Imperial County Planning & Development Services
Planning / Building

Jim Minnick
DIRECTOR

March 5, 2025

Subject: **Request for Proposal Initial Study for a Battery Energy Storage Project (Border BESS)**
Project Applicant: Apex Energy Solutions, LLC

- General Plan Amendment (GPA) #25-0001
- Zone Change (ZC) #25-0001
- Conditional Use Permit (CUP) #24-0027
- Initial Study (IS) #24-0040

Dear Consultant:

The Imperial County Planning & Development Services Department is soliciting proposals for the **preparation of a Initial Study** for the Border BESS Project. Which includes a General Plan Amendment (GPA), Zone Change (ZC), and a Conditional Use Permit (CUP). **The Planning & Development Services Department** will act as the "Lead Agency" for the preparation of the Initial Study pursuant to the California Environmental Quality Act (CEQA). The successful consultant will work directly for the County Planning & Development Services Director in the preparation of this CEQA document.

The Border BESS Project includes:

1. **General Plan Amendment #25-0001**
2. **Zone Change #25-0001**
3. **Conditional Use Permit #24-0027**
4. **Initial Study #24-0040**

- 75 MW Battery Energy Storage System
- APN: 059-290-010-000 Approximately 80.92 acre-parcel
- Current Zone A-3-RE (Heavy Agriculture with Renewable Energy Overlay), proposed Conditional Zone Change to M-1-RE (Light Industrial with Renewable Energy Overlay).

Attached is a copy of the application package.

I. **The County hereby requests the following information; for each item (as appropriate), the hourly rate and estimated total hours for the specific task must be documented**.

a. Identified milestones representing specific tangible work products (tasks) to which payments by the County would be linked and become part of the legal contract. (Please note that all subsequent bills/invoices will be required to include both the identified milestones and percent completed).

b. All potential subcontractor(s) that will be utilized along with their estimated staff time and cost breakdown;

c. An estimated "not to exceed cost" to prepare the Drafts Initial Study documents;

d. Review the attached proposed application and make findings of consistency with the *Imperial County General Plan Renewable and Transmission Element;* and

e. An electronic version (i.e. thumb drive or CD) of all documents prepared by the prime CEQA consultant and potential subcontractor(s).

The only exception to the "not to exceed" cost shall be the response to public comments received as a result of the joint environmental document's circulation. If the County receives excessive comments on the draft document, then the costs will be determined on a "negotiated basis" when the draft document and comments on the project become available.

Excessive comments are generally considered to be more than twenty (20) commenting agencies/individuals and/or over 150 comments that require answers other than "comment noted."

The proposal must incorporate the cost estimate for the printing of **five (5) hard copies of the Administrative Draft IS, five (5) hard copies of the Draft IS and five (5) hard copies of the Final IS, along with a digital copy provided on a thumb drive.** of the aforementioned environmental documents, as determined. Also, the proposal must provide a cost estimate for each additional hard copy and/or CD, if additional copies are needed.

The proposal must provide that prior to any cost overruns; the consultant shall discuss first and then seek written approval from the County Planning and Development Services Director, Jim Minnick before such costs are incurred. Failure to get prior written approval may result in such costs being disallowed.

II. We request that you provide within your cost estimate for the proposed Initial Study, including the hourly rate and total estimated hours, a preparation of the following studies and analysis.

- Aesthetics/Visual Impacts
- Air Quality/ Greenhouse Gas emissions
- Agriculture and Forest Resources
- Hazards and Hazardous Materials
- Land Use and Planning
- Noise
- Mineral Resources
- Population and Housing
- Public Health & Safety
- Public Services
- Recreation
- Utilities and Service Systems
- Energy
- Wildfire
- Hydrology and Water Quality
- Water Supply Assessment

The following sections may need to be addressed in the Initial Study and Findings of Fact for the project.

- SB18/AB-52 Tribal Cultural Resources
- CEQA Findings for Project
- Mitigation, Monitoring & Reporting Program (MM&RP)

At the very least, the applicant has already provided us with the studies conducted for an adjacent project (VEGA 4) that encompassed the involved parcel (APN: 059-290-010-000) which was ultimately not included in the final project, you will be expected to review such outside studies as a third-party review and determine whether or not they are adequate, need to be revised, updated or, in fact, be reproduced. It is expected that the applicant will be submitting the following documentation for review; we request that you provide within your estimate for the IS the cost for the peer-review of this work and these studies, prepared by the applicant and their consultants.

- Traffic Impact Study
- Geotechnical Report
- Aquatic Resources Delineation
- Phase I ESA Report
- Cultural Resources Inventory, Testing and Evaluation Report
- Biological Technical Report
- Air Quality and Greenhouse Gas Assessment
- Energy Impact Assessment
- Noise Impact Assessment
- Visual Impact Assessment
- Water Supply Assessment

III. The following format should be used in preparing the proposal, additional information/items may be used to further bolster your proposal:

One page cover letter introducing your firm.

1. **Project Understanding**

2. **Project Team**

   - Identify all company and consultant team personnel who will work on the project and short description of their education and work experience.
   - Resumes of the prime and technical consultants should be included and can be attached to the proposal as an appendix.
   - Organization Charts-Elaborate organization charts are not necessary.

3. **Scope of Work**

   - Describe the proposed tasks to accomplish the scope of work.
   - Include deliverables, when applicable, for each task.
   - Include all applicable site visits, scoping meetings, staff meetings and public hearings.
   - Be specific regarding your approach to complete the CEQA noticing requirements.

4. **The tasks should be presented as follows:**

   a. Project Initiation
   Include research, site visit, data collection, CEQA notices, scoping meetings, etc.;

   b. Administrative Draft IS
   Include mandatory CEQA sections, required and technical studies, peer review of applicant-prepared technical studies, number of revisions, meetings and coordination with County Staff;

   c. Public Review Draft
   Include document preparation, CEQA notice, and coordination with County Staff;

d. Final IS
Include document preparation, Response to Comments, CEQA notice, meetings, coordination with County Staff and attendance at Planning Commission and Board of Supervisors hearings;

e. Mitigation, Monitoring and Reporting Program
Include the preparation per CEQA identification of all mitigation measures, identification of all responsible parties, timing and enforcement;

f. CEQA Findings and Notice of Determination
Include the preparation per CEQA requirements,

g. Assumptions
Please provide a specific section for assumptions. Include your assumptions regarding travel time, mileage, public noticing, or anything else that needs clarification; and

h. Meetings
The number of meetings and hearings that are included in your proposal should be detailed under each task.

5. Proposed Schedule

Provide the number of weeks for each task in tabular form from project initiation to public hearings, Planning Commission, and Board of Supervisors.

6. Cost Estimate/Milestones

- Provide a discussion of the proposed cost and any optional costs.
- Include a spread sheet that details your personnel, any subcontractors to be used, their estimated hours, and associated costs per task (can be attached as an appendix).
- A table of project milestones should be included in the Cost Estimate discussion.

7. Consultant Selection Criteria

a) Understanding of the project: the proposer should demonstrate understanding of key elements of the project and, accordingly, provide the names of personnel and their expertise.

b) Approach to the project: The selection process will evaluate the extent to which the proposer has recognized and identified special circumstances on the project and whether the proposer has provided logical approach to tasks and issues of the project.

c) Professional qualifications necessary for satisfactory performance: The project manager and key team members should be qualified to perform the work categories on the project; and the proposer's knowledge of standards and procedures will be examined.

d) Specialized experience and technical competence in the type of work required: The proposer should provide information about comparable projects they have been involved with and/or successfully accomplished; past performance on contracts with government agencies and private industry will be considered together with past performance evaluations; and the capacity to accomplish the work in the required time will also be evaluated.

IV. **It is requested that you disclose any conflict** or potential conflict that you may have if you are submitting a proposal. The conflict by the County envisions, at the very minimum, current/ongoing or previous contracts (within the past year) with the applicant(s); this also includes current technical studies that either are or have been prepared for the applicant(s) within the last year.

V. **Not providing the extent of information (including hourly rate and total estimated hours per task) may negatively impact the evaluation of your proposal.**

If you are interested in submitting a proposal, please submit it to the Director at Imperial County Planning & Development Services Department, 801 Main Street, El Centro, CA, 92243, **no later than March 28, 2025 at 5:00 p.m.** This must be postmarked on or before this date and time.

Please note that it is **not necessary to present us with voluminous references or individualized background data** on persons or personnel within your organization. We may require this at a later date. We look forward to receiving your RFP submittal.

Please submit a total of 5 hard copies along with a digital copy provided on a thumb drive.

Should you have any questions or comments, please contact the assigned Planner for this project, Rocio Yee, at (442) 265-1736, extension 1750, or via-email at rocioyee@co.imperial.ca.us.

Sincerely,

By: _____
Rocio Yee
Planner II

Jim Minnick, Director
Planning & Development Services Department

Attachments: Border BESS Project Application Package

cc: Jurg Heuberger jurgheuberger@gmail.com
Jim Minnick, Director of Planning and Development Services
Michael Abraham, AICP, Asst. Director of Planning & Development Services\
Diana Robinson, Planning Division Manager
Project File: GPA25-0001/ZC25-0001/CUP24-0027/IS24-0040
APN:059-290-010-000
RY\att\S:\AllUsers\APN\059\290\010\GPA25-0001_ZC25-0001_CUP24-0027_IS24-0040\RFP\Border_BESS_RFP.docx

CONDITIONAL USE PERMIT

I.C. PLANNING & DEVELOPMENT SERVICES DEPT.
801 Main Street, El Centro, CA 92243 (760) 482-4236

- APPLICANT MUST COMPLETE ALL NUMBERED (black) SPACES – Please type or print -

1.	PROPERTY OWNER'S NAME Apex EnergySolutions	EMAIL ADDRESS c/o jurgheuberger@gmail.com	
2.	MAILING ADDRESS (Street / P O Box, City, State) 604 Sutter St, Suite 250, Folsom, Ca	ZIP CODE 95630	PHONE NUMBER 760-996-0313
3.	APPLICANT'S NAME Same	EMAIL ADDRESS c/o jurgheuberger@gmail.com	
4.	MAILING ADDRESS (Street / P O Box, City, State) ----------	ZIP CODE ----------	PHONE NUMBER ----------
4.	ENGINEER'S NAME CA. LICENSE NO. NA	EMAIL ADDRESS NA	
5.	MAILING ADDRESS (Street / P O Box, City, State) NA	ZIP CODE NA	PHONE NUMBER NA

6.	ASSESSOR'S PARCEL NO. 059-290-010	SIZE OF PROPERTY (in acres or square foot) approx. 81 acres	ZONING (existing) A-3
7.	PROPERTY (site) ADDRESS pemding by planning dept.		
8.	GENERAL LOCATION (i.e. city, town, cross street) south of the All American Canal, west of Drop 4		
9.	LEGAL DESCRIPTION see title report		

PLEASE PROVIDE CLEAR & CONCISE INFORMATION (ATTACH SEPARATE SHEET IF NEEDED)

10.	DESCRIBE PROPOSED USE OF PROPERTY (list and describe in detail) the project is to develop a 75 MW Battery Storage site	
11.	DESCRIBE CURRENT USE OF PROPERTY vacant	
12.	DESCRIBE PROPOSED SEWER SYSTEM none required	
13.	DESCRIBE PROPOSED WATER SYSTEM none required	
14.	DESCRIBE PROPOSED FIRE PROTECTION SYSTEM per county standards	
15.	IS PROPOSED USE A BUSINESS? ☒ Yes ☐ No	IF YES, HOW MANY EMPLOYEES WILL BE AT THIS SITE? 0

I / WE THE LEGAL OWNER (S) OF THE ABOVE PROPERTY CERTIFY THAT THE INFORMATION SHOWN OR STATED HEREIN IS TRUE AND CORRECT.

Ziad Alaywan — Print Name
Oct. 28, 2024 (NOV 15) — Date
Signature

Print Name — Date
Signature

REQUIRED SUPPORT DOCUMENTS

A. SITE PLAN
B. FEE
C. OTHER
D. OTHER

APPLICATION RECEIVED BY:		DATE		REVIEW / APPROVAL BY OTHER DEPT'S required.
APPLICATION DEEMED COMPLETE BY:		DATE		☐ P. W.
APPLICATION REJECTED BY:		DATE		☐ E. H. S.
TENTATIVE HEARING BY:		DATE		☐ A. P. C. D.
FINAL ACTION: ☐ APPROVED ☐ DENIED		DATE		☐ O. E. S. ☐ ☐

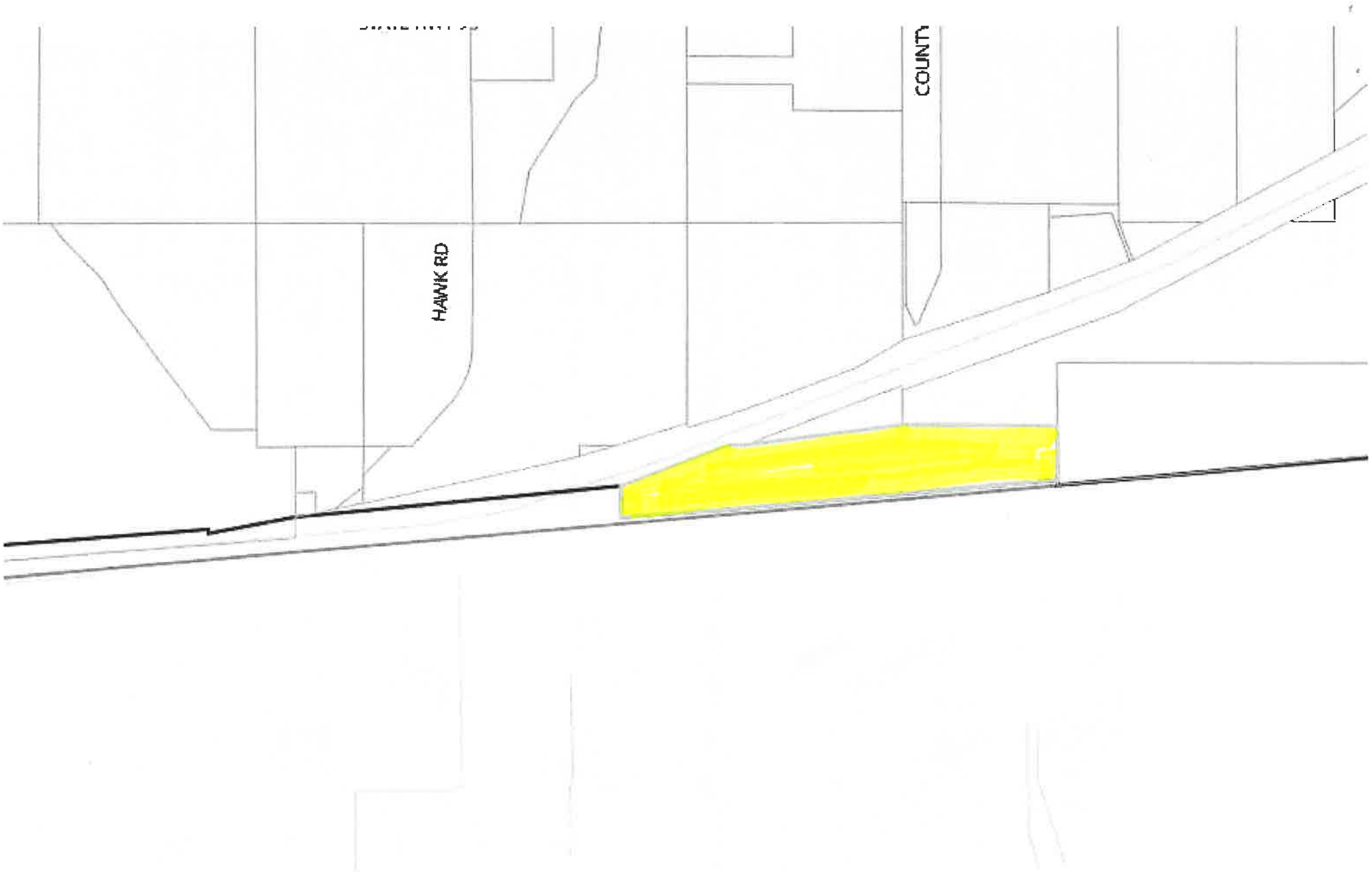
CUP #
24-0007
(S24-0040)

