0	0	0	0	0.7	0	0	0.7	0	0.7	0	0	0.7	0.7



GPD Group

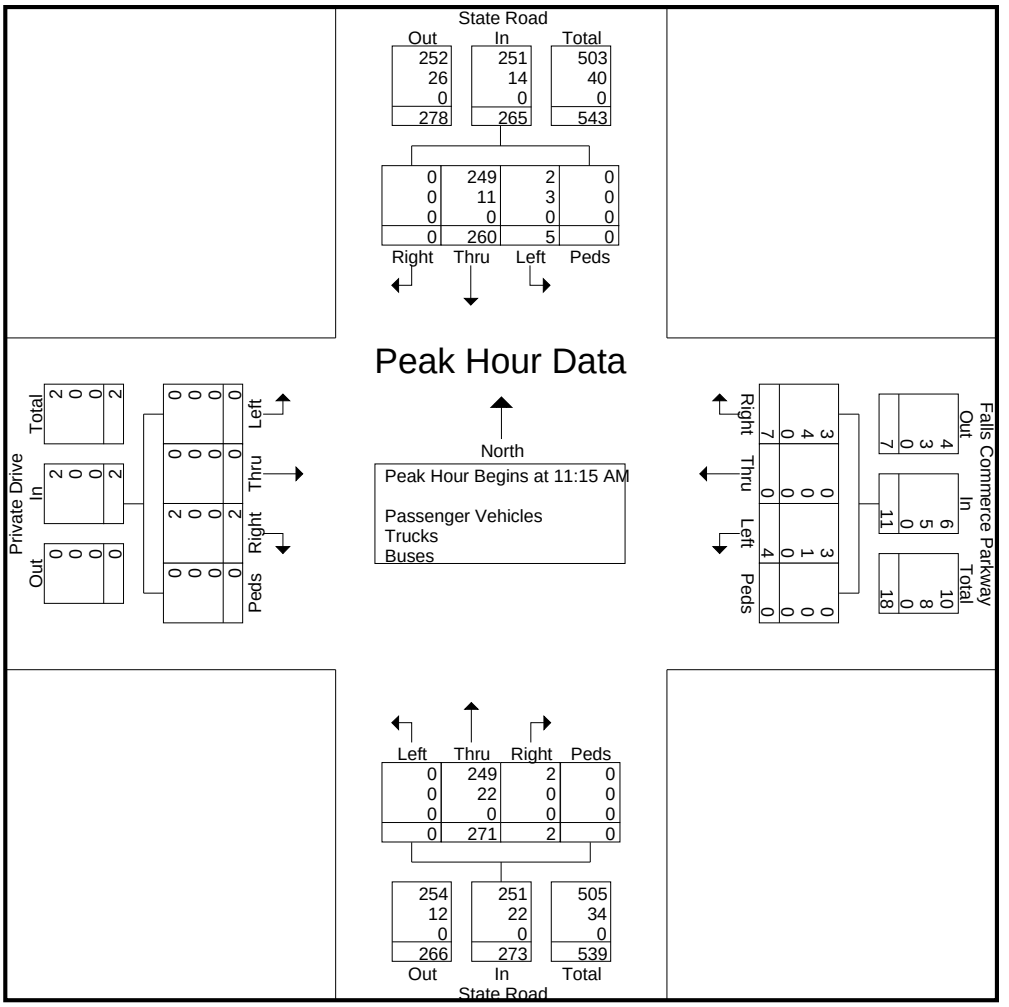
520 South Main Street, Suite 2531
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Falls Commerce Parkway Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 2-State and Falls Commerce 091223
Site Code : 71043050
Start Date : 9/12/2023
Page No : 4

	Private Drive Eastbound					Falls Commerce Parkway Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:15 AM																					
11:15 AM	0	0	**1**	0	**1**	1	0	1	0	2	0	72	**1**	0	73	0	57	0	0	57	133
11:30 AM	0	0	1	0	1	1	0	**3**	0	**4**	0	64	0	0	64	0	63	0	0	63	132
11:45 AM	0	0	0	0	0	0	0	2	0	2	0	**79**	1	0	**80**	**4**	66	0	0	70	**152**
12:00 PM	0	0	0	0	0	**2**	0	1	0	3	0	56	0	0	56	1	**74**	0	0	**75**	134
Total Volume	0	0	2	0	2	4	0	7	0	11	0	271	2	0	273	5	260	0	0	265	551
% App. Total	0	0	100	0		36.4	0	63.6	0		0	99.3	0.7	0		1.9	98.1	0	0		
PHF	.000	.000	.500	.000	.500	.500	.000	.583	.000	.688	.000	.858	.500	.000	.853	.313	.878	.000	.000	.883	.906
Passenger Vehicles	0	0	2	0	2	3	0	3	0	6	0	249	2	0	251	2	249	0	0	251	510
% Passenger Vehicles	0	0	100	0	100	75.0	0	42.9	0	54.5	0	91.9	100	0	91.9	40.0	95.8	0	0	94.7	92.6
Trucks	0	0	0	0	0	1	0	4	0	5	0	22	0	0	22	3	11	0	0	14	41
% Trucks	0	0	0	0	0	25.0	0	57.1	0	45.5	0	8.1	0	0	8.1	60.0	4.2	0	0	5.3	7.4
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



GPD Group

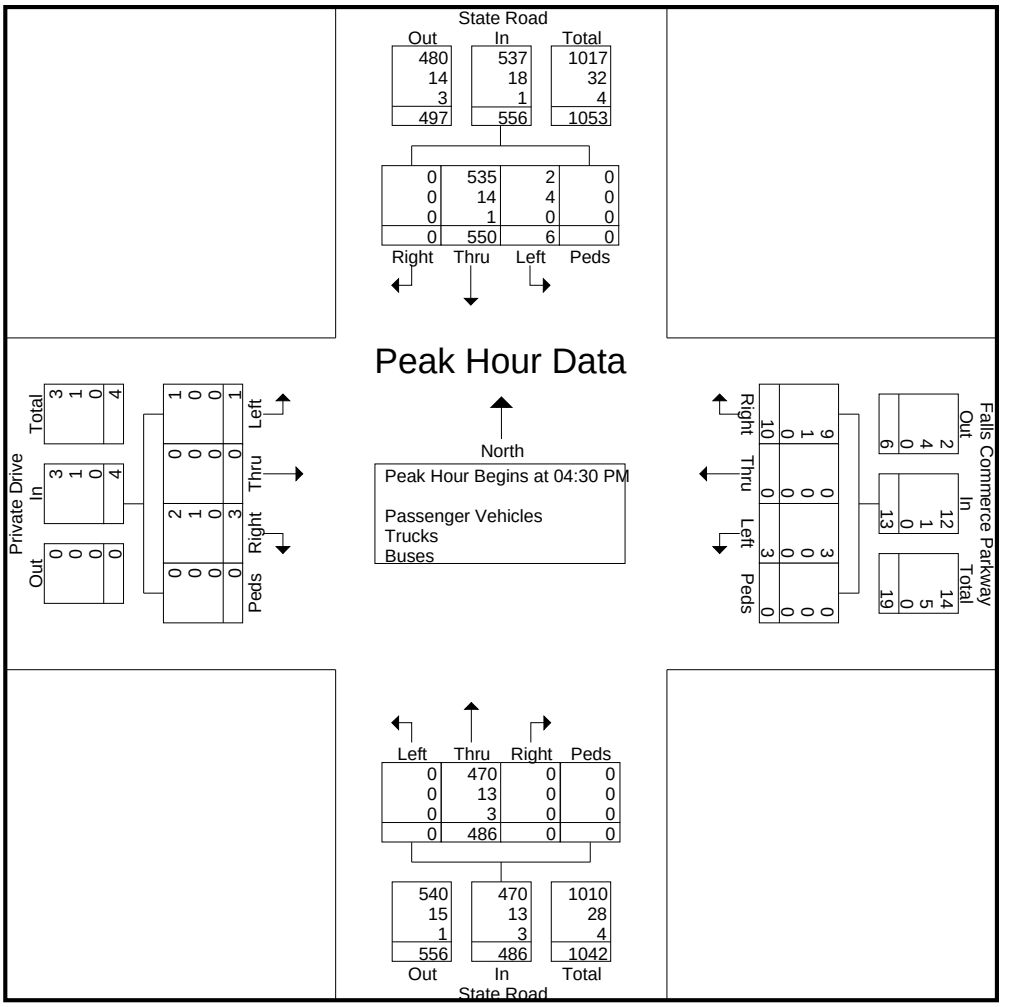
520 South Main Street, Suite 2531
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Falls Commerce Parkway Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 2-State and Falls Commerce 091223
Site Code : 71043050
Start Date : 9/12/2023
Page No : 5

	Private Drive Eastbound					Falls Commerce Parkway Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	**1**	0	**1**	0	**2**	**2**	0	4	0	**6**	0	124	0	0	124	**5**	107	0	0	112	244
04:45 PM	0	0	1	0	1	0	0	0	0	0	0	111	0	0	111	0	**168**	0	0	**168**	280
05:00 PM	0	0	0	0	0	0	0	**6**	0	6	0	**137**	0	0	**137**	0	142	0	0	142	**285**
05:15 PM	0	0	1	0	1	1	0	0	0	1	0	114	0	0	114	1	133	0	0	134	250
Total Volume	1	0	3	0	4	3	0	10	0	13	0	486	0	0	486	6	550	0	0	556	1059
% App. Total	25	0	75	0		23.1	0	76.9	0		0	100	0	0		1.1	98.9	0	0		
PHF	.250	.000	.750	.000	.500	.375	.000	.417	.000	.542	.000	.887	.000	.000	.887	.300	.818	.000	.000	.827	.929
Passenger Vehicles	1	0	2	0	3	3	0	9	0	12	0	470	0	0	470	2	535	0	0	537	1022
% Passenger Vehicles	100	0	66.7	0	75.0	100	0	90.0	0	92.3	0	96.7	0	0	96.7	33.3	97.3	0	0	96.6	96.5
Trucks	0	0	1	0	1	0	0	1	0	1	0	13	0	0	13	4	14	0	0	18	33
% Trucks	0	0	33.3	0	25.0	0	0	10.0	0	7.7	0	2.7	0	0	2.7	66.7	2.5	0	0	3.2	3.1
Buses	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	1	0	0	1	4
% Buses	0	0	0	0	0	0	0	0	0	0	0	0.6	0	0	0.6	0	0.2	0	0	0.2	0.4



GPD Group

520 South Main Street, Suite 2531
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Buckeye Sports Drive Intersection

Project Number:2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 3-State and Buckeye 091223
Site Code : 69053050
Start Date : 9/12/2023
Page No : 1

Groups Printed- Passenger Vehicles - Trucks - Buses

	Buckeye Sports Center Eastbound					Storr-IT Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	1	0	0	0	1	1	88	0	0	89	3	57	2	0	62	152
07:15 AM	0	0	0	0	0	0	0	2	0	2	2	165	1	0	168	1	61	2	0	64	234
07:30 AM	0	0	0	0	0	0	0	0	0	0	1	150	0	0	151	0	44	1	0	45	196
07:45 AM	1	0	1	0	2	0	0	1	0	1	5	139	1	0	145	0	104	1	0	105	253
Total	1	0	1	0	2	1	0	3	0	4	9	542	2	0	553	4	266	6	0	276	835
08:00 AM	0	0	2	0	2	0	0	0	0	0	2	97	0	0	99	1	78	2	0	81	182
08:15 AM	0	0	0	0	0	0	0	1	0	1	1	95	0	0	96	0	82	0	0	82	179
08:30 AM	0	0	0	0	0	0	0	1	0	1	1	100	0	0	101	4	72	1	0	77	179
08:45 AM	0	0	1	0	1	0	0	3	0	3	2	99	1	0	102	2	62	5	0	69	175
Total	0	0	3	0	3	0	0	5	0	5	6	391	1	0	398	7	294	8	0	309	715
09:00 AM	0	0	0	0	0	0	0	4	0	4	1	60	1	0	62	1	55	3	0	59	125
09:15 AM	2	0	0	0	2	0	0	0	0	0	1	73	0	0	74	0	61	0	0	61	137
09:30 AM	1	0	2	0	3	0	0	0	0	0	2	66	0	0	68	1	52	0	0	53	124
09:45 AM	1	0	0	0	1	0	0	0	0	0	2	66	0	0	68	0	62	2	0	64	133
Total	4	0	2	0	6	0	0	4	0	4	6	265	1	0	272	2	230	5	0	237	519
10:00 AM	1	0	0	0	1	1	0	0	0	1	2	63	0	0	65	0	60	0	0	60	127
10:15 AM	2	0	1	0	3	0	0	1	0	1	1	61	1	0	63	0	59	1	0	60	127
10:30 AM	1	0	0	0	1	1	0	0	0	1	2	56	0	0	58	0	57	2	0	59	119
10:45 AM	1	0	1	0	2	0	0	1	0	1	1	54	0	0	55	0	59	0	0	59	117
Total	5	0	2	0	7	2	0	2	0	4	6	234	1	0	241	0	235	3	0	238	490
11:00 AM	1	0	1	0	2	0	0	3	0	3	1	49	1	0	51	0	59	2	0	61	117
11:15 AM	0	0	0	0	0	2	0	2	0	4	0	65	0	0	65	1	58	2	0	61	130
11:30 AM	3	0	1	0	4	1	0	1	0	2	1	59	2	0	62	1	67	0	0	68	136
11:45 AM	0	0	1	0	1	0	0	2	0	2	0	77	2	0	79	2	61	0	0	63	145
Total	4	0	3	0	7	3	0	8	0	11	2	250	5	0	257	4	245	4	0	253	528
12:00 PM	1	0	2	0	3	0	0	1	0	1	3	55	1	0	59	2	74	1	0	77	140
12:15 PM	0	0	4	0	4	0	0	2	0	2	2	52	0	0	54	1	53	2	0	56	116
12:30 PM	0	0	1	0	1	0	0	1	0	1	1	62	0	0	63	1	69	1	0	71	136
12:45 PM	1	0	0	0	1	0	0	0	0	0	0	51	0	0	51	2	61	6	0	69	121
Total	2	0	7	0	9	0	0	4	0	4	6	220	1	0	227	6	257	10	0	273	513
01:00 PM	4	0	1	0	5	0	0	1	0	1	3	56	0	0	59	2	59	2	0	63	128
01:15 PM	2	0	0	0	2	1	0	1	0	2	0	66	1	0	67	1	67	1	0	69	140
01:30 PM	3	0	1	0	4	0	0	3	0	3	0	65	1	0	66	3	49	1	0	53	126
01:45 PM	0	0	2	0	2	0	0	1	0	1	0	74	0	0	74	2	52	0	0	54	131
Total	9	0	4	0	13	1	0	6	0	7	3	261	2	0	266	8	227	4	0	239	525
02:00 PM	2	0	0	0	2	1	0	4	0	5	1	91	1	0	93	2	70	1	0	73	173
02:15 PM	1	0	0	0	1	0	0	0	0	0	0	74	1	0	75	2	69	3	0	74	150
02:30 PM	2	0	0	0	2	1	0	1	0	2	0	90	1	0	91	0	71	1	0	72	167

GPD Group

520 South Main Street, Suite 2531
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Buckeye Sports Drive Intersection

Project Number:2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 3-State and Buckeye 091223
Site Code : 69053050
Start Date : 9/12/2023
Page No : 2

Groups Printed- Passenger Vehicles - Trucks - Buses

	Buckeye Sports Center Eastbound					Storr-IT Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
02:45 PM	1	0	1	0	2	1	0	1	0	2	0	94	0	0	94	0	94	1	0	95	193
Total	6	0	1	0	7	3	0	6	0	9	1	349	3	0	353	4	304	6	0	314	683
03:00 PM	1	0	0	0	1	1	0	1	0	2	0	95	0	0	95	2	94	0	0	96	194
03:15 PM	2	0	2	0	4	0	0	2	0	2	0	95	0	0	95	1	97	0	0	98	199
03:30 PM	1	0	1	0	2	0	0	2	0	2	0	97	0	0	97	0	100	0	0	100	201
03:45 PM	1	0	0	0	1	1	0	1	0	2	0	98	0	0	98	2	105	0	0	107	208
Total	5	0	3	0	8	2	0	6	0	8	0	385	0	0	385	5	396	0	0	401	802
04:00 PM	1	0	6	0	7	0	0	2	0	2	1	100	0	0	101	3	108	0	0	111	221
04:15 PM	2	0	2	0	4	0	0	3	0	3	2	109	0	0	111	1	111	0	0	112	230
04:30 PM	0	0	2	0	2	0	0	0	0	0	1	124	0	0	125	2	109	0	0	111	238
04:45 PM	3	0	1	0	4	0	0	3	0	3	1	105	0	0	106	0	167	0	0	167	280
Total	6	0	11	0	17	0	0	8	0	8	5	438	0	0	443	6	495	0	0	501	969
05:00 PM	1	0	2	0	3	0	0	0	0	0	0	139	1	0	140	1	139	0	0	140	283
05:15 PM	0	0	1	0	1	1	0	1	0	2	2	110	0	0	112	3	128	0	0	131	246
05:30 PM	3	0	5	0	8	0	0	1	0	1	2	85	0	0	87	1	134	0	0	135	231
05:45 PM	0	0	0	0	0	1	0	0	0	1	0	73	0	0	73	3	72	0	0	75	149
Total	4	0	8	0	12	2	0	2	0	4	4	407	1	0	412	8	473	0	0	481	909
06:00 PM	0	0	0	0	0	1	0	2	0	3	0	82	0	0	82	2	90	0	0	92	177
06:15 PM	0	0	0	0	0	0	0	0	0	0	0	58	0	0	58	0	83	0	0	83	141
06:30 PM	0	0	0	0	0	0	0	0	0	0	0	38	0	0	38	0	74	0	0	74	112
06:45 PM	0	0	0	0	0	0	0	0	0	0	0	37	0	0	37	0	48	0	0	48	85
Total	0	0	0	0	0	1	0	2	0	3	0	215	0	0	215	2	295	0	0	297	515
Grand Total	46	0	45	0	91	15	0	56	0	71	48	3957	17	0	4022	56	3717	46	0	3819	8003
Apprch %	50.5	0	49.5	0		21.1	0	78.9	0		1.2	98.4	0.4	0		1.5	97.3	1.2	0		
Total %	0.6	0	0.6	0	1.1	0.2	0	0.7	0	0.9	0.6	49.4	0.2	0	50.3	0.7	46.4	0.6	0	47.7	
Passenger Vehicles	44	0	42	0	86	15	0	48	0	63	45	3757	16	0	3818	48	3552	42	0	3642	7609
% Passenger Vehicles	95.7	0	93.3	0	94.5	100	0	85.7	0	88.7	93.8	94.9	94.1	0	94.9	85.7	95.6	91.3	0	95.4	95.1
Trucks	2	0	3	0	5	0	0	8	0	8	3	186	1	0	190	8	155	4	0	167	370
% Trucks	4.3	0	6.7	0	5.5	0	0	14.3	0	11.3	6.2	4.7	5.9	0	4.7	14.3	4.2	8.7	0	4.4	4.6
Buses	0	0	0	0	0	0	0	0	0	0	0	14	0	0	14	0	10	0	0	10	24
% Buses	0	0	0	0	0	0	0	0	0	0	0	0.4	0	0	0.3	0	0.3	0	0	0.3	0.3

GPD Group

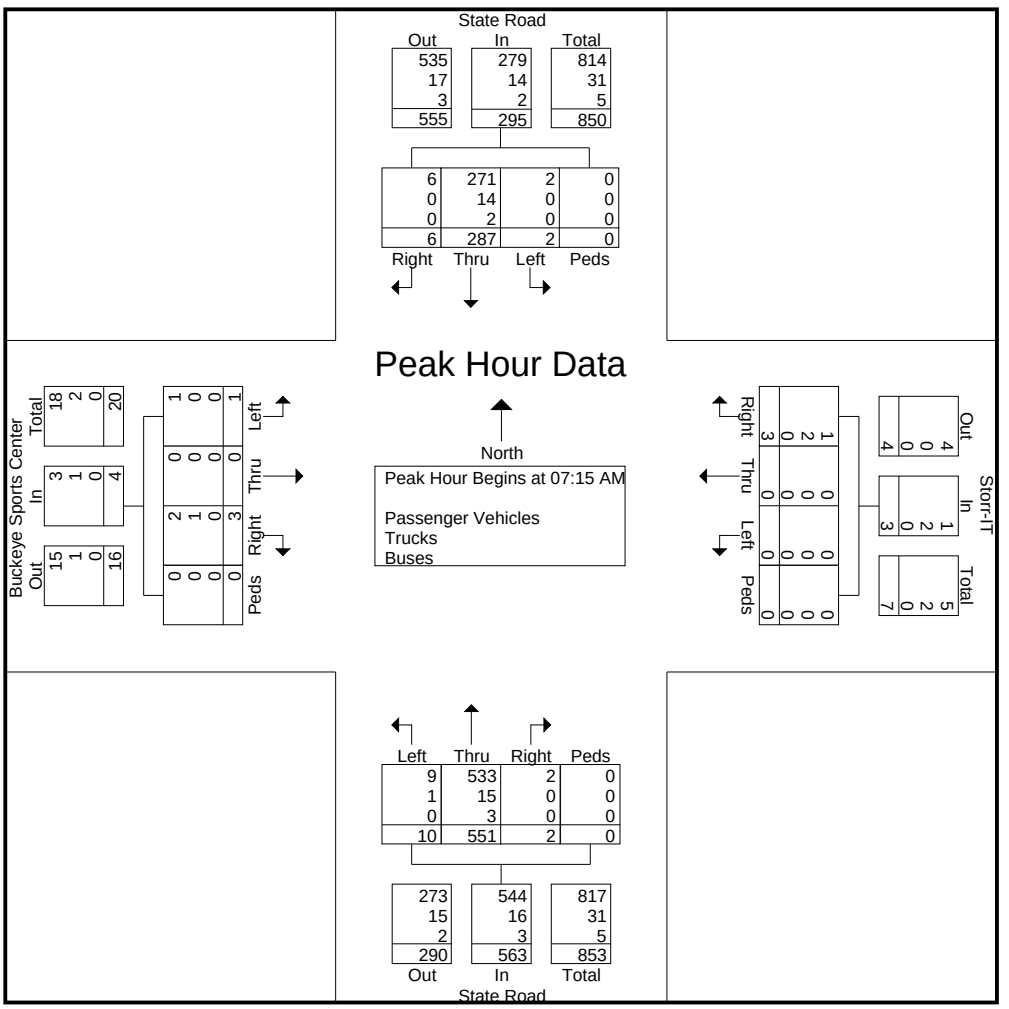
520 South Main Street, Suite 2531
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Buckeye Sports Drive Intersection

Project Number:2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 3-State and Buckeye 091223
Site Code : 69053050
Start Date : 9/12/2023
Page No : 3

	Buckeye Sports Center Eastbound					Storr-IT Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
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																					
07:15 AM	0	0	0	0	0	0	0	**2**	0	**2**	2	**165**	**1**	0	**168**	**1**	61	**2**	0	64	234
07:30 AM	0	0	0	0	0	0	0	0	0	0	1	150	0	0	151	0	44	1	0	45	196
07:45 AM	**1**	0	1	0	**2**	0	0	1	0	1	**5**	139	1	0	145	0	**104**	1	0	**105**	**253**
08:00 AM	0	0	**2**	0	2	0	0	0	0	0	2	97	0	0	99	1	78	2	0	81	182
Total Volume	1	0	3	0	4	0	0	3	0	3	10	551	2	0	563	2	287	6	0	295	865
% App. Total	25	0	75	0		0	0	100	0		1.8	97.9	0.4	0		0.7	97.3	2	0		
PHF	.250	.000	.375	.000	.500	.000	.000	.375	.000	.375	.500	.835	.500	.000	.838	.500	.690	.750	.000	.702	.855
Passenger Vehicles	1	0	2	0	3	0	0	1	0	1	9	533	2	0	544	2	271	6	0	279	827
% Passenger Vehicles	100	0	66.7	0	75.0	0	0	33.3	0	33.3	90.0	96.7	100	0	96.6	100	94.4	100	0	94.6	95.6
Trucks	0	0	1	0	1	0	0	2	0	2	1	15	0	0	16	0	14	0	0	14	33
% Trucks	0	0	33.3	0	25.0	0	0	66.7	0	66.7	10.0	2.7	0	0	2.8	0	4.9	0	0	4.7	3.8
Buses	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	2	0	0	2	5
% Buses	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0.5	0	0.7	0	0	0.7	0.6



GPD Group

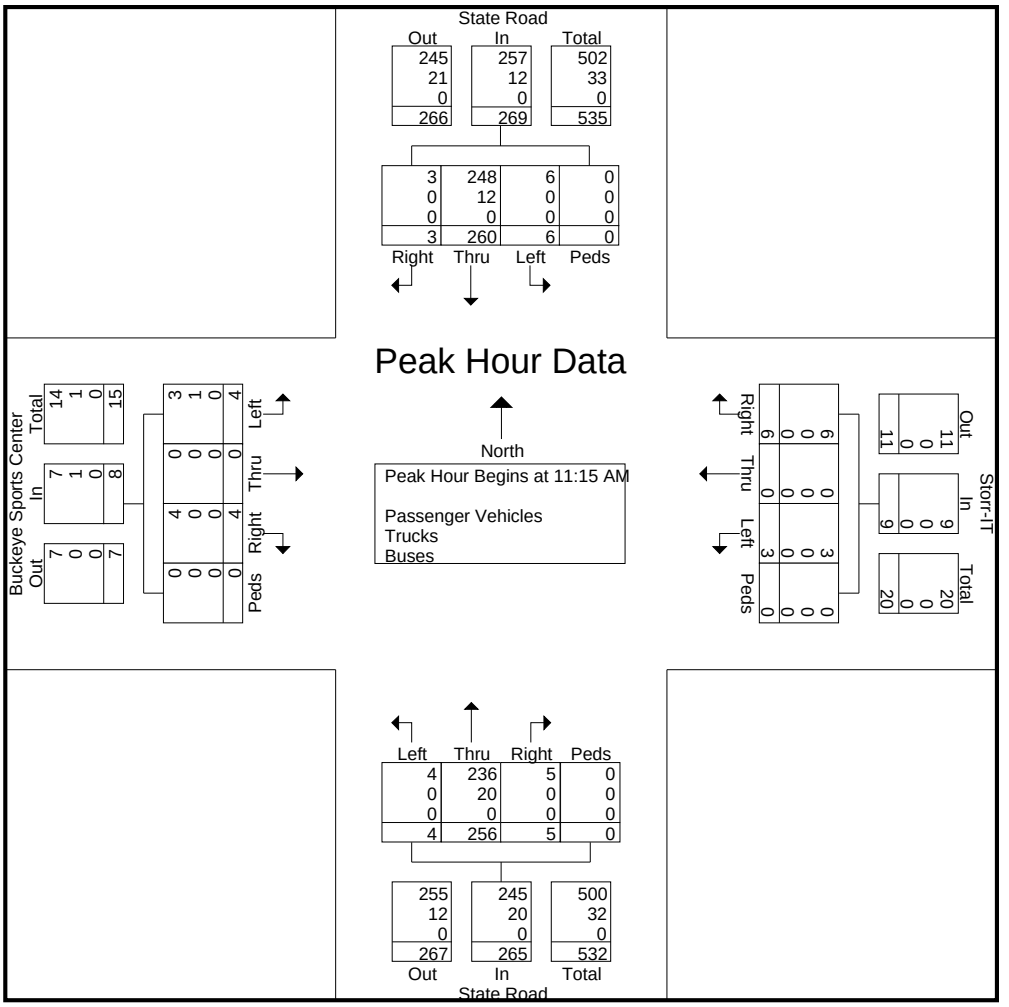
520 South Main Street, Suite 2531
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Buckeye Sports Drive Intersection

Project Number:2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 3-State and Buckeye 091223
Site Code : 69053050
Start Date : 9/12/2023
Page No : 4

	Buckeye Sports Center Eastbound					Storr-IT Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:15 AM																					
11:15 AM	0	0	0	0	0	**2**	0	**2**	0	**4**	0	65	0	0	65	1	58	**2**	0	61	130
11:30 AM	**3**	0	1	0	**4**	1	0	1	0	2	1	59	**2**	0	62	1	67	0	0	68	136
11:45 AM	0	0	1	0	1	0	0	2	0	2	0	**77**	2	0	**79**	**2**	61	0	0	63	**145**
12:00 PM	1	0	**2**	0	3	0	0	1	0	1	**3**	55	1	0	59	2	**74**	1	0	**77**	140
Total Volume	4	0	4	0	8	3	0	6	0	9	4	256	5	0	265	6	260	3	0	269	551
% App. Total	50	0	50	0		33.3	0	66.7	0		1.5	96.6	1.9	0		2.2	96.7	1.1	0		
PHF	.333	.000	.500	.000	.500	.375	.000	.750	.000	.563	.333	.831	.625	.000	.839	.750	.878	.375	.000	.873	.950
Passenger Vehicles	3	0	4	0	7	3	0	6	0	9	4	236	5	0	245	6	248	3	0	257	518
% Passenger Vehicles	75.0	0	100	0	87.5	100	0	100	0	100	100	92.2	100	0	92.5	100	95.4	100	0	95.5	94.0
Trucks	1	0	0	0	1	0	0	0	0	0	0	20	0	0	20	0	12	0	0	12	33
% Trucks	25.0	0	0	0	12.5	0	0	0	0	0	0	7.8	0	0	7.5	0	4.6	0	0	4.5	6.0
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



GPD Group

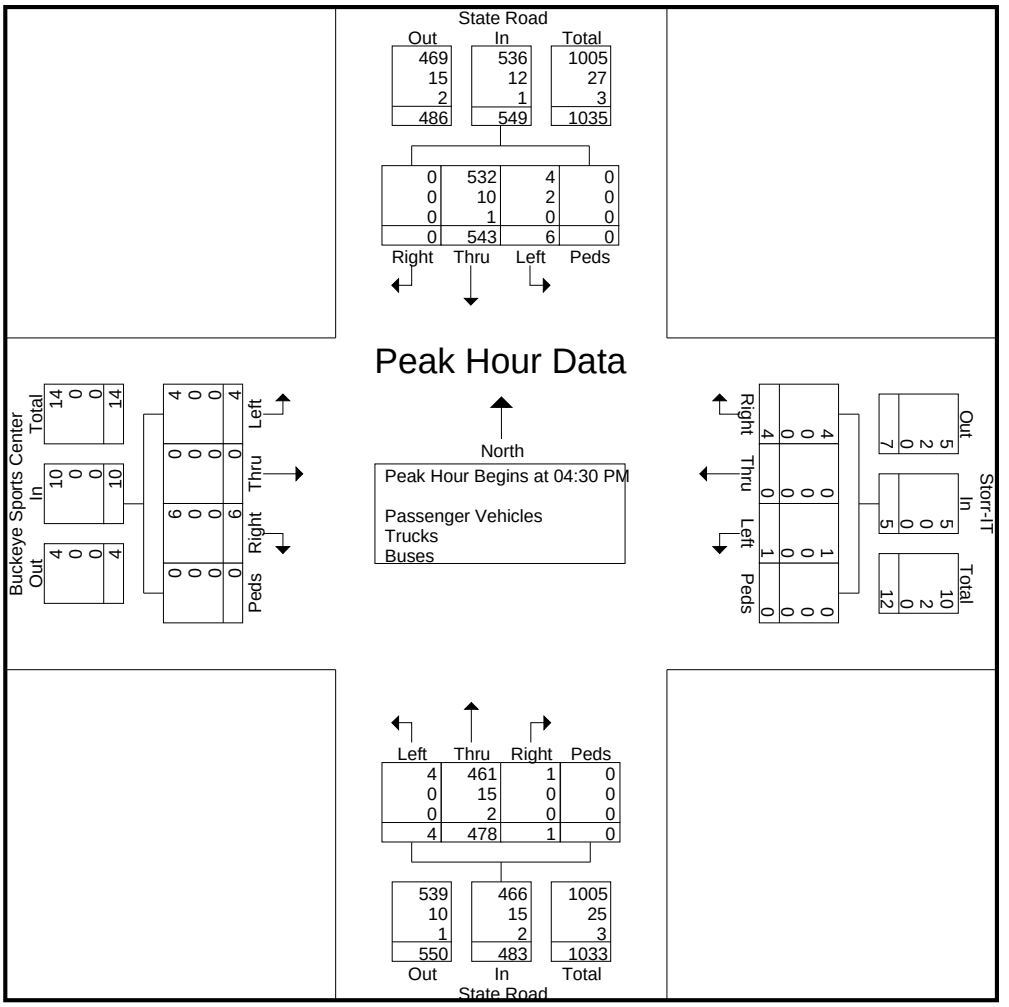
520 South Main Street, Suite 2531
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Buckeye Sports Drive Intersection

Project Number:2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 3-State and Buckeye 091223
Site Code : 69053050
Start Date : 9/12/2023
Page No : 5

	Buckeye Sports Center Eastbound					Storr-IT Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	0	**2**	0	2	0	0	0	0	0	1	124	0	0	125	2	109	0	0	111	238
04:45 PM	**3**	0	1	0	**4**	0	0	**3**	0	**3**	1	105	0	0	106	0	**167**	0	0	**167**	280
05:00 PM	1	0	2	0	3	0	0	0	0	0	0	**139**	**1**	0	**140**	1	139	0	0	140	**283**
05:15 PM	0	0	1	0	1	**1**	0	1	0	2	**2**	110	0	0	112	**3**	128	0	0	131	246
Total Volume	4	0	6	0	10	1	0	4	0	5	4	478	1	0	483	6	543	0	0	549	1047
% App. Total	40	0	60	0		20	0	80	0		0.8	99	0.2	0		1.1	98.9	0	0		
PHF	.333	.000	.750	.000	.625	.250	.000	.333	.000	.417	.500	.860	.250	.000	.863	.500	.813	.000	.000	.822	.925
Passenger Vehicles	4	0	6	0	10	1	0	4	0	5	4	461	1	0	466	4	532	0	0	536	1017
% Passenger Vehicles	100	0	100	0	100	100	0	100	0	100	100	96.4	100	0	96.5	66.7	98.0	0	0	97.6	97.1
Trucks	0	0	0	0	0	0	0	0	0	0	0	15	0	0	15	2	10	0	0	12	27
% Trucks	0	0	0	0	0	0	0	0	0	0	0	3.1	0	0	3.1	33.3	1.8	0	0	2.2	2.6
Buses	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	3
% Buses	0	0	0	0	0	0	0	0	0	0	0	0.4	0	0	0.4	0	0.2	0	0	0.2	0.3



GPD Group

520 South Main Street, Suite 2531
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Salt Creek Run Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 4-State and Salt Creek 091423
Site Code : 71083050
Start Date : 9/14/2023
Page No : 1

Groups Printed- Passenger Vehicles - Trucks - Buses

	Salt Creek Run Eastbound					Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	6	0	2	0	8	0	0	0	0	0	1	81	0	0	82	0	77	0	0	77	167
07:15 AM	25	0	1	0	26	0	0	0	0	0	1	130	0	0	131	0	58	2	0	60	217
07:30 AM	9	0	5	0	14	0	0	0	0	0	0	163	0	0	163	0	53	1	0	54	231
07:45 AM	10	0	3	0	13	0	0	0	0	0	2	105	0	0	107	0	133	6	0	139	259
Total	50	0	11	0	61	0	0	0	0	0	4	479	0	0	483	0	321	9	0	330	874
08:00 AM	9	0	0	0	9	0	0	0	0	0	1	90	0	0	91	0	66	6	0	72	172
08:15 AM	10	0	0	0	10	0	0	0	0	0	1	107	0	0	108	0	71	1	0	72	190
08:30 AM	7	0	3	0	10	0	0	0	0	0	1	95	0	0	96	0	78	4	0	82	188
08:45 AM	5	0	2	0	7	0	0	0	0	0	2	98	0	0	100	0	64	2	0	66	173
Total	31	0	5	0	36	0	0	0	0	0	5	390	0	0	395	0	279	13	0	292	723
09:00 AM	6	0	4	0	10	0	0	0	0	0	0	84	0	0	84	0	57	4	0	61	155
09:15 AM	4	0	2	0	6	0	0	0	0	0	2	69	0	0	71	0	54	1	0	55	132
09:30 AM	5	0	1	0	6	0	0	0	0	0	2	63	0	0	65	0	57	0	0	57	128
09:45 AM	6	0	2	0	8	0	0	0	0	0	3	87	0	0	90	0	55	1	0	56	154
Total	21	0	9	0	30	0	0	0	0	0	7	303	0	0	310	0	223	6	0	229	569
10:00 AM	5	0	1	0	6	0	0	0	0	0	3	82	0	0	85	0	56	1	0	57	148
10:15 AM	4	0	2	0	6	0	0	0	0	0	2	77	0	0	79	0	57	2	0	59	144
10:30 AM	3	0	2	0	5	0	0	0	0	0	3	74	0	0	77	0	57	3	0	60	142
10:45 AM	1	0	1	0	2	0	0	0	0	0	2	71	0	0	73	0	57	4	0	61	136
Total	13	0	6	0	19	0	0	0	0	0	10	304	0	0	314	0	227	10	0	237	570
11:00 AM	3	0	2	0	5	0	0	0	0	0	3	74	0	0	77	0	50	4	0	54	136
11:15 AM	3	0	1	0	4	0	0	0	0	0	0	57	0	0	57	0	72	4	0	76	137
11:30 AM	2	0	3	0	5	0	0	0	0	0	0	70	0	0	70	0	59	1	0	60	135
11:45 AM	1	0	3	0	4	0	0	0	0	0	2	78	0	0	80	0	70	2	0	72	156
Total	9	0	9	0	18	0	0	0	0	0	5	279	0	0	284	0	251	11	0	262	564
12:00 PM	0	0	0	0	0	0	0	0	0	0	3	70	0	0	73	0	73	1	0	74	147
12:15 PM	0	0	1	0	1	0	0	0	0	0	0	72	2	0	74	0	64	0	0	64	139
12:30 PM	4	0	1	0	5	0	0	0	0	0	0	70	0	0	70	0	68	3	0	71	146
12:45 PM	1	0	2	0	3	0	0	0	0	0	3	79	0	0	82	0	64	4	0	68	153
Total	5	0	4	0	9	0	0	0	0	0	6	291	2	0	299	0	269	8	0	277	585
01:00 PM	2	0	1	0	3	0	0	0	0	0	3	65	2	0	70	0	58	2	0	60	133
01:15 PM	2	0	0	0	2	0	0	0	0	0	1	83	0	0	84	0	94	3	0	97	183
01:30 PM	2	0	0	0	2	0	0	0	0	0	1	71	0	0	72	0	70	3	0	73	147
01:45 PM	2	0	6	0	8	0	0	0	0	0	3	81	0	0	84	0	67	6	0	73	165
Total	8	0	7	0	15	0	0	0	0	0	8	300	2	0	310	0	289	14	0	303	628
02:00 PM	5	0	2	0	7	0	0	0	0	0	0	70	0	0	70	0	65	4	0	69	146
02:15 PM	3	0	2	0	5	0	0	0	0	0	1	88	2	0	91	0	82	5	0	87	183
02:30 PM	9	0	1	0	10	0	0	0	0	0	2	111	0	0	113	0	97	3	0	100	223
02:45 PM	6	0	3	0	9	0	0	0	0	0	1	83	0	0	84	0	84	5	0	89	182
Total	23	0	8	0	31	0	0	0	0	0	4	352	2	0	358	0	328	17	0	345	734

GPD Group

520 South Main Street, Suite 2531
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Salt Creek Run Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 4-State and Salt Creek 091423
Site Code : 71083050
Start Date : 9/14/2023
Page No : 2

Groups Printed- Passenger Vehicles - Trucks - Buses

	Salt Creek Run Eastbound					Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
03:00 PM	1	0	0	0	1	0	0	0	0	0	4	98	0	0	102	0	106	4	0	110	213
03:15 PM	8	0	2	0	10	0	0	0	0	0	2	122	0	0	124	0	99	6	0	105	239
03:30 PM	4	0	1	0	5	0	0	0	0	0	4	112	0	0	116	0	102	12	0	114	235
03:45 PM	4	0	3	0	7	0	0	0	0	0	1	137	0	0	138	0	100	4	0	104	249
Total	17	0	6	0	23	0	0	0	0	0	11	469	0	0	480	0	407	26	0	433	936
04:00 PM	3	0	1	0	4	0	0	0	0	0	4	113	0	0	117	0	111	8	0	119	240
04:15 PM	7	0	3	0	10	0	0	0	0	0	3	90	0	0	93	0	111	9	0	120	223
04:30 PM	6	0	3	0	9	0	0	0	0	0	8	115	2	0	125	0	127	5	0	132	266
04:45 PM	10	0	5	0	15	0	0	0	0	0	2	116	0	0	118	0	112	9	0	121	254
Total	26	0	12	0	38	0	0	0	0	0	17	434	2	0	453	0	461	31	0	492	983
05:00 PM	3	0	2	0	5	0	0	0	0	0	3	142	0	0	145	0	146	12	0	158	308
05:15 PM	9	0	1	0	10	0	0	0	0	0	1	76	0	0	77	0	131	11	0	142	229
05:30 PM	9	0	1	0	10	0	0	0	0	0	5	101	0	0	106	0	137	10	0	147	263
05:45 PM	5	0	1	0	6	0	0	0	0	0	2	70	0	0	72	0	104	7	0	111	189
Total	26	0	5	0	31	0	0	0	0	0	11	389	0	0	400	0	518	40	0	558	989
06:00 PM	3	0	5	0	8	0	0	0	0	0	3	88	0	0	91	0	79	9	0	88	187
06:15 PM	2	0	4	0	6	0	0	0	0	0	3	87	0	0	90	0	76	4	0	80	176
06:30 PM	5	0	3	0	8	0	0	0	0	0	4	59	0	0	63	0	66	8	0	74	145
06:45 PM	4	0	2	0	6	0	0	0	0	0	4	46	0	0	50	0	74	5	0	79	135
Total	14	0	14	0	28	0	0	0	0	0	14	280	0	0	294	0	295	26	0	321	643
Grand Total	243	0	96	0	339	0	0	0	0	0	102	4270	8	0	4380	0	3868	211	0	4079	8798
Apprch %	71.7	0	28.3	0		0	0	0	0		2.3	97.5	0.2	0		0	94.8	5.2	0		
Total %	2.8	0	1.1	0	3.9	0	0	0	0	0	1.2	48.5	0.1	0	49.8	0	44	2.4	0	46.4	
Passenger Vehicles	234	0	96	0	330	0	0	0	0	0	100	3968	8	0	4076	0	3599	204	0	3803	8209
% Passenger Vehicles	96.3	0	100	0	97.3	0	0	0	0	0	98	92.9	100	0	93.1	0	93	96.7	0	93.2	93.3
Trucks	2	0	0	0	2	0	0	0	0	0	1	292	0	0	293	0	262	1	0	263	558
% Trucks	0.8	0	0	0	0.6	0	0	0	0	0	1	6.8	0	0	6.7	0	6.8	0.5	0	6.4	6.3
Buses	7	0	0	0	7	0	0	0	0	0	1	10	0	0	11	0	7	6	0	13	31
% Buses	2.9	0	0	0	2.1	0	0	0	0	0	1	0.2	0	0	0.3	0	0.2	2.8	0	0.3	0.4

GPD Group

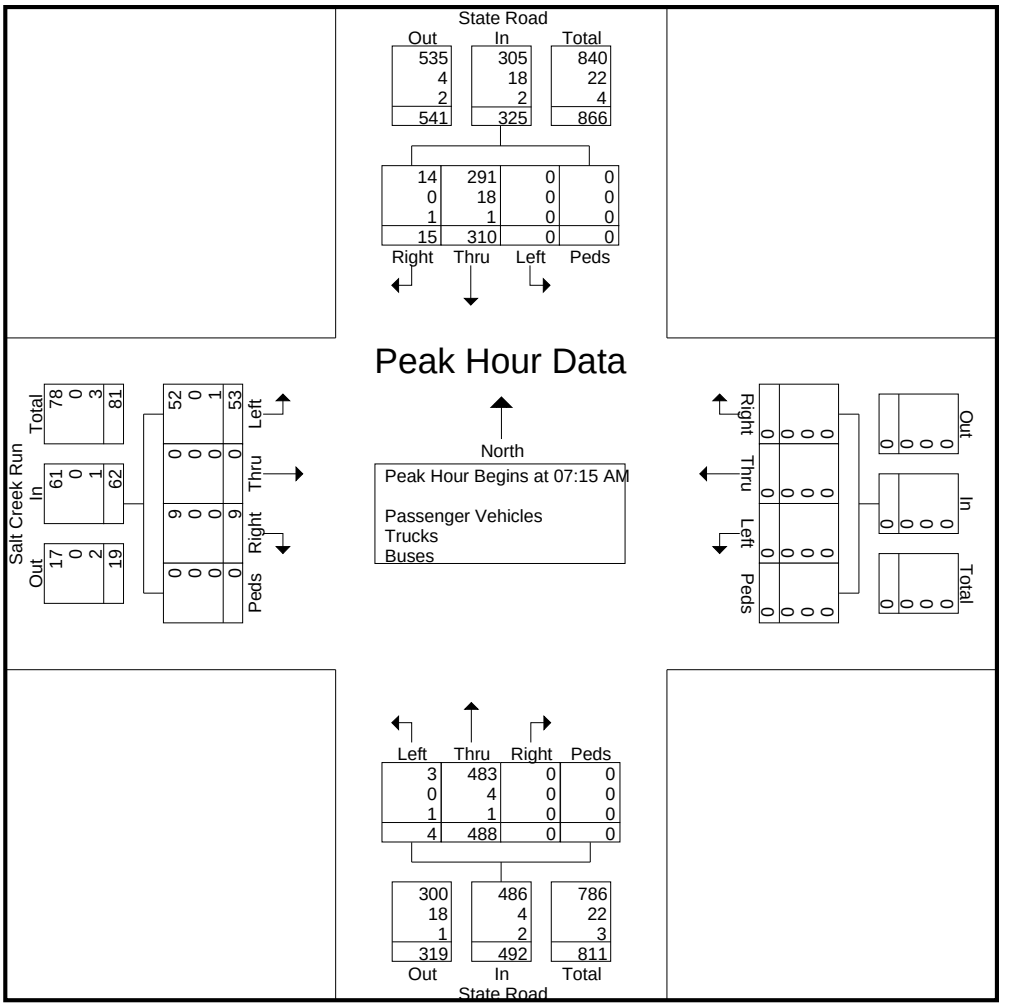
520 South Main Street, Suite 2531
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Salt Creek Run Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 4-State and Salt Creek 091423
Site Code : 71083050
Start Date : 9/14/2023
Page No : 3

	Salt Creek Run Eastbound					Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
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																					
07:15 AM	**25**	0	1	0	**26**	0	0	0	0	0	1	130	0	0	131	0	58	2	0	60	217
07:30 AM	9	0	**5**	0	14	0	0	0	0	0	0	**163**	0	0	**163**	0	53	1	0	54	231
07:45 AM	10	0	3	0	13	0	0	0	0	0	**2**	105	0	0	107	0	**133**	**6**	0	**139**	**259**
08:00 AM	9	0	0	0	9	0	0	0	0	0	1	90	0	0	91	0	66	6	0	72	172
Total Volume	53	0	9	0	62	0	0	0	0	0	4	488	0	0	492	0	310	15	0	325	879
% App. Total	85.5	0	14.5	0		0	0	0	0		0.8	99.2	0	0		0	95.4	4.6	0		
PHF	.530	.000	.450	.000	.596	.000	.000	.000	.000	.000	.500	.748	.000	.000	.755	.000	.583	.625	.000	.585	.848
Passenger Vehicles	52	0	9	0	61	0	0	0	0	0	3	483	0	0	486	0	291	14	0	305	852
% Passenger Vehicles	98.1	0	100	0	98.4	0	0	0	0	0	75.0	99.0	0	0	98.8	0	93.9	93.3	0	93.8	96.9
Trucks	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	18	0	0	18	22
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0.8	0	0	0.8	0	5.8	0	0	5.5	2.5
Buses	1	0	0	0	1	0	0	0	0	0	1	1	0	0	2	0	1	1	0	2	5
% Buses	1.9	0	0	0	1.6	0	0	0	0	0	25.0	0.2	0	0	0.4	0	0.3	6.7	0	0.6	0.6



GPD Group

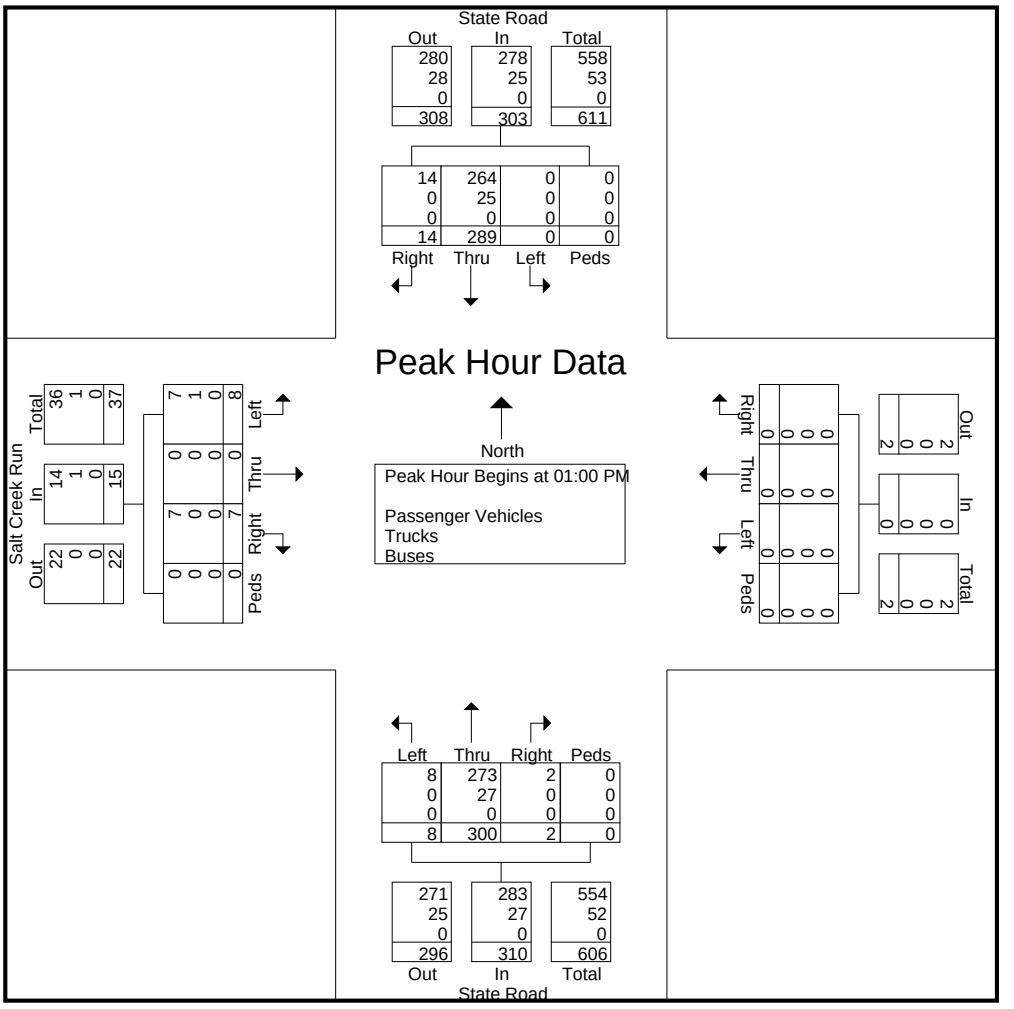
520 South Main Street, Suite 2531
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Salt Creek Run Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 4-State and Salt Creek 091423
Site Code : 71083050
Start Date : 9/14/2023
Page No : 4

	Salt Creek Run Eastbound					Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 01:00 PM																					
01:00 PM	**2**	0	1	0	3	0	0	0	0	0	**3**	65	**2**	0	70	0	58	2	0	60	133
01:15 PM	2	0	0	0	2	0	0	0	0	0	1	**83**	0	0	**84**	0	**94**	3	0	**97**	**183**
01:30 PM	2	0	0	0	2	0	0	0	0	0	1	71	0	0	72	0	70	3	0	73	147
01:45 PM	2	0	**6**	0	**8**	0	0	0	0	0	3	81	0	0	84	0	67	**6**	0	73	165
Total Volume	8	0	7	0	15	0	0	0	0	0	8	300	2	0	310	0	289	14	0	303	628
% App. Total	53.3	0	46.7	0		0	0	0	0		2.6	96.8	0.6	0		0	95.4	4.6	0		
PHF	1.00	.000	.292	.000	.469	.000	.000	.000	.000	.000	.667	.904	.250	.000	.923	.000	.769	.583	.000	.781	.858
Passenger Vehicles	7	0	7	0	14	0	0	0	0	0	8	273	2	0	283	0	264	14	0	278	575
% Passenger Vehicles	87.5	0	100	0	93.3	0	0	0	0	0	100	91.0	100	0	91.3	0	91.3	100	0	91.7	91.6
Trucks	1	0	0	0	1	0	0	0	0	0	0	27	0	0	27	0	25	0	0	25	53
% Trucks	12.5	0	0	0	6.7	0	0	0	0	0	0	9.0	0	0	8.7	0	8.7	0	0	8.3	8.4
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



GPD Group

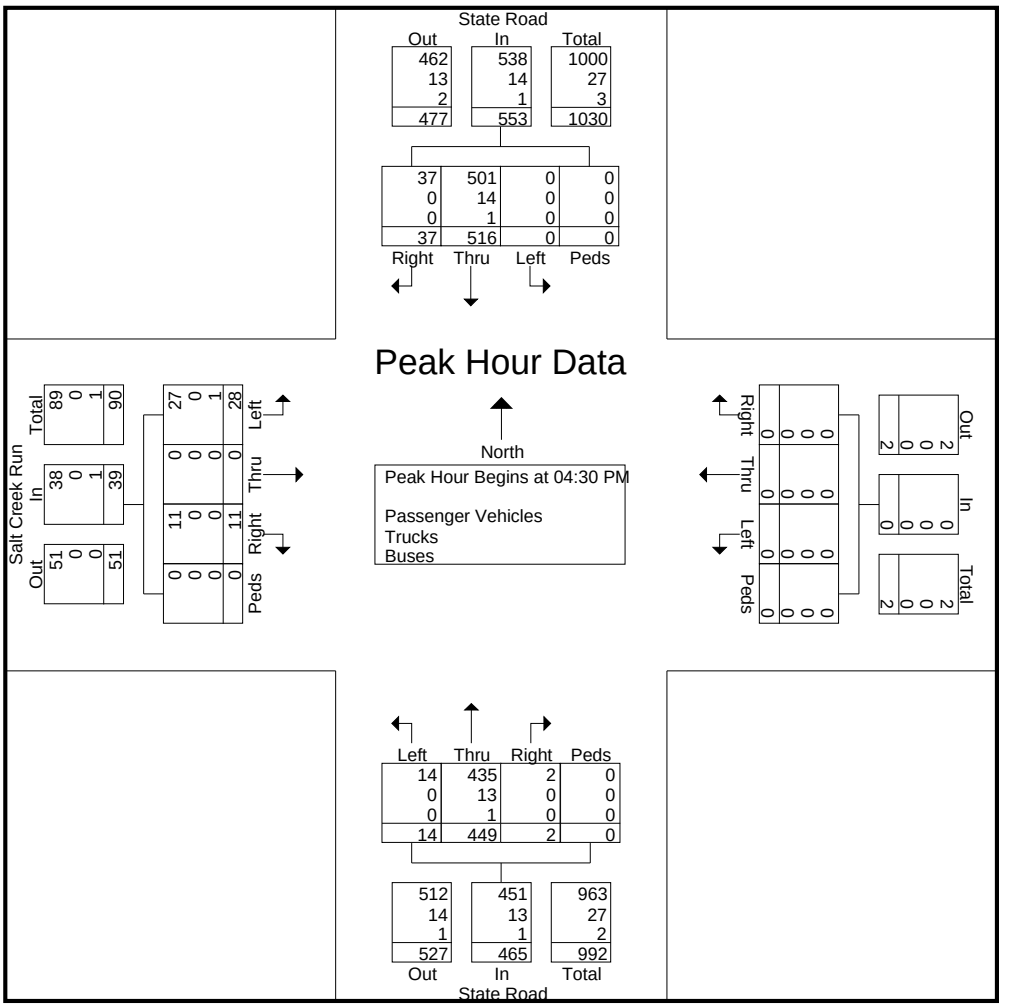
520 South Main Street, Suite 2531
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Salt Creek Run Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 4-State and Salt Creek 091423
Site Code : 71083050
Start Date : 9/14/2023
Page No : 5

	Salt Creek Run Eastbound					Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	6	0	3	0	9	0	0	0	0	0	**8**	115	**2**	0	125	0	127	5	0	132	266
04:45 PM	**10**	0	**5**	0	**15**	0	0	0	0	0	2	116	0	0	118	0	112	9	0	121	254
05:00 PM	3	0	2	0	5	0	0	0	0	0	3	**142**	0	0	**145**	0	**146**	**12**	0	**158**	**308**
05:15 PM	9	0	1	0	10	0	0	0	0	0	1	76	0	0	77	0	131	11	0	142	229
Total Volume	28	0	11	0	39	0	0	0	0	0	14	449	2	0	465	0	516	37	0	553	1057
% App. Total	71.8	0	28.2	0		0	0	0	0		3	96.6	0.4	0		0	93.3	6.7	0		
PHF	.700	.000	.550	.000	.650	.000	.000	.000	.000	.000	.438	.790	.250	.000	.802	.000	.884	.771	.000	.875	.858
Passenger Vehicles	27	0	11	0	38	0	0	0	0	0	14	435	2	0	451	0	501	37	0	538	1027
% Passenger Vehicles	96.4	0	100	0	97.4	0	0	0	0	0	100	96.9	100	0	97.0	0	97.1	100	0	97.3	97.2
Trucks	0	0	0	0	0	0	0	0	0	0	0	13	0	0	13	0	14	0	0	14	27
% Trucks	0	0	0	0	0	0	0	0	0	0	0	2.9	0	0	2.8	0	2.7	0	0	2.5	2.6
Buses	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	3
% Buses	3.6	0	0	0	2.6	0	0	0	0	0	0	0.2	0	0	0.2	0	0.2	0	0	0.2	0.3



GPD Group

520 South Main Street, Suite 2531
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Woodridge Schools North Drive Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 5-State and Woodridge North 091323
Site Code : 69073050
Start Date : 9/13/2023
Page No : 1

Groups Printed- Passenger Vehicles - Trucks - Buses

	Woodridge Schools North Drive Eastbound					Private Drive Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	4	0	2	0	6	0	0	0	0	0	0	90	0	0	90	0	46	14	0	60	156
07:15 AM	10	0	2	0	12	0	0	0	0	0	0	100	0	0	100	0	57	11	0	68	180
07:30 AM	3	0	0	0	3	0	0	0	0	0	1	129	0	0	130	0	65	6	0	71	204
07:45 AM	1	0	0	0	1	0	0	0	0	0	4	117	0	0	121	0	82	4	0	86	208
Total	18	0	4	0	22	0	0	0	0	0	5	436	0	0	441	0	250	35	0	285	748
08:00 AM	1	0	0	0	1	0	0	0	0	0	6	114	0	0	120	0	62	2	0	64	185
08:15 AM	2	0	0	0	2	0	0	0	0	0	19	99	0	0	118	0	68	6	0	74	194
08:30 AM	0	0	0	0	0	0	0	0	0	0	34	98	0	0	132	0	80	9	0	89	221
08:45 AM	1	0	1	0	2	0	0	0	0	0	6	112	0	0	118	0	61	1	0	62	182
Total	4	0	1	0	5	0	0	0	0	0	65	423	0	0	488	0	271	18	0	289	782
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	75	0	0	75	0	62	0	0	62	137
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	72	0	0	72	0	68	2	0	70	142
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	66	0	0	66	0	59	0	0	59	125
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	66	0	0	66	0	61	0	0	61	127
Total	0	0	0	0	0	0	0	0	0	0	0	279	0	0	279	0	250	2	0	252	531
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	69	0	0	69	0	63	0	0	63	132
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	73	0	0	73	0	66	0	0	66	139
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	75	0	0	75	0	67	0	0	67	142
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	79	0	0	79	0	70	0	0	70	149
Total	0	0	0	0	0	0	0	0	0	0	0	296	0	0	296	0	266	0	0	266	562
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	84	0	0	84	0	71	0	0	71	155
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	67	0	0	67	0	77	0	0	77	144
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	74	0	0	74	0	75	0	0	75	149
11:45 AM	1	0	0	0	1	0	0	0	0	0	0	65	0	0	65	0	64	2	0	66	132
Total	1	0	0	0	1	0	0	0	0	0	0	290	0	0	290	0	287	2	0	289	580
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	69	0	0	69	0	81	0	0	81	150
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	81	0	0	81	0	60	1	0	61	142
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	65	0	0	65	0	62	0	0	62	127
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	60	0	0	60	0	61	0	0	61	121
Total	0	0	0	0	0	0	0	0	0	0	0	275	0	0	275	0	264	1	0	265	540
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	65	0	0	65	0	64	0	0	64	129
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	72	0	0	72	0	69	0	0	69	141
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	81	0	2	83	0	73	0	0	73	156
01:45 PM	0	0	0	0	0	0	0	0	0	0	1	89	0	0	90	0	77	0	0	77	167
Total	0	0	0	0	0	0	0	0	0	0	1	307	0	2	310	0	283	0	0	283	593
02:00 PM	0	0	0	0	0	0	0	0	0	0	2	77	0	0	79	0	79	0	0	79	158
02:15 PM	1	0	0	0	1	0	0	0	0	0	7	90	0	0	97	0	82	0	0	82	180
02:30 PM	8	0	6	0	14	0	0	0	0	0	9	89	0	0	98	0	78	1	0	79	191

GPD Group

520 South Main Street, Suite 2531
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Woodridge Schools North Drive Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 5-State and Woodridge North 091323
Site Code : 69073050
Start Date : 9/13/2023
Page No : 2

Groups Printed- Passenger Vehicles - Trucks - Buses

	Woodridge Schools North Drive Eastbound					Private Drive Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
02:45 PM	1	0	0	0	1	0	0	0	0	0	5	80	0	0	85	0	79	3	0	82	168
Total	10	0	6	0	16	0	0	0	0	0	23	336	0	0	359	0	318	4	0	322	697
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	86	0	0	86	0	82	3	0	85	171
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	93	0	0	93	0	86	2	0	88	181
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	100	0	0	100	0	91	1	0	92	192
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	109	0	0	109	0	93	3	0	96	205
Total	0	0	0	0	0	0	0	0	0	0	0	388	0	0	388	0	352	9	0	361	749
04:00 PM	6	0	1	0	7	0	0	0	0	0	0	115	0	0	115	0	95	5	0	100	222
04:15 PM	2	0	1	0	3	0	0	0	0	0	0	75	0	0	75	0	100	1	0	101	179
04:30 PM	9	0	2	0	11	0	0	0	0	0	0	114	0	0	114	0	104	3	0	107	232
04:45 PM	4	0	0	0	4	0	0	0	0	0	0	89	0	0	89	0	98	3	0	101	194
Total	21	0	4	0	25	0	0	0	0	0	0	393	0	0	393	0	397	12	0	409	827
05:00 PM	3	0	0	0	3	0	0	0	0	0	0	110	0	0	110	0	109	3	0	112	225
05:15 PM	1	0	0	0	1	0	0	0	0	0	0	99	0	0	99	0	122	8	0	130	230
05:30 PM	2	0	0	0	2	0	0	0	0	0	0	86	0	0	86	0	140	5	0	145	233
05:45 PM	4	0	0	0	4	0	0	0	0	0	0	64	0	0	64	0	86	2	0	88	156
Total	10	0	0	0	10	0	0	0	0	0	0	359	0	0	359	0	457	18	0	475	844
06:00 PM	4	0	0	0	4	0	0	0	0	0	0	81	0	0	81	0	111	2	0	113	198
06:15 PM	0	0	0	0	0	0	0	0	0	0	0	61	0	0	61	0	108	4	0	112	173
06:30 PM	2	0	0	0	2	0	0	0	0	0	1	51	0	0	52	0	114	7	0	121	175
06:45 PM	0	0	1	0	1	0	0	0	0	0	1	44	0	0	45	0	102	1	0	103	149
Total	6	0	1	0	7	0	0	0	0	0	2	237	0	0	239	0	435	14	0	449	695
Grand Total	70	0	16	0	86	0	0	0	0	0	96	4019	0	2	4117	0	3830	115	0	3945	8148
Apprch %	81.4	0	18.6	0		0	0	0	0		2.3	97.6	0	0		0	97.1	2.9	0		
Total %	0.9	0	0.2	0	1.1	0	0	0	0	0	1.2	49.3	0	0	50.5	0	47	1.4	0	48.4	
Passenger Vehicles	64	0	13	0	77	0	0	0	0	0	96	3799	0	2	3897	0	3647	112	0	3759	7733
% Passenger Vehicles	91.4	0	81.2	0	89.5	0	0	0	0	0	100	94.5	0	100	94.7	0	95.2	97.4	0	95.3	94.9
Trucks	1	0	0	0	1	0	0	0	0	0	0	218	0	0	218	0	181	1	0	182	401
% Trucks	1.4	0	0	0	1.2	0	0	0	0	0	0	5.4	0	0	5.3	0	4.7	0.9	0	4.6	4.9
Buses	5	0	3	0	8	0	0	0	0	0	0	2	0	0	2	0	2	2	0	4	14
% Buses	7.1	0	18.8	0	9.3	0	0	0	0	0	0	0	0	0	0	0	0.1	1.7	0	0.1	0.2

GPD Group

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Akron, OH 44311
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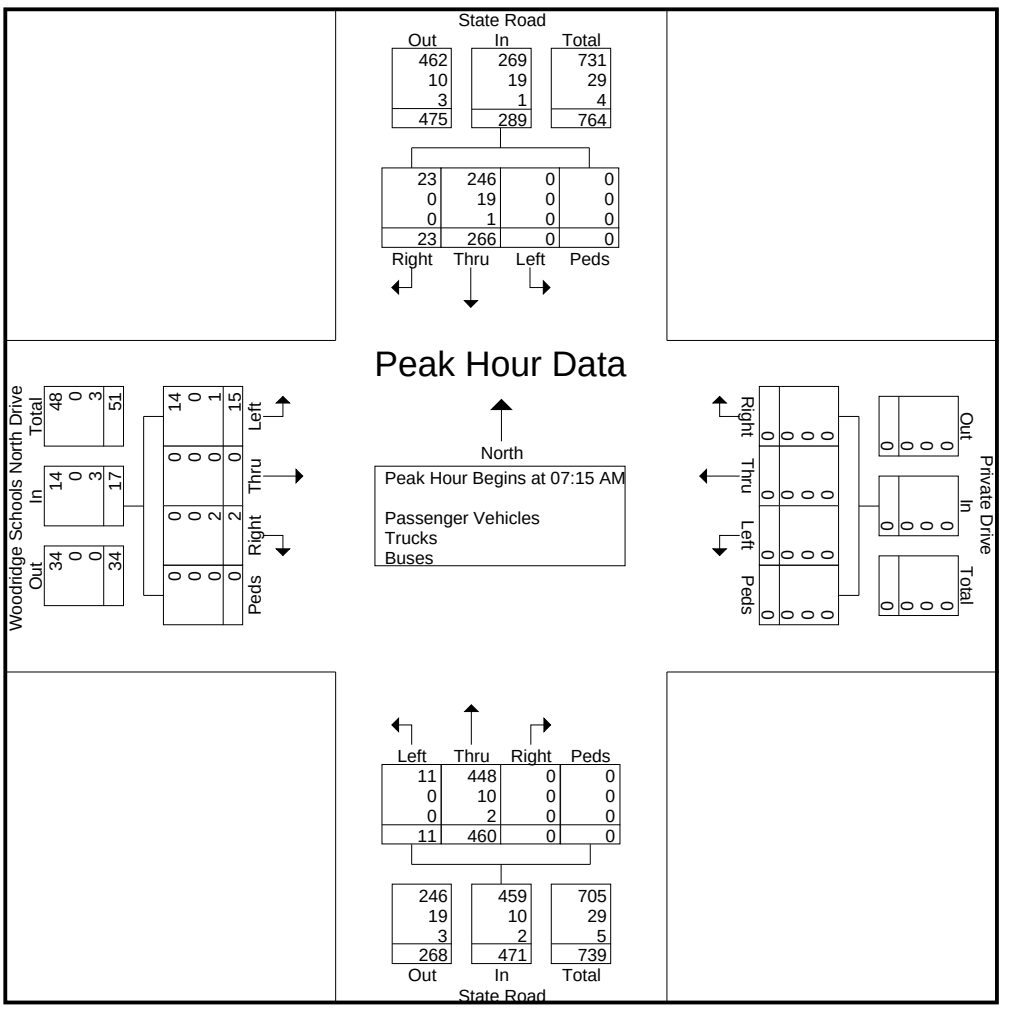
State Road / Woodridge Schools North Drive Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 5-State and Woodridge North 091323
Site Code : 69073050
Start Date : 9/13/2023
Page No : 3

	Woodridge Schools North Drive Eastbound					Private Drive Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
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																					
07:15 AM	**10**	0	**2**	0	**12**	0	0	0	0	0	0	100	0	0	100	0	57	**11**	0	68	180
07:30 AM	3	0	0	0	3	0	0	0	0	0	1	**129**	0	0	**130**	0	65	6	0	71	204
07:45 AM	1	0	0	0	1	0	0	0	0	0	4	117	0	0	121	0	**82**	4	0	**86**	**208**
08:00 AM	1	0	0	0	1	0	0	0	0	0	**6**	114	0	0	120	0	62	2	0	64	185
Total Volume	15	0	2	0	17	0	0	0	0	0	11	460	0	0	471	0	266	23	0	289	777
% App. Total	88.2	0	11.8	0		0	0	0	0		2.3	97.7	0	0		0	92	8	0		
PHF	.375	.000	.250	.000	.354	.000	.000	.000	.000	.000	.458	.891	.000	.000	.906	.000	.811	.523	.000	.840	.934
Passenger Vehicles	14	0	0	0	14	0	0	0	0	0	11	448	0	0	459	0	246	23	0	269	742
% Passenger Vehicles	93.3	0	0	0	82.4	0	0	0	0	0	100	97.4	0	0	97.5	0	92.5	100	0	93.1	95.5
Trucks	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10	0	19	0	0	19	29
% Trucks	0	0	0	0	0	0	0	0	0	0	0	2.2	0	0	2.1	0	7.1	0	0	6.6	3.7
Buses	1	0	2	0	3	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	6
% Buses	6.7	0	100	0	17.6	0	0	0	0	0	0	0.4	0	0	0.4	0	0.4	0	0	0.3	0.8



GPD Group

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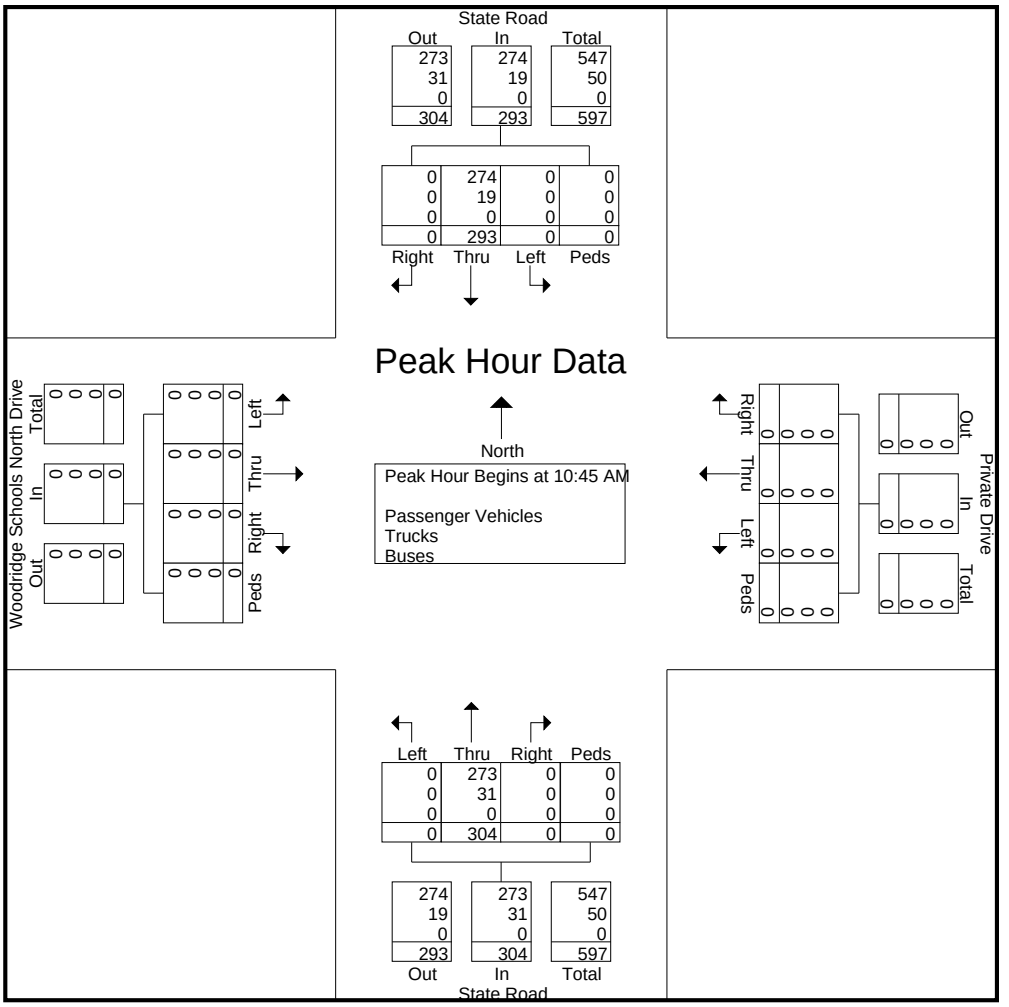
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Woodridge Schools North Drive Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 5-State and Woodridge North 091323
Site Code : 69073050
Start Date : 9/13/2023
Page No : 4

	Woodridge Schools North Drive Eastbound					Private Drive Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 10:45 AM																					
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	79	0	0	79	0	70	0	0	70	149
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	**84**	0	0	**84**	0	71	0	0	71	**155**
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	67	0	0	67	0	**77**	0	0	**77**	144
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	74	0	0	74	0	75	0	0	75	149
Total Volume	0	0	0	0	0	0	0	0	0	0	0	304	0	0	304	0	293	0	0	293	597
% App. Total	0	0	0	0		0	0	0	0		0	100	0	0		0	100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.905	.000	.000	.905	.000	.951	.000	.000	.951	.963
Passenger Vehicles	0	0	0	0	0	0	0	0	0	0	0	273	0	0	273	0	274	0	0	274	547
% Passenger Vehicles	0	0	0	0	0	0	0	0	0	0	0	89.8	0	0	89.8	0	93.5	0	0	93.5	91.6
Trucks	0	0	0	0	0	0	0	0	0	0	0	31	0	0	31	0	19	0	0	19	50
% Trucks	0	0	0	0	0	0	0	0	0	0	0	10.2	0	0	10.2	0	6.5	0	0	6.5	8.4
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



GPD Group

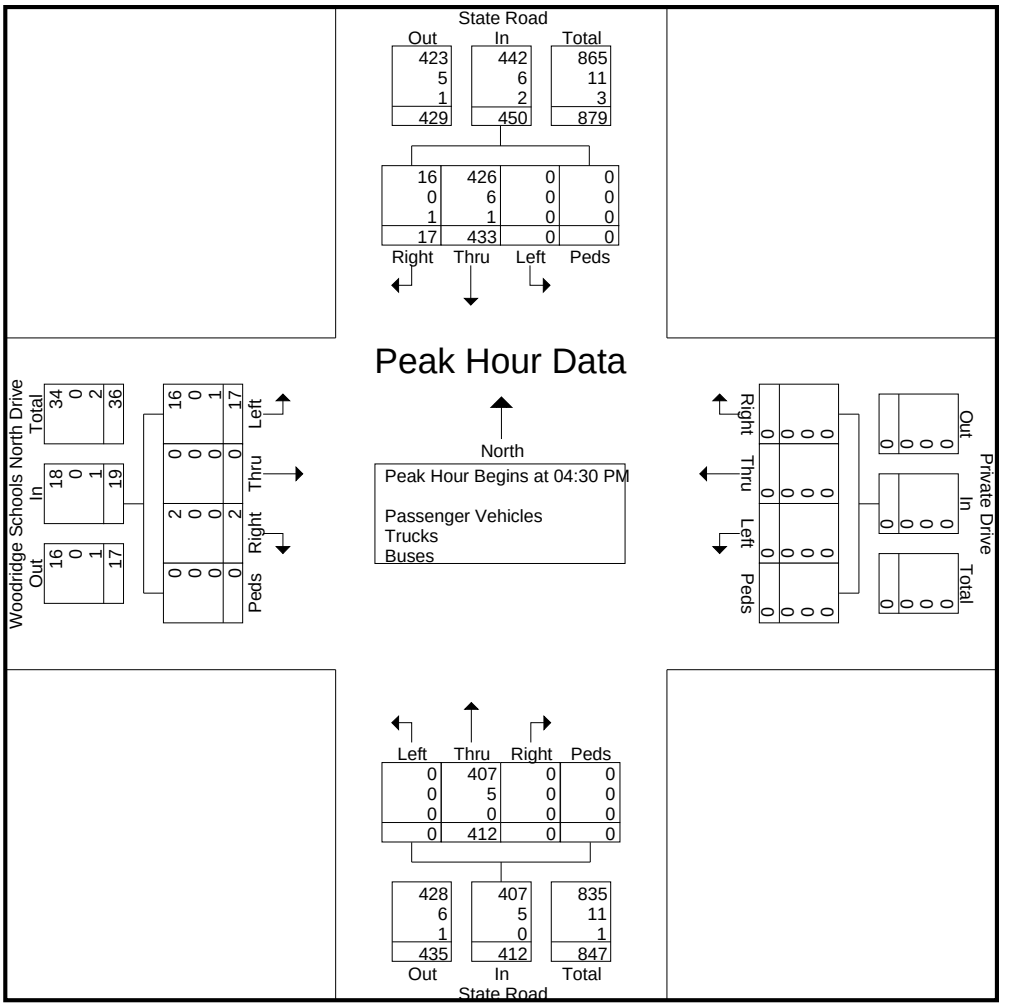
520 South Main Street, Suite 2531
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Woodridge Schools North Drive Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 5-State and Woodridge North 091323
Site Code : 69073050
Start Date : 9/13/2023
Page No : 5

	Woodridge Schools North Drive Eastbound					Private Drive Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	**9**	0	**2**	0	**11**	0	0	0	0	0	0	**114**	0	0	**114**	0	104	3	0	107	**232**
04:45 PM	4	0	0	0	4	0	0	0	0	0	0	89	0	0	89	0	98	3	0	101	194
05:00 PM	3	0	0	0	3	0	0	0	0	0	0	110	0	0	110	0	109	3	0	112	225
05:15 PM	1	0	0	0	1	0	0	0	0	0	0	99	0	0	99	0	**122**	**8**	0	**130**	230
Total Volume	17	0	2	0	19	0	0	0	0	0	0	412	0	0	412	0	433	17	0	450	881
% App. Total	89.5	0	10.5	0		0	0	0	0		0	100	0	0		0	96.2	3.8	0		
PHF	.472	.000	.250	.000	.432	.000	.000	.000	.000	.000	.000	.904	.000	.000	.904	.000	.887	.531	.000	.865	.949
Passenger Vehicles	16	0	2	0	18	0	0	0	0	0	0	407	0	0	407	0	426	16	0	442	867
% Passenger Vehicles	94.1	0	100	0	94.7	0	0	0	0	0	0	98.8	0	0	98.8	0	98.4	94.1	0	98.2	98.4
Trucks	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	0	6	0	0	6	11
% Trucks	0	0	0	0	0	0	0	0	0	0	0	1.2	0	0	1.2	0	1.4	0	0	1.3	1.2
Buses	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	3
% Buses	5.9	0	0	0	5.3	0	0	0	0	0	0	0	0	0	0	0	0.2	5.9	0	0.4	0.3



GPD Group

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Akron, OH 44311
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State Road / Woodridge Schools South Drive Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 6-State and Woodridge South 091323
Site Code : 71063050
Start Date : 9/13/2023
Page No : 1