Project Description:

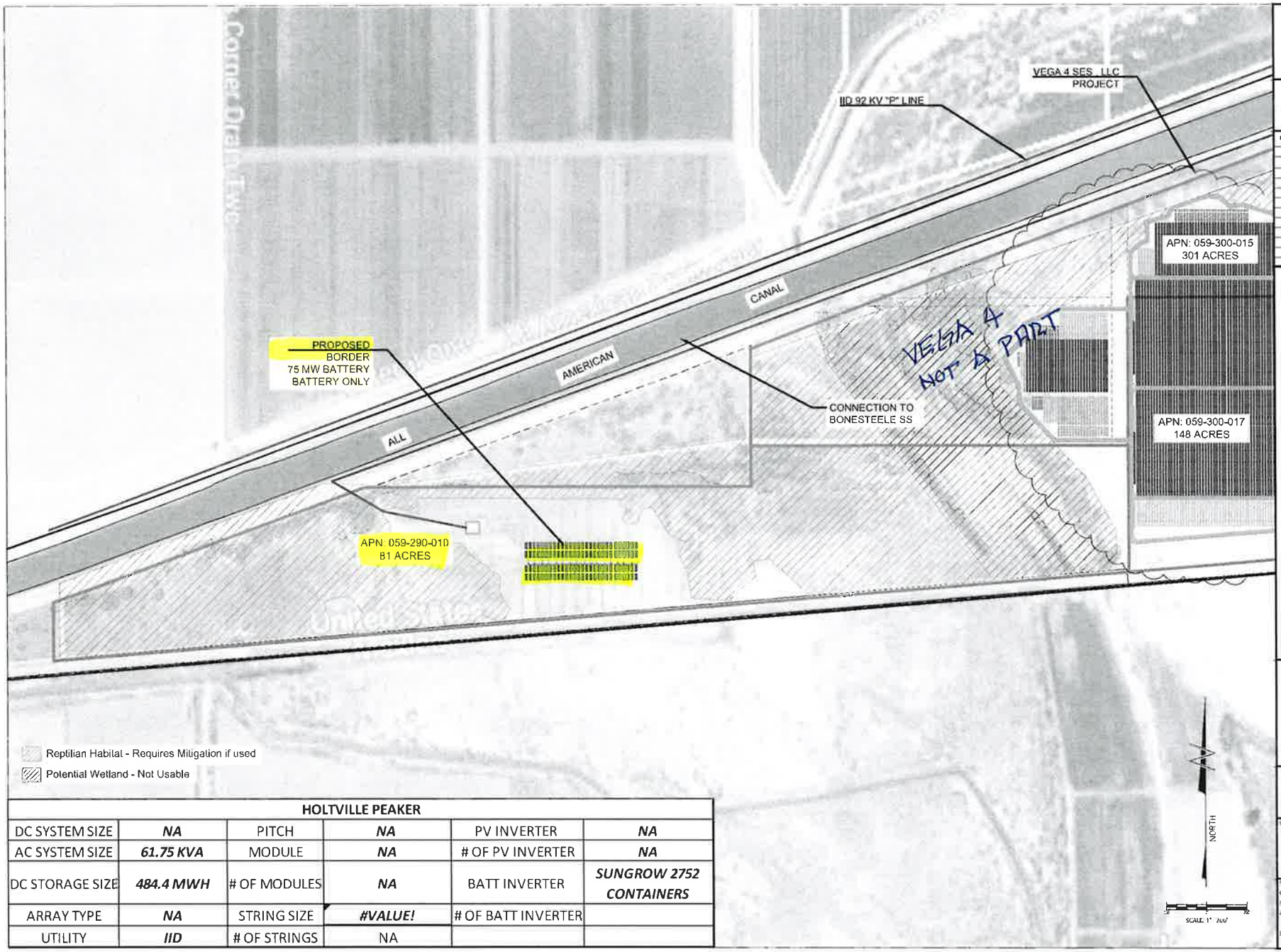
Project Name:	Border Bess
Project proponent:	Apex Energy Solutions LLC
Project Location:	APN 059-290-010
Legal Description:	See attached Preliminary Title Report (Lot 2, 3 , 4 & 7, Sec. 15 & Por. Lot 3 sec 16, T17S-R16 E, being approx. 80.92 AC)
Project Area:	approximately 80.92 acres
Access:	Access to this property is via the "Border Road" that fronts along the International Boundary. The Border Road is a road that is maintained and operated by the Border Patrol. A ROW was obtained from the BLM for the adjacent Vega 4 project in 2024.
The Project:	The proposed project is a Battery Energy System of approximately 75 MW. Power will be purchased from the Grid and sold back to the Grid as demand demonstrates a need. This project ties to the IID at the Bonesteel Substation located north of the All-American Canal. A Gentie line will be constructed from the project site, along the south side of the All-American Canal and then cross the canal at the same location where the existing Vega 4 project crosses the canal. The Gentie line will be located at the toe of the All-American Canal bank on land controlled by the Bureau of Reclamation. An application for an easement has been filed with the Bureau of Reclamation. The project is designed in such a way that it has the potential for also delivering power to Mexico, should such an arrangement be executed at some future date. However before any line could cross the international boundary a Presidential Permit would have to be obtained from the US Federal Government and the Mexican Government. The battery system will be a Tesla Megapack or equal system. It will not be within an enclosed building, rather will be via the modular container type system. Fire protection systems will be installed per Imperial County Fire Dept. standards, which will at a minimum include on site water storage either by tanks or pond. There will be no employees on site during operation as this site is remotely controlled. The only time any employee will be on site will be for routine maintenance. The site will also have a video security system.

The entire site will be fenced with an 8 Ft. Chain Link fence with barbed wire on top. The site will retain additional setback from the Border Road per prior agreement with the Border Patrol.

Default Title



1" = 1610 ft	Sub Title	11/19/2024	



HOLTVILLE PEAKER					
DC SYSTEM SIZE	***NA***	PITCH	***NA***	PV INVERTER	***NA***
AC SYSTEM SIZE	***61.75 KVA***	MODULE	***NA***	# OF PV INVERTER	***NA***
DC STORAGE SIZE	***484.4 MWH***	# OF MODULES	***NA***	BATT INVERTER	***SUNGROW 2752 CONTAINERS***
ARRAY TYPE	***NA***	STRING SIZE	***#VALUE!***	# OF BATT INVERTER	
UTILITY	***IID***	# OF STRINGS	NA		

BORDER PROJECT

CONFIDENTIAL DOCUMENTS

THE INFORMATION CONTAINED IN THIS DRAWING IS STRICTLY CONFIDENTIAL AND IS SUPPLIED WITH THE UNDERSTANDING THAT IT WILL NOT BE DISCLOSED TO THIRD PARTIES WITHOUT THE PRIOR WRITTEN CONSENT OF ZGLOBAL INC

REV.	BY	DESCRIPTION	DATE	APVD BY
0	MP	PRELIMINARY	11/1/23	MP
1	MP	PRELIMINARY	12/14/23	MP
2	MP	PRELIMINARY	12/15/23	MP

1 Inch
Scale to Confirm 24"x36" Plot

ZGLOBAL
604 SUTTER ST, STE 250
FOLSOM, CA 95630
Phone : 916.985.9461
Fax: 916.985.9467

"THESE DRAWINGS AND SPECIFICATIONS HAVE BEEN PREPARED BY ZGLOBAL INC. FOR THEIR EXCLUSIVE USE IN ACCORD WITH SEC. 6738 OF THE 2013 PROFESSIONAL ENGINEERS ACT OF THE STATE OF CALIFORNIA"

SHEET TITLE:
SITE PLAN

DRAWN BY:
CHECKED:
SCALE: AS SHOWN
APVD NO:
DATE:

DRAWING NO.
C-000

REVISION

OWNER'S AFFIDAVIT

In the event the applicant is not owner, the following shall be signed and acknowledge by the owner.

Permission is hereby granted to _____ to apply for this
(Lessee, Tenant, Contractor-Specify)

_____ on the described property located at address
(State permit type clearly i.e. building, land used)

_____ Further identified by Assessor's Parcel Number

(APN) 059r 290 - 010 _____ is hereby granted.

_____
OWNER (SIGNATURE)

_____
OWNER (TYPED OR PRINT)

604 Sutter st, suite 250, Folsom, CA 95630
OWNER'S ADDRESS

10/31/2024
DATE

STATE OF CALIFORNIA
COUNTY OF Imperial } S.S.

On 10/31/2024 before me, GLORIA ISORA NOTARY PUBLIC, personally appeared ZIAD ALATWAN, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(~~ies~~), and that by his/~~her/their~~ signature(~~s~~) on the instrument the person(~~s~~), or the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

SEE ATTACHED NOTARY CERTIFICATE

Signature _____

ATTENTION NOTARY: Although the information requested below is OPTIONAL, it could prevent fraudulent attachment of this certificate to unauthorized document.

Title or Type of Document OWNER'S AFFIDAVIT
Number of Pages 1 Date of Document 10/31/2024
Signer(s) Other Than Named Above —

IMPERIAL COUNTY PLANNING & DEVELOPMENT SERVICES
GENERAL INDEMNIFICATION AGREEMENT

As part of this application, applicant and real party in interest, if different, agree to defend, indemnify, hold harmless, and release the County of Imperial ("County"), its agents, officers, attorneys, and employees (including consultants) from any claim, action, or proceeding brought against any of them, the purpose of which is to attack, set aside, void, or annul the approval of this application or adoption of the environmental document which accompanies it. This indemnification obligation shall include, but not be limited to, damages, costs, expenses, attorney fees, or expert witness fees that may be asserted by any person or entity, including the applicant, arising out of or in connection with the approval of this application, whether or not there is concurrent negligence on the part of the County, its agents, officers, attorneys, or employees (including consultants).

If any claim, action, or proceeding is brought against the County, its agents, officers, attorneys, or employees (including consultants), to attack, set aside, void, or annul the approval of the application or adoption of the environmental document which accompanies it, then the following procedures shall apply:

1. The Planning Director shall promptly notify the County Board of Supervisors of any claim, action or proceeding brought by an applicant challenging the County's action. The County, its agents, attorneys and employees (including consultants) shall fully cooperate in the defense of that action.

2. The County shall have the final determination on how to best defend the case and will consult with applicant regularly regarding status and the plan for defense. The County will also consult and discuss with applicant the counsel to be used by County to defend it, either with in-house counsel, or by retaining outside counsel provided that the County shall have the final decision on the counsel retained to defend it. Applicant shall be fully responsible for all costs incurred. Applicant shell be entitled to provide his or her own counsel to defend the case, and said independent counsel shall work with County Counsel to provide a joint defense.

Executed at EL CENTRO California on NOV 20, 2024

APPLICANT

Name: APEX ENERGY SOLUTIONS LLC

By ZIAD ALAYOUBI by

Title PRESIDENT

Mailing Address:

604 SUTTER ST # 250
FOLSOM, CA. 95630

REAL PARTY IN INTEREST
(If different from Applicant)

Name _____

By _____

Title _____

Mailing Address:

_____

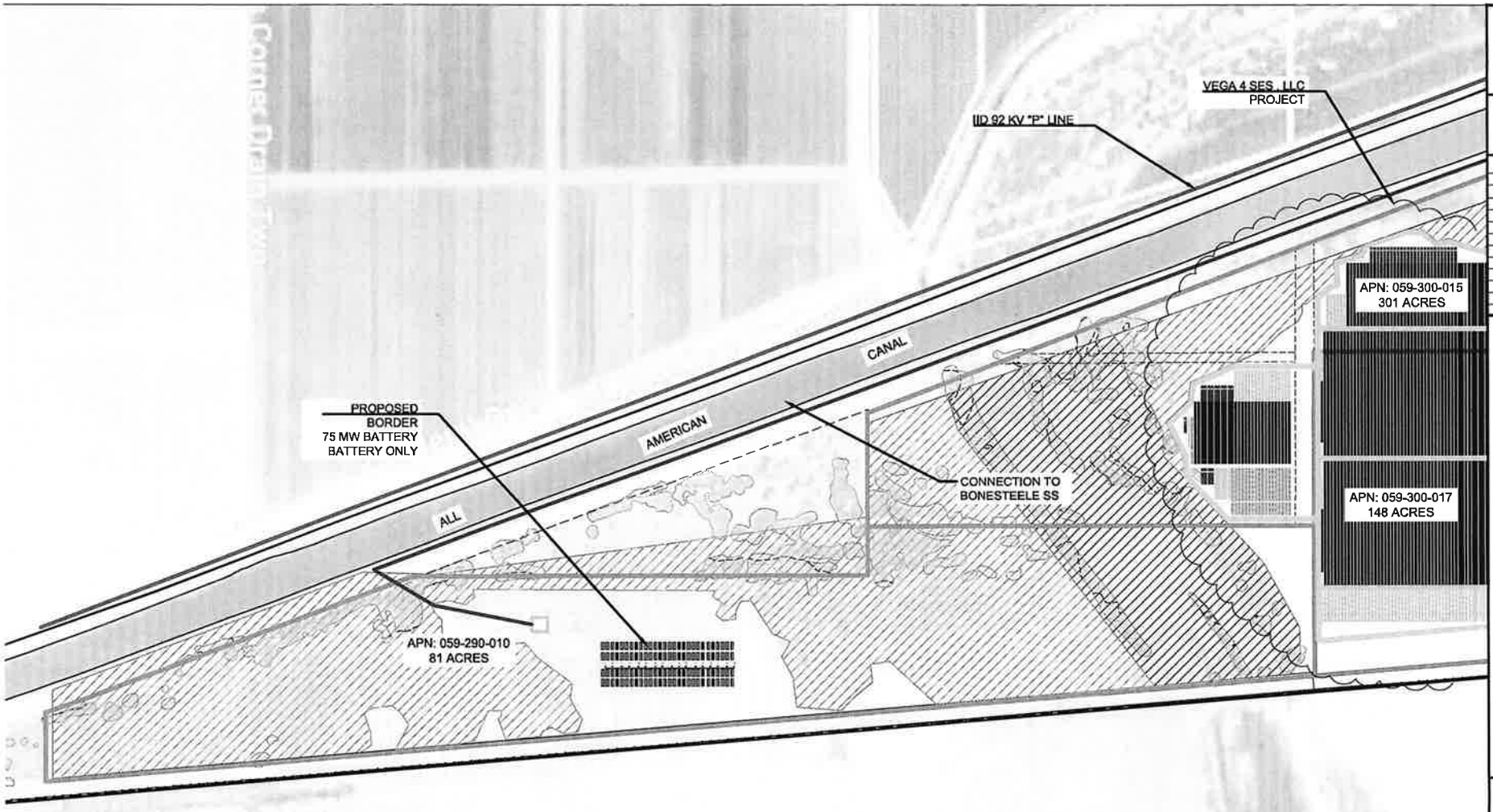
_____

_____

ACCEPTED/RECEIVED BY _____ Date _____

PROJECT ID NO _____ APN ___-___-___

S:\FORMS _ LISTS\General Indemnification FORM 041516.doc



Reptilian Habitat - Requires Mitigation if used

Potential Wetland - Not Usable

HOLTVILLE PEAKER					
DC SYSTEM SIZE	NA	PITCH	NA	PV INVERTER	NA
AC SYSTEM SIZE	61.75 kVA	MODULE	NA	# OF PV INVERTER	NA
C STORAGE SIZE	484.4 kWh	# OF MODULES	NA	BATT INVERTER	SUNGROW 275 CONTAINER
ARRAY TYPE	NA	STRING SIZE	#VALUE	# OF BATT INVERTER	
TILT	0	# STRINGS	NA		

BORDER PROJECT

CONFIDENTIAL DOCUMENTS

THE INFORMATION EMBODIED ON THIS DRAWING IS STRICTLY CONFIDENTIAL AND IS SUPPLIED WITH THE UNDERSTANDING THAT IT WILL BE HELD CONFIDENTIAL AN NOT DISCLOSED TO THIRD PARTIES WITHOUT THE PRIOR WRITTEN CONSENT OF ZGLOBAL, INC.