Groups Printed- Passenger Vehicles - Trucks - Buses

	Woodridge Schools South Drive Eastbound					Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	1	0	1	0	2	0	0	0	0	0	3	91	0	0	94	0	47	1	0	48	144
07:15 AM	1	0	0	0	1	0	0	0	0	0	0	94	0	0	94	0	59	1	0	60	155
07:30 AM	0	0	2	0	2	0	0	0	0	0	7	129	0	0	136	0	64	1	0	65	203
07:45 AM	0	0	0	0	0	0	0	0	0	0	5	119	0	0	124	0	78	3	0	81	205
Total	2	0	3	0	5	0	0	0	0	0	15	433	0	0	448	0	248	6	0	254	707
08:00 AM	0	0	0	0	0	0	0	0	0	0	1	118	0	0	119	0	63	0	0	63	182
08:15 AM	0	0	6	0	6	0	0	0	0	0	1	124	0	0	125	0	67	1	0	68	199
08:30 AM	10	0	102	0	112	0	0	0	0	0	0	126	0	0	126	0	77	0	0	77	315
08:45 AM	1	0	28	0	29	0	0	1	0	1	0	121	0	0	121	0	62	0	0	62	213
Total	11	0	136	0	147	0	0	1	0	1	2	489	0	0	491	0	269	1	0	270	909
09:00 AM	3	0	0	0	3	0	0	0	0	0	0	70	0	0	70	0	65	2	0	67	140
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	75	0	0	75	0	67	0	0	67	142
09:30 AM	0	0	0	0	0	1	0	0	0	1	0	63	0	0	63	0	56	0	0	56	120
09:45 AM	0	0	0	0	0	0	0	0	0	0	1	64	0	0	65	0	62	0	0	62	127
Total	3	0	0	0	3	1	0	0	0	1	1	272	0	0	273	0	250	2	0	252	529
10:00 AM	1	0	0	0	1	0	0	0	0	0	0	75	0	0	75	0	52	0	0	52	128
10:15 AM	0	0	0	0	0	0	0	0	0	0	1	53	0	0	54	0	57	0	0	57	111
10:30 AM	0	0	0	0	0	0	0	0	0	0	2	70	0	0	72	0	41	1	0	42	114
10:45 AM	0	0	1	0	1	0	0	0	0	0	0	65	0	0	65	0	65	0	0	65	131
Total	1	0	1	0	2	0	0	0	0	0	3	263	0	0	266	0	215	1	0	216	484
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	91	0	0	91	0	70	0	0	70	161
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	67	0	0	67	0	76	0	0	76	143
11:30 AM	0	0	1	0	1	0	0	0	0	0	0	75	0	0	75	0	69	1	0	70	146
11:45 AM	0	0	2	0	2	0	0	0	0	0	0	61	0	0	61	0	66	0	0	66	129
Total	0	0	3	0	3	0	0	0	0	0	0	294	0	0	294	0	281	1	0	282	579
12:00 PM	0	0	1	0	1	0	0	0	0	0	0	64	0	0	64	0	85	0	0	85	150
12:15 PM	0	0	3	0	3	0	0	0	0	0	1	80	0	0	81	0	58	1	0	59	143
12:30 PM	0	0	1	0	1	0	0	0	0	0	0	64	0	0	64	0	61	2	0	63	128
12:45 PM	1	0	2	0	3	0	0	0	0	0	0	71	0	0	71	0	65	0	0	65	139
Total	1	0	7	0	8	0	0	0	0	0	1	279	0	0	280	0	269	3	0	272	560
01:00 PM	0	0	3	0	3	0	0	0	0	0	0	63	0	0	63	0	62	0	0	62	128
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	72	0	0	72	0	73	0	0	73	145
01:30 PM	0	0	2	2	4	0	0	0	0	0	0	79	0	0	79	0	75	0	0	75	158
01:45 PM	1	0	2	0	3	0	0	0	0	0	0	82	0	0	82	0	79	2	0	81	166
Total	1	0	7	2	10	0	0	0	0	0	0	296	0	0	296	0	289	2	0	291	597
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	75	0	0	75	0	83	0	0	83	158
02:15 PM	1	0	1	0	2	0	0	0	0	0	0	97	0	0	97	0	87	0	0	87	186
02:30 PM	2	0	3	0	5	0	0	0	0	0	0	96	0	0	96	0	87	1	0	88	189

GPD Group

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State Road / Woodridge Schools South Drive Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 6-State and Woodridge South 091323
Site Code : 71063050
Start Date : 9/13/2023
Page No : 2

Groups Printed- Passenger Vehicles - Trucks - Buses

	Woodridge Schools South Drive Eastbound					Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
02:45 PM	0	0	4	0	4	0	0	0	0	0	0	86	0	0	86	0	80	0	0	80	170
Total	3	0	8	0	11	0	0	0	0	0	0	354	0	0	354	0	337	1	0	338	703
03:00 PM	6	0	8	0	14	0	0	0	0	0	0	89	0	0	89	0	84	0	0	84	187
03:15 PM	9	0	87	0	96	0	0	0	0	0	0	99	0	0	99	0	96	0	0	96	291
03:30 PM	15	0	38	0	53	0	0	0	0	0	0	109	0	0	109	0	93	0	0	93	255
03:45 PM	1	0	13	0	14	0	0	0	0	0	0	91	0	0	91	0	111	6	0	117	222
Total	31	0	146	0	177	0	0	0	0	0	0	388	0	0	388	0	384	6	0	390	955
04:00 PM	0	0	7	0	7	0	0	0	0	0	0	104	0	0	104	0	93	2	0	95	206
04:15 PM	1	0	1	0	2	0	0	0	0	0	0	73	0	0	73	0	104	0	0	104	179
04:30 PM	0	0	8	0	8	0	0	0	0	0	1	112	0	0	113	0	110	0	0	110	231
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	86	0	0	86	0	101	0	0	101	187
Total	1	0	16	0	17	0	0	0	0	0	1	375	0	0	376	0	408	2	0	410	803
05:00 PM	0	0	2	0	2	0	0	0	0	0	0	108	0	0	108	0	108	0	0	108	218
05:15 PM	0	0	1	0	1	0	0	0	0	0	0	96	0	0	96	0	139	0	0	139	236
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	89	0	0	89	0	139	0	0	139	228
05:45 PM	1	0	8	0	9	0	0	0	0	0	1	71	0	0	72	0	96	2	0	98	179
Total	1	0	11	0	12	0	0	0	0	0	1	364	0	0	365	0	482	2	0	484	861
06:00 PM	1	0	1	0	2	0	0	0	0	0	0	79	0	0	79	0	113	1	0	114	195
06:15 PM	0	0	1	0	1	0	0	0	0	0	2	56	0	0	58	0	108	0	0	108	167
06:30 PM	0	0	0	0	0	0	0	0	0	0	0	46	0	0	46	0	110	1	0	111	157
06:45 PM	0	0	0	0	0	0	0	0	0	0	1	43	0	0	44	0	103	1	0	104	148
Total	1	0	2	0	3	0	0	0	0	0	3	224	0	0	227	0	434	3	0	437	667
Grand Total	56	0	340	2	398	1	0	1	0	2	27	4031	0	0	4058	0	3866	30	0	3896	8354
Apprch %	14.1	0	85.4	0.5		50	0	50	0		0.7	99.3	0	0		0	99.2	0.8	0		
Total %	0.7	0	4.1	0	4.8	0	0	0	0	0	0.3	48.3	0	0	48.6	0	46.3	0.4	0	46.6	
Passenger Vehicles	56	0	338	2	396	1	0	1	0	2	27	3790	0	0	3817	0	3643	29	0	3672	7887
% Passenger Vehicles	100	0	99.4	100	99.5	100	0	100	0	100	100	94	0	0	94.1	0	94.2	96.7	0	94.3	94.4
Trucks	0	0	0	0	0	0	0	0	0	0	0	233	0	0	233	0	211	1	0	212	445
% Trucks	0	0	0	0	0	0	0	0	0	0	0	5.8	0	0	5.7	0	5.5	3.3	0	5.4	5.3
Buses	0	0	2	0	2	0	0	0	0	0	0	8	0	0	8	0	12	0	0	12	22
% Buses	0	0	0.6	0	0.5	0	0	0	0	0	0	0.2	0	0	0.2	0	0.3	0	0	0.3	0.3

GPD Group

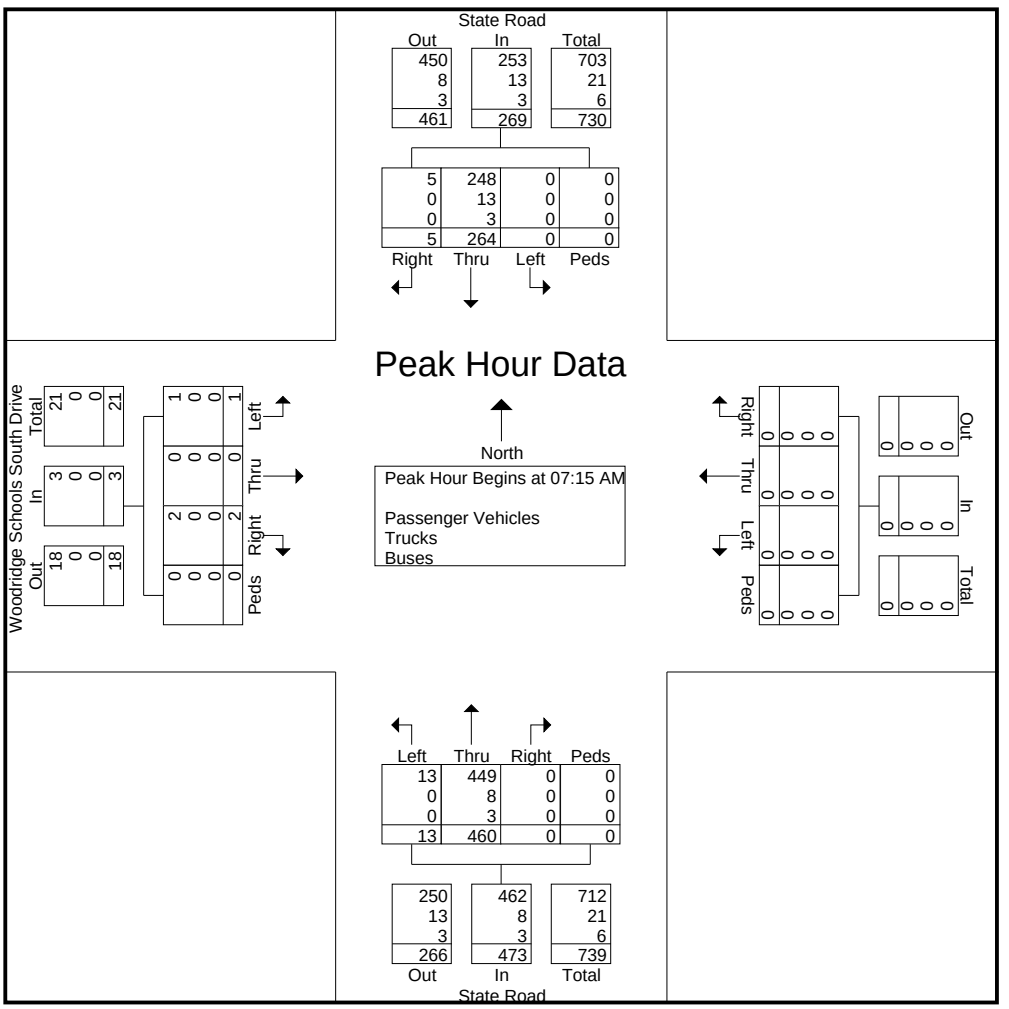
520 South Main Street, Suite 2531
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Woodridge Schools South Drive Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 6-State and Woodridge South 091323
Site Code : 71063050
Start Date : 9/13/2023
Page No : 3

	Woodridge Schools South Drive Eastbound					Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
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																					
07:15 AM	**1**	0	0	0	1	0	0	0	0	0	0	94	0	0	94	0	59	1	0	60	155
07:30 AM	0	0	**2**	0	**2**	0	0	0	0	0	**7**	**129**	0	0	**136**	0	64	1	0	65	203
07:45 AM	0	0	0	0	0	0	0	0	0	0	5	119	0	0	124	0	**78**	**3**	0	**81**	**205**
08:00 AM	0	0	0	0	0	0	0	0	0	0	1	118	0	0	119	0	63	0	0	63	182
Total Volume	1	0	2	0	3	0	0	0	0	0	13	460	0	0	473	0	264	5	0	269	745
% App. Total	33.3	0	66.7	0		0	0	0	0		2.7	97.3	0	0		0	98.1	1.9	0		
PHF	.250	.000	.250	.000	.375	.000	.000	.000	.000	.000	.464	.891	.000	.000	.869	.000	.846	.417	.000	.830	.909
Passenger Vehicles	1	0	2	0	3	0	0	0	0	0	13	449	0	0	462	0	248	5	0	253	718
% Passenger Vehicles	100	0	100	0	100	0	0	0	0	0	100	97.6	0	0	97.7	0	93.9	100	0	94.1	96.4
Trucks	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8	0	13	0	0	13	21
% Trucks	0	0	0	0	0	0	0	0	0	0	0	1.7	0	0	1.7	0	4.9	0	0	4.8	2.8
Buses	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	3	0	0	3	6
% Buses	0	0	0	0	0	0	0	0	0	0	0	0.7	0	0	0.6	0	1.1	0	0	1.1	0.8



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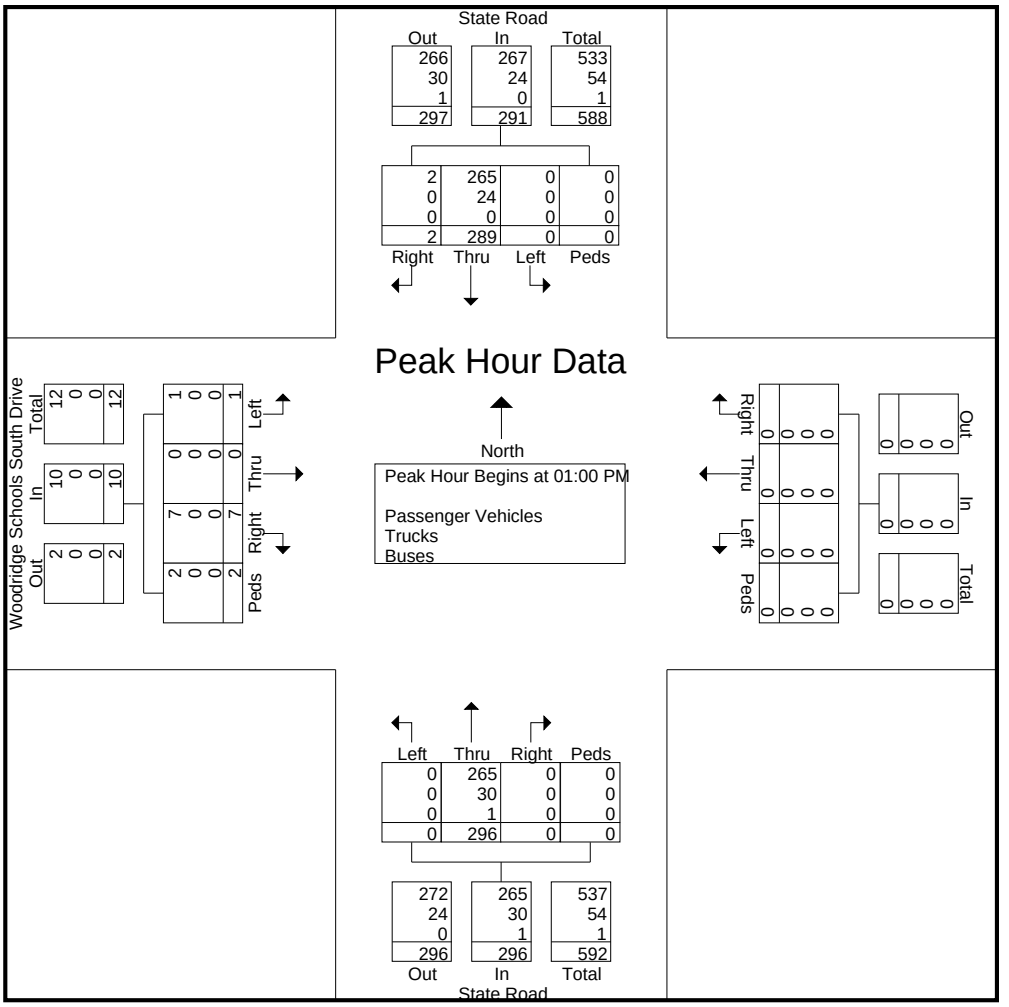
520 South Main Street, Suite 2531
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Woodridge Schools South Drive Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 6-State and Woodridge South 091323
Site Code : 71063050
Start Date : 9/13/2023
Page No : 4

	Woodridge Schools South Drive Eastbound					Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 01:00 PM																					
01:00 PM	0	0	**3**	0	3	0	0	0	0	0	0	63	0	0	63	0	62	0	0	62	128
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	72	0	0	72	0	73	0	0	73	145
01:30 PM	0	0	2	**2**	**4**	0	0	0	0	0	0	79	0	0	79	0	75	0	0	75	158
01:45 PM	**1**	0	2	0	3	0	0	0	0	0	0	**82**	0	0	**82**	0	**79**	**2**	0	**81**	**166**
Total Volume	1	0	7	2	10	0	0	0	0	0	0	296	0	0	296	0	289	2	0	291	597
% App. Total	10	0	70	20		0	0	0	0		0	100	0	0		0	99.3	0.7	0		
PHF	.250	.000	.583	.250	.625	.000	.000	.000	.000	.000	.000	.902	.000	.000	.902	.000	.915	.250	.000	.898	.899
Passenger Vehicles	1	0	7	2	10	0	0	0	0	0	0	265	0	0	265	0	265	2	0	267	542
% Passenger Vehicles	100	0	100	100	100	0	0	0	0	0	0	89.5	0	0	89.5	0	91.7	100	0	91.8	90.8
Trucks	0	0	0	0	0	0	0	0	0	0	0	30	0	0	30	0	24	0	0	24	54
% Trucks	0	0	0	0	0	0	0	0	0	0	0	10.1	0	0	10.1	0	8.3	0	0	8.2	9.0
Buses	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
% Buses	0	0	0	0	0	0	0	0	0	0	0	0.3	0	0	0.3	0	0	0	0	0	0.2



GPD Group

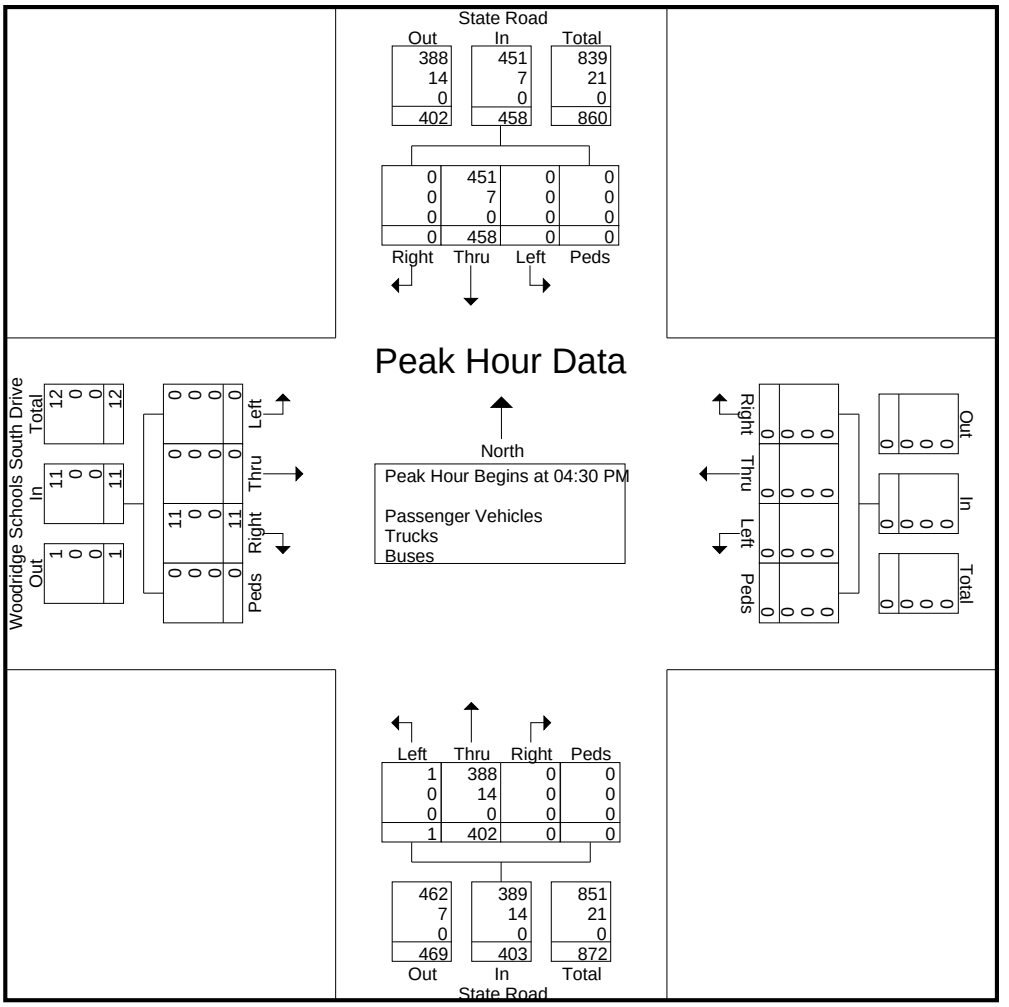
520 South Main Street, Suite 2531
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Woodridge Schools South Drive Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 6-State and Woodridge South 091323
Site Code : 71063050
Start Date : 9/13/2023
Page No : 5

	Woodridge Schools South Drive Eastbound					Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	0	**8**	0	**8**	0	0	0	0	0	**1**	**112**	0	0	**113**	0	110	0	0	110	231
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	86	0	0	86	0	101	0	0	101	187
05:00 PM	0	0	2	0	2	0	0	0	0	0	0	108	0	0	108	0	108	0	0	108	218
05:15 PM	0	0	1	0	1	0	0	0	0	0	0	96	0	0	96	0	**139**	0	0	**139**	**236**
Total Volume	0	0	11	0	11	0	0	0	0	0	1	402	0	0	403	0	458	0	0	458	872
% App. Total	0	0	100	0		0	0	0	0		0.2	99.8	0	0		0	100	0	0		
PHF	.000	.000	.344	.000	.344	.000	.000	.000	.000	.000	.250	.897	.000	.000	.892	.000	.824	.000	.000	.824	.924
Passenger Vehicles	0	0	11	0	11	0	0	0	0	0	1	388	0	0	389	0	451	0	0	451	851
% Passenger Vehicles	0	0	100	0	100	0	0	0	0	0	100	96.5	0	0	96.5	0	98.5	0	0	98.5	97.6
Trucks	0	0	0	0	0	0	0	0	0	0	0	14	0	0	14	0	7	0	0	7	21
% Trucks	0	0	0	0	0	0	0	0	0	0	0	3.5	0	0	3.5	0	1.5	0	0	1.5	2.4
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



GPD Group

520 South Main Street, Suite 2531
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Falls Industrial Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 7-State and Falls Industrial 091423
Site Code : 69093050
Start Date : 9/14/2023
Page No : 1

Groups Printed- Passenger Vehicles - Trucks - Buses

	Eastbound					Falls Industrial Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	4	0	2	0	6	0	84	6	0	90	6	57	0	0	63	159
07:15 AM	0	0	0	0	0	4	0	0	0	4	0	122	6	0	128	2	48	0	0	50	182
07:30 AM	0	0	0	0	0	5	0	2	0	7	0	154	3	0	157	4	56	0	0	60	224
07:45 AM	0	0	0	0	0	3	0	1	0	4	0	125	6	0	131	8	103	0	0	111	246
Total	0	0	0	0	0	16	0	5	0	21	0	485	21	0	506	20	264	0	0	284	811
08:00 AM	0	0	0	0	0	0	0	1	0	1	0	95	6	0	101	7	54	0	0	61	163
08:15 AM	0	0	0	0	0	2	0	1	0	3	0	126	10	0	136	6	62	0	0	68	207
08:30 AM	0	0	0	0	0	2	0	2	0	4	0	99	5	0	104	3	171	0	0	174	282
08:45 AM	0	0	0	0	0	2	0	4	0	6	0	96	5	0	101	2	77	0	0	79	186
Total	0	0	0	0	0	6	0	8	0	14	0	416	26	0	442	18	364	0	0	382	838
09:00 AM	0	0	0	0	0	3	0	1	0	4	0	77	6	0	83	5	58	0	0	63	150
09:15 AM	0	0	0	0	0	6	0	4	0	10	0	57	8	0	65	2	55	0	0	57	132
09:30 AM	0	0	0	0	0	4	0	3	0	7	0	78	14	0	92	2	54	0	0	56	155
09:45 AM	0	0	0	0	0	3	0	4	0	7	0	79	8	0	87	6	56	0	0	62	156
Total	0	0	0	0	0	16	0	12	0	28	0	291	36	0	327	15	223	0	0	238	593
10:00 AM	0	0	0	0	0	4	0	3	0	7	0	77	8	0	85	6	54	0	0	60	152
10:15 AM	0	0	0	0	0	6	0	2	0	8	0	76	9	0	85	6	52	0	0	58	151
10:30 AM	0	0	0	0	0	8	0	2	0	10	0	75	8	0	83	6	50	0	0	56	149
10:45 AM	0	0	0	0	0	10	0	3	0	13	0	75	9	0	84	7	47	0	0	54	151
Total	0	0	0	0	0	28	0	10	0	38	0	303	34	0	337	25	203	0	0	228	603
11:00 AM	0	0	0	0	0	11	0	4	0	15	0	75	9	0	84	6	44	0	0	50	149
11:15 AM	0	0	0	0	0	4	0	2	0	6	0	54	7	0	61	6	63	0	0	69	136
11:30 AM	0	0	0	0	0	7	0	2	0	9	1	66	6	0	73	1	60	0	0	61	143
11:45 AM	0	0	0	0	0	14	0	7	0	21	0	71	9	0	80	2	75	0	0	77	178
Total	0	0	0	0	0	36	0	15	0	51	1	266	31	0	298	15	242	0	0	257	606
12:00 PM	0	0	0	0	0	17	0	11	0	28	0	61	8	0	69	8	73	0	0	81	178
12:15 PM	0	0	0	0	0	9	0	1	0	10	0	68	12	0	80	0	64	0	0	64	154
12:30 PM	0	0	0	0	0	11	0	4	0	15	0	68	4	1	73	5	65	0	0	70	158
12:45 PM	0	0	0	0	0	8	0	3	0	11	0	87	13	0	100	4	79	0	0	83	194
Total	0	0	0	0	0	45	0	19	0	64	0	284	37	1	322	17	281	0	0	298	684
01:00 PM	0	0	0	0	0	13	0	2	0	15	0	62	9	0	71	2	52	0	0	54	140
01:15 PM	0	0	0	0	0	8	0	4	0	12	0	74	8	0	82	8	90	0	0	98	192
01:30 PM	0	0	0	0	0	11	0	4	0	15	0	70	6	0	76	4	78	0	0	82	173
01:45 PM	0	0	0	0	0	5	0	4	0	9	0	84	6	0	90	5	68	0	0	73	172
Total	0	0	0	0	0	37	0	14	0	51	0	290	29	0	319	19	288	0	0	307	677
02:00 PM	0	0	0	0	0	9	0	6	0	15	0	65	6	1	72	0	55	0	0	55	142
02:15 PM	0	0	0	0	0	7	0	5	0	12	0	94	9	0	103	3	84	0	0	87	202
02:30 PM	0	0	0	1	1	10	0	5	0	15	0	106	5	0	111	0	106	0	0	106	233
02:45 PM	0	0	0	0	0	5	0	5	0	10	0	92	6	0	98	1	82	0	0	83	191
Total	0	0	0	1	1	31	0	21	0	52	0	357	26	1	384	4	327	0	0	331	768

GPD Group

520 South Main Street, Suite 2531
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Falls Industrial Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 7-State and Falls Industrial 091423
Site Code : 69093050
Start Date : 9/14/2023
Page No : 2

Groups Printed- Passenger Vehicles - Trucks - Buses

	Eastbound					Falls Industrial Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
03:00 PM	0	0	0	0	0	6	0	5	0	11	0	95	6	0	101	1	90	0	0	91	203
03:15 PM	0	0	0	0	0	10	0	6	0	16	0	97	5	0	102	3	93	0	0	96	214
03:30 PM	0	0	0	0	0	14	0	7	0	21	0	101	4	0	105	1	99	0	0	100	226
03:45 PM	0	0	0	0	0	16	0	8	0	24	0	104	5	0	109	2	106	0	0	108	241
Total	0	0	0	0	0	46	0	26	0	72	0	397	20	0	417	7	388	0	0	395	884
04:00 PM	0	0	0	0	0	18	0	8	0	26	0	105	4	0	109	2	112	0	0	114	249
04:15 PM	0	0	0	0	0	8	0	7	0	15	0	86	3	0	89	5	111	0	0	116	220
04:30 PM	0	0	0	0	0	16	0	8	0	24	0	112	4	0	116	1	131	0	1	133	273
04:45 PM	0	0	0	0	0	15	0	1	0	16	0	110	6	0	116	2	113	0	0	115	247
Total	0	0	0	0	0	57	0	24	0	81	0	413	17	0	430	10	467	0	1	478	989
05:00 PM	0	0	0	0	0	6	0	10	0	16	0	126	3	0	129	2	142	0	0	144	289
05:15 PM	0	0	0	0	0	7	0	6	0	13	0	66	8	0	74	4	126	0	0	130	217
05:30 PM	0	0	0	0	0	6	0	3	0	9	0	99	14	0	113	5	124	0	0	129	251
05:45 PM	0	0	0	0	0	3	0	5	0	8	0	65	5	0	70	4	94	0	0	98	176
Total	0	0	0	0	0	22	0	24	0	46	0	356	30	0	386	15	486	0	0	501	933
06:00 PM	0	0	0	0	0	20	0	6	1	27	0	79	4	0	83	0	91	0	0	91	201
06:15 PM	0	0	0	0	0	2	0	2	0	4	0	85	1	0	86	2	81	0	0	83	173
06:30 PM	0	0	0	0	0	4	0	3	0	7	0	63	0	0	63	2	67	0	0	69	139
06:45 PM	0	0	0	0	0	1	0	1	0	2	0	44	4	0	48	3	81	0	0	84	134
Total	0	0	0	0	0	27	0	12	1	40	0	271	9	0	280	7	320	0	0	327	647
Grand Total	0	0	0	1	1	367	0	190	1	558	1	4129	316	2	4448	172	3853	0	1	4026	9033
Apprch %	0	0	0	100		65.8	0	34.1	0.2		0	92.8	7.1	0		4.3	95.7	0	0		
Total %	0	0	0	0	0	4.1	0	2.1	0	6.2	0	45.7	3.5	0	49.2	1.9	42.7	0	0	44.6	
Passenger Vehicles	0	0	0	1	1	355	0	165	1	521	1	3974	305	2	4282	133	3710	0	1	3844	8648
% Passenger Vehicles	0	0	0	100	100	96.7	0	86.8	100	93.4	100	96.2	96.5	100	96.3	77.3	96.3	0	100	95.5	95.7
Trucks	0	0	0	0	0	12	0	25	0	37	0	153	11	0	164	39	137	0	0	176	377
% Trucks	0	0	0	0	0	3.3	0	13.2	0	6.6	0	3.7	3.5	0	3.7	22.7	3.6	0	0	4.4	4.2
Buses	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	6	0	0	6	8
% Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0	0	0.1	0.1

GPD Group

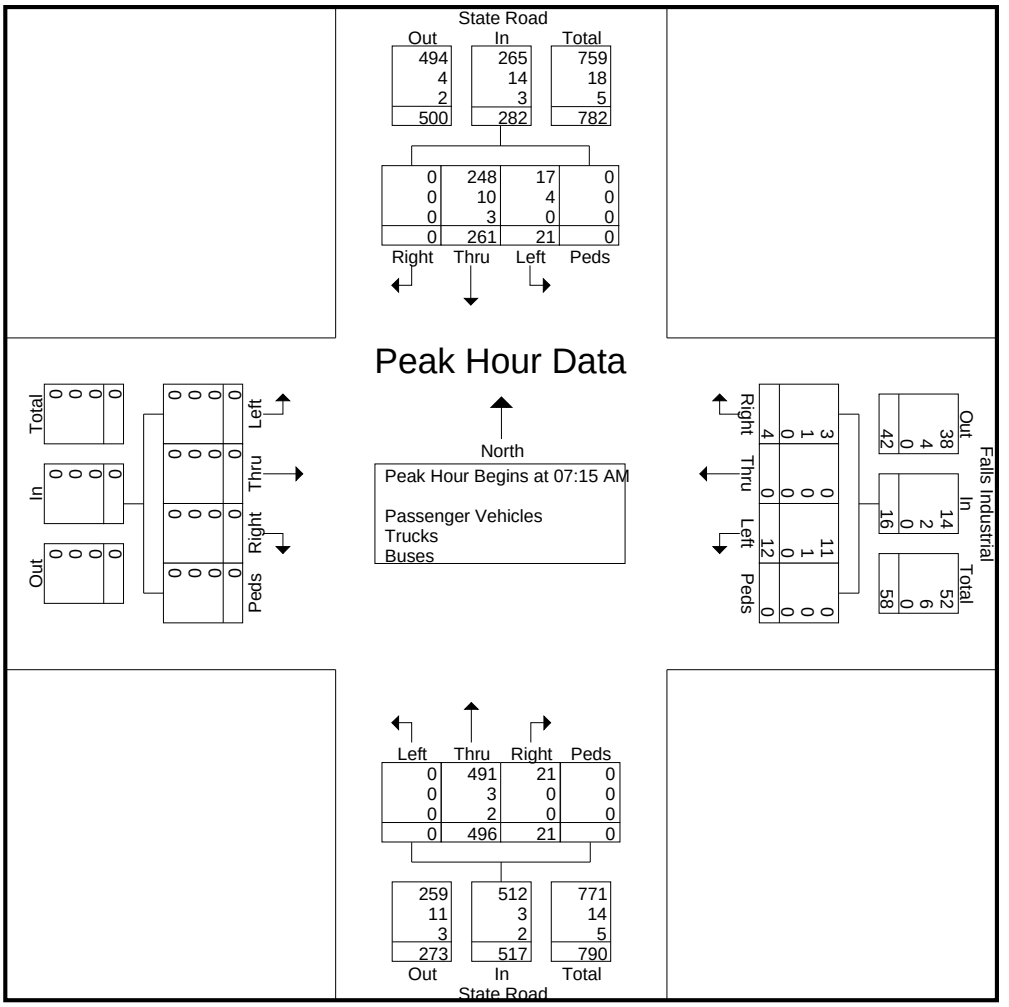
520 South Main Street, Suite 2531
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Falls Industrial Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 7-State and Falls Industrial 091423
Site Code : 69093050
Start Date : 9/14/2023
Page No : 3

	Eastbound					Falls Industrial Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
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																					
07:15 AM	0	0	0	0	0	4	0	0	0	4	0	122	**6**	0	128	2	48	0	0	50	182
07:30 AM	0	0	0	0	0	**5**	0	**2**	0	**7**	0	**154**	3	0	**157**	4	56	0	0	60	224
07:45 AM	0	0	0	0	0	3	0	1	0	4	0	125	6	0	131	**8**	**103**	0	0	**111**	**246**
08:00 AM	0	0	0	0	0	0	0	1	0	1	0	95	6	0	101	7	54	0	0	61	163
Total Volume	0	0	0	0	0	12	0	4	0	16	0	496	21	0	517	21	261	0	0	282	815
% App. Total	0	0	0	0		75	0	25	0		0	95.9	4.1	0		7.4	92.6	0	0		
PHF	.000	.000	.000	.000	.000	.600	.000	.500	.000	.571	.000	.805	.875	.000	.823	.656	.633	.000	.000	.635	.828
Passenger Vehicles	0	0	0	0	0	11	0	3	0	14	0	491	21	0	512	17	248	0	0	265	791
% Passenger Vehicles	0	0	0	0	0	91.7	0	75.0	0	87.5	0	99.0	100	0	99.0	81.0	95.0	0	0	94.0	97.1
Trucks	0	0	0	0	0	1	0	1	0	2	0	3	0	0	3	4	10	0	0	14	19
% Trucks	0	0	0	0	0	8.3	0	25.0	0	12.5	0	0.6	0	0	0.6	19.0	3.8	0	0	5.0	2.3
Buses	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	3	0	0	3	5
% Buses	0	0	0	0	0	0	0	0	0	0	0	0.4	0	0	0.4	0	1.1	0	0	1.1	0.6



GPD Group

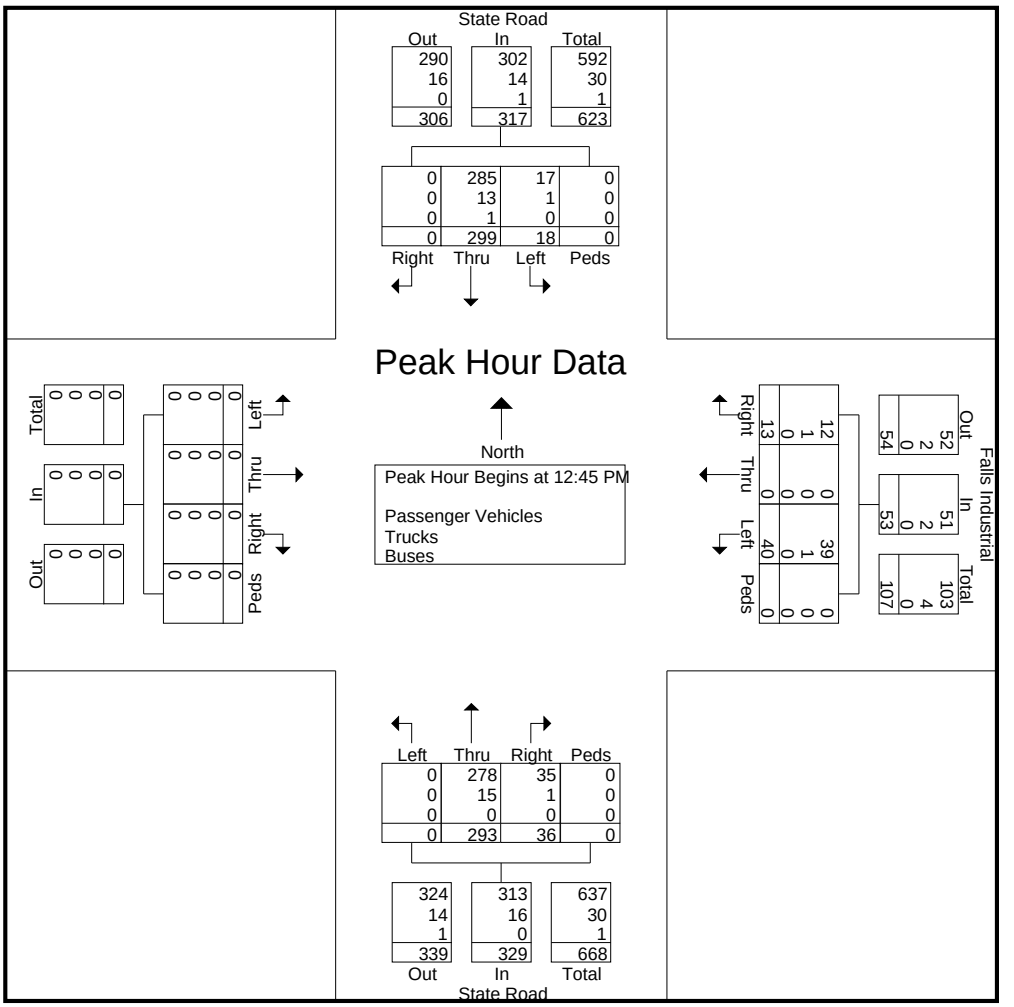
520 South Main Street, Suite 2531
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Falls Industrial Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 7-State and Falls Industrial 091423
Site Code : 69093050
Start Date : 9/14/2023
Page No : 4

	Eastbound					Falls Industrial Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:45 PM																					
12:45 PM	0	0	0	0	0	8	0	3	0	11	0	**87**	**13**	0	**100**	4	79	0	0	83	**194**
01:00 PM	0	0	0	0	0	**13**	0	2	0	**15**	0	62	9	0	71	2	52	0	0	54	140
01:15 PM	0	0	0	0	0	8	0	**4**	0	12	0	74	8	0	82	**8**	**90**	0	0	**98**	192
01:30 PM	0	0	0	0	0	11	0	4	0	15	0	70	6	0	76	4	78	0	0	82	173
Total Volume	0	0	0	0	0	40	0	13	0	53	0	293	36	0	329	18	299	0	0	317	699
% App. Total	0	0	0	0		75.5	0	24.5	0		0	89.1	10.9	0		5.7	94.3	0	0		
PHF	.000	.000	.000	.000	.000	.769	.000	.813	.000	.883	.000	.842	.692	.000	.823	.563	.831	.000	.000	.809	.901
Passenger Vehicles	0	0	0	0	0	39	0	12	0	51	0	278	35	0	313	17	285	0	0	302	666
% Passenger Vehicles	0	0	0	0	0	97.5	0	92.3	0	96.2	0	94.9	97.2	0	95.1	94.4	95.3	0	0	95.3	95.3
Trucks	0	0	0	0	0	1	0	1	0	2	0	15	1	0	16	1	13	0	0	14	32
% Trucks	0	0	0	0	0	2.5	0	7.7	0	3.8	0	5.1	2.8	0	4.9	5.6	4.3	0	0	4.4	4.6
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
% Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0	0	0.3	0.1



GPD Group

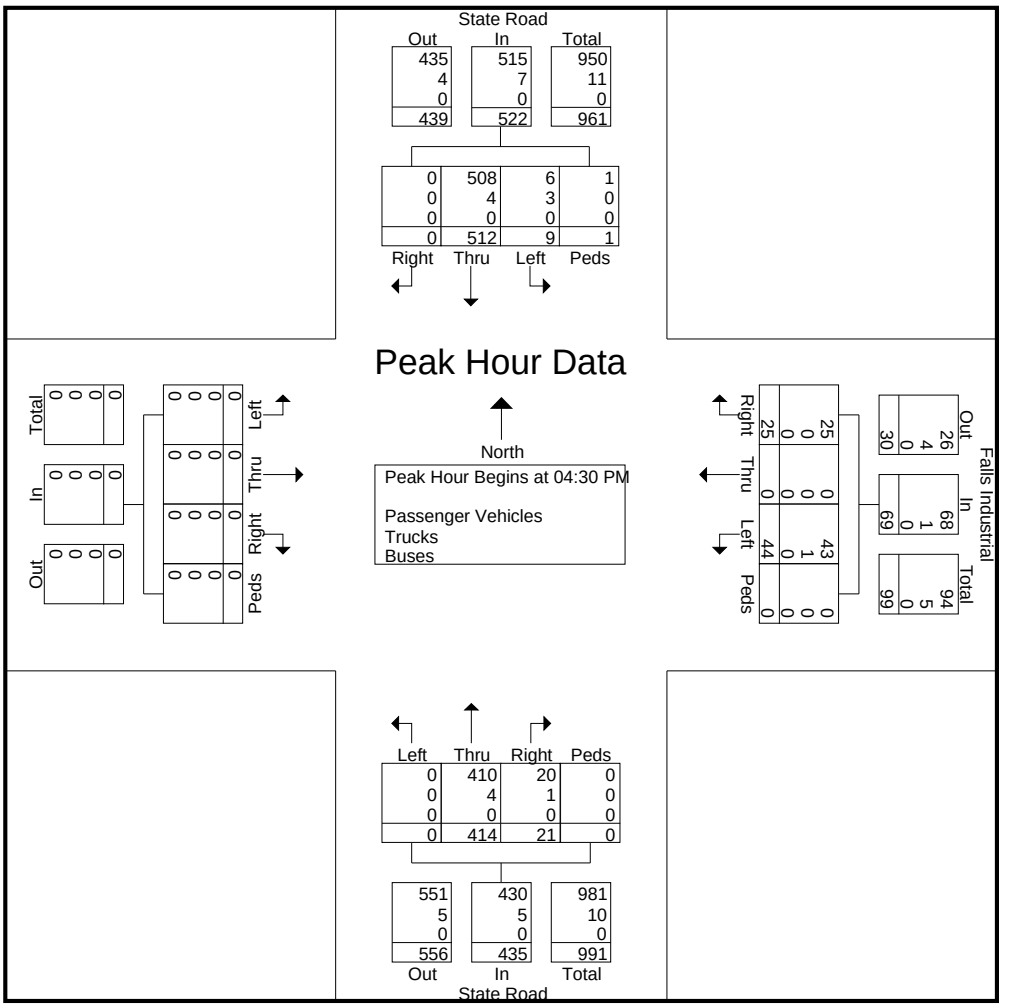
520 South Main Street, Suite 2531
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Falls Industrial Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 7-State and Falls Industrial 091423
Site Code : 69093050
Start Date : 9/14/2023
Page No : 5

	Eastbound					Falls Industrial Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	0	0	0	0	**16**	0	8	0	**24**	0	112	4	0	116	1	131	0	**1**	133	273
04:45 PM	0	0	0	0	0	15	0	1	0	16	0	110	6	0	116	2	113	0	0	115	247
05:00 PM	0	0	0	0	0	6	0	**10**	0	16	0	**126**	3	0	**129**	2	**142**	0	0	**144**	**289**
05:15 PM	0	0	0	0	0	7	0	6	0	13	0	66	**8**	0	74	**4**	126	0	0	130	217
Total Volume	0	0	0	0	0	44	0	25	0	69	0	414	21	0	435	9	512	0	1	522	1026
% App. Total	0	0	0	0		63.8	0	36.2	0		0	95.2	4.8	0		1.7	98.1	0	0.2		
PHF	.000	.000	.000	.000	.000	.688	.000	.625	.000	.719	.000	.821	.656	.000	.843	.563	.901	.000	.250	.906	.888
Passenger Vehicles	0	0	0	0	0	43	0	25	0	68	0	410	20	0	430	6	508	0	1	515	1013
% Passenger Vehicles	0	0	0	0	0	97.7	0	100	0	98.6	0	99.0	95.2	0	98.9	66.7	99.2	0	100	98.7	98.7
Trucks	0	0	0	0	0	1	0	0	0	1	0	4	1	0	5	3	4	0	0	7	13
% Trucks	0	0	0	0	0	2.3	0	0	0	1.4	0	1.0	4.8	0	1.1	33.3	0.8	0	0	1.3	1.3
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



GPD Group

520 South Main Street, Suite 2531
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Quick Road (North) Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 8-State and Quick (North) 083023
Site Code : 71023050
Start Date : 8/30/2023
Page No : 1

Groups Printed- Passenger Vehicles - Trucks - Buses

	Quick Road Eastbound					Audi Dealership North Drive Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	1	0	0	0	1	0	0	0	0	0	0	100	0	0	100	0	51	5	0	56	157
07:15 AM	7	0	0	0	7	0	0	0	0	0	0	108	1	0	109	3	56	0	0	59	175
07:30 AM	3	0	0	0	3	0	0	0	0	0	0	119	0	0	119	1	66	1	0	68	190
07:45 AM	4	0	0	0	4	0	0	1	0	1	0	147	0	0	147	0	70	1	0	71	223
Total	15	0	0	0	15	0	0	1	0	1	0	474	1	0	475	4	243	7	0	254	745
08:00 AM	4	0	0	0	4	0	0	0	0	0	0	108	0	0	108	0	83	2	0	85	197
08:15 AM	4	0	0	0	4	0	0	2	0	2	0	121	1	0	122	0	44	2	0	46	174
08:30 AM	3	0	1	0	4	1	0	1	0	2	0	115	1	0	116	2	164	10	0	176	298
08:45 AM	6	0	0	0	6	1	0	1	0	2	0	99	0	0	99	2	82	5	0	89	196
Total	17	0	1	0	18	2	0	4	0	6	0	443	2	0	445	4	373	19	0	396	865
09:00 AM	7	0	0	0	7	0	0	1	0	1	0	87	1	0	88	2	61	1	0	64	160
09:15 AM	3	0	0	0	3	1	0	0	0	1	0	78	1	0	79	0	55	3	0	58	141
09:30 AM	2	0	0	0	2	1	0	2	0	3	0	66	0	0	66	0	46	3	0	49	120
09:45 AM	2	0	0	0	2	0	0	4	0	4	0	65	1	0	66	3	42	2	0	47	119
Total	14	0	0	0	14	2	0	7	0	9	0	296	3	0	299	5	204	9	0	218	540
10:00 AM	2	0	0	0	2	2	0	1	0	3	0	46	5	0	51	1	50	3	0	54	110
10:15 AM	2	0	0	0	2	2	0	1	0	3	0	48	5	0	53	2	52	3	0	57	115
10:30 AM	1	0	0	0	1	1	0	2	0	3	0	51	0	0	51	1	55	2	0	58	113
10:45 AM	2	0	0	0	2	2	0	1	0	3	0	52	1	0	53	1	57	1	0	59	117
Total	7	0	0	0	7	7	0	5	0	12	0	197	11	0	208	5	214	9	0	228	455
11:00 AM	1	1	0	0	2	1	1	1	0	3	0	55	2	0	57	1	63	1	0	65	127
11:15 AM	2	0	0	0	2	1	0	2	0	3	0	73	0	0	73	2	59	1	0	62	140
11:30 AM	1	0	0	0	1	1	0	1	0	2	0	67	3	0	70	0	59	6	0	65	138
11:45 AM	3	0	0	0	3	2	0	0	0	2	0	62	2	0	64	0	86	2	0	88	157
Total	7	1	0	0	8	5	1	4	0	10	0	257	7	0	264	3	267	10	0	280	562
12:00 PM	1	0	0	0	1	1	0	0	0	1	0	84	0	0	84	1	89	4	0	94	180
12:15 PM	3	0	0	0	3	0	0	1	0	1	0	73	0	0	73	0	72	3	0	75	152
12:30 PM	2	0	0	0	2	0	0	1	0	1	0	80	0	0	80	0	70	2	0	72	155
12:45 PM	2	0	0	0	2	0	0	1	0	1	0	56	1	0	57	0	64	2	0	66	126
Total	8	0	0	0	8	1	0	3	0	4	0	293	1	0	294	1	295	11	0	307	613
01:00 PM	2	0	0	0	2	1	0	0	0	1	1	61	0	0	62	0	60	7	0	67	132
01:15 PM	2	0	0	0	2	0	1	2	0	3	0	72	0	0	72	2	71	2	0	75	152
01:30 PM	3	1	0	0	4	0	0	0	0	0	0	74	0	0	74	2	82	1	0	85	163
01:45 PM	4	0	0	0	4	0	0	1	0	1	0	78	2	0	80	1	58	3	0	62	147
Total	11	1	0	0	12	1	1	3	0	5	1	285	2	0	288	5	271	13	0	289	594
02:00 PM	2	0	0	0	2	1	1	1	0	3	1	61	1	0	63	1	52	5	0	58	126
02:15 PM	3	0	0	0	3	0	0	1	0	1	0	64	1	0	65	2	76	4	0	82	151
02:30 PM	1	0	0	0	1	0	0	2	0	2	1	86	2	0	89	1	84	1	0	86	178

GPD Group

520 South Main Street, Suite 2531
Akron, OH 44311
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State Road / Quick Road (North) Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 8-State and Quick (North) 083023
Site Code : 71023050
Start Date : 8/30/2023
Page No : 2

Groups Printed- Passenger Vehicles - Trucks - Buses

	Quick Road Eastbound					Audi Dealership North Drive Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
02:45 PM	6	1	0	0	7	2	1	2	0	5	0	100	0	0	100	0	72	2	0	74	186
Total	12	1	0	0	13	3	2	6	0	11	2	311	4	0	317	4	284	12	0	300	641
03:00 PM	6	1	0	0	7	2	0	2	0	4	0	99	0	0	99	0	75	2	0	77	187
03:15 PM	5	0	0	0	5	0	0	1	0	1	0	99	0	0	99	0	84	3	0	87	192
03:30 PM	4	1	0	0	5	0	0	2	0	2	0	97	0	0	97	0	95	2	0	97	201
03:45 PM	3	0	0	0	3	1	0	1	0	2	0	97	0	0	97	0	104	3	0	107	209
Total	18	2	0	0	20	3	0	6	0	9	0	392	0	0	392	0	358	10	0	368	789
04:00 PM	2	0	0	0	2	0	0	0	0	0	0	96	0	0	96	1	115	3	0	119	217
04:15 PM	2	0	0	0	2	1	0	1	0	2	0	109	0	0	109	0	119	3	0	122	235
04:30 PM	0	0	0	0	0	1	0	3	0	4	1	104	0	0	105	2	128	4	0	134	243
04:45 PM	1	0	0	0	1	1	0	2	0	3	0	85	1	0	86	0	108	2	0	110	200
Total	5	0	0	0	5	3	0	6	0	9	1	394	1	0	396	3	470	12	0	485	895
05:00 PM	1	0	0	0	1	1	0	3	0	4	0	104	1	0	105	0	130	5	0	135	245
05:15 PM	2	0	0	0	2	3	0	3	0	6	0	97	0	0	97	0	139	4	0	143	248
05:30 PM	0	0	0	0	0	4	0	5	0	9	0	78	2	0	80	0	136	11	0	147	236
05:45 PM	2	0	0	0	2	2	1	0	0	3	0	71	1	0	72	0	106	5	0	111	188
Total	5	0	0	0	5	10	1	11	0	22	0	350	4	0	354	0	511	25	0	536	917
06:00 PM	1	0	0	0	1	1	0	2	0	3	1	72	0	0	73	0	105	7	0	112	189
06:15 PM	0	0	0	0	0	1	0	0	0	1	0	50	2	0	52	0	85	4	0	89	142
06:30 PM	3	0	0	0	3	0	0	0	0	0	0	50	1	0	51	1	66	4	0	71	125
06:45 PM	2	0	0	0	2	0	0	0	0	0	0	68	0	0	68	0	75	1	0	76	146
Total	6	0	0	0	6	2	0	2	0	4	1	240	3	0	244	1	331	16	0	348	602
Grand Total	125	5	1	0	131	39	5	58	0	102	5	3932	39	0	3976	35	3821	153	0	4009	8218
Apprch %	95.4	3.8	0.8	0		38.2	4.9	56.9	0		0.1	98.9	1	0		0.9	95.3	3.8	0		
Total %	1.5	0.1	0	0	1.6	0.5	0.1	0.7	0	1.2	0.1	47.8	0.5	0	48.4	0.4	46.5	1.9	0	48.8	
Passenger Vehicles	124	5	1	0	130	39	5	58	0	102	5	3746	37	0	3788	34	3634	148	0	3816	7836
% Passenger Vehicles	99.2	100	100	0	99.2	100	100	100	0	100	100	95.3	94.9	0	95.3	97.1	95.1	96.7	0	95.2	95.4
Trucks	1	0	0	0	1	0	0	0	0	0	0	181	2	0	183	1	179	4	0	184	368
% Trucks	0.8	0	0	0	0.8	0	0	0	0	0	0	4.6	5.1	0	4.6	2.9	4.7	2.6	0	4.6	4.5
Buses	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	0	8	1	0	9	14
% Buses	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0.1	0	0.2	0.7	0	0.2	0.2

GPD Group

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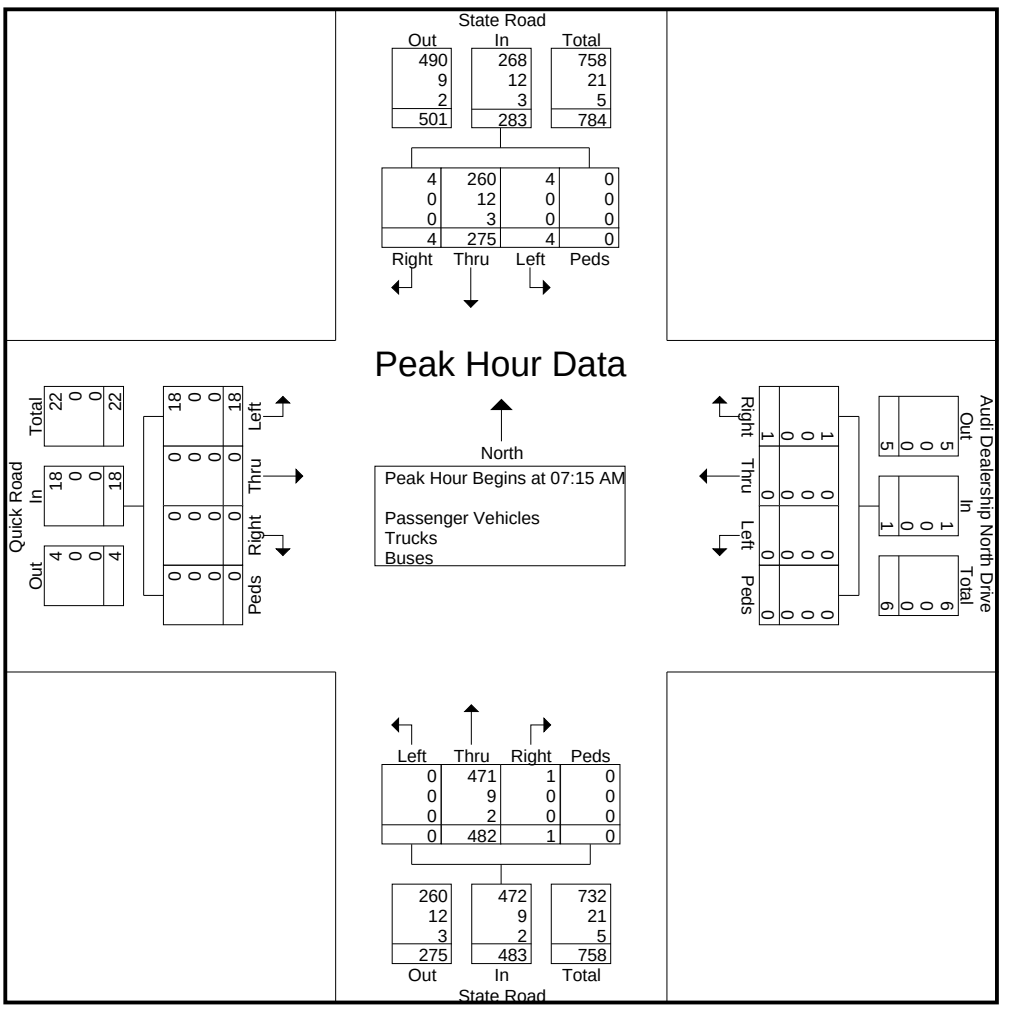
State Road / Quick Road (North) Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 8-State and Quick (North) 083023
Site Code : 71023050
Start Date : 8/30/2023
Page No : 3

	Quick Road Eastbound					Audi Dealership North Drive Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
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																					
07:15 AM	**7**	0	0	0	**7**	0	0	0	0	0	0	108	**1**	0	109	**3**	56	0	0	59	175
07:30 AM	3	0	0	0	3	0	0	0	0	0	0	119	0	0	119	1	66	1	0	68	190
07:45 AM	4	0	0	0	4	0	0	**1**	0	**1**	0	**147**	0	0	**147**	0	70	1	0	71	**223**
08:00 AM	4	0	0	0	4	0	0	0	0	0	0	108	0	0	108	0	**83**	**2**	0	**85**	197
Total Volume	18	0	0	0	18	0	0	1	0	1	0	482	1	0	483	4	275	4	0	283	785
% App. Total	100	0	0	0		0	0	100	0		0	99.8	0.2	0		1.4	97.2	1.4	0		
PHF	.643	.000	.000	.000	.643	.000	.000	.250	.000	.250	.000	.820	.250	.000	.821	.333	.828	.500	.000	.832	.880
Passenger Vehicles	18	0	0	0	18	0	0	1	0	1	0	471	1	0	472	4	260	4	0	268	759
% Passenger Vehicles	100	0	0	0	100	0	0	100	0	100	0	97.7	100	0	97.7	100	94.5	100	0	94.7	96.7
Trucks	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9	0	12	0	0	12	21
% Trucks	0	0	0	0	0	0	0	0	0	0	0	1.9	0	0	1.9	0	4.4	0	0	4.2	2.7
Buses	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	3	0	0	3	5
% Buses	0	0	0	0	0	0	0	0	0	0	0	0.4	0	0	0.4	0	1.1	0	0	1.1	0.6



GPD Group

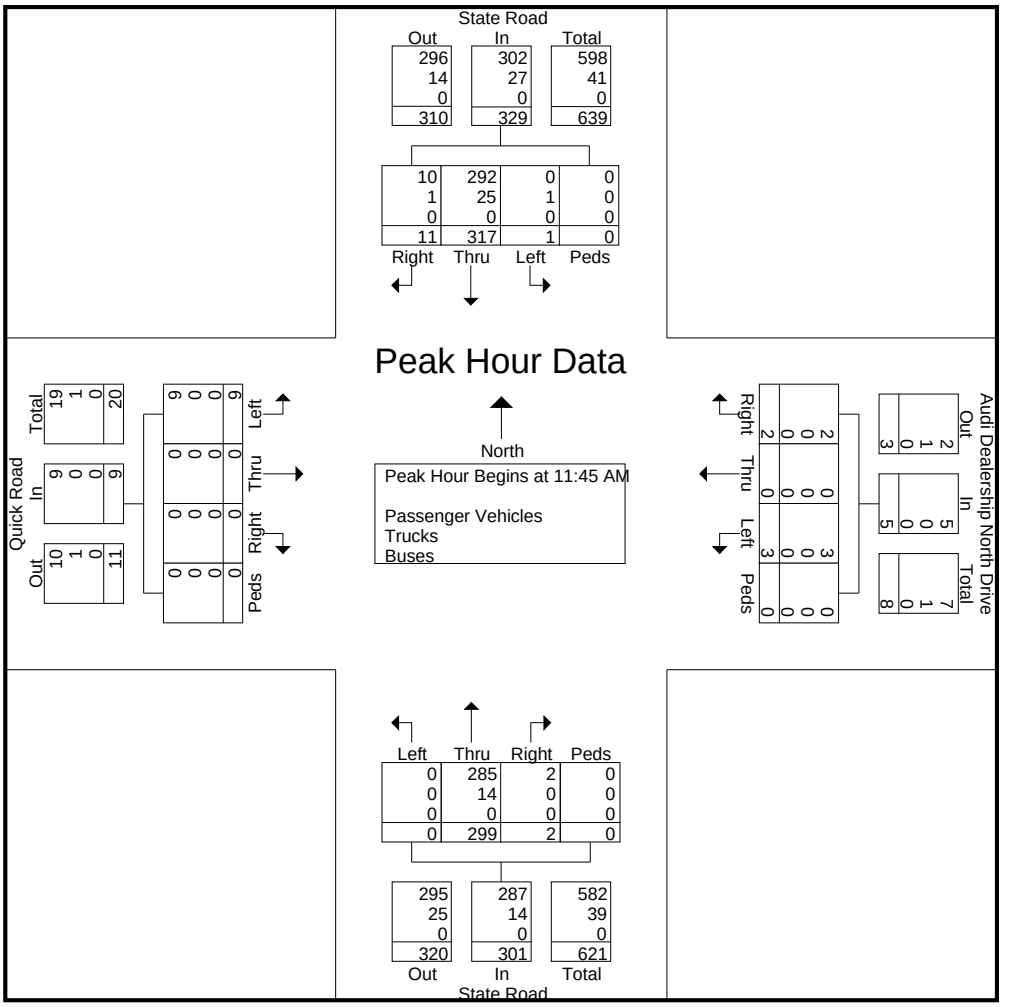
520 South Main Street, Suite 2531
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Quick Road (North) Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 8-State and Quick (North) 083023
Site Code : 71023050
Start Date : 8/30/2023
Page No : 4

	Quick Road Eastbound					Audi Dealership North Drive Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:45 AM																					
11:45 AM	**3**	0	0	0	**3**	**2**	0	0	0	**2**	0	62	**2**	0	64	0	86	2	0	88	157
12:00 PM	1	0	0	0	1	1	0	0	0	1	0	**84**	0	0	**84**	**1**	**89**	**4**	0	**94**	**180**
12:15 PM	3	0	0	0	3	0	0	**1**	0	1	0	73	0	0	73	0	72	3	0	75	152
12:30 PM	2	0	0	0	2	0	0	1	0	1	0	80	0	0	80	0	70	2	0	72	155
Total Volume	9	0	0	0	9	3	0	2	0	5	0	299	2	0	301	1	317	11	0	329	644
% App. Total	100	0	0	0		60	0	40	0		0	99.3	0.7	0		0.3	96.4	3.3	0		
PHF	.750	.000	.000	.000	.750	.375	.000	.500	.000	.625	.000	.890	.250	.000	.896	.250	.890	.688	.000	.875	.894
Passenger Vehicles	9	0	0	0	9	3	0	2	0	5	0	285	2	0	287	0	292	10	0	302	603
% Passenger Vehicles	100	0	0	0	100	100	0	100	0	100	0	95.3	100	0	95.3	0	92.1	90.9	0	91.8	93.6
Trucks	0	0	0	0	0	0	0	0	0	0	0	14	0	0	14	1	25	1	0	27	41
% Trucks	0	0	0	0	0	0	0	0	0	0	0	4.7	0	0	4.7	100	7.9	9.1	0	8.2	6.4
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



GPD Group

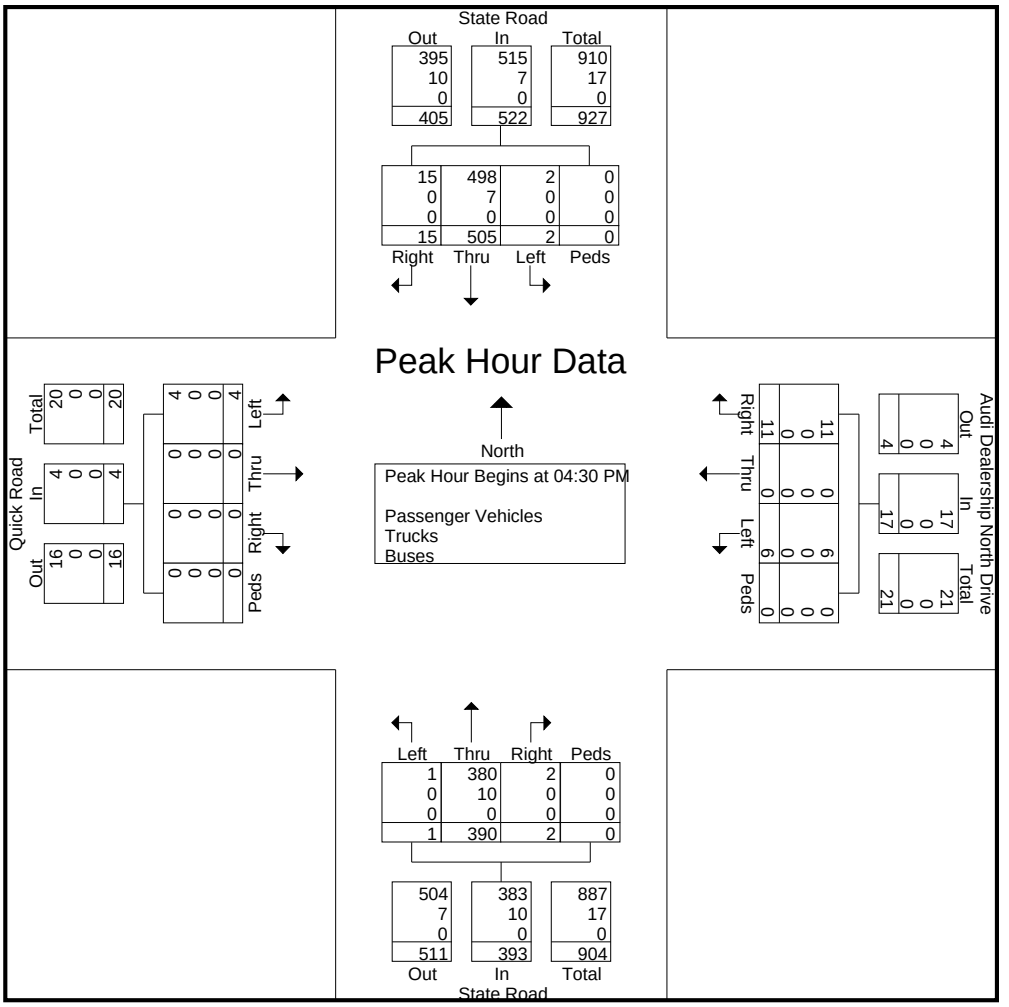
520 South Main Street, Suite 2531
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Quick Road (North) Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 8-State and Quick (North) 083023
Site Code : 71023050
Start Date : 8/30/2023
Page No : 5

	Quick Road Eastbound					Audi Dealership North Drive Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	0	0	0	0	1	0	**3**	0	4	**1**	**104**	0	0	**105**	**2**	128	4	0	134	243
04:45 PM	1	0	0	0	1	1	0	2	0	3	0	85	**1**	0	86	0	108	2	0	110	200
05:00 PM	1	0	0	0	1	1	0	3	0	4	0	104	1	0	105	0	130	**5**	0	135	245
05:15 PM	**2**	0	0	0	**2**	**3**	0	3	0	**6**	0	97	0	0	97	0	**139**	4	0	**143**	**248**
Total Volume	4	0	0	0	4	6	0	11	0	17	1	390	2	0	393	2	505	15	0	522	936
% App. Total	100	0	0	0		35.3	0	64.7	0		0.3	99.2	0.5	0		0.4	96.7	2.9	0		
PHF	.500	.000	.000	.000	.500	.500	.000	.917	.000	.708	.250	.938	.500	.000	.936	.250	.908	.750	.000	.913	.944
Passenger Vehicles	4	0	0	0	4	6	0	11	0	17	1	380	2	0	383	2	498	15	0	515	919
% Passenger Vehicles	100	0	0	0	100	100	0	100	0	100	100	97.4	100	0	97.5	100	98.6	100	0	98.7	98.2
Trucks	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10	0	7	0	0	7	17
% Trucks	0	0	0	0	0	0	0	0	0	0	0	2.6	0	0	2.5	0	1.4	0	0	1.3	1.8
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



GPD Group

520 South Main Street, Suite 2531
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Quick Road (South) Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 9-State and Quick (South) 083023
Site Code : 69013050
Start Date : 8/30/2023
Page No : 1

Groups Printed- Passenger Vehicles - Trucks - Buses

	Quick Road Eastbound					Audi Dealership Southern Drive Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	47	0	47	0	0	0	0	0	100	86	0	0	186	1	46	1	0	48	281
07:15 AM	0	0	77	0	77	0	0	0	0	0	137	108	3	1	249	2	52	0	0	54	380
07:30 AM	0	0	65	0	65	0	0	1	0	1	65	116	3	0	184	1	70	0	0	71	321
07:45 AM	0	0	23	0	23	0	0	1	0	1	38	150	2	0	190	2	62	0	0	64	278
Total	0	0	212	0	212	0	0	2	0	2	340	460	8	1	809	6	230	1	0	237	1260
08:00 AM	1	0	20	0	21	0	0	1	0	1	32	109	2	0	143	2	80	1	0	83	248
08:15 AM	0	0	11	0	11	0	0	0	0	0	33	119	1	0	153	0	49	0	0	49	213
08:30 AM	1	0	19	0	20	0	0	0	0	0	38	117	0	0	155	0	162	0	0	162	337
08:45 AM	0	0	39	0	39	1	0	0	0	1	41	95	3	0	139	2	86	0	1	89	268
Total	2	0	89	0	91	1	0	1	0	2	144	440	6	0	590	4	377	1	1	383	1066
09:00 AM	0	1	24	0	25	1	0	0	0	1	14	94	3	1	112	2	58	0	0	60	198
09:15 AM	0	0	13	0	13	3	1	0	0	4	14	79	1	0	94	1	56	0	0	57	168
09:30 AM	0	0	19	0	19	1	0	2	0	3	16	68	2	0	86	0	47	0	0	47	155
09:45 AM	0	0	17	0	17	1	0	3	0	4	15	64	1	0	80	0	40	0	0	40	141
Total	0	1	73	0	74	6	1	5	0	12	59	305	7	1	372	3	201	0	0	204	662
10:00 AM	0	0	19	0	19	1	0	3	0	4	15	63	0	0	78	0	42	0	0	42	143
10:15 AM	0	0	21	0	21	0	0	2	0	2	16	64	0	0	80	0	47	0	0	47	150
10:30 AM	0	0	22	0	22	1	0	1	0	2	17	61	0	0	78	0	51	0	0	51	153
10:45 AM	0	0	23	0	23	1	0	2	0	3	18	66	0	0	84	0	56	0	0	56	166
Total	0	0	85	0	85	3	0	8	0	11	66	254	0	0	320	0	196	0	0	196	612
11:00 AM	0	0	24	0	24	1	0	0	0	1	19	62	0	0	81	0	61	0	0	61	167
11:15 AM	0	0	19	0	19	0	0	1	0	1	18	74	0	0	92	0	65	0	0	65	177
11:30 AM	2	0	18	0	20	1	0	0	0	1	11	66	4	0	81	0	55	0	0	55	157
11:45 AM	0	0	19	0	19	2	0	0	0	2	23	58	3	0	84	0	93	0	0	93	198
Total	2	0	80	0	82	4	0	1	0	5	71	260	7	0	338	0	274	0	0	274	699
12:00 PM	0	0	17	0	17	4	0	0	0	4	22	92	0	0	114	0	85	0	0	85	220
12:15 PM	0	0	33	0	33	5	0	1	0	6	24	69	4	0	97	0	77	0	0	77	213
12:30 PM	0	0	26	0	26	2	0	2	0	4	7	76	3	0	86	1	63	0	0	64	180
12:45 PM	0	0	19	0	19	2	0	1	0	3	22	59	5	0	86	1	60	0	0	61	169
Total	0	0	95	0	95	13	0	4	0	17	75	296	12	0	383	2	285	0	0	287	782
01:00 PM	0	0	19	0	19	2	0	2	0	4	14	57	4	0	75	0	64	0	0	64	162
01:15 PM	0	0	14	0	14	1	0	1	0	2	13	74	2	0	89	2	68	0	0	70	175
01:30 PM	1	0	19	0	20	0	0	2	0	2	21	73	0	0	94	0	81	0	0	81	197
01:45 PM	0	0	30	0	30	0	0	1	0	1	36	72	2	0	110	1	59	0	0	60	201
Total	1	0	82	0	83	3	0	6	0	9	84	276	8	0	368	3	272	0	0	275	735
02:00 PM	0	0	22	0	22	1	0	0	0	1	30	75	1	0	106	0	59	0	0	59	188
02:15 PM	0	0	19	0	19	2	0	0	0	2	47	68	1	0	116	1	78	0	0	79	216
02:30 PM	1	0	102	0	103	1	0	1	0	2	62	84	2	0	148	0	76	0	0	76	329

GPD Group

520 South Main Street, Suite 2531
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Quick Road (South) Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 9-State and Quick (South) 083023
Site Code : 69013050
Start Date : 8/30/2023
Page No : 2

Groups Printed- Passenger Vehicles - Trucks - Buses

	Quick Road Eastbound					Audi Dealership Southern Drive Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
02:45 PM	1	0	47	0	48	1	0	2	0	3	51	99	2	0	152	1	73	0	0	74	277
Total	2	0	190	0	192	5	0	3	0	8	190	326	6	0	522	2	286	0	0	288	1010
03:00 PM	0	0	40	0	40	1	0	2	0	3	45	98	3	0	146	0	84	0	0	84	273
03:15 PM	0	0	36	0	36	2	0	1	0	3	39	96	2	0	137	0	94	0	0	94	270
03:30 PM	0	0	34	0	34	1	0	2	0	3	32	94	3	0	129	0	110	0	0	110	276
03:45 PM	0	0	30	0	30	1	0	2	0	3	26	93	3	0	122	0	118	0	0	118	273
Total	0	0	140	0	140	5	0	7	0	12	142	381	11	0	534	0	406	0	0	406	1092
04:00 PM	1	0	28	0	29	2	0	2	0	4	27	93	3	0	123	2	120	0	0	122	278
04:15 PM	0	0	20	0	20	1	0	2	0	3	38	108	1	0	147	2	108	0	0	110	280
04:30 PM	0	0	62	0	62	0	0	2	0	2	34	95	1	0	130	1	135	0	0	136	330
04:45 PM	0	0	29	0	29	2	0	3	0	5	31	84	3	0	118	0	115	0	0	115	267
Total	1	0	139	0	140	5	0	9	0	14	130	380	8	0	518	5	478	0	0	483	1155
05:00 PM	0	0	19	0	19	1	0	3	0	4	33	112	1	0	146	2	133	0	2	137	306
05:15 PM	0	0	13	0	13	1	0	0	0	1	53	82	0	0	135	0	136	0	0	136	285
05:30 PM	0	2	58	0	60	1	0	2	0	3	64	81	0	0	145	1	139	0	0	140	348
05:45 PM	0	0	54	0	54	3	1	2	0	6	55	78	0	0	133	0	103	0	0	103	296
Total	0	2	144	0	146	6	1	7	0	14	205	353	1	0	559	3	511	0	2	516	1235
06:00 PM	0	0	42	0	42	3	0	3	0	6	22	68	2	0	92	0	107	0	0	107	247
06:15 PM	0	0	45	0	45	0	0	1	0	1	18	49	2	0	69	0	79	0	0	79	194
06:30 PM	0	0	38	0	38	2	0	0	0	2	28	50	0	0	78	0	72	0	0	72	190
06:45 PM	0	0	42	0	42	0	0	0	0	0	25	62	0	0	87	0	63	0	0	63	192
Total	0	0	167	0	167	5	0	4	0	9	93	229	4	0	326	0	321	0	0	321	823
Grand Total	8	3	1496	0	1507	56	2	57	0	115	1599	3960	78	2	5639	28	3837	2	3	3870	11131
Apprch %	0.5	0.2	99.3	0		48.7	1.7	49.6	0		28.4	70.2	1.4	0		0.7	99.1	0.1	0.1		
Total %	0.1	0	13.4	0	13.5	0.5	0	0.5	0	1	14.4	35.6	0.7	0	50.7	0.3	34.5	0	0	34.8	
Passenger Vehicles	8	3	1448	0	1459	56	2	56	0	114	1539	3809	78	2	5428	28	3716	2	3	3749	10750
% Passenger Vehicles	100	100	96.8	0	96.8	100	100	98.2	0	99.1	96.2	96.2	100	100	96.3	100	96.8	100	100	96.9	96.6
Trucks	0	0	2	0	2	0	0	1	0	1	1	147	0	0	148	0	116	0	0	116	267
% Trucks	0	0	0.1	0	0.1	0	0	1.8	0	0.9	0.1	3.7	0	0	2.6	0	3	0	0	3	2.4
Buses	0	0	46	0	46	0	0	0	0	0	59	4	0	0	63	0	5	0	0	5	114
% Buses	0	0	3.1	0	3.1	0	0	0	0	0	3.7	0.1	0	0	1.1	0	0.1	0	0	0.1	1

GPD Group

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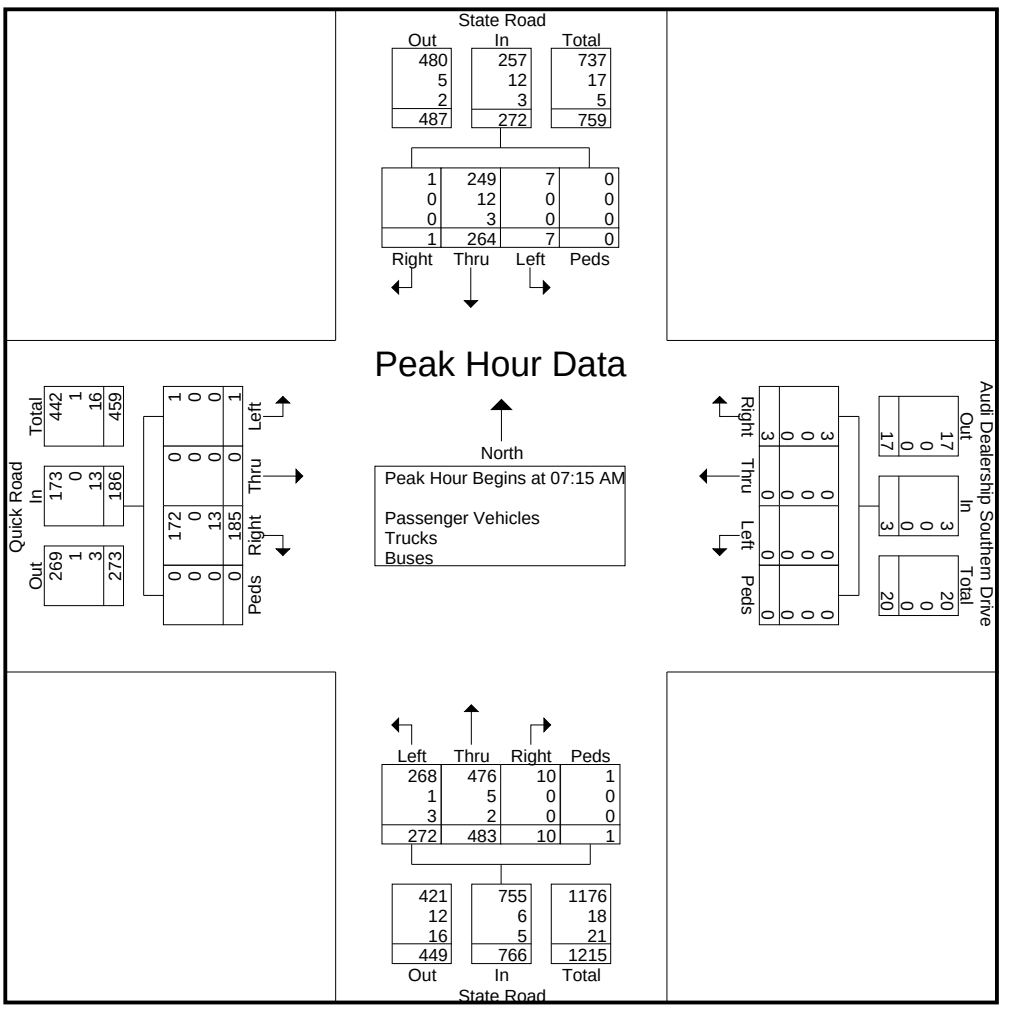
State Road / Quick Road (South) Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 9-State and Quick (South) 083023
Site Code : 69013050
Start Date : 8/30/2023
Page No : 3