REV.	BY	DESCRIPTION	DATE
0	HP	PRELIMINARY	11/1/21
1	HP	PRELIMINARY	03/13/23
2	HP	PRELIMINARY	06/16/23

1 Inch
Scale to Confirm 24"x36" Plot

ZGLOBAL
Power Engineering & Energy Solutions
604 SUTTER ST, STE 250
FOLSOM, CA 95630
Phone : 916.985.9461
Fax: 916.985.9467

SHEET TITLE

SITE PLAN

NORTH

Proposed
SCALE: 1" = 10'

CALIFORNIA ALL- PURPOSE CERTIFICATE OF ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California }

County of SAN DIEGO }

On 10/31/2024 before me, GLOIRE BORA, NOTARY PUBLIC,
(Here insert name and title of the officer)

personally appeared ZIAD ALAYWAN,
who proved to me on the basis of satisfactory evidence to be the person(~~s~~) whose name(~~s~~)(is)are subscribed to the within instrument and acknowledged to me that (he)/she/they executed the same in (his)/her/their authorized capacity(~~ies~~), and that by (his)/her/their signature(~~s~~) on the instrument the person(~~s~~), or the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Notary Public Signature (Notary Public Seal)

GLOIRE BORA
COMM. # 2414435
NOTARY PUBLIC - CALIFORNIA
SAN DIEGO COUNTY
COMM. EXPIRES SEPT. 1, 2026

ADDITIONAL OPTIONAL INFORMATION

DESCRIPTION OF THE ATTACHED DOCUMENT

OWNER'S AFFIDAVIT
(Title or description of attached document)

(Title or description of attached document continued)

Number of Pages 1 Document Date 10/31/24

CAPACITY CLAIMED BY THE SIGNER

- ☑ Individual (s)
- ☐ Corporate Officer
  (Title)
- ☐ Partner(s)
- ☐ Attorney-in-Fact
- ☐ Trustee(s)
- ☐ Other

2015 Version www.NotaryClasses.com 800-873-9865

INSTRUCTIONS FOR COMPLETING THIS FORM

This form complies with current California statutes regarding notary wording and, if needed, should be completed and attached to the document. Acknowledgments from other states may be completed for documents being sent to that state so long as the wording does not require the California notary to violate California notary law.

- State and County information must be the State and County where the document signer(s) personally appeared before the notary public for acknowledgment.
- Date of notarization must be the date that the signer(s) personally appeared which must also be the same date the acknowledgment is completed.
- The notary public must print his or her name as it appears within his or her commission followed by a comma and then your title (notary public).
- Print the name(s) of document signer(s) who personally appear at the time of notarization.
- Indicate the correct singular or plural forms by crossing off incorrect forms (i.e. ~~he~~/she/~~they,~~ is /~~are~~) or circling the correct forms. Failure to correctly indicate this information may lead to rejection of document recording.
- The notary seal impression must be clear and photographically reproducible. Impression must not cover text or lines. If seal impression smudges, re-seal if a sufficient area permits, otherwise complete a different acknowledgment form.
- Signature of the notary public must match the signature on file with the office of the county clerk.
  - Additional information is not required but could help to ensure this acknowledgment is not misused or attached to a different document.
  - Indicate title or type of attached document, number of pages and date.
  - Indicate the capacity claimed by the signer. If the claimed capacity is a corporate officer, indicate the title (i.e. CEO, CFO, Secretary).
- Securely attach this document to the signed document with a staple.

CHANGE OF ZONE

I.C. PLANNING & DEVELOPMENT SERVICES DEPT.
801 Main Street, El Centro, CA 92243 (442) 265-1736

- APPLICANT MUST COMPLETE ALL NUMBERED (black & blue) SPACES – Please type or print -

1. PROPERTY OWNER'S NAME Apex Energy Solutions LLC		EMAIL ADDRESS c/o jurgheuberger@gmail.com	
2. MAILING ADDRESS (Street / P O Box, City, State) 604 Sutter St., suite 250, Folsom, Ca.		ZIP CODE 95630	PHONE NUMBER c/o 760-996-0313
3. ENGINEER'S NAME N A	CA. LICENSE NO.	EMAIL ADDRESS N A	
4. MAILING ADDRESS (Street / P O Box, City, State) N A		ZIP CODE N A	PHONE NUMBER N A

5. ASSESSOR'S PARCEL NO. 059-290-010	ZONING (existing) A-3	ZONING (proposed) M-1 (conditional) M1 RE
6. PROPERTY (site) ADDRESS pending		SIZE OF PROPERTY (in acres or square foot) 81 acres

7. GENERAL LOCATION (i.e. city, town, cross street)
south of the all american canal and norht of the international border west of drop 4

8. LEGAL DESCRIPTION
see PTR previously submitted with the CUP application

8. DESCRIBE CURRENT USE ON / OF PROPERTY (list and describe in detail)
vacant and unfarmed for over 10 years

9. PLEASE STATE REASON FOR PROPOSED USE (be specific)
develop a BESS tohelp balance the grid for solar and other renewable projects.

10. DESCRIBE SURROUNDING PROPERTY USES
Solar VEGA 4 to the east, Mexico to the south, the all american canal to the north.

I / WE THE LEGAL OWNER (S) OF THE ABOVE PROPERTY CERTIFY THAT THE INFORMATION SHOWN OR STATED HEREIN IS TRUE AND CORRECT.

Ziad Alaywan — Print Name

1 10-2025 (revision) — Date

Signature

REQUIRED SUPPORT DOCUMENTS

A. SITE PLAN
B. PRELIMINARY TITLE REPORT (6 months or newer)
C. FEE
D. OTHER

APPLICATION RECEIVED BY:		DATE	
APPLICATION DEEMED COMPLETE BY:		DATE	
APPLICATION REJECTED BY:		DATE	
TENTATIVE HEARING BY:		DATE	
FINAL ACTION: ☐ APPROVED ☐ DENIED		DATE	

REVIEW / APPROVAL BY OTHER DEPT'S required
☐ P W
☐ E H S
☐ A P C D
☐ O E S
☐ _____
☐ _____

ZC # 25-0001

Apex Energy Solutions, LLC
750 W, Main St.
El Centro, Ca. 92243

Dec. 10, 2024

Imperial County Planning/Development Service Dept.
801 W. Main St.
El Centro, Ca. 92243

RE: Request to amend General Plan for the Border Application

ATTN: Jim Minnick, Director

Mr. Minnick:

As requested it is our understanding that we are required to file a General Plan Amendment in order for us to file the applications for a Change of Zone and concurrent Conditional Use Permit(s) for the BORDER Bess project.

Please consider this letter as our request to amend the County's General Plan on the following APN (059-290-010) to have this parcel included in the Renewable Energy Overlay Zone.

Concurrent with this request we have/are filing the applications as follows:

Change of Zone

CUP for Solar / BESS energy generation project

If you have any questions, please feel free to contact Jurg Heuberger at 7670-996-0313 or by email at jurgheuberger@gmail.com. Also Mr. Heuberger represents us on this project so please direct all correspondence to him.

Thank you kindly

Jesse Montano
VP ZGlobal Inc.

Cc: Ziad Alaywan
Jurg Heuberger
Ramon Gonzalez

Vega SES 4 Solar Energy Storage Project

TRAFFIC IMPACT STUDY
IMPERIAL COUNTY, CALIFORNIA

Prepared By:

December, 2021

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APPENDICES

1.0 Introduction

This traffic impact analysis (TIA) has been prepared to identify the potential traffic impacts associated with developing the Vega SES 4 Solar Energy Storage (Projects) in Imperial County. The study was completed following the guidelines described in the County of Imperial Department of Public Works *Traffic Study and Report Policy* dated March 12, 2007, revised June 29, 2007 and approved by the Board of Supervisors of the County of Imperial on August 7, 2007 ("Traffic Study and Report Policy").

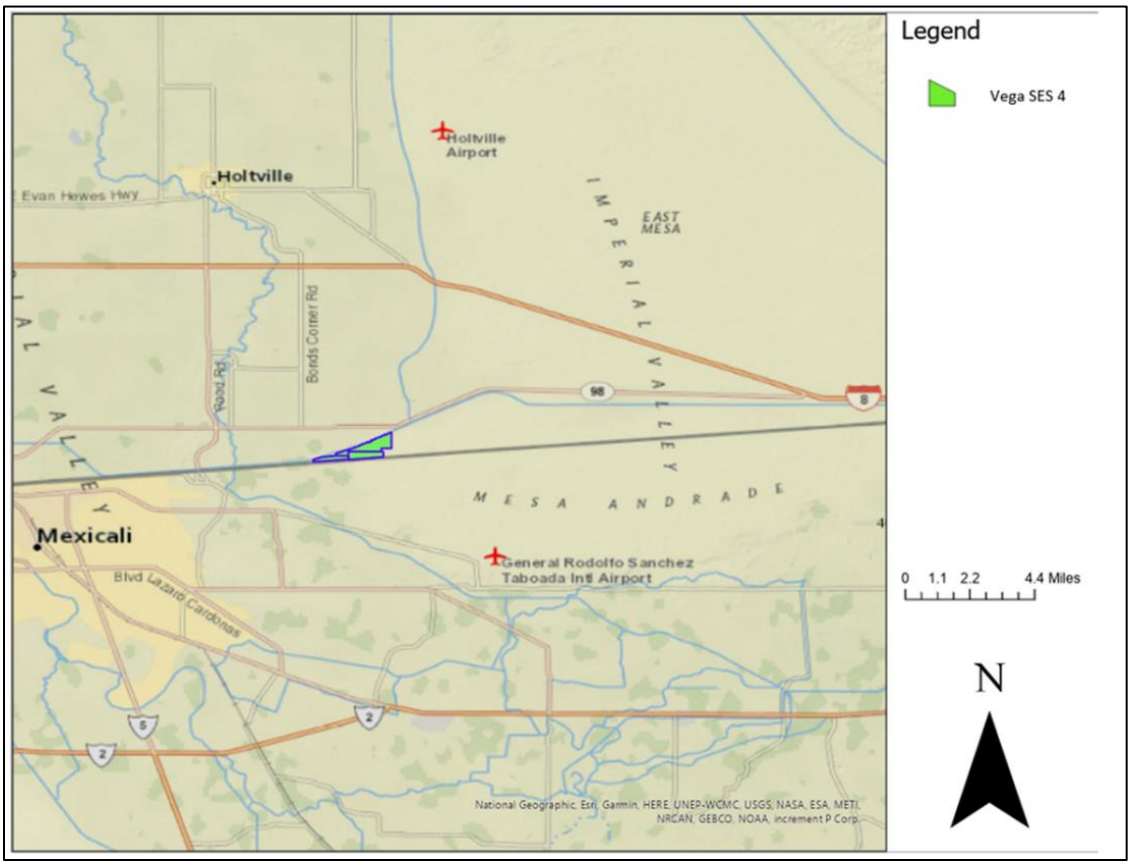
KOA has coordinated with the County's Engineering Department on the scope of the traffic analysis, including the study area and future year analysis assumptions. As necessary, if required, projects will be identified to offset or reduce significant impacts. Based on discussions with City staff, current and future traffic conditions at select intersections in close proximity to the proposed project have been evaluated for the purposes of this TIA.

This report describes the existing roadway network in the vicinity of the project site. It includes a review of the existing and proposed traffic activities for weekday peak AM and PM periods and daily traffic conditions.

Project Location

The project location is shown in Figure 1.1.

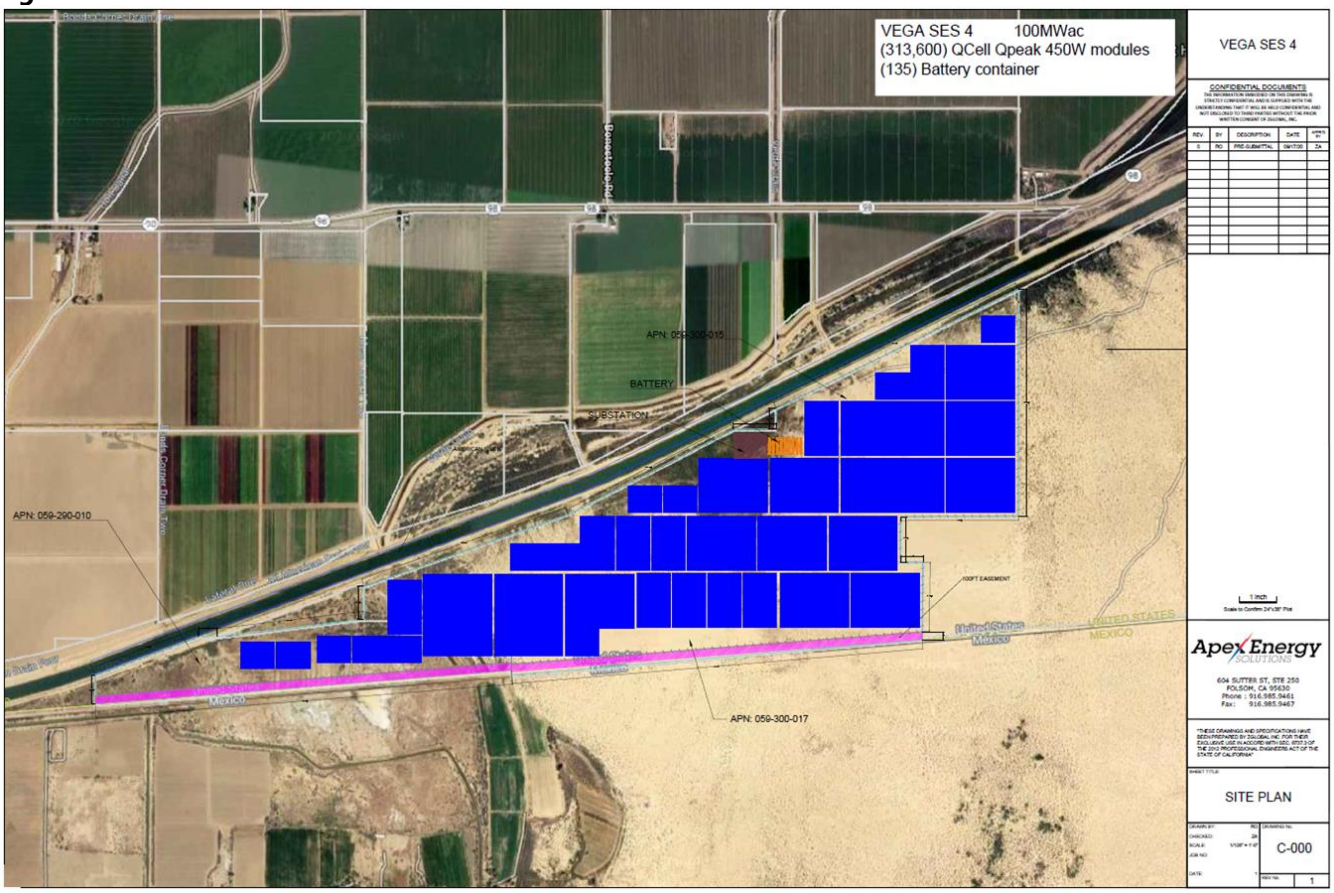
Figure 1.1 Study Area



Project Description

Vega SES 4 LLC. is proposing to develop the Vega SES 4 Solar Energy Storage Project (Projects). The project is a 100-megawatt alternating current (MWAC) solar photovoltaic (PV) energy generation project with an integrated 100 MW battery storage project on approximately 531.53 acres of land in the County of Imperial, California. The Project would be located between the California/Mexico border and the All-American Canal, on the California side. It is approximately 10 miles east of Calexico. The construction of the site is estimated to take 12-18 months and would begin in 2022. The project opening is anticipated to be 2023. The project site plan is shown in Figure 1.2.