	Quick Road Eastbound					Audi Dealership Southern Drive Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
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																					
07:15 AM	0	0	**77**	0	**77**	0	0	0	0	0	**137**	108	**3**	**1**	**249**	**2**	52	0	0	54	**380**
07:30 AM	0	0	65	0	65	0	0	**1**	0	**1**	65	116	3	0	184	1	70	0	0	71	321
07:45 AM	0	0	23	0	23	0	0	1	0	1	38	**150**	2	0	190	2	62	0	0	64	278
08:00 AM	**1**	0	20	0	21	0	0	1	0	1	32	109	2	0	143	2	**80**	**1**	0	**83**	248
Total Volume	1	0	185	0	186	0	0	3	0	3	272	483	10	1	766	7	264	1	0	272	1227
% App. Total	0.5	0	99.5	0		0	0	100	0		35.5	63.1	1.3	0.1		2.6	97.1	0.4	0		
PHF	.250	.000	.601	.000	.604	.000	.000	.750	.000	.750	.496	.805	.833	.250	.769	.875	.825	.250	.000	.819	.807
Passenger Vehicles	1	0	172	0	173	0	0	3	0	3	268	476	10	1	755	7	249	1	0	257	1188
% Passenger Vehicles	100	0	93.0	0	93.0	0	0	100	0	100	98.5	98.6	100	100	98.6	100	94.3	100	0	94.5	96.8
Trucks	0	0	0	0	0	0	0	0	0	0	1	5	0	0	6	0	12	0	0	12	18
% Trucks	0	0	0	0	0	0	0	0	0	0	0.4	1.0	0	0	0.8	0	4.5	0	0	4.4	1.5
Buses	0	0	13	0	13	0	0	0	0	0	3	2	0	0	5	0	3	0	0	3	21
% Buses	0	0	7.0	0	7.0	0	0	0	0	0	1.1	0.4	0	0	0.7	0	1.1	0	0	1.1	1.7



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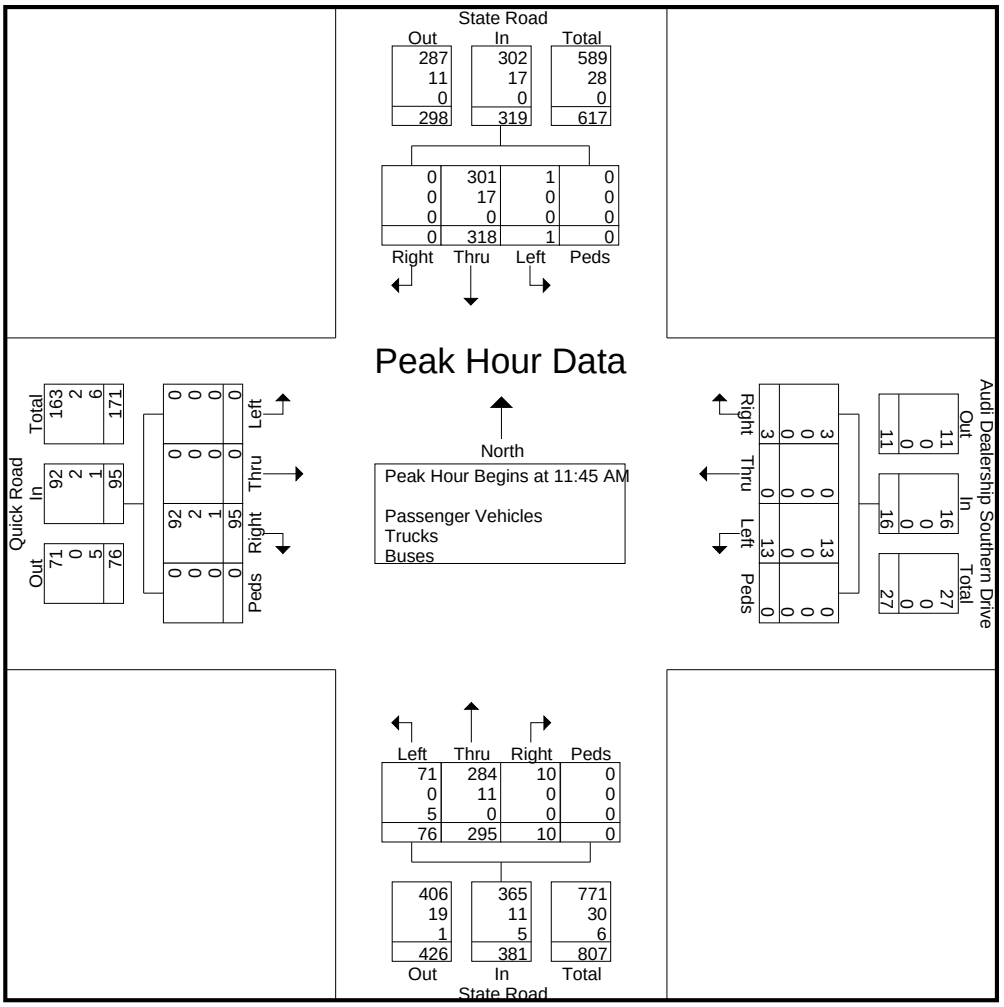
State Road / Quick Road (South) Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 9-State and Quick (South) 083023
Site Code : 69013050
Start Date : 8/30/2023
Page No : 4

	Quick Road Eastbound					Audi Dealership Southern Drive Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:45 AM																					
11:45 AM	0	0	19	0	19	2	0	0	0	2	23	58	3	0	84	0	**93**	0	0	**93**	198
12:00 PM	0	0	17	0	17	4	0	0	0	4	22	**92**	0	0	**114**	0	85	0	0	85	**220**
12:15 PM	0	0	**33**	0	**33**	**5**	0	1	0	**6**	**24**	69	**4**	0	97	0	77	0	0	77	213
12:30 PM	0	0	26	0	26	2	0	**2**	0	4	7	76	3	0	86	**1**	63	0	0	64	180
Total Volume	0	0	95	0	95	13	0	3	0	16	76	295	10	0	381	1	318	0	0	319	811
% App. Total	0	0	100	0		81.2	0	18.8	0		19.9	77.4	2.6	0		0.3	99.7	0	0		
PHF	.000	.000	.720	.000	.720	.650	.000	.375	.000	.667	.792	.802	.625	.000	.836	.250	.855	.000	.000	.858	.922
Passenger Vehicles	0	0	92	0	92	13	0	3	0	16	71	284	10	0	365	1	301	0	0	302	775
% Passenger Vehicles	0	0	96.8	0	96.8	100	0	100	0	100	93.4	96.3	100	0	95.8	100	94.7	0	0	94.7	95.6
Trucks	0	0	2	0	2	0	0	0	0	0	0	11	0	0	11	0	17	0	0	17	30
% Trucks	0	0	2.1	0	2.1	0	0	0	0	0	0	3.7	0	0	2.9	0	5.3	0	0	5.3	3.7
Buses	0	0	1	0	1	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	6
% Buses	0	0	1.1	0	1.1	0	0	0	0	0	6.6	0	0	0	1.3	0	0	0	0	0	0.7



GPD Group

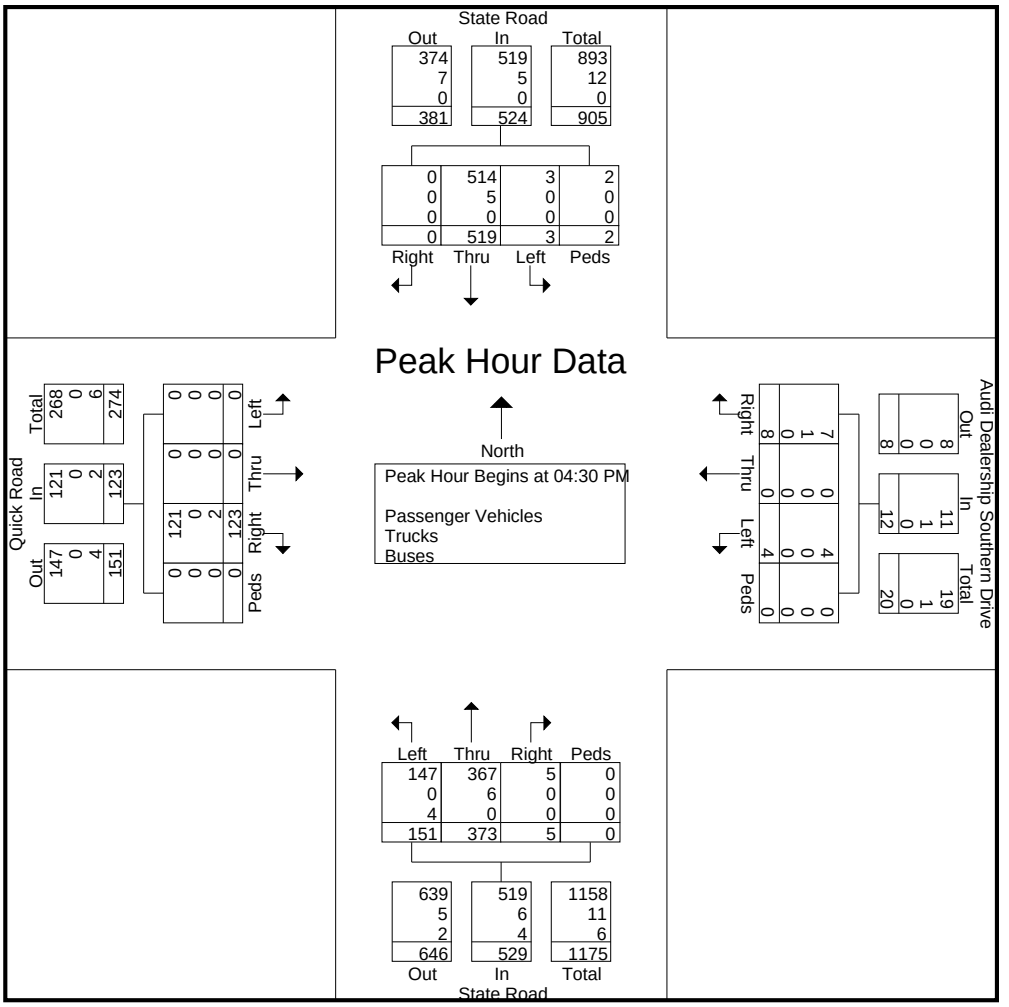
520 South Main Street, Suite 2531
Akron, OH 44311
Telephone: (330) 572-2100

State Road / Quick Road (South) Intersection

Project Number: 2023050.21
Project Name: Traffic Study
Project Location: Cuyahoga Falls, OH
Client Name: City of Cuyahoga Falls

File Name : 9-State and Quick (South) 083023
Site Code : 69013050
Start Date : 8/30/2023
Page No : 5

	Quick Road Eastbound					Audi Dealership Southern Drive Westbound					State Road Northbound					State Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	0	**62**	0	**62**	0	0	2	0	2	34	95	1	0	130	1	135	0	0	136	**330**
04:45 PM	0	0	29	0	29	**2**	0	**3**	0	**5**	31	84	**3**	0	118	0	115	0	0	115	267
05:00 PM	0	0	19	0	19	1	0	3	0	4	33	**112**	1	0	**146**	**2**	133	0	**2**	**137**	306
05:15 PM	0	0	13	0	13	1	0	0	0	1	**53**	82	0	0	135	0	**136**	0	0	136	285
Total Volume	0	0	123	0	123	4	0	8	0	12	151	373	5	0	529	3	519	0	2	524	1188
% App. Total	0	0	100	0		33.3	0	66.7	0		28.5	70.5	0.9	0		0.6	99	0	0.4		
PHF	.000	.000	.496	.000	.496	.500	.000	.667	.000	.600	.712	.833	.417	.000	.906	.375	.954	.000	.250	.956	.900
Passenger Vehicles	0	0	121	0	121	4	0	7	0	11	147	367	5	0	519	3	514	0	2	519	1170
% Passenger Vehicles	0	0	98.4	0	98.4	100	0	87.5	0	91.7	97.4	98.4	100	0	98.1	100	99.0	0	100	99.0	98.5
Trucks	0	0	0	0	0	0	0	1	0	1	0	6	0	0	6	0	5	0	0	5	12
% Trucks	0	0	0	0	0	0	0	12.5	0	8.3	0	1.6	0	0	1.1	0	1.0	0	0	1.0	1.0
Buses	0	0	2	0	2	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	6
% Buses	0	0	1.6	0	1.6	0	0	0	0	0	2.6	0	0	0	0.8	0	0	0	0	0	0.5



APPENDIX B
TFMS OUTPUT

TFMS - Segment Forecast Report

Username	Email	Script Import Date	Script Version	Model Version
Kevin.Westbrooks	kwestbrooks@gpdgroup.com	4/14/2020 5:30:19 PM	2020.001	2023.1900

Forecast Summary

Project ID	Project Name	Opening Year	Design Year
		2028	2048

Project Description

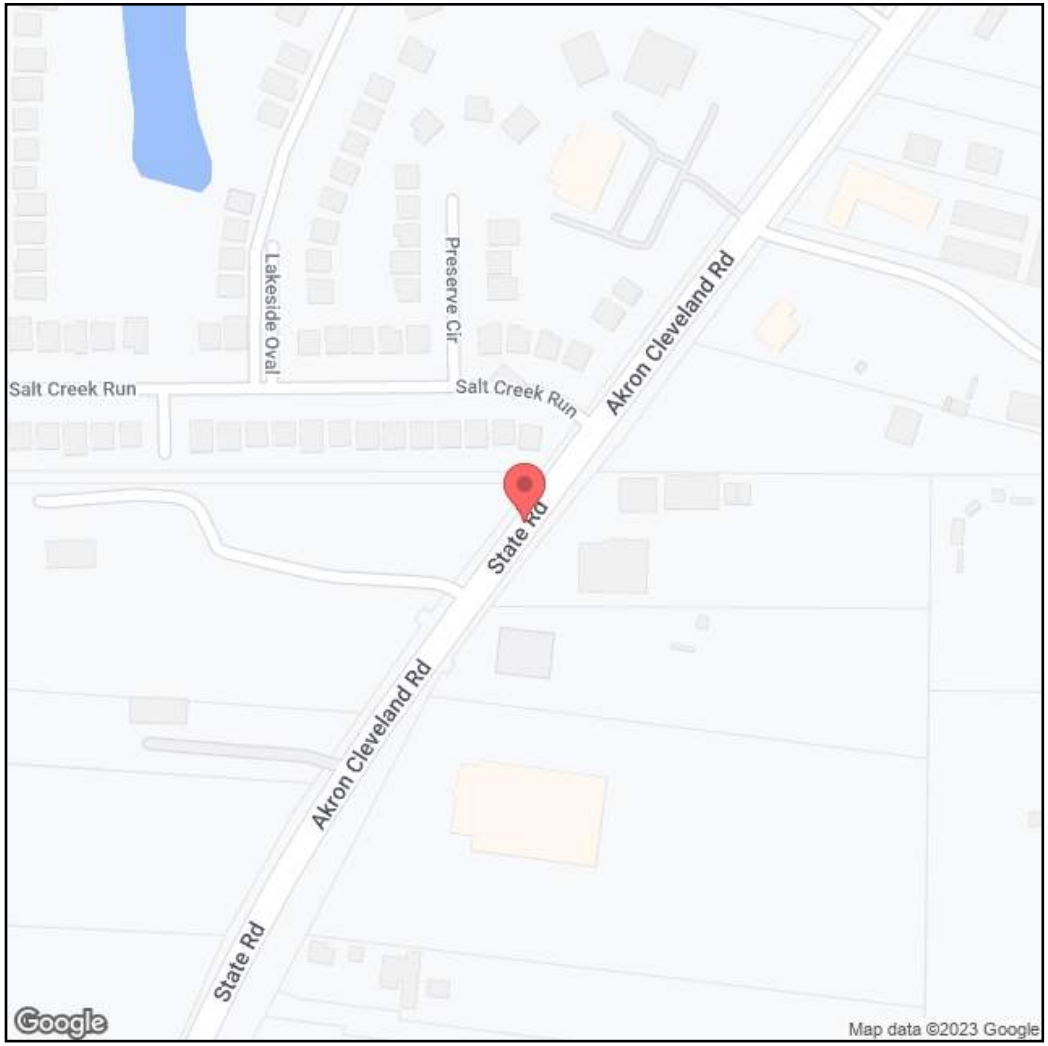
*Users of this data need to be aware that there are limitations to the forecasts generated by this product that make it suitable only for roadway design projects which are low risk.

Segment Information

Segment ID	LRS ID	BMP	EMP	Length	Latitude	Longitude
1807525	CSUMCR00016**C	5.920	7.200	1.280	-81.5027851039169	41.1954114611851

Forecast Information

Segment ID	2028 AADT	2048 AADT	DHV-30	K%	D%	T24%	TD%
1807525	11,000	14,000	2,000	14.4	60.0	2	1



Definitions:

- AADT – Annual Average Daily Traffic
- DHV30 – Design Hour Volume for 30th highest hour of the year
- DHV30 – K * AADT
- K % – Design Hour Factor
- D % – Peak Direction Factor
- T24 % – Percent Daily Trucks
- TD % – Percent Design Hour Trucks

Forecast Segment ID	Route	BMP	EMP
1807525	CSUMCR00016**C	5.920	7.200

Forecast

Year	K%	T24 % (Existing)	PA AADT	PA Method	PA Growth Rate %	PA Calculated Rate %
2050	14.4	3	14,000	Average	1.500	1.500
AADT	**D%**	**TD % (Existing)**	**BC AADT**	**BC Method**	**BC Growth Rate %**	**BC Calculated Rate %**
14,330	60.0	2	330	Average	-1.700	0.000

Warning: The growth rate was negative and was capped.

K/D factors from TCDS were used.

Regression

Method Number	PA AADT	BC AADT	AADT
2	20,154	-88	20,066

95% Confidence Min/Max

PA Min	PA Max	BC Min	BC Max	Year
-3858	47329	-3341	1403	2050

Method Number	PA Growth %	BC Growth %	PA Drop Count	BC Drop Count	PA AADT	BC AADT	PA Adjustment	PA Adjustment
1	4.38	-7.58	0	0	22,813	-339	22,062	-370
2	3.70	-4.52	3	2	20,088	-87	20,154	-88
3	4.14	-19.84	0	0	22,087	-1,553	21,384	-1,503
4	-999999.00	-999999.00	0	0				
5	-999999.00	-999999.00	0	0				
6	-999999.00	-999999.00	0	0				

Adjustment Info

ID	Adjustment Methods Name	Model vs Count AADT	Adjusted AADT	Model vs Count BC	Adjusted BC	PA Growth Rate %	BC Growth Rate %
1	DIF	1,182	8,443	58	420	-0.68	0.97
2	RAT	1.13	8,209	1.21	439	-0.77	1.18
3	MRAT	0.80	8,209	1.33	434	-0.77	1.13
4	RAF		8,326		427	-0.72	1.05

Adjust Method AADT	Adjust Method BC	Selected PA Growth Rate %	Selected BC Growth Rate %
Average	Average	-0.700	1.100

Method 1 - 4 Volume

PA Min Volume	PA Max Volume	BC Min Volume	BC Max Volume	Total Min Volume	Total MaxVolume
7770	8023	420	439	8190	8462

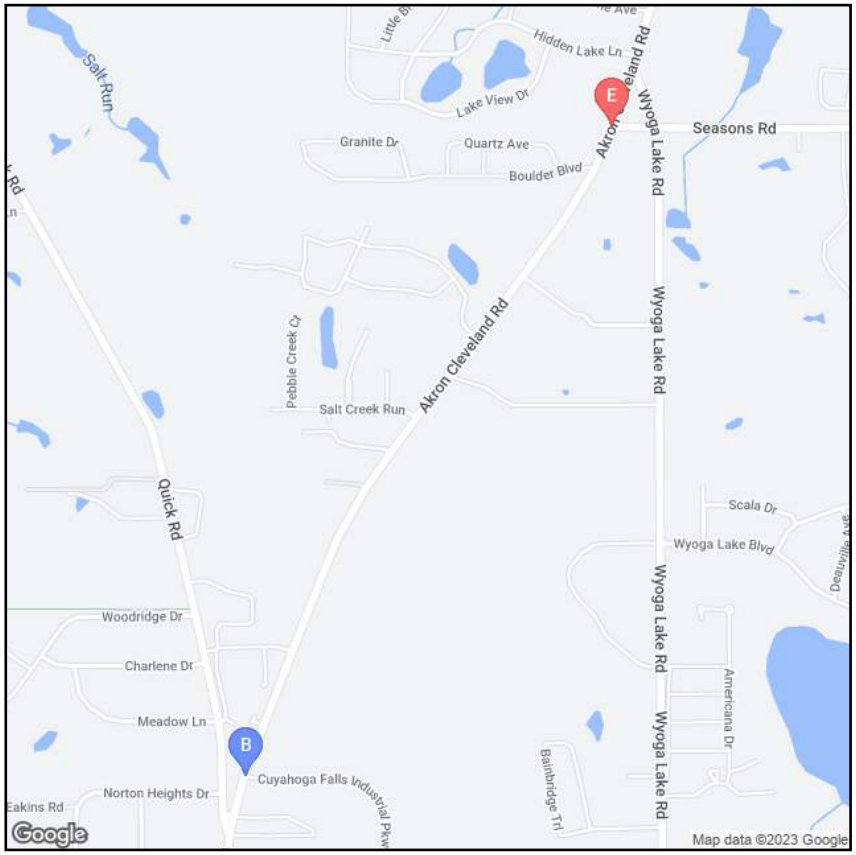
Process Flag: Adjusted model to counts with process per ODOT 255 spreadsheet

Comment: No Comment

Historical Count

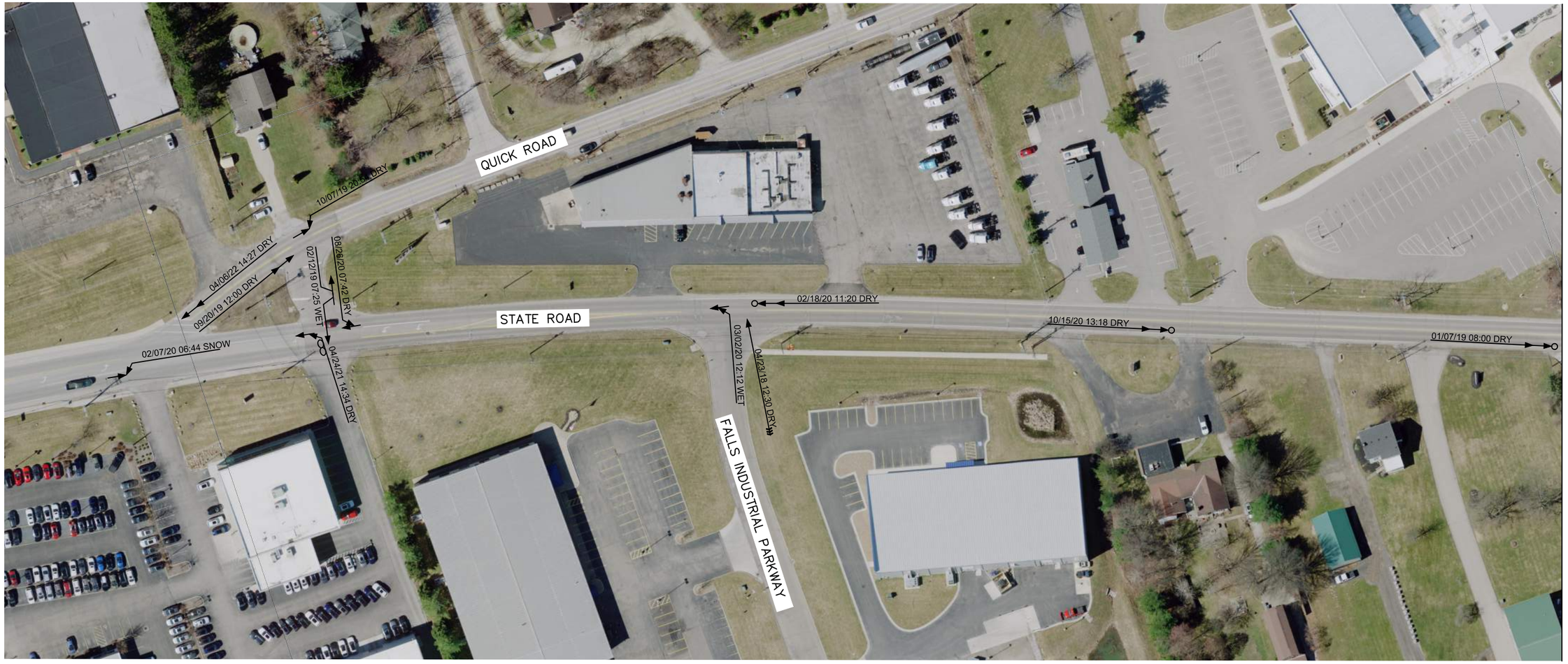
Year	All	Cars	Trucks
2013	7,141	6,675	465
2016	8,168	7,444	723
2019	11,160	10,783	377
* 2022	10,234	9,904	330

* Pivot Point



Segment ID	LRS ID	BMP	EMP	Length	Yr 2028 AADT	Yr 2048 AADT	DHV30	K %	D %	T24 %	TD %
1807525	CSUMCR00016**C	5.920	7.200	1.280	11,000	14,000	2000	14.4	60.0	2	1

APPENDIX C
COLLISION DIAGRAMS



0 100
50 200
Horizontal
Scale in Feet

LEGEND

- MOVING VEHICLE
- BACKING VEHICLE
- BICYCLIST
- PARKED VEHICLE
- FIXED OBJECT
- FATAL CRASH
- INJURY CRASH
- NO FAULT CRASHES
- REAR END
- HEAD ON
- OUT OF CONTROL
- OVERTURNED
- LEFT TURN
- SIDESWIPE
- ANGLE

APPENDIX C

STATE ROAD CORRIDOR STUDY
COLLISION DIAGRAMS
1 OF 5

OCTOBER 2023

Drawing File: C:\Users\ntabanja\AppData\Local\Temp\AcPublish_22008\Crash Diagrams.dwg Layout: 1 of 5
Date: Oct 31, 2023 Time: 1:16 pm Twist: -1.57079633
Technician: ntabanja

MATCH LINE 'A'

MATCH LINE 'B'

N

0 100

50 200

Horizontal
Scale in Feet

LEGEND

- MOVING VEHICLE
- BACKING VEHICLE
- BICYCLIST
- PARKED VEHICLE
- FIXED OBJECT
- FATAL CRASH
- INJURY CRASH
- NO FAULT CRASHES
- REAR END
- HEAD ON
- OUT OF CONTROL
- OVERTURNED
- LEFT TURN
- SIDESWIPE
- ANGLE

APPENDIX C

STATE ROAD CORRIDOR STUDY
COLLISION DIAGRAMS
2 OF 5

OCTOBER 2023

Drawing File: C:\Users\ntabanja\AppData\Local\Temp\AcPublish_22008\Crash Diagrams.dwg Layout: 2 of 5
Date: Oct. 31, 2023 Time: 1:16 pm Twist: -1.57079633
Technician: ntabanja

0 100
50 200
Horizontal
Scale in Feet

LEGEND

- MOVING VEHICLE
- BACKING VEHICLE
- BICYCLIST
- PARKED VEHICLE
- FIXED OBJECT
- FATAL CRASH
- INJURY CRASH
- NO FAULT CRASHES
- REAR END
- HEAD ON
- OUT OF CONTROL
- OVERTURNED
- LEFT TURN
- SIDESWIPE
- ANGLE

APPENDIX C

STATE ROAD CORRIDOR STUDY
COLLISION DIAGRAMS
3 OF 5

OCTOBER 2023

Drawing File: C:\Users\ntabanja\AppData\Local\Temp\AcPublish_22008\Crash Diagrams.dwg Layout: 3 of 5
Date: Oct 31, 2023 Time: 1:17 pm Twist: -1.5707963311
Technician: ntabanja

MATCH LINE 'C'

MATCH LINE 'D'

STATE ROAD

FALLS COMMERCE PARKWAY

11/20/20 14:20 DRY

07/29/20 16:25 DRY

09/19/22 8:24 WET

05/12/18 14:47 DRY

11/04/18 14:20 DRY

02/10/22 13:30 DRY

0 100

50 200

Horizontal Scale in Feet

LEGEND

- MOVING VEHICLE
- BACKING VEHICLE
- BICYCLIST
- PARKED VEHICLE
- FIXED OBJECT
- FATAL CRASH
- INJURY CRASH
- NO FAULT CRASHES
- REAR END
- HEAD ON
- OUT OF CONTROL
- OVERTURNED
- LEFT TURN
- SIDESWIPE
- ANGLE

APPENDIX C

STATE ROAD CORRIDOR STUDY
COLLISION DIAGRAMS
4 OF 5

OCTOBER 2023

Drawing File: C:\Users\ntabanja\AppData\Local\Temp\AcPublish_22008\Crash Diagrams.dwg Layout: 4 of 5
Date: Oct 31, 2023 Time: 1:17 pm Twist: -1.57079633

Technician: ntabanja

MATCH LINE 'D'

0 100
50 200
Horizontal
Scale in Feet

LEGEND

- MOVING VEHICLE
- BACKING VEHICLE
- BICYCLIST
- PARKED VEHICLE
- FIXED OBJECT
- FATAL CRASH
- INJURY CRASH
- NO FAULT CRASHES
- REAR END
- HEAD ON
- OUT OF CONTROL
- OVERTURNED
- LEFT TURN
- SIDESWIPE
- ANGLE

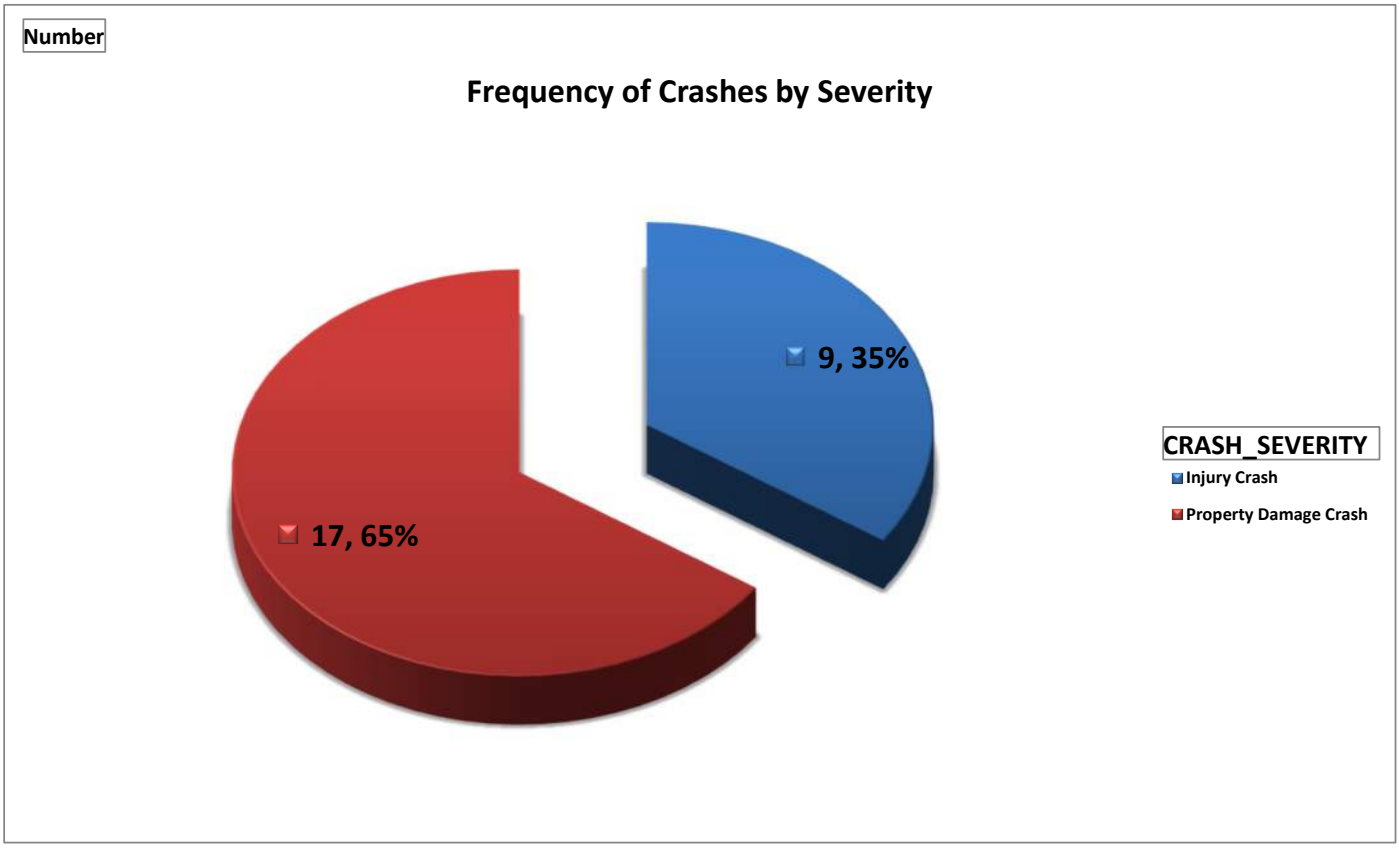
APPENDIX C

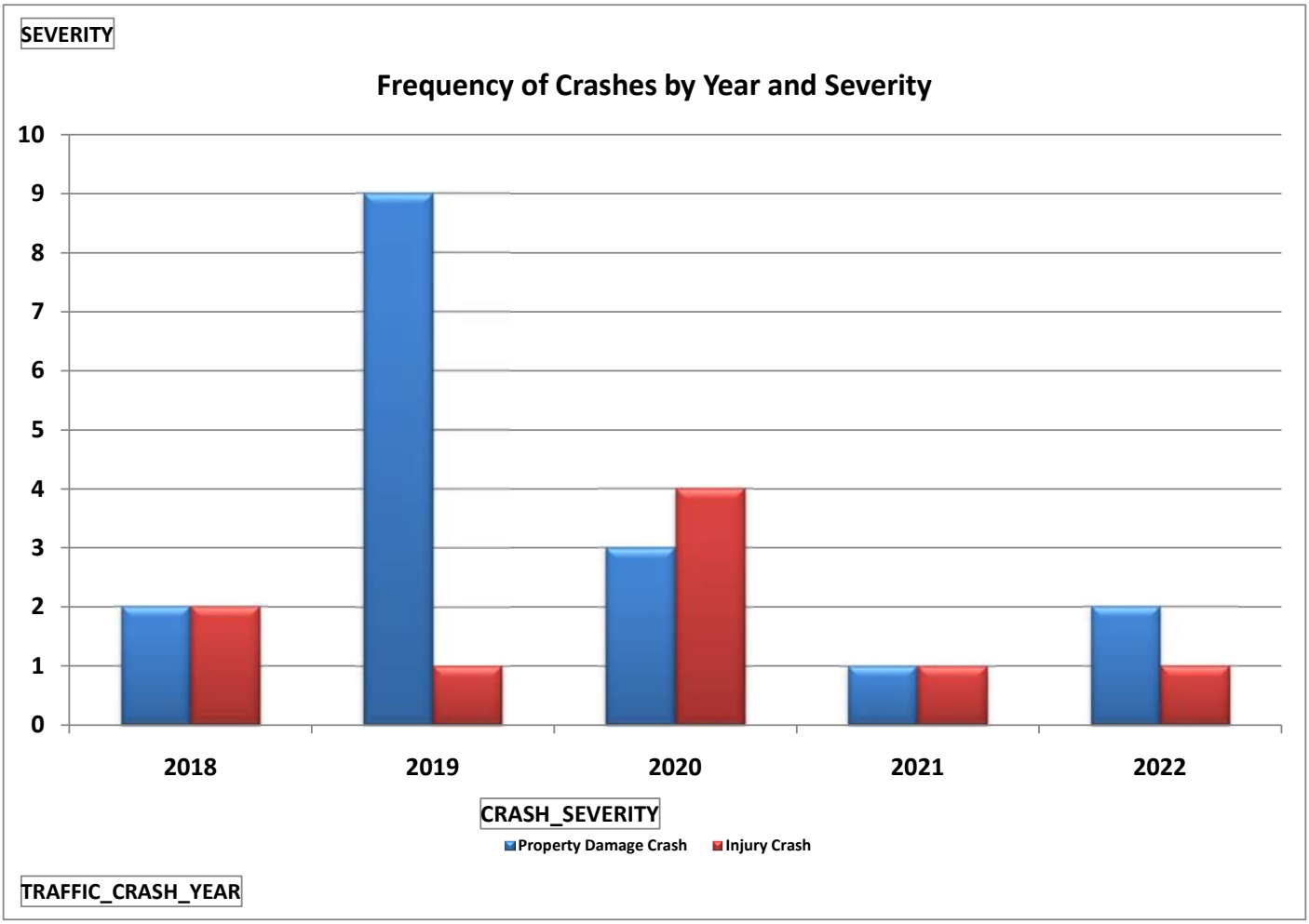
STATE ROAD CORRIDOR STUDY
COLLISION DIAGRAMS
5 OF 5

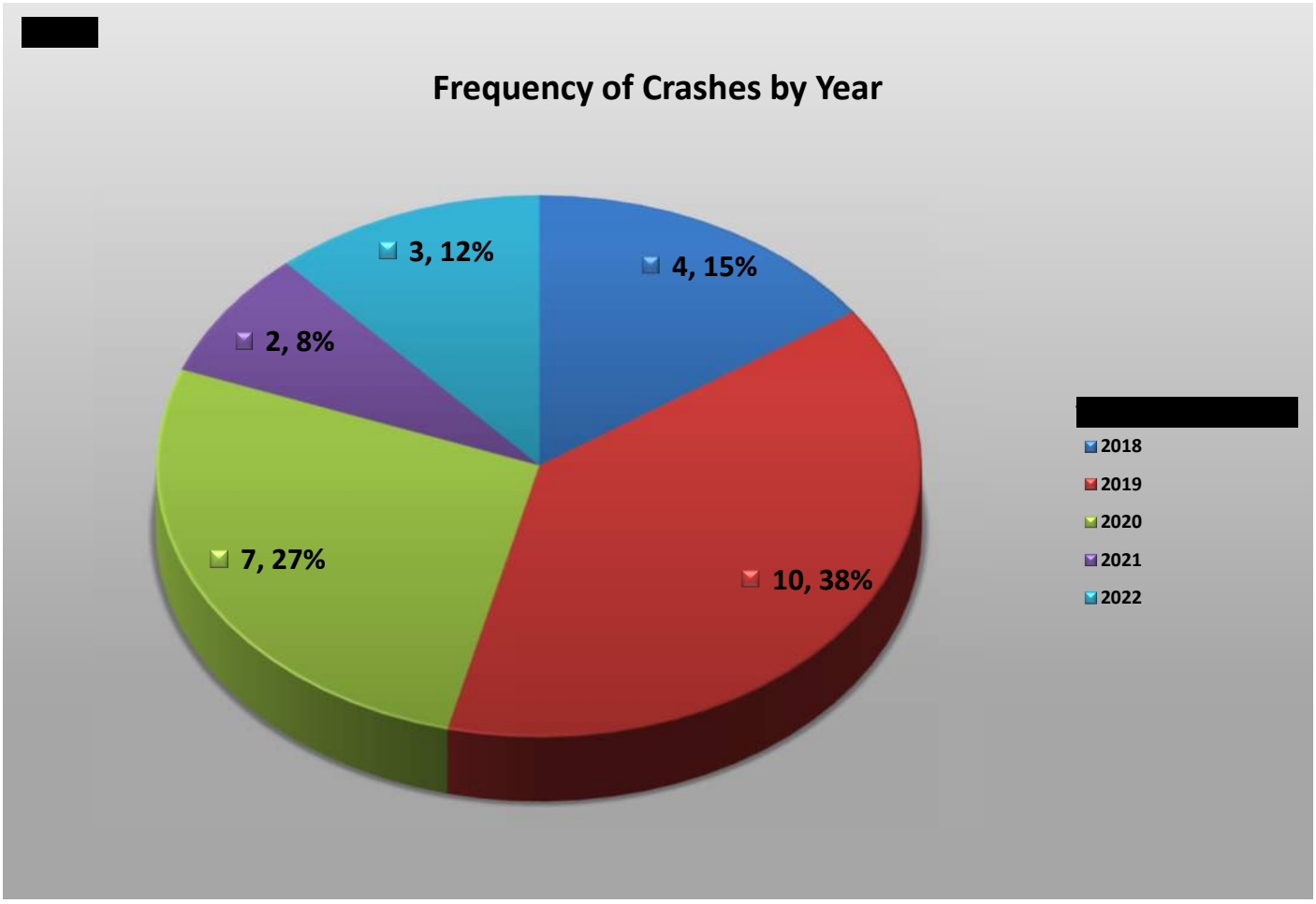
OCTOBER 2023

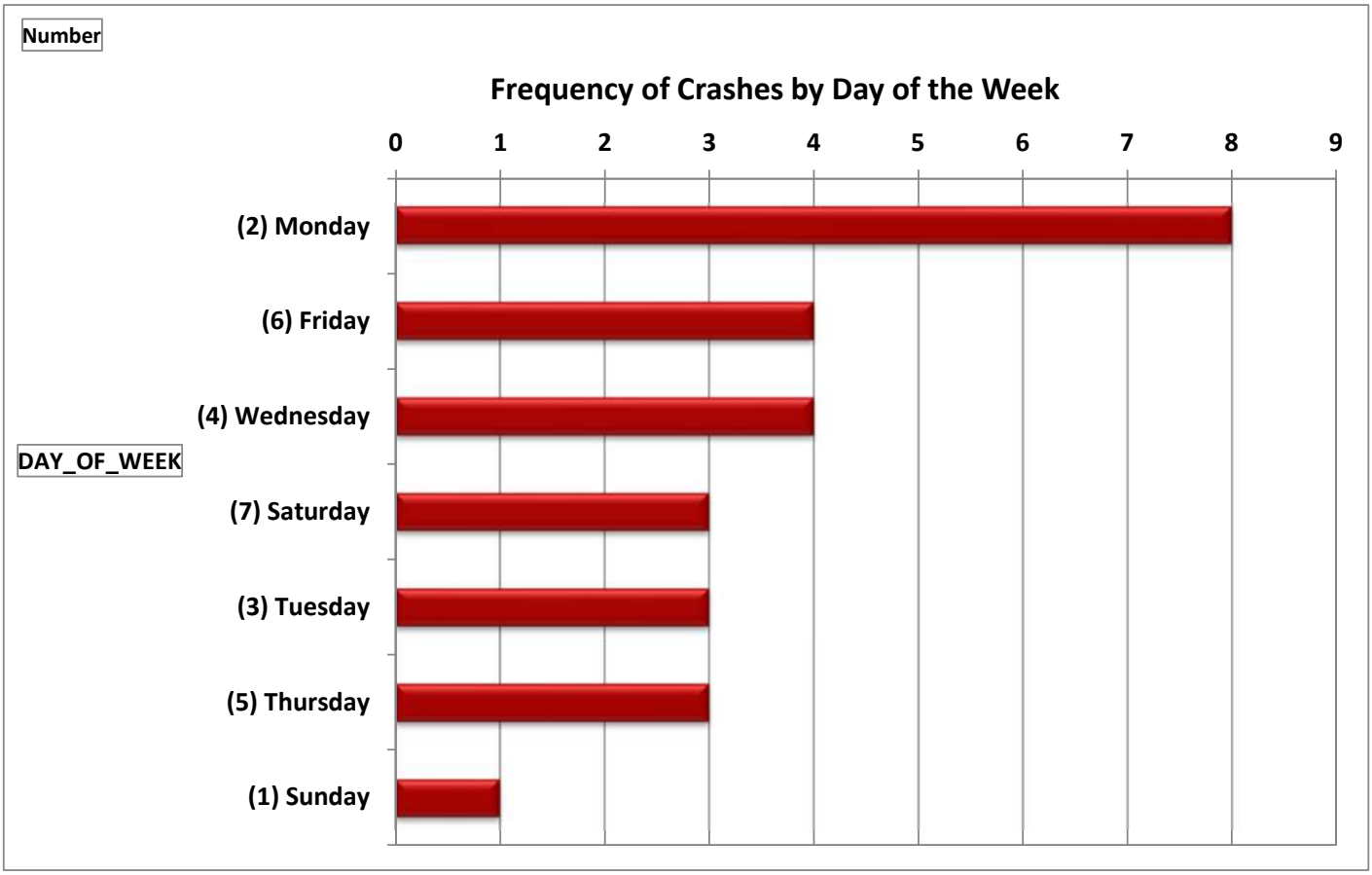
Drawing File: C:\Users\ntabanja\AppData\Local\Temp\AcPublish_22008\Crash Diagrams.dwg Layout: 5 of 5
Date: Oct 31, 2023 Time: 1:17 pm Twist: -1.57079633
Technician: ntabanja

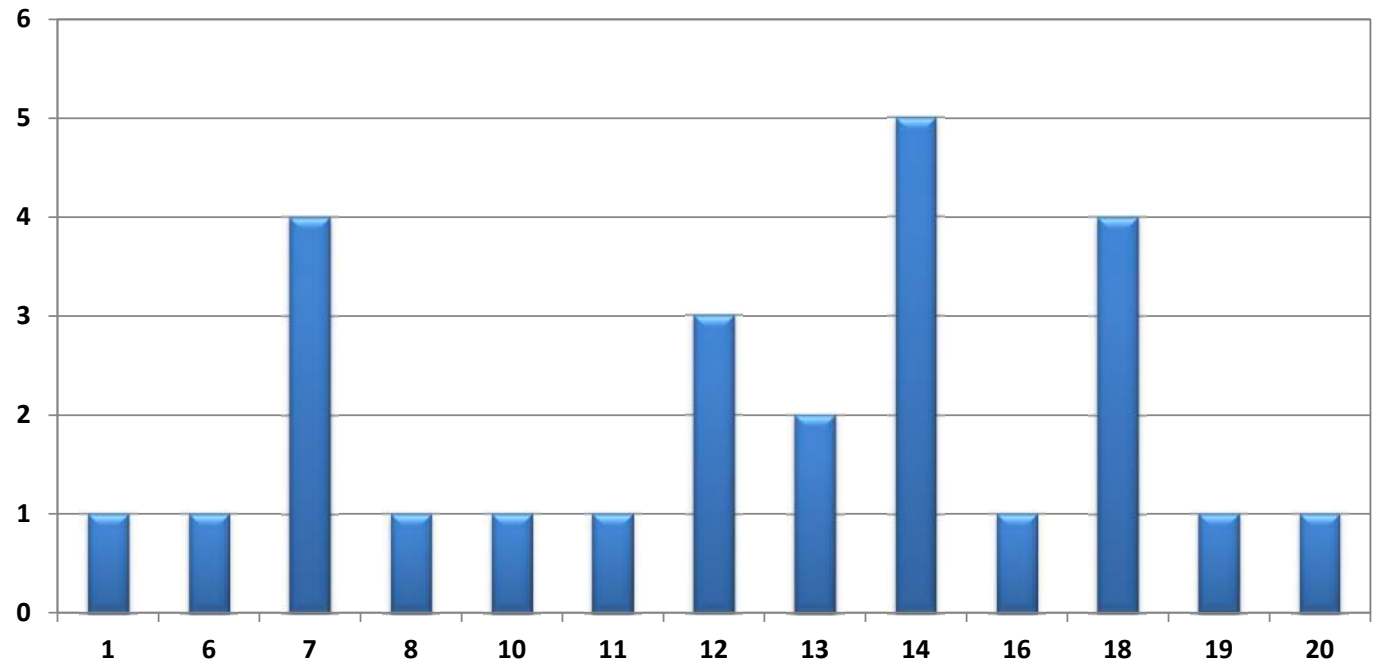
APPENDIX D
CRASH DATA SUMMARY AND CHARTS

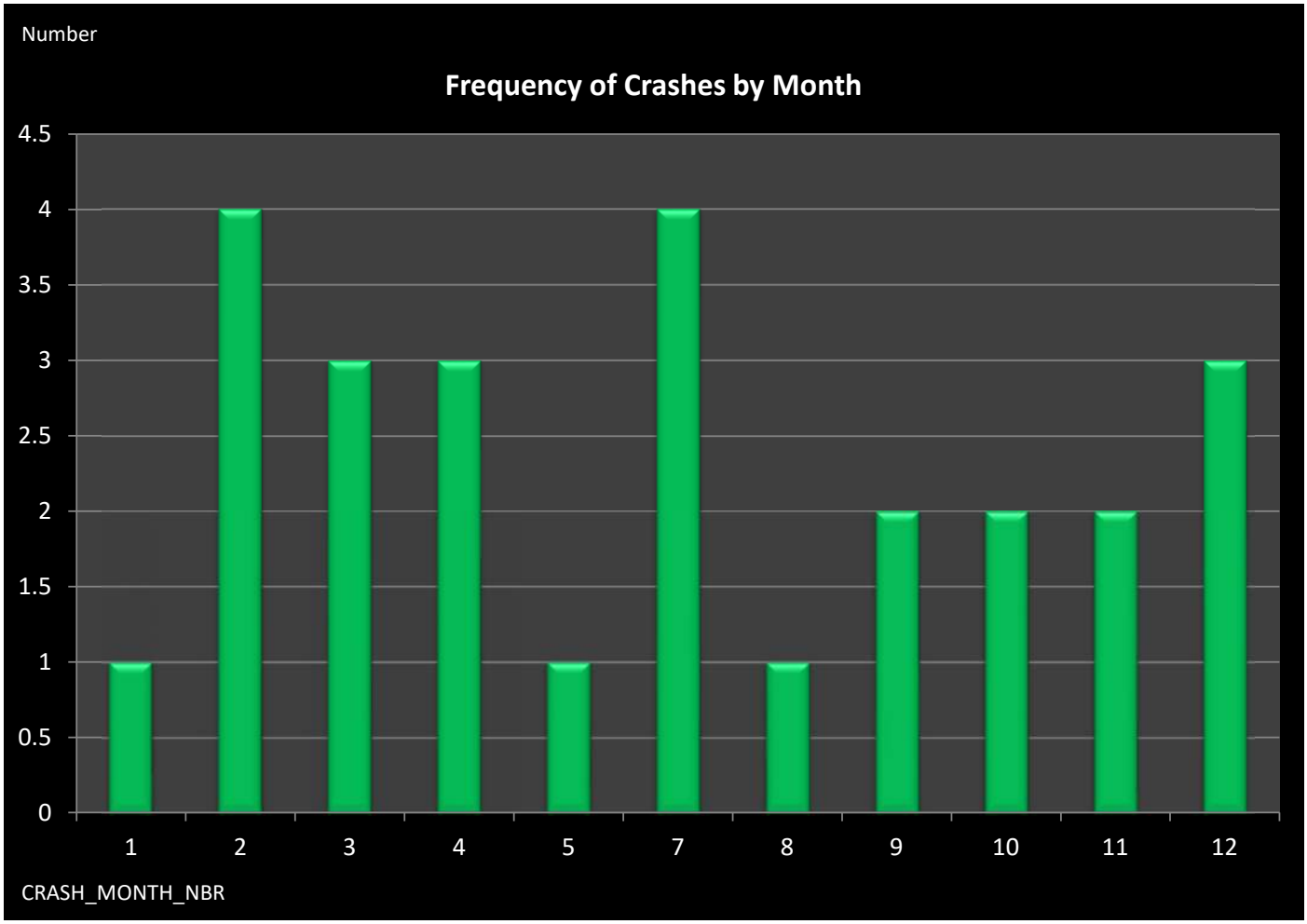

Number
Frequency of Crashes by Severity
9, 35%
17, 65%
CRASH_SEVERITY
Injury Crash
Property Damage Crash

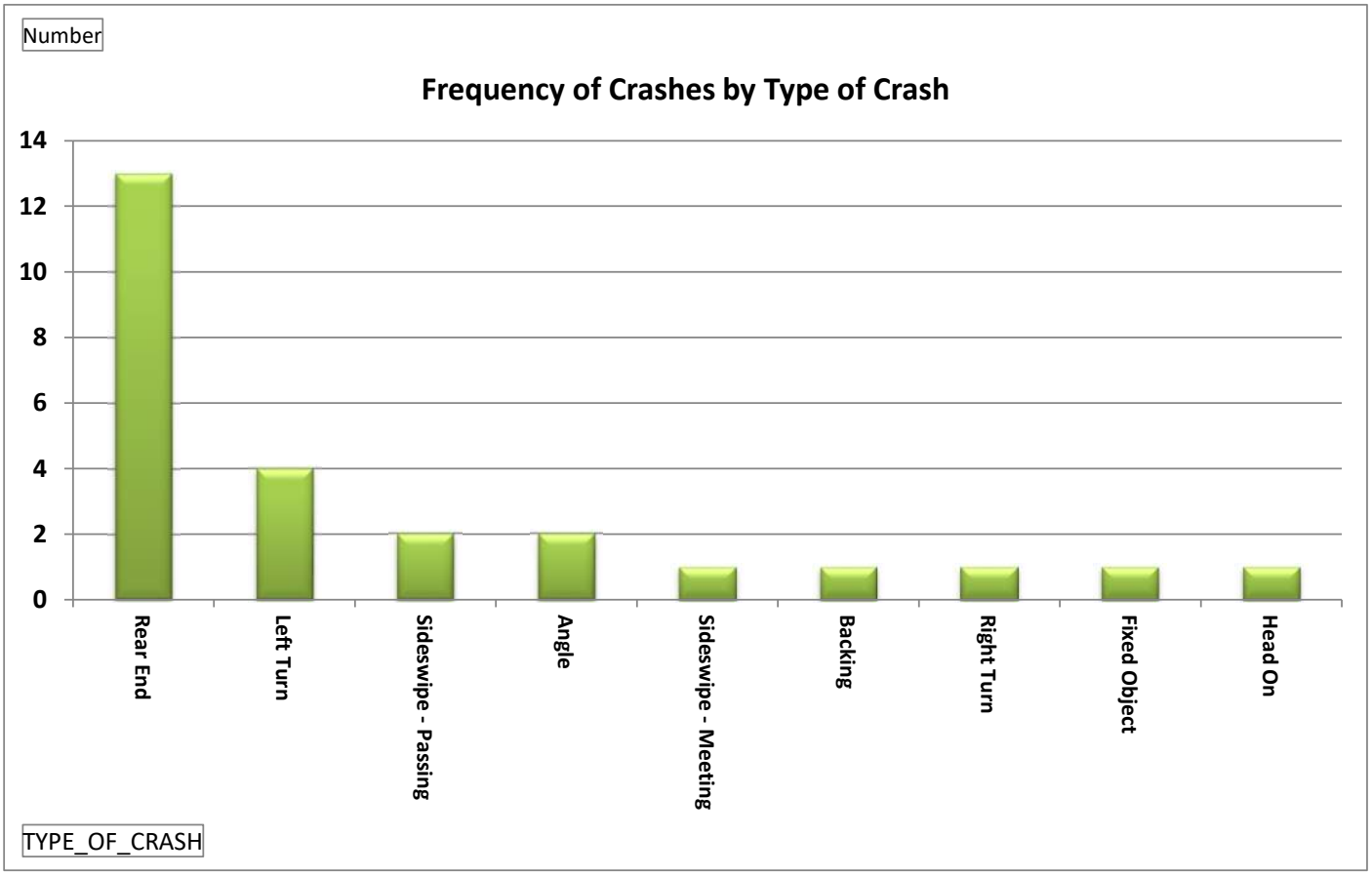

SEVERITY
Frequency of Crashes by Year and Severity
10
9
8
7
6
5
4
3
2
1
0
2018
2019
2020
2021
2022
CRASH_SEVERITY
Property Damage Crash
Injury Crash
TRAFFIC_CRASH_YEAR

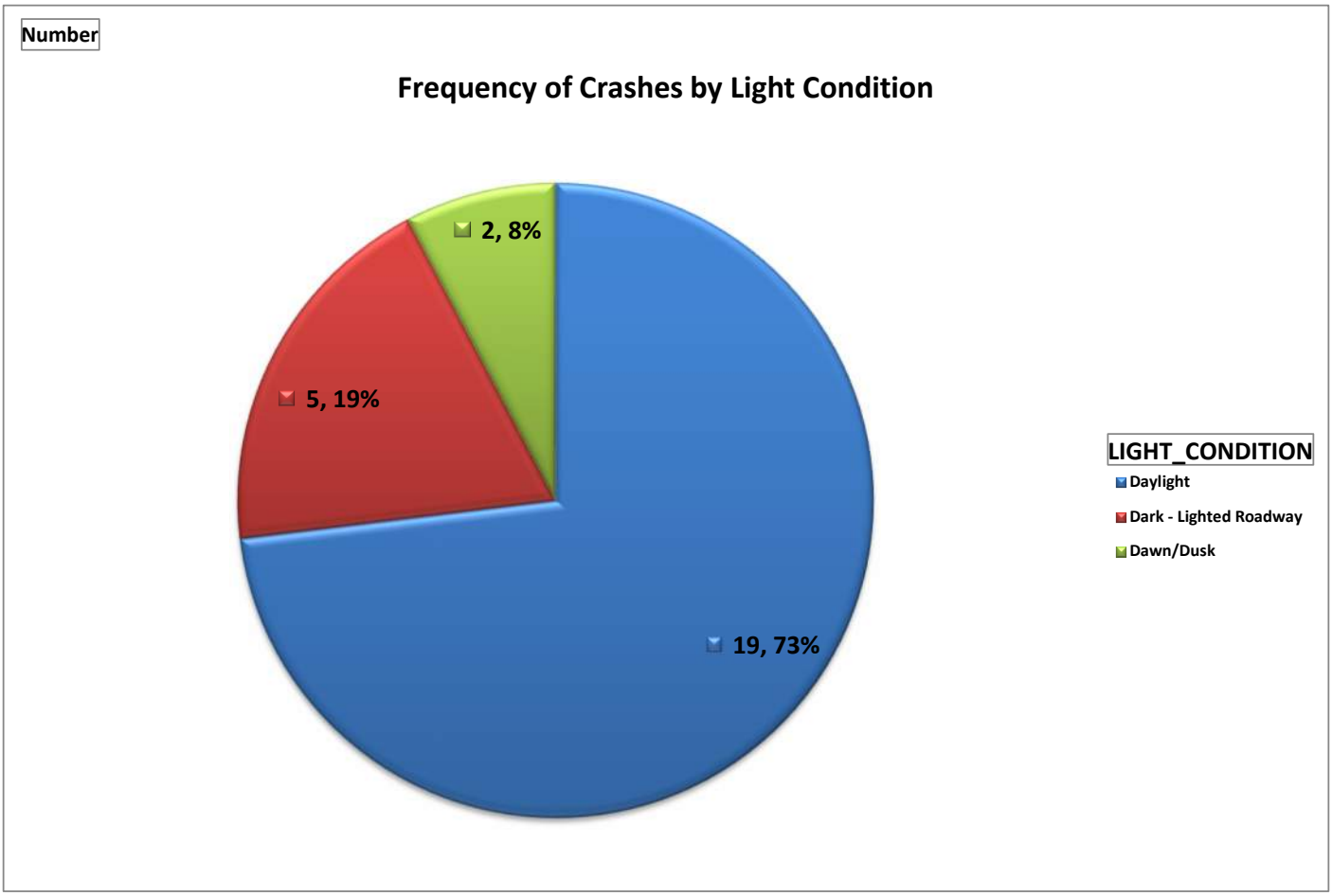

Frequency of Crashes by Year
4, 15%
10, 38%
7, 27%
2, 8%
3, 12%
2018
2019
2020
2021
2022

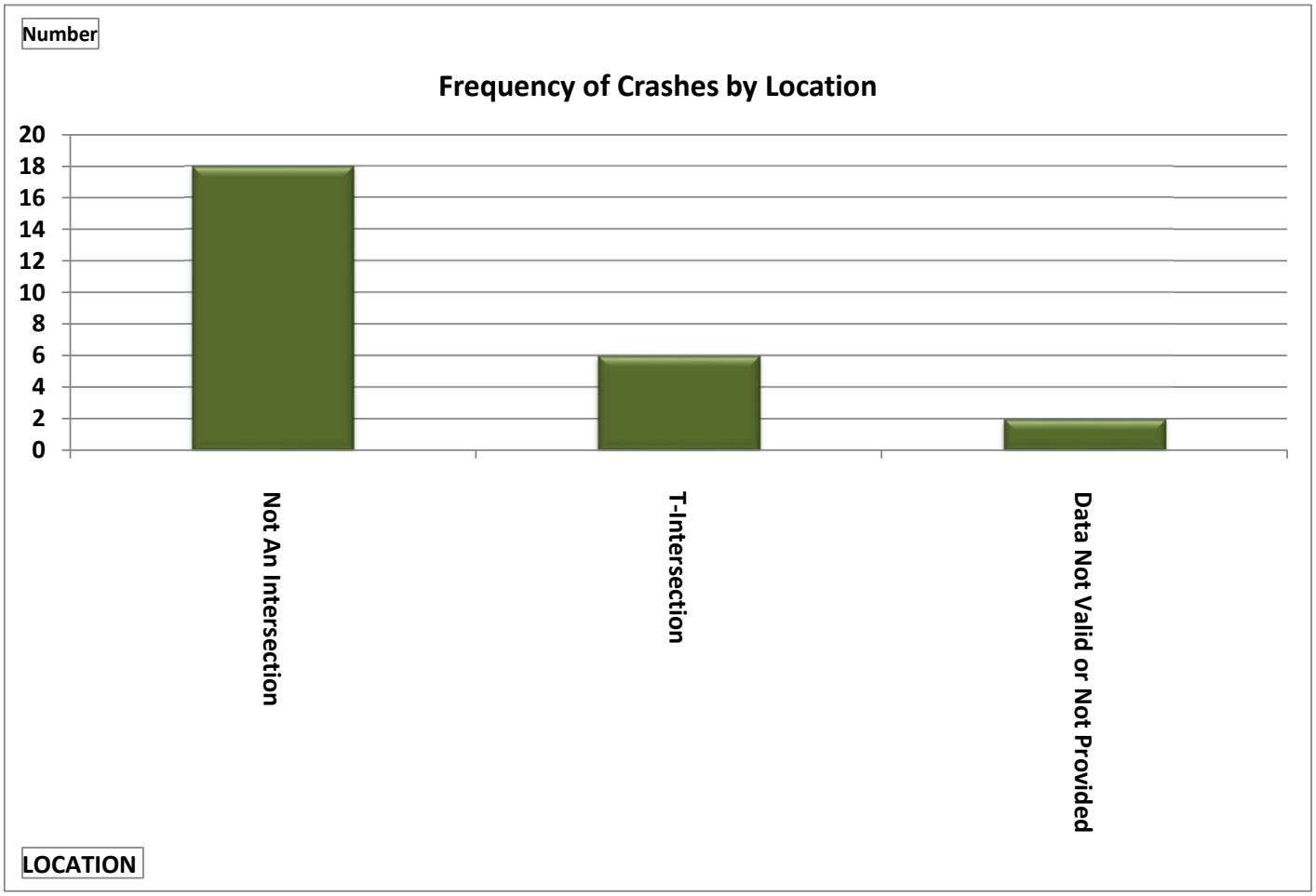

Number
Frequency of Crashes by Day of the Week
0
1
2
3
4
5
6
7
8
9
(2) Monday
(6) Friday
(4) Wednesday
DAY_OF_WEEK
(7) Saturday
(3) Tuesday
(5) Thursday
(1) Sunday

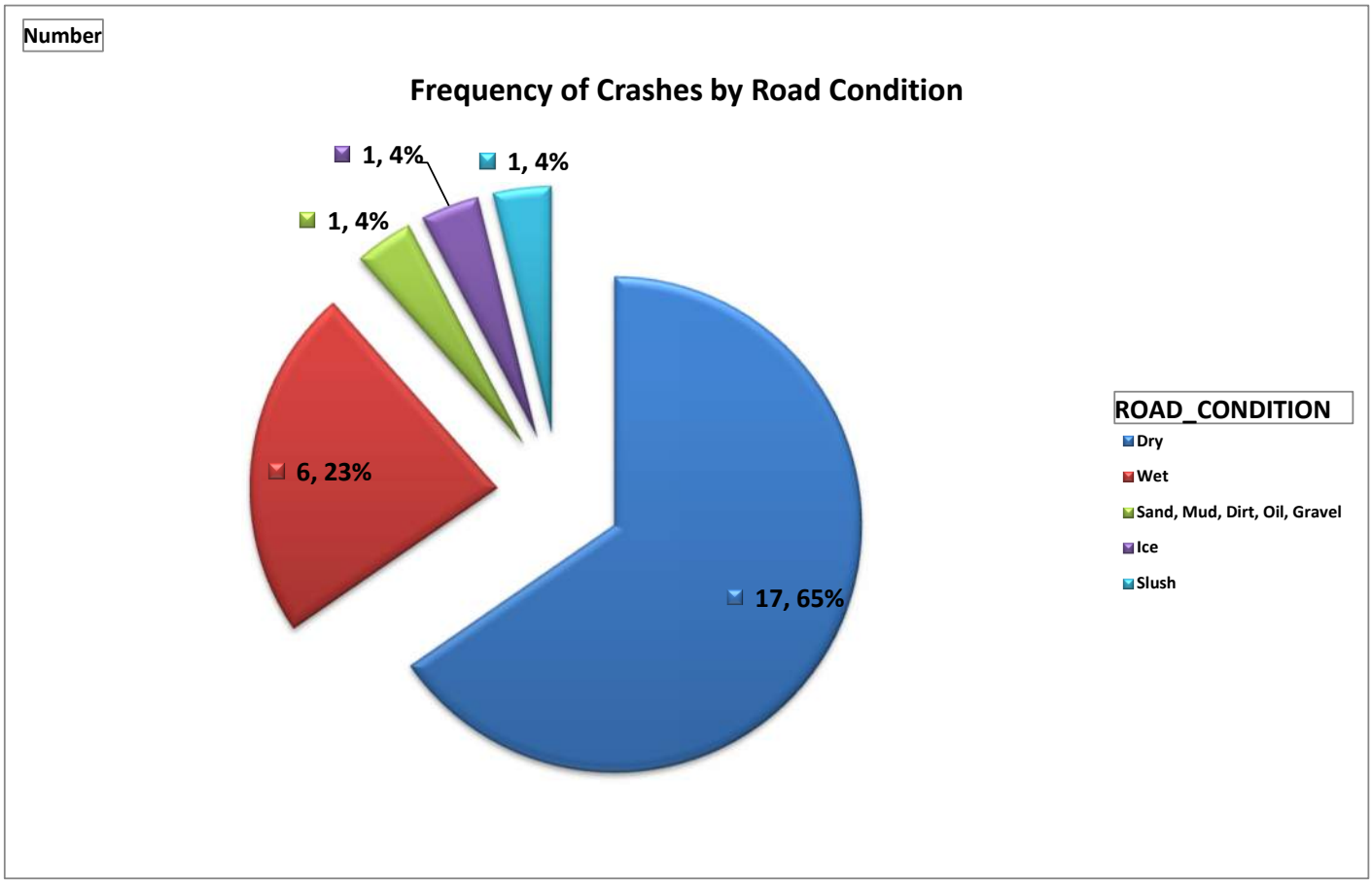

Frequency of Crashes by Hour
6
5
4
3
2
1
0
1
6
7
8
10
11
12
13
14
16
18
19
20

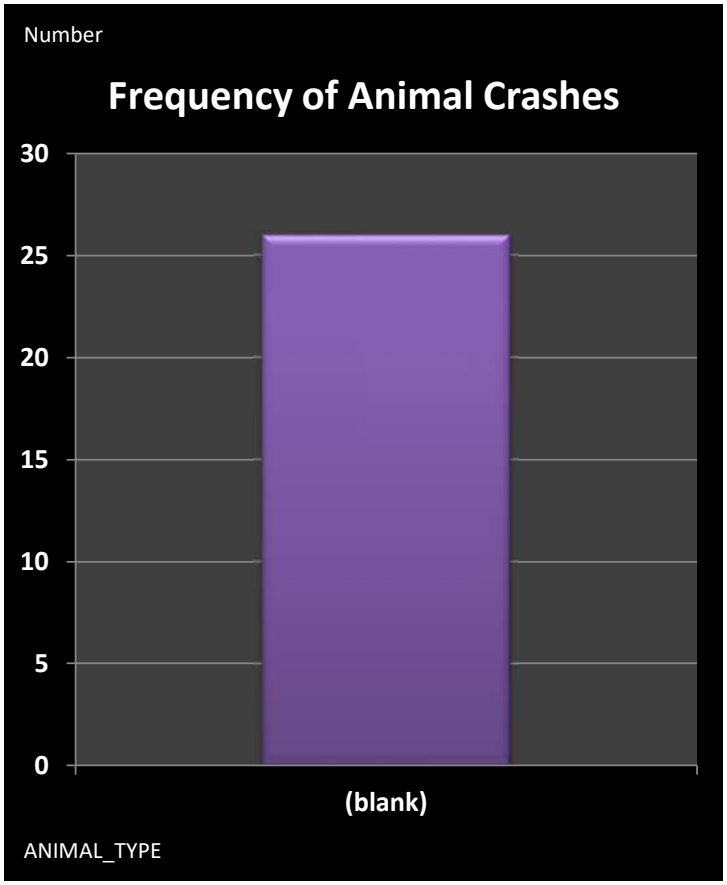

Number
Frequency of Crashes by Month
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
1
2
3
4
5
7
8
9
10
11
12
CRASH_MONTH_NBR

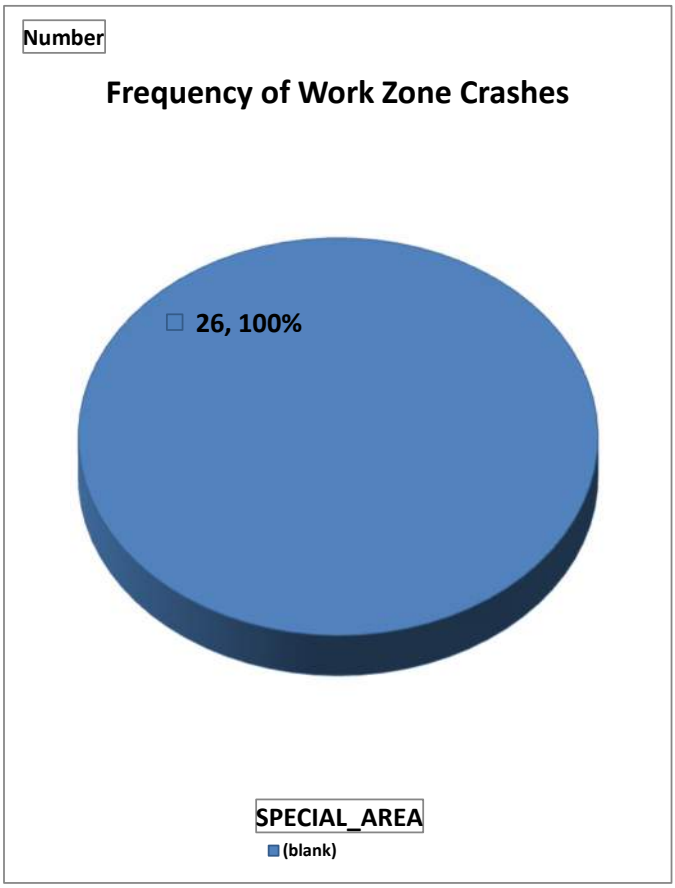

Number
Frequency of Crashes by Type of Crash
14
12
10
8
6
4
2
0
Rear End
Left Turn
Sideswipe - Passing
Angle
Sideswipe - Meeting
Backing
Right Turn
Fixed Object
Head On
TYPE_OF_CRASH

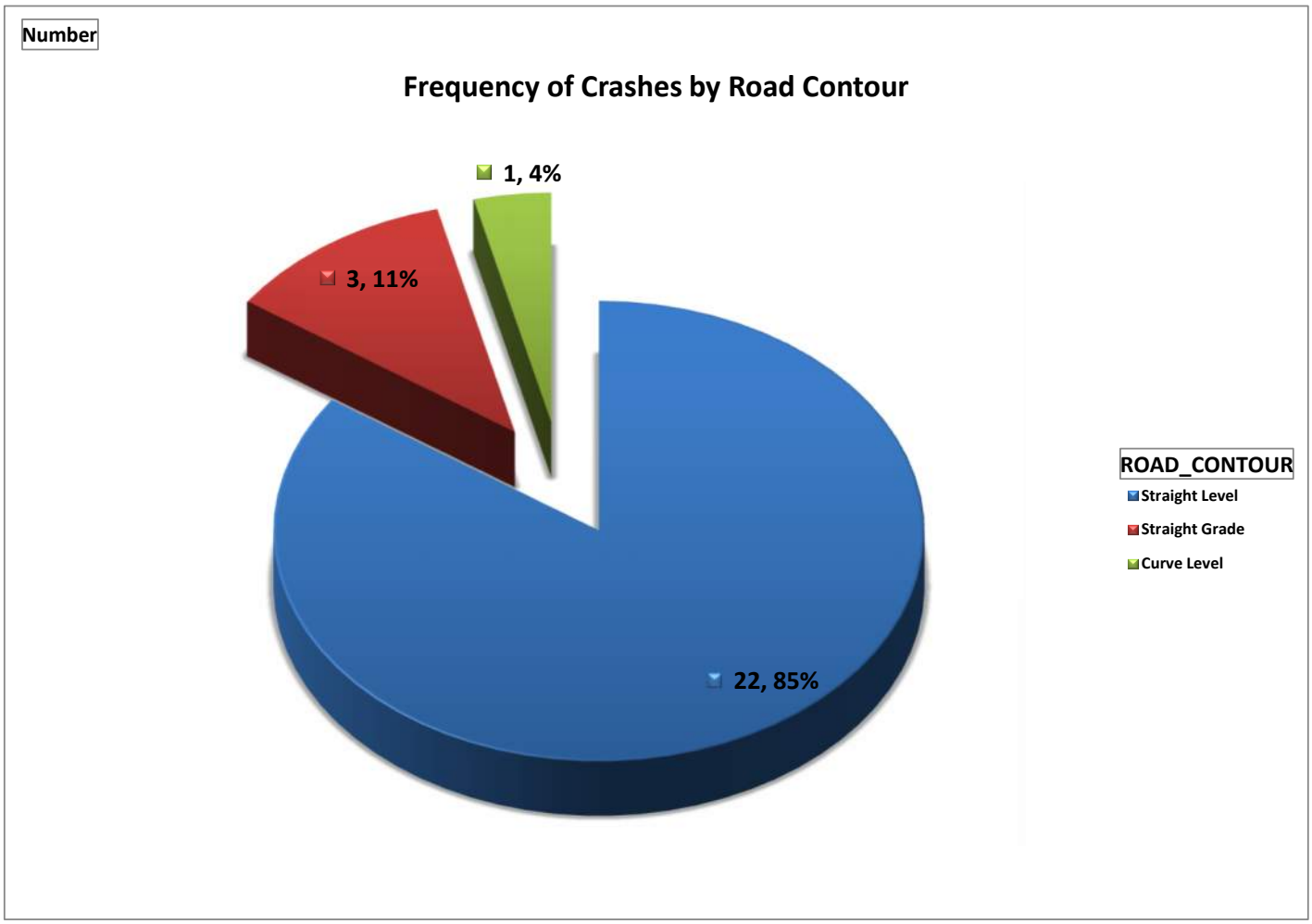

Number
Frequency of Crashes by Light Condition
2, 8%
5, 19%
19, 73%
LIGHT_CONDITION
Daylight
Dark - Lighted Roadway
Dawn/Dusk


Number
Frequency of Crashes by Location
20
18
16
14
12
10
8
6
4
2
0
Not An Intersection
T-Intersection
Data Not Valid or Not Provided
LOCATION

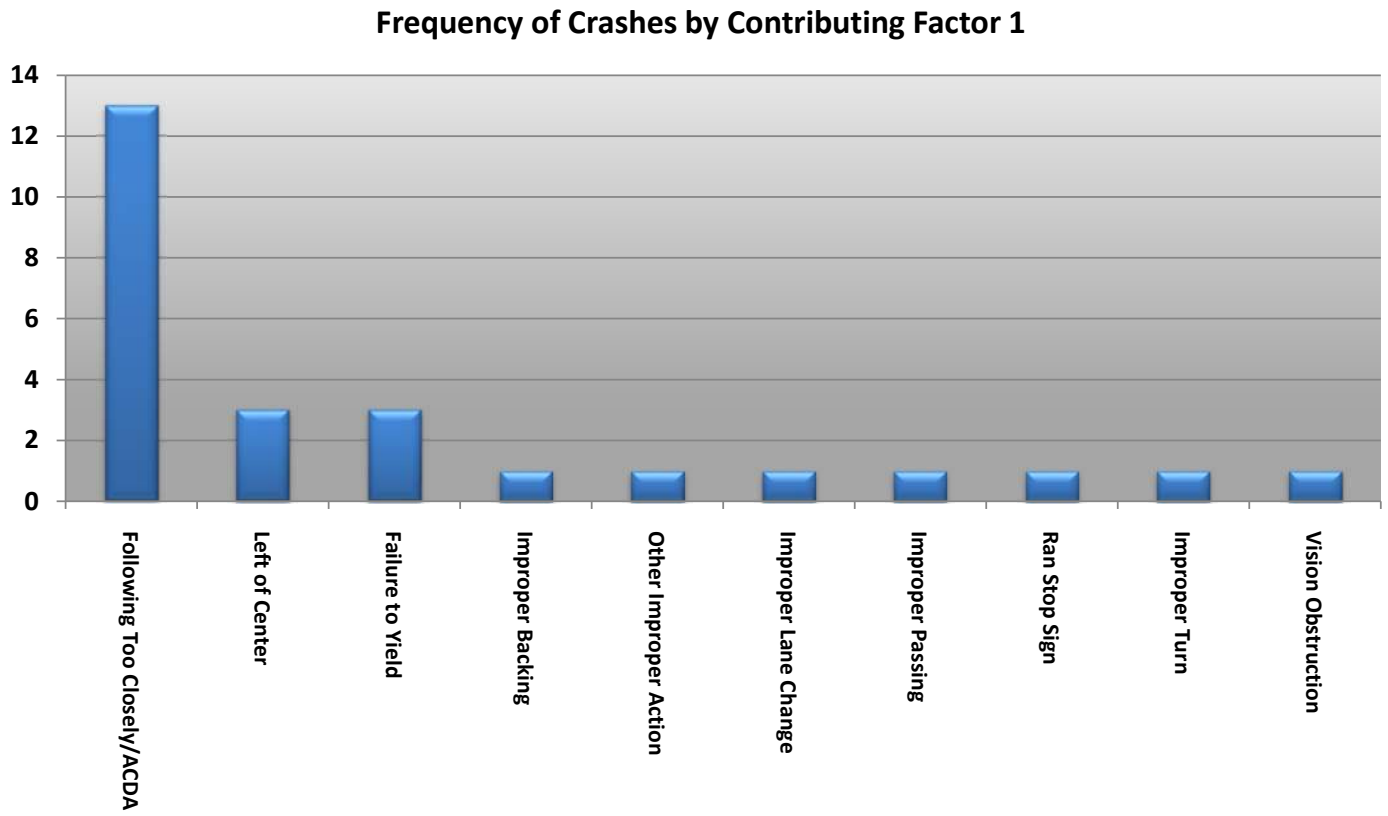

Number
Frequency of Crashes by Road Condition
1, 4%
1, 4%
1, 4%
6, 23%
17, 65%
ROAD_CONDITION
Dry
Wet
Sand, Mud, Dirt, Oil, Gravel
Ice
Slush