Figure 1.2 Site Plan



Construction Activities

The construction of the site to include site preparation and construction is estimated to take 12-18 months and would begin in 2022. The number of on–site construction workers for the solar project facilities is not expected to exceed 150 workers at any one time. The number of on-site construction workers for the battery storage facility and the substation is not expected to exceed 100 workers at any one time.

Construction of the Projects will include the following activities:

- Site preparation
- Grading and earthwork
- Concrete foundations
- Structural steel work
- Electrical/instrumentation work
- Collector line installation
- Architecture and landscaping

2.0 Capacity Analysis Methodologies

This section presents a brief overview of traffic analysis methodologies and concepts used in this study. Street system operating conditions are typically described in terms of "level of service (LOS)" to compare without project and with project alternatives. LOS is a report-card scale used to indicate the quality of traffic flow on roadway segments and at intersections. The levels of service range from Level A (free flow, little congestion) to Level F (forced flow, higher congestion).

Study Area Criteria

The study area is determined based on the County of Imperial Department of Public Works *Traffic Study and Report Policy* dated March 12, 2007, revised June 29, 2007 and approved by the Board of Supervisors of the County of Imperial on August 7, 2007 ("Traffic Study and Report Policy"). "Any project that has the potential to degrade an existing road section, an existing signalized intersection, or an existing unsignalized intersection to below the existing level of service or to cause it to be lower than a level of service (LOS) "C" during any peak hour, using the HCM Methods of analysis on any individual, existing traffic movement." Traffic Study and Report Policy, 4-5.

The study area for this project includes those locations that likely will be affected by this project. The project study area was determined based on similar solar projects. The specific study area consists of the following intersections:

1. Site driveway and SR-98
2. Bonds Corner Road and SR-98
3. SR-98 and SR-7
4. SR-7 and Heber Road
5. SR-7 and south ramp
6. SR-7 and north ramp

The study area also includes the following study segments:

1. SR-98 from the project to the east
2. SR-98 from the project to Bonds Corner Road
3. SR-98 from Bonds Corner Road to SR-7
4. SR-7 from SR-98 to I-8
5. I-8 from SR-7 to SR-111

Scenario Criteria

The proposed project's traffic impacts were analyzed in three scenarios as listed below. The traffic analysis included intersections and roadway segments within Imperial County and Caltrans District 11 in the following scenarios to determine the potential impacts.

- Existing Year (2020) Conditions
- Construction Year (2023) Baseline Conditions
- Construction Year (2023) + Project Construction Conditions

Peak Hour Intersection Level of Service Standards

Traffic conditions on most roadway facilities are analyzed using the principles of the specific analysis methods contained in the latest version (2010) of the *Highway Capacity Manual* (*HCM*), a publication of the Transportation Research Board, a research agency affiliated with the Federal Government. Chapter 18 of the *HCM 2010* is devoted to analysis of signalized intersections. The methodology in the *HCM 2010* for signalized intersections is based upon measurements or forecasts of control delay for traffic utilizing all approaches to the intersection.

Unsignalized intersections, including two-way and all-way stop controlled intersections were analyzed using the 2010 Highway Capacity Manual unsignalized intersection analysis methodology. The LOS for a two-way stop controlled (TWSC) intersection is determined by the computed or measured control delay and is defined for each minor movement. The analysis of peak hour intersection conditions was conducted using the Synchro 10 software program developed by Trafficware. Results are displayed in terms of control delay (seconds per vehicle) and an equivalent LOS as shown in Table 2.1.

Table 2.1: HCM Level of Service Definitions for Intersections

LOS	Signalized Intersection Delay (Seconds per Vehicle)	Unsignalized Intersection Average Stop Delay (Seconds)
A	<10	<10
B	>10 and <20	>10 and <15
C	>20 and <35	>15 and <25
D	>35 and <55	>25 and <35
E	>55 and <80	>35 and <50
F	>80	>50

Source: Highway Capacity Manual, 2010.

Roadway Segment Level of Service Standards

Roadway segment LOS standards and thresholds provide the basis for analysis of roadway segment performance. The analysis of roadway segment LOS is based on the functional classification of the roadway, the maximum capacity, roadway geometrics, and existing or forecast Average Daily Traffic (ADT) volumes.

The County of Imperial level of service analysis was performed by utilizing the *Circulation and Scenic Highways Element, January 2008*. The thresholds for each facility type are presented in Table 2.2.

Table 2.2 County of Imperial ADT Level of Service Volumes by Roadway Type

Road		Level of Service (LOS)				
Class	**X-Section**	**A**	**B**	**C**	**D**	**E**
Expressway	154/210	30,000	42,000	60,000	70,000	80,000
Prime Arterial	106/136	22,200	37,000	44,600	50,000	57,000
Minor Arterial	82/102	14,800	24,700	29,600	33,400	37,000
Major Collector	64/84	13,700	22,800	27,400	30,800	34,200
Minor (Local) Collector	40/70	1,900	4,100	7,100	10,900	16,200

* Levels of service are not applied to residential streets since their primary purpose is to serve abutting lots, not carry through traffic. Levels of service normally apply to roads carrying through traffic between major trip generators and attractors.
Source: *Imperial County Circulation and Scenic Highways Element 2008 and Imperial County Long Range Transportation Plan 2013 Update*

Freeway Segments

Freeway level of service analysis is based upon procedures developed by Caltrans. The procedure for calculating freeway level of service involves calculating a peak hour volume to capacity (V/C) ratio. Peak hour volumes are calculated from Average Daily Traffic (ADT) volumes by applying design hour ("K"), directional ("D") and truck ("T") factors. The base capacities for Interstate 8 freeway lanes determined from the Highway Capacity Manual as assumed to be 2,350 passenger-car per hour per main lane (pc/h/ln).

The resulting V/C ratio is then compared to acceptable ranges of V/C values corresponding to the various levels of service for each facility classification, as shown in Table 2.3. The corresponding level of service represents an approximation of freeway operating conditions in the peak direction of travel during the peak hour. Constant with Caltrans requirements, LOS D or better is used in this study as the threshold for acceptable freeway operations.

Table 2.3 CALTRANS Level of Service Facility Classification

CALTRANS FREEWAY SEGMENT LEVEL OF SERVICE DEFINITIONS

LOS	Maximum V/C	Congestion/Delay	Traffic Description
A	≤ 0.30	None	Free flow.
B	> 0.30 - 0.50	None	Free to stable flow, light to moderate volumes.
C	> 0.50 - 0.71	None to minimal	Stable flow, moderate volumes, freedom to maneuver noticeably restricted.
D	> 0.71 - 0.89	Minimal to substantial	Approaches unstable flow, heavy volumes, very limited freedom to maneuver.
E	> 0.89 - 1.00	Significant	Extremely unstable flow, maneuverability and psychological comfort extremely poor.
F	> 1.00	Considerable	Forced or breakdown flow. Delay measured in average travel speed (MPH). Signalized segments experience delays >60.0 seconds/vehicle.

Source: Caltrans Guide for the Preparation of Traffic Impact Studies, 2002.

Analysis of Significance

Imperial County

The significance criteria for traffic impacts are based on the Imperial County Planning & Development Services Department LOS standard as outlined in the "Circulation Element". The County's goal for an acceptable traffic service standard on an Average Daily Traffic (ADT) basis and during AM and PM peak periods for all County-Maintained Roads shall be LOS C for all street segment links and intersections.

- Strive to maintain LOS "C" or better on arterial and collector streets, at all intersections, and on principal arterials during the hour of highest volume during the AM hours and also during the PM hours. Imperial County has established LOS "C" as the general threshold for acceptable overall traffic operations for both signalized and un-signalized intersections.

- Accept LOS "D" after finding that there is no practical and feasible way to mitigate to LOS "C;" and the development causing the lower level of service provides a clear, overall public benefit.

- For segments that operate at LOS D or lower, an incremental increase in v /c of greater than 0.02 is considered to be a significant impact. For intersections that operate at LOS D or lower, an incremental increase in vehicle delay of 2.0 seconds or greater is considered to be a significant impact.

Caltrans

- For segments that operate at LOS D or lower, an incremental increase in v /c of greater than 0.02 is considered to be a significant impact. For intersections that operate at LOS D or lower, an incremental increase in vehicle delay of 2.0 seconds or greater is considered to be a significant impact.
- For freeway segments that operate at LOS D or lower, an incremental increase in v /c of greater than 0.01 is considered to be a significant impact.

3.0 Existing Conditions

This section documents the Existing Year Conditions in the study area. The Existing Year is taken to be 2020 for analysis purposes based on existing traffic counts taken in December, 2020 The discussion presented here is limited to segments and intersections in the project's vicinity.

Existing Roadways

Each of the key roadways, as well as associated study intersections within the study area, are discussed below.

Roadway Facilities

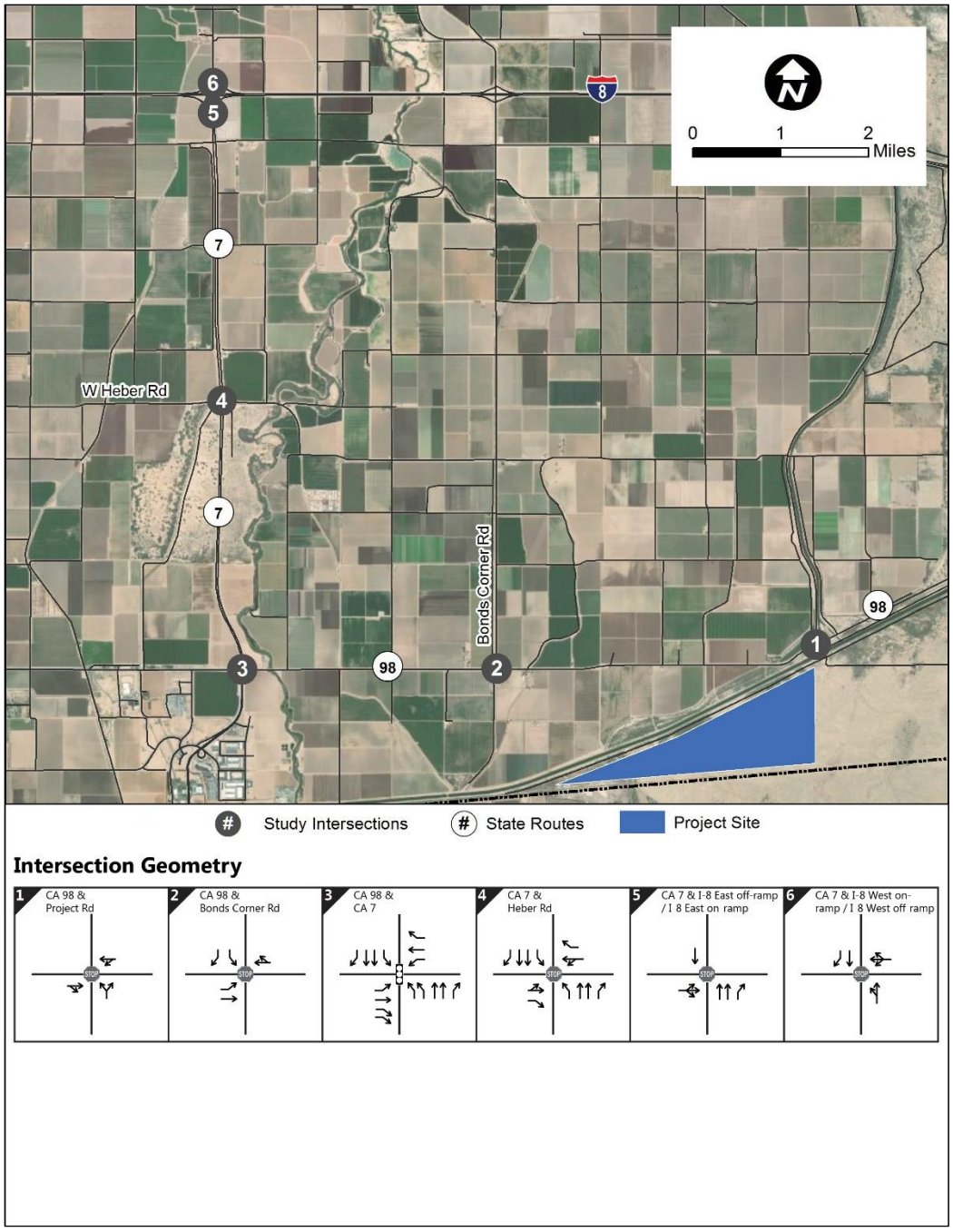
State Route 98 (SR-98) is a two-lane highway with no median and a posted speed limit of 65 mph.

State Route 7 (SR-7) is a four-lane highway with median and a posted speed limit of 65 mph between SR-98 and I-8.

Interstate 8 (I-8) is a four-lane divided freeway with two (2) lanes in each direction with a posted speed limit of 70 mph.

Figure 3.1 displays the existing intersection geometrics for study area intersections.

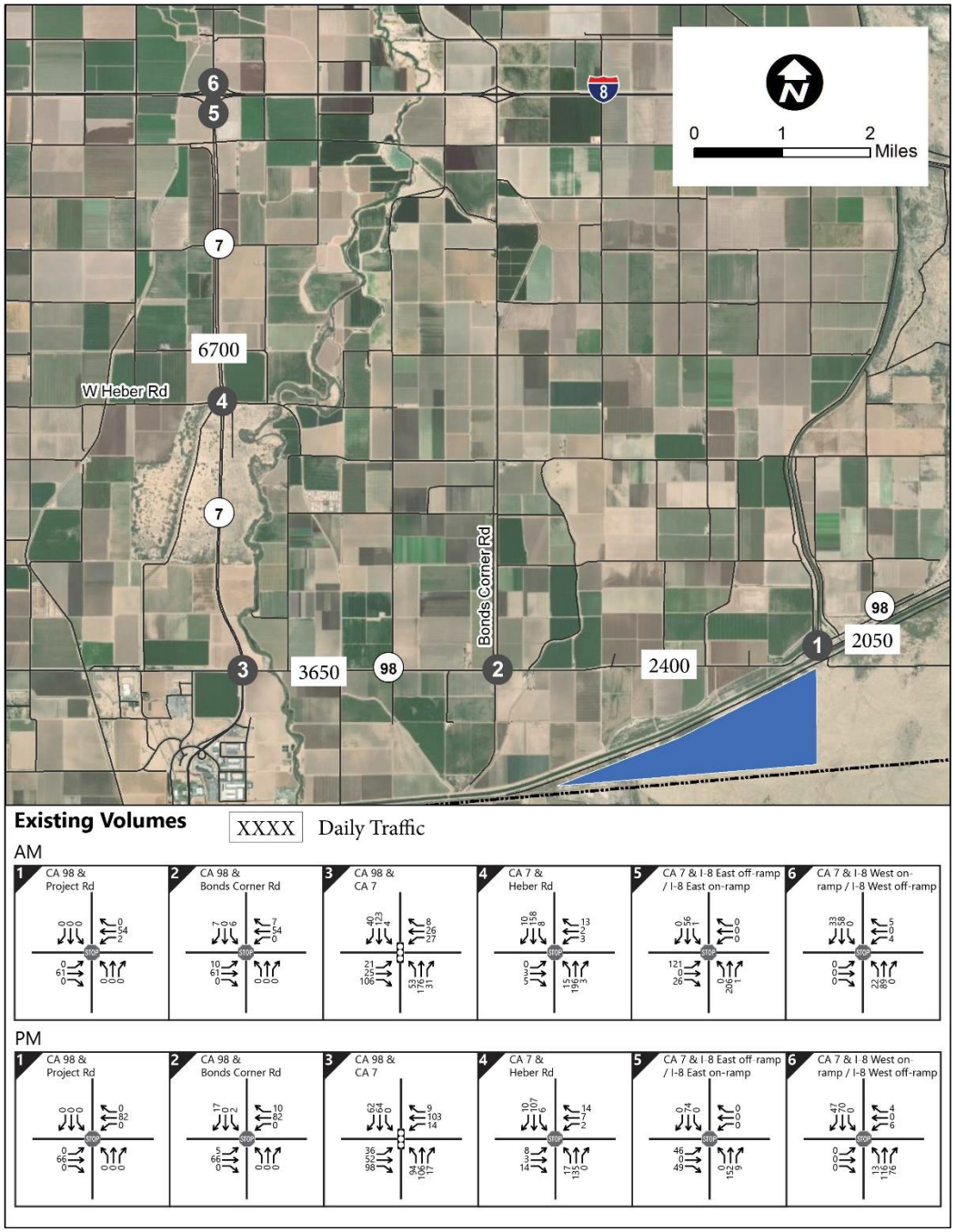
Figure 3.1. Intersection Geometrics



Traffic Volumes

Existing turning movement counts at the study intersections were conducted on Tuesday, December 8, 2020. The existing condition reflects those land uses that were built and occupied at the time of the traffic counts and represent a typical weekday commute period. Intersection turning movement counts are provided in Appendix A. Existing average daily traffic (ADT) segment counts were obtained from the Caltrans for the year 2019. The ADT and weekday a.m. and p.m. peak hour traffic volumes are shown on Figure 3.2.

Figure 3.2. Existing Volumes



Existing Year Conditions

This section documents the existing traffic conditions of study area segments and intersections.

Segments

Roadway segment analysis was conducted for the study area's specified segments. Using average daily traffic (ADT) counts, KOA was able to determine the existing level of service for the designated roadway segments. Table 3.1 below displays these levels of service.

Table 3.1 Existing Year Conditions Roadway Segment Analysis

Roadway Segment	From/ To	Lanes/ Class	LOS E Capacity	Existing		
				ADT	V/C	LOS
SR-98	Project to east	Minor Arterial 2 Lane	18,500	2,050	0.11	A
SR-98	Project to Bonds Corner	Minor Arterial 2Lane	18,500	2,400	0.13	A
SR 98	Bonds Corner to SR-7	Minor Arterial 2 Lane	18,500	3,650	0.20	A
SR-7	SR-98 to I-8	Principal Arterial 4 Lane	57,000	6,700	0.12	A

Intersections

An intersection LOS analysis was prepared for the existing condition and is summarized in Table 3.2 which indicates that there are two study area intersections. Detailed LOS worksheets are included in Appendix B.

Table 3.2: Existing Year Conditions Peak Hour Intersection Analysis

#	Intersection	Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Site Driveway/ SR-98	NB Stop	0	A	0	A
2	SR-98 / Bonds Corner	SB Stop	8.9	A	8.9	A
3	SR-98 / SR-7	Signal	8.6	A	8.7	A
4	SR-7 / Heber Road	EB/WB Stop	10.1	B	9.6	A
5	SR -7 / I-8 So. Ramps	EB Stop	10.3	B	9.5	A
6	SR-7 / I-8 North Ramps	WB Stop	9.3	A	9.9	A

Delay is in seconds/vehicle. LOS = Level of Service

Freeway Segment Analysis

Table 3.3 displays the freeway segment level of service analysis results under existing conditions.

Table 3.3 Existing Freeway Level of Service

Freeway	Segment	ADT (a)	Peak Direction	# of Lanes	Capacity (b)	D	K	HVF	PK Vol	V/C	LOS
I-8	SR-7 to SR-111	19,700	EB (AM)	2	4,700	11	57	23	1,519	0.32	B
			WB (PM)	2	4700	11	59	23	1,563	0.33	B

a. Traffic volumes provided by Caltrans (2019)
b. The capacity is calculated as 2,350 per hour/ per main lane
c. D = Directional split.| K = Peak hour %
d. HVF = Heavy vehicle %. These values were obtained from Caltrans peak hour volume data (2019)
e. PK Vol – highest hourly directional volume

4.0 Trip Generation/Trip Distribution

Project Trip Generation

The project trip generation consists of a construction phase and operations phase. Once constructed, the site will not require personnel to be present on-site and will not result in daily trip generation. For this reason, only the trip generation for the construction phase was analyzed.

The construction of the site is estimated to take 12-18 months and would begin in 2022. The number of on–site construction workers for the solar project facilities is not expected to exceed 150 workers at any one time. The number of on-site construction workers for the battery storage facility and the substation is not expected to exceed 100 workers at any one time. The trip generation was estimated if the construction phases were to overlap, so both are included. Delivery trucks are expected to follow the same routes as the construction workers. An estimated two trucks would arrive at the project site each day during the first few weeks of construction of the solar generating facility. Truck trips have been converted into passenger equivalent volumes (PCE) using a PCE factor of 2.5.

Work hours will be between the hours of 8:00 a.m. and 5:00 p.m. Monday through Saturday. The trips generated during the construction phase of construction are shown in Table 4.1.

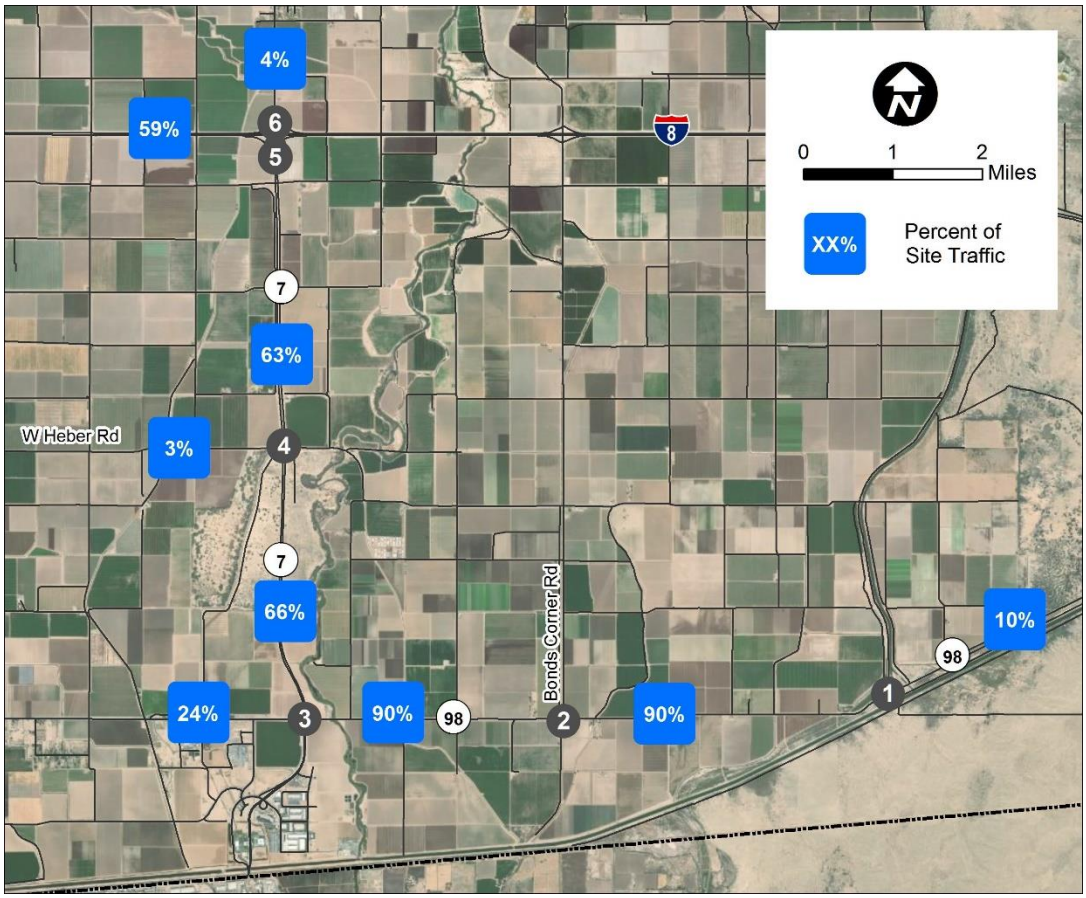
Table 4.1 Construction Trip Generation – Construction Phase

	Intensity	Unit	Daily Rate (1)	Daily Trips		AM Peak Hour			PM Peak Hour		
						Total	In	Out	Total	In	Out
Solar Construction Workers	150.0	Employee	2	300	Rate	1.00	100%	0%	1.00	0%	100%
					Trips	150	150	0	150	0	150
Battery Storage Workers	100.0	Employee	2	200	Rate	1.00	100%	0%	1.00	0%	100%
					Trips	100	100	0	100	0	100
Construction Truck Trips (PCE)	8.0	Trucks	2.5	20	Rate	0.13	75%	25%	0.13	25%	75%
					Trips	3	2	1	3	1	2
Total				520	Trips	253	252	1	253	1	252

Trip Distribution and Assignment

Trip distribution and assignment is the process of identifying the probable destinations, directions and traffic routes that project related traffic will likely affect. Trip distribution and assignment information can be estimated from observed traffic patterns, experience or through use of a computerized travel forecast model. Once the proposed developments trips have been estimated, they are assigned to the study area street network. The trip distribution was estimated based on using logical travel paths between the project and local origins. The trip distribution for the project-related trips is shown in Figure 4.1.

Figure 4.1 Trip Distribution



The trip distribution for heavy trucks would require crossing the All America Canal at Gordon Wells Drive. It is estimated that 90% of heavy trucks will travel to the site on eastbound I-8 to the Gordon Wells Drive interchange. The remaining 10% will travel on I-8 westbound. As shown in Table 4.1, only 8 truck trips per day are estimated to use this route.

5.0 Construction Year Conditions

This section documents the analysis for the Project Completion Year conditions. This scenario considers the traffic conditions at the time that the proposed development is constructed by increasing the existing traffic counts by an ambient growth rate to reflect cumulative projects. Projected project only volumes are then added to create the 2023 Baseline with Project Scenario. It is anticipated that the project will be completed in Year 2023. An annual ambient growth of 1.8% was utilized to account for traffic growth between 2020 and 2023.

The growth rate is based on the California Economic Forecast *California County-Level Economic Forecast 2017-2050*, dated September 2017 documents an average annual growth factor of 1.8 percent from 2020 to 2025 for Imperial County. Year 2021 traffic data was obtained by factoring the 2019 traffic counts by the application of the 1.8 percent annual growth (5.4 percent for 2020-23). Figure 5.1 illustrates the Project Construction Year background volumes. Figure 5.2 shows the *Construction Year with Project* traffic volumes in the study area.

This section documents the construction year traffic conditions of study area segments and intersections with and without the project.

Figure 5.1 Construction Year Volumes

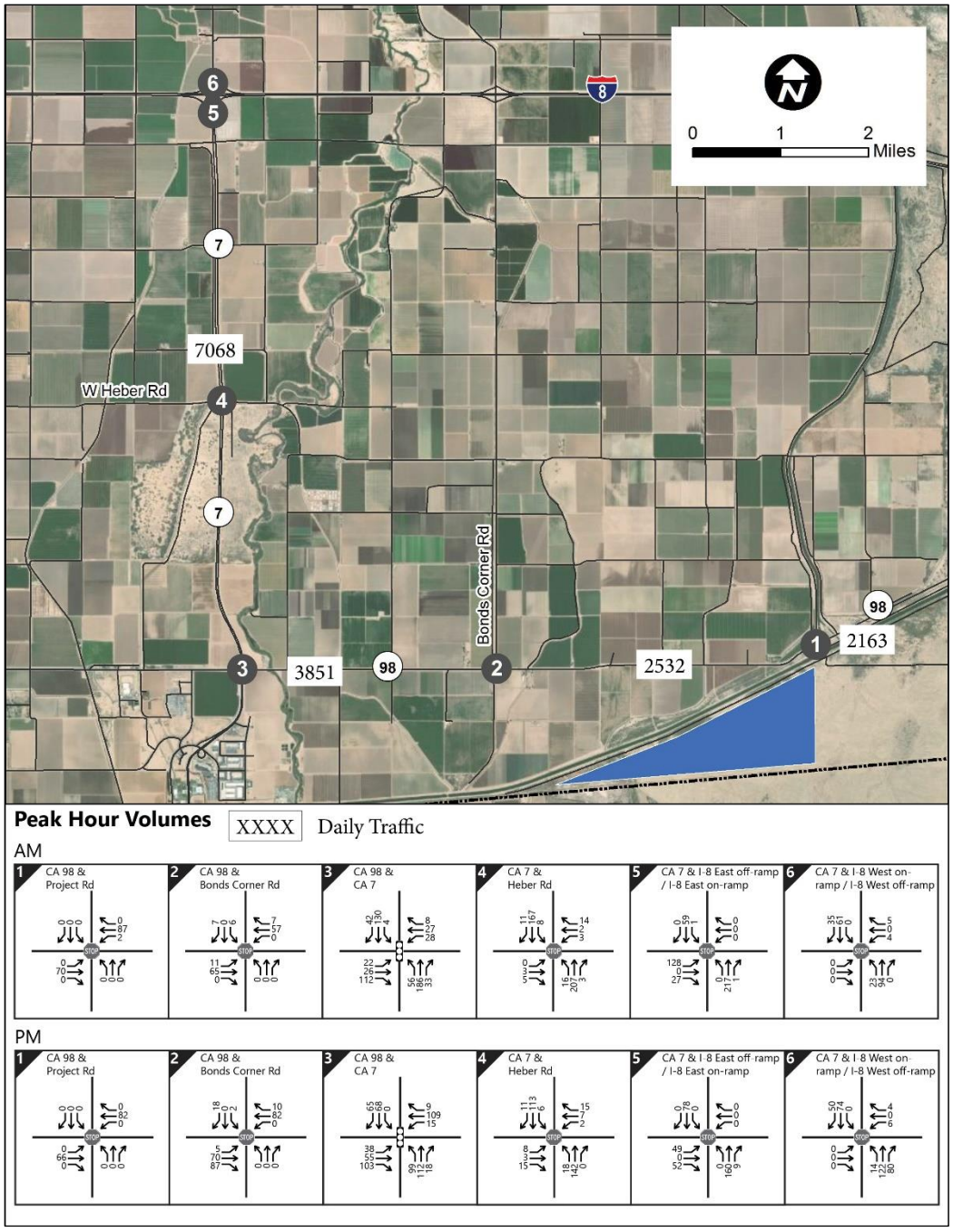
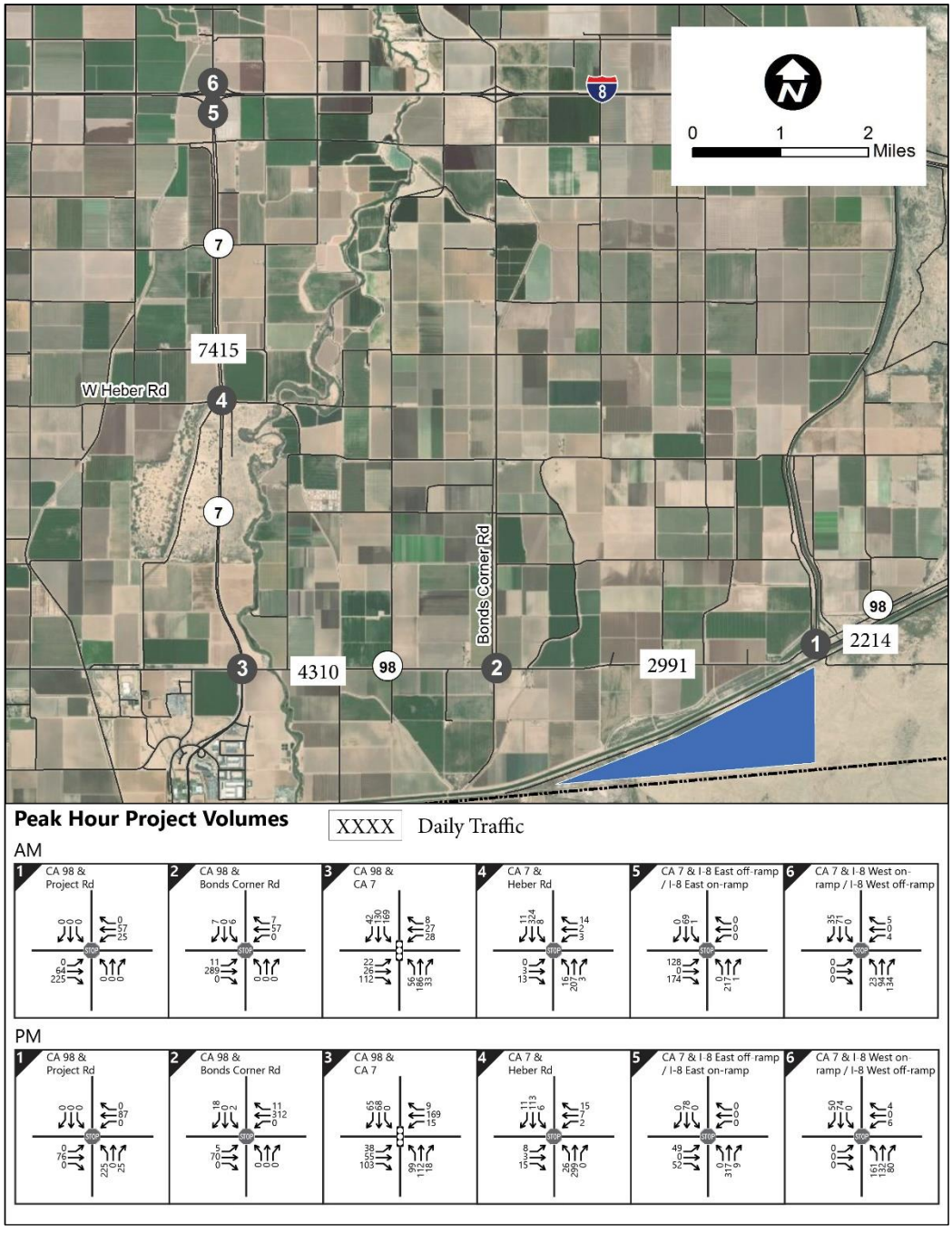