Number
Frequency of Animal Crashes
30
25
20
15
10
5
0
(blank)
ANIMAL_TYPE

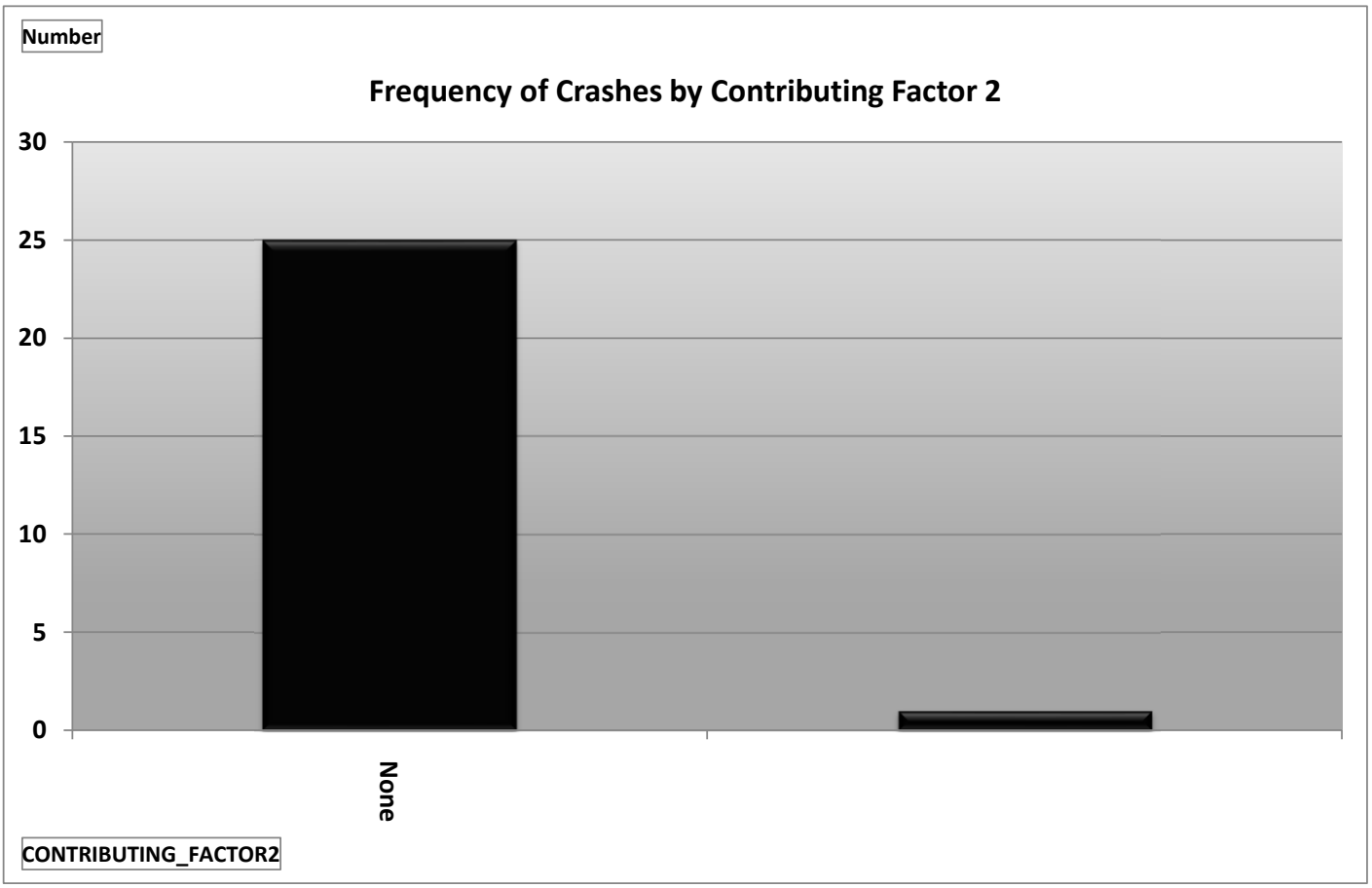

Number
Frequency of Work Zone Crashes
26, 100%
SPECIAL_AREA
(blank)

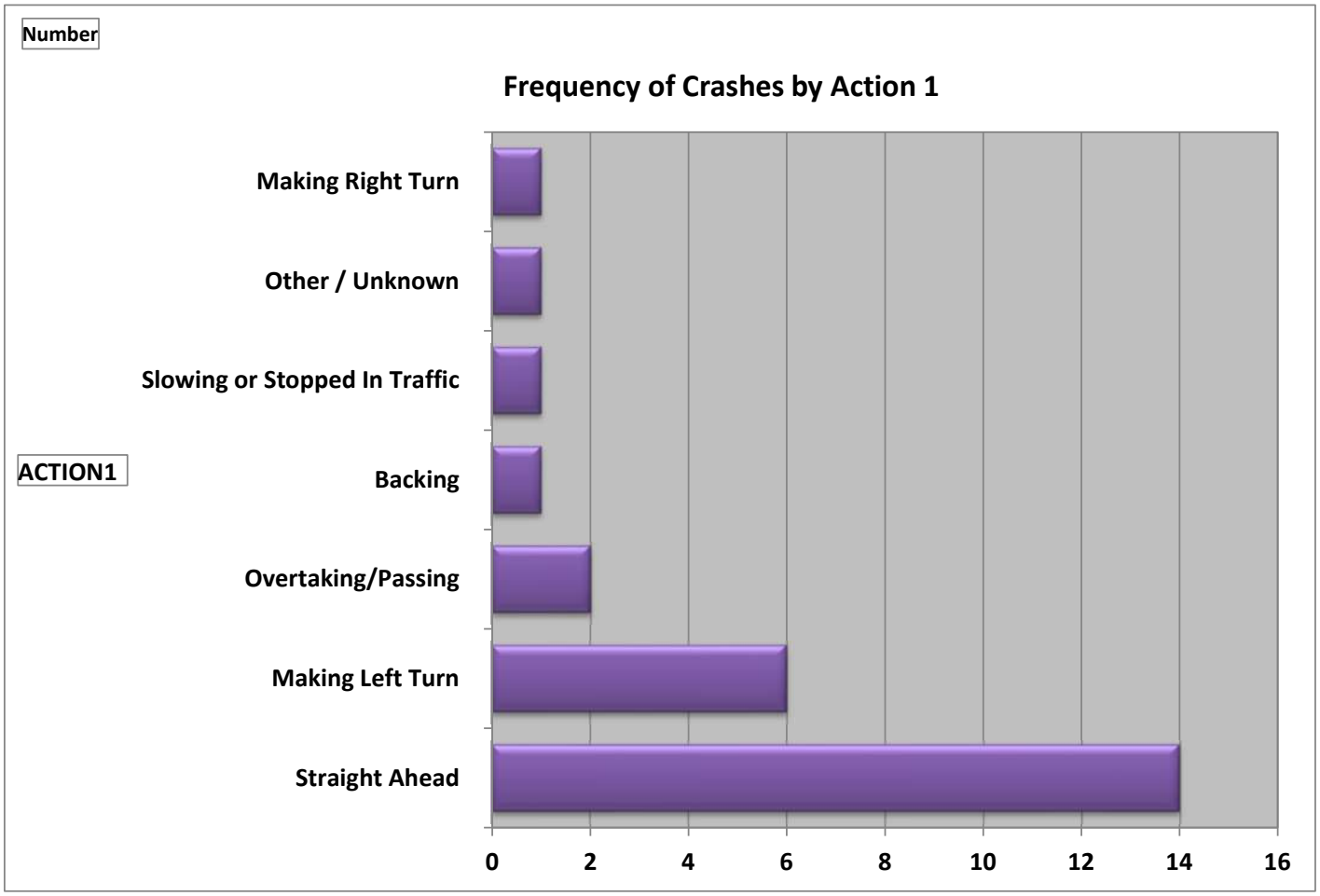

Number
Frequency of Crashes by Road Contour
1, 4%
3, 11%
22, 85%
ROAD_CONTOUR
Straight Level
Straight Grade
Curve Level

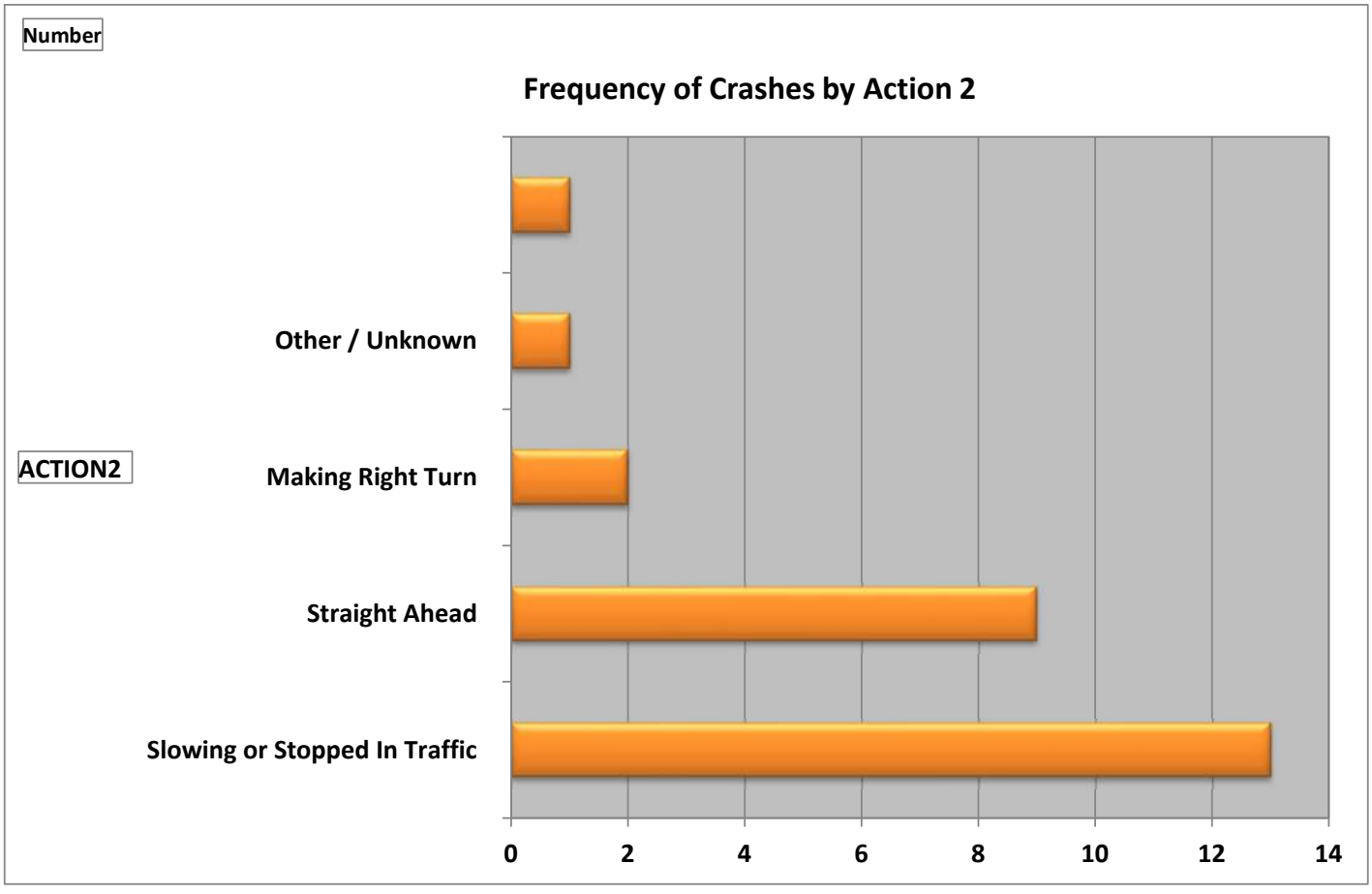
[redacted]

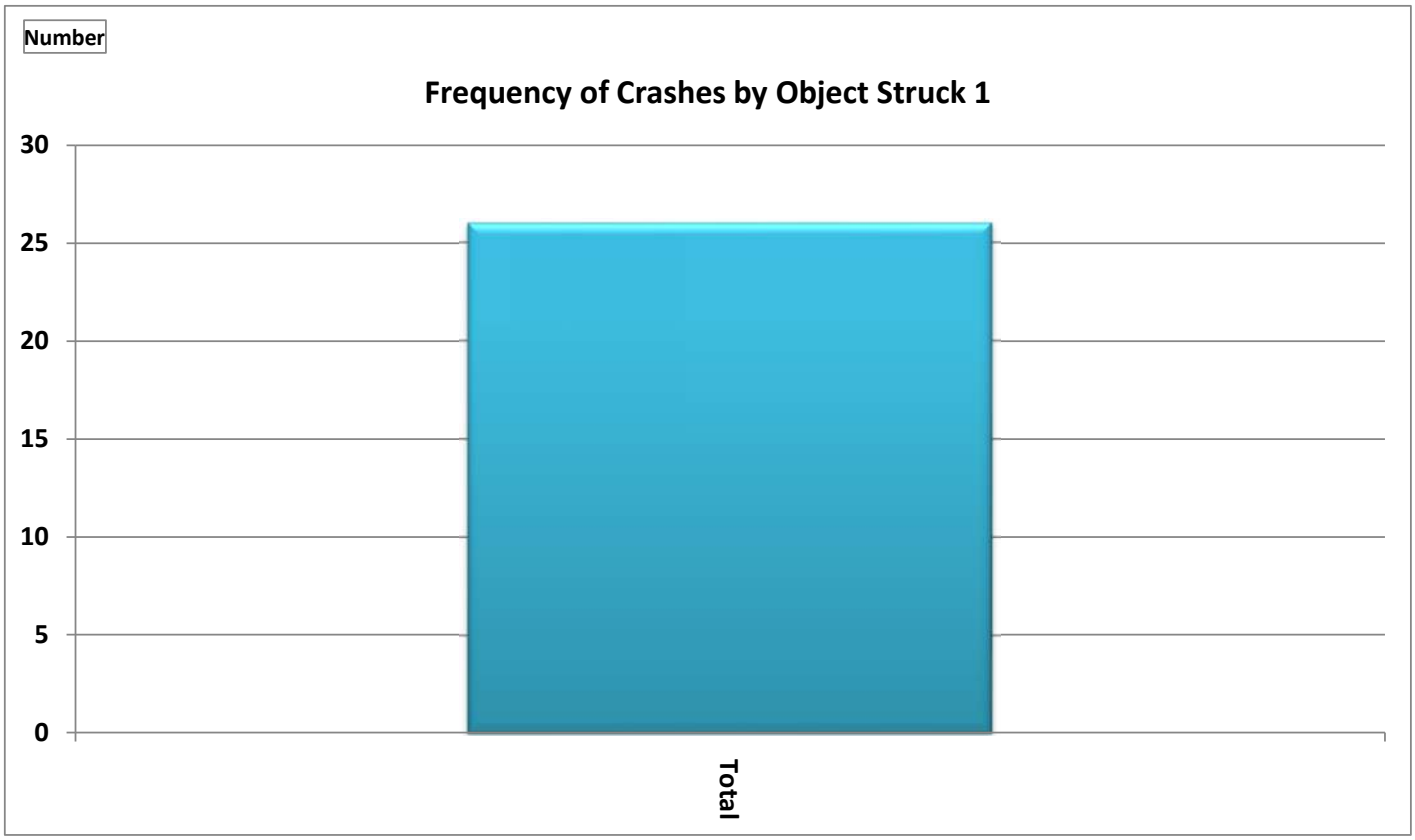


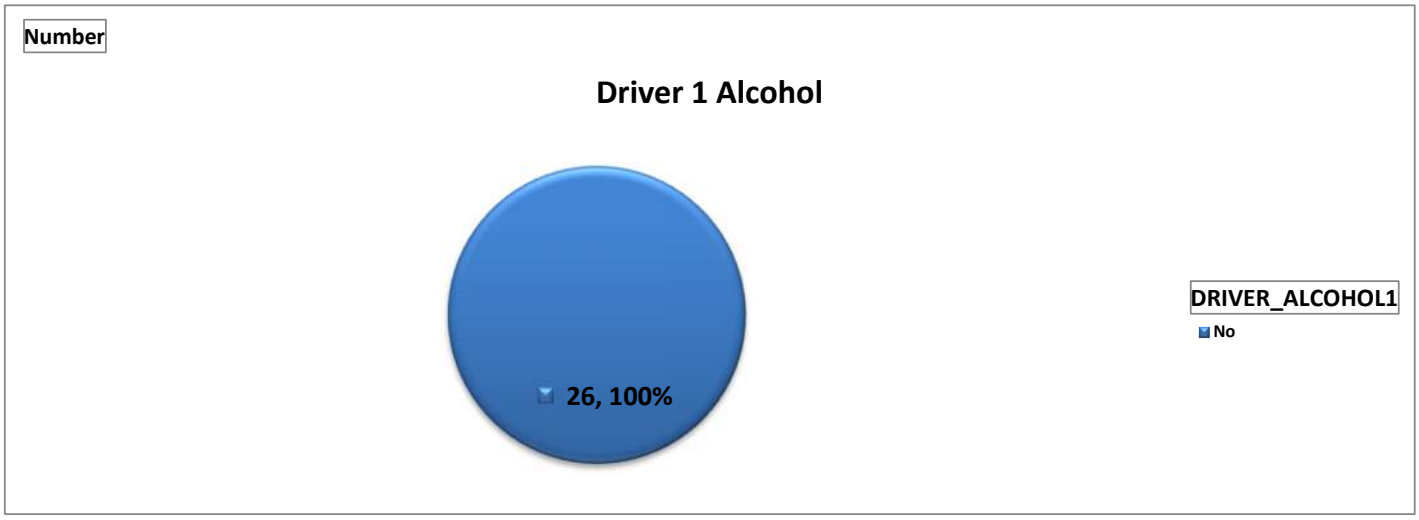
[redacted]

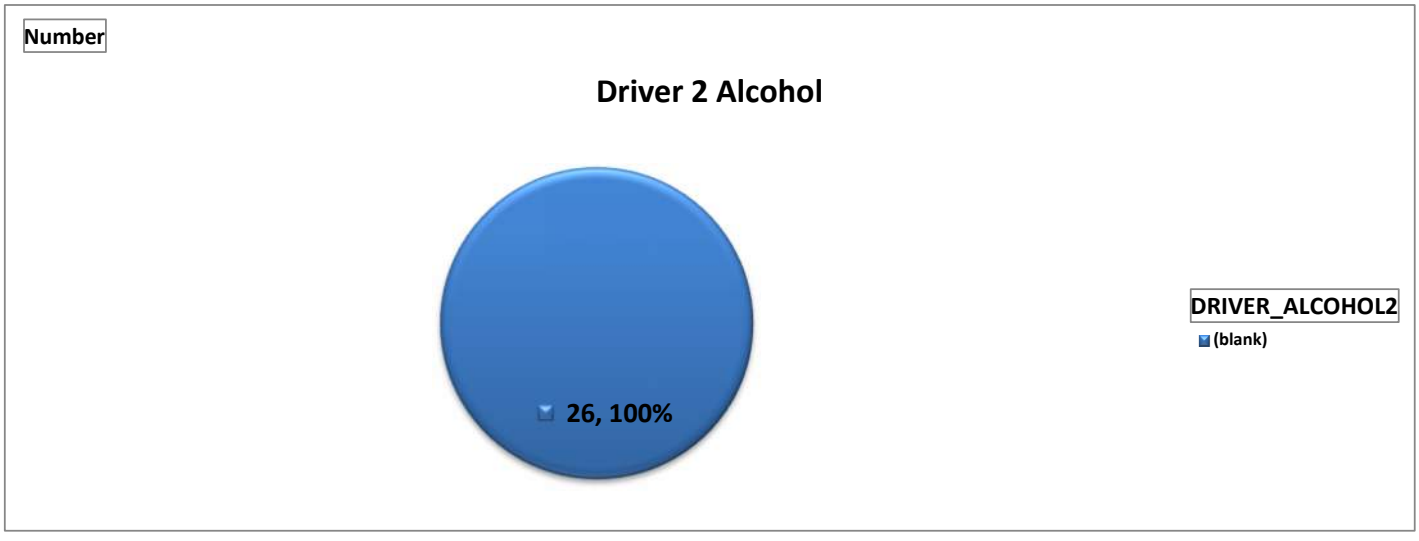



Number
Frequency of Crashes by Action 1
Making Right Turn
Other / Unknown
Slowing or Stopped In Traffic
ACTION1
Backing
Overtaking/Passing
Making Left Turn
Straight Ahead
0
2
4
6
8
10
12
14
16


Number
Frequency of Crashes by Action 2
Other / Unknown
ACTION2
Making Right Turn
Straight Ahead
Slowing or Stopped In Traffic
0
2
4
6
8
10
12
14


Number
Frequency of Crashes by Object Struck 1
30
25
20
15
10
5
0
Total


Number
Driver 1 Alcohol
26, 100%
DRIVER_ALCOHOL1
No


Number
Driver 2 Alcohol
26, 100%
DRIVER_ALCOHOL2
(blank)

APPENDIX E
TRAFFIC SIGNAL WARRANT ANALYSIS

EXISTING YEAR 2023 CONDITIONS

GPD Group
520 South Main Street, Suite 2531 Akron, OH 44311
(330) 572-2100

Study Name: 1-State Road_Boulder
Study Date : 9/21/2023

Signal Warrants - Summary

Major Street Approaches

Northbound: State Rd
Number of Lanes : 1

Total Approach Volume: 4,334

Southbound: State Rd
Number of Lanes :1

Total Approach Volume: 4,297

Minor Street Approaches

Eastbound: Boulder Blvd
Number of Lanes :1

Total Approach Volume: 281

Westbound: N/A
Number of Lanes :1

Total Approach Volume: 1

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....**Not Satisfied**

Warrant 1A - Minimum Vehicular Volume.....**Not Satisfied**
Required volumes reached for 0 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....**Not Satisfied**
Required volumes reached for 0 hours, 8 are needed

Warrant 1C - Combination of Warrants.....**Not Satisfied**
Required 1A volumes reached for 0 hours, 8 are needed
Required 1B volumes reached for 0 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....**Not Satisfied**
Number of hours (0) volumes exceed minimum < minimum required (4).

Warrant 3 - Peak Hour.....**Not Satisfied**

Warrant 3A - Peak Hour Delay.....**Not Satisfied**
Total approach volumes and delays on minor street do not exceed minimums for any one hour period.

Warrant 3B - Peak Hour Volumes.....**Not Satisfied**
Volumes do not exceed minimums for any one hour period.

Warrant 4 - Pedestrian Volumes.....**Not Evaluated**

Warrant 5 - School Crossing.....**Not Evaluated**

Warrant 6 - Coordinated Signal System.....**Not Evaluated**

Warrant 7 - Crash Experience.....**Not Evaluated**

Warrant 8 - Roadway Network.....**Not Evaluated**

Warrant 9 - Intersection Near a Grade Crossing.....**Not Evaluated**

GPD Group
520 South Main Street, Suite 2531 Akron, OH 44311
(330) 572-2100

Study Name: 1-State Road_Boulder
Study Date : 9/21/2023

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **1**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **150**

	Major Road State Rd					Minor Road Boulder Blvd		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:45 - 17:45	456	+	613	=	1069	34	0	No
16:30 - 17:30	457	+	609	=	1066	32	0	No
16:15 - 17:15	451	+	575	=	1026	35	0	No
17:00 - 18:00	431	+	585	=	1016	39	0	No
15:45 - 16:45	439	+	531	=	970	27	0	No
16:00 - 17:00	423	+	543	=	966	33	0	No
15:15 - 16:15	470	+	481	=	951	24	0	No
15:30 - 16:30	457	+	491	=	948	27	0	No
17:15 - 18:15	379	+	551	=	930	36	0	No
15:00 - 16:00	466	+	460	=	926	21	0	No
14:45 - 15:45	455	+	402	=	857	17	0	No
17:30 - 18:30	343	+	504	=	847	38	0	No
07:45 - 08:45	468	+	358	=	826	32	0	No
07:15 - 08:15	516	+	308	=	824	41	0	No
07:30 - 08:30	481	+	331	=	812	42	0	No
14:30 - 15:30	421	+	372	=	793	14	0	No
07:00 - 08:00	495	+	296	=	791	44	0	No
14:15 - 15:15	408	+	351	=	759	12	0	No
17:45 - 18:45	306	+	449	=	755	37	0	No
14:00 - 15:00	393	+	332	=	725	11	0	No
13:45 - 14:45	377	+	330	=	707	15	0	No
08:00 - 09:00	408	+	298	=	706	26	0	No
13:30 - 14:30	358	+	344	=	702	17	0	No
18:00 - 19:00	288	+	404	=	692	22	0	No
08:15 - 09:15	392		291		683	23	0	No

GPD Group
520 South Main Street, Suite 2531 Akron, OH 44311
(330) 572-2100

Study Name: 1-State Road_Boulder
Study Date : 9/21/2023

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **1**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **75**

	Major Road					Minor Road		
	State Rd					Boulder Blvd		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:45 - 17:45	456	+	613	=	1069	34	0	No
16:30 - 17:30	457	+	609	=	1066	32	0	No
16:15 - 17:15	451	+	575	=	1026	35	0	No
17:00 - 18:00	431	+	585	=	1016	39	0	No
15:45 - 16:45	439	+	531	=	970	27	0	No
16:00 - 17:00	423	+	543	=	966	33	0	No
15:15 - 16:15	470	+	481	=	951	24	0	No
15:30 - 16:30	457	+	491	=	948	27	0	No
17:15 - 18:15	379	+	551	=	930	36	0	No
15:00 - 16:00	466	+	460	=	926	21	0	No
14:45 - 15:45	455	+	402	=	857	17	0	No
17:30 - 18:30	343	+	504	=	847	38	0	No
07:45 - 08:45	468	+	358	=	826	32	0	No
07:15 - 08:15	516	+	308	=	824	41	0	No
07:30 - 08:30	481	+	331	=	812	42	0	No
14:30 - 15:30	421	+	372	=	793	14	0	No
07:00 - 08:00	495	+	296	=	791	44	0	No
14:15 - 15:15	408	+	351	=	759	12	0	No
17:45 - 18:45	306	+	449	=	755	37	0	No
14:00 - 15:00	393	+	332	=	725	11	0	No
13:45 - 14:45	377	+	330	=	707	15	0	No
08:00 - 09:00	408	+	298	=	706	26	0	No
13:30 - 14:30	358	+	344	=	702	17	0	No
18:00 - 19:00	288	+	404	=	692	22	0	No
08:15 - 09:15	392		291		683	23	0	No

GPD Group
520 South Main Street, Suite 2531 Akron, OH 44311
(330) 572-2100

Study Name: 1-State Road_Boulder
Study Date : 9/21/2023

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 0 hours meet 1A minimums.
Only 0 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply =	**False**
Number of Major Lanes =	**1**
Number of Minor Lanes =	**1**

Volume Requirements

Warrant	1A	1B
Veh/Hr Major =	**400**	**600**
Veh/Hr Minor =	**120**	**60**

Major Road: State Rd | **Minor Road: Boulder Blvd**

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1A?
16:45 - 17:45	456	+	613	=	1069	34	0	No
16:30 - 17:30	457	+	609	=	1066	32	0	No
16:15 - 17:15	451	+	575	=	1026	35	0	No
17:00 - 18:00	431	+	585	=	1016	39	0	No
15:45 - 16:45	439	+	531	=	970	27	0	No
16:00 - 17:00	423	+	543	=	966	33	0	No
15:15 - 16:15	470	+	481	=	951	24	0	No
15:30 - 16:30	457	+	491	=	948	27	0	No
17:15 - 18:15	379	+	551	=	930	36	0	No
15:00 - 16:00	466	+	460	=	926	21	0	No
14:45 - 15:45	455	+	402	=	857	17	0	No
17:30 - 18:30	343		504		847	38	0	No

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?
16:45 - 17:45	456	+	613	=	1069	34	0	No
16:30 - 17:30	457	+	609	=	1066	32	0	No
16:15 - 17:15	451	+	575	=	1026	35	0	No
17:00 - 18:00	431	+	585	=	1016	39	0	No
15:45 - 16:45	439	+	531	=	970	27	0	No
16:00 - 17:00	423	+	543	=	966	33	0	No
15:15 - 16:15	470	+	481	=	951	24	0	No
15:30 - 16:30	457	+	491	=	948	27	0	No
17:15 - 18:15	379	+	551	=	930	36	0	No
15:00 - 16:00	466	+	460	=	926	21	0	No
14:45 - 15:45	455	+	402	=	857	17	0	No
17:30 - 18:30	343		504		847	38	0	No

GPD Group
520 South Main Street, Suite 2531 Akron, OH 44311
(330) 572-2100

Study Name: 1-State Road_Boulder
Study Date : 9/21/2023

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

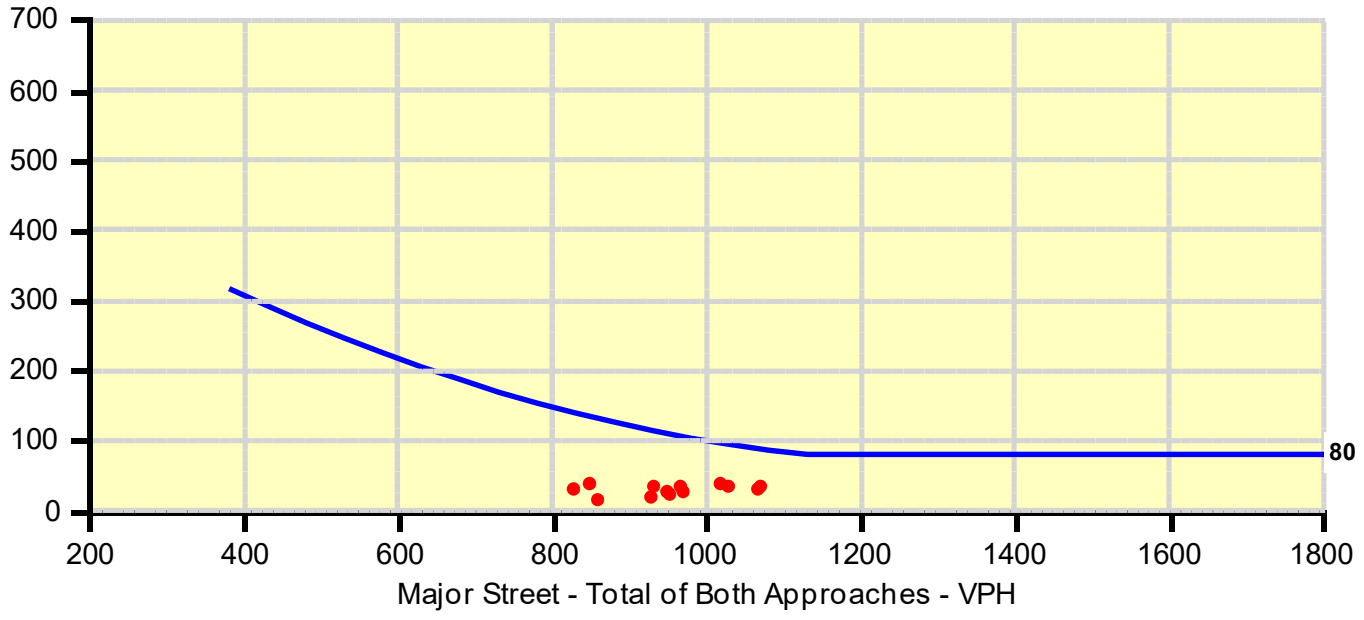
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply =	**False**
Number of Major Lanes =	**1**
Number of Minor Lanes =	**1**

	Major Road					Minor Road		
	State Rd					Boulder Blvd		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:45 - 17:45	456	+	613	=	1069	34	0	No
16:30 - 17:30	457	+	609	=	1066	32	0	No
16:15 - 17:15	451	+	575	=	1026	35	0	No
17:00 - 18:00	431	+	585	=	1016	39	0	No
15:45 - 16:45	439	+	531	=	970	27	0	No
16:00 - 17:00	423	+	543	=	966	33	0	No
15:15 - 16:15	470	+	481	=	951	24	0	No
15:30 - 16:30	457	+	491	=	948	27	0	No
17:15 - 18:15	379	+	551	=	930	36	0	No
15:00 - 16:00	466	+	460	=	926	21	0	No
14:45 - 15:45	455	+	402	=	857	17	0	No



GPD Group
520 South Main Street, Suite 2531 Akron, OH 44311
(330) 572-2100

Study Name: 1-State Road_Boulder
Study Date : 9/21/2023

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

17 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Number of Minor Lanes =**1**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**
Veh/Hr Minor = **100**
Total Delay (Veh-Hrs) = **4**

Major Road	Minor Road
State Rd	Boulder Blvd

Time	Total of All Approaches	Met?	Minor EB	Delay EB	Met?	Minor WB	Delay WB	Met?	Warrant Met?
16:45 - 17:45	1103	Yes	34	0.0	No	0	0.0	---	No
16:30 - 17:30	1098	Yes	32	0.0	No	0	0.0	---	No
16:15 - 17:15	1061	Yes	35	0.0	No	0	0.0	---	No
17:00 - 18:00	1055	Yes	39	0.0	No	0	0.0	---	No
16:00 - 17:00	999	Yes	33	0.0	No	0	0.0	---	No
15:45 - 16:45	997	Yes	27	0.0	No	0	0.0	---	No
15:15 - 16:15	975	Yes	24	0.0	No	0	0.0	---	No
15:30 - 16:30	975	Yes	27	0.0	No	0	0.0	---	No
17:15 - 18:15	966	Yes	36	0.0	No	0	0.0	---	No
15:00 - 16:00	947	Yes	21	0.0	No	0	0.0	---	No
17:30 - 18:30	885	Yes	38	0.0	No	0	0.0	---	No
14:45 - 15:45	874	Yes	17	0.0	No	0	0.0	---	No
07:15 - 08:15	865	Yes	41	0.0	No	0	0.0	---	No
07:45 - 08:45	858	Yes	32	0.0	No	0	0.0	---	No
07:30 - 08:30	854	Yes	42	0.0	No	0	0.0	---	No
07:00 - 08:00	835	Yes	44	0.0	No	0	0.0	---	No
14:30 - 15:30	807	Yes	14	0.0	No	0	0.0	---	No
17:45 - 18:45	792	No	37	0.0	No	0	0.0	---	No
14:15 - 15:15	771	No	12	0.0	No	0	0.0	---	No
14:00 - 15:00	736	No	11	0.0	No	0	0.0	---	No
08:00 - 09:00	732	No	26	0.0	No	0	0.0	---	No
13:45 - 14:45	722	No	15	0.0	No	0	0.0	---	No
13:30 - 14:30	719	No	17	0.0	No	0	0.0	---	No
18:00 - 19:00	714	No	22	0.0	No	0	0.0	---	No
08:15 - 09:15	706	No	23	0.0	No	0	0.0	---	No

GPD Group
520 South Main Street, Suite 2531 Akron, OH 44311
(330) 572-2100

Study Name: 1-State Road_Boulder
Study Date : 9/21/2023

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

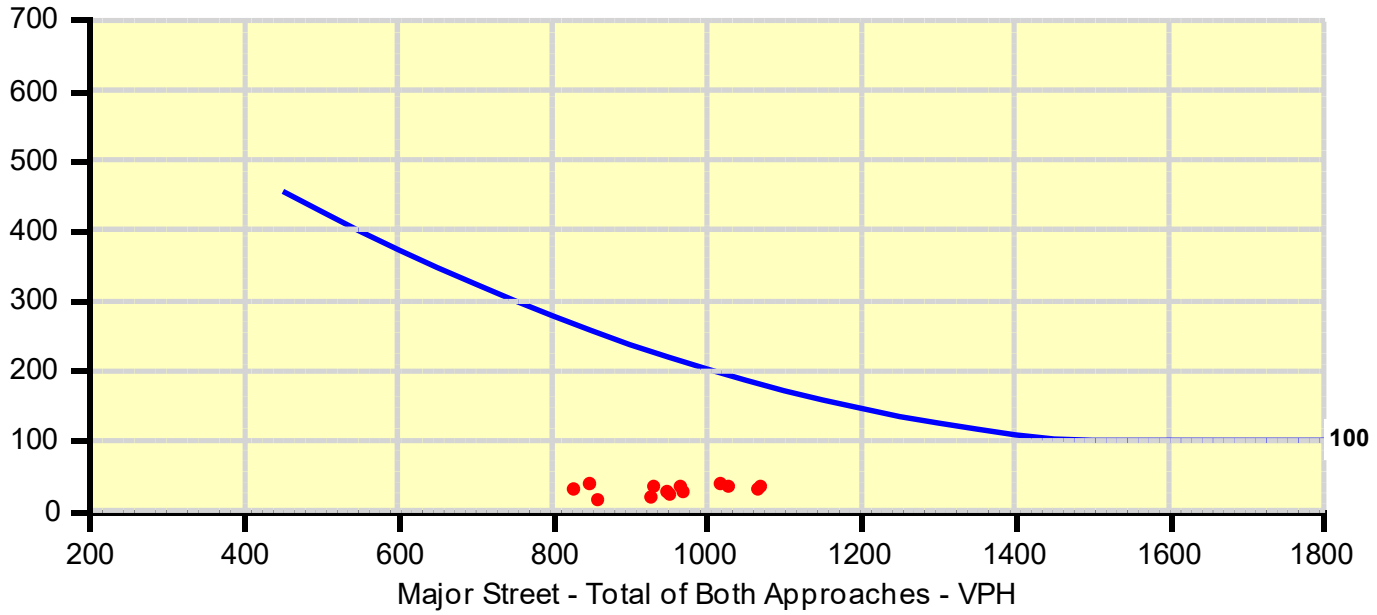
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply =	**False**
Number of Major Lanes =	**1**
Number of Minor Lanes =	**1**

	Major Road					Minor Road		
	State Rd					Boulder Blvd		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:45 - 17:45	456	+	613	=	1069	34	0	No
16:30 - 17:30	457	+	609	=	1066	32	0	No
16:15 - 17:15	451	+	575	=	1026	35	0	No
17:00 - 18:00	431	+	585	=	1016	39	0	No
15:45 - 16:45	439	+	531	=	970	27	0	No
16:00 - 17:00	423	+	543	=	966	33	0	No
15:15 - 16:15	470	+	481	=	951	24	0	No
15:30 - 16:30	457	+	491	=	948	27	0	No
17:15 - 18:15	379	+	551	=	930	36	0	No
15:00 - 16:00	466	+	460	=	926	21	0	No
14:45 - 15:45	455	+	402	=	857	17	0	No



GPD Group
520 South Main Street, Suite 2531 Akron, OH 44311
(330) 572-2100

Study Name: 2-State Rd_Falls Commerce Pkwy
Study Date : 9/21/2023

Signal Warrants - Summary

Major Street Approaches

Northbound: State Rd
Number of Lanes : 1

Total Approach Volume: 4,047

Southbound: State Rd
Number of Lanes :1

Total Approach Volume: 3,828

Minor Street Approaches

Eastbound: Private Drive
Number of Lanes :1

Total Approach Volume: 18

Westbound: Falls Commerce Pkwy
Number of Lanes :1

Total Approach Volume: 92

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....**Not Satisfied**

Warrant 1A - Minimum Vehicular Volume.....**Not Satisfied**
Required volumes reached for 0 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....**Not Satisfied**
Required volumes reached for 0 hours, 8 are needed

Warrant 1C - Combination of Warrants.....**Not Satisfied**
Required 1A volumes reached for 0 hours, 8 are needed
Required 1B volumes reached for 0 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....**Not Satisfied**
Number of hours (0) volumes exceed minimum < minimum required (4).

Warrant 3 - Peak Hour.....**Not Satisfied**

Warrant 3A - Peak Hour Delay.....**Not Satisfied**
Total approach volumes and delays on minor street do not exceed minimums for any one hour period.

Warrant 3B - Peak Hour Volumes.....**Not Satisfied**
Volumes do not exceed minimums for any one hour period.

Warrant 4 - Pedestrian Volumes.....**Not Evaluated**

Warrant 5 - School Crossing.....**Not Evaluated**

Warrant 6 - Coordinated Signal System.....**Not Evaluated**

Warrant 7 - Crash Experience.....**Not Evaluated**

Warrant 8 - Roadway Network.....**Not Evaluated**

Warrant 9 - Intersection Near a Grade Crossing.....**Not Evaluated**

GPD Group
520 South Main Street, Suite 2531 Akron, OH 44311
(330) 572-2100

Study Name: 2-State Rd_Falls Commerce Pkwy
Study Date : 9/21/2023

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **1**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **150**

	Major Road					Minor Road		
	State Rd					Private Drive		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:30 - 17:30	486	+	556	=	1042	4	13	No
16:45 - 17:45	451	+	574	=	1025	2	9	No
16:15 - 17:15	480	+	529	=	1009	4	12	No
16:00 - 17:00	447	+	498	=	945	4	12	No
17:00 - 18:00	412	+	477	=	889	2	11	No
15:45 - 16:45	428	+	436	=	864	3	17	No
07:15 - 08:15	556	+	301	=	857	0	7	No
15:30 - 16:30	412	+	421	=	833	1	17	No
07:00 - 08:00	543	+	283	=	826	0	8	No
07:30 - 08:30	491	+	320	=	811	0	6	No
15:15 - 16:15	407	+	394	=	801	0	18	No
17:15 - 18:15	361	+	432	=	793	3	5	No
07:45 - 08:45	435	+	344	=	779	0	3	No
15:00 - 16:00	383	+	380	=	763	0	15	No
14:45 - 15:45	387	+	371	=	758	0	13	No
14:30 - 15:30	374	+	349	=	723	0	9	No
08:00 - 09:00	396	+	308	=	704	0	3	No
14:15 - 15:15	340	+	350	=	690	0	11	No
17:30 - 18:30	305	+	385	=	690	3	5	No
14:00 - 15:00	356	+	326	=	682	0	9	No
08:15 - 09:15	365	+	287	=	652	0	3	No
13:45 - 14:45	336	+	277	=	613	0	7	No
08:30 - 09:30	339	+	269	=	608	1	4	No
17:45 - 18:45	260	+	328	=	588	4	3	No
13:30 - 14:30	319		260		579	1	5	No

GPD Group
520 South Main Street, Suite 2531 Akron, OH 44311
(330) 572-2100

Study Name: 2-State Rd_Falls Commerce Pkwy
Study Date : 9/21/2023

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **1**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **75**

	Major Road					Minor Road		
	State Rd					Private Drive		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:30 - 17:30	486	+	556	=	1042	4	13	No
16:45 - 17:45	451	+	574	=	1025	2	9	No
16:15 - 17:15	480	+	529	=	1009	4	12	No
16:00 - 17:00	447	+	498	=	945	4	12	No
17:00 - 18:00	412	+	477	=	889	2	11	No
15:45 - 16:45	428	+	436	=	864	3	17	No
07:15 - 08:15	556	+	301	=	857	0	7	No
15:30 - 16:30	412	+	421	=	833	1	17	No
07:00 - 08:00	543	+	283	=	826	0	8	No
07:30 - 08:30	491	+	320	=	811	0	6	No
15:15 - 16:15	407	+	394	=	801	0	18	No
17:15 - 18:15	361	+	432	=	793	3	5	No
07:45 - 08:45	435	+	344	=	779	0	3	No
15:00 - 16:00	383	+	380	=	763	0	15	No
14:45 - 15:45	387	+	371	=	758	0	13	No
14:30 - 15:30	374	+	349	=	723	0	9	No
08:00 - 09:00	396	+	308	=	704	0	3	No
14:15 - 15:15	340	+	350	=	690	0	11	No
17:30 - 18:30	305	+	385	=	690	3	5	No
14:00 - 15:00	356	+	326	=	682	0	9	No
08:15 - 09:15	365	+	287	=	652	0	3	No
13:45 - 14:45	336	+	277	=	613	0	7	No
08:30 - 09:30	339	+	269	=	608	1	4	No
17:45 - 18:45	260	+	328	=	588	4	3	No
13:30 - 14:30	319		260		579	1	5	No

GPD Group
520 South Main Street, Suite 2531 Akron, OH 44311
(330) 572-2100

Study Name: 2-State Rd_Falls Commerce Pkwy
Study Date : 9/21/2023

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 0 hours meet 1A minimums.
Only 0 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply =	**False**
Number of Major Lanes =	**1**
Number of Minor Lanes =	**1**

Volume Requirements

Warrant	1A	1B
Veh/Hr Major =	**400**	**600**
Veh/Hr Minor =	**120**	**60**

Major Road	Minor Road
State Rd	Private Drive

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1A?
16:30 - 17:30	486	+	556	=	1042	4	13	No
16:45 - 17:45	451	+	574	=	1025	2	9	No
16:15 - 17:15	480	+	529	=	1009	4	12	No
16:00 - 17:00	447	+	498	=	945	4	12	No
17:00 - 18:00	412	+	477	=	889	2	11	No
15:45 - 16:45	428	+	436	=	864	3	17	No
07:15 - 08:15	556	+	301	=	857	0	7	No
15:30 - 16:30	412	+	421	=	833	1	17	No
07:00 - 08:00	543	+	283	=	826	0	8	No
07:30 - 08:30	491	+	320	=	811	0	6	No
15:15 - 16:15	407	+	394	=	801	0	18	No
17:15 - 18:15	361		432		793	3	5	No

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?
16:30 - 17:30	486	+	556	=	1042	4	13	No
16:45 - 17:45	451	+	574	=	1025	2	9	No
16:15 - 17:15	480	+	529	=	1009	4	12	No
16:00 - 17:00	447	+	498	=	945	4	12	No
17:00 - 18:00	412	+	477	=	889	2	11	No
15:45 - 16:45	428	+	436	=	864	3	17	No
07:15 - 08:15	556	+	301	=	857	0	7	No
15:30 - 16:30	412	+	421	=	833	1	17	No
07:00 - 08:00	543	+	283	=	826	0	8	No
07:30 - 08:30	491	+	320	=	811	0	6	No
15:15 - 16:15	407	+	394	=	801	0	18	No
17:15 - 18:15	361		432		793	3	5	No

GPD Group
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(330) 572-2100

Study Name: 2-State Rd_Falls Commerce Pkwy
Study Date : 9/21/2023

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

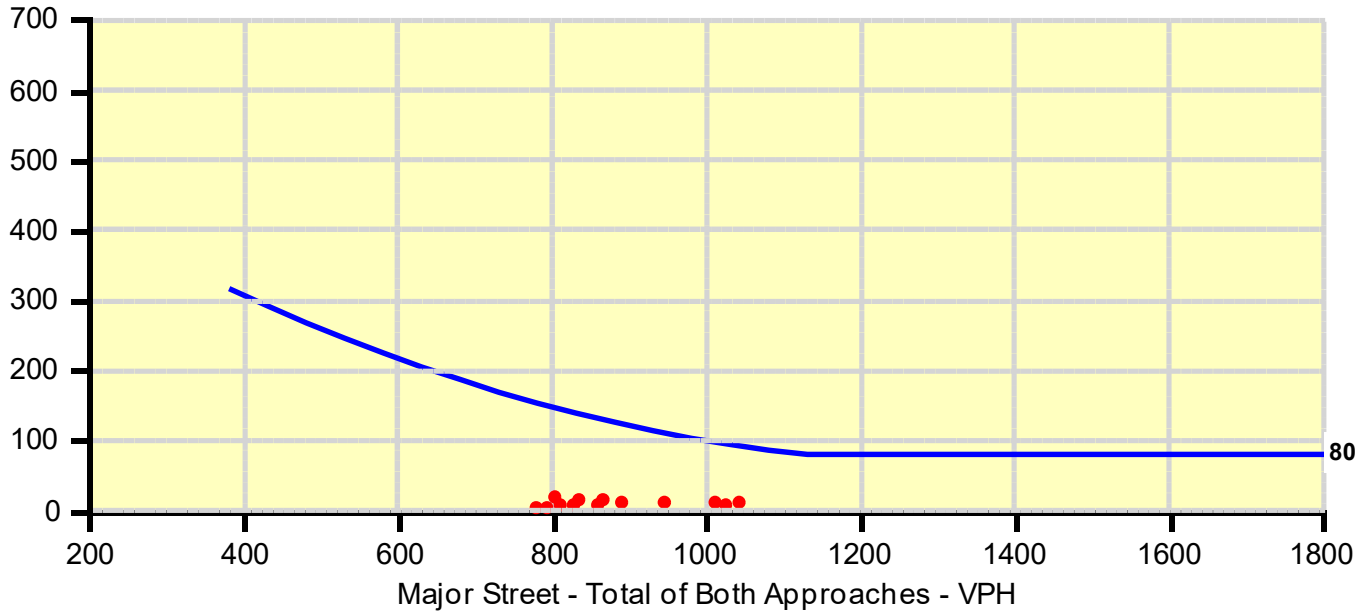
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply =	**False**
Number of Major Lanes =	**1**
Number of Minor Lanes =	**1**

	Major Road					Minor Road		
	State Rd					Private Drive		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:30 - 17:30	486	+	556	=	1042	4	13	No
16:45 - 17:45	451	+	574	=	1025	2	9	No
16:15 - 17:15	480	+	529	=	1009	4	12	No
16:00 - 17:00	447	+	498	=	945	4	12	No
17:00 - 18:00	412	+	477	=	889	2	11	No
15:45 - 16:45	428	+	436	=	864	3	17	No
07:15 - 08:15	556	+	301	=	857	0	7	No
15:30 - 16:30	412	+	421	=	833	1	17	No
07:00 - 08:00	543	+	283	=	826	0	8	No
07:30 - 08:30	491	+	320	=	811	0	6	No
15:15 - 16:15	407	+	394	=	801	0	18	No



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Study Name: 2-State Rd_Falls Commerce Pkwy
Study Date : 9/21/2023

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

12 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Number of Minor Lanes =**1**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**
Veh/Hr Minor = **100**
Total Delay (Veh-Hrs) = **4**

Major Road	Minor Road
State Rd	Private Drive

Time	Total of All Approaches	Met?	Minor EB	Delay EB	Met?	Minor WB	Delay WB	Met?	Warrant Met?
16:30 - 17:30	1059	Yes	4	0.0	---	13	0.0	No	No
16:45 - 17:45	1036	Yes	2	0.0	---	9	0.0	No	No
16:15 - 17:15	1025	Yes	4	0.0	---	12	0.0	No	No
16:00 - 17:00	961	Yes	4	0.0	---	12	0.0	No	No
17:00 - 18:00	902	Yes	2	0.0	---	11	0.0	No	No
15:45 - 16:45	884	Yes	3	0.0	---	17	0.0	No	No
07:15 - 08:15	864	Yes	0	0.0	---	7	0.0	No	No
15:30 - 16:30	851	Yes	1	0.0	---	17	0.0	No	No
07:00 - 08:00	834	Yes	0	0.0	---	8	0.0	No	No
15:15 - 16:15	819	Yes	0	0.0	---	18	0.0	No	No
07:30 - 08:30	817	Yes	0	0.0	---	6	0.0	No	No
17:15 - 18:15	801	Yes	3	0.0	---	5	0.0	No	No
07:45 - 08:45	782	No	0	0.0	---	3	0.0	No	No
15:00 - 16:00	778	No	0	0.0	---	15	0.0	No	No
14:45 - 15:45	771	No	0	0.0	---	13	0.0	No	No
14:30 - 15:30	732	No	0	0.0	---	9	0.0	No	No
08:00 - 09:00	707	No	0	0.0	---	3	0.0	No	No
14:15 - 15:15	701	No	0	0.0	---	11	0.0	No	No
17:30 - 18:30	698	No	3	0.0	---	5	0.0	No	No
14:00 - 15:00	691	No	0	0.0	---	9	0.0	No	No
08:15 - 09:15	655	No	0	0.0	---	3	0.0	No	No
13:45 - 14:45	620	No	0	0.0	---	7	0.0	No	No
08:30 - 09:30	613	No	1	0.0	---	4	0.0	No	No
17:45 - 18:45	595	No	4	0.0	No	3	0.0	---	No
13:30 - 14:30	585	No	1	0.0	---	5	0.0	No	No

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Study Name: 2-State Rd_Falls Commerce Pkwy
Study Date : 9/21/2023

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

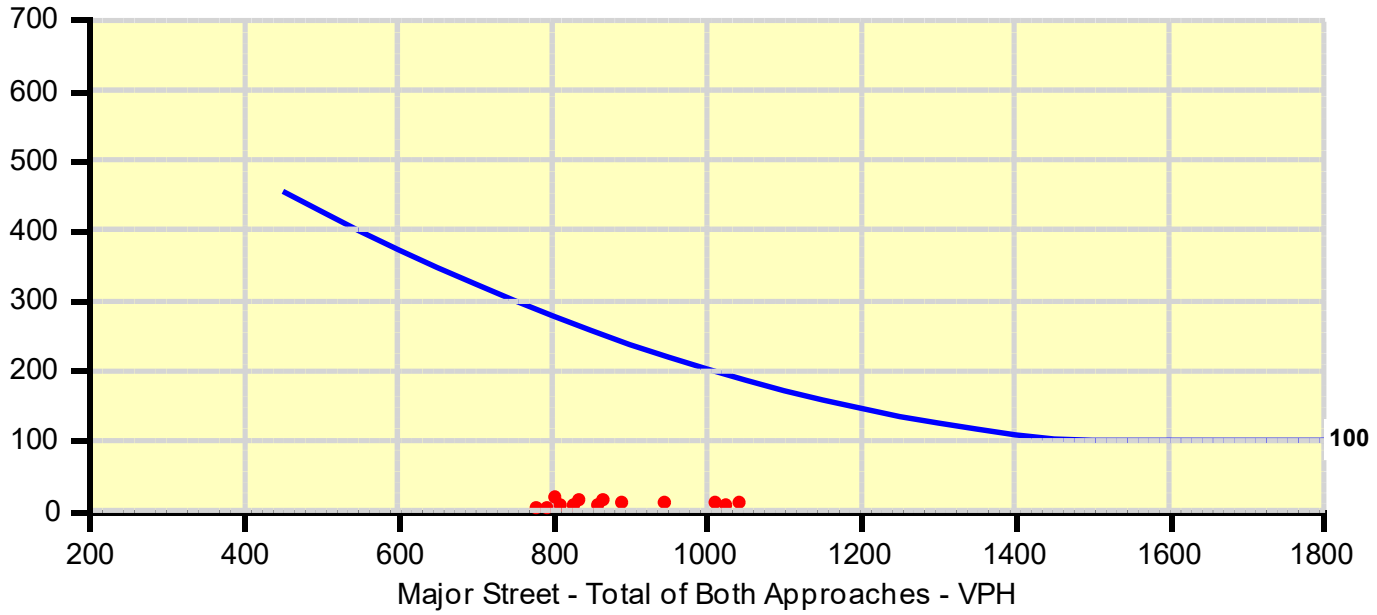
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply =	**False**
Number of Major Lanes =	**1**
Number of Minor Lanes =	**1**

	Major Road					Minor Road		
	State Rd					Private Drive		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:30 - 17:30	486	+	556	=	1042	4	13	No
16:45 - 17:45	451	+	574	=	1025	2	9	No
16:15 - 17:15	480	+	529	=	1009	4	12	No
16:00 - 17:00	447	+	498	=	945	4	12	No
17:00 - 18:00	412	+	477	=	889	2	11	No
15:45 - 16:45	428	+	436	=	864	3	17	No
07:15 - 08:15	556	+	301	=	857	0	7	No
15:30 - 16:30	412	+	421	=	833	1	17	No
07:00 - 08:00	543	+	283	=	826	0	8	No
07:30 - 08:30	491	+	320	=	811	0	6	No
15:15 - 16:15	407	+	394	=	801	0	18	No



GPD Group
520 South Main Street, Suite 2531 Akron, OH 44311
(330) 572-2100

Study Name: 3-State Rd_Buckeye Drive_Storr-it Drive
Study Date : 9/21/2023

Signal Warrants - Summary

Major Street Approaches

Northbound: State Rd
Number of Lanes : 1

Total Approach Volume: 4,022

Southbound: State Rd
Number of Lanes :1

Total Approach Volume: 3,819

Minor Street Approaches

Eastbound: Buckeye Drive
Number of Lanes :1

Total Approach Volume: 91

Westbound: Storr-it Drive
Number of Lanes :1

Total Approach Volume: 71

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....**Not Satisfied**

Warrant 1A - Minimum Vehicular Volume.....**Not Satisfied**
Required volumes reached for 0 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....**Not Satisfied**
Required volumes reached for 0 hours, 8 are needed

Warrant 1C - Combination of Warrants.....**Not Satisfied**
Required 1A volumes reached for 0 hours, 8 are needed
Required 1B volumes reached for 0 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....**Not Satisfied**
Number of hours (0) volumes exceed minimum < minimum required (4).

Warrant 3 - Peak Hour.....**Not Satisfied**

Warrant 3A - Peak Hour Delay.....**Not Satisfied**
Total approach volumes and delays on minor street do not exceed minimums for any one hour period.

Warrant 3B - Peak Hour Volumes.....**Not Satisfied**
Volumes do not exceed minimums for any one hour period.

Warrant 4 - Pedestrian Volumes.....**Not Evaluated**

Warrant 5 - School Crossing.....**Not Evaluated**

Warrant 6 - Coordinated Signal System.....**Not Evaluated**

Warrant 7 - Crash Experience.....**Not Evaluated**

Warrant 8 - Roadway Network.....**Not Evaluated**

Warrant 9 - Intersection Near a Grade Crossing.....**Not Evaluated**

GPD Group
520 South Main Street, Suite 2531 Akron, OH 44311
(330) 572-2100

Study Name: 3-State Rd_Buckeye Drive_Storr-it Drive
Study Date : 9/21/2023

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **1**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **150**

	Major Road					Minor Road		
	State Rd					Buckeye Drive		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:30 - 17:30	483	+	549	=	1032	10	5	No
16:45 - 17:45	445	+	573	=	1018	16	6	No
16:15 - 17:15	482	+	530	=	1012	13	6	No
16:00 - 17:00	443	+	501	=	944	17	8	No
17:00 - 18:00	412	+	481	=	893	12	4	No
15:45 - 16:45	435	+	441	=	876	14	7	No
07:15 - 08:15	563	+	295	=	858	4	3	No
15:30 - 16:30	407	+	430	=	837	14	9	No
07:00 - 08:00	553	+	276	=	829	2	4	No
15:15 - 16:15	391	+	416	=	807	14	8	No
07:30 - 08:30	491	+	313	=	804	4	2	No
17:15 - 18:15	354	+	433	=	787	9	7	No
07:45 - 08:45	441	+	345	=	786	4	3	No
15:00 - 16:00	385	+	401	=	786	8	8	No
14:45 - 15:45	381	+	389	=	770	9	8	No
14:30 - 15:30	375	+	361	=	736	9	8	No
08:00 - 09:00	398	+	309	=	707	3	5	No
14:15 - 15:15	355	+	337	=	692	6	6	No
17:30 - 18:30	300	+	385	=	685	8	5	No
14:00 - 15:00	353	+	314	=	667	7	9	No
08:15 - 09:15	361	+	287	=	648	1	9	No
13:45 - 14:45	333	+	273	=	606	7	8	No
08:30 - 09:30	339	+	266	=	605	3	8	No
06:45 - 07:45	408	+	171	=	579	0	3	No
17:45 - 18:45	251		324		575	0	4	No

GPD Group
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(330) 572-2100

Study Name: 3-State Rd_Buckeye Drive_Storr-it Drive

Study Date : 9/21/2023

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **1**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **75**

	Major Road State Rd					Minor Road Buckeye Drive		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:30 - 17:30	483	+	549	=	1032	10	5	No
16:45 - 17:45	445	+	573	=	1018	16	6	No
16:15 - 17:15	482	+	530	=	1012	13	6	No
16:00 - 17:00	443	+	501	=	944	17	8	No
17:00 - 18:00	412	+	481	=	893	12	4	No
15:45 - 16:45	435	+	441	=	876	14	7	No
07:15 - 08:15	563	+	295	=	858	4	3	No
15:30 - 16:30	407	+	430	=	837	14	9	No
07:00 - 08:00	553	+	276	=	829	2	4	No
15:15 - 16:15	391	+	416	=	807	14	8	No
07:30 - 08:30	491	+	313	=	804	4	2	No
17:15 - 18:15	354	+	433	=	787	9	7	No
07:45 - 08:45	441	+	345	=	786	4	3	No
15:00 - 16:00	385	+	401	=	786	8	8	No
14:45 - 15:45	381	+	389	=	770	9	8	No
14:30 - 15:30	375	+	361	=	736	9	8	No
08:00 - 09:00	398	+	309	=	707	3	5	No
14:15 - 15:15	355	+	337	=	692	6	6	No
17:30 - 18:30	300	+	385	=	685	8	5	No
14:00 - 15:00	353	+	314	=	667	7	9	No
08:15 - 09:15	361	+	287	=	648	1	9	No
13:45 - 14:45	333	+	273	=	606	7	8	No
08:30 - 09:30	339	+	266	=	605	3	8	No
06:45 - 07:45	408	+	171	=	579	0	3	No
17:45 - 18:45	251		324		575	0	4	No

GPD Group
520 South Main Street, Suite 2531 Akron, OH 44311
(330) 572-2100

Study Name: 3-State Rd_Buckeye Drive_Storr-it Drive
Study Date : 9/21/2023

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 0 hours meet 1A minimums.
Only 0 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply =	**False**
Number of Major Lanes =	**1**
Number of Minor Lanes =	**1**

Volume Requirements

Warrant	1A	1B
Veh/Hr Major =	**400**	**600**
Veh/Hr Minor =	**120**	**60**

Major Road	Minor Road
State Rd	Buckeye Drive

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1A?
16:30 - 17:30	483	+	549	=	1032	10	5	No
16:45 - 17:45	445	+	573	=	1018	16	6	No
16:15 - 17:15	482	+	530	=	1012	13	6	No
16:00 - 17:00	443	+	501	=	944	17	8	No
17:00 - 18:00	412	+	481	=	893	12	4	No
15:45 - 16:45	435	+	441	=	876	14	7	No
07:15 - 08:15	563	+	295	=	858	4	3	No
15:30 - 16:30	407	+	430	=	837	14	9	No
07:00 - 08:00	553	+	276	=	829	2	4	No
15:15 - 16:15	391	+	416	=	807	14	8	No
07:30 - 08:30	491	+	313	=	804	4	2	No
17:15 - 18:15	354		433		787	9	7	No

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?
16:30 - 17:30	483	+	549	=	1032	10	5	No
16:45 - 17:45	445	+	573	=	1018	16	6	No
16:15 - 17:15	482	+	530	=	1012	13	6	No
16:00 - 17:00	443	+	501	=	944	17	8	No
17:00 - 18:00	412	+	481	=	893	12	4	No
15:45 - 16:45	435	+	441	=	876	14	7	No
07:15 - 08:15	563	+	295	=	858	4	3	No
15:30 - 16:30	407	+	430	=	837	14	9	No
07:00 - 08:00	553	+	276	=	829	2	4	No
15:15 - 16:15	391	+	416	=	807	14	8	No
07:30 - 08:30	491	+	313	=	804	4	2	No
17:15 - 18:15	354		433		787	9	7	No

GPD Group
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Study Name: 3-State Rd_Buckeye Drive_Storr-it Drive
Study Date : 9/21/2023

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

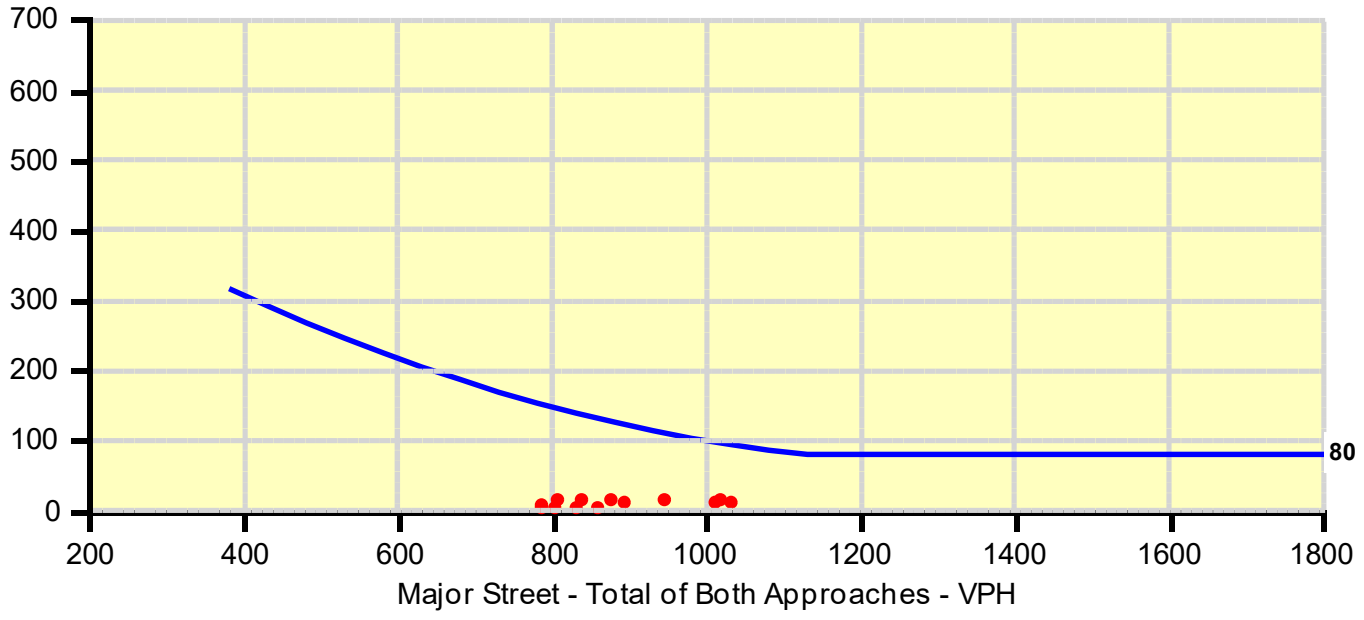
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply =	**False**
Number of Major Lanes =	**1**
Number of Minor Lanes =	**1**

	Major Road					Minor Road		
	State Rd					Buckeye Drive		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:30 - 17:30	483	+	549	=	1032	10	5	No
16:45 - 17:45	445	+	573	=	1018	16	6	No
16:15 - 17:15	482	+	530	=	1012	13	6	No
16:00 - 17:00	443	+	501	=	944	17	8	No
17:00 - 18:00	412	+	481	=	893	12	4	No
15:45 - 16:45	435	+	441	=	876	14	7	No
07:15 - 08:15	563	+	295	=	858	4	3	No
15:30 - 16:30	407	+	430	=	837	14	9	No
07:00 - 08:00	553	+	276	=	829	2	4	No
15:15 - 16:15	391	+	416	=	807	14	8	No
07:30 - 08:30	491	+	313	=	804	4	2	No



GPD Group
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(330) 572-2100

Study Name: 3-State Rd_Buckeye Drive_Storr-it Drive
Study Date : 9/21/2023

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

13 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Number of Minor Lanes =**1**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**
Veh/Hr Minor = **100**
Total Delay (Veh-Hrs) = **4**

Major Road	Minor Road
State Rd	Buckeye Drive

Time	Total of All Approaches	Met?	Minor EB	Delay EB	Met?	Minor WB	Delay WB	Met?	Warrant Met?
16:30 - 17:30	1047	Yes	10	0.0	No	5	0.0	---	No
16:45 - 17:45	1040	Yes	16	0.0	No	6	0.0	---	No
16:15 - 17:15	1031	Yes	13	0.0	No	6	0.0	---	No
16:00 - 17:00	969	Yes	17	0.0	No	8	0.0	---	No
17:00 - 18:00	909	Yes	12	0.0	No	4	0.0	---	No
15:45 - 16:45	897	Yes	14	0.0	No	7	0.0	---	No
07:15 - 08:15	865	Yes	4	0.0	No	3	0.0	---	No
15:30 - 16:30	860	Yes	14	0.0	No	9	0.0	---	No
07:00 - 08:00	835	Yes	2	0.0	---	4	0.0	No	No
15:15 - 16:15	829	Yes	14	0.0	No	8	0.0	---	No
07:30 - 08:30	810	Yes	4	0.0	No	2	0.0	---	No
17:15 - 18:15	803	Yes	9	0.0	No	7	0.0	---	No
15:00 - 16:00	802	Yes	8	0.0	---	8	0.0	No	No
07:45 - 08:45	793	No	4	0.0	No	3	0.0	---	No
14:45 - 15:45	787	No	9	0.0	No	8	0.0	---	No
14:30 - 15:30	753	No	9	0.0	No	8	0.0	---	No
08:00 - 09:00	715	No	3	0.0	---	5	0.0	No	No
14:15 - 15:15	704	No	6	0.0	---	6	0.0	No	No
17:30 - 18:30	698	No	8	0.0	No	5	0.0	---	No
14:00 - 15:00	683	No	7	0.0	---	9	0.0	No	No
08:15 - 09:15	658	No	1	0.0	---	9	0.0	No	No
13:45 - 14:45	621	No	7	0.0	---	8	0.0	No	No
08:30 - 09:30	616	No	3	0.0	---	8	0.0	No	No
06:45 - 07:45	582	No	0	0.0	---	3	0.0	No	No
13:30 - 14:30	580	No	9	0.0	---	9	0.0	No	No

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Study Name: 3-State Rd_Buckeye Drive_Storr-it Drive
Study Date : 9/21/2023

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

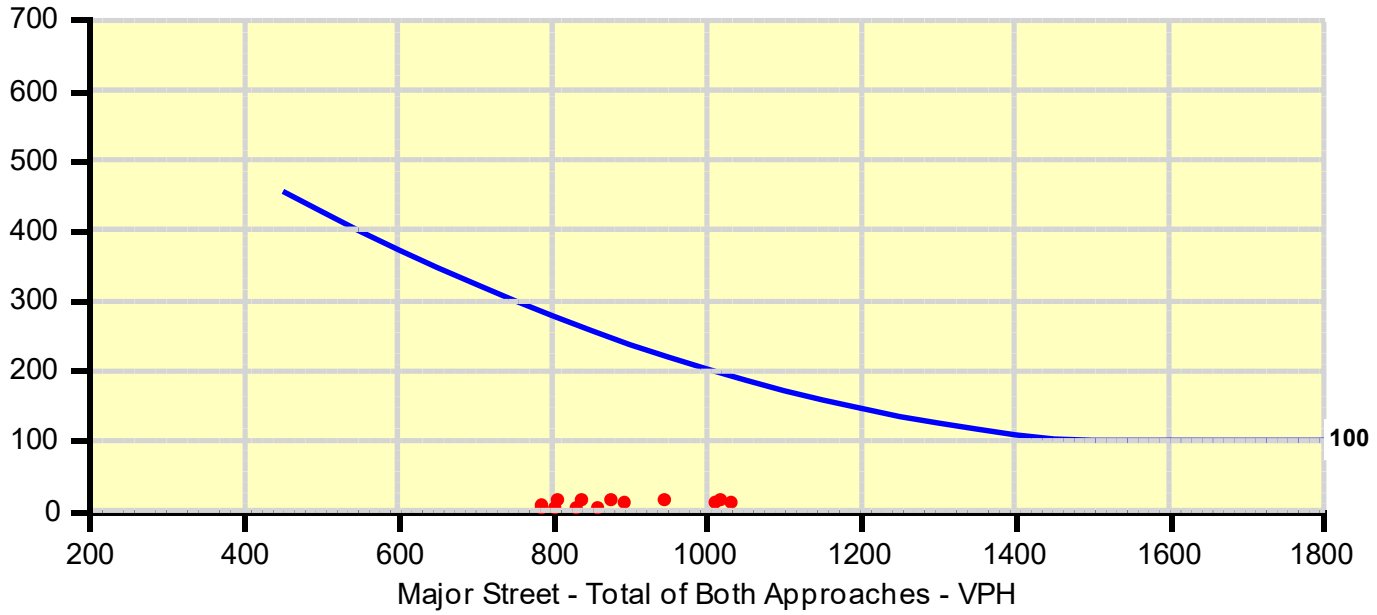
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply =	**False**
Number of Major Lanes =	**1**
Number of Minor Lanes =	**1**

	Major Road State Rd					Minor Road Buckeye Drive		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:30 - 17:30	483	+	549	=	1032	10	5	No
16:45 - 17:45	445	+	573	=	1018	16	6	No
16:15 - 17:15	482	+	530	=	1012	13	6	No
16:00 - 17:00	443	+	501	=	944	17	8	No
17:00 - 18:00	412	+	481	=	893	12	4	No
15:45 - 16:45	435	+	441	=	876	14	7	No
07:15 - 08:15	563	+	295	=	858	4	3	No
15:30 - 16:30	407	+	430	=	837	14	9	No
07:00 - 08:00	553	+	276	=	829	2	4	No
15:15 - 16:15	391	+	416	=	807	14	8	No
07:30 - 08:30	491	+	313	=	804	4	2	No



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Study Name: 4-State Rd_Salt Creek Run
Study Date : 9/21/2023

Signal Warrants - Summary

Major Street Approaches

Northbound: State Rd
Number of Lanes : 1

Total Approach Volume: 4,380

Southbound: State Rd
Number of Lanes :1

Total Approach Volume: 4,079

Minor Street Approaches

Eastbound: Salt Creek Run
Number of Lanes :1

Total Approach Volume: 339

Westbound: N/A
Number of Lanes :1

Total Approach Volume: 0

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....**Not Satisfied**

Warrant 1A - Minimum Vehicular Volume.....**Not Satisfied**
Required volumes reached for 0 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....**Not Satisfied**
Required volumes reached for 0 hours, 8 are needed

Warrant 1C - Combination of Warrants.....**Not Satisfied**
Required 1A volumes reached for 0 hours, 8 are needed
Required 1B volumes reached for 1 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....**Not Satisfied**
Number of hours (0) volumes exceed minimum < minimum required (4).

Warrant 3 - Peak Hour.....**Not Satisfied**

Warrant 3A - Peak Hour Delay.....**Not Satisfied**
Total approach volumes and delays on minor street do not exceed minimums for any one hour period.

Warrant 3B - Peak Hour Volumes.....**Not Satisfied**
Volumes do not exceed minimums for any one hour period.