Figure 5.2 Construction Year Plus Project Year Volumes



Segments

Roadway segment analysis was conducted for the study area's specified segments. Using average daily traffic (ADT) counts, KOA determined the opening year level of service for the designated roadway segments.

Summarized in Table 5.1 are Construction Year and Construction Year plus Project roadway segment average daily traffic volumes and their associated LOS on route segments without and with the project under the near term condition. All roadway segments would operate at LOS B or better with and without the project. Therefore, the project would not result in any significant impacts to any segments within the project study area under the construction year condition.

Table 5.1 Construction Year Roadway Segment Analysis

No.	Route	From/To	Lanes/ Class	LOS E Capacity	Project Volumes	Construction Year			Construction Year + Project			Comparison	
						Volume	V/C	LOS	Volume	V/C	LOS	Δ V/C	Sig?
1	SR-98	Project to east	Minor Arterial 2 Lane	18,500	51	2,163	0.12	A	2,214	0.12	A	0.00	No
2	SR-98	Project to Bonds Corner	Minor Arterial 2 Lane	18,500	459	2,532	0.14	A	2,991	0.16	A	0.02	No
3	SR 98	Bonds Corner to SR-7	Minor Arterial 2 Lane	18,500	459	3,851	0.21	A	4,310	0.23	A	0.02	No
4	SR-7	SR-98 to I-8	Principal Arterial 4 Lane	57,000	347	7,068	0.12	A	7,415	0.13	A	0.01	No

Intersections

Table 5.2 summarizes the LOS at each intersection during the AM and PM peak hours under the construction year condition in 2022, without and with the project volumes. The estimated change in project delay associated with the project is also reported. All intersections would operate at a LOS C or better during both AM and PM peak hours with and without the project. Therefore, the project would not result in any significant impacts to any intersections within the project study area under the construction year condition. Detailed LOS worksheets are for the Construction Year are included in Appendix C and for the Construction Year plus Project in Appendix D.

Table 5.2 Construction Year Peak Hour Intersection Analysis

No.	Intersection	Control	Construction Year		Construction Year + Project		Change Delay	Significant
			Delay	LOS	Delay	LOS		
AM Peak Hour between 7:00 to 9:00 a.m.								
1	Site Driveway/ SR-98	NB Stop	n/a	A	0.0	A	n/a	N
2	SR-98 / Bonds Corner	SB Stop	9.0	A	9.8	A	0.8	N
3	SR-98 / SR-7	Signal	8.7	A	9.4	A	0.7	N
4	SR-7 / Heber Road	EB/WB Stop	10.2	B	10.3	B	0.1	N
5	SR -7 / I-8 So. Ramps	EB Stop	10.5	B	11.4	B	0.9	N
6	SR-7 / I-8 North Ramps	WB Stop	9.8	A	9.8	A	0.0	N
PM Peak Hour between 4:00 to 6:00 p.m.								
1	Site Driveway/ SR-98	NB Stop	n/a	A	11.4	A	n/a	N
2	SR-98 / Bonds Corner	SB Stop	9.0	A	10.4	A	1.4	N
3	SR-98 / SR-7	Signal	8.8	A	9.0	A	0.5	N
4	SR-7 / Heber Road	EB/WB Stop	9.6	A	10.8	B	1.2	N
5	SR -7 / I-8 So. Ramps	EB Stop	10.0	B	10.0	B	0.0	N
6	SR-7 / I-8 North Ramps	WB Stop	12.6	B	12.6	B	0.0	N

Delay is in seconds/vehicle. LOS = Level of Service

Freeway Segment Analysis

Table 5.3 displays the freeway segment level of service analysis results for the Construction Year and for Construction Year plus Project. This freeway segment would operate at LOS B or better with and without the project. Therefore, the project would not result in any significant impacts to any segments within the project study area under the construction year condition.

Table 5.3 Construction Year Freeway Level of Service

Freeway	Segment	Peak Direction	V/C		Construction Year +Proj		Change V/C	Sig?
			V/C	LOS	V/C	LOS		
I-8	SR-7 to SR-111	EB (AM)	0.34	B	0.39	B	0.05	N
		WB (PM)	0.35	B	0.40	B	0.05	N

6.0 Circulation

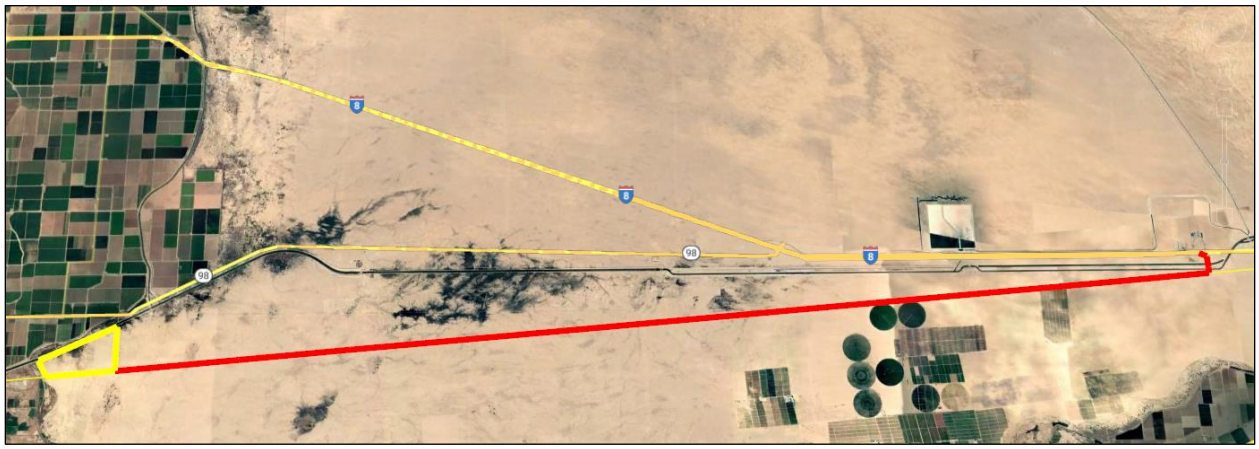
The following section discusses the proposed project's access and circulation characteristics.

Project Access and Circulation

Access to and from the site will be provided from an existing driveway along SR 98. This will be the primary driveways serving the site. The volumes associated with the development are such that peak hour volumes do not warrant the need for additional storage lanes or storage length for entrances along SR 98. Vehicle storage for vehicles exiting the property will be on-site.

Access for heavy vehicles to and from the site requires crossing the All America Canal which is located parallel and just south of SR-98. Following discussions with the Imperial Irrigation District, it was determined heavy vehicles would cross the canal at Gordon Wells Road located 19 miles east of the project. Gordon Wells Road has an interchange with I-8. The bridge over the Canal was inspected in 2018. The report states that the bridges over the canal were constructed in 2009. The bridge is rated as open with no restrictions. The bridge condition is rated as "Good". The bridge sufficiency rating is 91.9.

Primary Access (located just east of site)



Access at Gordon Wells Road for heavy vehicles

Bridge over north American Canal

Bridge over south American Canal

Parking

The existing parking demand for up to 250 vehicles and for construction equipment will be provided on site.

7.0 Vehicle Miles Travelled

Senate Bill 743 (SB 743) was approved by California legislature in September 2013. SB 743 requires changes to California Environmental Quality Act (CEQA), specifically directing the Governor's Office of Planning and Research (OPR) to develop alternative metrics to the use of vehicular "Level of Service" (LOS) for evaluating transportation projects. OPR has prepared a technical advisory ("OPR Technical Advisory") for evaluating transportation impacts in CEQA and has recommended that Vehicle Miles Traveled (VMT) replace LOS as the primary measure of transportation impacts. The Natural Resources Agency has adopted updates to

CEQA Guidelines to incorporate SB 743 that requires VMT for the purposes of determining a significant transportation impact under CEQA.

Below, are three options for screening projects from project-level assessment as per the OPR guidelines, Technical Advisory on Evaluating Transportation Impacts in CEQA.

Step 1: Transit Priority Area (TPA) Screening
Step 2: Low VMT Area Screening
Step 3: Project Type Screening – yes exempt

Projects generating less than 110 daily vehicle trips. The proposed solar farm project, when constructed, will generate 10 or less daily trips. Based on this criteria, the project can be presumed to have a less than significant impact.

8.0 Impacts and Mitigation

This traffic impact analysis (TIA) has been prepared to identify the potential traffic impacts associated with constructing a solar photovoltaic (PV) energy generation project and utility-scale battery energy storage system (BESS).

The construction of the project is estimated to take 12-18 months and would begin in 2022. During the construction phase, at peak construction, for the time when both the PV and BESS project phases are being constructed as the same time, the project is anticipated to generate a maximum of 520 trip ends per day with 253 AM peak hour trips and 253 PM peak hour trips. Following construction, the project will not generate additional daily or peak hour trips beyond occasional maintenance. The project opening is anticipated to be 2023.

The project is not expected to create significant impacts at study intersections or study segments, therefore no mitigation measures are required. All study intersections and segments were found to operate at LOS C or better for all of the traffic scenarios analyzed.

APPENDIX A: TRAFFIC COUNT DATA

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

County of Imperial
N/S: Bonds Corner Road
E/W: SR-98
Weather: Clear

File Name : 01_CIM_Bonds Corner_SR98 AM
Site Code : 04120461
Start Date : 12/8/2020
Page No : 1

Groups Printed- Total Volume

	Bonds Corner Road Southbound				SR-98 Westbound				Private Driveway Northbound				SR-98 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	4	0	2	6	0	16	1	17	0	0	0	0	0	12	0	12	35
07:15 AM	0	0	1	1	0	14	2	16	0	0	0	0	0	10	0	10	27
07:30 AM	2	0	2	4	0	11	2	13	0	0	1	1	0	9	0	9	27
07:45 AM	1	0	0	1	0	16	1	17	0	0	0	0	1	11	0	12	30
Total	7	0	5	12	0	57	6	63	0	0	1	1	1	42	0	43	119
08:00 AM	1	0	4	5	0	11	2	13	0	0	0	0	2	15	0	17	35
08:15 AM	1	0	1	2	0	13	1	14	0	0	0	0	1	15	0	16	32
08:30 AM	1	0	2	3	0	17	3	20	0	0	0	0	2	11	0	13	36
08:45 AM	3	0	0	3	0	13	1	14	0	0	0	0	5	20	0	25	42
Total	6	0	7	13	0	54	7	61	0	0	0	0	10	61	0	71	145
Grand Total	13	0	12	25	0	111	13	124	0	0	1	1	11	103	0	114	264
Apprch %	52	0	48		0	89.5	10.5		0	0	100		9.6	90.4	0		
Total %	4.9	0	4.5	9.5	0	42	4.9	47	0	0	0.4	0.4	4.2	39	0	43.2	

	Bonds Corner Road Southbound				SR-98 Westbound				Private Driveway Northbound				SR-98 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	1	0	**4**	**5**	0	11	2	13	0	0	0	0	2	15	0	17	35
08:15 AM	1	0	1	2	0	13	1	14	0	0	0	0	1	15	0	16	32
08:30 AM	1	0	2	3	0	**17**	**3**	**20**	0	0	0	0	2	11	0	13	36
08:45 AM	**3**	0	0	3	0	13	1	14	0	0	0	0	**5**	**20**	0	**25**	**42**
Total Volume	6	0	7	13	0	54	7	61	0	0	0	0	10	61	0	71	145
% App. Total	46.2	0	53.8		0	88.5	11.5		0	0	0		14.1	85.9	0		
PHF	.500	.000	.438	.650	.000	.794	.583	.763	.000	.000	.000	.000	.500	.763	.000	.710	.863