Warrant 4 - Pedestrian Volumes.....**Not Evaluated**

Warrant 5 - School Crossing.....**Not Evaluated**

Warrant 6 - Coordinated Signal System.....**Not Evaluated**

Warrant 7 - Crash Experience.....**Not Evaluated**

Warrant 8 - Roadway Network.....**Not Evaluated**

Warrant 9 - Intersection Near a Grade Crossing.....**Not Evaluated**

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Study Name: 4-State Rd_Salt Creek Run
Study Date : 9/21/2023

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **1**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **150**

	Major Road					Minor Road		
	State Rd					Salt Creek Run		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:30 - 17:30	465	+	553	=	1018	39	0	No
16:45 - 17:45	446	+	568	=	1014	40	0	No
16:15 - 17:15	481	+	531	=	1012	39	0	No
17:00 - 18:00	400	+	558	=	958	31	0	No
15:45 - 16:45	473	+	475	=	948	30	0	No
16:00 - 17:00	453	+	492	=	945	38	0	No
15:15 - 16:15	495	+	442	=	937	26	0	No
15:30 - 16:30	464	+	457	=	921	26	0	No
15:00 - 16:00	480	+	433	=	913	23	0	No
14:45 - 15:45	426	+	418	=	844	25	0	No
17:15 - 18:15	346	+	488	=	834	34	0	No
14:30 - 15:30	423	+	404	=	827	30	0	No
07:15 - 08:15	492	+	325	=	817	62	0	No
07:00 - 08:00	483	+	330	=	813	61	0	No
07:30 - 08:30	469	+	337	=	806	46	0	No
17:30 - 18:30	359	+	426	=	785	30	0	No
14:15 - 15:15	390	+	386	=	776	25	0	No
07:45 - 08:45	402	+	365	=	767	42	0	No
14:00 - 15:00	358	+	345	=	703	31	0	No
08:00 - 09:00	395	+	292	=	687	36	0	No
13:45 - 14:45	358	+	329	=	687	30	0	No
08:15 - 09:15	388	+	281	=	669	37	0	No
17:45 - 18:45	316	+	353	=	669	28	0	No
13:15 - 14:15	310	+	312	=	622	19	0	No
13:30 - 14:30	317		302		619	22	0	No

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Study Name: 4-State Rd_Salt Creek Run

Study Date : 9/21/2023

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **1**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **75**

	Major Road					Minor Road		
	State Rd					Salt Creek Run		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:30 - 17:30	465	+	553	=	1018	39	0	No
16:45 - 17:45	446	+	568	=	1014	40	0	No
16:15 - 17:15	481	+	531	=	1012	39	0	No
17:00 - 18:00	400	+	558	=	958	31	0	No
15:45 - 16:45	473	+	475	=	948	30	0	No
16:00 - 17:00	453	+	492	=	945	38	0	No
15:15 - 16:15	495	+	442	=	937	26	0	No
15:30 - 16:30	464	+	457	=	921	26	0	No
15:00 - 16:00	480	+	433	=	913	23	0	No
14:45 - 15:45	426	+	418	=	844	25	0	No
17:15 - 18:15	346	+	488	=	834	34	0	No
14:30 - 15:30	423	+	404	=	827	30	0	No
07:15 - 08:15	492	+	325	=	817	62	0	No
07:00 - 08:00	483	+	330	=	813	61	0	No
07:30 - 08:30	469	+	337	=	806	46	0	No
17:30 - 18:30	359	+	426	=	785	30	0	No
14:15 - 15:15	390	+	386	=	776	25	0	No
07:45 - 08:45	402	+	365	=	767	42	0	No
14:00 - 15:00	358	+	345	=	703	31	0	No
08:00 - 09:00	395	+	292	=	687	36	0	No
13:45 - 14:45	358	+	329	=	687	30	0	No
08:15 - 09:15	388	+	281	=	669	37	0	No
17:45 - 18:45	316	+	353	=	669	28	0	No
13:15 - 14:15	310	+	312	=	622	19	0	No
13:30 - 14:30	317		302		619	22	0	No

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Study Name: 4-State Rd_Salt Creek Run
Study Date : 9/21/2023

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 0 hours meet 1A minimums.
Only 1 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply =	**False**
Number of Major Lanes =	**1**
Number of Minor Lanes =	**1**

Volume Requirements

Warrant	1A	1B
Veh/Hr Major =	**400**	**600**
Veh/Hr Minor =	**120**	**60**

Major Road	Minor Road
State Rd	Salt Creek Run

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1A?
16:30 - 17:30	465	+	553	=	1018	39	0	No
16:45 - 17:45	446	+	568	=	1014	40	0	No
16:15 - 17:15	481	+	531	=	1012	39	0	No
17:00 - 18:00	400	+	558	=	958	31	0	No
15:45 - 16:45	473	+	475	=	948	30	0	No
16:00 - 17:00	453	+	492	=	945	38	0	No
15:15 - 16:15	495	+	442	=	937	26	0	No
15:30 - 16:30	464	+	457	=	921	26	0	No
15:00 - 16:00	480	+	433	=	913	23	0	No
14:45 - 15:45	426	+	418	=	844	25	0	No
17:15 - 18:15	346	+	488	=	834	34	0	No
14:30 - 15:30	423		404		827	30	0	No

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?
07:00 - 08:00	483	+	330	=	813	61	0	Yes
16:30 - 17:30	465	+	553	=	1018	39	0	No
16:45 - 17:45	446	+	568	=	1014	40	0	No
16:15 - 17:15	481	+	531	=	1012	39	0	No
17:00 - 18:00	400	+	558	=	958	31	0	No
15:45 - 16:45	473	+	475	=	948	30	0	No
16:00 - 17:00	453	+	492	=	945	38	0	No
15:15 - 16:15	495	+	442	=	937	26	0	No
15:30 - 16:30	464	+	457	=	921	26	0	No
15:00 - 16:00	480	+	433	=	913	23	0	No
14:45 - 15:45	426	+	418	=	844	25	0	No
17:15 - 18:15	346		488		834	34	0	No

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Study Name: 4-State Rd_Salt Creek Run
Study Date : 9/21/2023

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

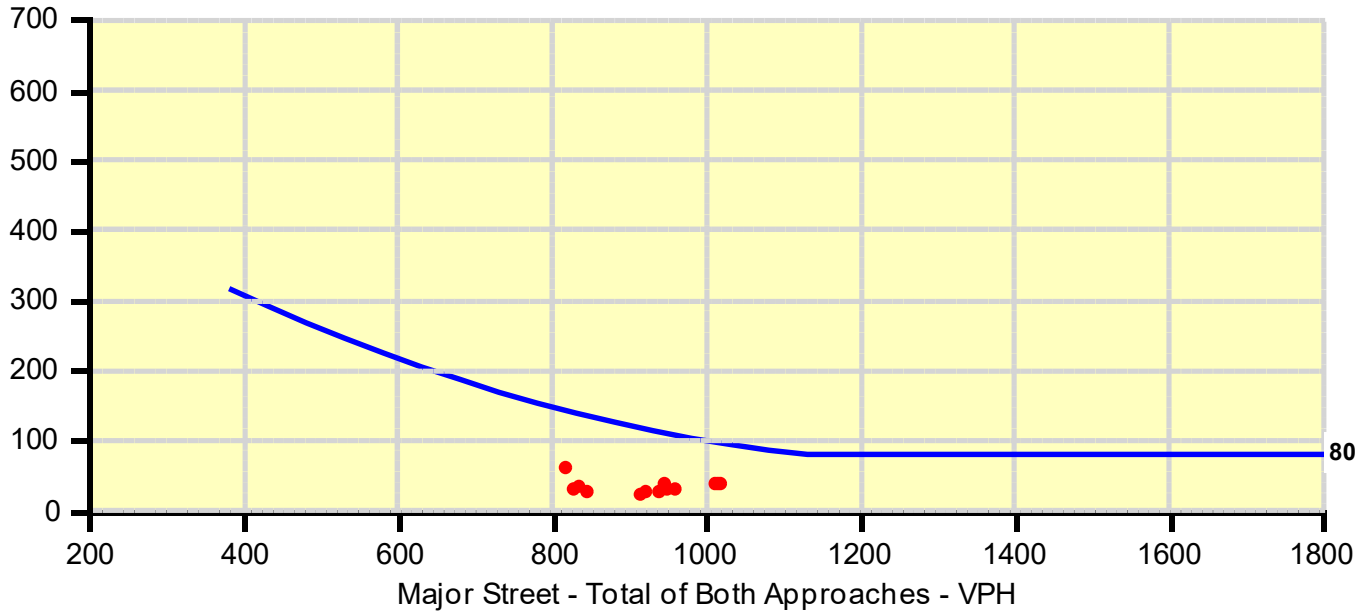
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply =	**False**
Number of Major Lanes =	**1**
Number of Minor Lanes =	**1**

	Major Road					Minor Road		
	State Rd					Salt Creek Run		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:30 - 17:30	465	+	553	=	1018	39	0	No
16:45 - 17:45	446	+	568	=	1014	40	0	No
16:15 - 17:15	481	+	531	=	1012	39	0	No
17:00 - 18:00	400	+	558	=	958	31	0	No
15:45 - 16:45	473	+	475	=	948	30	0	No
16:00 - 17:00	453	+	492	=	945	38	0	No
15:15 - 16:15	495	+	442	=	937	26	0	No
15:30 - 16:30	464	+	457	=	921	26	0	No
15:00 - 16:00	480	+	433	=	913	23	0	No
14:45 - 15:45	426	+	418	=	844	25	0	No
17:15 - 18:15	346	+	488	=	834	34	0	No



GPD Group
520 South Main Street, Suite 2531 Akron, OH 44311
(330) 572-2100

Study Name: 4-State Rd_Salt Creek Run
Study Date : 9/21/2023

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

18 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Number of Minor Lanes =**1**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**
Veh/Hr Minor = **100**
Total Delay (Veh-Hrs) = **4**

Major Road	Minor Road
State Rd	Salt Creek Run

Time	Total of All Approaches	Met?	Minor EB	Delay EB	Met?	Minor WB	Delay WB	Met?	Warrant Met?
16:30 - 17:30	1057	Yes	39	0.0	No	0	0.0	---	No
16:45 - 17:45	1054	Yes	40	0.0	No	0	0.0	---	No
16:15 - 17:15	1051	Yes	39	0.0	No	0	0.0	---	No
17:00 - 18:00	989	Yes	31	0.0	No	0	0.0	---	No
16:00 - 17:00	983	Yes	38	0.0	No	0	0.0	---	No
15:45 - 16:45	978	Yes	30	0.0	No	0	0.0	---	No
15:15 - 16:15	963	Yes	26	0.0	No	0	0.0	---	No
15:30 - 16:30	947	Yes	26	0.0	No	0	0.0	---	No
15:00 - 16:00	936	Yes	23	0.0	No	0	0.0	---	No
07:15 - 08:15	879	Yes	62	0.0	No	0	0.0	---	No
07:00 - 08:00	874	Yes	61	0.0	No	0	0.0	---	No
14:45 - 15:45	869	Yes	25	0.0	No	0	0.0	---	No
17:15 - 18:15	868	Yes	34	0.0	No	0	0.0	---	No
14:30 - 15:30	857	Yes	30	0.0	No	0	0.0	---	No
07:30 - 08:30	852	Yes	46	0.0	No	0	0.0	---	No
17:30 - 18:30	815	Yes	30	0.0	No	0	0.0	---	No
07:45 - 08:45	809	Yes	42	0.0	No	0	0.0	---	No
14:15 - 15:15	801	Yes	25	0.0	No	0	0.0	---	No
14:00 - 15:00	734	No	31	0.0	No	0	0.0	---	No
08:00 - 09:00	723	No	36	0.0	No	0	0.0	---	No
13:45 - 14:45	717	No	30	0.0	No	0	0.0	---	No
08:15 - 09:15	706	No	37	0.0	No	0	0.0	---	No
17:45 - 18:45	697	No	28	0.0	No	0	0.0	---	No
08:30 - 09:30	648	No	33	0.0	No	0	0.0	---	No
18:00 - 19:00	643	No	28	0.0	No	0	0.0	---	No

GPD Group
520 South Main Street, Suite 2531 Akron, OH 44311
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Study Name: 4-State Rd_Salt Creek Run
Study Date : 9/21/2023

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

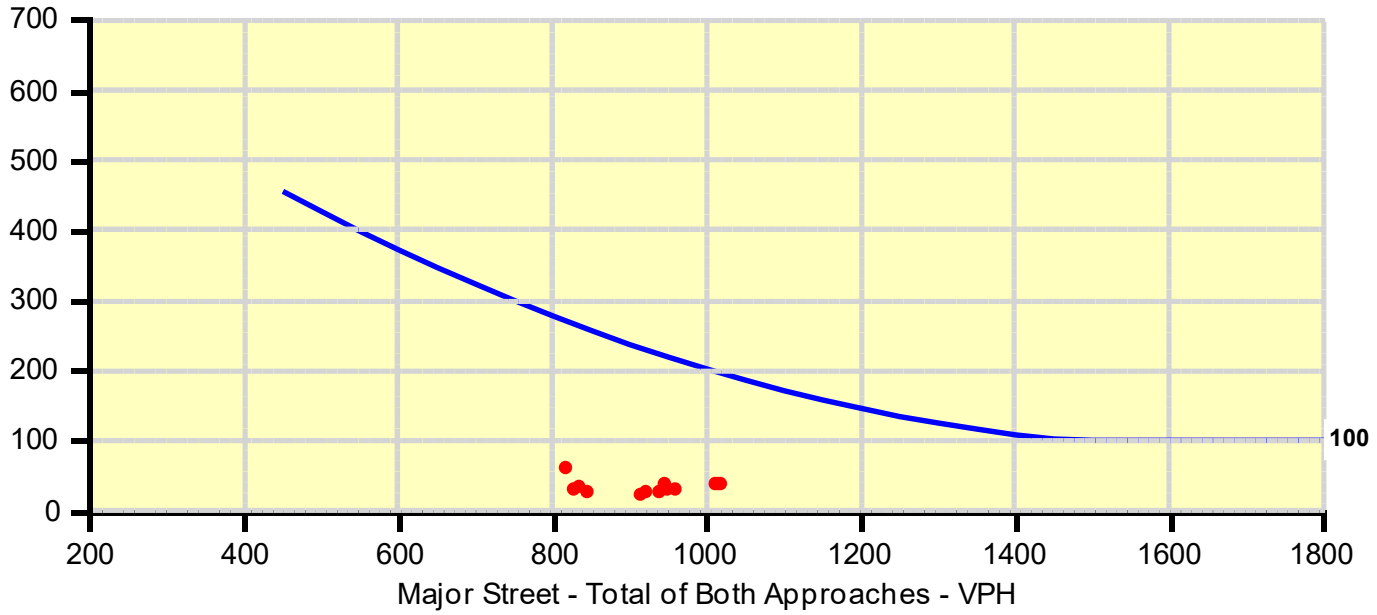
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply =	**False**
Number of Major Lanes =	**1**
Number of Minor Lanes =	**1**

	Major Road: State Rd					Minor Road: Salt Creek Run		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:30 - 17:30	465	+	553	=	1018	39	0	No
16:45 - 17:45	446	+	568	=	1014	40	0	No
16:15 - 17:15	481	+	531	=	1012	39	0	No
17:00 - 18:00	400	+	558	=	958	31	0	No
15:45 - 16:45	473	+	475	=	948	30	0	No
16:00 - 17:00	453	+	492	=	945	38	0	No
15:15 - 16:15	495	+	442	=	937	26	0	No
15:30 - 16:30	464	+	457	=	921	26	0	No
15:00 - 16:00	480	+	433	=	913	23	0	No
14:45 - 15:45	426	+	418	=	844	25	0	No
17:15 - 18:15	346	+	488	=	834	34	0	No



GPD Group
520 South Main Street, Suite 2531 Akron, OH 44311
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Study Name: 5-State Rd_Woodridge Elementry School North Drive
Study Date : 9/21/2023

Signal Warrants - Summary

Major Street Approaches

Northbound: State Rd
Number of Lanes : 1

Total Approach Volume: 4,115

Southbound: State Rd
Number of Lanes :1

Total Approach Volume: 3,945

Minor Street Approaches

Eastbound: Woodridge Elementry School North Drive
Number of Lanes :1

Total Approach Volume: 86

Westbound: N/A
Number of Lanes :1

Total Approach Volume: 0

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....**Not Satisfied**

Warrant 1A - Minimum Vehicular Volume.....**Not Satisfied**
Required volumes reached for 0 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....**Not Satisfied**
Required volumes reached for 0 hours, 8 are needed

Warrant 1C - Combination of Warrants.....**Not Satisfied**
Required 1A volumes reached for 0 hours, 8 are needed
Required 1B volumes reached for 0 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....**Not Satisfied**
Number of hours (0) volumes exceed minimum < minimum required (4).

Warrant 3 - Peak Hour.....**Not Satisfied**

Warrant 3A - Peak Hour Delay.....**Not Satisfied**
Total approach volumes and delays on minor street do not exceed minimums for any one hour period.

Warrant 3B - Peak Hour Volumes.....**Not Satisfied**
Volumes do not exceed minimums for any one hour period.

Warrant 4 - Pedestrian Volumes.....**Not Evaluated**

Warrant 5 - School Crossing.....**Not Evaluated**

Warrant 6 - Coordinated Signal System.....**Not Evaluated**

Warrant 7 - Crash Experience.....**Not Evaluated**

Warrant 8 - Roadway Network.....**Not Evaluated**

Warrant 9 - Intersection Near a Grade Crossing.....**Not Evaluated**

GPD Group
520 South Main Street, Suite 2531 Akron, OH 44311
(330) 572-2100

Study Name: 5-State Rd_Woodridge Elementry School North Drive
Study Date : 9/21/2023

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **1**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **150**

	Major Road State Rd					Minor Road Woodridge Elementry School North Drive		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:45 - 17:45	384	+	488	=	872	10	0	No
16:30 - 17:30	412	+	450	=	862	19	0	No
17:00 - 18:00	359	+	475	=	834	10	0	No
15:45 - 16:45	413	+	404	=	817	21	0	No
16:15 - 17:15	388	+	421	=	809	21	0	No
17:15 - 18:15	330	+	476	=	806	11	0	No
07:45 - 08:45	491	+	313	=	804	4	0	No
16:00 - 17:00	393	+	409	=	802	25	0	No
15:15 - 16:15	417	+	376	=	793	7	0	No
15:30 - 16:30	399	+	389	=	788	10	0	No
07:30 - 08:30	489	+	295	=	784	7	0	No
08:00 - 09:00	488	+	289	=	777	5	0	No
07:15 - 08:15	471	+	289	=	760	17	0	No
17:30 - 18:30	292	+	458	=	750	10	0	No
15:00 - 16:00	388	+	361	=	749	0	0	No
08:15 - 09:15	443	+	287	=	730	4	0	No
07:00 - 08:00	441	+	285	=	726	22	0	No
14:45 - 15:45	364	+	347	=	711	1	0	No
14:30 - 15:30	362	+	334	=	696	15	0	No
14:15 - 15:15	366	+	328	=	694	16	0	No
17:45 - 18:45	258	+	434	=	692	10	0	No
18:00 - 19:00	239	+	449	=	688	7	0	No
13:45 - 14:45	364	+	317	=	681	15	0	No
14:00 - 15:00	359	+	322	=	681	16	0	No
08:30 - 09:30	397		283		680	2	0	No

GPD Group
520 South Main Street, Suite 2531 Akron, OH 44311
(330) 572-2100

Study Name: 5-State Rd_Woodridge Elementry School North Drive
Study Date : 9/21/2023

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **1**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **75**

	Major Road					Minor Road		
	State Rd					Woodridge Elementry School North Drive		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:45 - 17:45	384	+	488	=	872	10	0	No
16:30 - 17:30	412	+	450	=	862	19	0	No
17:00 - 18:00	359	+	475	=	834	10	0	No
15:45 - 16:45	413	+	404	=	817	21	0	No
16:15 - 17:15	388	+	421	=	809	21	0	No
17:15 - 18:15	330	+	476	=	806	11	0	No
07:45 - 08:45	491	+	313	=	804	4	0	No
16:00 - 17:00	393	+	409	=	802	25	0	No
15:15 - 16:15	417	+	376	=	793	7	0	No
15:30 - 16:30	399	+	389	=	788	10	0	No
07:30 - 08:30	489	+	295	=	784	7	0	No
08:00 - 09:00	488	+	289	=	777	5	0	No
07:15 - 08:15	471	+	289	=	760	17	0	No
17:30 - 18:30	292	+	458	=	750	10	0	No
15:00 - 16:00	388	+	361	=	749	0	0	No
08:15 - 09:15	443	+	287	=	730	4	0	No
07:00 - 08:00	441	+	285	=	726	22	0	No
14:45 - 15:45	364	+	347	=	711	1	0	No
14:30 - 15:30	362	+	334	=	696	15	0	No
14:15 - 15:15	366	+	328	=	694	16	0	No
17:45 - 18:45	258	+	434	=	692	10	0	No
18:00 - 19:00	239	+	449	=	688	7	0	No
13:45 - 14:45	364	+	317	=	681	15	0	No
14:00 - 15:00	359	+	322	=	681	16	0	No
08:30 - 09:30	397		283		680	2	0	No

GPD Group
520 South Main Street, Suite 2531 Akron, OH 44311
(330) 572-2100

Study Name: 5-State Rd_Woodridge Elementry School North Drive
Study Date : 9/21/2023

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 0 hours meet 1A minimums.
Only 0 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply =	**False**
Number of Major Lanes =	**1**
Number of Minor Lanes =	**1**

Volume Requirements

Warrant	1A	1B
Veh/Hr Major =	**400**	**600**
Veh/Hr Minor =	**120**	**60**

	Major Road					Minor Road		
	State Rd					Woodridge Elementry School North Drive		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1A?
16:45 - 17:45	384	+	488	=	872	10	0	No
16:30 - 17:30	412	+	450	=	862	19	0	No
17:00 - 18:00	359	+	475	=	834	10	0	No
15:45 - 16:45	413	+	404	=	817	21	0	No
16:15 - 17:15	388	+	421	=	809	21	0	No
17:15 - 18:15	330	+	476	=	806	11	0	No
07:45 - 08:45	491	+	313	=	804	4	0	No
16:00 - 17:00	393	+	409	=	802	25	0	No
15:15 - 16:15	417	+	376	=	793	7	0	No
15:30 - 16:30	399	+	389	=	788	10	0	No
07:30 - 08:30	489	+	295	=	784	7	0	No
08:00 - 09:00	488		289		777	5	0	No

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?
16:45 - 17:45	384	+	488	=	872	10	0	No
16:30 - 17:30	412	+	450	=	862	19	0	No
17:00 - 18:00	359	+	475	=	834	10	0	No
15:45 - 16:45	413	+	404	=	817	21	0	No
16:15 - 17:15	388	+	421	=	809	21	0	No
17:15 - 18:15	330	+	476	=	806	11	0	No
07:45 - 08:45	491	+	313	=	804	4	0	No
16:00 - 17:00	393	+	409	=	802	25	0	No
15:15 - 16:15	417	+	376	=	793	7	0	No
15:30 - 16:30	399	+	389	=	788	10	0	No
07:30 - 08:30	489	+	295	=	784	7	0	No
08:00 - 09:00	488		289		777	5	0	No

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Study Name: 5-State Rd_Woodridge Elementry School North Drive
Study Date : 9/21/2023

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

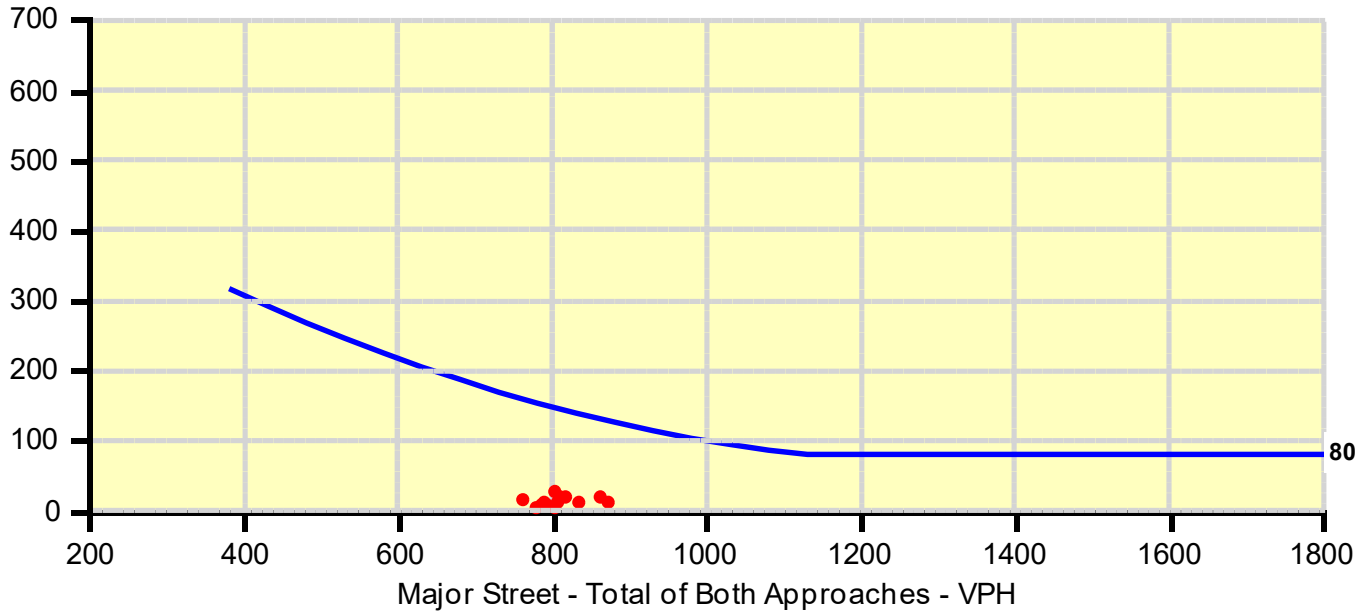
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply =	**False**
Number of Major Lanes =	**1**
Number of Minor Lanes =	**1**

	Major Road State Rd					Minor Road Woodridge Elementry School North Drive		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:45 - 17:45	384	+	488	=	872	10	0	No
16:30 - 17:30	412	+	450	=	862	19	0	No
17:00 - 18:00	359	+	475	=	834	10	0	No
15:45 - 16:45	413	+	404	=	817	21	0	No
16:15 - 17:15	388	+	421	=	809	21	0	No
17:15 - 18:15	330	+	476	=	806	11	0	No
07:45 - 08:45	491	+	313	=	804	4	0	No
16:00 - 17:00	393	+	409	=	802	25	0	No
15:15 - 16:15	417	+	376	=	793	7	0	No
15:30 - 16:30	399	+	389	=	788	10	0	No
07:30 - 08:30	489	+	295	=	784	7	0	No



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(330) 572-2100

Study Name: 5-State Rd_Woodridge Elementry School North Drive
Study Date : 9/21/2023

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

9 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Number of Minor Lanes =**1**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**
Veh/Hr Minor = **100**
Total Delay (Veh-Hrs) = **4**

	Major Road					Minor Road			
	State Rd					Woodridge Elementry School North Drive			
Time	Total of All Approaches	Met?	Minor EB	Delay EB	Met?	Minor WB	Delay WB	Met?	Warrant Met?
16:45 - 17:45	882	Yes	10	0.0	No	0	0.0	---	No
16:30 - 17:30	881	Yes	19	0.0	No	0	0.0	---	No
17:00 - 18:00	844	Yes	10	0.0	No	0	0.0	---	No
15:45 - 16:45	838	Yes	21	0.0	No	0	0.0	---	No
16:15 - 17:15	830	Yes	21	0.0	No	0	0.0	---	No
16:00 - 17:00	827	Yes	25	0.0	No	0	0.0	---	No
17:15 - 18:15	817	Yes	11	0.0	No	0	0.0	---	No
07:45 - 08:45	808	Yes	4	0.0	No	0	0.0	---	No
15:15 - 16:15	800	Yes	7	0.0	No	0	0.0	---	No
15:30 - 16:30	798	No	10	0.0	No	0	0.0	---	No
07:30 - 08:30	791	No	7	0.0	No	0	0.0	---	No
08:00 - 09:00	782	No	5	0.0	No	0	0.0	---	No
07:15 - 08:15	777	No	17	0.0	No	0	0.0	---	No
17:30 - 18:30	760	No	10	0.0	No	0	0.0	---	No
15:00 - 16:00	749	No	0	0.0	---	0	0.0	No	No
07:00 - 08:00	748	No	22	0.0	No	0	0.0	---	No
08:15 - 09:15	734	No	4	0.0	No	0	0.0	---	No
14:45 - 15:45	712	No	1	0.0	No	0	0.0	---	No
14:30 - 15:30	711	No	15	0.0	No	0	0.0	---	No
14:15 - 15:15	710	No	16	0.0	No	0	0.0	---	No
17:45 - 18:45	702	No	10	0.0	No	0	0.0	---	No
14:00 - 15:00	697	No	16	0.0	No	0	0.0	---	No
13:45 - 14:45	696	No	15	0.0	No	0	0.0	---	No
18:00 - 19:00	695	No	7	0.0	No	0	0.0	---	No
08:30 - 09:30	682	No	2	0.0	No	0	0.0	---	No

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Study Name: 5-State Rd_Woodridge Elementry School North Drive
Study Date : 9/21/2023

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

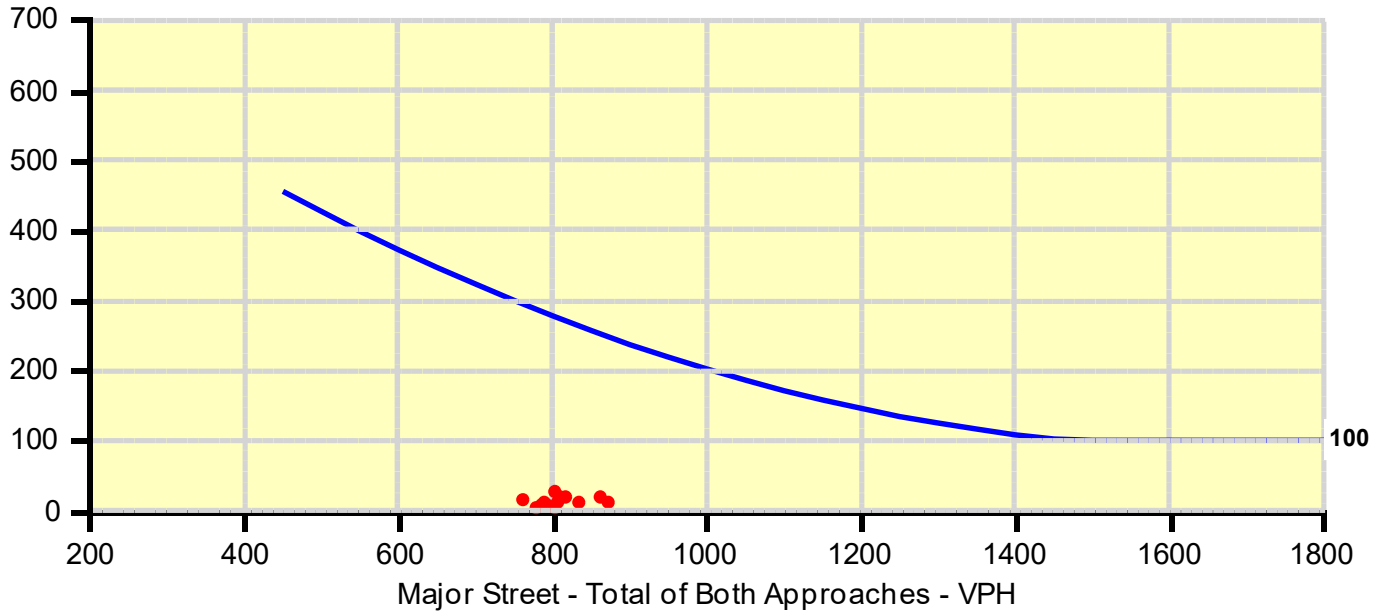
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply =	**False**
Number of Major Lanes =	**1**
Number of Minor Lanes =	**1**

	Major Road State Rd					Minor Road Woodridge Elementry School North Drive		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:45 - 17:45	384	+	488	=	872	10	0	No
16:30 - 17:30	412	+	450	=	862	19	0	No
17:00 - 18:00	359	+	475	=	834	10	0	No
15:45 - 16:45	413	+	404	=	817	21	0	No
16:15 - 17:15	388	+	421	=	809	21	0	No
17:15 - 18:15	330	+	476	=	806	11	0	No
07:45 - 08:45	491	+	313	=	804	4	0	No
16:00 - 17:00	393	+	409	=	802	25	0	No
15:15 - 16:15	417	+	376	=	793	7	0	No
15:30 - 16:30	399	+	389	=	788	10	0	No
07:30 - 08:30	489	+	295	=	784	7	0	No



GPD Group
520 South Main Street, Suite 2531 Akron, OH 44311
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Study Name: 6-State Rd_Woodridge Elementry School Southern Drive
Study Date : 9/21/2023

Signal Warrants - Summary

Major Street Approaches

Northbound: State Rd
Number of Lanes : 1

Total Approach Volume: 4,058

Southbound: State Rd
Number of Lanes :1

Total Approach Volume: 3,896

Minor Street Approaches

Eastbound: Woodridge Elementry School Southern Drive
Number of Lanes :1

Total Approach Volume: 396

Westbound: N/A
Number of Lanes :1

Total Approach Volume: 2

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....**Not Satisfied**

Warrant 1A - Minimum Vehicular Volume.....**Not Satisfied**
Required volumes reached for 2 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....**Not Satisfied**
Required volumes reached for 2 hours, 8 are needed

Warrant 1C - Combination of Warrants.....**Not Satisfied**
Required 1A volumes reached for 2 hours, 8 are needed
Required 1B volumes reached for 3 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....**Not Satisfied**
Number of hours (1) volumes exceed minimum < minimum required (4).

Warrant 3 - Peak Hour.....**Not Satisfied**

Warrant 3A - Peak Hour Delay.....**Not Satisfied**
Total approach volumes and delays on minor street do not exceed minimums for any one hour period.

Warrant 3B - Peak Hour Volumes.....**Not Satisfied**
Volumes do not exceed minimums for any one hour period.

Warrant 4 - Pedestrian Volumes.....**Not Evaluated**

Warrant 5 - School Crossing.....**Not Evaluated**

Warrant 6 - Coordinated Signal System.....**Not Evaluated**

Warrant 7 - Crash Experience.....**Not Evaluated**

Warrant 8 - Roadway Network.....**Not Evaluated**

Warrant 9 - Intersection Near a Grade Crossing.....**Not Evaluated**

GPD Group
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Study Name: 6-State Rd_Woodridge Elementry School Southern Drive
Study Date : 9/21/2023

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 2 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **1**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **150**

	Major Road State Rd					Minor Road Woodridge Elementry School Southern Drive		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
14:45 - 15:45	383	+	353	=	736	167	0	Yes
08:15 - 09:15	442	+	274	=	716	150	1	Yes
16:45 - 17:45	379	+	487	=	866	3	0	No
16:30 - 17:30	403	+	458	=	861	11	0	No
17:00 - 18:00	365	+	484	=	849	12	0	No
17:15 - 18:15	336	+	490	=	826	12	0	No
15:45 - 16:45	381	+	426	=	807	31	0	No
16:15 - 17:15	380	+	423	=	803	12	0	No
16:00 - 17:00	376	+	410	=	786	17	0	No
07:45 - 08:45	494	+	289	=	783	118	0	No
07:30 - 08:30	504	+	277	=	781	8	0	No
08:00 - 09:00	491	+	270	=	761	147	1	No
17:30 - 18:30	298	+	459	=	757	12	0	No
07:15 - 08:15	473	+	269	=	742	3	0	No
14:30 - 15:30	370	+	348	=	718	119	0	No
14:15 - 15:15	368	+	339	=	707	25	0	No
07:00 - 08:00	448	+	254	=	702	5	0	No
14:00 - 15:00	354	+	338	=	692	11	0	No
13:45 - 14:45	350	+	339	=	689	10	0	No
17:45 - 18:45	255	+	431	=	686	12	0	No
18:00 - 19:00	227	+	437	=	664	3	0	No
13:30 - 14:30	333	+	326	=	659	7	0	No
13:15 - 14:15	308	+	312	=	620	5	0	No
13:00 - 14:00	296	+	291	=	587	8	0	No
10:45 - 11:45	298		281		579	2	0	No

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Study Name: 6-State Rd_Woodridge Elementry School Southern Drive
Study Date : 9/21/2023

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 2 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **1**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **75**

	Major Road					Minor Road		
	State Rd					Woodridge Elementry School Southern Drive		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
07:45 - 08:45	494	+	289	=	783	118	0	Yes
15:00 - 16:00	388	+	390	=	778	177	0	Yes
16:45 - 17:45	379	+	487	=	866	3	0	No
16:30 - 17:30	403	+	458	=	861	11	0	No
17:00 - 18:00	365	+	484	=	849	12	0	No
17:15 - 18:15	336	+	490	=	826	12	0	No
16:15 - 17:15	380	+	423	=	803	12	0	No
16:00 - 17:00	376	+	410	=	786	17	0	No
07:30 - 08:30	504	+	277	=	781	8	0	No
17:30 - 18:30	298	+	459	=	757	12	0	No
07:15 - 08:15	473	+	269	=	742	3	0	No
14:45 - 15:45	383	+	353	=	736	167	0	No
14:30 - 15:30	370	+	348	=	718	119	0	No
14:15 - 15:15	368	+	339	=	707	25	0	No
07:00 - 08:00	448	+	254	=	702	5	0	No
14:00 - 15:00	354	+	338	=	692	11	0	No
13:45 - 14:45	350	+	339	=	689	10	0	No
17:45 - 18:45	255	+	431	=	686	12	0	No
18:00 - 19:00	227	+	437	=	664	3	0	No
13:30 - 14:30	333	+	326	=	659	7	0	No
13:15 - 14:15	308	+	312	=	620	5	0	No
13:00 - 14:00	296	+	291	=	587	8	0	No
08:45 - 09:45	329	+	252	=	581	32	2	No
10:45 - 11:45	298	+	281	=	579	2	0	No
11:00 - 12:00	294		282		576	3	0	No

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(330) 572-2100

Study Name: 6-State Rd_Woodridge Elementry School Southern Drive
Study Date : 9/21/2023

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 2 hours meet 1A minimums.
Only 3 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply =	**False**
Number of Major Lanes =	**1**
Number of Minor Lanes =	**1**

Volume Requirements

Warrant	1A	1B
Veh/Hr Major =	**400**	**600**
Veh/Hr Minor =	**120**	**60**

	Major Road					Minor Road		
	State Rd					Woodridge Elementry School Southern Drive		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1A?
08:00 - 09:00	491	+	270	=	761	147	1	Yes
14:45 - 15:45	383	+	353	=	736	167	0	Yes
16:45 - 17:45	379	+	487	=	866	3	0	No
16:30 - 17:30	403	+	458	=	861	11	0	No
17:00 - 18:00	365	+	484	=	849	12	0	No
17:15 - 18:15	336	+	490	=	826	12	0	No
15:45 - 16:45	381	+	426	=	807	31	0	No
16:15 - 17:15	380	+	423	=	803	12	0	No
16:00 - 17:00	376	+	410	=	786	17	0	No
07:45 - 08:45	494	+	289	=	783	118	0	No
07:30 - 08:30	504	+	277	=	781	8	0	No
17:30 - 18:30	298		459		757	12	0	No

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?
15:30 - 16:30	377	+	409	=	786	76	0	Yes
07:45 - 08:45	494	+	289	=	783	118	0	Yes
14:30 - 15:30	370	+	348	=	718	119	0	Yes
16:45 - 17:45	379	+	487	=	866	3	0	No
16:30 - 17:30	403	+	458	=	861	11	0	No
17:00 - 18:00	365	+	484	=	849	12	0	No
17:15 - 18:15	336	+	490	=	826	12	0	No
07:30 - 08:30	504	+	277	=	781	8	0	No
17:30 - 18:30	298	+	459	=	757	12	0	No
07:15 - 08:15	473	+	269	=	742	3	0	No
14:15 - 15:15	368	+	339	=	707	25	0	No
07:00 - 08:00	448		254		702	5	0	No

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Study Name: 6-State Rd_Woodridge Elementry School Southern Drive
Study Date : 9/21/2023

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

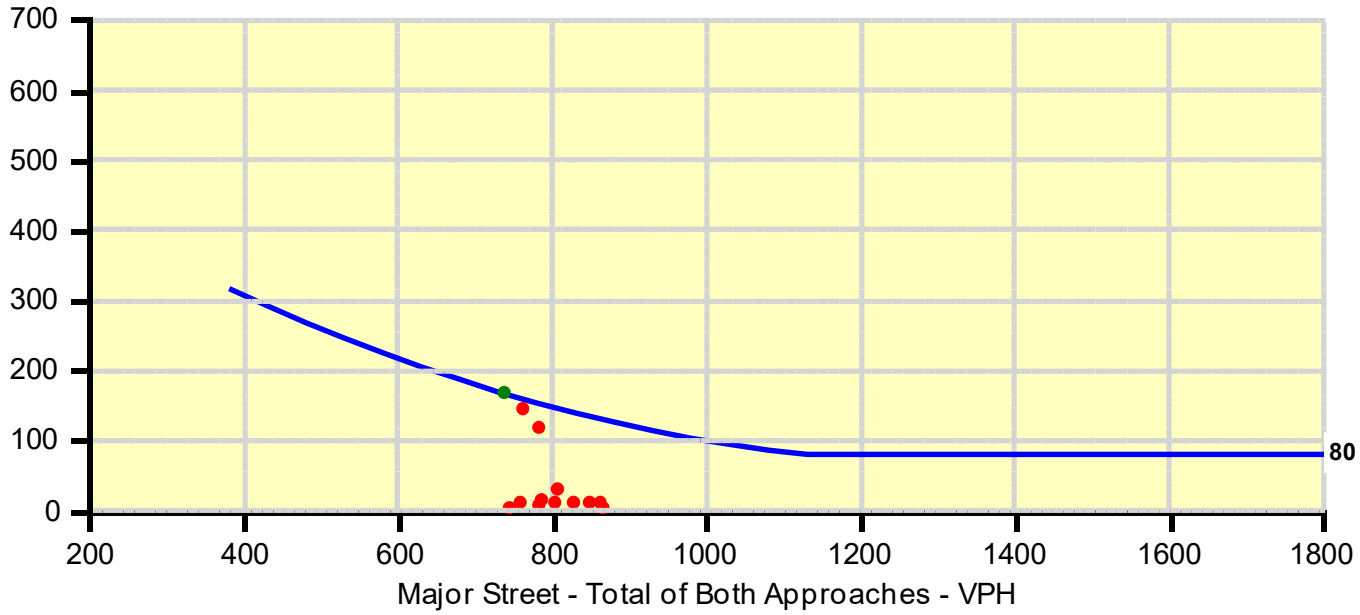
Summary

Only 1 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply =	**False**
Number of Major Lanes =	**1**
Number of Minor Lanes =	**1**

	Major Road State Rd					Minor Road Woodridge Elementry School Southern Drive		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
14:45 - 15:45	383	+	353	=	736	167	0	Yes
16:45 - 17:45	379	+	487	=	866	3	0	No
16:30 - 17:30	403	+	458	=	861	11	0	No
17:00 - 18:00	365	+	484	=	849	12	0	No
17:15 - 18:15	336	+	490	=	826	12	0	No
15:45 - 16:45	381	+	426	=	807	31	0	No
16:15 - 17:15	380	+	423	=	803	12	0	No
16:00 - 17:00	376	+	410	=	786	17	0	No
07:45 - 08:45	494	+	289	=	783	118	0	No
07:30 - 08:30	504	+	277	=	781	8	0	No
08:00 - 09:00	491	+	270	=	761	147	1	No



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(330) 572-2100

Study Name: 6-State Rd_Woodridge Elementry School Southern Drive
Study Date : 9/21/2023

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

16 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Number of Minor Lanes =**1**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**
Veh/Hr Minor = **100**
Total Delay (Veh-Hrs) = **4**

	Major Road State Rd					Minor Road Woodridge Elementry School Southern Drive			
Time	Total of All Approaches	Met?	Minor EB	Delay EB	Met?	Minor WB	Delay WB	Met?	Warrant Met?
15:15 - 16:15	974	Yes	170	0.0	No	0	0.0	---	No
15:00 - 16:00	955	Yes	177	0.0	No	0	0.0	---	No
08:00 - 09:00	909	Yes	147	0.0	No	1	0.0	---	No
14:45 - 15:45	903	Yes	167	0.0	No	0	0.0	---	No
07:45 - 08:45	901	Yes	118	0.0	No	0	0.0	---	No
16:30 - 17:30	872	Yes	11	0.0	No	0	0.0	---	No
16:45 - 17:45	869	Yes	3	0.0	No	0	0.0	---	No
08:15 - 09:15	867	Yes	150	0.0	No	1	0.0	---	No
15:30 - 16:30	862	Yes	76	0.0	No	0	0.0	---	No
17:00 - 18:00	861	Yes	12	0.0	No	0	0.0	---	No
15:45 - 16:45	838	Yes	31	0.0	No	0	0.0	---	No
17:15 - 18:15	838	Yes	12	0.0	No	0	0.0	---	No
14:30 - 15:30	837	Yes	119	0.0	No	0	0.0	---	No
16:15 - 17:15	815	Yes	12	0.0	No	0	0.0	---	No
08:30 - 09:30	810	Yes	144	0.0	No	1	0.0	---	No
16:00 - 17:00	803	Yes	17	0.0	No	0	0.0	---	No
07:30 - 08:30	789	No	8	0.0	No	0	0.0	---	No
17:30 - 18:30	769	No	12	0.0	No	0	0.0	---	No
07:15 - 08:15	745	No	3	0.0	No	0	0.0	---	No
14:15 - 15:15	732	No	25	0.0	No	0	0.0	---	No
07:00 - 08:00	707	No	5	0.0	No	0	0.0	---	No
14:00 - 15:00	703	No	11	0.0	No	0	0.0	---	No
13:45 - 14:45	699	No	10	0.0	No	0	0.0	---	No
17:45 - 18:45	698	No	12	0.0	No	0	0.0	---	No
18:00 - 19:00	667	No	3	0.0	No	0	0.0	---	No

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Study Name: 6-State Rd_Woodridge Elementry School Southern Drive
Study Date : 9/21/2023

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

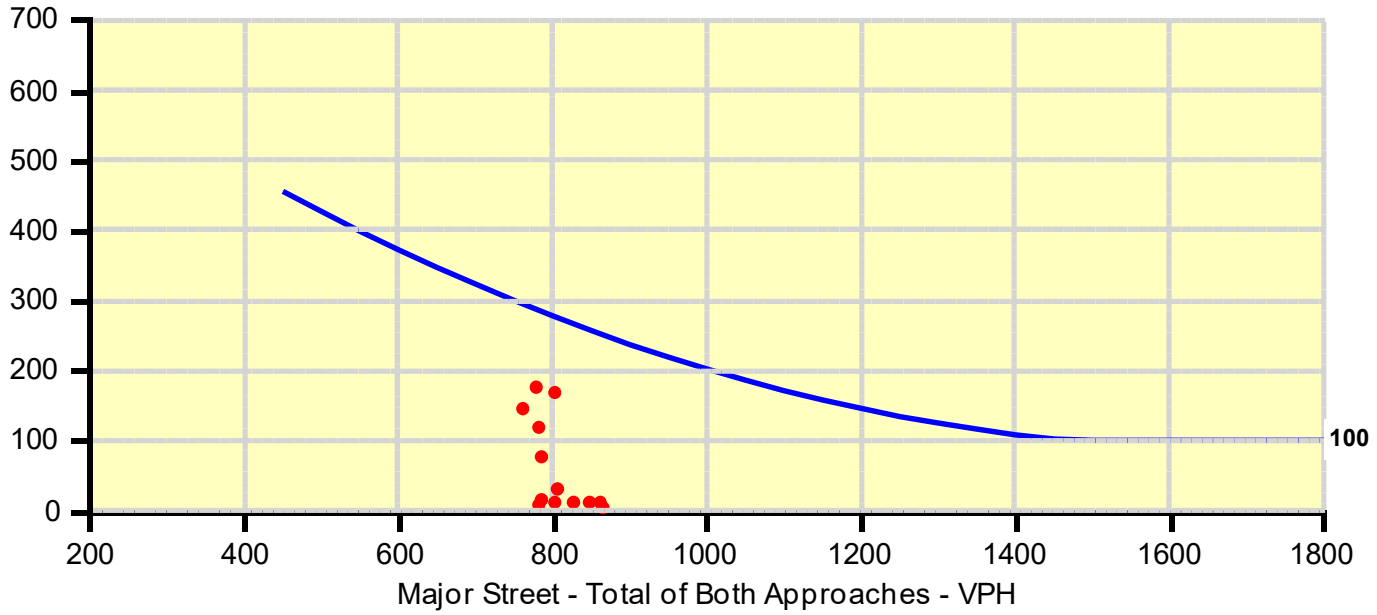
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply =	**False**
Number of Major Lanes =	**1**
Number of Minor Lanes =	**1**

	Major Road State Rd					Minor Road Woodridge Elementry School Southern Drive		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:45 - 17:45	379	+	487	=	866	3	0	No
16:30 - 17:30	403	+	458	=	861	11	0	No
17:00 - 18:00	365	+	484	=	849	12	0	No
17:15 - 18:15	336	+	490	=	826	12	0	No
15:45 - 16:45	381	+	426	=	807	31	0	No
15:15 - 16:15	403	+	401	=	804	170	0	No
16:15 - 17:15	380	+	423	=	803	12	0	No
15:30 - 16:30	377	+	409	=	786	76	0	No
16:00 - 17:00	376	+	410	=	786	17	0	No
07:45 - 08:45	494	+	289	=	783	118	0	No
07:30 - 08:30	504	+	277	=	781	8	0	No



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Study Name: 7-State Rd_ Falls Industrial Pkwy
Study Date : 9/21/2023

Signal Warrants - Summary

Major Street Approaches

Northbound: State Rd
Number of Lanes : 1

Total Approach Volume: 4,446

Southbound: State Rd
Number of Lanes :1

Total Approach Volume: 4,025

Minor Street Approaches

Eastbound: N/A
Number of Lanes :1

Total Approach Volume: 0

Westbound: Falls Industrial Pkwy
Number of Lanes :1

Total Approach Volume: 557

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....**Not Satisfied**

Warrant 1A - Minimum Vehicular Volume.....**Not Satisfied**
Required volumes reached for 0 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....**Not Satisfied**
Required volumes reached for 1 hours, 8 are needed

Warrant 1C - Combination of Warrants.....**Not Satisfied**
Required 1A volumes reached for 0 hours, 8 are needed
Required 1B volumes reached for 3 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....**Not Satisfied**
Number of hours (0) volumes exceed minimum < minimum required (4).

Warrant 3 - Peak Hour.....**Not Satisfied**

Warrant 3A - Peak Hour Delay.....**Not Satisfied**
Total approach volumes and delays on minor street do not exceed minimums for any one hour period.

Warrant 3B - Peak Hour Volumes.....**Not Satisfied**
Volumes do not exceed minimums for any one hour period.

Warrant 4 - Pedestrian Volumes.....**Not Evaluated**

Warrant 5 - School Crossing.....**Not Evaluated**

Warrant 6 - Coordinated Signal System.....**Not Evaluated**

Warrant 7 - Crash Experience.....**Not Evaluated**

Warrant 8 - Roadway Network.....**Not Evaluated**

Warrant 9 - Intersection Near a Grade Crossing.....**Not Evaluated**

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Study Name: 7-State Rd_ Falls Industrial Pkwy
Study Date : 9/21/2023

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **1**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **150**

	Major Road					Minor Road		
	State Rd					N/A		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:15 - 17:15	450	+	507	=	957	0	71	No
16:30 - 17:30	435	+	521	=	956	0	69	No
16:45 - 17:45	432	+	518	=	950	0	54	No
16:00 - 17:00	430	+	477	=	907	0	81	No
15:45 - 16:45	423	+	470	=	893	0	89	No
17:00 - 18:00	386	+	501	=	887	0	46	No
07:45 - 08:45	472	+	414	=	886	0	12	No
15:30 - 16:30	412	+	438	=	850	0	86	No
15:15 - 16:15	425	+	418	=	843	0	87	No
07:30 - 08:30	525	+	300	=	825	0	15	No
08:00 - 09:00	442	+	382	=	824	0	14	No
15:00 - 16:00	417	+	395	=	812	0	72	No
08:15 - 09:15	424	+	384	=	808	0	17	No
07:15 - 08:15	517	+	282	=	799	0	16	No
07:00 - 08:00	506	+	284	=	790	0	21	No
14:30 - 15:30	412	+	376	=	788	0	52	No
17:15 - 18:15	340	+	448	=	788	0	56	No
14:15 - 15:15	413	+	367	=	780	0	48	No
14:45 - 15:45	406	+	370	=	776	0	58	No
17:30 - 18:30	352	+	401	=	753	0	47	No
08:30 - 09:30	353	+	373	=	726	0	24	No
14:00 - 15:00	383	+	331	=	714	0	52	No
13:45 - 14:45	375	+	321	=	696	0	51	No
12:45 - 13:45	329	+	317	=	646	0	53	No
17:45 - 18:45	302		341		643	0	45	No

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Study Name: 7-State Rd_ Falls Industrial Pkwy
Study Date : 9/21/2023

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 1 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **1**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **75**

	Major Road					Minor Road		
	State Rd					N/A		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
15:15 - 16:15	425	+	418	=	843	0	87	Yes
16:15 - 17:15	450	+	507	=	957	0	71	No
16:30 - 17:30	435	+	521	=	956	0	69	No
16:45 - 17:45	432	+	518	=	950	0	54	No
17:00 - 18:00	386	+	501	=	887	0	46	No
07:45 - 08:45	472	+	414	=	886	0	12	No
07:30 - 08:30	525	+	300	=	825	0	15	No
08:00 - 09:00	442	+	382	=	824	0	14	No
15:00 - 16:00	417	+	395	=	812	0	72	No
08:15 - 09:15	424	+	384	=	808	0	17	No
07:15 - 08:15	517	+	282	=	799	0	16	No
07:00 - 08:00	506	+	284	=	790	0	21	No
14:30 - 15:30	412	+	376	=	788	0	52	No
17:15 - 18:15	340	+	448	=	788	0	56	No
14:15 - 15:15	413	+	367	=	780	0	48	No
14:45 - 15:45	406	+	370	=	776	0	58	No
17:30 - 18:30	352	+	401	=	753	0	47	No
08:30 - 09:30	353	+	373	=	726	0	24	No
14:00 - 15:00	383	+	331	=	714	0	52	No
13:45 - 14:45	375	+	321	=	696	0	51	No
12:45 - 13:45	329	+	317	=	646	0	53	No
17:45 - 18:45	302	+	341	=	643	0	45	No
13:30 - 14:30	340	+	297	=	637	0	51	No
12:30 - 13:30	325	+	305	=	630	0	53	No
13:15 - 14:15	319		308		627	0	51	No

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Study Name: 7-State Rd_ Falls Industrial Pkwy
Study Date : 9/21/2023

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 0 hours meet 1A minimums.
Only 3 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply =	**False**
Number of Major Lanes =	**1**
Number of Minor Lanes =	**1**

Volume Requirements

Warrant	1A	1B
Veh/Hr Major =	**400**	**600**
Veh/Hr Minor =	**120**	**60**

Major Road	Minor Road
State Rd	N/A

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1A?
16:15 - 17:15	450	+	507	=	957	0	71	No
16:30 - 17:30	435	+	521	=	956	0	69	No
16:45 - 17:45	432	+	518	=	950	0	54	No
16:00 - 17:00	430	+	477	=	907	0	81	No
15:45 - 16:45	423	+	470	=	893	0	89	No
17:00 - 18:00	386	+	501	=	887	0	46	No
07:45 - 08:45	472	+	414	=	886	0	12	No
15:30 - 16:30	412	+	438	=	850	0	86	No
15:15 - 16:15	425	+	418	=	843	0	87	No
07:30 - 08:30	525	+	300	=	825	0	15	No
08:00 - 09:00	442	+	382	=	824	0	14	No
15:00 - 16:00	417	+	395	=	812	0	72	No

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?
16:00 - 17:00	430	+	477	=	907	0	81	Yes
15:00 - 16:00	417	+	395	=	812	0	72	Yes
12:00 - 13:00	321	+	298	=	619	0	64	Yes
17:00 - 18:00	386	+	501	=	887	0	46	No
07:45 - 08:45	472	+	414	=	886	0	12	No
07:30 - 08:30	525	+	300	=	825	0	15	No
08:00 - 09:00	442	+	382	=	824	0	14	No
08:15 - 09:15	424	+	384	=	808	0	17	No
07:15 - 08:15	517	+	282	=	799	0	16	No
07:00 - 08:00	506	+	284	=	790	0	21	No
14:30 - 15:30	412	+	376	=	788	0	52	No
17:15 - 18:15	340	+	448	=	788	0	56	No

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Study Name: 7-State Rd_ Falls Industrial Pkwy
Study Date : 9/21/2023

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

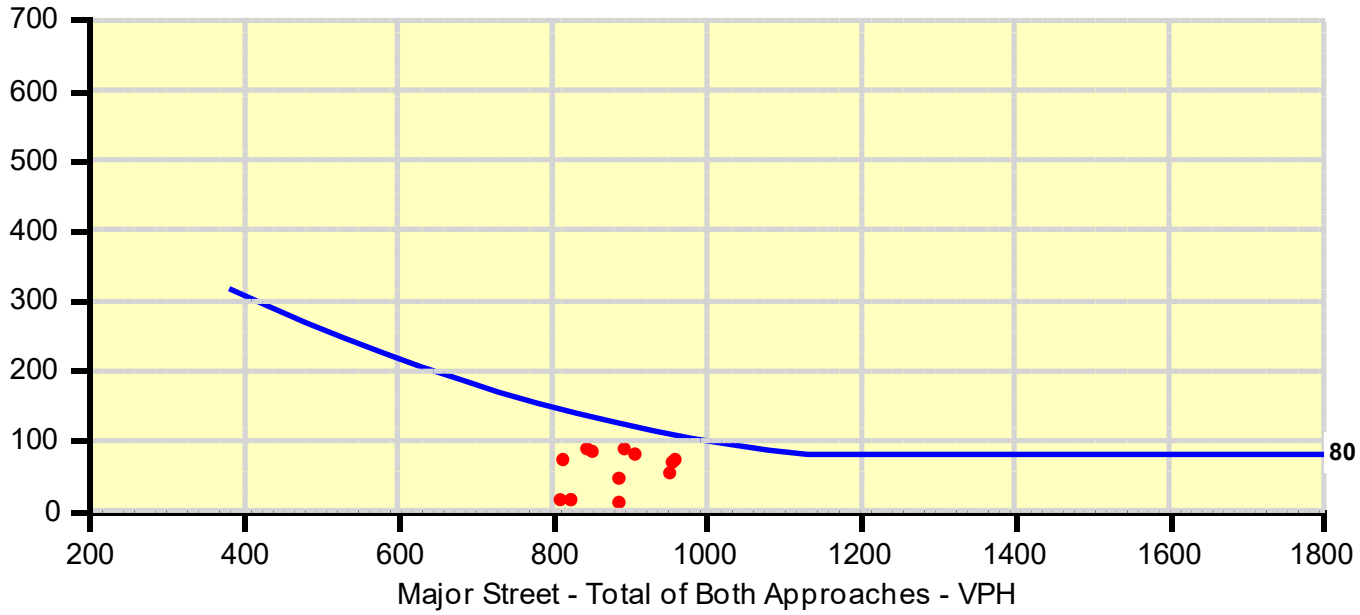
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply =	**False**
Number of Major Lanes =	**1**
Number of Minor Lanes =	**1**

	Major Road					Minor Road		
	State Rd					N/A		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:15 - 17:15	450	+	507	=	957	0	71	No
16:30 - 17:30	435	+	521	=	956	0	69	No
16:45 - 17:45	432	+	518	=	950	0	54	No
16:00 - 17:00	430	+	477	=	907	0	81	No
15:45 - 16:45	423	+	470	=	893	0	89	No
17:00 - 18:00	386	+	501	=	887	0	46	No
07:45 - 08:45	472	+	414	=	886	0	12	No
15:30 - 16:30	412	+	438	=	850	0	86	No
15:15 - 16:15	425	+	418	=	843	0	87	No
07:30 - 08:30	525	+	300	=	825	0	15	No
08:00 - 09:00	442	+	382	=	824	0	14	No



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(330) 572-2100

Study Name: 7-State Rd_ Falls Industrial Pkwy
Study Date : 9/21/2023

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

20 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Number of Minor Lanes =**1**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**
Veh/Hr Minor = **100**
Total Delay (Veh-Hrs) = **4**

Major Road	Minor Road
State Rd	N/A

Time	Total of All Approaches	Met?	Minor EB	Delay EB	Met?	Minor WB	Delay WB	Met?	Warrant Met?
16:15 - 17:15	1028	Yes	0	0.0	---	71	0.0	No	No
16:30 - 17:30	1025	Yes	0	0.0	---	69	0.0	No	No
16:45 - 17:45	1004	Yes	0	0.0	---	54	0.0	No	No
16:00 - 17:00	988	Yes	0	0.0	---	81	0.0	No	No
15:45 - 16:45	982	Yes	0	0.0	---	89	0.0	No	No
15:30 - 16:30	936	Yes	0	0.0	---	86	0.0	No	No
17:00 - 18:00	933	Yes	0	0.0	---	46	0.0	No	No
15:15 - 16:15	930	Yes	0	0.0	---	87	0.0	No	No
07:45 - 08:45	898	Yes	0	0.0	---	12	0.0	No	No
15:00 - 16:00	884	Yes	0	0.0	---	72	0.0	No	No
17:15 - 18:15	844	Yes	0	0.0	---	56	0.0	No	No
14:30 - 15:30	840	Yes	0	0.0	---	52	0.0	No	No
07:30 - 08:30	840	Yes	0	0.0	---	15	0.0	No	No
08:00 - 09:00	838	Yes	0	0.0	---	14	0.0	No	No
14:45 - 15:45	834	Yes	0	0.0	---	58	0.0	No	No
14:15 - 15:15	828	Yes	0	0.0	---	48	0.0	No	No
08:15 - 09:15	825	Yes	0	0.0	---	17	0.0	No	No
07:15 - 08:15	815	Yes	0	0.0	---	16	0.0	No	No
07:00 - 08:00	811	Yes	0	0.0	---	21	0.0	No	No
17:30 - 18:30	800	Yes	0	0.0	---	47	0.0	No	No
14:00 - 15:00	766	No	0	0.0	---	52	0.0	No	No
08:30 - 09:30	750	No	0	0.0	---	24	0.0	No	No
13:45 - 14:45	747	No	0	0.0	---	51	0.0	No	No
12:45 - 13:45	699	No	0	0.0	---	53	0.0	No	No
13:30 - 14:30	688	No	0	0.0	---	51	0.0	No	No

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Study Name: 7-State Rd_ Falls Industrial Pkwy
Study Date : 9/21/2023

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

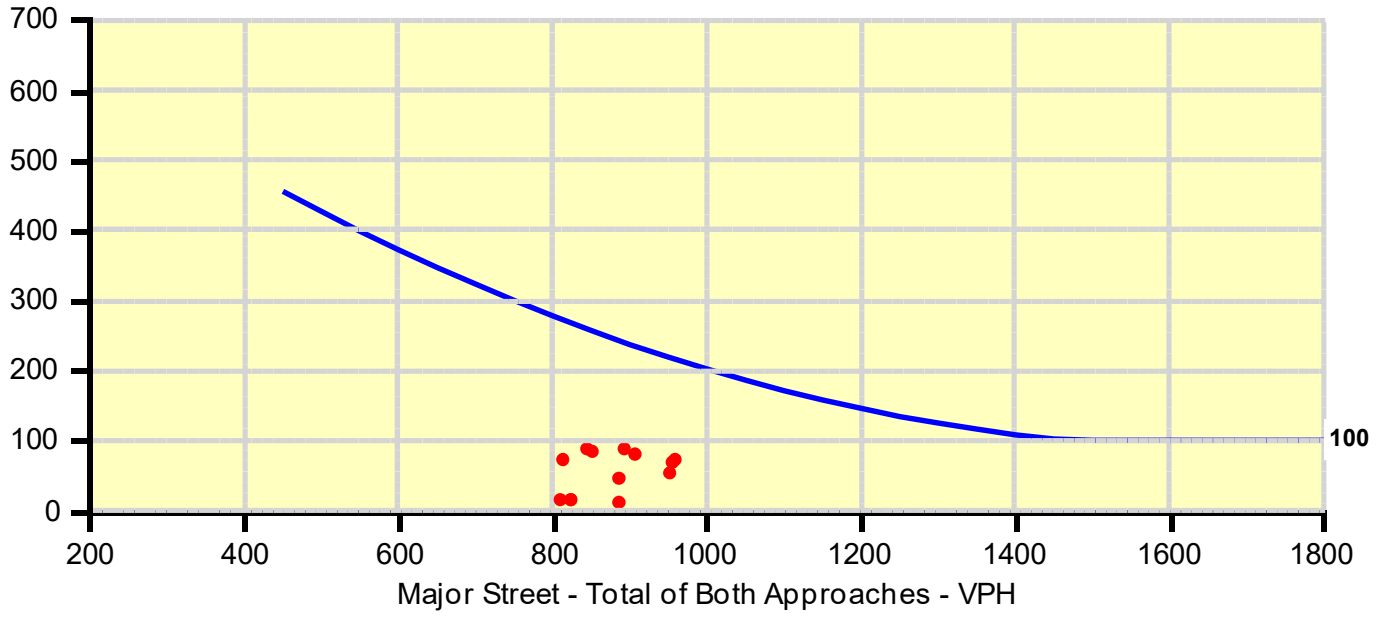
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply =	**False**
Number of Major Lanes =	**1**
Number of Minor Lanes =	**1**

	Major Road					Minor Road		
	State Rd					N/A		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:15 - 17:15	450	+	507	=	957	0	71	No
16:30 - 17:30	435	+	521	=	956	0	69	No
16:45 - 17:45	432	+	518	=	950	0	54	No
16:00 - 17:00	430	+	477	=	907	0	81	No
15:45 - 16:45	423	+	470	=	893	0	89	No
17:00 - 18:00	386	+	501	=	887	0	46	No
07:45 - 08:45	472	+	414	=	886	0	12	No
15:30 - 16:30	412	+	438	=	850	0	86	No
15:15 - 16:15	425	+	418	=	843	0	87	No
07:30 - 08:30	525	+	300	=	825	0	15	No
08:00 - 09:00	442	+	382	=	824	0	14	No



GPD Group
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Study Name: 8-State Rd_Quick Rd North
Study Date : 9/21/2023

Signal Warrants - Summary

Major Street Approaches

Northbound: State Rd
Number of Lanes : 1

Total Approach Volume: 3,976

Southbound: State Rd
Number of Lanes :1

Total Approach Volume: 4,009

Minor Street Approaches

Eastbound: Quick Rd North
Number of Lanes :1

Total Approach Volume: 131

Westbound: Audi North Drive
Number of Lanes :1

Total Approach Volume: 102

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....**Not Satisfied**

Warrant 1A - Minimum Vehicular Volume.....**Not Satisfied**
Required volumes reached for 0 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....**Not Satisfied**
Required volumes reached for 0 hours, 8 are needed

Warrant 1C - Combination of Warrants.....**Not Satisfied**
Required 1A volumes reached for 0 hours, 8 are needed
Required 1B volumes reached for 0 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....**Not Satisfied**
Number of hours (0) volumes exceed minimum < minimum required (4).

Warrant 3 - Peak Hour.....**Not Satisfied**

Warrant 3A - Peak Hour Delay.....**Not Satisfied**
Total approach volumes and delays on minor street do not exceed minimums for any one hour period.

Warrant 3B - Peak Hour Volumes.....**Not Satisfied**
Volumes do not exceed minimums for any one hour period.

Warrant 4 - Pedestrian Volumes.....**Not Evaluated**

Warrant 5 - School Crossing.....**Not Evaluated**

Warrant 6 - Coordinated Signal System.....**Not Evaluated**

Warrant 7 - Crash Experience.....**Not Evaluated**

Warrant 8 - Roadway Network.....**Not Evaluated**

Warrant 9 - Intersection Near a Grade Crossing.....**Not Evaluated**

GPD Group
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(330) 572-2100

Study Name: 8-State Rd_Quick Rd North
Study Date : 9/21/2023

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **1**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **150**

	Major Road					Minor Road		
	State Rd					Quick Rd North		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:30 - 17:30	393	+	522	=	915	4	17	No
16:15 - 17:15	405	+	501	=	906	4	13	No
16:45 - 17:45	368	+	535	=	903	4	22	No
17:00 - 18:00	354	+	536	=	890	5	22	No
15:45 - 16:45	407	+	482	=	889	7	8	No
16:00 - 17:00	396	+	485	=	881	5	9	No
07:45 - 08:45	493	+	378	=	871	16	5	No
15:30 - 16:30	399	+	445	=	844	12	6	No
08:00 - 09:00	445	+	396	=	841	18	6	No
17:15 - 18:15	322	+	513	=	835	5	21	No
08:15 - 09:15	425	+	375	=	800	21	7	No
15:15 - 16:15	389	+	410	=	799	15	5	No
08:30 - 09:30	382	+	387	=	769	20	6	No
07:30 - 08:30	496	+	270	=	766	15	3	No
07:15 - 08:15	483	+	283	=	766	18	1	No
15:00 - 16:00	392	+	368	=	760	20	9	No
17:30 - 18:30	277	+	459	=	736	3	16	No
14:45 - 15:45	395	+	335	=	730	24	12	No
07:00 - 08:00	475	+	254	=	729	15	1	No
14:30 - 15:30	387	+	324	=	711	20	12	No
14:15 - 15:15	353	+	319	=	672	18	12	No
17:45 - 18:45	248	+	383	=	631	6	7	No
11:45 - 12:45	301	+	329	=	630	9	5	No
14:00 - 15:00	317	+	300	=	617	13	11	No
11:30 - 12:30	291		322		613	8	6	No

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Study Name: 8-State Rd_Quick Rd North

Study Date : 9/21/2023

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **1**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **75**

	Major Road State Rd					Minor Road Quick Rd North		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:30 - 17:30	393	+	522	=	915	4	17	No
16:15 - 17:15	405	+	501	=	906	4	13	No
16:45 - 17:45	368	+	535	=	903	4	22	No
17:00 - 18:00	354	+	536	=	890	5	22	No
15:45 - 16:45	407	+	482	=	889	7	8	No
16:00 - 17:00	396	+	485	=	881	5	9	No
07:45 - 08:45	493	+	378	=	871	16	5	No
15:30 - 16:30	399	+	445	=	844	12	6	No
08:00 - 09:00	445	+	396	=	841	18	6	No
17:15 - 18:15	322	+	513	=	835	5	21	No
08:15 - 09:15	425	+	375	=	800	21	7	No
15:15 - 16:15	389	+	410	=	799	15	5	No
08:30 - 09:30	382	+	387	=	769	20	6	No
07:30 - 08:30	496	+	270	=	766	15	3	No
07:15 - 08:15	483	+	283	=	766	18	1	No
15:00 - 16:00	392	+	368	=	760	20	9	No
17:30 - 18:30	277	+	459	=	736	3	16	No
14:45 - 15:45	395	+	335	=	730	24	12	No
07:00 - 08:00	475	+	254	=	729	15	1	No
14:30 - 15:30	387	+	324	=	711	20	12	No
14:15 - 15:15	353	+	319	=	672	18	12	No
17:45 - 18:45	248	+	383	=	631	6	7	No
11:45 - 12:45	301	+	329	=	630	9	5	No
14:00 - 15:00	317	+	300	=	617	13	11	No
11:30 - 12:30	291		322		613	8	6	No

GPD Group
520 South Main Street, Suite 2531 Akron, OH 44311
(330) 572-2100

Study Name: 8-State Rd_Quick Rd North
Study Date : 9/21/2023

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 0 hours meet 1A minimums.
Only 0 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply =	**False**
Number of Major Lanes =	**1**
Number of Minor Lanes =	**1**

Volume Requirements

Warrant	1A	1B
Veh/Hr Major =	**400**	**600**
Veh/Hr Minor =	**120**	**60**

Major Road	Minor Road
State Rd	Quick Rd North

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1A?
16:30 - 17:30	393	+	522	=	915	4	17	No
16:15 - 17:15	405	+	501	=	906	4	13	No
16:45 - 17:45	368	+	535	=	903	4	22	No
17:00 - 18:00	354	+	536	=	890	5	22	No
15:45 - 16:45	407	+	482	=	889	7	8	No
16:00 - 17:00	396	+	485	=	881	5	9	No
07:45 - 08:45	493	+	378	=	871	16	5	No
15:30 - 16:30	399	+	445	=	844	12	6	No
08:00 - 09:00	445	+	396	=	841	18	6	No
17:15 - 18:15	322	+	513	=	835	5	21	No
08:15 - 09:15	425	+	375	=	800	21	7	No
15:15 - 16:15	389	+	410	=	799	15	5	No

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?
16:30 - 17:30	393	+	522	=	915	4	17	No
16:15 - 17:15	405	+	501	=	906	4	13	No
16:45 - 17:45	368	+	535	=	903	4	22	No
17:00 - 18:00	354	+	536	=	890	5	22	No
15:45 - 16:45	407	+	482	=	889	7	8	No
16:00 - 17:00	396	+	485	=	881	5	9	No
07:45 - 08:45	493	+	378	=	871	16	5	No
15:30 - 16:30	399	+	445	=	844	12	6	No
08:00 - 09:00	445	+	396	=	841	18	6	No
17:15 - 18:15	322	+	513	=	835	5	21	No
08:15 - 09:15	425	+	375	=	800	21	7	No
15:15 - 16:15	389	+	410	=	799	15	5	No

GPD Group
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Study Name: 8-State Rd_Quick Rd North
Study Date : 9/21/2023

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

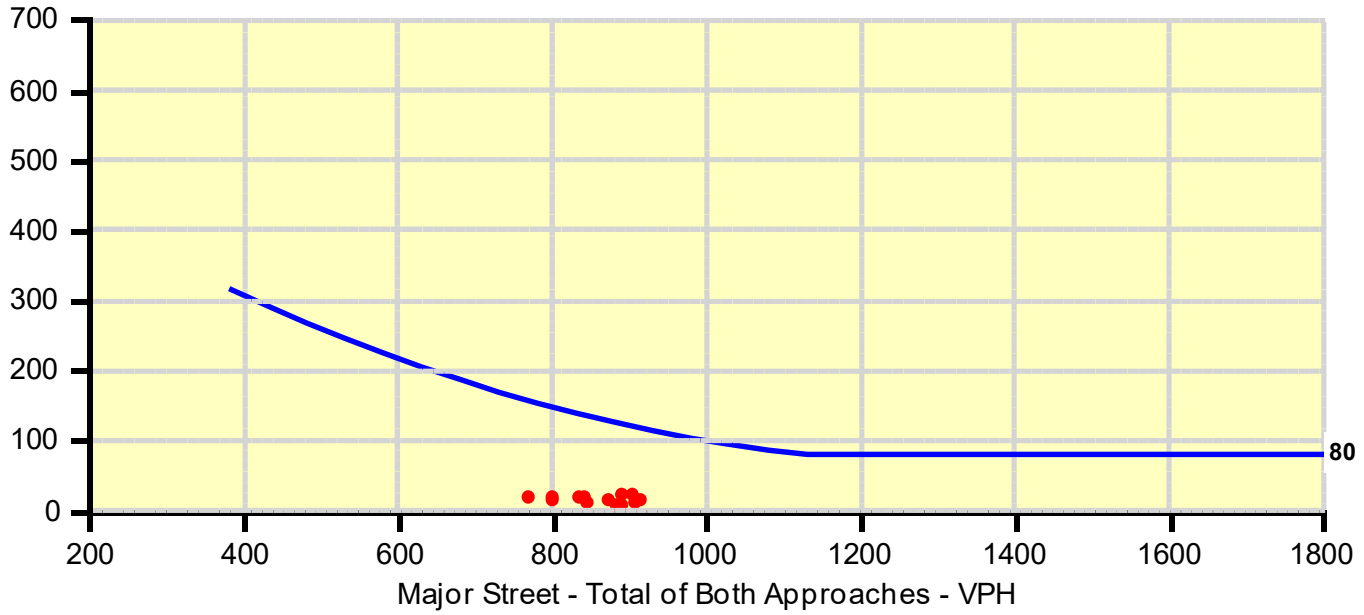
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply =	**False**
Number of Major Lanes =	**1**
Number of Minor Lanes =	**1**

	Major Road					Minor Road		
	State Rd					Quick Rd North		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:30 - 17:30	393	+	522	=	915	4	17	No
16:15 - 17:15	405	+	501	=	906	4	13	No
16:45 - 17:45	368	+	535	=	903	4	22	No
17:00 - 18:00	354	+	536	=	890	5	22	No
15:45 - 16:45	407	+	482	=	889	7	8	No
16:00 - 17:00	396	+	485	=	881	5	9	No
07:45 - 08:45	493	+	378	=	871	16	5	No
15:30 - 16:30	399	+	445	=	844	12	6	No
08:00 - 09:00	445	+	396	=	841	18	6	No
17:15 - 18:15	322	+	513	=	835	5	21	No
08:15 - 09:15	425	+	375	=	800	21	7	No



GPD Group
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Study Name: 8-State Rd_Quick Rd North
Study Date : 9/21/2023

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

12 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Number of Minor Lanes =**1**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**
Veh/Hr Minor = **100**
Total Delay (Veh-Hrs) = **4**

	Major Road		Minor Road					
	State Rd		Quick Rd North					
Time	Total of All Approaches	Met?	Minor EB	Delay EB	Met?	Minor WB	Delay WB	Met?	Warrant Met?
16:30 - 17:30	936	Yes	4	0.0	---	17	0.0	No	No
16:45 - 17:45	929	Yes	4	0.0	---	22	0.0	No	No
16:15 - 17:15	923	Yes	4	0.0	---	13	0.0	No	No
17:00 - 18:00	917	Yes	5	0.0	---	22	0.0	No	No
15:45 - 16:45	904	Yes	7	0.0	---	8	0.0	No	No
16:00 - 17:00	895	Yes	5	0.0	---	9	0.0	No	No
07:45 - 08:45	892	Yes	16	0.0	No	5	0.0	---	No
08:00 - 09:00	865	Yes	18	0.0	No	6	0.0	---	No
15:30 - 16:30	862	Yes	12	0.0	No	6	0.0	---	No
17:15 - 18:15	861	Yes	5	0.0	---	21	0.0	No	No
08:15 - 09:15	828	Yes	21	0.0	No	7	0.0	---	No
15:15 - 16:15	819	Yes	15	0.0	No	5	0.0	---	No
08:30 - 09:30	795	No	20	0.0	No	6	0.0	---	No
15:00 - 16:00	789	No	20	0.0	No	9	0.0	---	No
07:15 - 08:15	785	No	18	0.0	No	1	0.0	---	No
07:30 - 08:30	784	No	15	0.0	No	3	0.0	---	No
14:45 - 15:45	766	No	24	0.0	No	12	0.0	---	No
17:30 - 18:30	755	No	3	0.0	---	16	0.0	No	No
07:00 - 08:00	745	No	15	0.0	No	1	0.0	---	No
14:30 - 15:30	743	No	20	0.0	No	12	0.0	---	No
14:15 - 15:15	702	No	18	0.0	No	12	0.0	---	No
17:45 - 18:45	644	No	6	0.0	---	7	0.0	No	No
11:45 - 12:45	644	No	9	0.0	No	5	0.0	---	No
14:00 - 15:00	641	No	13	0.0	No	11	0.0	---	No
11:30 - 12:30	627	No	8	0.0	No	6	0.0	---	No

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Study Name: 8-State Rd_Quick Rd North
Study Date : 9/21/2023

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

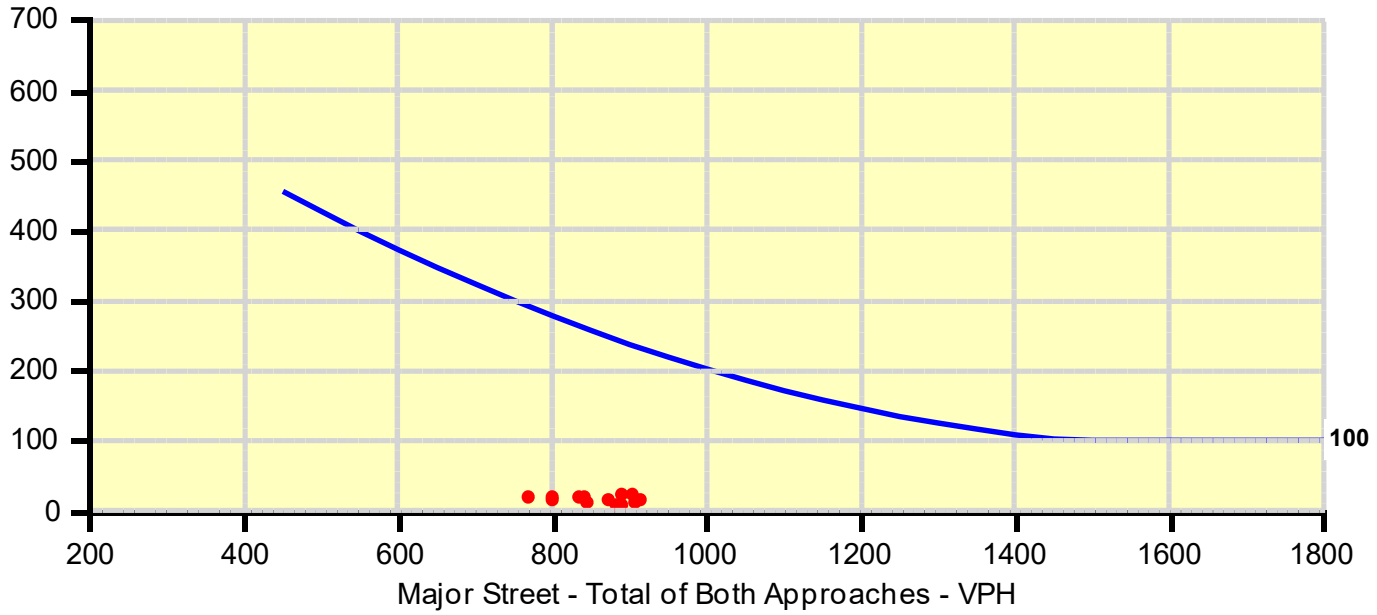
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply =	**False**
Number of Major Lanes =	**1**
Number of Minor Lanes =	**1**

	Major Road State Rd					Minor Road Quick Rd North		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:30 - 17:30	393	+	522	=	915	4	17	No
16:15 - 17:15	405	+	501	=	906	4	13	No
16:45 - 17:45	368	+	535	=	903	4	22	No
17:00 - 18:00	354	+	536	=	890	5	22	No
15:45 - 16:45	407	+	482	=	889	7	8	No
16:00 - 17:00	396	+	485	=	881	5	9	No
07:45 - 08:45	493	+	378	=	871	16	5	No
15:30 - 16:30	399	+	445	=	844	12	6	No
08:00 - 09:00	445	+	396	=	841	18	6	No
17:15 - 18:15	322	+	513	=	835	5	21	No
08:15 - 09:15	425	+	375	=	800	21	7	No



GPD Group
520 South Main Street, Suite 2531 Akron, OH 44311
(330) 572-2100

Study Name: 9-State Rd_Quick RdSouth_Audi South Drive
Study Date : 9/21/2023

Signal Warrants - Summary

Major Street Approaches

Northbound: State Rd
Number of Lanes : 1

Total Approach Volume: 5,637

Southbound: State Rd
Number of Lanes :1

Total Approach Volume: 3,867

Minor Street Approaches

Eastbound: Quick Rd South
Number of Lanes :1

Total Approach Volume: 1,507

Westbound: Audi South Drive
Number of Lanes :1

Total Approach Volume: 115

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....**Not Satisfied**

Warrant 1A - Minimum Vehicular Volume.....**Not Satisfied**
Required volumes reached for 4 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....**Not Satisfied**
Required volumes reached for 6 hours, 8 are needed

Warrant 1C - Combination of Warrants.....**Not Satisfied**
Required 1A volumes reached for 7 hours, 8 are needed
Required 1B volumes reached for 11 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....**Satisfied**
Number of hours (6) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....**Satisfied**

Warrant 3A - Peak Hour Delay.....**Not Satisfied**
Total approach volumes and delays on minor street do not exceed minimums for any one hour period.

Warrant 3B - Peak Hour Volumes.....**Satisfied**
Volumes exceed minimums for at least one hour period.