Counts Unlimited, Inc.
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County of Imperial
N/S: Bonds Corner Road
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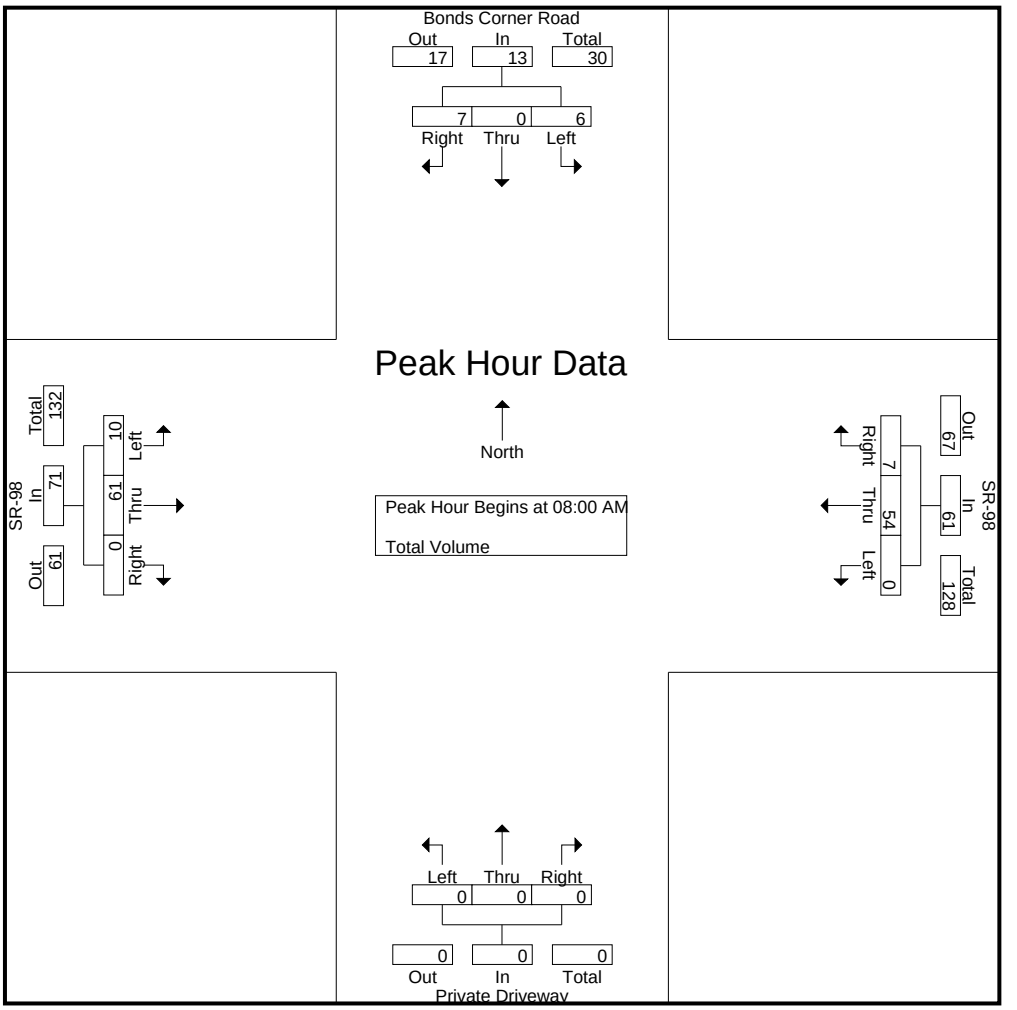
Weather: Clear

File Name : 01_CIM_Bonds Corner_SR98 AM
Site Code : 04120461
Start Date : 12/8/2020
Page No : 2



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

	08:00 AM				07:45 AM				07:00 AM				08:00 AM			
+0 mins.	1	0	**4**	**5**	0	16	1	17	0	0	0	0	2	15	0	17
+15 mins.	1	0	1	2	0	11	2	13	0	0	0	0	1	15	0	16
+30 mins.	1	0	2	3	0	13	1	14	0	0	**1**	**1**	2	11	0	13
+45 mins.	**3**	0	0	3	0	**17**	**3**	**20**	0	0	0	0	**5**	**20**	0	**25**
Total Volume	6	0	7	13	0	57	7	64	0	0	1	1	10	61	0	71
% App. Total	46.2	0	53.8		0	89.1	10.9		0	0	100		14.1	85.9	0	
PHF	.500	.000	.438	.650	.000	.838	.583	.800	.000	.000	.250	.250	.500	.763	.000	.710

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County of Imperial
N/S: Bonds Corner Road
E/W: SR-98
Weather: Clear

File Name : 01_CIM_Bonds Corner_SR98 PM
Site Code : 04120461
Start Date : 12/8/2020
Page No : 1

Groups Printed- Total Volume

	Bonds Corner Road Southbound				SR-98 Westbound				Private Driveway Northbound				SR-98 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	1	0	7	8	0	30	2	32	0	0	0	0	1	25	0	26	66
04:15 PM	0	0	6	6	0	13	2	15	0	0	0	0	1	12	0	13	34
04:30 PM	0	0	3	3	0	23	4	27	0	0	0	0	1	13	0	14	44
04:45 PM	1	0	1	2	0	16	2	18	0	0	0	0	2	16	0	18	38
Total	2	0	17	19	0	82	10	92	0	0	0	0	5	66	0	71	182
05:00 PM	0	0	2	2	0	27	0	27	0	0	0	0	0	13	0	13	42
05:15 PM	1	0	1	2	0	16	0	16	0	0	0	0	0	14	0	14	32
05:30 PM	0	0	2	2	0	25	1	26	0	0	0	0	0	27	0	27	55
05:45 PM	0	0	3	3	0	28	0	28	0	0	0	0	0	9	0	9	40
Total	1	0	8	9	0	96	1	97	0	0	0	0	0	63	0	63	169
Grand Total	3	0	25	28	0	178	11	189	0	0	0	0	5	129	0	134	351
Apprch %	10.7	0	89.3		0	94.2	5.8		0	0	0		3.7	96.3	0		
Total %	0.9	0	7.1	8	0	50.7	3.1	53.8	0	0	0	0	1.4	36.8	0	38.2	

	Bonds Corner Road Southbound				SR-98 Westbound				Private Driveway Northbound				SR-98 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**1**	0	**7**	**8**	0	**30**	2	**32**	0	0	0	0	1	**25**	0	**26**	**66**
04:15 PM	0	0	6	6	0	13	2	15	0	0	0	0	1	12	0	13	34
04:30 PM	0	0	3	3	0	23	**4**	27	0	0	0	0	1	13	0	14	44
04:45 PM	1	0	1	2	0	16	2	18	0	0	0	0	**2**	16	0	18	38
Total Volume	2	0	17	19	0	82	10	92	0	0	0	0	5	66	0	71	182
% App. Total	10.5	0	89.5		0	89.1	10.9		0	0	0		7	93	0		
PHF	.500	.000	.607	.594	.000	.683	.625	.719	.000	.000	.000	.000	.625	.660	.000	.683	.689

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County of Imperial
N/S: Bonds Corner Road
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Weather: Clear

File Name : 01_CIM_Bonds Corner_SR98 PM
Site Code : 04120461
Start Date : 12/8/2020
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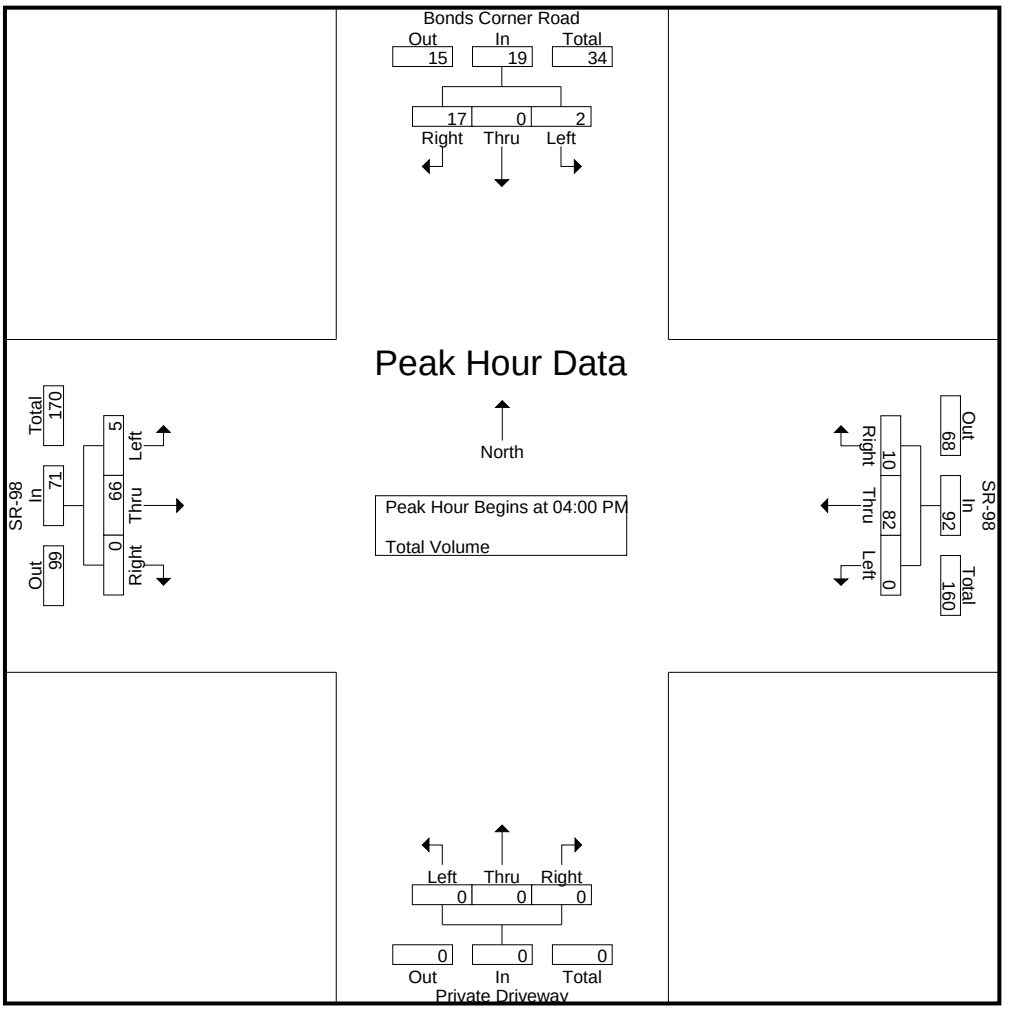

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				04:00 PM				04:45 PM			
+0 mins.	**1**	0	**7**	**8**	0	27	0	27	0	0	0	0	**2**	16	0	18
+15 mins.	0	0	6	6	0	16	0	16	0	0	0	0	0	13	0	13
+30 mins.	0	0	3	3	0	25	**1**	26	0	0	0	0	0	14	0	14
+45 mins.	1	0	1	2	0	**28**	0	**28**	0	0	0	0	0	**27**	0	**27**
Total Volume	2	0	17	19	0	96	1	97	0	0	0	0	2	70	0	72
% App. Total	10.5	0	89.5		0	99	1		0	0	0		2.8	97.2	0	
PHF	.500	.000	.607	.594	.000	.857	.250	.866	.000	.000	.000	.000	.250	.648	.000	.667

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County of Imperial
N/S: SR-7
E/W: SR-98
Weather: Clear

File Name : 02_CIM_SR-7_SR98 AM
Site Code : 04120461
Start Date : 12/8/2020
Page No : 1

Groups Printed- Total Volume

	SR-7 Southbound				SR-98 Westbound				SR-7 Northbound				SR-98 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	15	9	24	3	12	1	16	10	56	2	68	9	7	12	28	136
07:15 AM	2	27	4	33	4	13	0	17	12	48	7	67	6	4	11	21	138
07:30 AM	5	32	5	42	6	5	1	12	21	43	4	68	7	4	12	23	145
07:45 AM	0	38	15	53	6	7	1	14	13	53	7	73	5	7	34	46	186
Total	7	112	33	152	19	37	3	59	56	200	20	276	27	22	69	118	605
08:00 AM	1	33	8	42	5	6	3	14	9	49	8	66	4	7	34	45	167
08:15 AM	2	20	9	31	7	5	1	13	17	37	8	62	6	5	20	31	137
08:30 AM	1	32	8	41	9	8	3	20	14	37	8	59	6	6	18	30	150
08:45 AM	0	26	8	34	7	5	1	13	8	36	15	59	5	7	20	32	138
Total	4	111	33	148	28	24	8	60	48	159	39	246	21	25	92	138	592
Grand Total	11	223	66	300	47	61	11	119	104	359	59	522	48	47	161	256	1197
Apprch %	3.7	74.3	22		39.5	51.3	9.2		19.9	68.8	11.3		18.8	18.4	62.9		
Total %	0.9	18.6	5.5	25.1	3.9	5.1	0.9	9.9	8.7	30	4.9	43.6	4	3.9	13.5	21.4	

	SR-7 Southbound				SR-98 Westbound				SR-7 Northbound				SR-98 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	**38**	**15**	**53**	6	7	1	14	13	**53**	7	**73**	5	**7**	**34**	**46**	**186**
08:00 AM	1	33	8	42	5	6	**3**	14	9	49	**8**	66	4	7	34	45	167
08:15 AM	**2**	20	9	31	7	5	1	13	**17**	37	8	62	**6**	5	20	31	137
08:30 AM	1	32	8	41	**9**	**8**	3	**20**	14	37	8	59	6	6	18	30	150
Total Volume	4	123	40	167	27	26	8	61	53	176	31	260	21	25	106	152	640
% App. Total	2.4	73.7	24		44.3	42.6	13.1		20.4	67.7	11.9		13.8	16.4	69.7		
PHF	.500	.809	.667	.788	.750	.813	.667	.763	.779	.830	.969	.890	.875	.893	.779	.826	.860

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County of Imperial
N/S: SR-7
E/W: SR-98
Weather: Clear

File Name : 02_CIM_SR-7_SR98 AM
Site Code : 04120461
Start Date : 12/8/2020
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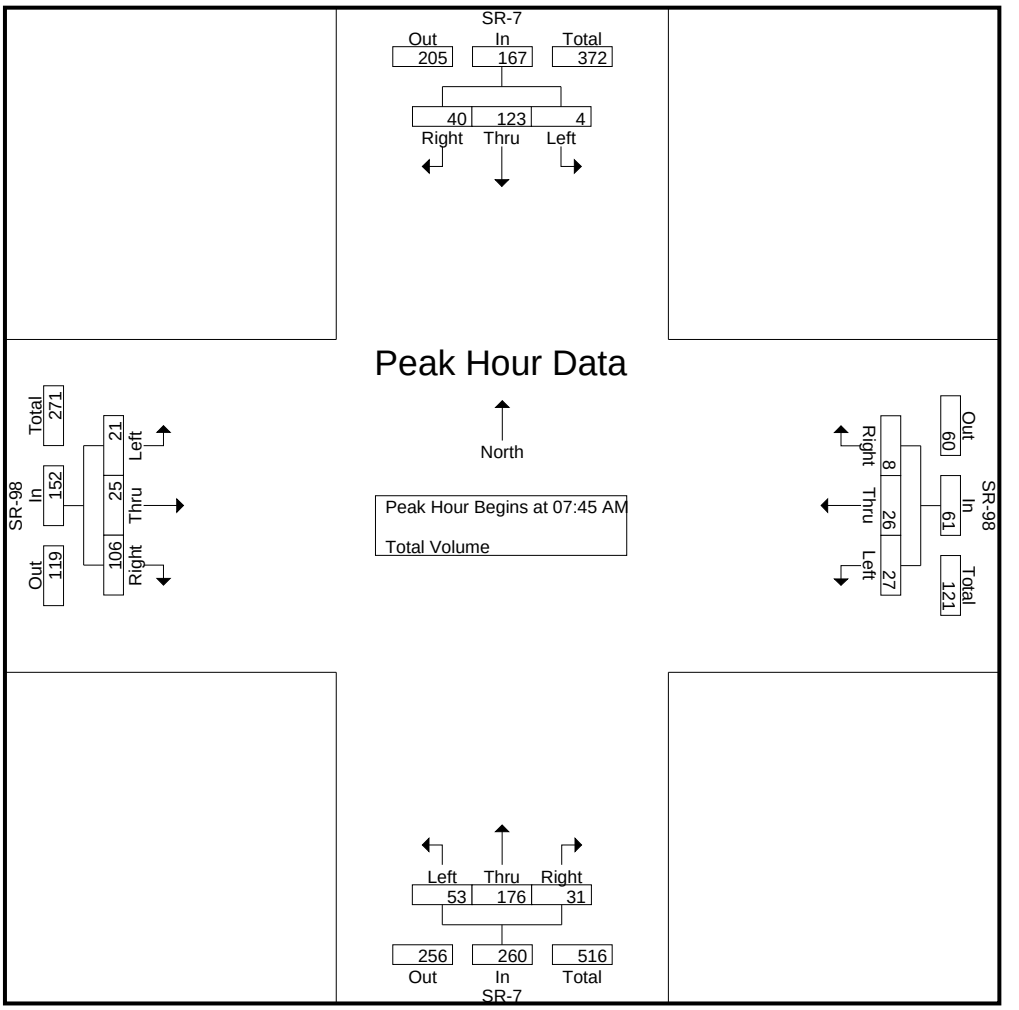