Warrant 4 - Pedestrian Volumes.....**Not Evaluated**

Warrant 5 - School Crossing.....**Not Evaluated**

Warrant 6 - Coordinated Signal System.....**Not Evaluated**

Warrant 7 - Crash Experience.....**Not Evaluated**

Warrant 8 - Roadway Network.....**Not Evaluated**

Warrant 9 - Intersection Near a Grade Crossing.....**Not Evaluated**

GPD Group
520 South Main Street, Suite 2531 Akron, OH 44311
(330) 572-2100

Study Name: 9-State Rd_Quick RdSouth_Audi South Drive
Study Date : 9/21/2023

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 4 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **1**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **150**

	Major Road State Rd					Minor Road Quick Rd South		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
17:15 - 18:15	505	+	486	=	991	169	16	Yes
14:45 - 15:45	564	+	362	=	926	158	12	Yes
06:45 - 07:45	618	+	173	=	791	189	1	Yes
13:45 - 14:45	480	+	274	=	754	174	6	Yes
17:00 - 18:00	559	+	514	=	1073	146	14	No
16:45 - 17:45	544	+	526	=	1070	121	13	No
16:30 - 17:30	529	+	522	=	1051	123	12	No
16:15 - 17:15	541	+	496	=	1037	130	14	No
15:45 - 16:45	522	+	486	=	1008	141	12	No
16:00 - 17:00	518	+	483	=	1001	140	14	No
07:45 - 08:45	641	+	358	=	999	75	2	No
08:00 - 09:00	590	+	382	=	972	91	2	No
08:15 - 09:15	558	+	359	=	917	95	2	No
08:30 - 09:30	499	+	367	=	866	97	6	No
13:30 - 14:30	426	+	279	=	705	91	6	No
11:45 - 12:45	381	+	319	=	700	95	16	No
11:30 - 12:30	376	+	310	=	686	89	13	No
08:45 - 09:45	430	+	252	=	682	96	9	No
12:00 - 13:00	383	+	287	=	670	95	17	No
13:15 - 14:15	399	+	270	=	669	86	6	No
11:15 - 12:15	371	+	298	=	669	75	8	No
13:00 - 14:00	368	+	275	=	643	83	9	No
12:45 - 13:45	344	+	276	=	620	72	11	No
11:00 - 12:00	338	+	274	=	612	82	5	No
12:15 - 13:15	344		266		610	97	17	No

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Study Name: 9-State Rd_Quick RdSouth_Audi South Drive

Study Date : 9/21/2023

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 6 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **1**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **75**

	Major Road					Minor Road		
	State Rd					Quick Rd South		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:45 - 17:45	544	+	526	=	1070	121	13	Yes
15:45 - 16:45	522	+	486	=	1008	141	12	Yes
07:45 - 08:45	641	+	358	=	999	75	2	Yes
14:45 - 15:45	564	+	362	=	926	158	12	Yes
06:45 - 07:45	618	+	173	=	791	189	1	Yes
13:45 - 14:45	480	+	274	=	754	174	6	Yes
17:45 - 18:45	372	+	361	=	733	179	15	No
13:30 - 14:30	426	+	279	=	705	91	6	No
11:45 - 12:45	381	+	319	=	700	95	16	No
11:30 - 12:30	376	+	310	=	686	89	13	No
08:45 - 09:45	430	+	252	=	682	96	9	No
12:00 - 13:00	383	+	287	=	670	95	17	No
13:15 - 14:15	399	+	270	=	669	86	6	No
11:15 - 12:15	371	+	298	=	669	75	8	No
18:00 - 19:00	326	+	321	=	647	167	9	No
13:00 - 14:00	368	+	275	=	643	83	9	No
12:45 - 13:45	344	+	276	=	620	72	11	No
11:00 - 12:00	338	+	274	=	612	82	5	No
12:15 - 13:15	344	+	266	=	610	97	17	No
12:30 - 13:30	336	+	259	=	595	78	13	No
09:00 - 10:00	371	+	204	=	575	74	12	No
10:45 - 11:45	338	+	237	=	575	86	6	No
10:30 - 11:30	335	+	233	=	568	88	7	No
10:15 - 11:15	323	+	215	=	538	90	8	No
06:30 - 07:30	434		102		536	124	0	No

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Study Name: 9-State Rd_Quick RdSouth_Audi South Drive
Study Date : 9/21/2023

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 7 hours meet 1A minimums.
11 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply =	**False**
Number of Major Lanes =	**1**
Number of Minor Lanes =	**1**

Volume Requirements

Warrant	1A	1B
Veh/Hr Major =	**400**	**600**
Veh/Hr Minor =	**120**	**60**

Major Road: State Rd | **Minor Road: Quick Rd South**

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1A?
16:45 - 17:45	544	+	526	=	1070	121	13	Yes
15:45 - 16:45	522	+	486	=	1008	141	12	Yes
07:30 - 08:30	670	+	267	=	937	120	3	Yes
14:45 - 15:45	564	+	362	=	926	158	12	Yes
13:45 - 14:45	480	+	274	=	754	174	6	Yes
17:45 - 18:45	372	+	361	=	733	179	15	Yes
06:30 - 07:30	434	+	102	=	536	124	0	Yes
08:30 - 09:30	499	+	367	=	866	97	6	No
13:30 - 14:30	426	+	279	=	705	91	6	No
11:45 - 12:45	381	+	319	=	700	95	16	No
11:30 - 12:30	376	+	310	=	686	89	13	No
08:45 - 09:45	430		252		682	96	9	No

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?
17:00 - 18:00	559	+	514	=	1073	146	14	Yes
16:00 - 17:00	518	+	483	=	1001	140	14	Yes
07:45 - 08:45	641	+	358	=	999	75	2	Yes
15:00 - 16:00	534	+	406	=	940	140	12	Yes
14:00 - 15:00	522	+	288	=	810	192	8	Yes
06:45 - 07:45	618	+	173	=	791	189	1	Yes
08:45 - 09:45	430	+	252	=	682	96	9	Yes
12:00 - 13:00	383	+	287	=	670	95	17	Yes
18:00 - 19:00	326	+	321	=	647	167	9	Yes
13:00 - 14:00	368	+	275	=	643	83	9	Yes
11:00 - 12:00	338	+	274	=	612	82	5	Yes
10:45 - 11:45	338		237		575	86	6	No

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Study Name: 9-State Rd_Quick RdSouth_Audi South Drive
Study Date : 9/21/2023

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

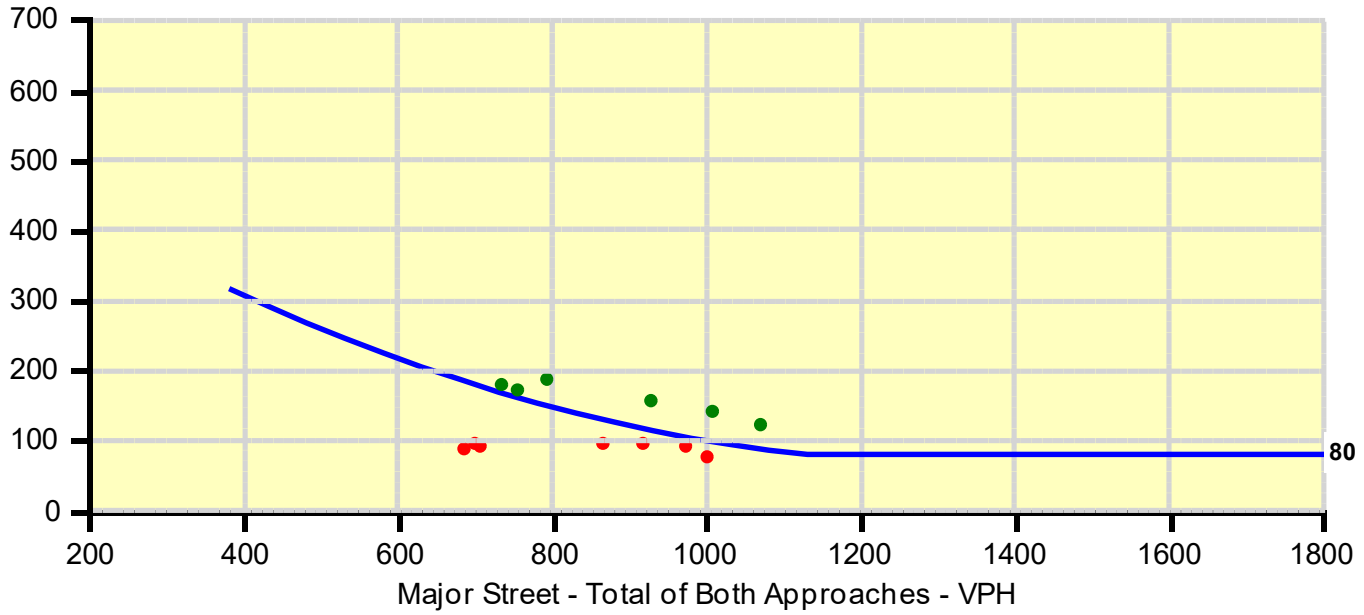
Summary

6 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply =	**False**
Number of Major Lanes =	**1**
Number of Minor Lanes =	**1**

	Major Road					Minor Road		
	State Rd					Quick Rd South		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:45 - 17:45	544	+	526	=	1070	121	13	Yes
15:45 - 16:45	522	+	486	=	1008	141	12	Yes
14:45 - 15:45	564	+	362	=	926	158	12	Yes
06:45 - 07:45	618	+	173	=	791	189	1	Yes
13:45 - 14:45	480	+	274	=	754	174	6	Yes
17:45 - 18:45	372	+	361	=	733	179	15	Yes
07:45 - 08:45	641	+	358	=	999	75	2	No
08:00 - 09:00	590	+	382	=	972	91	2	No
08:15 - 09:15	558	+	359	=	917	95	2	No
08:30 - 09:30	499	+	367	=	866	97	6	No
13:30 - 14:30	426	+	279	=	705	91	6	No



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Study Name: 9-State Rd_Quick RdSouth_Audi South Drive
Study Date : 9/21/2023

Warrant 3A - Peak Hour Delay

Description

Intended for sites where for one hour of the day minor street traffic suffers undue traffic delay entering or crossing the major street.

Summary

28 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Number of Minor Lanes =**1**

Volume and Delay Requirements

Veh/Hr All Approaches = **800**
Veh/Hr Minor = **100**
Total Delay (Veh-Hrs) = **4**

	Major Road		Minor Road					
	State Rd		Quick Rd South					
Time	Total of All Approaches	Met?	Minor EB	Delay EB	Met?	Minor WB	Delay WB	Met?	Warrant Met?
07:00 - 08:00	1259	Yes	212	0.0	No	2	0.0	---	No
17:00 - 18:00	1233	Yes	146	0.0	No	14	0.0	---	No
07:15 - 08:15	1226	Yes	186	0.0	No	3	0.0	---	No
16:45 - 17:45	1204	Yes	121	0.0	No	13	0.0	---	No
16:30 - 17:30	1186	Yes	123	0.0	No	12	0.0	---	No
16:15 - 17:15	1181	Yes	130	0.0	No	14	0.0	---	No
17:15 - 18:15	1176	Yes	169	0.0	No	16	0.0	---	No
15:45 - 16:45	1161	Yes	141	0.0	No	12	0.0	---	No
16:00 - 17:00	1155	Yes	140	0.0	No	14	0.0	---	No
14:30 - 15:30	1149	Yes	227	0.0	No	11	0.0	---	No
15:30 - 16:30	1107	Yes	113	0.0	No	13	0.0	---	No
15:15 - 16:15	1097	Yes	129	0.0	No	13	0.0	---	No
14:45 - 15:45	1096	Yes	158	0.0	No	12	0.0	---	No
14:15 - 15:15	1095	Yes	210	0.0	No	10	0.0	---	No
15:00 - 16:00	1092	Yes	140	0.0	No	12	0.0	---	No
17:30 - 18:30	1085	Yes	201	0.0	No	16	0.0	---	No
07:45 - 08:45	1076	Yes	75	0.0	No	2	0.0	---	No
08:00 - 09:00	1065	Yes	91	0.0	No	2	0.0	---	No
07:30 - 08:30	1060	Yes	120	0.0	No	3	0.0	---	No
08:15 - 09:15	1014	Yes	95	0.0	No	2	0.0	---	No
14:00 - 15:00	1010	Yes	192	0.0	No	8	0.0	---	No
06:45 - 07:45	981	Yes	189	0.0	No	1	0.0	---	No
08:30 - 09:30	969	Yes	97	0.0	No	6	0.0	---	No
13:45 - 14:45	934	Yes	174	0.0	No	6	0.0	---	No
17:45 - 18:45	927	Yes	179	0.0	No	15	0.0	---	No

GPD Group
520 South Main Street, Suite 2531 Akron, OH 44311
(330) 572-2100

Study Name: 9-State Rd_Quick RdSouth_Audi South Drive
Study Date : 9/21/2023

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

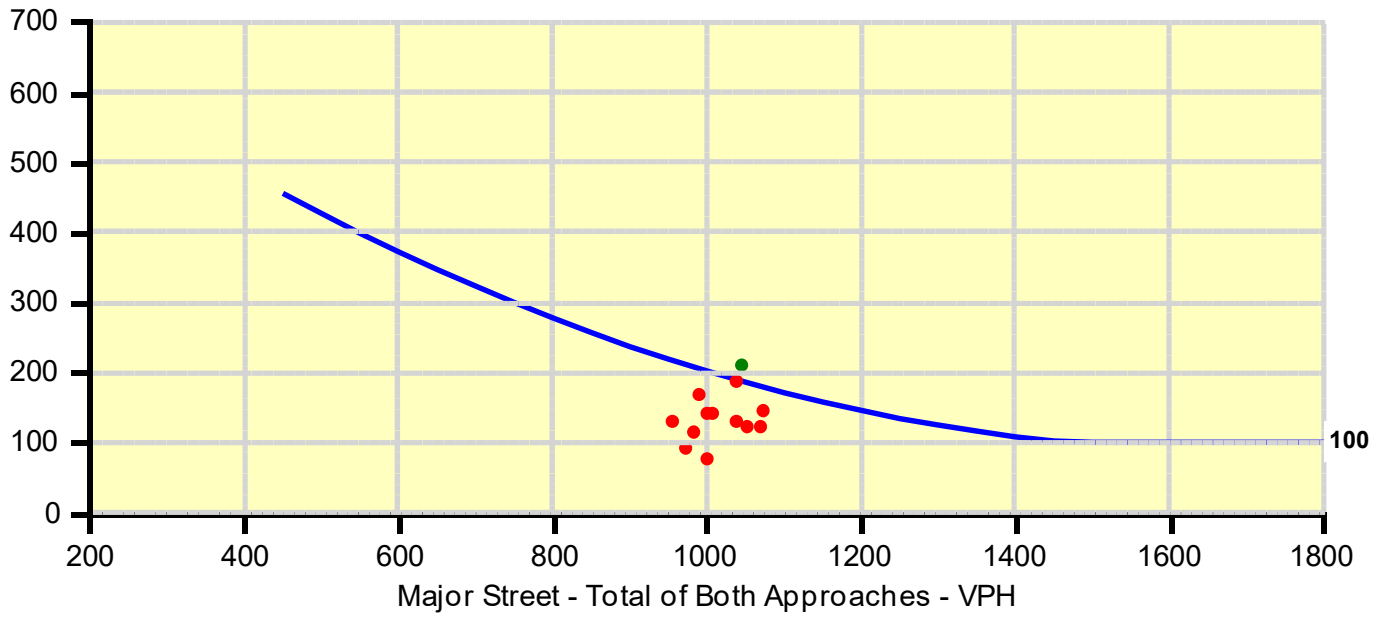
Summary

1 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply =	**False**
Number of Major Lanes =	**1**
Number of Minor Lanes =	**1**

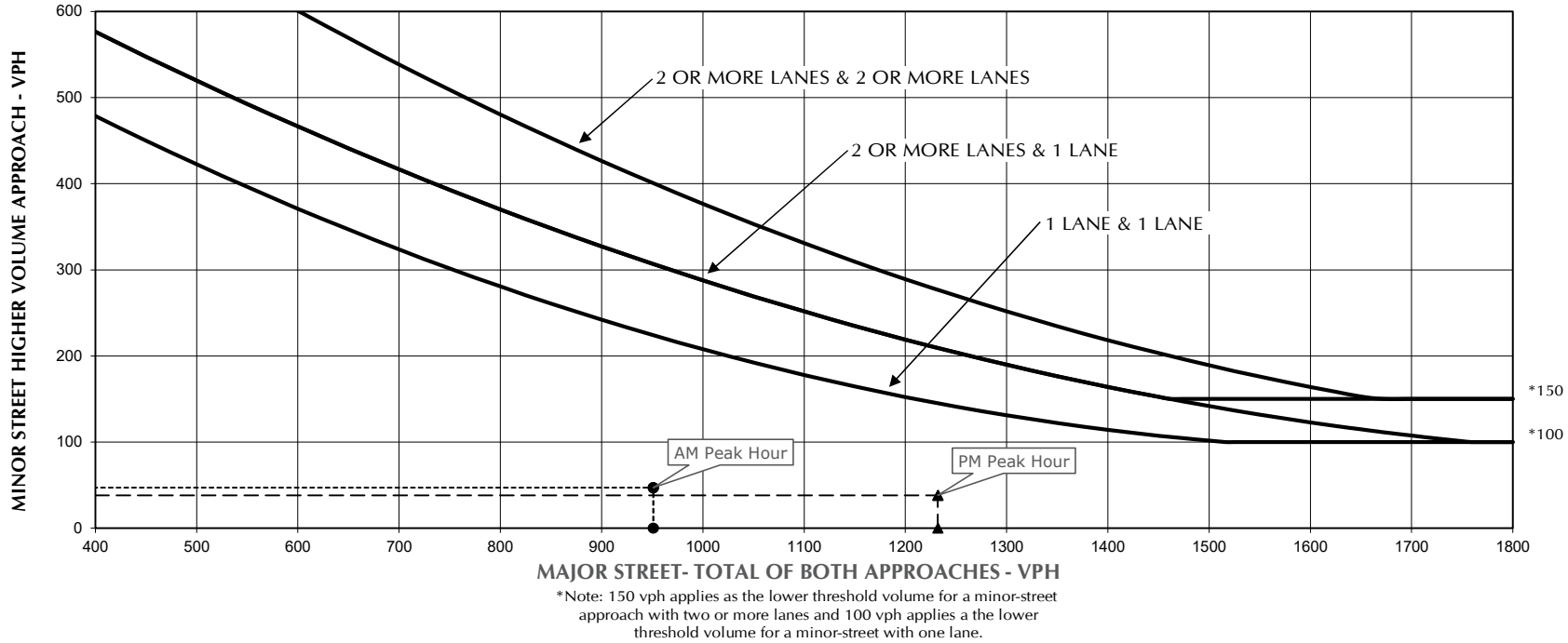
	Major Road					Minor Road		
	State Rd					Quick Rd South		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
07:00 - 08:00	808	+	237	=	1045	212	2	Yes
17:00 - 18:00	559	+	514	=	1073	146	14	No
16:45 - 17:45	544	+	526	=	1070	121	13	No
16:30 - 17:30	529	+	522	=	1051	123	12	No
07:15 - 08:15	765	+	272	=	1037	186	3	No
16:15 - 17:15	541	+	496	=	1037	130	14	No
15:45 - 16:45	522	+	486	=	1008	141	12	No
16:00 - 17:00	518	+	483	=	1001	140	14	No
07:45 - 08:45	641	+	358	=	999	75	2	No
17:15 - 18:15	505	+	486	=	991	169	16	No
15:30 - 16:30	521	+	460	=	981	113	13	No



OPENING YEAR 2028 'BUILD' CONDITIONS

State Road / Boulder Blvd Intersection

FIGURE 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies a the lower threshold volume for a minor-street with one lane.

Roadway		Lanes
Major Road	State Road	1
Minor Road	Boulder Blvd	1

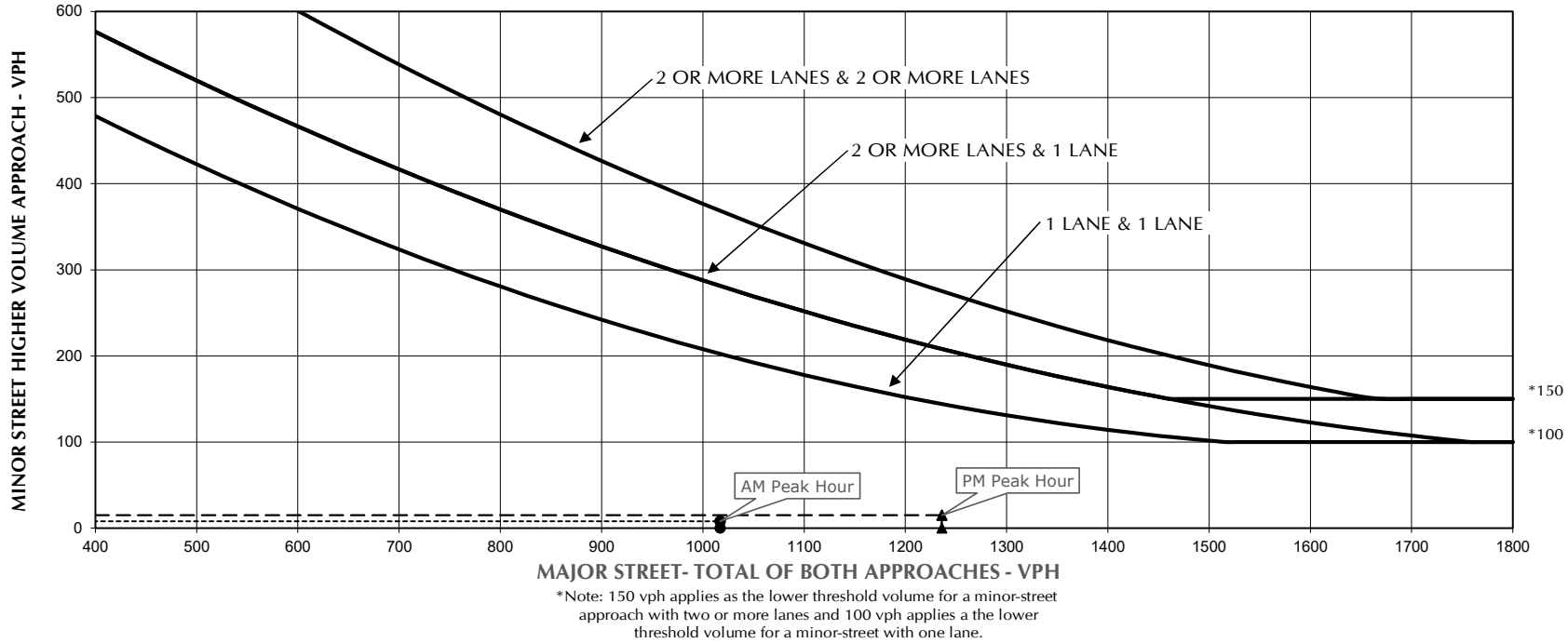
Traffic Volume Scenario:
Opening Year 2028 'Build' Conditions

AM Peak Hour Volumes	
Major Street - Total of Both Approaches=	951
Minor Street - Higher Volume Approach=	47
Midday Peak Hour Volumes	
Major Street - Total of Both Approaches=	
Minor Street - Higher Volume Approach=	
PM Peak Hour Volumes	
Major Street - Total of Both Approaches=	1232
Minor Street - Higher Volume Approach=	38

Warrant #3 Met?	**No**

State Road / Falls Commerce Parkway Intersection

FIGURE 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies a the lower threshold volume for a minor-street with one lane.

Roadway		Lanes
Major Road	State Road	1
Minor Road	Falls Commerce	1

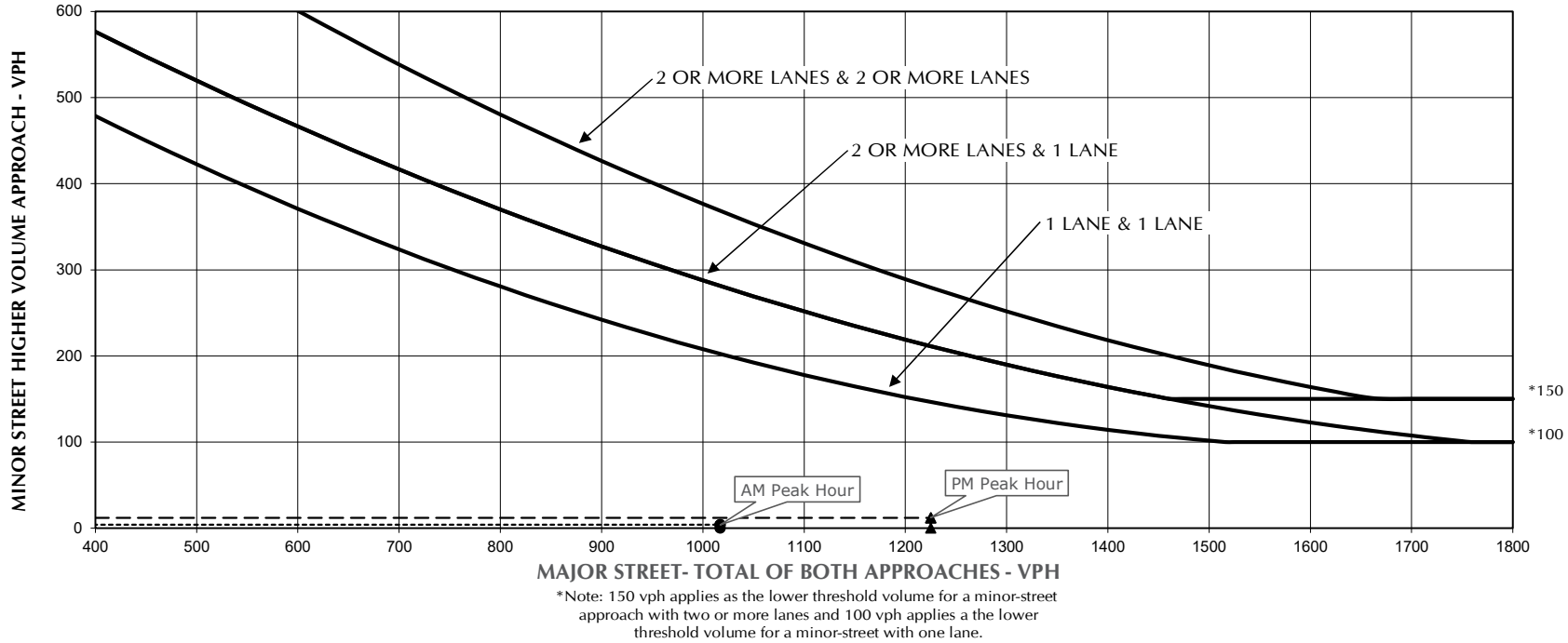
Traffic Volume Scenario:
Opening Year 2028 'Build' Conditions

AM Peak Hour Volumes	
Major Street - Total of Both Approaches=	1017
Minor Street - Higher Volume Approach=	8
Midday Peak Hour Volumes	
Major Street - Total of Both Approaches=	
Minor Street - Higher Volume Approach=	
PM Peak Hour Volumes	
Major Street - Total of Both Approaches=	1236
Minor Street - Higher Volume Approach=	15

Warrant #3 Met?	**No**

State Road / Buckeye Drive / Storr-it Intersection

FIGURE 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies a the lower threshold volume for a minor-street with one lane.

Roadway		Lanes
Major Road	State Road	1
Minor Road	Buckeye Drive /	1

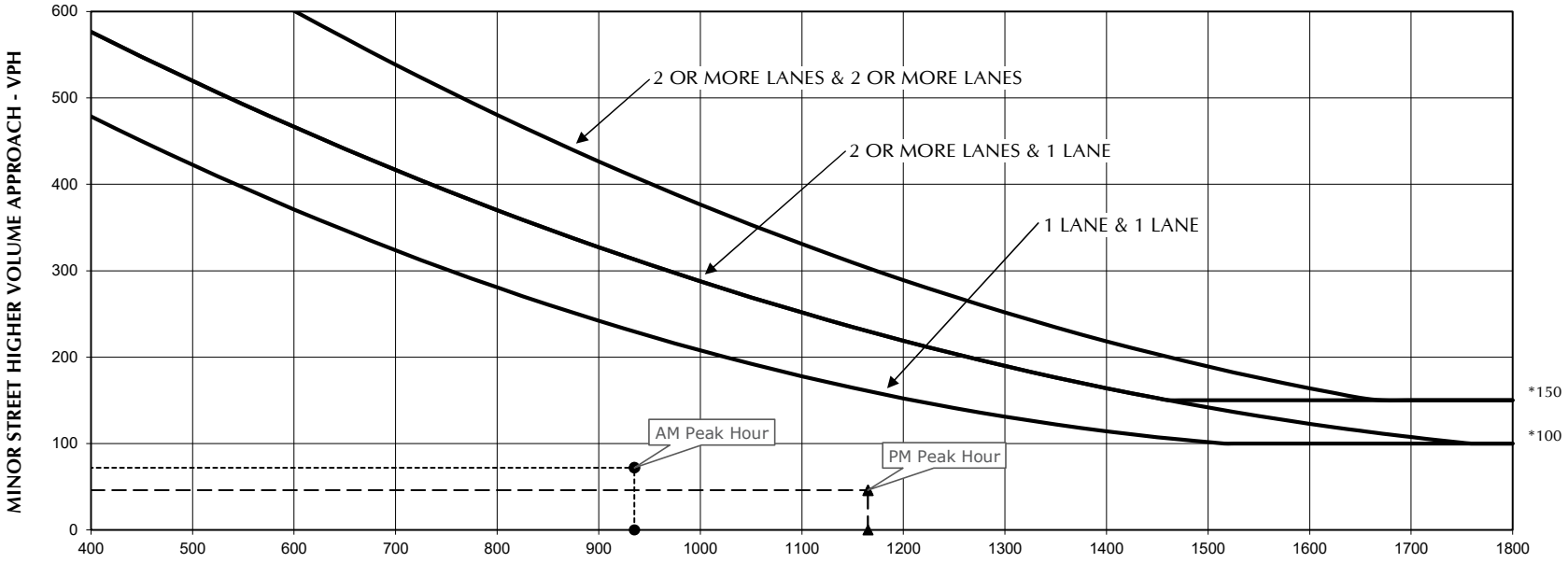
Traffic Volume Scenario:
Opening Year 2028 'Build' Conditions

AM Peak Hour Volumes	
Major Street - Total of Both Approaches=	1017
Minor Street - Higher Volume Approach=	4
Midday Peak Hour Volumes	
Major Street - Total of Both Approaches=	
Minor Street - Higher Volume Approach=	
PM Peak Hour Volumes	
Major Street - Total of Both Approaches=	1225
Minor Street - Higher Volume Approach=	12

Warrant #3 Met?	**No**

State Road / Salt Creek Run Intersection

FIGURE 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies a the lower threshold volume for a minor-street with one lane.

Roadway		Lanes
Major Road	State Road	1
Minor Road	Salt Creek Run	1

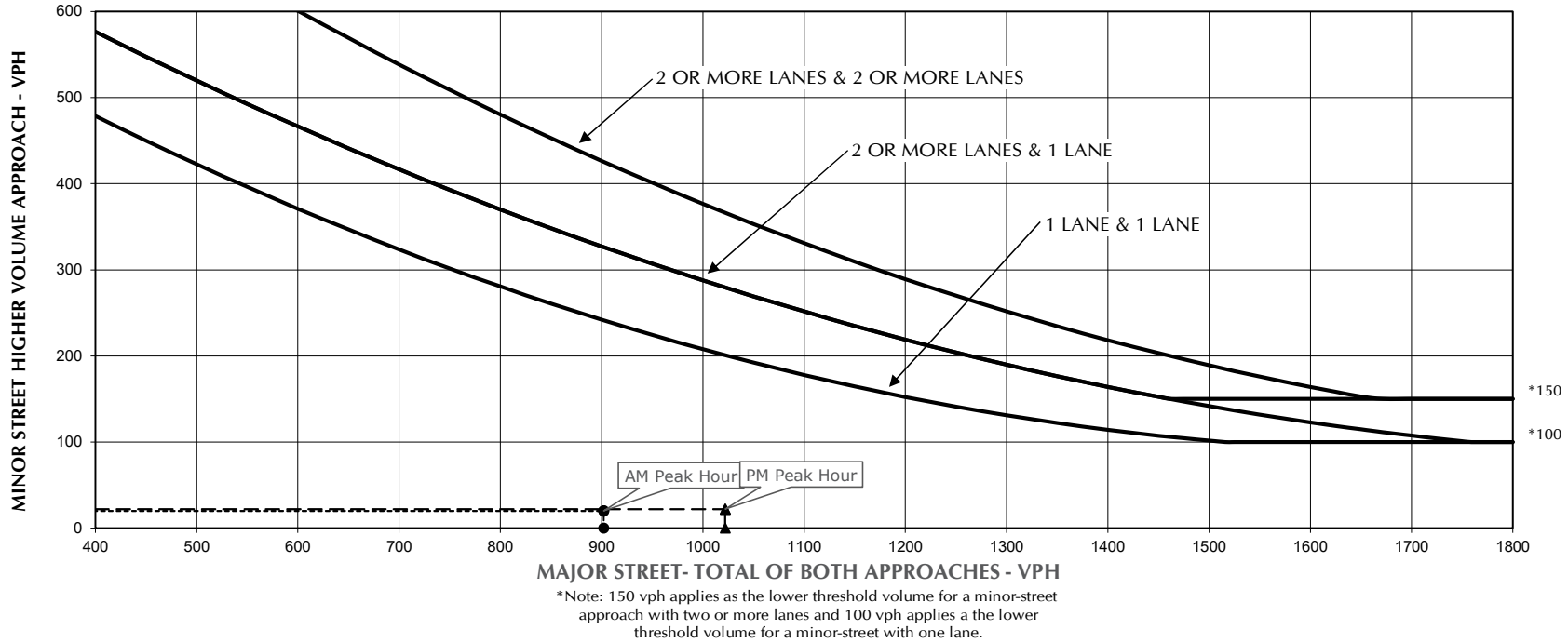
Traffic Volume Scenario:
Opening Year 2028 'Build' Conditions

AM Peak Hour Volumes	
Major Street - Total of Both Approaches=	935
Minor Street - Higher Volume Approach=	72
Midday Peak Hour Volumes	
Major Street - Total of Both Approaches=	
Minor Street - Higher Volume Approach=	
PM Peak Hour Volumes	
Major Street - Total of Both Approaches=	1165
Minor Street - Higher Volume Approach=	46

Warrant #3 Met?	**No**

State Road / Woodridge Elem North Drive Intersection

FIGURE 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies a the lower threshold volume for a minor-street with one lane.

Roadway		Lanes
Major Road	State Road	1
Minor Road	Woodridge Elem	1

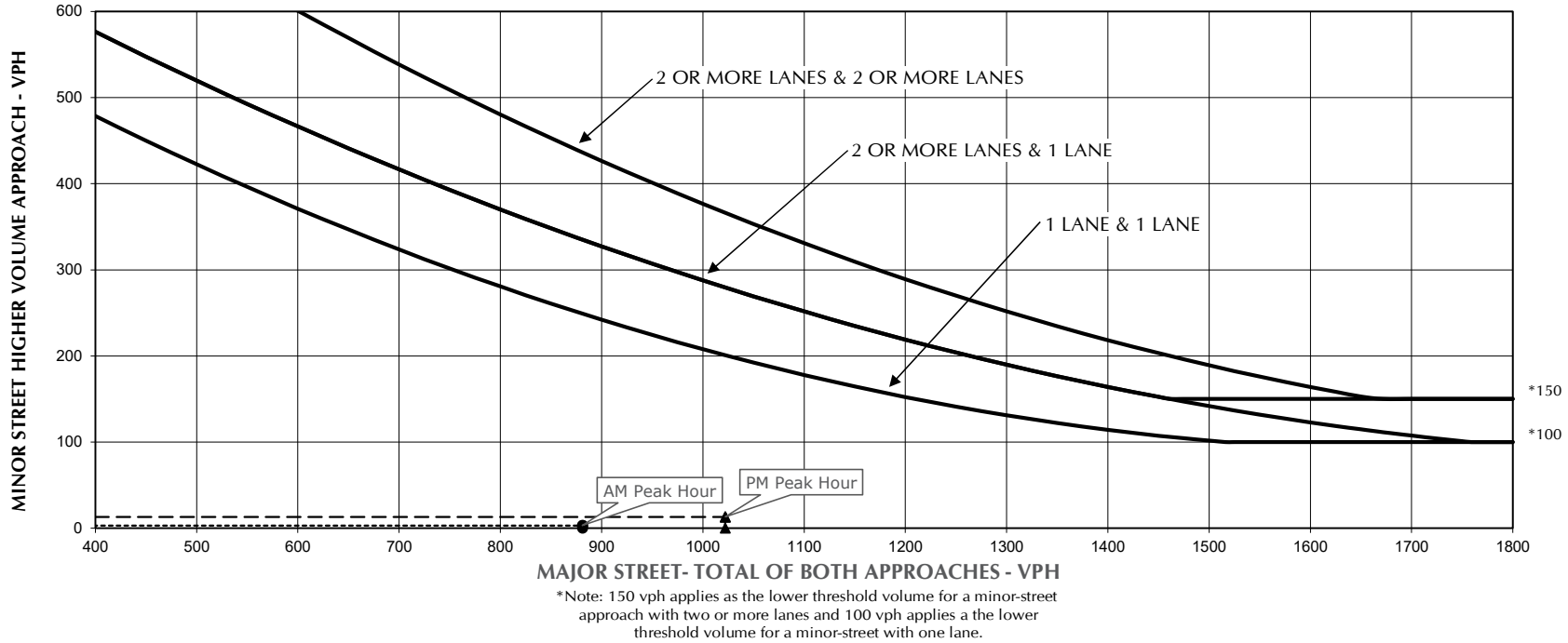
Traffic Volume Scenario:
Opening Year 2028 'Build' Conditions

AM Peak Hour Volumes	
Major Street - Total of Both Approaches=	902
Minor Street - Higher Volume Approach=	20
Midday Peak Hour Volumes	
Major Street - Total of Both Approaches=	
Minor Street - Higher Volume Approach=	
PM Peak Hour Volumes	
Major Street - Total of Both Approaches=	1022
Minor Street - Higher Volume Approach=	22

Warrant #3 Met?	**No**

State Road / Woodridge Elem South Drive Intersection

FIGURE 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies a the lower threshold volume for a minor-street with one lane.

Roadway		Lanes
Major Road	State Road	1
Minor Road	Woodridge Elem	1

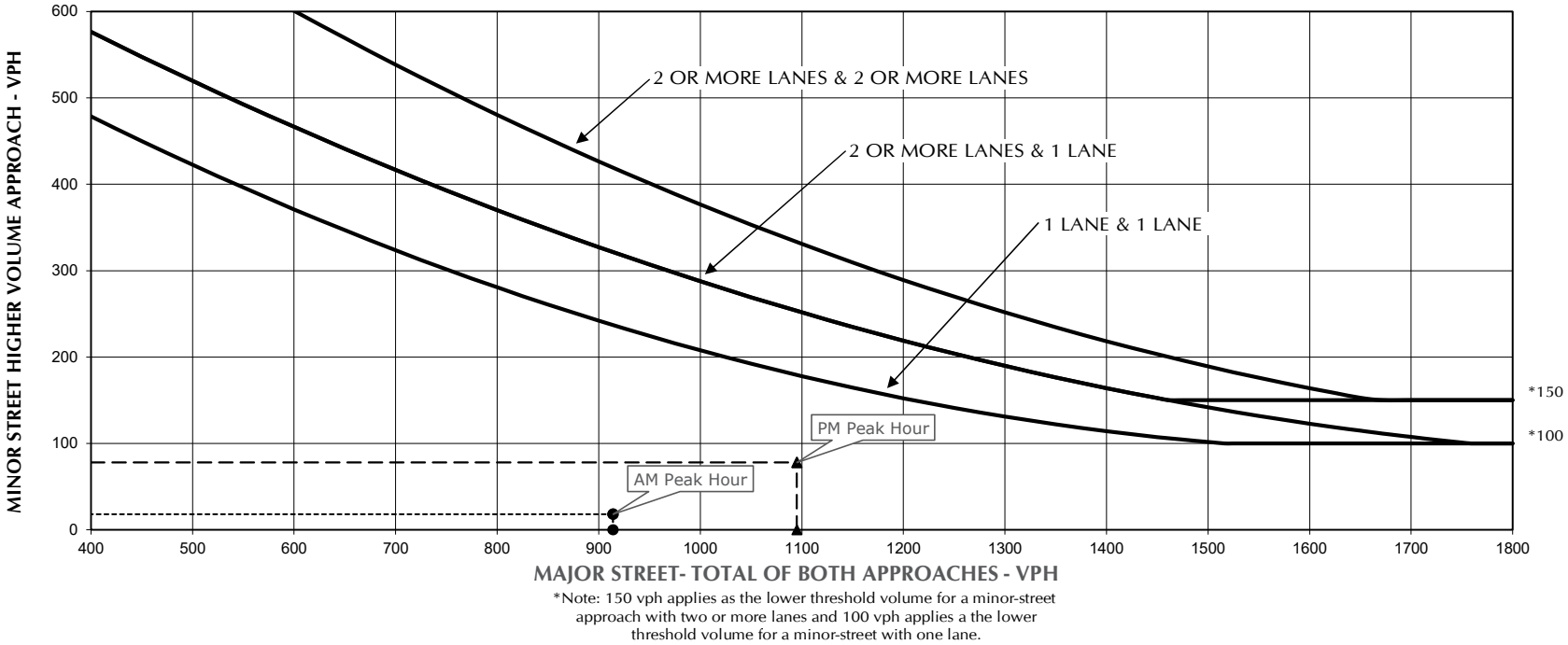
Traffic Volume Scenario:
Opening Year 2028 'Build' Conditions

AM Peak Hour Volumes	
Major Street - Total of Both Approaches=	881
Minor Street - Higher Volume Approach=	3
Midday Peak Hour Volumes	
Major Street - Total of Both Approaches=	
Minor Street - Higher Volume Approach=	
PM Peak Hour Volumes	
Major Street - Total of Both Approaches=	1022
Minor Street - Higher Volume Approach=	13

Warrant #3 Met?	**No**

State Road / Falls Industrial Parkway Intersection

FIGURE 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies a the lower threshold volume for a minor-street with one lane.

Roadway		Lanes
Major Road	State Road	1
Minor Road	Falls Industrial	1

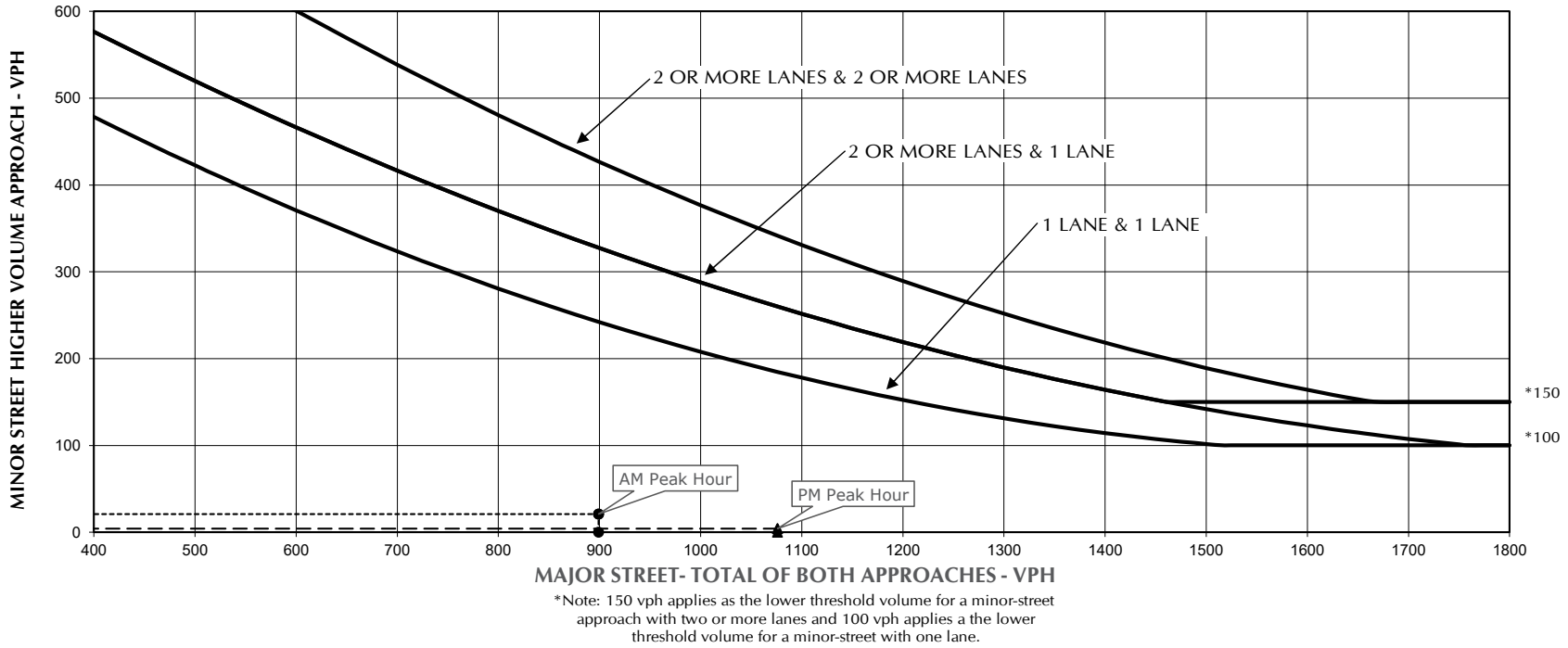
Traffic Volume Scenario:
Opening Year 2028 'Build' Conditions

AM Peak Hour Volumes	
Major Street - Total of Both Approaches=	914
Minor Street - Higher Volume Approach=	18
Midday Peak Hour Volumes	
Major Street - Total of Both Approaches=	
Minor Street - Higher Volume Approach=	
PM Peak Hour Volumes	
Major Street - Total of Both Approaches=	1095
Minor Street - Higher Volume Approach=	78

Warrant #3 Met?	**No**

State Road / Quick Road / Audi Dealership North Intersection

FIGURE 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies a the lower threshold volume for a minor-street with one lane.

Roadway		Lanes
Major Road	State Road	1
Minor Road	Quick Road / Audi	1

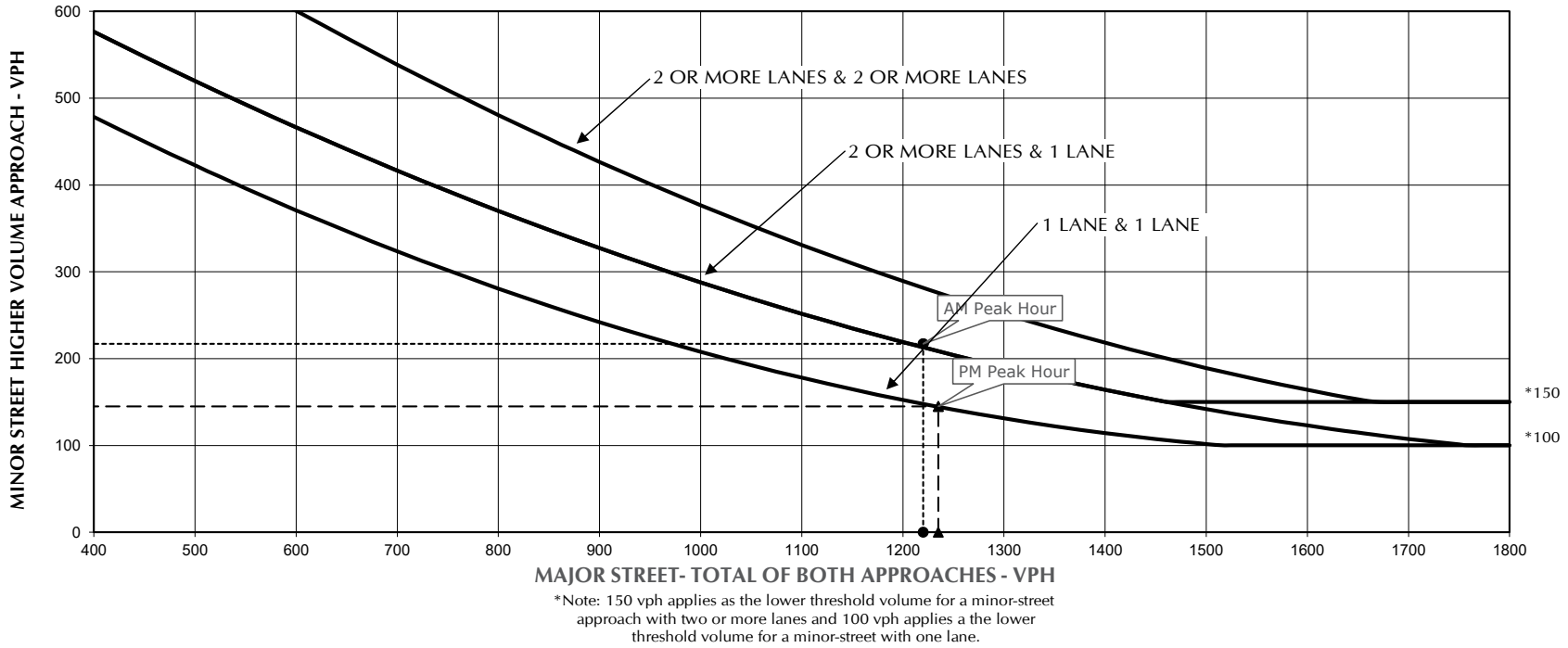
Traffic Volume Scenario:
Opening Year 2028 'Build' Conditions

AM Peak Hour Volumes	
Major Street - Total of Both Approaches=	899
Minor Street - Higher Volume Approach=	21
Midday Peak Hour Volumes	
Major Street - Total of Both Approaches=	
Minor Street - Higher Volume Approach=	
PM Peak Hour Volumes	
Major Street - Total of Both Approaches=	1076
Minor Street - Higher Volume Approach=	4

Warrant #3 Met?	**No**

State Road / Quick Road / Audi Dealership North Intersection

FIGURE 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies a the lower threshold volume for a minor-street with one lane.

Roadway		Lanes
Major Road	State Road	1
Minor Road	Quick Road / Audi	1

Traffic Volume Scenario:
Opening Year 2028 'Build' Conditions

AM Peak Hour Volumes	
Major Street - Total of Both Approaches=	1220
Minor Street - Higher Volume Approach=	217
Midday Peak Hour Volumes	
Major Street - Total of Both Approaches=	
Minor Street - Higher Volume Approach=	
PM Peak Hour Volumes	
Major Street - Total of Both Approaches=	1235
Minor Street - Higher Volume Approach=	145

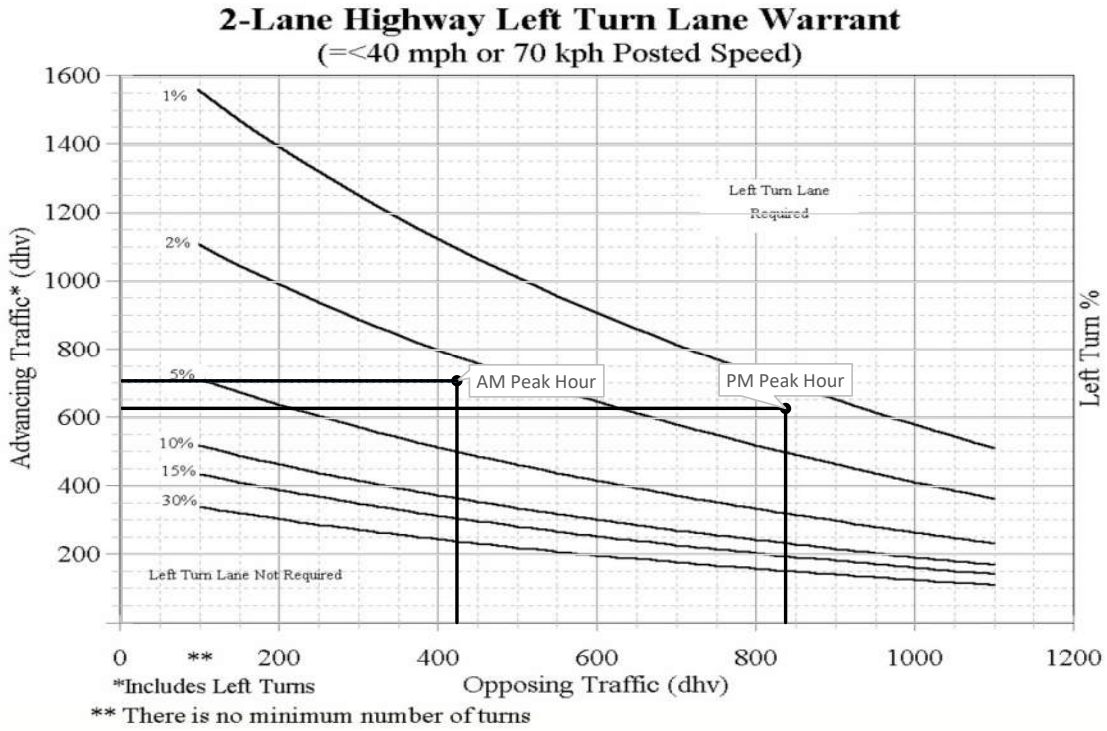
Warrant #3 Met?	**Yes**

APPENDIX F
AUXILIARY TURN LANE WARRANT ANALYSIS

DESIGN YEAR 2048 'BUILD' CONDITIONS

State Road / Boulder Blvd Intersection

Northbound Left Turn Lane



Design Year 2048 'Build' Conditions

AM Peak Hour:

- Advancing Traffic = 710 Veh
- Left Turn Traffic = 1 Veh
- Opposing Traffic = 423 Veh
- Left Turn % = 0.1 %

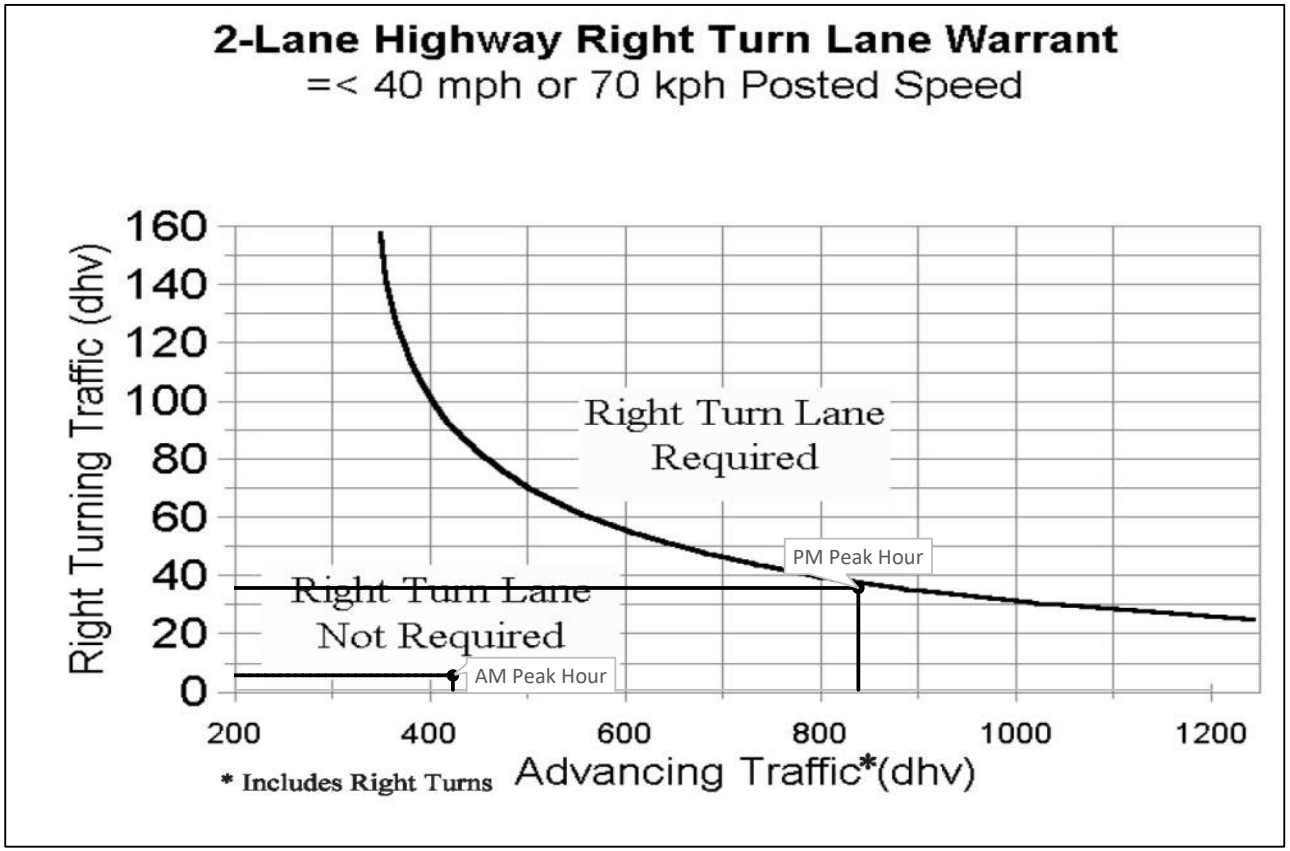
PM Peak Hour:

- Advancing Traffic = 629 Veh
- Left Turn Traffic = 16 Veh
- Opposing Traffic = 838 Veh
- Left Turn % = 2.5 %

Turn Lane Warranted

State Road / Boulder Blvd Intersection

Southbound Right Turn Lane



Design Year 2048 'Build' Conditions

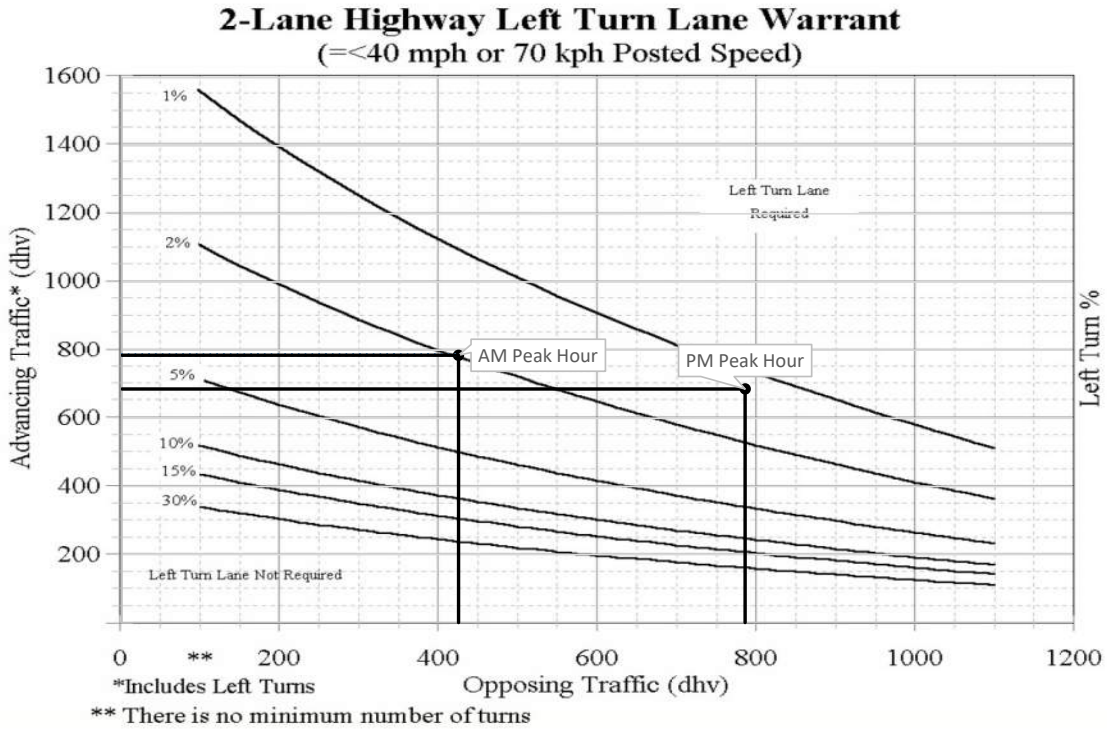
AM Peak Hour:
Advancing Traffic = 423 Veh
Right Turn Traffic = 5 Veh

PM Peak Hour:
Advancing Traffic = 838 Veh
Right Turn Traffic = 35 Veh

Turn Lane NOT Warranted

State Road / Falls Commons Intersection

Northbound Left Turn Lane



Design Year 2048 'Build' Conditions

AM Peak Hour:

- Advancing Traffic = 785 Veh
- Left Turn Traffic = 1 Veh
- Opposing Traffic = 425 Veh
- Left Turn % = 0.1 %

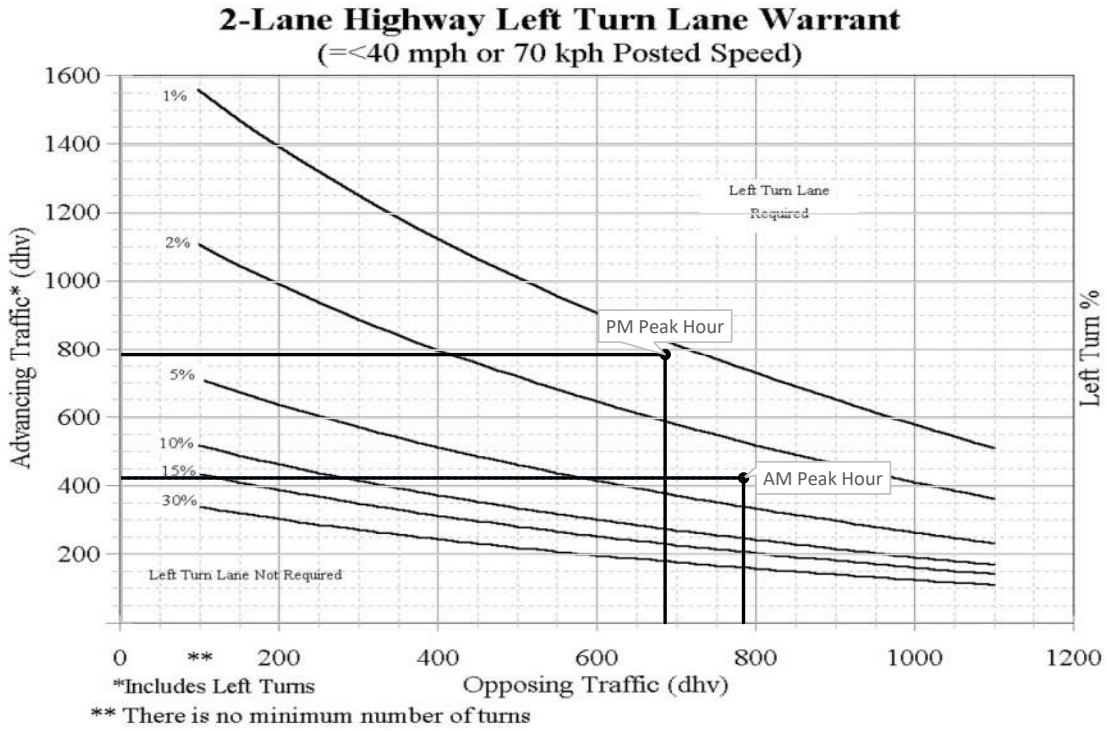
PM Peak Hour:

- Advancing Traffic = 686 Veh
- Left Turn Traffic = 0 Veh
- Opposing Traffic = 787 Veh
- Left Turn % = 0 %

Turn Lane NOT Warranted

State Road / Falls Commons Intersection

Southbound Left Turn Lane



Design Year 2048 'Build' Conditions

AM Peak Hour:

- Advancing Traffic = 425 Veh
- Left Turn Traffic = 11 Veh
- Opposing Traffic = 785 Veh
- Left Turn % = 2.6 %

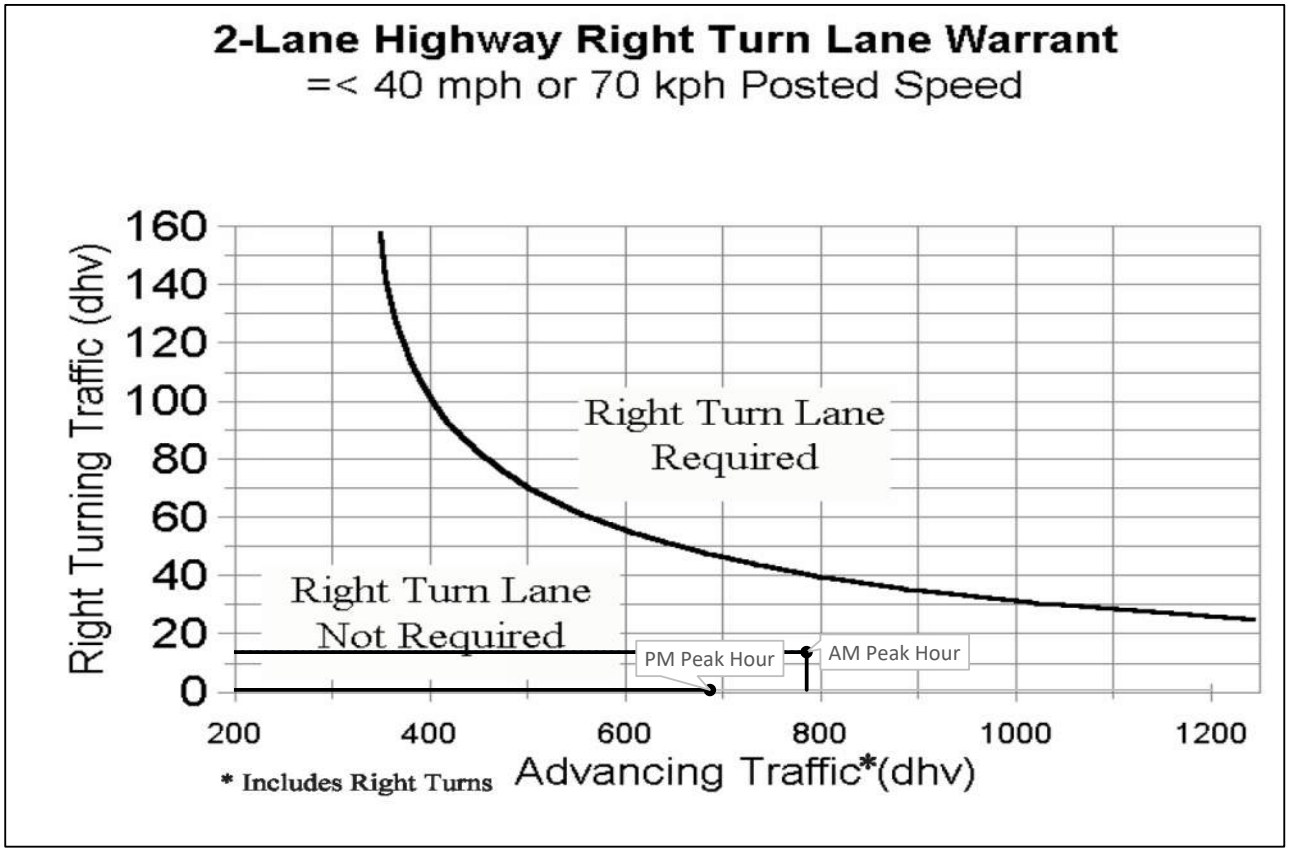
PM Peak Hour:

- Advancing Traffic = 787 Veh
- Left Turn Traffic = 9 Veh
- Opposing Traffic = 686 Veh
- Left Turn % = 1.1 %

Turn Lane NOT Warranted

State Road / Falls Commerce Parkway Intersection

Northbound Right Turn Lane



Design Year 2048 'Build' Conditions

AM Peak Hour:

Advancing Traffic = 785 Veh

Right Turn Traffic = 13 Veh

PM Peak Hour:

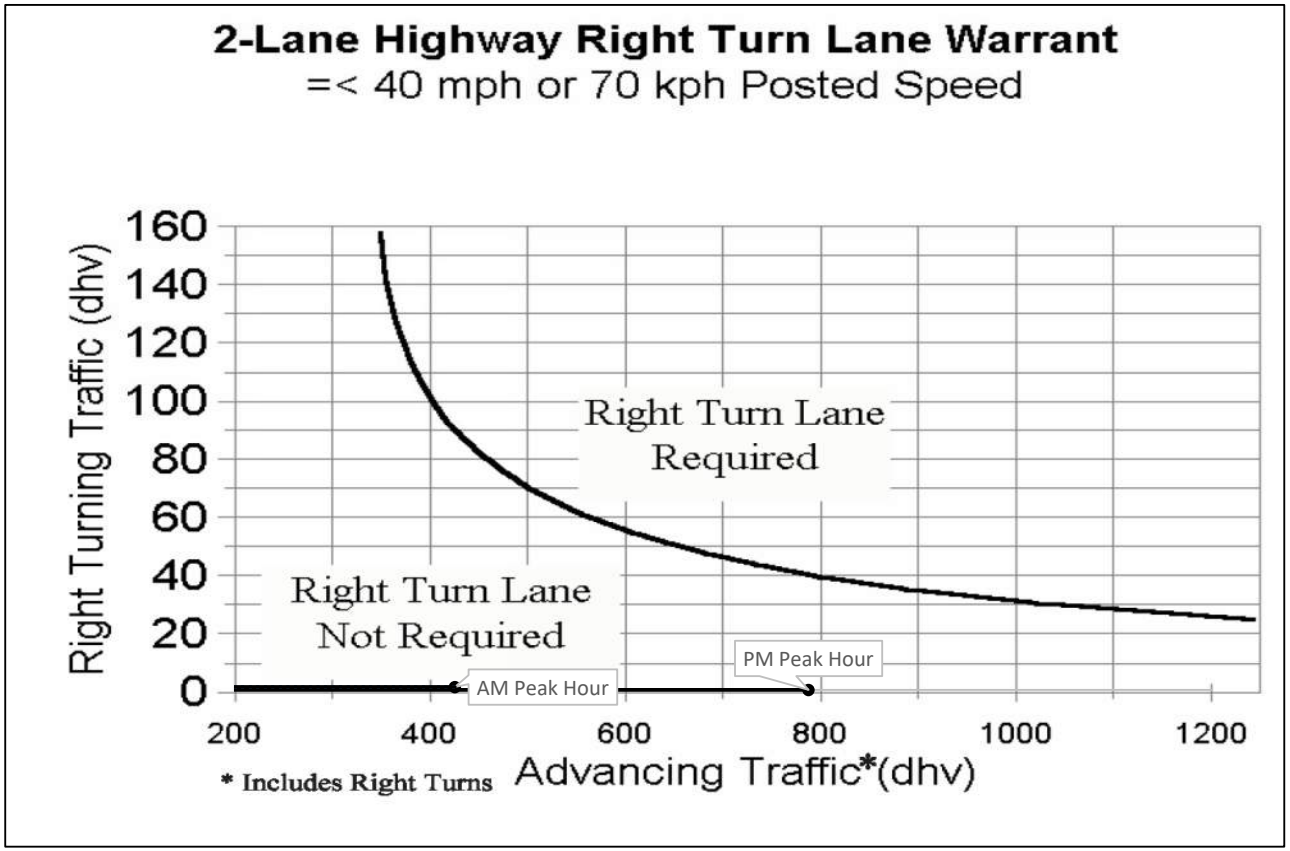
Advancing Traffic = 686 Veh

Right Turn Traffic = 0 Veh

Turn Lane NOT Warranted

State Road / Falls Commerce Parkway Intersection

Southbound Right Turn Lane



Design Year 2048 'Build' Conditions

AM Peak Hour:

Advancing Traffic = 425 Veh

Right Turn Traffic = 1 Veh

PM Peak Hour:

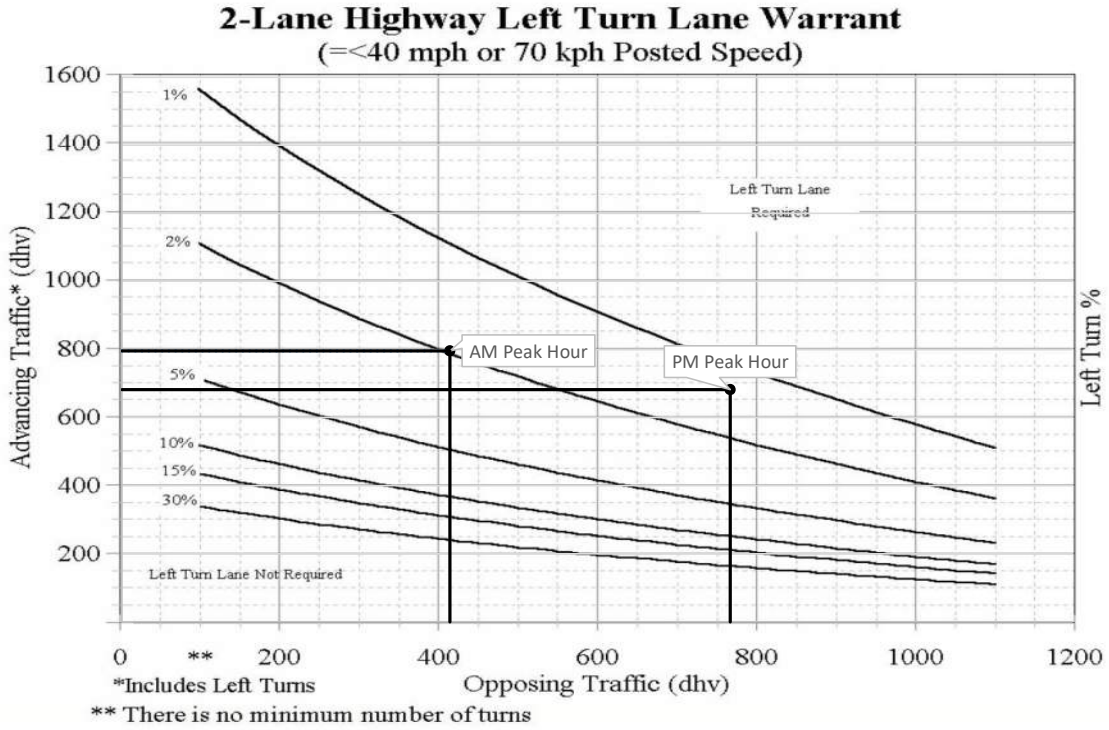
Advancing Traffic = 787 Veh

Right Turn Traffic = 0 Veh

Turn Lane NOT Warranted

State Road / Buckeye Drive Intersection

Northbound Left Turn Lane



Design Year 2048 'Build' Conditions

AM Peak Hour:

- Advancing Traffic = 796 Veh
- Left Turn Traffic = 14 Veh
- Opposing Traffic = 414 Veh
- Left Turn % = 1.8 %

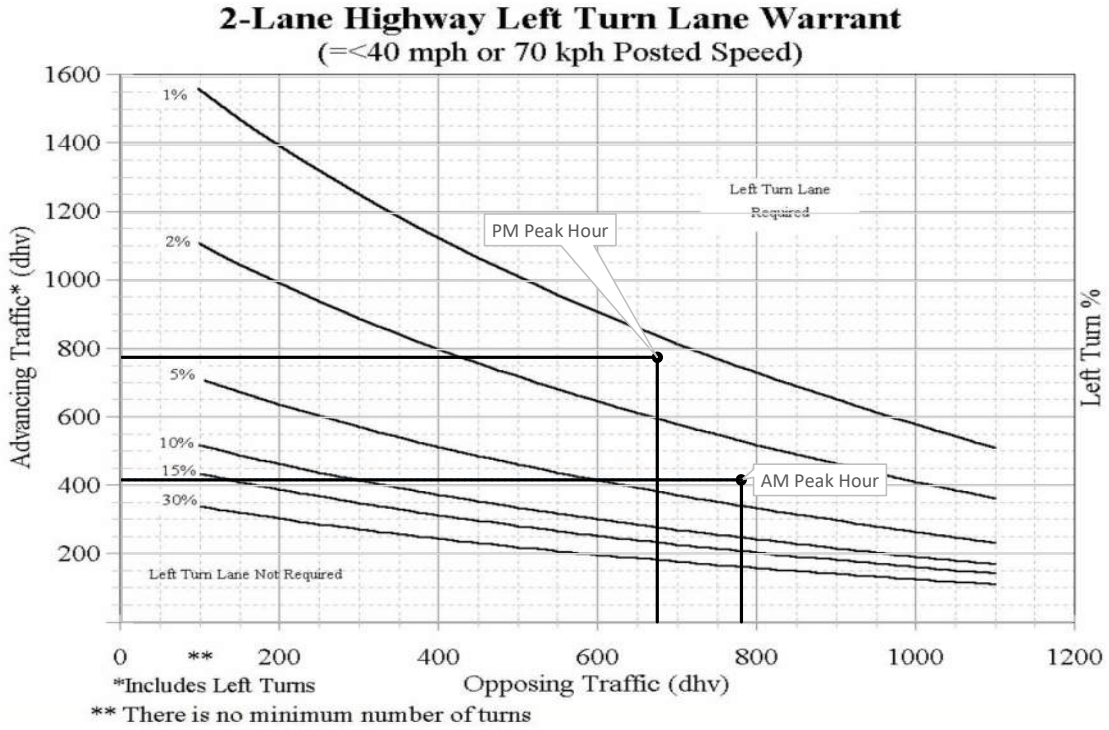
PM Peak Hour:

- Advancing Traffic = 682 Veh
- Left Turn Traffic = 6 Veh
- Opposing Traffic = 768 Veh
- Left Turn % = 0.9 %

Turn Lane NOT Warranted

State Road / Storr-it Drive Intersection

Southbound Left Turn Lane



Design Year 2048 'Build' Conditions

AM Peak Hour:

- Advancing Traffic = 417 Veh
- Left Turn Traffic = 3 Veh
- Opposing Traffic = 782 Veh
- Left Turn % = 0.7 %

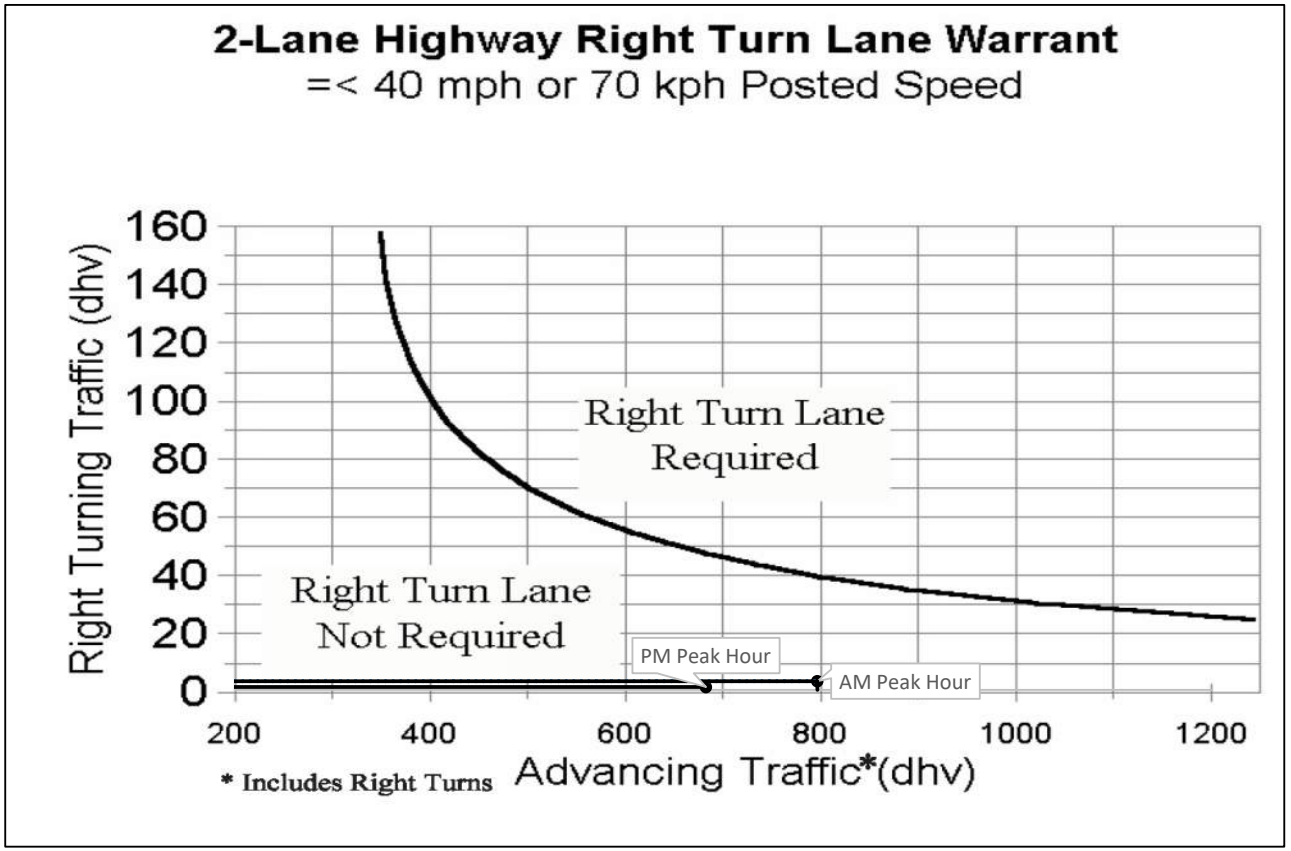
PM Peak Hour:

- Advancing Traffic = 777 Veh
- Left Turn Traffic = 9 Veh
- Opposing Traffic = 676 Veh
- Left Turn % = 1.2 %

Turn Lane Warranted

State Road / Storr it Drive Intersection

Northbound Right Turn Lane



Design Year 2048 'Build' Conditions

AM Peak Hour:

Advancing Traffic = 796 Veh

Right Turn Traffic = 3 Veh

PM Peak Hour:

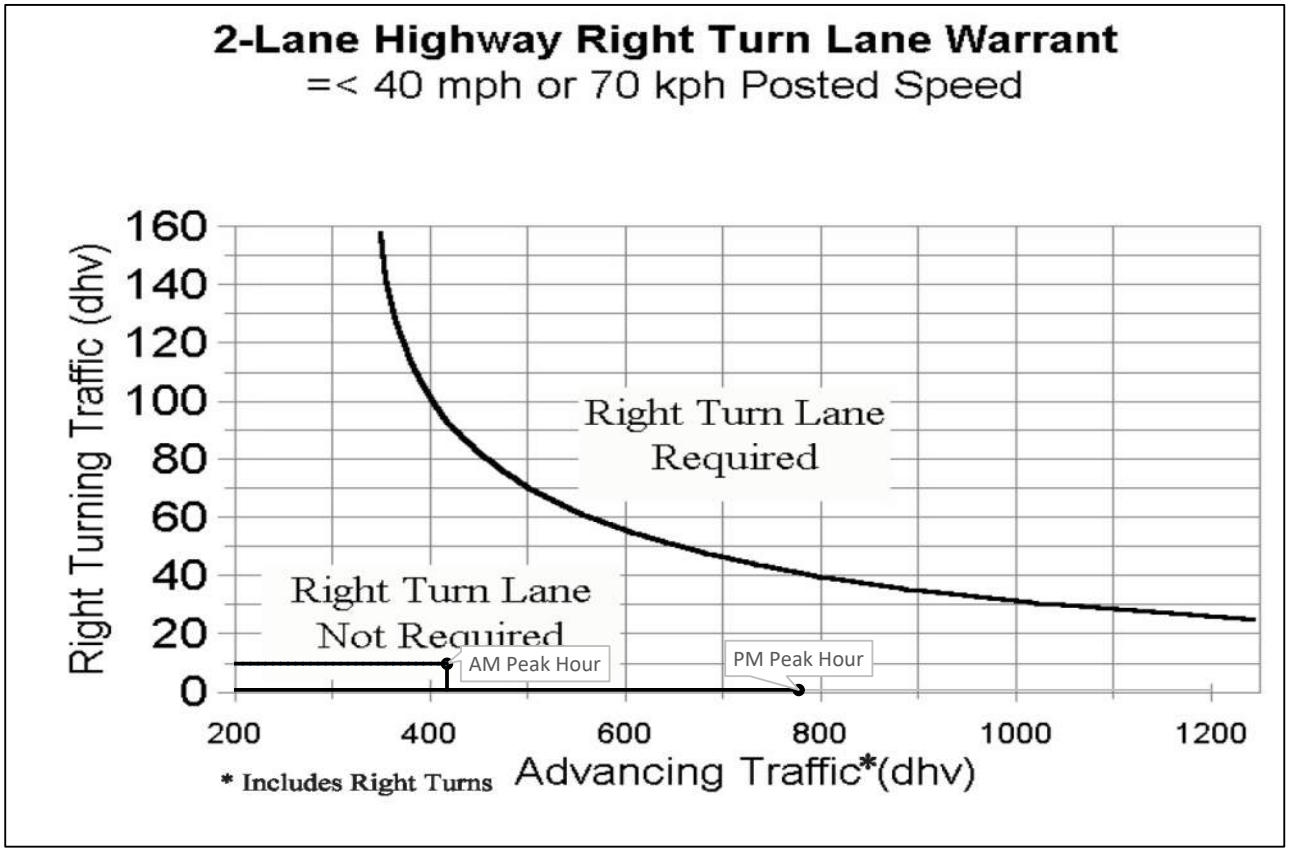
Advancing Traffic = 682 Veh

Right Turn Traffic = 1 Veh

Turn Lane NOT Warranted

State Road / Buckeye Sports Drive Intersection

Southbound Right Turn Lane



Design Year 2048 'Build' Conditions

AM Peak Hour:

Advancing Traffic = 417 Veh

Right Turn Traffic = 9 Veh

PM Peak Hour:

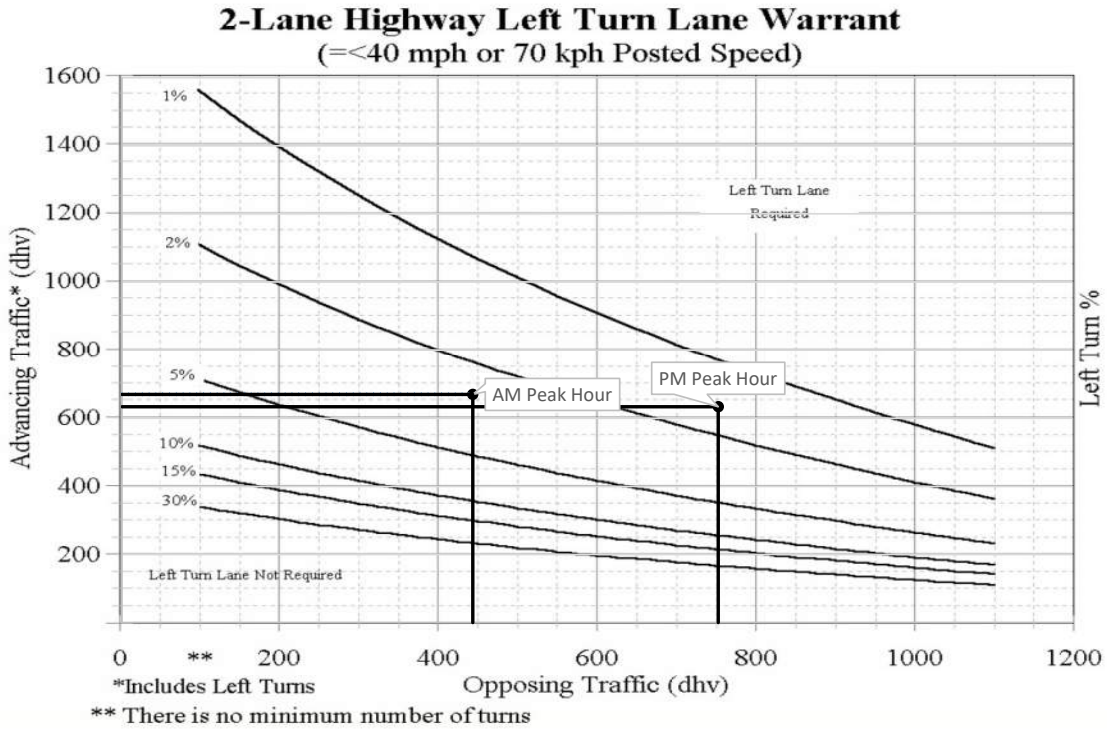
Advancing Traffic = 777 Veh

Right Turn Traffic = 0 Veh

Turn Lane NOT Warranted

State Road / Salt Creek Run Intersection

Northbound Left Turn Lane



Design Year 2048 'Build' Conditions

AM Peak Hour:

- Advancing Traffic = 670 Veh
- Left Turn Traffic = 5 Veh
- Opposing Traffic = 443 Veh
- Left Turn % = 0.7 %

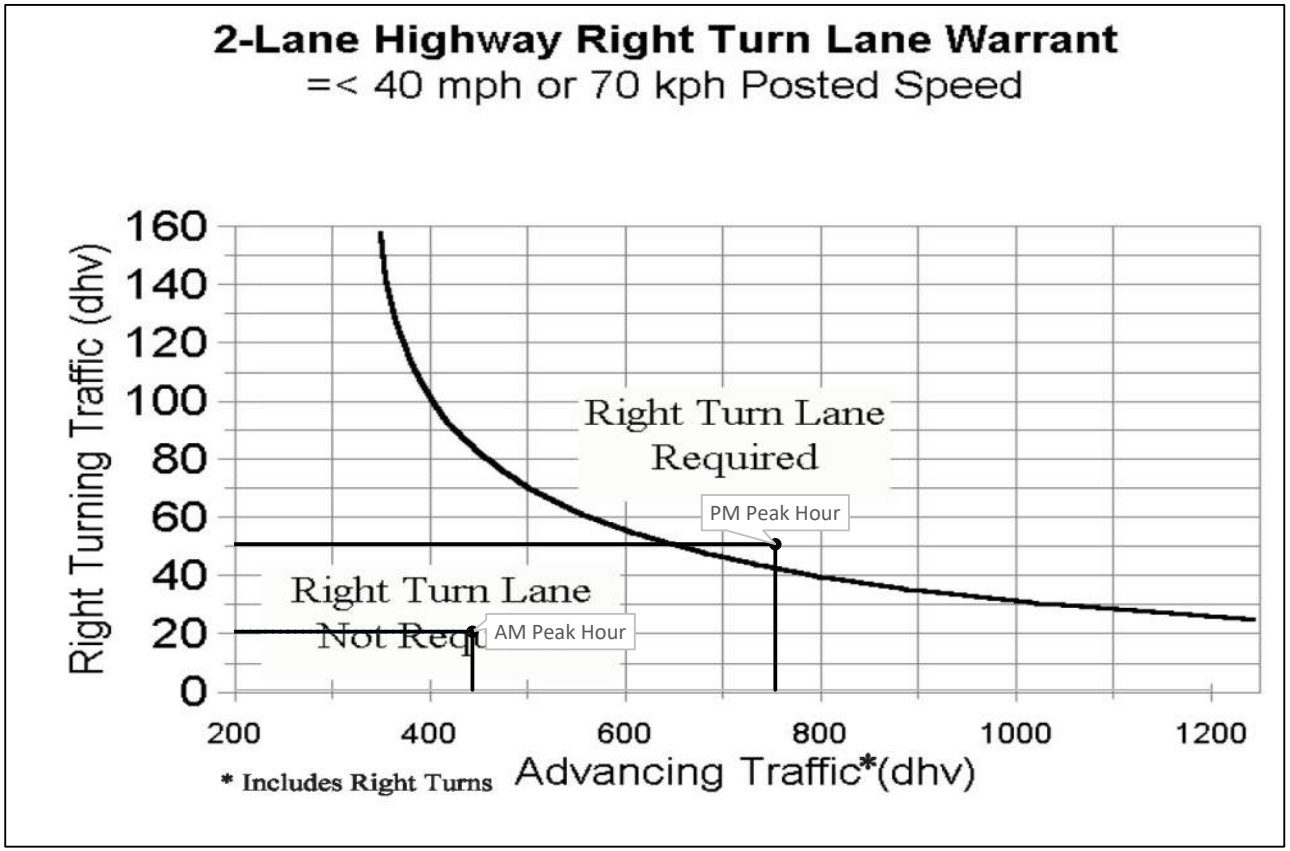
PM Peak Hour:

- Advancing Traffic = 634 Veh
- Left Turn Traffic = 19 Veh
- Opposing Traffic = 753 Veh
- Left Turn % = 3 %

Turn Lane Warranted

State Road / Salt Creek Run Intersection

Southbound Right Turn Lane



Design Year 2048 'Build' Conditions

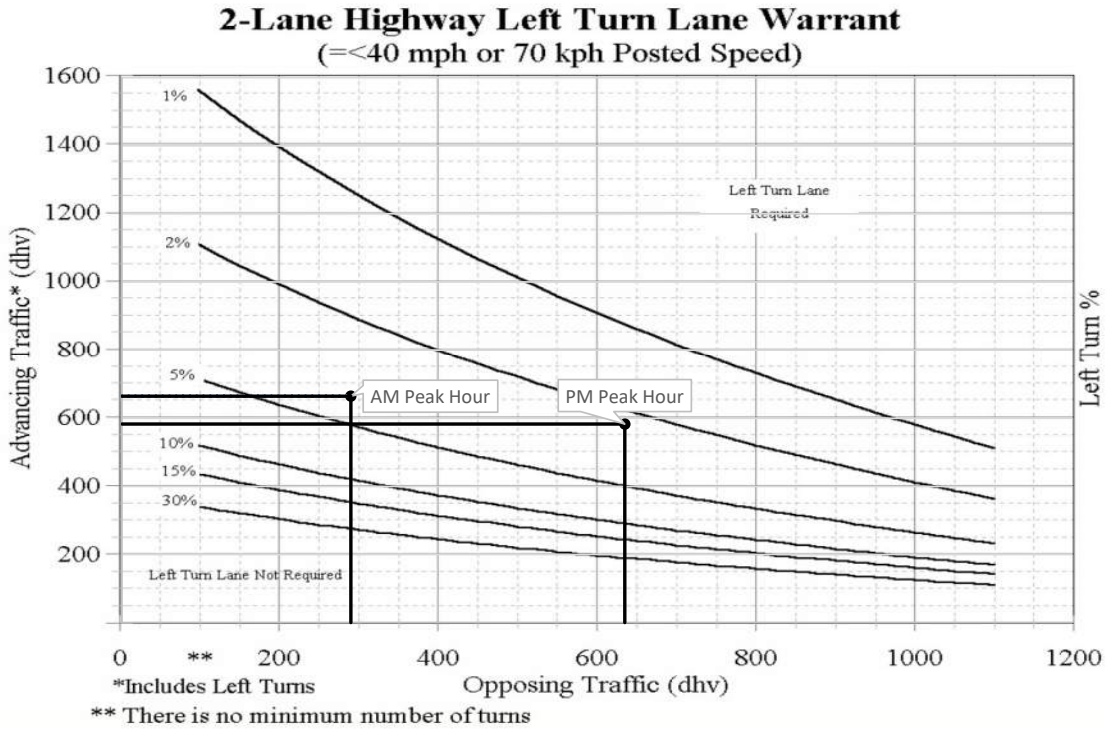
AM Peak Hour:
Advancing Traffic = 443 Veh
Right Turn Traffic = 20 Veh

PM Peak Hour:
Advancing Traffic = 753 Veh
Right Turn Traffic = 50 Veh

Turn Lane Warranted

State Road / Woodridge Elementry School Northen Drive Intersection

Northbound Left Turn Lane



Design Year 2048 'Build' Conditions

AM Peak Hour:

Advancing Traffic = 665 Veh
Left Turn Traffic = 11 Veh
Opposing Traffic = 289 Veh
Left Turn % = 1.7 %

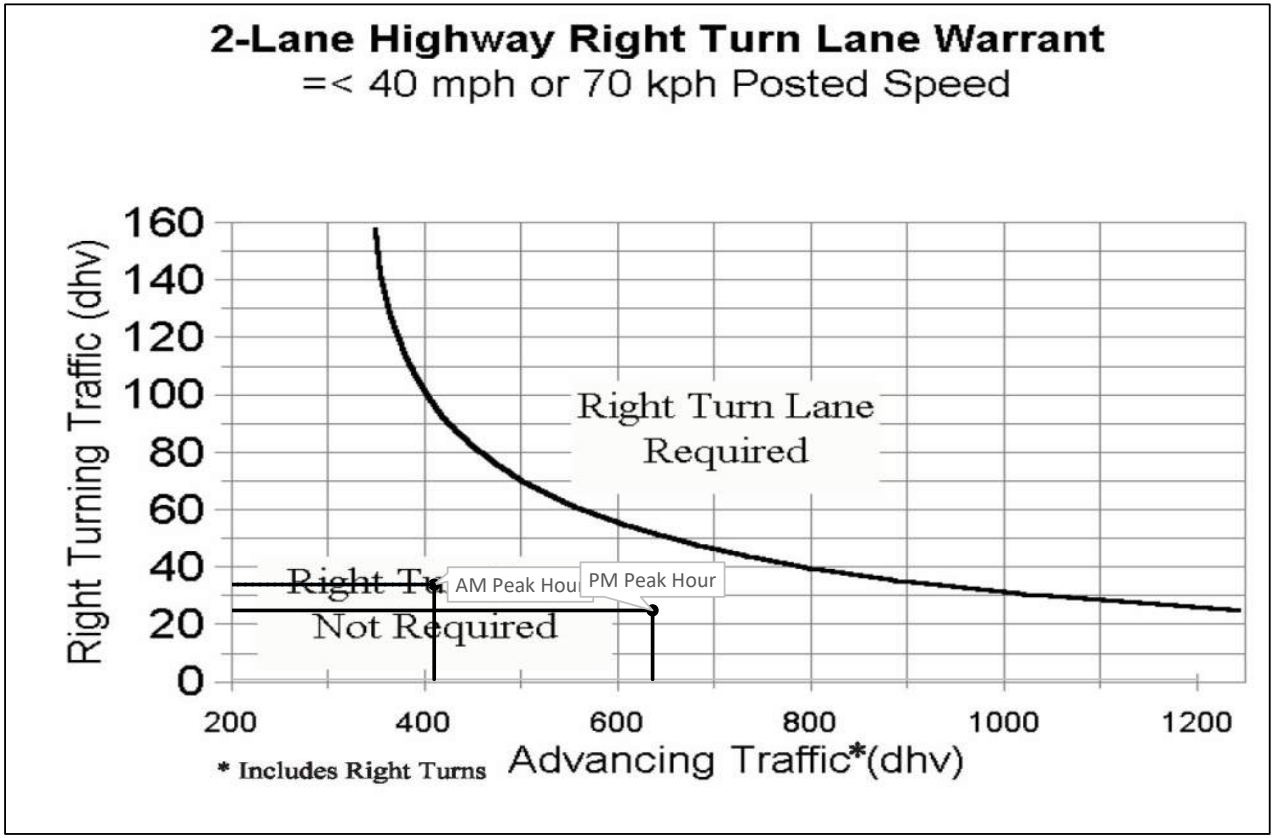
PM Peak Hour:

Advancing Traffic = 583 Veh
Left Turn Traffic = 0 Veh
Opposing Traffic = 635 Veh
Left Turn % = 0 %

Turn Lane NOT Warranted

State Road / Woodridge Northen Drive Intersection

Southbound Right Turn Lane



Design Year 2048 'Build' Conditions

AM Peak Hour:

Advancing Traffic = 409 Veh

Right Turn Traffic = 33 Veh

PM Peak Hour:

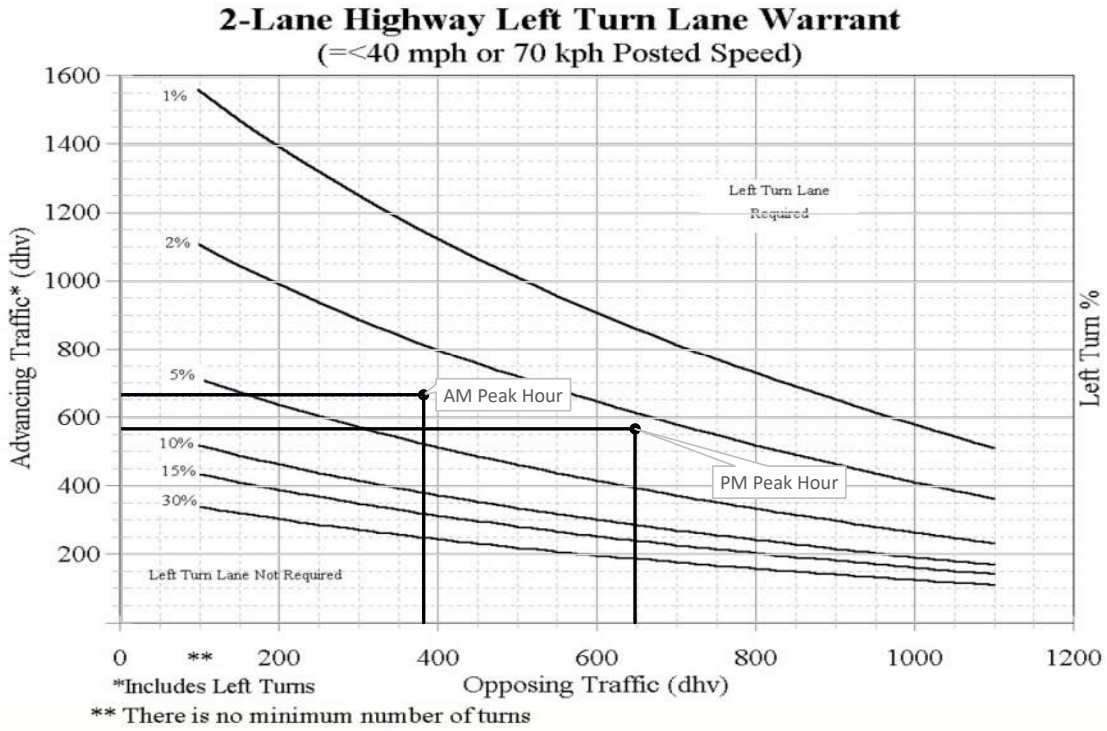
Advancing Traffic = 635 Veh

Right Turn Traffic = 24 Veh

Turn Lane NOT Warranted

State Road / Woodridge Elementry School Southern Drive Intersection

Northbound Left Turn Lane



Design Year 2048 'Build' Conditions

AM Peak Hour:

- Advancing Traffic = 669 Veh
- Left Turn Traffic = 19 Veh
- Opposing Traffic = 381 Veh
- Left Turn % = 2.8 %

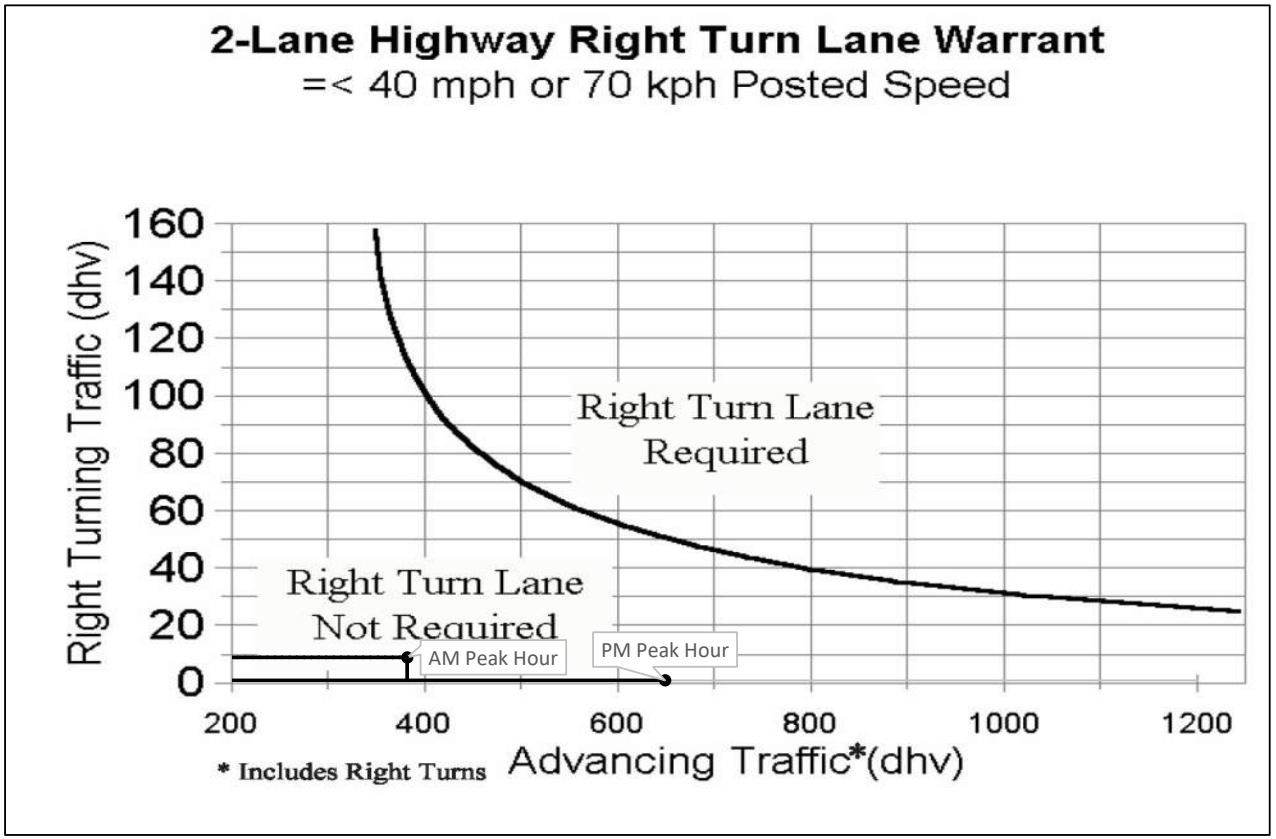
PM Peak Hour:

- Advancing Traffic = 569 Veh
- Left Turn Traffic = 1 Veh
- Opposing Traffic = 648 Veh
- Left Turn % = 0.2 %

Turn Lane NOT Warranted

State Road / Woodridge Southern Drive Intersection

Southbound Right Turn Lane



Design Year 2048 'Build' Conditions

AM Peak Hour:

Advancing Traffic = 381 Veh

Right Turn Traffic = 8 Veh

PM Peak Hour:

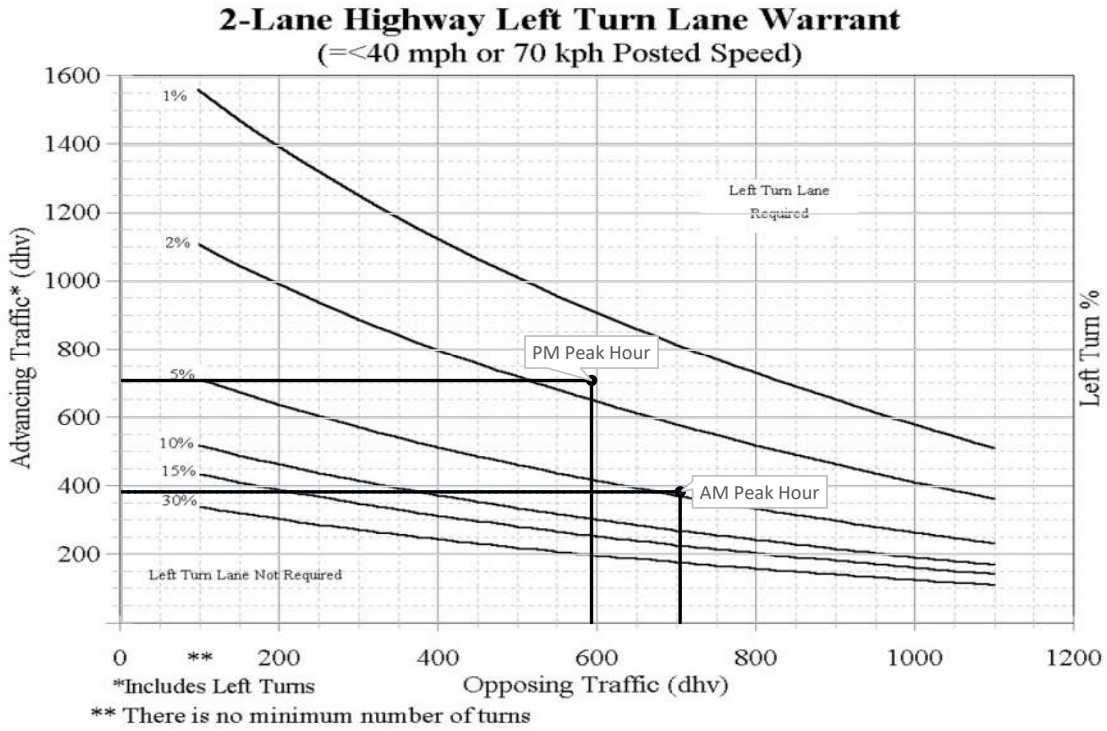
Advancing Traffic = 648 Veh

Right Turn Traffic = 0 Veh

Turn Lane NOT Warranted

State Road / Falls Industrial Parkway Intersection

Southbound Left Turn Lane



Design Year 2048 'Build' Conditions

AM Peak Hour:

- Advancing Traffic = 384 Veh
- Left Turn Traffic = 29 Veh
- Opposing Traffic = 705 Veh
- Left Turn % = 7.6 %

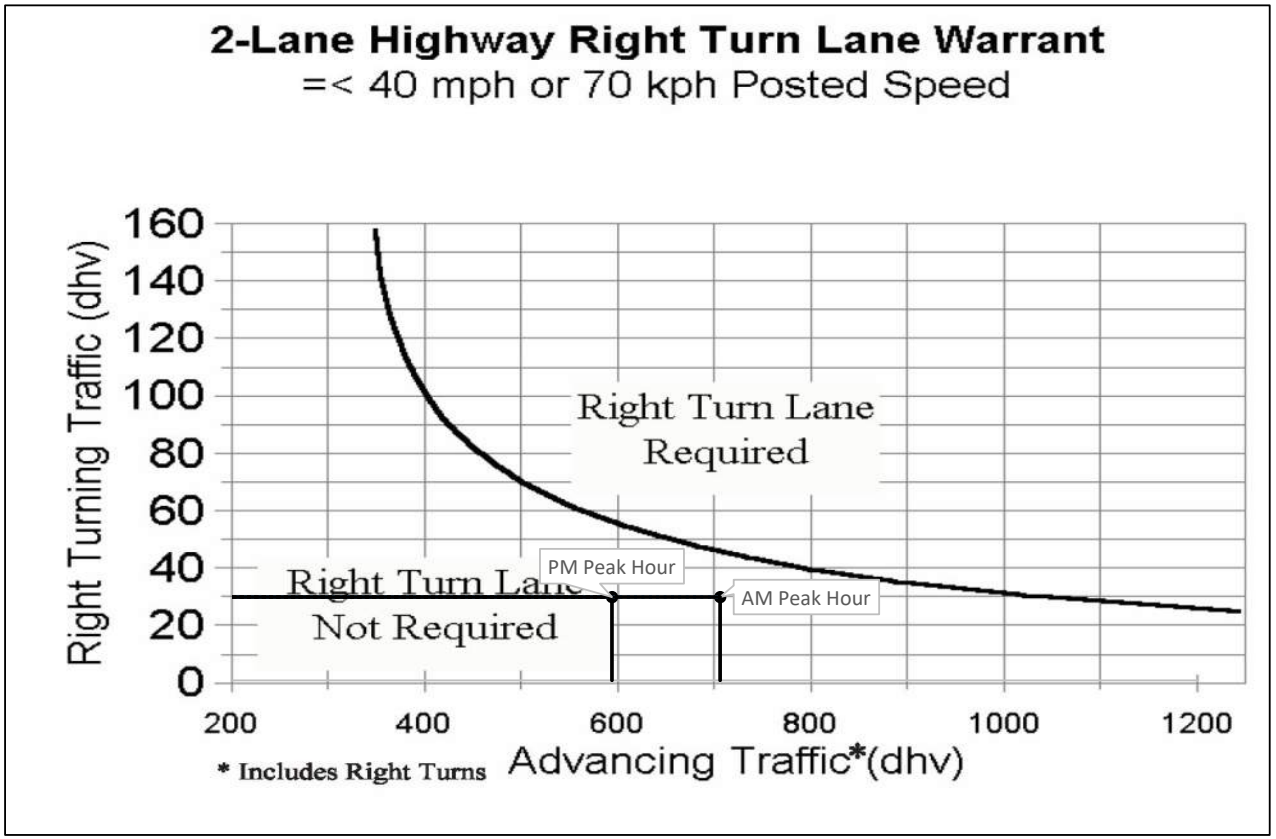
PM Peak Hour:

- Advancing Traffic = 711 Veh
- Left Turn Traffic = 13 Veh
- Opposing Traffic = 593 Veh
- Left Turn % = 1.8 %

Turn Lane Warranted

State Road / Falls Industrial Parkway Intersection

Northbound Right Turn Lane



Design Year 2048 'Build' Conditions

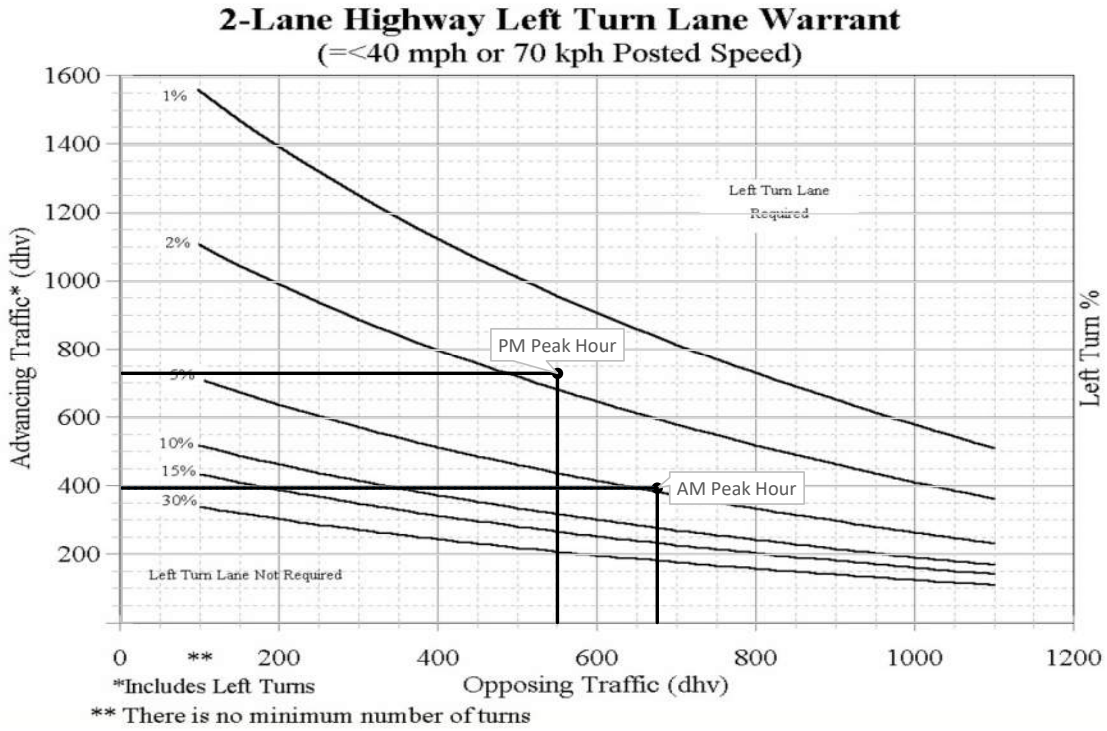
AM Peak Hour:
Advancing Traffic = 705 Veh
Right Turn Traffic = 29 Veh

PM Peak Hour:
Advancing Traffic = 593 Veh
Right Turn Traffic = 29 Veh

Turn Lane NOT Warranted

State Road / Audi North Drive Intersection

Southbound Left Turn Lane



Design Year 2048 'Build' Conditions

AM Peak Hour:

- Advancing Traffic = 395 Veh
- Left Turn Traffic = 5 Veh
- Opposing Traffic = 676 Veh
- Left Turn % = 1.3 %

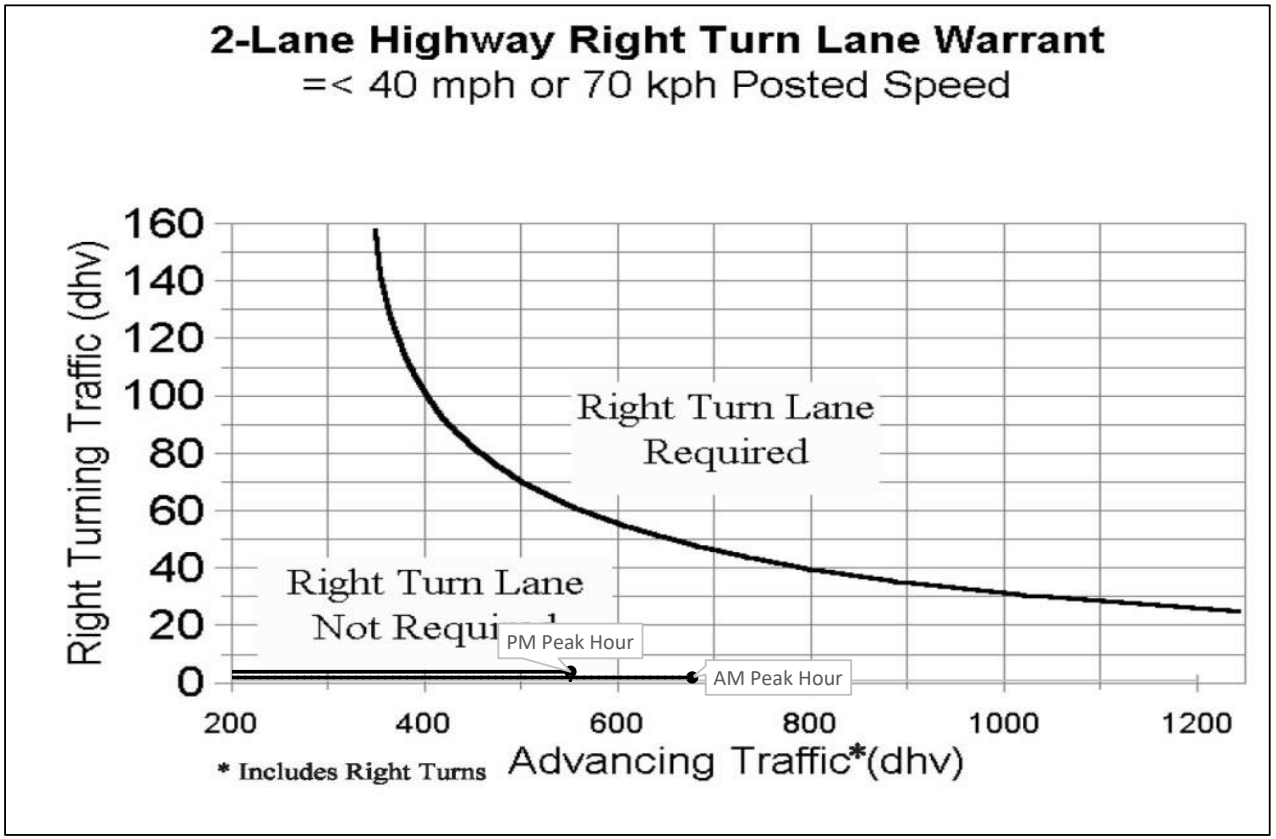
PM Peak Hour:

- Advancing Traffic = 732 Veh
- Left Turn Traffic = 3 Veh
- Opposing Traffic = 550 Veh
- Left Turn % = 0.4 %

Turn Lane NOT Warranted

State Road / Audi North Drive Intersection

Northbound Right Turn Lane



Design Year 2048 'Build' Conditions

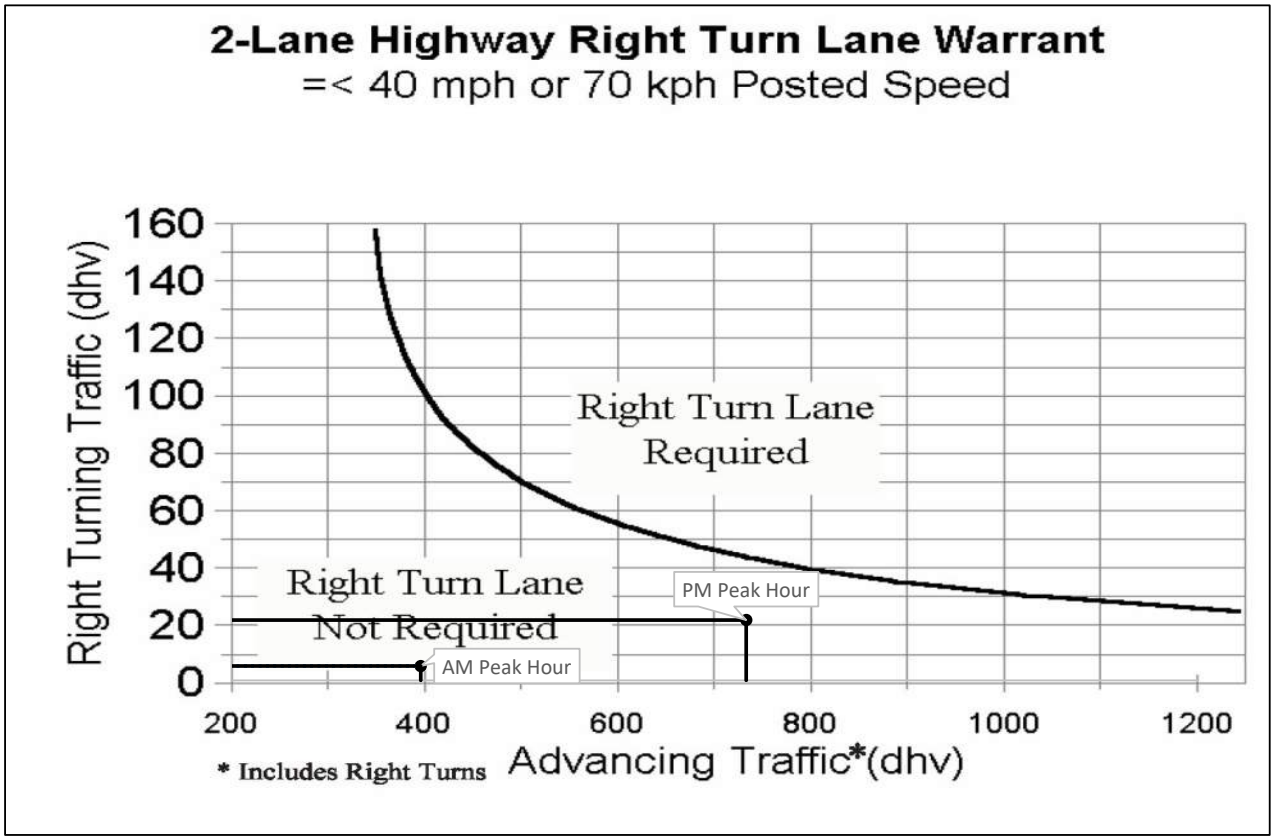
AM Peak Hour:
Advancing Traffic = 676 Veh
Right Turn Traffic = 1 Veh

PM Peak Hour:
Advancing Traffic = 550 Veh
Right Turn Traffic = 3 Veh

Turn Lane NOT Warranted

State Road / Quick Road Intersection

Southbound Right Turn Lane



Design Year 2048 'Build' Conditions

AM Peak Hour:

Advancing Traffic = 395 Veh

Right Turn Traffic = 5 Veh

PM Peak Hour:

Advancing Traffic = 732 Veh

Right Turn Traffic = 21 Veh

Turn Lane NOT Warranted

APPENDIX G
HCS INTERSECTION CAPACITY ANALYSIS

OPENING YEAR 2028 'NO-BUILD' CONDITIONS

HCS7 Two-Way Stop-Control Report

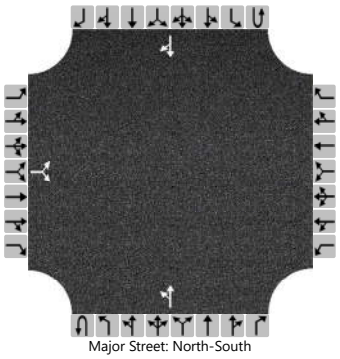
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2028
Time Analyzed	OY AM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Road / Boulder Blvd
Jurisdiction	City of Cuyahoga Falls
East/West Street	Boulder Blvd
North/South Street	State Road
Peak Hour Factor	0.80
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		39		8						1	595				351	4
Percent Heavy Vehicles (%)		0		0						100						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.40		6.20						5.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.50		3.30						3.10						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			59							1						
Capacity, c (veh/h)			236							745						
v/c Ratio			0.25							0.00						
95% Queue Length, Q_{95} (veh)			1.0							0.0						
Control Delay (s/veh)			25.2							9.8						
Level of Service (LOS)			D							A						
Approach Delay (s/veh)		25.2								0.0						
Approach LOS		D														

HCS7 Two-Way Stop-Control Report

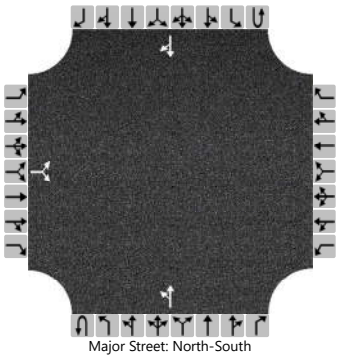
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2028
Time Analyzed	OY PM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Road / Boulder Blvd
Jurisdiction	City of Cuyahoga Falls
East/West Street	Boulder Blvd
North/South Street	State Road
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		32		6						14	515				674	29
Percent Heavy Vehicles (%)		0		20						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.40		6.40						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.50		3.48						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			41							15						
Capacity, c (veh/h)			182							858						
v/c Ratio			0.23							0.02						
95% Queue Length, Q_{95} (veh)			0.8							0.1						
Control Delay (s/veh)			30.4							9.3						
Level of Service (LOS)			D							A						
Approach Delay (s/veh)		30.4								0.5						
Approach LOS		D														

HCS7 Two-Way Stop-Control Report

General Information

Analyst	Naser J. Tabanja, P.E.
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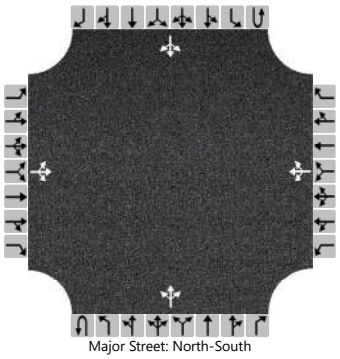
Analysis Year	2028
Time Analyzed	OY AM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd/ Falls Com Pkwy
Jurisdiction	City of Cuyahoga Falls
East/West Street	Falls Commerce Parkway
North/South Street	State Road
Peak Hour Factor	0.86
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		0	0	0		1	0	7		1	648	11		9	347	1
Percent Heavy Vehicles (%)		0	0	0		0	0	66		0				67		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.10	6.50	6.20		7.10	6.50	6.86		4.10				4.77		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.50	4.00	3.89		2.20				2.80		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			0				9			1				10		
Capacity, c (veh/h)							285			1165				618		
v/c Ratio							0.03			0.00				0.02		
95% Queue Length, Q_{95} (veh)							0.1			0.0				0.1		
Control Delay (s/veh)							18.1			8.1				10.9		
Level of Service (LOS)							C			A				B		
Approach Delay (s/veh)					18.1				0.0				0.5			
Approach LOS					C											

HCS7 Two-Way Stop-Control Report

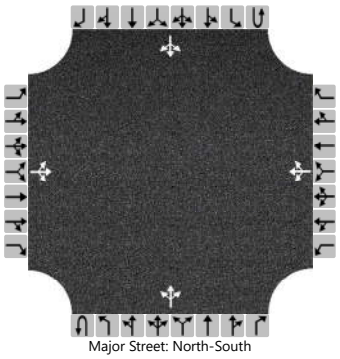
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2028
Time Analyzed	OY PM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd/ Falls Com Pkwy
Jurisdiction	City of Cuyahoga Falls
East/West Street	Falls Commerce Parkway
North/South Street	State Road
Peak Hour Factor	0.93
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		1	0	3		3	0	12		0	576	0		7	653	0
Percent Heavy Vehicles (%)		0	0	33		0	0	10		0				67		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.10	6.50	6.53		7.10	6.50	6.30		4.10				4.77		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.60		3.50	4.00	3.39		2.20				2.80		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			4				16			0				8		
Capacity, c (veh/h)			255				308			905				713		
v/c Ratio			0.02				0.05			0.00				0.01		
95% Queue Length, Q_{95} (veh)			0.1				0.2			0.0				0.0		
Control Delay (s/veh)			19.4				17.3			9.0				10.1		
Level of Service (LOS)			C				C			A				B		
Approach Delay (s/veh)	19.4				17.3				0.0				0.3			
Approach LOS	C				C											

HCS7 Two-Way Stop-Control Report

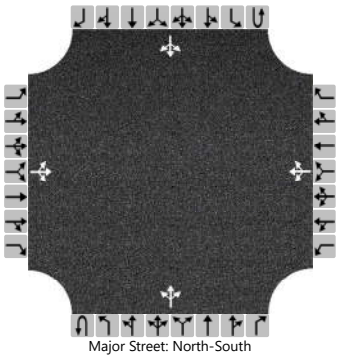
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2028
Time Analyzed	OY AM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd/Buckeye/Str it
Jurisdiction	City of Cuyahoga Falls
East/West Street	Buckeye Dr / Storr it Dr
North/South Street	State Road
Peak Hour Factor	0.86
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		1	0	3		0	0	3		12	654	2		2	340	7
Percent Heavy Vehicles (%)		0	0	33		0	0	67		10				0		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.10	6.50	6.53		7.10	6.50	6.87		4.20				4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.60		3.50	4.00	3.90		2.29				2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			5				3			14				2		
Capacity, c (veh/h)			352				317			1113				859		
v/c Ratio			0.01				0.01			0.01				0.00		
95% Queue Length, Q_{95} (veh)			0.0				0.0			0.0				0.0		
Control Delay (s/veh)			15.4				16.5			8.3				9.2		
Level of Service (LOS)			C				C			A				A		
Approach Delay (s/veh)	15.4				16.5				0.3				0.1			
Approach LOS	C				C											

HCS7 Two-Way Stop-Control Report

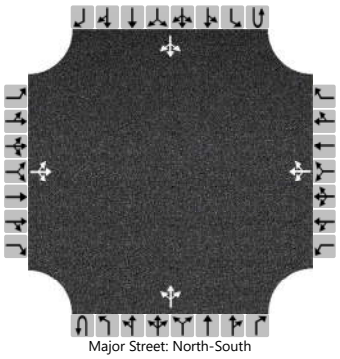
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2028
Time Analyzed	OY PM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd/Buckeye/Str it
Jurisdiction	City of Cuyahoga Falls
East/West Street	Buckeye Dr / Storr it Dr
North/South Street	State Road
Peak Hour Factor	0.93
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		5	0	7		1	0	5		5	567	1		7	645	0
Percent Heavy Vehicles (%)		0	0	0		0	0	0		0				33		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.10	6.50	6.20		7.10	6.50	6.20		4.10				4.43		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.50	4.00	3.30		2.20				2.50		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			13				6			5				8		
Capacity, c (veh/h)			220				336			911				834		
v/c Ratio			0.06				0.02			0.01				0.01		
95% Queue Length, Q_{95} (veh)			0.2				0.1			0.0				0.0		
Control Delay (s/veh)			22.4				15.9			9.0				9.4		
Level of Service (LOS)			C				C			A				A		
Approach Delay (s/veh)		22.4				15.9				0.2				0.2		
Approach LOS		C				C										

HCS7 Two-Way Stop-Control Report

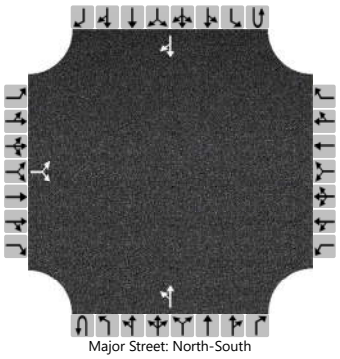
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2028
Time Analyzed	OY AM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd / Salt Creek Run
Jurisdiction	City of Cuyahoga Falls
East/West Street	Salt Creek Run
North/South Street	State Road
Peak Hour Factor	0.85
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		61		11						4	559				355	17
Percent Heavy Vehicles (%)		2		0						25						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.42		6.20						4.35						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.52		3.30						2.43						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			85							5						
Capacity, c (veh/h)			260							1010						
v/c Ratio			0.33							0.00						
95% Queue Length, Q_{95} (veh)			1.4							0.0						
Control Delay (s/veh)			25.4							8.6						
Level of Service (LOS)			D							A						
Approach Delay (s/veh)		25.4								0.1						
Approach LOS		D														

HCS7 Two-Way Stop-Control Report

General Information

Analyst	Naser J. Tabanja, P.E.
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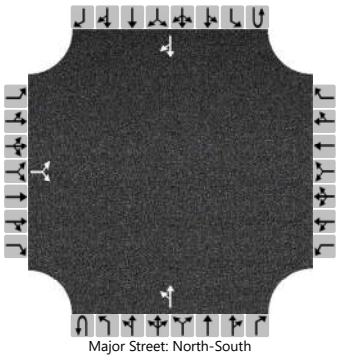
Site Information

Intersection	State Rd / Salt Creek Run
Jurisdiction	City of Cuyahoga Falls
East/West Street	Salt Creek Run
North/South Street	State Road
Peak Hour Factor	0.86
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		33		13						16	517				590	42
Percent Heavy Vehicles (%)		4		0						0						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.44		6.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.54		3.30						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			53							19						
Capacity, c (veh/h)			194							880						
v/c Ratio			0.28							0.02						
95% Queue Length, Q_{95} (veh)			1.1							0.1						
Control Delay (s/veh)			30.4							9.2						
Level of Service (LOS)			D							A						
Approach Delay (s/veh)	30.4								0.6							
Approach LOS	D															

HCS7 Two-Way Stop-Control Report

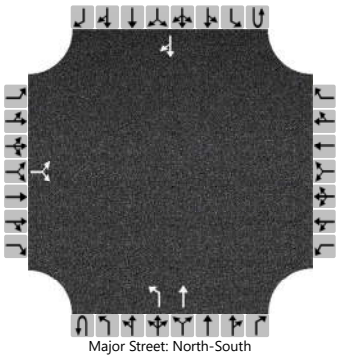
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2028
Time Analyzed	OY AM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd / Woodridge N Dr
Jurisdiction	City of Cuyahoga Falls
East/West Street	Woodridge Elem. North Dr
North/South Street	State Road
Peak Hour Factor	0.93
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	1	0	0	0	1	0
Configuration			LR							L	T					TR
Volume (veh/h)		18		2						13	546				316	27
Percent Heavy Vehicles (%)		7		100						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.47		7.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.56		4.20						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			22							14						
Capacity, c (veh/h)			285							1201						
v/c Ratio			0.08							0.01						
95% Queue Length, Q_{95} (veh)			0.2							0.0						
Control Delay (s/veh)			18.6							8.0						
Level of Service (LOS)			C							A						
Approach Delay (s/veh)		18.6								0.2						
Approach LOS		C														

HCS7 Two-Way Stop-Control Report

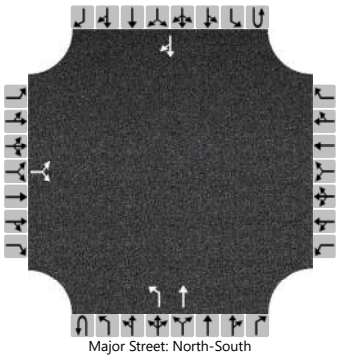
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2028
Time Analyzed	OY PM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd / Woodridge N Dr
Jurisdiction	City of Cuyahoga Falls
East/West Street	Woodridge Elem. North Dr
North/South Street	State Road
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	1	0	0	0	1	0
Configuration			LR							L	T					TR
Volume (veh/h)		20		2						0	489				513	20
Percent Heavy Vehicles (%)		6		0						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.46		6.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.55		3.30						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			23							0						
Capacity, c (veh/h)			255							1020						
v/c Ratio			0.09							0.00						
95% Queue Length, Q_{95} (veh)			0.3							0.0						
Control Delay (s/veh)			20.5							8.5						
Level of Service (LOS)			C							A						
Approach Delay (s/veh)		20.5								0.0						
Approach LOS		C														

HCS7 Two-Way Stop-Control Report

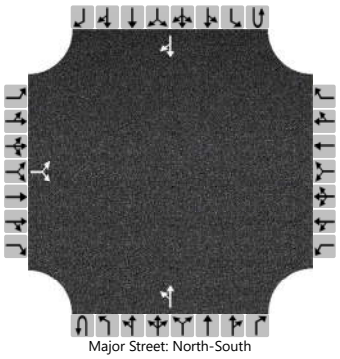
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2028
Time Analyzed	OY AM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd / Woodridge S Dr
Jurisdiction	City of Cuyahoga Falls
East/West Street	Woodridge Elem. South Dr
North/South Street	State Road
Peak Hour Factor	0.91
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		1		2						16	546				313	6
Percent Heavy Vehicles (%)		0		0						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.40		6.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.50		3.30						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			3							18						
Capacity, c (veh/h)			460							1219						
v/c Ratio			0.01							0.01						
95% Queue Length, Q_{95} (veh)			0.0							0.0						
Control Delay (s/veh)			12.9							8.0						
Level of Service (LOS)			B							A						
Approach Delay (s/veh)		12.9								0.4						
Approach LOS		B														

HCS7 Two-Way Stop-Control Report

General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2028
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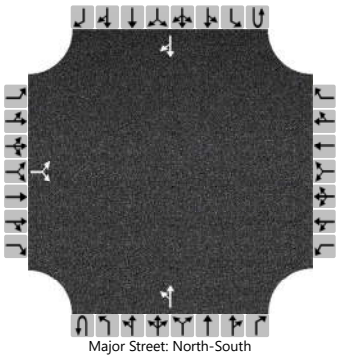
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd / Woodridge S Dr
Jurisdiction	City of Cuyahoga Falls
East/West Street	Woodridge Elem. South Dr
North/South Street	State Road
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		0		13						1	477				544	0
Percent Heavy Vehicles (%)		0		0						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.40		6.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.50		3.30						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			14							1						
Capacity, c (veh/h)			510							994						
v/c Ratio			0.03							0.00						
95% Queue Length, Q_{95} (veh)			0.1							0.0						
Control Delay (s/veh)			12.3							8.6						
Level of Service (LOS)			B							A						
Approach Delay (s/veh)		12.3								0.0						
Approach LOS		B														

HCS7 Two-Way Stop-Control Report

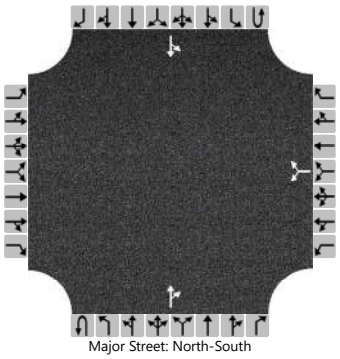
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2028
Time Analyzed	OY AM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd/Falls Indu. pkwy
Jurisdiction	City of Cuyahoga Falls
East/West Street	Falls Industrial Parkway
North/South Street	State Road
Peak Hour Factor	0.83
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						14		4			568	24		24	298	
Percent Heavy Vehicles (%)						8		25						19		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.48		6.45						4.29		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.57		3.53						2.37		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							22							29		
Capacity, c (veh/h)							239							813		
v/c Ratio							0.09							0.04		
95% Queue Length, Q_{95} (veh)							0.3							0.1		
Control Delay (s/veh)							21.6							9.6		
Level of Service (LOS)							C							A		
Approach Delay (s/veh)						21.6								1.1		
Approach LOS						C										

HCS7 Two-Way Stop-Control Report

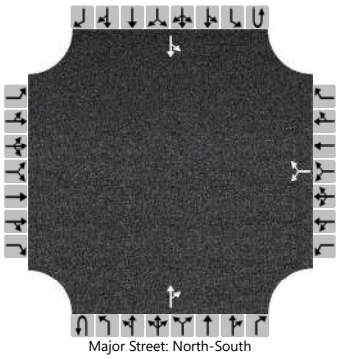
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2028
Time Analyzed	OY PM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd/Falls Indu. pkwy
Jurisdiction	City of Cuyahoga Falls
East/West Street	Falls Industrial Parkway
North/South Street	State Road
Peak Hour Factor	0.89
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						50		28			474	24		11	586	
Percent Heavy Vehicles (%)						2		0						33		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage						Undivided										

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.42		6.20						4.43		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.52		3.30						2.50		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							88							12		
Capacity, c (veh/h)							250							874		
v/c Ratio							0.35							0.01		
95% Queue Length, Q_{95} (veh)							1.5							0.0		
Control Delay (s/veh)							27.0							9.2		
Level of Service (LOS)							D							A		
Approach Delay (s/veh)						27.0								0.4		
Approach LOS						D										

HCS7 Two-Way Stop-Control Report

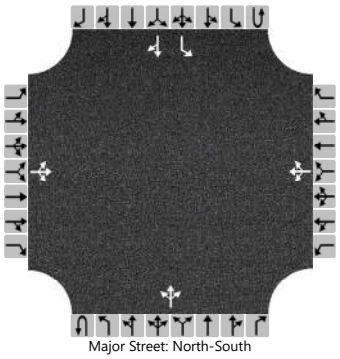
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2028
Time Analyzed	OY AM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd/Quick Rd/Audi N
Jurisdiction	City of Cuyahoga Falls
East/West Street	Quick Rd / Audi North Dr
North/South Street	State Road
Peak Hour Factor	0.88
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	1	1	0
Configuration			LTR				LTR				LTR			L		TR
Volume (veh/h)		21	0	0		0	0	1		0	567	1		4	323	4
Percent Heavy Vehicles (%)		0	0	0		0	0	0		0				0		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

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

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			24				1			0				5		
Capacity, c (veh/h)			214				476			1198				949		
v/c Ratio			0.11				0.00			0.00				0.00		
95% Queue Length, Q_{95} (veh)			0.4				0.0			0.0				0.0		
Control Delay (s/veh)			23.9				12.6			8.0				8.8		
Level of Service (LOS)			C				B			A				A		
Approach Delay (s/veh)	23.9				12.6				0.0				0.1			
Approach LOS	C				B											

HCS7 Two-Way Stop-Control Report

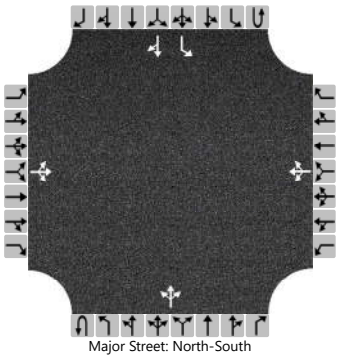
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2028
Time Analyzed	OY PM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd/Quick Rd/Audi N
Jurisdiction	City of Cuyahoga Falls
East/West Street	Quick Rd / Audi North Dr
North/South Street	State Road
Peak Hour Factor	0.94
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	1	1	0
Configuration			LTR				LTR				LTR			L		TR
Volume (veh/h)		4	0	0		7	0	13		1	459	2		2	594	18
Percent Heavy Vehicles (%)		0	0	0		0	0	0		0				0		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

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

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			4				21			1				2		
Capacity, c (veh/h)			174				327			945				1083		
v/c Ratio			0.02				0.07			0.00				0.00		
95% Queue Length, Q_{95} (veh)			0.1				0.2			0.0				0.0		
Control Delay (s/veh)			26.2				16.8			8.8				8.3		
Level of Service (LOS)			D				C			A				A		
Approach Delay (s/veh)	26.2				16.8				0.0				0.0			
Approach LOS	D				C											

HCS7 Two-Way Stop-Control Report

General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
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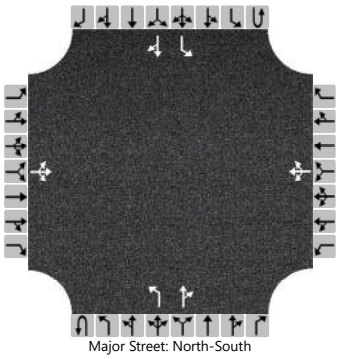
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd/Quick Rd/Audi S
Jurisdiction	City of Cuyahoga Falls
East/West Street	Quick Rd S/ Audi South Dr
North/South Street	State Road
Peak Hour Factor	0.81
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	1	0	0	1	1	0
Configuration			LTR				LTR			L		TR		L		TR
Volume (veh/h)		1	0	217		0	0	3		320	568	12		8	311	1
Percent Heavy Vehicles (%)		0	0	7		0	0	0		2				0		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.10	6.50	6.27		7.10	6.50	6.20		4.12				4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.36		3.50	4.00	3.30		2.22				2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			269				4			395				10		
Capacity, c (veh/h)			608				438			1173				894		
v/c Ratio			0.44				0.01			0.34				0.01		
95% Queue Length, Q_{95} (veh)			2.3				0.0			1.5				0.0		
Control Delay (s/veh)			15.6				13.3			9.6				9.1		
Level of Service (LOS)			C				B			A				A		
Approach Delay (s/veh)		15.6				13.3				3.4				0.2		
Approach LOS		C				B										

HCS7 Two-Way Stop-Control Report

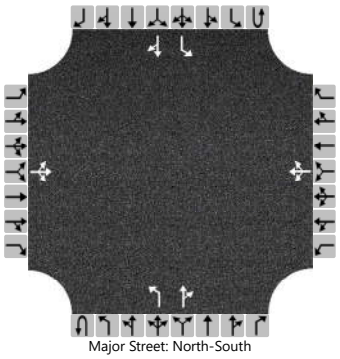
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2028
Time Analyzed	OY PM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd/Quick Rd/Audi S
Jurisdiction	City of Cuyahoga Falls
East/West Street	Quick Rd S/ Audi South Dr
North/South Street	State Road
Peak Hour Factor	0.90
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	1	0	0	1	1	0
Configuration			LTR				LTR			L		TR		L		TR
Volume (veh/h)		0	0	145		4	0	9		177	439	6		3	610	0
Percent Heavy Vehicles (%)		0	0	2		0	0	13		3				0		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.10	6.50	6.22		7.10	6.50	6.33		4.13				4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.32		3.50	4.00	3.42		2.23				2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			161				14			197				3		
Capacity, c (veh/h)			452				118			909				1080		
v/c Ratio			0.36				0.12			0.22				0.00		
95% Queue Length, Q_{95} (veh)			1.6				0.4			0.8				0.0		
Control Delay (s/veh)			17.3				39.6			10.0				8.3		
Level of Service (LOS)			C				E			B				A		
Approach Delay (s/veh)	17.3				39.6				2.9				0.0			
Approach LOS	C				E											

HCS7 Two-Way Stop-Control Report

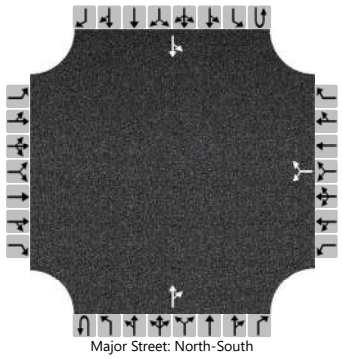
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2028
Time Analyzed	OY AM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	Quick Road/State Rd Con.
Jurisdiction	City of Cuyahoga Falls
East/West Street	Quick/State Rd Connector
North/South Street	Quick Road
Peak Hour Factor	0.80
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						0		4			320	0		21	218	
Percent Heavy Vehicles (%)						0		0						0		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.40		6.20						4.10		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.50		3.30						2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							5							26		
Capacity, c (veh/h)							654							1170		
v/c Ratio							0.01							0.02		
95% Queue Length, Q_{95} (veh)							0.0							0.1		
Control Delay (s/veh)							10.5							8.1		
Level of Service (LOS)							B							A		
Approach Delay (s/veh)						10.5								0.9		
Approach LOS						B										

HCS7 Two-Way Stop-Control Report

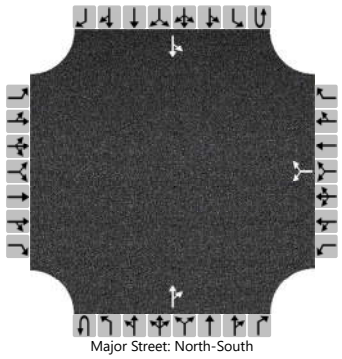
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2028
Time Analyzed	OY PM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	Quick Road/State Rd Con.
Jurisdiction	City of Cuyahoga Falls
East/West Street	Quick/State Rd Connector
North/South Street	Quick Road
Peak Hour Factor	0.80
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						0		19			177	0		4	145	
Percent Heavy Vehicles (%)						0		0						0		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.40		6.20						4.10		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.50		3.30						2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							24							5		
Capacity, c (veh/h)							823							1360		
v/c Ratio							0.03							0.00		
95% Queue Length, Q_{95} (veh)							0.1							0.0		
Control Delay (s/veh)							9.5							7.7		
Level of Service (LOS)							A							A		
Approach Delay (s/veh)					9.5								0.2			
Approach LOS					A											

OPENING YEAR 2028 'BUILD' CONDITIONS

HCS7 Two-Way Stop-Control Report

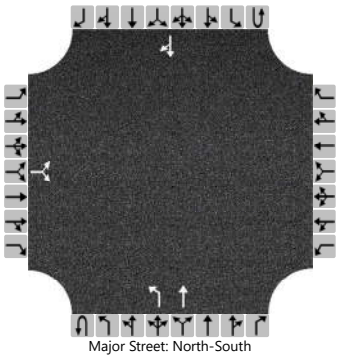
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2028
Time Analyzed	OY AM Peak 'Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Road / Boulder Blvd
Jurisdiction	City of Cuyahoga Falls
East/West Street	Boulder Blvd
North/South Street	State Road
Peak Hour Factor	0.80
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	1	0	0	0	1	0
Configuration			LR							L	T					TR
Volume (veh/h)		39		8						1	595				351	4
Percent Heavy Vehicles (%)		0		0						100						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.40		6.20						5.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.50		3.30						3.10						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			59							1						
Capacity, c (veh/h)			370							745						
v/c Ratio			0.16							0.00						
95% Queue Length, Q_{95} (veh)			0.6							0.0						
Control Delay (s/veh)			16.6							9.8						
Level of Service (LOS)			C							A						
Approach Delay (s/veh)		16.6								0.0						
Approach LOS		C														

HCS7 Two-Way Stop-Control Report

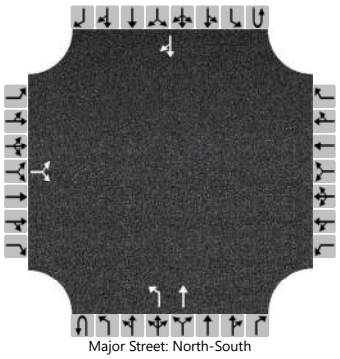
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2028
Time Analyzed	OY PM Peak 'Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Road / Boulder Blvd
Jurisdiction	City of Cuyahoga Falls
East/West Street	Boulder Blvd
North/South Street	State Road
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	1	0	0	0	1	0
Configuration			LR							L	T					TR
Volume (veh/h)		32		6						14	515				674	29
Percent Heavy Vehicles (%)		0		20						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.40		6.40						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.50		3.48						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			41							15						
Capacity, c (veh/h)			317							858						
v/c Ratio			0.13							0.02						
95% Queue Length, Q_{95} (veh)			0.4							0.1						
Control Delay (s/veh)			18.1							9.3						
Level of Service (LOS)			C							A						
Approach Delay (s/veh)		18.1								0.2						
Approach LOS		C														

HCS7 Two-Way Stop-Control Report

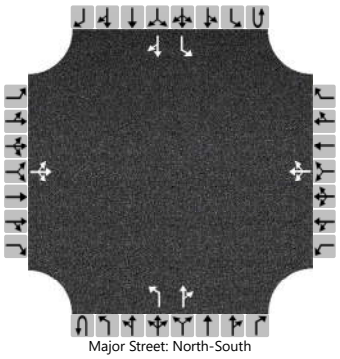
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2028
Time Analyzed	OY AM Peak 'Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd/ Falls Com Pkwy
Jurisdiction	City of Cuyahoga Falls
East/West Street	Falls Commerce Parkway
North/South Street	State Road
Peak Hour Factor	0.86
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	1	0	0	1	1	0
Configuration			LTR				LTR			L		TR		L		TR
Volume (veh/h)		0	0	0		1	0	7		1	648	11		9	347	1
Percent Heavy Vehicles (%)		0	0	0		0	0	66		0				67		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.10	6.50	6.20		7.10	6.50	6.86		4.10				4.77		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.50	4.00	3.89		2.20				2.80		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			0				9			1				10		
Capacity, c (veh/h)							285			1165				618		
v/c Ratio							0.03			0.00				0.02		
95% Queue Length, Q_{95} (veh)							0.1			0.0				0.1		
Control Delay (s/veh)							18.0			8.1				10.9		
Level of Service (LOS)							C			A				B		
Approach Delay (s/veh)					18.0				0.0				0.3			
Approach LOS					C											

HCS7 Two-Way Stop-Control Report

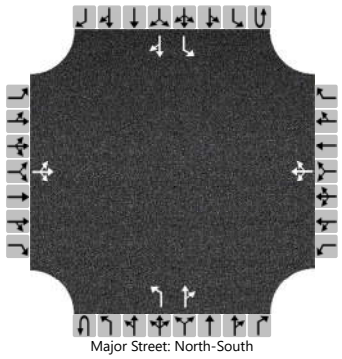
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2028
Time Analyzed	OY PM Peak 'Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd/ Falls Com Pkwy
Jurisdiction	City of Cuyahoga Falls
East/West Street	Falls Commerce Parkway
North/South Street	State Road
Peak Hour Factor	0.93
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	1	0	0	1	1	0
Configuration			LTR				LTR			L		TR		L		TR
Volume (veh/h)		1	0	3		3	0	12		0	576	0		7	653	0
Percent Heavy Vehicles (%)		0	0	33		0	0	10		0				67		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized																
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.10	6.50	6.53		7.10	6.50	6.30		4.10				4.77		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.60		3.50	4.00	3.39		2.20				2.80		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			4				16			0				8		
Capacity, c (veh/h)			345				408			905				713		
v/c Ratio			0.01				0.04			0.00				0.01		
95% Queue Length, Q_{95} (veh)			0.0				0.1			0.0				0.0		
Control Delay (s/veh)			15.6				14.2			9.0				10.1		
Level of Service (LOS)			C				B			A				B		
Approach Delay (s/veh)		15.6				14.2				0.0				0.1		
Approach LOS		C				B										

HCS7 Two-Way Stop-Control Report

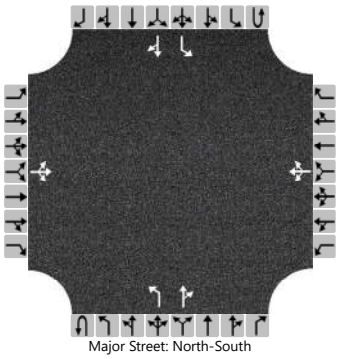
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2028
Time Analyzed	OY AM Peak 'Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd/Buckeye/Str it
Jurisdiction	City of Cuyahoga Falls
East/West Street	Buckeye Dr / Storr it Dr
North/South Street	State Road
Peak Hour Factor	0.86
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	1	0	0	1	1	0
Configuration			LTR				LTR			L		TR		L		TR
Volume (veh/h)		1	0	3		0	0	3		12	654	2		2	340	7
Percent Heavy Vehicles (%)		0	0	33		0	0	67		10				0		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.10	6.50	6.53		7.10	6.50	6.87		4.20				4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.60		3.50	4.00	3.90		2.29				2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			5				3			14				2		
Capacity, c (veh/h)			354				317			1113				859		
v/c Ratio			0.01				0.01			0.01				0.00		
95% Queue Length, Q_{95} (veh)			0.0				0.0			0.0				0.0		
Control Delay (s/veh)			15.3				16.5			8.3				9.2		
Level of Service (LOS)			C				C			A				A		
Approach Delay (s/veh)		15.3				16.5				0.1				0.1		
Approach LOS		C				C										

HCS7 Two-Way Stop-Control Report

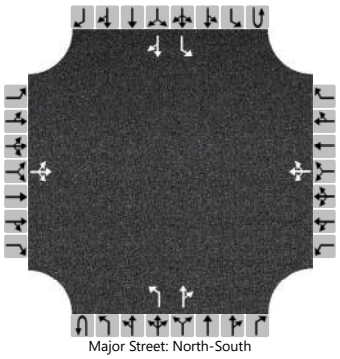
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2028
Time Analyzed	OY PM Peak 'Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd/Buckeye/Str it
Jurisdiction	City of Cuyahoga Falls
East/West Street	Buckeye Dr / Storr it Dr
North/South Street	State Road
Peak Hour Factor	0.93
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	1	0	0	1	1	0
Configuration			LTR				LTR			L		TR		L		TR
Volume (veh/h)		5	0	7		1	0	5		5	567	1		7	645	0
Percent Heavy Vehicles (%)		0	0	0		0	0	0		0				33		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.10	6.50	6.20		7.10	6.50	6.20		4.10				4.43		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.50	4.00	3.30		2.20				2.50		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			13				6			5				8		
Capacity, c (veh/h)			221				337			911				834		
v/c Ratio			0.06				0.02			0.01				0.01		
95% Queue Length, Q_{95} (veh)			0.2				0.1			0.0				0.0		
Control Delay (s/veh)			22.3				15.9			9.0				9.4		
Level of Service (LOS)			C				C			A				A		
Approach Delay (s/veh)		22.3				15.9				0.1				0.1		
Approach LOS		C				C										

HCS7 Two-Way Stop-Control Report

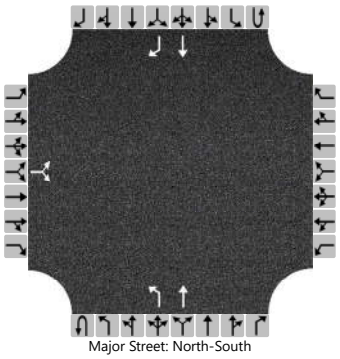
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2028
Time Analyzed	OY AM Peak 'Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd / Salt Creek Run
Jurisdiction	City of Cuyahoga Falls
East/West Street	Salt Creek Run
North/South Street	State Road
Peak Hour Factor	0.85
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	1	0	0	0	1	1
Configuration			LR							L	T				T	R
Volume (veh/h)		61		11						4	559				355	17
Percent Heavy Vehicles (%)		2		0						25						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized														No		
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.42		6.20						4.35						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.52		3.30						2.43						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			85							5						
Capacity, c (veh/h)			394							1010						
v/c Ratio			0.22							0.00						
95% Queue Length, Q_{95} (veh)			0.8							0.0						
Control Delay (s/veh)			16.6							8.6						
Level of Service (LOS)			C							A						
Approach Delay (s/veh)		16.6								0.1						
Approach LOS		C														

HCS7 Two-Way Stop-Control Report

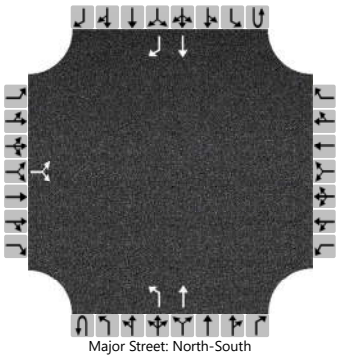
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2028
Time Analyzed	OY PM Peak 'Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd / Salt Creek Run
Jurisdiction	City of Cuyahoga Falls
East/West Street	Salt Creek Run
North/South Street	State Road
Peak Hour Factor	0.86
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	1	0	0	0	1	1
Configuration			LR							L	T				T	R
Volume (veh/h)		33		13						16	517				590	42
Percent Heavy Vehicles (%)		4		0						0						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized													No			
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.44		6.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.54		3.30						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			53							19						
Capacity, c (veh/h)			336							880						
v/c Ratio			0.16							0.02						
95% Queue Length, Q_{95} (veh)			0.6							0.1						
Control Delay (s/veh)			17.7							9.2						
Level of Service (LOS)			C							A						
Approach Delay (s/veh)	17.7								0.3							
Approach LOS	C															

HCS7 Two-Way Stop-Control Report

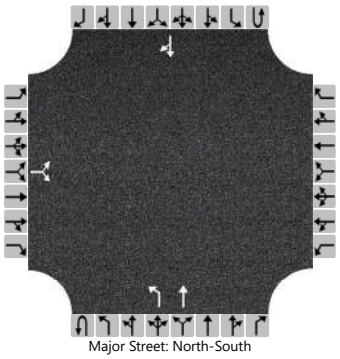
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2028
Time Analyzed	OY AM Peak 'Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd / Woodridge N Dr
Jurisdiction	City of Cuyahoga Falls
East/West Street	Woodridge Elem. North Dr
North/South Street	State Road
Peak Hour Factor	0.93
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	1	0	0	0	1	0
Configuration			LR							L	T					TR
Volume (veh/h)		18		2						13	546				316	27
Percent Heavy Vehicles (%)		7		100						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.47		7.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.56		4.20						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			22							14						
Capacity, c (veh/h)			402							1201						
v/c Ratio			0.05							0.01						
95% Queue Length, Q_{95} (veh)			0.2							0.0						
Control Delay (s/veh)			14.5							8.0						
Level of Service (LOS)			B							A						
Approach Delay (s/veh)		14.5								0.2						
Approach LOS		B														

HCS7 Two-Way Stop-Control Report

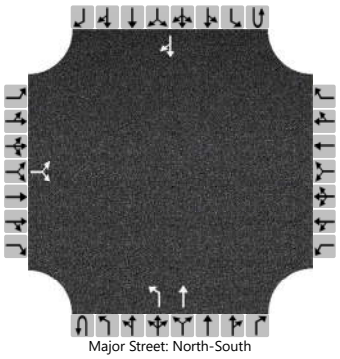
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2028
Time Analyzed	OY PM Peak 'Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd / Woodridge N Dr
Jurisdiction	City of Cuyahoga Falls
East/West Street	Woodridge Elem. North Dr
North/South Street	State Road
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	1	0	0	0	1	0
Configuration			LR							L	T					TR
Volume (veh/h)		20		2						0	489				513	20
Percent Heavy Vehicles (%)		6		0						0						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized																
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.46		6.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.55		3.30						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			23							0						
Capacity, c (veh/h)			386							1020						
v/c Ratio			0.06							0.00						
95% Queue Length, Q_{95} (veh)			0.2							0.0						
Control Delay (s/veh)			14.9							8.5						
Level of Service (LOS)			B							A						
Approach Delay (s/veh)	14.9								0.0							
Approach LOS	B															

HCS7 Two-Way Stop-Control Report

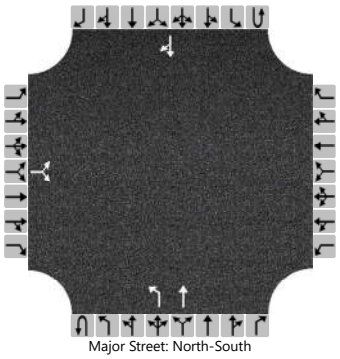
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2028
Time Analyzed	OY AM Peak 'Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd / Woodridge S Dr
Jurisdiction	City of Cuyahoga Falls
East/West Street	Woodridge Elem. South Dr
North/South Street	State Road
Peak Hour Factor	0.91
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	1	0	0	0	1	0
Configuration			LR							L	T					TR
Volume (veh/h)		1		2						16	546				313	6
Percent Heavy Vehicles (%)		0		0						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.40		6.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.50		3.30						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			3							18						
Capacity, c (veh/h)			558							1219						
v/c Ratio			0.01							0.01						
95% Queue Length, Q_{95} (veh)			0.0							0.0						
Control Delay (s/veh)			11.5							8.0						
Level of Service (LOS)			B							A						
Approach Delay (s/veh)	11.5								0.2							
Approach LOS	B															

HCS7 Two-Way Stop-Control Report

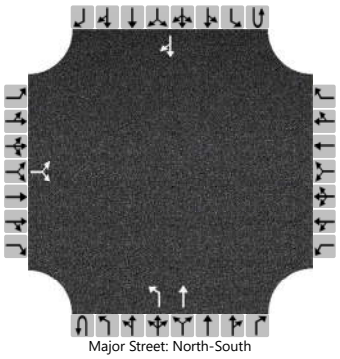
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2028
Time Analyzed	OY PM Peak 'Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd / Woodridge S Dr
Jurisdiction	City of Cuyahoga Falls
East/West Street	Woodridge Elem. South Dr
North/South Street	State Road
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	1	0	0	0	1	0
Configuration			LR							L	T					TR
Volume (veh/h)		0		13						1	477				544	0
Percent Heavy Vehicles (%)		0		0						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.40		6.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.50		3.30						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			14							1						
Capacity, c (veh/h)			510							994						
v/c Ratio			0.03							0.00						
95% Queue Length, Q_{95} (veh)			0.1							0.0						
Control Delay (s/veh)			12.3							8.6						
Level of Service (LOS)			B							A						
Approach Delay (s/veh)		12.3								0.0						
Approach LOS		B														

HCS7 Two-Way Stop-Control Report

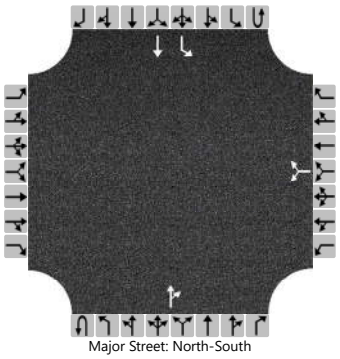
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2028
Time Analyzed	OY AM Peak 'Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd/Falls Indu. pkwy
Jurisdiction	City of Cuyahoga Falls
East/West Street	Falls Industrial Parkway
North/South Street	State Road
Peak Hour Factor	0.83
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	1	1	0
Configuration							LR					TR		L	T	
Volume (veh/h)						14		4			568	24		24	298	
Percent Heavy Vehicles (%)						8		25						19		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.48		6.45						4.29		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.57		3.53						2.37		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							22							29		
Capacity, c (veh/h)							356							813		
v/c Ratio							0.06							0.04		
95% Queue Length, Q_{95} (veh)							0.2							0.1		
Control Delay (s/veh)							15.8							9.6		
Level of Service (LOS)							C							A		
Approach Delay (s/veh)						15.8								0.7		
Approach LOS						C										

HCS7 Two-Way Stop-Control Report

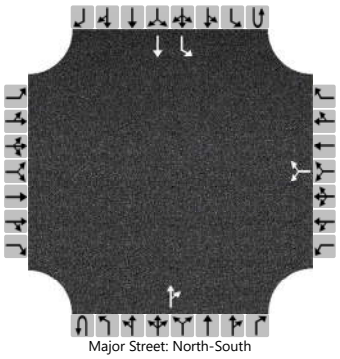
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2028
Time Analyzed	OY PM Peak 'Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd/Falls Indu. pkwy
Jurisdiction	City of Cuyahoga Falls
East/West Street	Falls Industrial Parkway
North/South Street	State Road
Peak Hour Factor	0.89
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	1	1	0
Configuration							LR					TR		L	T	
Volume (veh/h)						50		28			474	24		11	586	
Percent Heavy Vehicles (%)						2		0						33		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.42		6.20						4.43		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.52		3.30						2.50		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							88							12		
Capacity, c (veh/h)							385							874		
v/c Ratio							0.23							0.01		
95% Queue Length, Q_{95} (veh)							0.9							0.0		
Control Delay (s/veh)							17.1							9.2		
Level of Service (LOS)							C							A		
Approach Delay (s/veh)						17.1								0.2		
Approach LOS						C										

HCS7 Roundabouts Report

General Information

Analyst	Naser J. Tabanja, P.E.
Agency or Co.	GPD Group
Date Performed	9/29/2023
Analysis Year	2028
Time Analyzed	OY AM Peak 'Build'
Project Description	State Road Corridor Study

Site Information

Intersection	State Road / Quick Road / A...
E/W Street Name	Quick Road / Audi Dealershi...
N/S Street Name	State Road
Analysis Time Period (hrs)	0.25
Peak Hour Factor	0.84
Jurisdiction	City of Cuyahoga Falls

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Number of Lanes (N)	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0
Lane Assignment			LTR				LTR				LTR				LTR	
Volume (V), veh/h	0	22	0	217	0	0	0	1	0	320	567	1	0	4	323	4
Percent Heavy Vehicles, %	0	0	0	7	0	0	0	0	0	2	2	0	0	0	6	0
Flow Rate (v_{PCE}), pc/h	0	26	0	276	0	0	0	1	0	389	688	1	0	5	408	5
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes	1				1				1				1			
Pedestrians Crossing, p/h	0				0				0				0			

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (s)		4.9763			4.9763			4.9763			4.9763	
Follow-Up Headway (s)		2.6087			2.6087			2.6087			2.6087	

Flow Computations, Capacity and v/c Ratios

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Entry Flow (v_e), pc/h		302			1			1078			418	
Entry Volume, veh/h		284			1			1057			395	
Circulating Flow (v_c), pc/h	413			1103			31			389		
Exiting Flow (v_{ex}), pc/h	6			394			715			684		
Capacity (c_{pce}), pc/h		906			448			1337			928	
Capacity (c), veh/h		851			448			1311			877	
v/c Ratio (x)		0.33			0.00			0.81			0.45	

Delay and Level of Service

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		8.0			8.1			17.0			9.7	
Lane LOS		A			A			C			A	
95% Queue, veh		1.5			0.0			9.6			2.4	
Approach Delay, s/veh	8.0			8.1			17.0			9.7		
Approach LOS	A			A			C			A		
Intersection Delay, s/veh | LOS	13.9						B					

HCS7 Roundabouts Report

General Information

Analyst	Naser J. Tabanja, P.E.
Agency or Co.	GPD Group
Date Performed	9/29/2023
Analysis Year	2028
Time Analyzed	OY PM Peak 'Build'
Project Description	State Road Corridor Study

Site Information

Intersection	State Road / Quick Road / A...
E/W Street Name	Quick Road / Audi Dealershi...
N/S Street Name	State Road
Analysis Time Period (hrs)	0.25
Peak Hour Factor	0.92
Jurisdiction	City of Cuyahoga Falls

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Number of Lanes (N)	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0
Lane Assignment			LTR				LTR				LTR				LTR	
Volume (V), veh/h	0	4	0	145	0	7	0	13	0	178	459	2	0	2	594	18
Percent Heavy Vehicles, %	0	0	0	2	0	0	0	0	0	3	3	0	0	0	2	0
Flow Rate (v_{PCE}), pc/h	0	4	0	161	0	8	0	14	0	199	514	2	0	2	659	20
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes	1				1				1				1			
Pedestrians Crossing, p/h	0				0				0				0			

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (s)		4.9763			4.9763			4.9763			4.9763	
Follow-Up Headway (s)		2.6087			2.6087			2.6087			2.6087	

Flow Computations, Capacity and v/c Ratios

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Entry Flow (v_e), pc/h		165			22			715			681	
Entry Volume, veh/h		162			22			694			668	
Circulating Flow (v_c), pc/h	669			717			6			207		
Exiting Flow (v_{ex}), pc/h	4			219			532			828		
Capacity (c_{pce}), pc/h		697			664			1372			1117	
Capacity (c), veh/h		684			664			1332			1096	
v/c Ratio (x)		0.24			0.03			0.52			0.61	

Delay and Level of Service

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		8.1			5.8			8.2			11.3	
Lane LOS		A			A			A			B	
95% Queue, veh		0.9			0.1			3.1			4.3	
Approach Delay, s/veh	8.1			5.8			8.2			11.3		
Approach LOS	A			A			A			B		
Intersection Delay, s/veh | LOS	9.5						A					

DESIGN YEAR 2048 'NO-BUILD' CONDITIONS

HCS7 Two-Way Stop-Control Report

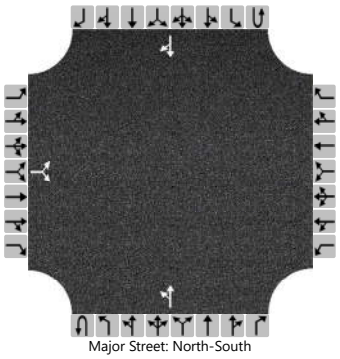
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2048
Time Analyzed	DY AM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Road / Boulder Blvd
Jurisdiction	City of Cuyahoga Falls
East/West Street	Boulder Blvd
North/South Street	State Road
Peak Hour Factor	0.80
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		46		10						1	709				418	5
Percent Heavy Vehicles (%)		0		0						100						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.40		6.20						5.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.50		3.30						3.10						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			70							1						
Capacity, c (veh/h)			175							684						
v/c Ratio			0.40							0.00						
95% Queue Length, Q_{95} (veh)			1.8							0.0						
Control Delay (s/veh)			38.5							10.3						
Level of Service (LOS)			E							B						
Approach Delay (s/veh)		38.5								0.0						
Approach LOS		E														

HCS7 Two-Way Stop-Control Report

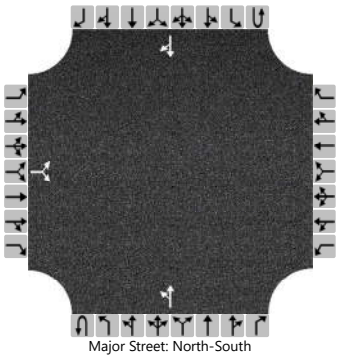
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2048
Time Analyzed	DY PM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Road / Boulder Blvd
Jurisdiction	City of Cuyahoga Falls
East/West Street	Boulder Blvd
North/South Street	State Road
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		38		8						16	613				803	35
Percent Heavy Vehicles (%)		0		20						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.40		6.40						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.50		3.48						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			50							17						
Capacity, c (veh/h)			129							756						
v/c Ratio			0.39							0.02						
95% Queue Length, Q_{95} (veh)			1.6							0.1						
Control Delay (s/veh)			49.4							9.9						
Level of Service (LOS)			E							A						
Approach Delay (s/veh)		49.4								0.6						
Approach LOS		E														

HCS7 Two-Way Stop-Control Report

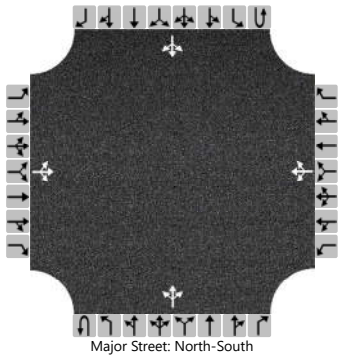
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2048
Time Analyzed	DY AM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd/ Falls Com Pkwy
Jurisdiction	City of Cuyahoga Falls
East/West Street	Falls Commerce Parkway
North/South Street	State Road
Peak Hour Factor	0.86
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		0	0	0		1	0	9		1	771	13		11	413	1
Percent Heavy Vehicles (%)		0	0	0		0	0	66		0				67		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.10	6.50	6.20		7.10	6.50	6.86		4.10				4.77		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.50	4.00	3.89		2.20				2.80		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			0				12			1				13		
Capacity, c (veh/h)							229			1092				536		
v/c Ratio							0.05			0.00				0.02		
95% Queue Length, Q_{95} (veh)							0.2			0.0				0.1		
Control Delay (s/veh)							21.5			8.3				11.9		
Level of Service (LOS)							C			A				B		
Approach Delay (s/veh)					21.5				0.0				0.7			
Approach LOS					C											

HCS7 Two-Way Stop-Control Report

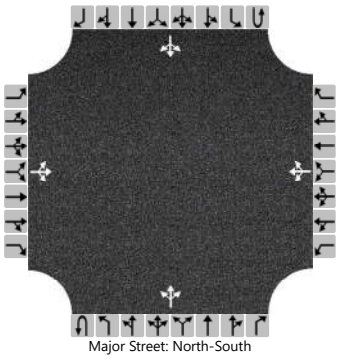
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2048
Time Analyzed	DY PM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd/ Falls Com Pkwy
Jurisdiction	City of Cuyahoga Falls
East/West Street	Falls Commerce Parkway
North/South Street	State Road
Peak Hour Factor	0.93
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		1	0	4		4	0	14		0	686	0		9	778	0
Percent Heavy Vehicles (%)		0	0	33		0	0	10		0				67		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.10	6.50	6.53		7.10	6.50	6.30		4.10				4.77		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.60		3.50	4.00	3.39		2.20				2.80		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			5				19			0				10		
Capacity, c (veh/h)			203				219			806				635		
v/c Ratio			0.03				0.09			0.00				0.02		
95% Queue Length, Q_{95} (veh)			0.1				0.3			0.0				0.0		
Control Delay (s/veh)			23.2				23.0			9.5				10.8		
Level of Service (LOS)			C				C			A				B		
Approach Delay (s/veh)	23.2				23.0				0.0				0.4			
Approach LOS	C				C											

HCS7 Two-Way Stop-Control Report

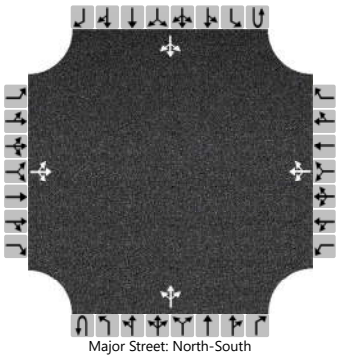
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2048
Time Analyzed	DY AM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd/Buckeye/Str it
Jurisdiction	City of Cuyahoga Falls
East/West Street	Buckeye Dr / Storr it Dr
North/South Street	State Road
Peak Hour Factor	0.86
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		1	0	4		0	0	4		14	779	3		3	405	9
Percent Heavy Vehicles (%)		0	0	33		0	0	67		10				0		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.10	6.50	6.53		7.10	6.50	6.87		4.20				4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.60		3.50	4.00	3.90		2.29				2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			6				5			16				3		
Capacity, c (veh/h)			299				256			1041				757		
v/c Ratio			0.02				0.02			0.02				0.00		
95% Queue Length, Q_{95} (veh)			0.1				0.1			0.0				0.0		
Control Delay (s/veh)			17.3				19.3			8.5				9.8		
Level of Service (LOS)			C				C			A				A		
Approach Delay (s/veh)	17.3				19.3				0.4				0.1			
Approach LOS	C				C											

HCS7 Two-Way Stop-Control Report

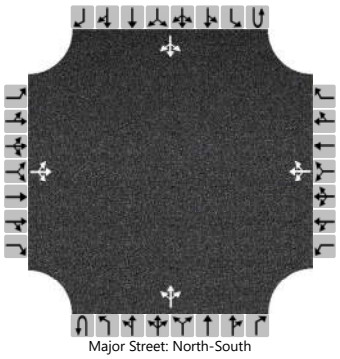
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2048
Time Analyzed	DY PM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd/Buckeye/Str it
Jurisdiction	City of Cuyahoga Falls
East/West Street	Buckeye Dr / Storr it Dr
North/South Street	State Road
Peak Hour Factor	0.93
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		6	0	9		1	0	6		6	675	1		9	768	0
Percent Heavy Vehicles (%)		0	0	0		0	0	0		0				33		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.10	6.50	6.20		7.10	6.50	6.20		4.10				4.43		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.50	4.00	3.30		2.20				2.50		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			16				8			6				10		
Capacity, c (veh/h)			158				269			814				750		
v/c Ratio			0.10				0.03			0.01				0.01		
95% Queue Length, Q_{95} (veh)			0.3				0.1			0.0				0.0		
Control Delay (s/veh)			30.4				18.8			9.5				9.9		
Level of Service (LOS)			D				C			A				A		
Approach Delay (s/veh)	30.4				18.8				0.2				0.3			
Approach LOS	D				C											

HCS7 Two-Way Stop-Control Report

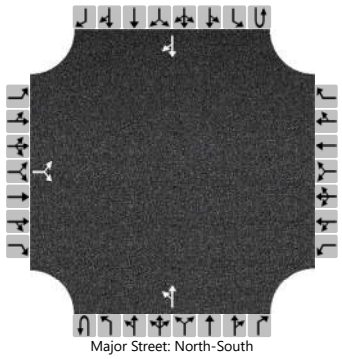
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2048
Time Analyzed	DY AM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd / Salt Creek Run
Jurisdiction	City of Cuyahoga Falls
East/West Street	Salt Creek Run
North/South Street	State Road
Peak Hour Factor	0.85
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		73		13						5	665				423	20
Percent Heavy Vehicles (%)		2		0						25						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.42		6.20						4.35						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.52		3.30						2.43						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			101							6						
Capacity, c (veh/h)			196							938						
v/c Ratio			0.52							0.01						
95% Queue Length, Q_{95} (veh)			2.6							0.0						
Control Delay (s/veh)			41.6							8.9						
Level of Service (LOS)			E							A						
Approach Delay (s/veh)		41.6								0.2						
Approach LOS		E														

HCS7 Two-Way Stop-Control Report

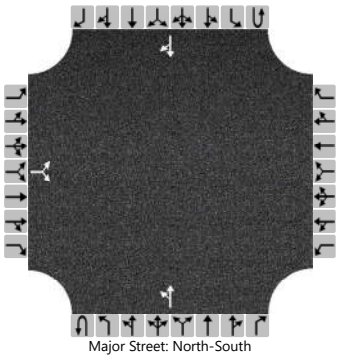
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2048
Time Analyzed	DY PM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd / Salt Creek Run
Jurisdiction	City of Cuyahoga Falls
East/West Street	Salt Creek Run
North/South Street	State Road
Peak Hour Factor	0.86
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		39		15						19	615				703	50
Percent Heavy Vehicles (%)		4		0						0						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.44		6.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.54		3.30						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			63							22						
Capacity, c (veh/h)			136							780						
v/c Ratio			0.46							0.03						
95% Queue Length, Q_{95} (veh)			2.1							0.1						
Control Delay (s/veh)			52.6							9.8						
Level of Service (LOS)			F							A						
Approach Delay (s/veh)	52.6								0.7							
Approach LOS	F															

HCS7 Two-Way Stop-Control Report

General Information

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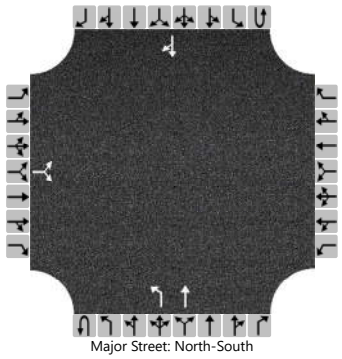
Date Performed	9/22/2023
Analysis Year	2048
Time Analyzed	DY AM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd / Woodridge N Dr
Jurisdiction	City of Cuyahoga Falls
East/West Street	Woodridge Elem. North Dr
North/South Street	State Road
Peak Hour Factor	0.93
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	1	0	0	0	1	0
Configuration			LR							L	T					TR
Volume (veh/h)		21		3						15	650				376	33
Percent Heavy Vehicles (%)		7		100						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.47		7.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.56		4.20						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			26							16						
Capacity, c (veh/h)			226							1131						
v/c Ratio			0.11							0.01						
95% Queue Length, Q_{95} (veh)			0.4							0.0						
Control Delay (s/veh)			23.0							8.2						
Level of Service (LOS)			C							A						
Approach Delay (s/veh)		23.0								0.2						
Approach LOS		C														

HCS7 Two-Way Stop-Control Report

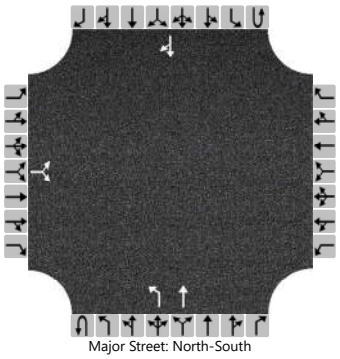
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2048
Time Analyzed	DY PM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd / Woodridge N Dr
Jurisdiction	City of Cuyahoga Falls
East/West Street	Woodridge Elem. North Dr
North/South Street	State Road
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	1	0	0	0	1	0
Configuration			LR							L	T					TR
Volume (veh/h)		24		3						0	583				611	24
Percent Heavy Vehicles (%)		6		0						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.46		6.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.55		3.30						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			28							0						
Capacity, c (veh/h)			195							931						
v/c Ratio			0.15							0.00						
95% Queue Length, Q_{95} (veh)			0.5							0.0						
Control Delay (s/veh)			26.5							8.9						
Level of Service (LOS)			D							A						
Approach Delay (s/veh)		26.5								0.0						
Approach LOS		D														

HCS7 Two-Way Stop-Control Report

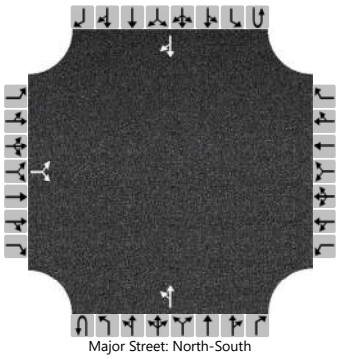
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2048
Time Analyzed	DY AM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd / Woodridge S Dr
Jurisdiction	City of Cuyahoga Falls
East/West Street	Woodridge Elem. South Dr
North/South Street	State Road
Peak Hour Factor	0.91
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		1		3						19	650				373	8
Percent Heavy Vehicles (%)		0		0						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.40		6.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.50		3.30						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			4							21						
Capacity, c (veh/h)			423							1151						
v/c Ratio			0.01							0.02						
95% Queue Length, Q_{95} (veh)			0.0							0.1						
Control Delay (s/veh)			13.6							8.2						
Level of Service (LOS)			B							A						
Approach Delay (s/veh)		13.6								0.5						
Approach LOS		B														

HCS7 Two-Way Stop-Control Report

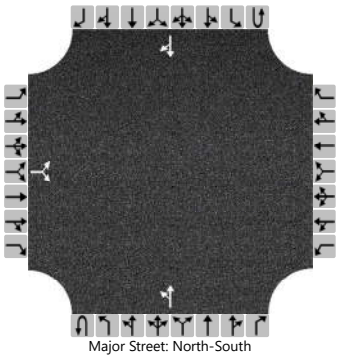
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2048
Time Analyzed	DY PM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd / Woodridge S Dr
Jurisdiction	City of Cuyahoga Falls
East/West Street	Woodridge Elem. South Dr
North/South Street	State Road
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		0		15						1	568				648	0
Percent Heavy Vehicles (%)		0		0						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.40		6.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.50		3.30						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			16							1						
Capacity, c (veh/h)			440							903						
v/c Ratio			0.04							0.00						
95% Queue Length, Q_{95} (veh)			0.1							0.0						
Control Delay (s/veh)			13.5							9.0						
Level of Service (LOS)			B							A						
Approach Delay (s/veh)		13.5								0.0						
Approach LOS		B														

HCS7 Two-Way Stop-Control Report

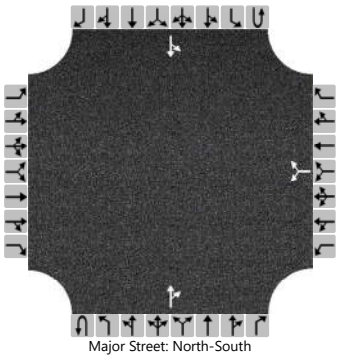
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2048
Time Analyzed	DY AM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd/Falls Indu. pkwy
Jurisdiction	City of Cuyahoga Falls
East/West Street	Falls Industrial Parkway
North/South Street	State Road
Peak Hour Factor	0.83
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						16		5			676	29		29	355	
Percent Heavy Vehicles (%)						8		25						19		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage						Undivided										

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.48		6.45						4.29		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.57		3.53						2.37		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							25							35		
Capacity, c (veh/h)							178							720		
v/c Ratio							0.14							0.05		
95% Queue Length, Q_{95} (veh)							0.5							0.2		
Control Delay (s/veh)							28.5							10.3		
Level of Service (LOS)							D							B		
Approach Delay (s/veh)						28.5								1.4		
Approach LOS						D										

HCS7 Two-Way Stop-Control Report

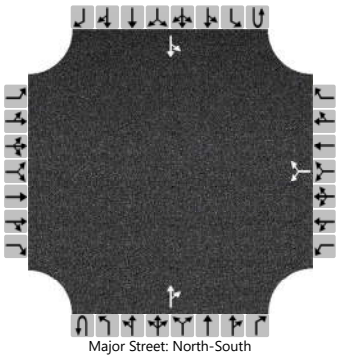
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2048
Time Analyzed	DY PM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd/Falls Indu. pkwy
Jurisdiction	City of Cuyahoga Falls
East/West Street	Falls Industrial Parkway
North/South Street	State Road
Peak Hour Factor	0.89
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						60		34			564	29		13	698	
Percent Heavy Vehicles (%)						2		0						33		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage						Undivided										

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.42		6.20						4.43		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.52		3.30						2.50		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							106							15		
Capacity, c (veh/h)							184							793		
v/c Ratio							0.57							0.02		
95% Queue Length, Q_{95} (veh)							3.1							0.1		
Control Delay (s/veh)							47.9							9.6		
Level of Service (LOS)							E							A		
Approach Delay (s/veh)						47.9								0.5		
Approach LOS						E										

HCS7 Two-Way Stop-Control Report

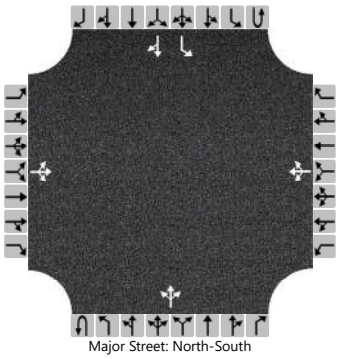
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2048
Time Analyzed	DY AM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd/Quick Rd/Audi N
Jurisdiction	City of Cuyahoga Falls
East/West Street	Quick Rd / Audi North Dr
North/South Street	State Road
Peak Hour Factor	0.88
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	1	1	0
Configuration			LTR				LTR				LTR			L		TR
Volume (veh/h)		25	0	0		0	0	1		0	675	1		5	385	5
Percent Heavy Vehicles (%)		0	0	0		0	0	0		0				0		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

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

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			28				1			0				6		
Capacity, c (veh/h)			157				405			1128				855		
v/c Ratio			0.18				0.00			0.00				0.01		
95% Queue Length, Q_{95} (veh)			0.6				0.0			0.0				0.0		
Control Delay (s/veh)			32.9				13.9			8.2				9.2		
Level of Service (LOS)			D				B			A				A		
Approach Delay (s/veh)		32.9				13.9				0.0				0.1		
Approach LOS		D				B										

HCS7 Two-Way Stop-Control Report

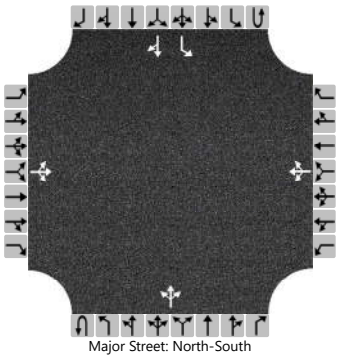
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2048
Time Analyzed	DY PM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd/Quick Rd/Audi N
Jurisdiction	City of Cuyahoga Falls
East/West Street	Quick Rd / Audi North Dr
North/South Street	State Road
Peak Hour Factor	0.94
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	1	1	0
Configuration			LTR				LTR				LTR			L		TR
Volume (veh/h)		5	0	0		9	0	15		1	546	3		3	708	21
Percent Heavy Vehicles (%)		0	0	0		0	0	0		0				0		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

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

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			5				26			1				3		
Capacity, c (veh/h)			122				241			849				1000		
v/c Ratio			0.04				0.11			0.00				0.00		
95% Queue Length, Q_{95} (veh)			0.1				0.4			0.0				0.0		
Control Delay (s/veh)			35.9				21.7			9.2				8.6		
Level of Service (LOS)			E				C			A				A		
Approach Delay (s/veh)		35.9				21.7				0.0				0.0		
Approach LOS		E				C										

HCS7 Two-Way Stop-Control Report

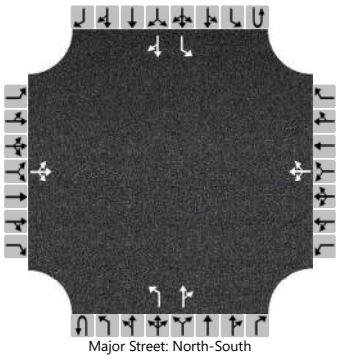
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2048
Time Analyzed	DY AM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd/Quick Rd/Audi S
Jurisdiction	City of Cuyahoga Falls
East/West Street	Quick Rd S/ Audi South Dr
North/South Street	State Road
Peak Hour Factor	0.81
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	1	0	0	1	1	0
Configuration			LTR				LTR			L		TR		L		TR
Volume (veh/h)		1	0	259		0	0	4		381	676	14		10	370	1
Percent Heavy Vehicles (%)		0	0	7		0	0	0		2				0		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.10	6.50	6.27		7.10	6.50	6.20		4.12				4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.36		3.50	4.00	3.30		2.22				2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			321				5			470				12		
Capacity, c (veh/h)			531				367			1103				796		
v/c Ratio			0.60				0.01			0.43				0.02		
95% Queue Length, Q_{95} (veh)			4.0				0.0			2.2				0.0		
Control Delay (s/veh)			21.6				15.0			10.7				9.6		
Level of Service (LOS)			C				B			B				A		
Approach Delay (s/veh)	21.6				15.0				3.8				0.3			
Approach LOS	C				B											

HCS7 Two-Way Stop-Control Report

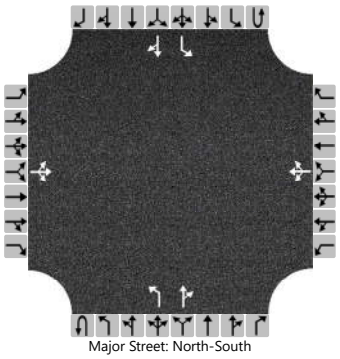
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2048
Time Analyzed	DY PM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd/Quick Rd/Audi S
Jurisdiction	City of Cuyahoga Falls
East/West Street	Quick Rd S/ Audi South Dr
North/South Street	State Road
Peak Hour Factor	0.90
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	1	0	0	1	1	0
Configuration			LTR				LTR			L		TR		L		TR
Volume (veh/h)		0	0	173		5	0	11		211	523	8		4	726	0
Percent Heavy Vehicles (%)		0	0	2		0	0	13		3				0		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.10	6.50	6.22		7.10	6.50	6.33		4.13				4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.32		3.50	4.00	3.42		2.23				2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			192				18			234				4		
Capacity, c (veh/h)			382				54			814				995		
v/c Ratio			0.50				0.33			0.29				0.00		
95% Queue Length, Q_{95} (veh)			2.7				1.2			1.2				0.0		
Control Delay (s/veh)			23.6				100.7			11.2				8.6		
Level of Service (LOS)			C				F			B				A		
Approach Delay (s/veh)	23.6				100.7				3.2				0.0			
Approach LOS	C				F											

HCS7 Two-Way Stop-Control Report

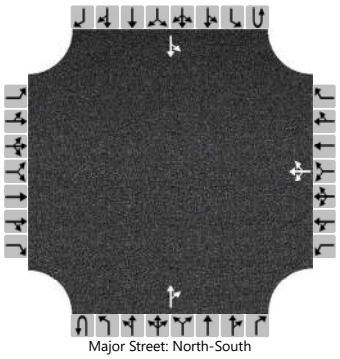
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2048
Time Analyzed	DY AM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	Quick Road/State Rd Con.
Jurisdiction	City of Cuyahoga Falls
East/West Street	Quick/State Rd Connector
North/South Street	Quick Road
Peak Hour Factor	0.80
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LTR					TR		LT		
Volume (veh/h)						0	0	5			381	0		25	260	
Percent Heavy Vehicles (%)						0	0	0						0		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

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

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							6							31		
Capacity, c (veh/h)							593							1096		
v/c Ratio							0.01							0.03		
95% Queue Length, Q_{95} (veh)							0.0							0.1		
Control Delay (s/veh)							11.1							8.4		
Level of Service (LOS)							B							A		
Approach Delay (s/veh)						11.1								1.0		
Approach LOS						B										

HCS7 Two-Way Stop-Control Report

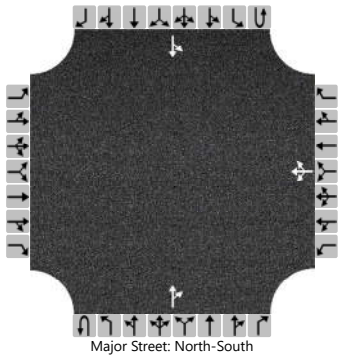
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2048
Time Analyzed	DY PM Peak 'No-Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	Quick Road/State Rd Con.
Jurisdiction	City of Cuyahoga Falls
East/West Street	Quick/State Rd Connector
North/South Street	Quick Road
Peak Hour Factor	0.80
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LTR					TR		LT		
Volume (veh/h)						0	0	23			211	0		5	173	
Percent Heavy Vehicles (%)						0	0	0						0		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage						Undivided										

Critical and Follow-up Headways

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

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							29							6		
Capacity, c (veh/h)							780							1312		
v/c Ratio							0.04							0.00		
95% Queue Length, Q_{95} (veh)							0.1							0.0		
Control Delay (s/veh)							9.8							7.8		
Level of Service (LOS)							A							A		
Approach Delay (s/veh)						9.8								0.3		
Approach LOS						A										

DESIGN YEAR 2048 'BUILD' CONDITIONS

HCS7 Two-Way Stop-Control Report

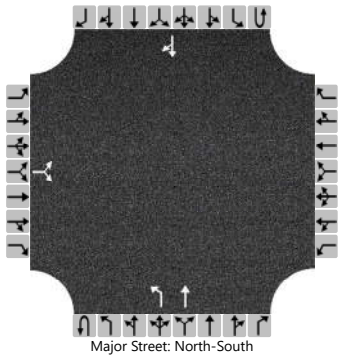
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2048
Time Analyzed	DY AM Peak 'Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Road / Boulder Blvd
Jurisdiction	City of Cuyahoga Falls
East/West Street	Boulder Blvd
North/South Street	State Road
Peak Hour Factor	0.80
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	1	0	0	0	1	0
Configuration			LR							L	T					TR
Volume (veh/h)		46		10						1	709				418	5
Percent Heavy Vehicles (%)		0		0						100						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.40		6.20						5.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.50		3.30						3.10						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			70							1						
Capacity, c (veh/h)			313							684						
v/c Ratio			0.22							0.00						
95% Queue Length, Q_{95} (veh)			0.8							0.0						
Control Delay (s/veh)			19.8							10.3						
Level of Service (LOS)			C							B						
Approach Delay (s/veh)		19.8								0.0						
Approach LOS		C														

HCS7 Two-Way Stop-Control Report

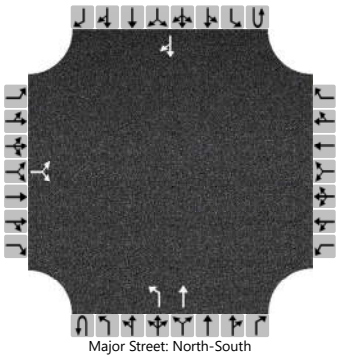
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2048
Time Analyzed	DY PM Peak 'Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Road / Boulder Blvd
Jurisdiction	City of Cuyahoga Falls
East/West Street	Boulder Blvd
North/South Street	State Road
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	1	0	0	0	1	0
Configuration			LR							L	T					TR
Volume (veh/h)		38		8						16	613				803	35
Percent Heavy Vehicles (%)		0		20						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.40		6.40						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.50		3.48						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			50							17						
Capacity, c (veh/h)			263							756						
v/c Ratio			0.19							0.02						
95% Queue Length, Q_{95} (veh)			0.7							0.1						
Control Delay (s/veh)			21.9							9.9						
Level of Service (LOS)			C							A						
Approach Delay (s/veh)		21.9								0.3						
Approach LOS		C														

HCS7 Two-Way Stop-Control Report

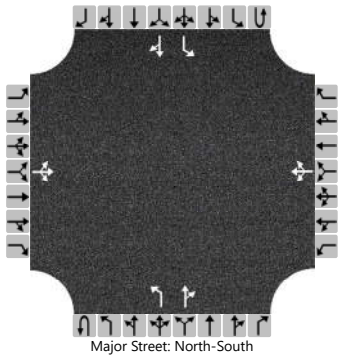
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2048
Time Analyzed	DY AM Peak 'Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd/ Falls Com Pkwy
Jurisdiction	City of Cuyahoga Falls
East/West Street	Falls Commerce Parkway
North/South Street	State Road
Peak Hour Factor	0.86
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	1	0	0	1	1	0
Configuration			LTR				LTR			L		TR		L		TR
Volume (veh/h)		0	0	0		1	0	9		1	771	13		11	413	1
Percent Heavy Vehicles (%)		0	0	0		0	0	66		0				67		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.10	6.50	6.20		7.10	6.50	6.86		4.10				4.77		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.50	4.00	3.89		2.20				2.80		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			0				12			1				13		
Capacity, c (veh/h)							256			1092				536		
v/c Ratio							0.05			0.00				0.02		
95% Queue Length, Q_{95} (veh)							0.1			0.0				0.1		
Control Delay (s/veh)							19.7			8.3				11.9		
Level of Service (LOS)							C			A				B		
Approach Delay (s/veh)					19.7				0.0				0.3			
Approach LOS					C											

HCS7 Two-Way Stop-Control Report

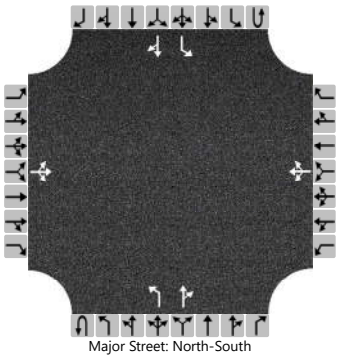
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2048
Time Analyzed	DY PM Peak 'Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd/ Falls Com Pkwy
Jurisdiction	City of Cuyahoga Falls
East/West Street	Falls Commerce Parkway
North/South Street	State Road
Peak Hour Factor	0.93
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	1	0	0	1	1	0
Configuration			LTR				LTR			L		TR		L		TR
Volume (veh/h)		1	0	4		4	0	14		0	686	0		9	778	0
Percent Heavy Vehicles (%)		0	0	33		0	0	10		0				67		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized																
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.10	6.50	6.53		7.10	6.50	6.30		4.10				4.77		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.60		3.50	4.00	3.39		2.20				2.80		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			5				19			0				10		
Capacity, c (veh/h)			290				336			806				635		
v/c Ratio			0.02				0.06			0.00				0.02		
95% Queue Length, Q_{95} (veh)			0.1				0.2			0.0				0.0		
Control Delay (s/veh)			17.6				16.4			9.5				10.8		
Level of Service (LOS)			C				C			A				B		
Approach Delay (s/veh)		17.6				16.4				0.0				0.1		
Approach LOS		C				C										

HCS7 Two-Way Stop-Control Report

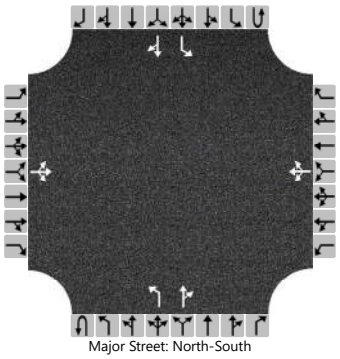
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2048
Time Analyzed	DY AM Peak 'Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd/Buckeye/Str it
Jurisdiction	City of Cuyahoga Falls
East/West Street	Buckeye Dr / Storr it Dr
North/South Street	State Road
Peak Hour Factor	0.86
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	1	0	0	1	1	0
Configuration			LTR				LTR			L		TR		L		TR
Volume (veh/h)		1	0	4		0	0	4		14	779	3		3	405	9
Percent Heavy Vehicles (%)		0	0	33		0	0	67		10				0		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.10	6.50	6.53		7.10	6.50	6.87		4.20				4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.60		3.50	4.00	3.90		2.29				2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			6				5			16				3		
Capacity, c (veh/h)			301				256			1041				757		
v/c Ratio			0.02				0.02			0.02				0.00		
95% Queue Length, Q_{95} (veh)			0.1				0.1			0.0				0.0		
Control Delay (s/veh)			17.2				19.3			8.5				9.8		
Level of Service (LOS)			C				C			A				A		
Approach Delay (s/veh)		17.2				19.3				0.1				0.1		
Approach LOS		C				C										

HCS7 Two-Way Stop-Control Report

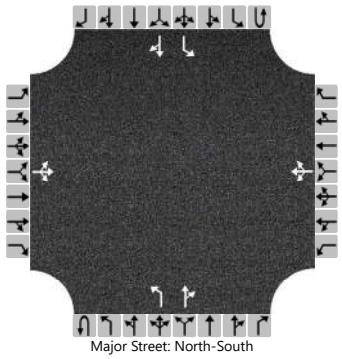
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2048
Time Analyzed	DY PM Peak 'Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd/Buckeye/Str it
Jurisdiction	City of Cuyahoga Falls
East/West Street	Buckeye Dr / Storr it Dr
North/South Street	State Road
Peak Hour Factor	0.93
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	1	0	0	1	1	0
Configuration			LTR				LTR			L		TR		L		TR
Volume (veh/h)		6	0	9		1	0	6		6	675	1		9	768	0
Percent Heavy Vehicles (%)		0	0	0		0	0	0		0				33		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.10	6.50	6.20		7.10	6.50	6.20		4.10				4.43		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.50	4.00	3.30		2.20				2.50		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			16				8			6				10		
Capacity, c (veh/h)			159				270			814				750		
v/c Ratio			0.10				0.03			0.01				0.01		
95% Queue Length, Q_{95} (veh)			0.3				0.1			0.0				0.0		
Control Delay (s/veh)			30.1				18.7			9.5				9.9		
Level of Service (LOS)			D				C			A				A		
Approach Delay (s/veh)		30.1				18.7				0.1				0.1		
Approach LOS		D				C										

HCS7 Two-Way Stop-Control Report

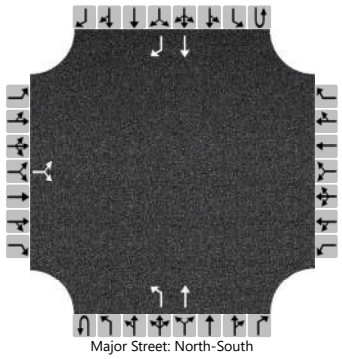
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2048
Time Analyzed	DY AM Peak 'Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd / Salt Creek Run
Jurisdiction	City of Cuyahoga Falls
East/West Street	Salt Creek Run
North/South Street	State Road
Peak Hour Factor	0.85
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	1	0	0	0	1	1
Configuration			LR							L	T				T	R
Volume (veh/h)		73		13						5	665				423	20
Percent Heavy Vehicles (%)		2		0						25						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized														No		
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.42		6.20						4.35						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.52		3.30						2.43						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			101							6						
Capacity, c (veh/h)			336							938						
v/c Ratio			0.30							0.01						
95% Queue Length, Q_{95} (veh)			1.2							0.0						
Control Delay (s/veh)			20.3							8.9						
Level of Service (LOS)			C							A						
Approach Delay (s/veh)		20.3								0.1						
Approach LOS		C														

HCS7 Two-Way Stop-Control Report

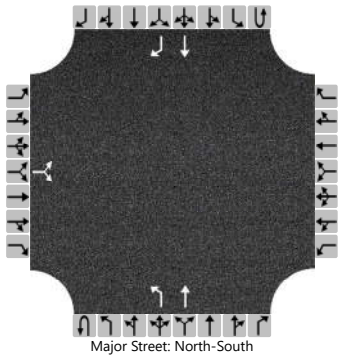
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2048
Time Analyzed	DY PM Peak 'Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd / Salt Creek Run
Jurisdiction	City of Cuyahoga Falls
East/West Street	Salt Creek Run
North/South Street	State Road
Peak Hour Factor	0.86
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	1	0	0	0	1	1
Configuration			LR							L	T				T	R
Volume (veh/h)		39		15						19	615				703	50
Percent Heavy Vehicles (%)		4		0						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized														No		
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.44		6.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.54		3.30						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			63							22						
Capacity, c (veh/h)			279							780						
v/c Ratio			0.23							0.03						
95% Queue Length, Q_{95} (veh)			0.8							0.1						
Control Delay (s/veh)			21.6							9.8						
Level of Service (LOS)			C							A						
Approach Delay (s/veh)		21.6								0.3						
Approach LOS		C														

HCS7 Two-Way Stop-Control Report

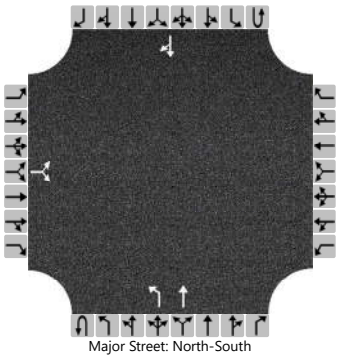
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2048
Time Analyzed	DY AM Peak 'Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd / Woodridge N Dr
Jurisdiction	City of Cuyahoga Falls
East/West Street	Woodridge Elem. North Dr
North/South Street	State Road
Peak Hour Factor	0.93
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	1	0	0	0	1	0
Configuration			LR							L	T					TR
Volume (veh/h)		21		3						15	650				376	33
Percent Heavy Vehicles (%)		7		100						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.47		7.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.56		4.20						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			26							16						
Capacity, c (veh/h)			350							1131						
v/c Ratio			0.07							0.01						
95% Queue Length, Q_{95} (veh)			0.2							0.0						
Control Delay (s/veh)			16.1							8.2						
Level of Service (LOS)			C							A						
Approach Delay (s/veh)		16.1								0.2						
Approach LOS		C														

HCS7 Two-Way Stop-Control Report

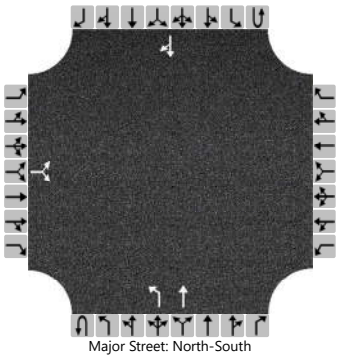
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2048
Time Analyzed	DY PM Peak 'Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd / Woodridge N Dr
Jurisdiction	City of Cuyahoga Falls
East/West Street	Woodridge Elem. North Dr
North/South Street	State Road
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	1	0	0	0	1	0
Configuration			LR							L	T					TR
Volume (veh/h)		24		3						0	583				611	24
Percent Heavy Vehicles (%)		6		0						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.46		6.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.55		3.30						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			28							0						
Capacity, c (veh/h)			332							931						
v/c Ratio			0.09							0.00						
95% Queue Length, Q_{95} (veh)			0.3							0.0						
Control Delay (s/veh)			16.8							8.9						
Level of Service (LOS)			C							A						
Approach Delay (s/veh)		16.8								0.0						
Approach LOS		C														

HCS7 Two-Way Stop-Control Report

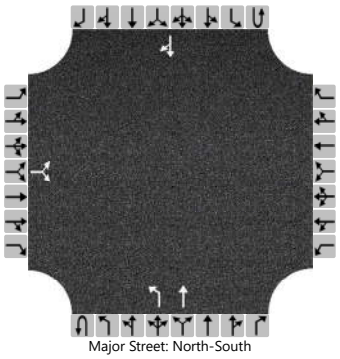
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2048
Time Analyzed	DY AM Peak 'Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd / Woodridge S Dr
Jurisdiction	City of Cuyahoga Falls
East/West Street	Woodridge Elem. South Dr
North/South Street	State Road
Peak Hour Factor	0.91
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	1	0	0	0	1	0
Configuration			LR							L	T					TR
Volume (veh/h)		1		3						19	650				373	8
Percent Heavy Vehicles (%)		0		0						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.40		6.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.50		3.30						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			4							21						
Capacity, c (veh/h)			525							1151						
v/c Ratio			0.01							0.02						
95% Queue Length, Q_{95} (veh)			0.0							0.1						
Control Delay (s/veh)			11.9							8.2						
Level of Service (LOS)			B							A						
Approach Delay (s/veh)		11.9								0.2						
Approach LOS		B														

HCS7 Two-Way Stop-Control Report

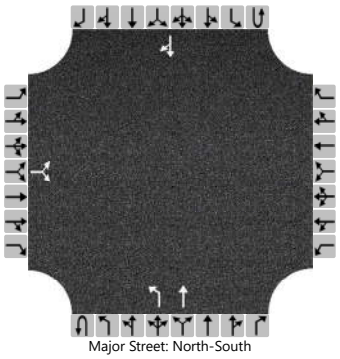
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2048
Time Analyzed	DY PM Peak 'Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd / Woodridge S Dr
Jurisdiction	City of Cuyahoga Falls
East/West Street	Woodridge Elem. South Dr
North/South Street	State Road
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	1	0	0	0	1	0
Configuration			LR							L	T					TR
Volume (veh/h)		0		15						1	568				648	0
Percent Heavy Vehicles (%)		0		0						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.40		6.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.50		3.30						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			16							1						
Capacity, c (veh/h)			440							903						
v/c Ratio			0.04							0.00						
95% Queue Length, Q_{95} (veh)			0.1							0.0						
Control Delay (s/veh)			13.5							9.0						
Level of Service (LOS)			B							A						
Approach Delay (s/veh)		13.5								0.0						
Approach LOS		B														

HCS7 Two-Way Stop-Control Report

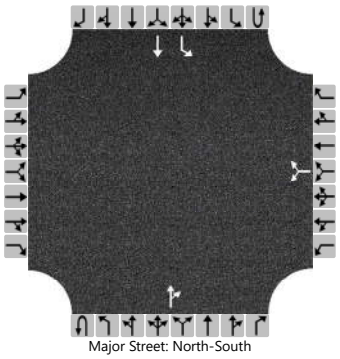
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2048
Time Analyzed	DY AM Peak 'Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd/Falls Indu. pkwy
Jurisdiction	City of Cuyahoga Falls
East/West Street	Falls Industrial Parkway
North/South Street	State Road
Peak Hour Factor	0.83
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	1	1	0
Configuration							LR					TR		L	T	
Volume (veh/h)						16		5			676	29		29	355	
Percent Heavy Vehicles (%)						8		25						19		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.48		6.45						4.29		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.57		3.53						2.37		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							25							35		
Capacity, c (veh/h)							299							720		
v/c Ratio							0.08							0.05		
95% Queue Length, Q_{95} (veh)							0.3							0.2		
Control Delay (s/veh)							18.1							10.3		
Level of Service (LOS)							C							B		
Approach Delay (s/veh)						18.1								0.8		
Approach LOS						C										

HCS7 Two-Way Stop-Control Report

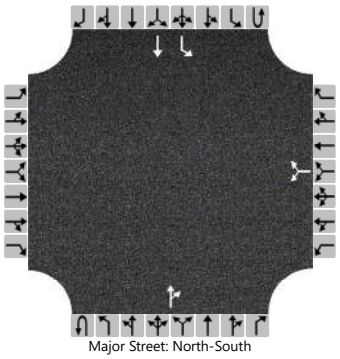
General Information

Analyst	Naser J. Tabanja, P.E.
Agency/Co.	GPD Group
Date Performed	9/22/2023
Analysis Year	2048
Time Analyzed	DY PM Peak 'Build'
Intersection Orientation	North-South
Project Description	State Road Corridor Study

Site Information

Intersection	State Rd/Falls Indu. pkwy
Jurisdiction	City of Cuyahoga Falls
East/West Street	Falls Industrial Parkway
North/South Street	State Road
Peak Hour Factor	0.89
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	1	1	0
Configuration							LR					TR		L	T	
Volume (veh/h)						60		34			564	29		13	698	
Percent Heavy Vehicles (%)						2		0						33		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.42		6.20						4.43		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.52		3.30						2.50		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							106							15		
Capacity, c (veh/h)							326							793		
v/c Ratio							0.32							0.02		
95% Queue Length, Q_{95} (veh)							1.4							0.1		
Control Delay (s/veh)							21.3							9.6		
Level of Service (LOS)							C							A		
Approach Delay (s/veh)						21.3								0.2		
Approach LOS						C										

HCS7 Roundabouts Report

General Information

Analyst	Naser J. Tabanja, P.E.
Agency or Co.	GPD Group
Date Performed	9/29/2023
Analysis Year	2048
Time Analyzed	DY AM Peak 'Build'
Project Description	State Road Corridor Study

Site Information

Intersection	State Road / Quick Road / A...
E/W Street Name	Quick Road / Audi Dealershi...
N/S Street Name	State Road
Analysis Time Period (hrs)	0.25
Peak Hour Factor	0.84
Jurisdiction	City of Cuyahoga Falls

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Number of Lanes (N)	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0
Lane Assignment			LTR				LTR				LTR				LTR	
Volume (V), veh/h	0	26	0	259	0	0	0	1	0	381	675	1	0	5	385	5
Percent Heavy Vehicles, %	0	0	0	7	0	0	0	0	0	2	2	0	0	0	6	0
Flow Rate (v_{PCE}), pc/h	0	31	0	330	0	0	0	1	0	463	820	1	0	6	486	6
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes	1				1				1				1			
Pedestrians Crossing, p/h	0				0				0				0			

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (s)		4.9763			4.9763			4.9763			4.9763	
Follow-Up Headway (s)		2.6087			2.6087			2.6087			2.6087	

Flow Computations, Capacity and v/c Ratios

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Entry Flow (v_e), pc/h		361			1			1284			498	
Entry Volume, veh/h		339			1			1259			470	
Circulating Flow (v_c), pc/h	492			1314			37			463		
Exiting Flow (v_{ex}), pc/h	7			469			852			816		
Capacity (c_{pce}), pc/h		835			361			1329			861	
Capacity (c), veh/h		786			361			1303			813	
v/c Ratio (x)		0.43			0.00			0.97			0.58	

Delay and Level of Service

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		10.2			10.0			35.5			13.2	
Lane LOS		B			B			E			B	
95% Queue, veh		2.2			0.0			19.1			3.8	
Approach Delay, s/veh	10.2			10.0			35.5			13.2		
Approach LOS	B			B			E			B		
Intersection Delay, s/veh | LOS	26.3						D					

HCS7 Roundabouts Report

General Information

Analyst	Naser J. Tabanja, P.E.
Agency or Co.	GPD Group
Date Performed	9/29/2023
Analysis Year	2048
Time Analyzed	DY PM Peak 'Build'
Project Description	State Road Corridor Study

Site Information

Intersection	State Road / Quick Road / A...
E/W Street Name	Quick Road / Audi Dealershi...
N/S Street Name	State Road
Analysis Time Period (hrs)	0.25
Peak Hour Factor	0.92
Jurisdiction	City of Cuyahoga Falls

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Number of Lanes (N)	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0
Lane Assignment			LTR				LTR				LTR				LTR	
Volume (V), veh/h	0	5	0	173	0	9	0	15	0	212	546	3	0	3	708	21
Percent Heavy Vehicles, %	0	0	0	2	0	0	0	0	0	3	3	0	0	0	2	0
Flow Rate (v_{PCE}), pc/h	0	5	0	192	0	10	0	16	0	237	611	3	0	3	785	23
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes	1				1				1				1			
Pedestrians Crossing, p/h	0				0				0				0			

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (s)		4.9763			4.9763			4.9763			4.9763	
Follow-Up Headway (s)		2.6087			2.6087			2.6087			2.6087	

Flow Computations, Capacity and v/c Ratios

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Entry Flow (v_e), pc/h		197			26			851			811	
Entry Volume, veh/h		193			26			826			796	
Circulating Flow (v_c), pc/h	798			853			8			247		
Exiting Flow (v_{ex}), pc/h	6			260			632			987		
Capacity (c_{pce}), pc/h		611			578			1369			1073	
Capacity (c), veh/h		600			578			1329			1052	
v/c Ratio (x)		0.32			0.04			0.62			0.76	

Delay and Level of Service

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		10.4			6.7			10.2			16.9	
Lane LOS		B			A			B			C	
95% Queue, veh		1.4			0.1			4.6			7.5	
Approach Delay, s/veh	10.4			6.7			10.2			16.9		
Approach LOS	B			A			B			C		
Intersection Delay, s/veh | LOS	13.1						B					

APPENDIX H
STORAGE LENGTH ANALYSIS

DESIGN YEAR 2048 'BUILD' CONDITIONS

STORAGE LENGTH CALCULATIONS

DESIGN YEAR 2048 'BUILD' TRAFFIC VOLUMES - AM PEAK HOUR

STATE ROAD / BOULDER BOULEVARD

ANTICIPATED CYCLE LENGTH: 60 SEC.

NB STATE ROAD

DESIGN SPEED: 35 MPH

MOVEMENT:	LEFT		THRU		
VOLUME:	1		709		
% OF APPROACH VOLUME:	0.1%		99.9%		
LANE GROUP:	LEFT		THRU		
LANE GROUP VOLUME:	1		709		
NUMBER OF LANES:	1				
VEHICLES PER CYCLE:	1				
CONTROLLING LANE GROUP:	X				
TAPER LENGTH:	50				
STORAGE LENGTH:	50				
TOTAL TURN LANE LENGTH:	***100***				

SB STATE ROAD

DESIGN SPEED: 35 MPH

MOVEMENT:			THRU		RIGHT
VOLUME:			418		5
% OF APPROACH VOLUME:			98.8%		1.2%
LANE GROUP:			THRU/RIGHT		
LANE GROUP VOLUME:					
NUMBER OF LANES:					
VEHICLES PER CYCLE:					
CONTROLLING LANE GROUP:					
TAPER LENGTH:					
STORAGE LENGTH:					
TOTAL TURN LANE LENGTH:					

EB BOULDER BLVD

DESIGN SPEED: 35 MPH

MOVEMENT:	LEFT				RIGHT
VOLUME:	46				10
% OF APPROACH VOLUME:	82.1%				17.9%
LANE GROUP:	LEFT/RIGHT				
LANE GROUP VOLUME:					
NUMBER OF LANES:					
VEHICLES PER CYCLE:					
CONTROLLING LANE GROUP:					
TAPER LENGTH:					
STORAGE LENGTH:					
TOTAL TURN LANE LENGTH:					

N/A

DESIGN SPEED: 35 MPH

MOVEMENT:					
VOLUME:					
% OF APPROACH VOLUME:					
LANE GROUP:					
LANE GROUP VOLUME:					
NUMBER OF LANES:					
VEHICLES PER CYCLE:					
CONTROLLING LANE GROUP:					
TAPER LENGTH:					
STORAGE LENGTH:					
TOTAL TURN LANE LENGTH:					

RECOMMENDED STORAGE LENGTHS INCLUDE 50' DIVERGING TAPER

STORAGE LENGTH CALCULATIONS

DESIGN YEAR 2048 'BUILD' TRAFFIC VOLUMES - PM PEAK HOUR

STATE ROAD / BOULDER BOULEVARD

ANTICIPATED CYCLE LENGTH: 60 SEC.

NB STATE ROAD

DESIGN SPEED: 35 MPH

MOVEMENT:	LEFT		THRU		
VOLUME:	16		613		
% OF APPROACH VOLUME:	2.5%		97.5%		
LANE GROUP:	LEFT		THRU		
LANE GROUP VOLUME:	16		613		
NUMBER OF LANES:	1				
VEHICLES PER CYCLE:	1				
CONTROLLING LANE GROUP:	X				
TAPER LENGTH:	50				
STORAGE LENGTH:	50				
TOTAL TURN LANE LENGTH:	***100***				

SB STATE ROAD

DESIGN SPEED: 35 MPH

MOVEMENT:			THRU		RIGHT
VOLUME:			803		35
% OF APPROACH VOLUME:			95.8%		4.2%
LANE GROUP:			THRU/RIGHT		
LANE GROUP VOLUME:					
NUMBER OF LANES:					
VEHICLES PER CYCLE:					
CONTROLLING LANE GROUP:					
TAPER LENGTH:					
STORAGE LENGTH:					
TOTAL TURN LANE LENGTH:					

EB BOULDER BLVD

DESIGN SPEED: 35 MPH

MOVEMENT:	LEFT				RIGHT
VOLUME:	38				8
% OF APPROACH VOLUME:	82.6%				17.4%
LANE GROUP:	LEFT/RIGHT				
LANE GROUP VOLUME:					
NUMBER OF LANES:					
VEHICLES PER CYCLE:					
CONTROLLING LANE GROUP:					
TAPER LENGTH:					
STORAGE LENGTH:					
TOTAL TURN LANE LENGTH:					

N/A

DESIGN SPEED: 35 MPH

MOVEMENT:					
VOLUME:					
% OF APPROACH VOLUME:					
LANE GROUP:					
LANE GROUP VOLUME:					
NUMBER OF LANES:					
VEHICLES PER CYCLE:					
CONTROLLING LANE GROUP:					
TAPER LENGTH:					
STORAGE LENGTH:					
TOTAL TURN LANE LENGTH:					

RECOMMENDED STORAGE LENGTHS INCLUDE 50' DIVERGING TAPER

STORAGE LENGTH CALCULATIONS

DESIGN YEAR 2048 'BUILD' TRAFFIC VOLUMES - AM PEAK HOUR

STATE ROAD / SALT CREEK RUN

ANTICIPATED CYCLE LENGTH: 60 SEC.

NB STATE ROAD

DESIGN SPEED: 35 MPH

MOVEMENT:	LEFT		THRU		
VOLUME:	5		665		
% OF APPROACH VOLUME:	0.7%		99.3%		
LANE GROUP:	LEFT		THRU		
LANE GROUP VOLUME:	5		665		
NUMBER OF LANES:	1				
VEHICLES PER CYCLE:	1				
CONTROLLING LANE GROUP:	X				
TAPER LENGTH:	50				
STORAGE LENGTH:	50				
TOTAL TURN LANE LENGTH:	***100***				

SB STATE ROAD

DESIGN SPEED: 35 MPH

MOVEMENT:			THRU		RIGHT
VOLUME:			423		20
% OF APPROACH VOLUME:			95.5%		4.5%
LANE GROUP:			THRU		RIGHT
LANE GROUP VOLUME:					20
NUMBER OF LANES:					1
VEHICLES PER CYCLE:					1
CONTROLLING LANE GROUP:					X
TAPER LENGTH:					50
STORAGE LENGTH:					50
TOTAL TURN LANE LENGTH:					***100***

EB Salt Creek Run

DESIGN SPEED: 35 MPH

MOVEMENT:	LEFT				RIGHT
VOLUME:	73				13
% OF APPROACH VOLUME:	84.9%				15.1%
LANE GROUP:	LEFT/RIGHT				
LANE GROUP VOLUME:					
NUMBER OF LANES:					
VEHICLES PER CYCLE:					
CONTROLLING LANE GROUP:					
TAPER LENGTH:					
STORAGE LENGTH:					
TOTAL TURN LANE LENGTH:					

N/A

DESIGN SPEED: 35 MPH

MOVEMENT:					
VOLUME:					
% OF APPROACH VOLUME:					
LANE GROUP:					
LANE GROUP VOLUME:					
NUMBER OF LANES:					
VEHICLES PER CYCLE:					
CONTROLLING LANE GROUP:					
TAPER LENGTH:					
STORAGE LENGTH:					
TOTAL TURN LANE LENGTH:					

RECOMMENDED STORAGE LENGTHS INCLUDE 50' DIVERGING TAPER

STORAGE LENGTH CALCULATIONS

DESIGN YEAR 2048 'BUILD' TRAFFIC VOLUMES - PM PEAK HOUR

STATE ROAD / SALT CREEK RUN

ANTICIPATED CYCLE LENGTH: 60 SEC.

NB STATE ROAD

DESIGN SPEED: 35 MPH

MOVEMENT:	LEFT		THRU		
VOLUME:	19		615		
% OF APPROACH VOLUME:	3.0%		97.0%		
LANE GROUP:	LEFT		THRU		
LANE GROUP VOLUME:	19				
NUMBER OF LANES:	1				
VEHICLES PER CYCLE:	1				
CONTROLLING LANE GROUP:	X				
TAPER LENGTH:	50				
STORAGE LENGTH:	50				
TOTAL TURN LANE LENGTH:	***100***				

SB STATE ROAD

DESIGN SPEED: 35 MPH

MOVEMENT:			THRU		RIGHT
VOLUME:			703		50
% OF APPROACH VOLUME:			93.4%		6.6%
LANE GROUP:			THRU		RIGHT
LANE GROUP VOLUME:					50
NUMBER OF LANES:					1
VEHICLES PER CYCLE:					1
CONTROLLING LANE GROUP:					X
TAPER LENGTH:					50
STORAGE LENGTH:					50
TOTAL TURN LANE LENGTH:					***100***

EB Salt Creek Run

DESIGN SPEED: 35 MPH

MOVEMENT:	LEFT				RIGHT
VOLUME:	39				15
% OF APPROACH VOLUME:	72.2%				27.8%
LANE GROUP:	LEFT/RIGHT				
LANE GROUP VOLUME:					
NUMBER OF LANES:					
VEHICLES PER CYCLE:					
CONTROLLING LANE GROUP:					
TAPER LENGTH:					
STORAGE LENGTH:					
TOTAL TURN LANE LENGTH:					

N/A

DESIGN SPEED: 35 MPH

MOVEMENT:					
VOLUME:					
% OF APPROACH VOLUME:					
LANE GROUP:					
LANE GROUP VOLUME:					
NUMBER OF LANES:					
VEHICLES PER CYCLE:					
CONTROLLING LANE GROUP:					
TAPER LENGTH:					
STORAGE LENGTH:					
TOTAL TURN LANE LENGTH:					

RECOMMENDED STORAGE LENGTHS INCLUDE 50' DIVERGING TAPER

STORAGE LENGTH CALCULATIONS

DESIGN YEAR 2048 'BUILD' TRAFFIC VOLUMES - AM PEAK HOUR

STATE ROAD / WOODRIDGE ELEMENTARY N DR

ANTICIPATED CYCLE LENGTH: 60 SEC.

NB STATE ROAD

DESIGN SPEED: 35 MPH

MOVEMENT:	LEFT		THRU		
VOLUME:	65		650		
% OF APPROACH VOLUME:	9.1%		90.9%		
LANE GROUP:	LEFT		THRU		
LANE GROUP VOLUME:	65		650		
NUMBER OF LANES:	1				
VEHICLES PER CYCLE:	2				
CONTROLLING LANE GROUP:	X				
TAPER LENGTH:	50				
STORAGE LENGTH:	100				
TOTAL TURN LANE LENGTH:	***150***				

SB STATE ROAD

DESIGN SPEED: 35 MPH

MOVEMENT:			THRU		RIGHT
VOLUME:			376		33
% OF APPROACH VOLUME:			91.9%		8.1%
LANE GROUP:			THRU/RIGHT		
LANE GROUP VOLUME:					
NUMBER OF LANES:					
VEHICLES PER CYCLE:					
CONTROLLING LANE GROUP:					
TAPER LENGTH:					
STORAGE LENGTH:					
TOTAL TURN LANE LENGTH:					

EB WOODRIDGE ELEM. N DR

DESIGN SPEED: 35 MPH

MOVEMENT:	LEFT				RIGHT
VOLUME:	21				3
% OF APPROACH VOLUME:	87.5%				12.5%
LANE GROUP:	LEFT/RIGHT				
LANE GROUP VOLUME:					
NUMBER OF LANES:					
VEHICLES PER CYCLE:					
CONTROLLING LANE GROUP:					
TAPER LENGTH:					
STORAGE LENGTH:					
TOTAL TURN LANE LENGTH:					

N/A

DESIGN SPEED: 35 MPH

MOVEMENT:					
VOLUME:					
% OF APPROACH VOLUME:					
LANE GROUP:					
LANE GROUP VOLUME:					
NUMBER OF LANES:					
VEHICLES PER CYCLE:					
CONTROLLING LANE GROUP:					
TAPER LENGTH:					
STORAGE LENGTH:					
TOTAL TURN LANE LENGTH:					

RECOMMENDED STORAGE LENGTHS INCLUDE 50' DIVERGING TAPER

STORAGE LENGTH CALCULATIONS

DESIGN YEAR 2048 'BUILD' TRAFFIC VOLUMES - PM PEAK HOUR

STATE ROAD / WOODRIDGE ELEMENTARY N DR

ANTICIPATED CYCLE LENGTH: 60 SEC.

NB STATE ROAD

DESIGN SPEED: 35 MPH

MOVEMENT:	LEFT		THRU		
VOLUME:	1		583		
% OF APPROACH VOLUME:	0.2%		99.8%		
LANE GROUP:	LEFT		THRU		
LANE GROUP VOLUME:	1				
NUMBER OF LANES:	1				
VEHICLES PER CYCLE:	1				
CONTROLLING LANE GROUP:	X				
TAPER LENGTH:	50				
STORAGE LENGTH:	50				
TOTAL TURN LANE LENGTH:	***100***				

SB STATE ROAD

DESIGN SPEED: 35 MPH

MOVEMENT:			THRU		RIGHT
VOLUME:			611		24
% OF APPROACH VOLUME:			96.2%		3.8%
LANE GROUP:			THRU/RIGHT		
LANE GROUP VOLUME:					
NUMBER OF LANES:					
VEHICLES PER CYCLE:					
CONTROLLING LANE GROUP:					
TAPER LENGTH:					
STORAGE LENGTH:					
TOTAL TURN LANE LENGTH:					

EB WOODRIDGE ELEM. N DR

DESIGN SPEED: 35 MPH

MOVEMENT:	LEFT				RIGHT
VOLUME:	24				3
% OF APPROACH VOLUME:	88.9%				11.1%
LANE GROUP:	LEFT/RIGHT				
LANE GROUP VOLUME:					
NUMBER OF LANES:					
VEHICLES PER CYCLE:					
CONTROLLING LANE GROUP:					
TAPER LENGTH:					
STORAGE LENGTH:					
TOTAL TURN LANE LENGTH:					

N/A

DESIGN SPEED: 35 MPH

MOVEMENT:					
VOLUME:					
% OF APPROACH VOLUME:					
LANE GROUP:					
LANE GROUP VOLUME:					
NUMBER OF LANES:					
VEHICLES PER CYCLE:					
CONTROLLING LANE GROUP:					
TAPER LENGTH:					
STORAGE LENGTH:					
TOTAL TURN LANE LENGTH:					

RECOMMENDED STORAGE LENGTHS INCLUDE 50' DIVERGING TAPER

STORAGE LENGTH CALCULATIONS

DESIGN YEAR 2048 'BUILD' TRAFFIC VOLUMES - AM PEAK HOUR

STATE ROAD / FALLS INDUSTRIALS PARKWAY

ANTICIPATED CYCLE LENGTH: 60 SEC.

NB STATE ROAD

DESIGN SPEED: 35 MPH

MOVEMENT:			THRU		RIGHT
VOLUME:			676		29
% OF APPROACH VOLUME:			95.9%		4.1%
LANE GROUP:			THRU/RIGHT		
LANE GROUP VOLUME:					
NUMBER OF LANES:					
VEHICLES PER CYCLE:					
CONTROLLING LANE GROUP:					
TAPER LENGTH:					
STORAGE LENGTH:					
TOTAL TURN LANE LENGTH:					

SB STATE ROAD

DESIGN SPEED: 35 MPH

MOVEMENT:	LEFT		THRU		
VOLUME:	29		676		
% OF APPROACH VOLUME:	4.1%		95.9%		
LANE GROUP:	LEFT		THRU		
LANE GROUP VOLUME:	29				
NUMBER OF LANES:	1				
VEHICLES PER CYCLE:	1				
CONTROLLING LANE GROUP:	X				
TAPER LENGTH:	50				
STORAGE LENGTH:	50				
TOTAL TURN LANE LENGTH:	***100***				

N/A

DESIGN SPEED: 35 MPH

MOVEMENT:					
VOLUME:					
% OF APPROACH VOLUME:					
LANE GROUP:					
LANE GROUP VOLUME:					
NUMBER OF LANES:					
VEHICLES PER CYCLE:					
CONTROLLING LANE GROUP:					
TAPER LENGTH:					
STORAGE LENGTH:					
TOTAL TURN LANE LENGTH:					

WB WOODRIDGE ELEM. N DR

DESIGN SPEED: 35 MPH

MOVEMENT:	LEFT				RIGHT
VOLUME:	16				5
% OF APPROACH VOLUME:	76.2%				23.8%
LANE GROUP:	LEFT/RIGHT				
LANE GROUP VOLUME:					
NUMBER OF LANES:					
VEHICLES PER CYCLE:					
CONTROLLING LANE GROUP:					
TAPER LENGTH:					
STORAGE LENGTH:					
TOTAL TURN LANE LENGTH:					

RECOMMENDED STORAGE LENGTHS INCLUDE 50' DIVERGING TAPER

STORAGE LENGTH CALCULATIONS

DESIGN YEAR 2048 'BUILD' TRAFFIC VOLUMES - PM PEAK HOUR

STATE ROAD / FALLS INDUSTRIALS PARKWAY

ANTICIPATED CYCLE LENGTH: 60 SEC.

NB STATE ROAD

DESIGN SPEED: 35 MPH

MOVEMENT:			THRU		RIGHT
VOLUME:			564		29
% OF APPROACH VOLUME:			95.1%		4.9%
LANE GROUP:			THRU/RIGHT		
LANE GROUP VOLUME:					
NUMBER OF LANES:					
VEHICLES PER CYCLE:					
CONTROLLING LANE GROUP:					
TAPER LENGTH:					
STORAGE LENGTH:					
TOTAL TURN LANE LENGTH:					

SB STATE ROAD

DESIGN SPEED: 35 MPH

MOVEMENT:	LEFT		THRU		
VOLUME:	13		698		
% OF APPROACH VOLUME:	1.8%		98.2%		
LANE GROUP:	LEFT		THRU		
LANE GROUP VOLUME:	13				
NUMBER OF LANES:	1				
VEHICLES PER CYCLE:	1				
CONTROLLING LANE GROUP:	X				
TAPER LENGTH:	50				
STORAGE LENGTH:	50				
TOTAL TURN LANE LENGTH:	***100***				

N/A

DESIGN SPEED: 35 MPH

MOVEMENT:					
VOLUME:					
% OF APPROACH VOLUME:					
LANE GROUP:					
LANE GROUP VOLUME:					
NUMBER OF LANES:					
VEHICLES PER CYCLE:					
CONTROLLING LANE GROUP:					
TAPER LENGTH:					
STORAGE LENGTH:					
TOTAL TURN LANE LENGTH:					

WB WOODRIDGE ELEM. N DR

DESIGN SPEED: 35 MPH

MOVEMENT:	LEFT				RIGHT
VOLUME:	60				34
% OF APPROACH VOLUME:	63.8%				36.2%
LANE GROUP:	LEFT/RIGHT				
LANE GROUP VOLUME:					
NUMBER OF LANES:					
VEHICLES PER CYCLE:					
CONTROLLING LANE GROUP:					
TAPER LENGTH:					
STORAGE LENGTH:					
TOTAL TURN LANE LENGTH:					

RECOMMENDED STORAGE LENGTHS INCLUDE 50' DIVERGING TAPER

APPENDIX I
OPINION OF PROBABLE COST

Preliminary Opinion of Probable Cost

ITEM	DESCRIPTION	TOTAL QUANTITY	UNIT	ESTIMATED PRICE	TOTAL COST
	ROADWAY				
201	CLEARING AND GRUBBING	1	LS	$80,000	$80,000
202	PAVEMENT REMOVED	28,000	SY	$15	$420,000
202	CURB REMOVED	2,500	FT	$7	$17,500
202	WALK REMOVED	3,000	SF	$5	$15,000
608	4" CONCRETE SIDEWALK	38,000	SF	$10	$380,000
608	6" CONCRETE TRAFFIC ISLAND	600	SY	$110	$66,000
608	8" CONCRETE TRUCK APRON	700	SY	$125	$87,500
609	CURB AND GUTTER, TYPE 10	400	FT	$40	$16,000
609	CURB, TYPE 6	15,000	FT	$30	$450,000
659	SEEDING & MULCHING	25,000	SY	$4	$100,000
832	EROSION CONTROL	140,000	LS	$1	$140,000
832	STORM WATER POLLUTION PREVENTION PLAN	1	LS	$35,000	$35,000
	ROADWAY SUBTOTAL:				**$1,807,000**
	DRAINAGE				
202	PIPE REMOVED, 24" AND UNDER	2,000	FT	$25	$50,000
202	MANHOLE OR CATCH BASIN REMOVED	40	EACH	$850	$34,000
202	MANHOLE ADJUSTED TO GRADE	20	EACH	$700	$14,000
605	6" BASE PIPE UNDERDRAINS WITH FABRIC WRAP	15,000	FT	$20	$300,000
611	12" TO 24" CONDUIT, TYPE B	8,000	FT	$150	$1,200,000
611	CATCH BASIN, NO. 3A	60	EACH	$3,250	$195,000
611	MANHOLE #3	30	EACH	$4,000	$120,000
611	MANHOLE OR CATCH BASIN RECONSTRUCTED TO GRADE	10	EACH	$2,000	$20,000
	DRAINAGE SUBTOTAL:				**$1,933,000**
	PAVEMENT				
302	6" ASHPALT CONCRETE BASE, PG64-22	5,000	CY	$155	$775,000
304	AGGREGATE BASE (6" @ PAVEMENT, 2" @ SIDEWALKS)	6,600	CY	$85	$561,000
407	TACK COAT	4,500	GAL	$5	$22,500
442	1-3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)	1,500	CY	$185	$277,500
442	1-1/4" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)	1,100	CY	$215	$236,500
452	8" NON-REINFOCED CONCRETE PAVEMENT, CLASS QC1	7,500	SY	$90	$675,000
	PAVEMENT SUBTOTAL:				**$2,547,500**
	LIGHTING				
	CONTINUOUS ROADWAY LIGHTING	0	EACH	$18,000	$0
	LIGHTING SUBTOTAL:				**$0**
	TRAFFIC CONTROL				
	SIGNING	1	LS	$175,000	$175,000
	STRIPING	1	LS	$100,000	$100,000
	TRAFFIC CONTROL SUBTOTAL:				**$275,000**
	SIGNALIZATION				
632	TRAFFIC SIGNAL MODIFICATION	0	EACH	$70,000	$0
632	TRAFFIC SIGNAL RECONSTRUCTION	0	EACH	$215,000	$0
632	TRAFFIC SIGNAL FIBER INTERCONNET	0	LS	$275,000	$0
	SIGNALIZATION SUBTOTAL:				**$0**

Preliminary Opinion of Probable Cost

ITEM	DESCRIPTION	TOTAL QUANTITY	UNIT	ESTIMATED PRICE	TOTAL COST
	MAINTENANCE OF TRAFFIC				
	MAINTENANCE OF TRAFFIC	1	LS	$500,000	$500,000
	MAINTENANCE OF TRAFFIC SUBTOTAL:				**$500,000**
	MISCELLANEOUS				
614	MAINTAINING TRAFFIC	1	LS	$250,000	$250,000
619	FIELD OFFICE	18	MON	$2,000	$36,000
623	CONSTRUCTION LAYOUT STAKES	1	LS	$80,000	$80,000
624	MOBILIZATION	1	LS	$200,000	$200,000
SPEC	PERFORMANCE BOND	1	LS	$80,000	$80,000
	MISCELLANEOUS SUBTOTAL:				**$646,000**
	RIGHT OF WAY				
	TEMPORARY R/W TAKE - COMMERCIAL	3	EACH	$5,000	$15,000
	TEMPORARY R/W TAKE - RESIDENTIAL	2	EACH	$2,000	$4,000
	PERMANENT R/W TAKE - MINOR - COMMERCIAL	1	EACH	$25,000	$25,000
	PERMANENT R/W TAKE - MINOR - RESIDENTIAL	0	EACH	$10,000	$0
	ACQUISITION SERVICES	6	EACH	$6,500	$39,000
	APPRAISAL REVIEW SERVICES	6	EACH	$650	$3,900
	RIGHT OF WAY SUBTOTAL:				**$86,900**
	TOTAL CONSTRUCTION AND RIGHT OF WAY COST:				**$7,795,400**
	DESIGN ENGINEERING COST:	(15% OF CONSTR. & R/W COST)			**$1,169,310**
	GEOTECHNICAL ENGINEERING COST:	(1% OF CONSTR. & R/W COST)			**$77,954**
	ENVIRONMENTAL COST:	(1% OF CONSTR. & R/W COST)			**$77,954**
	SUBSURFACE UTILITY ENGINEERING (SUE):	(3% OF CONSTR. & R/W COST)			**$233,862**
	DESIGN CONTINGENCY COSTS	(20% OF CONSTR. & R/W COST)			**$1,559,080**
	PROJECT SUBTOTAL:				**$10,913,560**
	5% INFLATION CONTINGENCY OVER 5 YEARS (25%):				**$2,728,390**
	PROJECT TOTAL WITHOUT CONSTRUCTION INSPECTION				**$13,641,950**
	CONSTRUCTION INSPECTION COST:	(10% OF PROJECT TOTAL)			**$1,364,195**
				TOTAL:	**$15,006,145**