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:45 AM				07:00 AM				07:45 AM			
+0 mins.	2	27	4	33	6	7	1	14	10	**56**	2	68	5	**7**	**34**	**46**
+15 mins.	**5**	32	5	42	5	6	**3**	14	12	48	**7**	67	4	7	34	45
+30 mins.	0	**38**	**15**	**53**	7	5	1	13	**21**	43	4	68	**6**	5	20	31
+45 mins.	1	33	8	42	**9**	**8**	3	**20**	13	53	7	**73**	6	6	18	30
Total Volume	8	130	32	170	27	26	8	61	56	200	20	276	21	25	106	152
% App. Total	4.7	76.5	18.8		44.3	42.6	13.1		20.3	72.5	7.2		13.8	16.4	69.7	
PHF	.400	.855	.533	.802	.750	.813	.667	.763	.667	.893	.714	.945	.875	.893	.779	.826

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County of Imperial
N/S: SR-7
E/W: SR-98
Weather: Clear

File Name : 02_CIM_SR-7_SR98 PM
Site Code : 04120461
Start Date : 12/8/2020
Page No : 1

Groups Printed- Total Volume

	SR-7 Southbound				SR-98 Westbound				SR-7 Northbound				SR-98 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	19	21	40	4	43	2	49	23	34	8	65	13	16	23	52	206
04:15 PM	0	19	8	27	3	23	2	28	36	34	3	73	11	10	25	46	174
04:30 PM	0	11	21	32	4	13	3	20	25	18	4	47	5	11	30	46	145
04:45 PM	0	15	12	27	3	24	2	29	10	20	2	32	7	15	14	36	124
Total	0	64	62	126	14	103	9	126	94	106	17	217	36	52	92	180	649
05:00 PM	1	13	7	21	4	25	0	29	71	26	2	99	7	9	22	38	187
05:15 PM	1	10	18	29	7	16	0	23	30	17	2	49	7	17	23	47	148
05:30 PM	0	16	8	24	2	22	0	24	24	19	4	47	3	13	15	31	126
05:45 PM	0	17	9	26	7	23	1	31	13	7	1	21	11	13	13	37	115
Total	2	56	42	100	20	86	1	107	138	69	9	216	28	52	73	153	576
Grand Total	2	120	104	226	34	189	10	233	232	175	26	433	64	104	165	333	1225
Apprch %	0.9	53.1	46		14.6	81.1	4.3		53.6	40.4	6		19.2	31.2	49.5		
Total %	0.2	9.8	8.5	18.4	2.8	15.4	0.8	19	18.9	14.3	2.1	35.3	5.2	8.5	13.5	27.2	

	SR-7 Southbound				SR-98 Westbound				SR-7 Northbound				SR-98 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**19**	**21**	**40**	**4**	**43**	2	**49**	23	**34**	**8**	65	**13**	**16**	23	**52**	**206**
04:15 PM	0	19	8	27	3	23	2	28	**36**	34	3	**73**	11	10	25	46	174
04:30 PM	0	11	21	32	4	13	**3**	20	25	18	4	47	5	11	**30**	46	145
04:45 PM	0	15	12	27	3	24	2	29	10	20	2	32	7	15	14	36	124
Total Volume	0	64	62	126	14	103	9	126	94	106	17	217	36	52	92	180	649
% App. Total	0	50.8	49.2		11.1	81.7	7.1		43.3	48.8	7.8		20	28.9	51.1		
PHF	.000	.842	.738	.788	.875	.599	.750	.643	.653	.779	.531	.743	.692	.813	.767	.865	.788

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County of Imperial
N/S: SR-7
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File Name : 02_CIM_SR-7_SR98 PM
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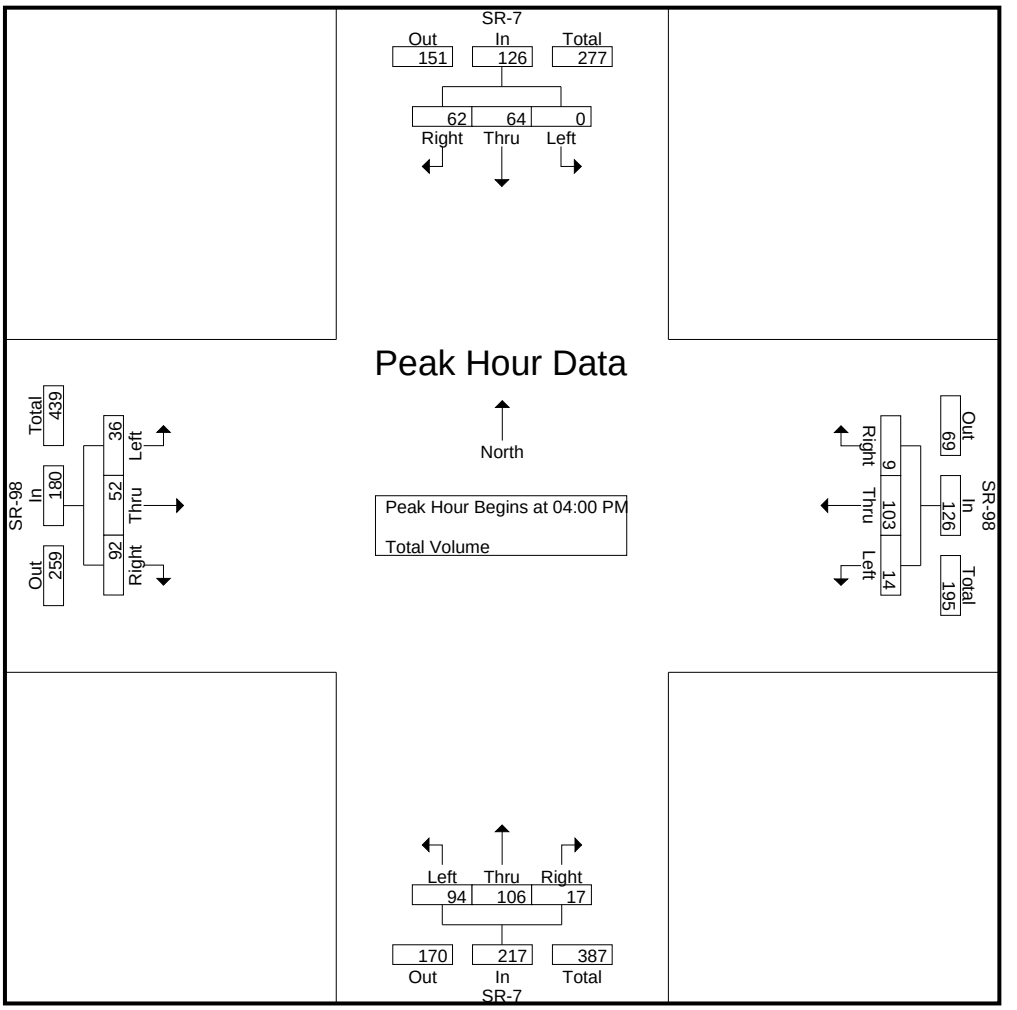

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:15 PM				04:00 PM			
+0 mins.	0	**19**	**21**	**40**	**4**	**43**	2	**49**	36	**34**	3	73	**13**	**16**	23	**52**
+15 mins.	0	19	8	27	3	23	2	28	25	18	**4**	47	11	10	25	46
+30 mins.	0	11	21	32	4	13	**3**	20	10	20	2	32	5	11	**30**	46
+45 mins.	0	15	12	27	3	24	2	29	**71**	26	2	**99**	7	15	14	36
Total Volume	0	64	62	126	14	103	9	126	142	98	11	251	36	52	92	180
% App. Total	0	50.8	49.2		11.1	81.7	7.1		56.6	39	4.4		20	28.9	51.1	
PHF	.000	.842	.738	.788	.875	.599	.750	.643	.500	.721	.688	.634	.692	.813	.767	.865

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County of Imperial
N/S: SR-7
E/W: Herber Road
Weather: Clear

File Name : 03_CIM_SR-7_Herber AM
Site Code : 04120461
Start Date : 12/8/2020
Page No : 1

Groups Printed- Total Volume

	SR-7 Southbound				Herber Road Westbound				SR-7 Northbound				Herber Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	31	2	33	0	1	2	3	0	57	0	57	0	0	0	0	93
07:15 AM	0	32	2	34	0	1	2	3	2	49	1	52	1	0	4	5	94
07:30 AM	4	43	0	47	0	2	1	3	5	44	1	50	1	1	4	6	106
07:45 AM	2	48	5	55	0	0	0	0	4	52	1	57	0	0	3	3	115
Total	6	154	9	169	0	4	5	9	11	202	3	216	2	1	11	14	408
08:00 AM	4	35	1	40	0	0	2	2	4	51	0	55	1	1	2	4	101
08:15 AM	4	32	0	36	0	3	1	4	4	41	0	45	5	3	1	9	94
08:30 AM	2	35	5	42	0	1	5	6	1	43	0	44	1	2	3	6	98
08:45 AM	2	38	1	41	0	1	2	3	4	39	0	43	1	0	0	1	88
Total	12	140	7	159	0	5	10	15	13	174	0	187	8	6	6	20	381
Grand Total	18	294	16	328	0	9	15	24	24	376	3	403	10	7	17	34	789
Apprch %	5.5	89.6	4.9		0	37.5	62.5		6	93.3	0.7		29.4	20.6	50		
Total %	2.3	37.3	2	41.6	0	1.1	1.9	3	3	47.7	0.4	51.1	1.3	0.9	2.2	4.3	

	SR-7 Southbound				Herber Road Westbound				SR-7 Northbound				Herber Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	32	2	34	0	1	**2**	**3**	2	49	**1**	52	**1**	0	**4**	5	94
07:30 AM	**4**	43	0	47	0	**2**	1	3	**5**	44	1	50	1	**1**	4	**6**	106
07:45 AM	2	**48**	**5**	**55**	0	0	0	0	4	**52**	1	**57**	0	0	3	3	**115**
08:00 AM	4	35	1	40	0	0	2	2	4	51	0	55	1	1	2	4	101
Total Volume	10	158	8	176	0	3	5	8	15	196	3	214	3	2	13	18	416
% App. Total	5.7	89.8	4.5		0	37.5	62.5		7	91.6	1.4		16.7	11.1	72.2		
PHF	.625	.823	.400	.800	.000	.375	.625	.667	.750	.942	.750	.939	.750	.500	.813	.750	.904

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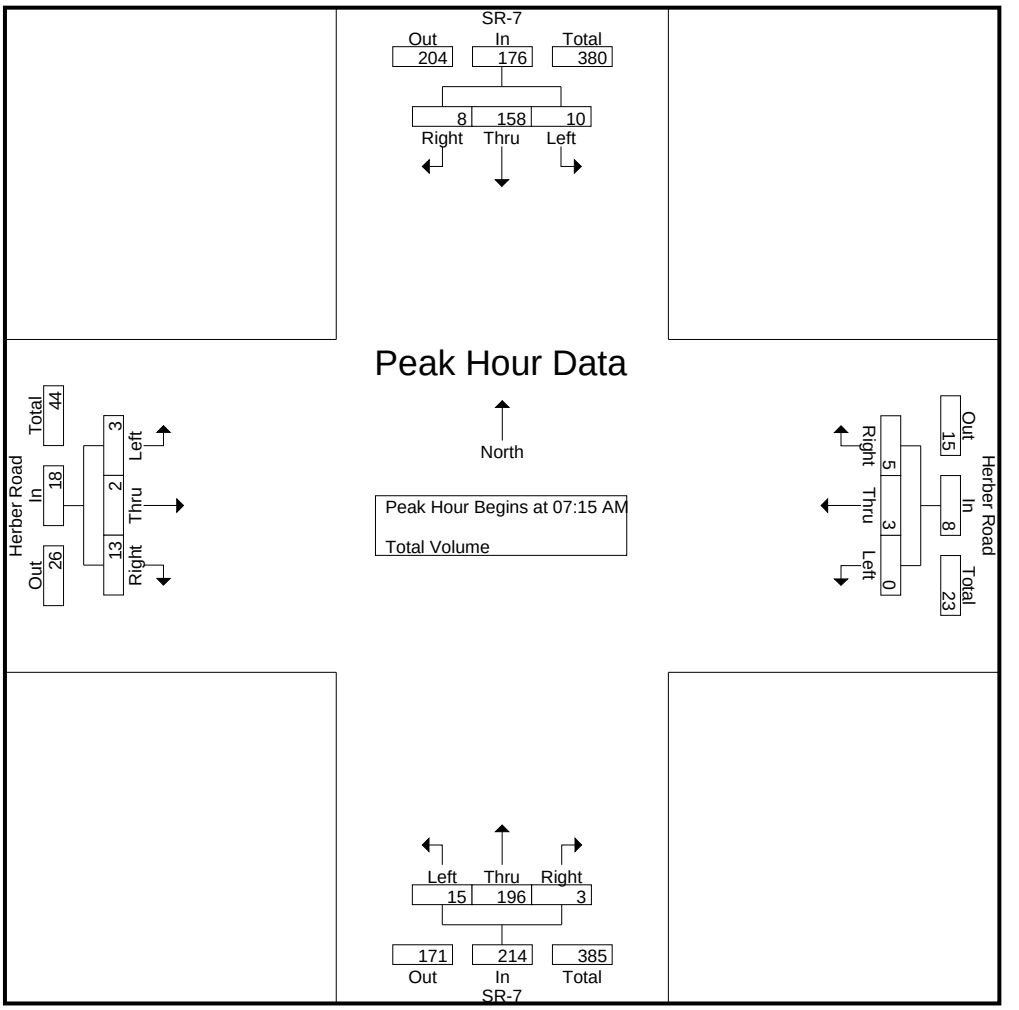
County of Imperial
N/S: SR-7
E/W: Herber Road
Weather: Clear

File Name : 03_CIM_SR-7_Herber AM
Site Code : 04120461
Start Date : 12/8/2020
Page No : 2



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

	07:30 AM				08:00 AM				07:00 AM				07:30 AM			
+0 mins.	**4**	43	0	47	0	0	2	2	0	**57**	0	**57**	1	1	**4**	6
+15 mins.	2	**48**	**5**	**55**	0	**3**	1	4	2	49	**1**	52	0	0	3	3
+30 mins.	4	35	1	40	0	1	**5**	**6**	**5**	44	1	50	1	1	2	4
+45 mins.	4	32	0	36	0	1	2	3	4	52	1	57	**5**	**3**	1	**9**
Total Volume	14	158	6	178	0	5	10	15	11	202	3	216	7	5	10	22
% App. Total	7.9	88.8	3.4		0	33.3	66.7		5.1	93.5	1.4		31.8	22.7	45.5	
PHF	.875	.823	.300	.809	.000	.417	.500	.625	.550	.886	.750	.947	.350	.417	.625	.611

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County of Imperial
N/S: SR-7
E/W: Herber Road
Weather: Clear

File Name : 03_CIM_SR-7_Herber PM
Site Code : 04120461
Start Date : 12/8/2020
Page No : 1

Groups Printed- Total Volume

	SR-7 Southbound				Herber Road Westbound				SR-7 Northbound				Herber Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	3	31	3	37	1	3	9	13	5	39	0	44	4	0	2	6	100
04:15 PM	3	25	2	30	1	0	2	3	3	48	0	51	2	1	4	7	91
04:30 PM	0	30	3	33	0	3	0	3	5	22	0	27	2	2	4	8	71
04:45 PM	0	21	2	23	0	1	3	4	4	26	0	30	0	0	4	4	61
Total	6	107	10	123	2	7	14	23	17	135	0	152	8	3	14	25	323
05:00 PM	0	18	3	21	0	0	1	1	5	24	0	29	3	2	4	9	60
05:15 PM	1	29	3	33	0	1	2	3	4	22	0	26	0	0	1	1	63
05:30 PM	1	24	0	25	0	0	0	0	3	21	0	24	4	0	3	7	56
05:45 PM	1	19	1	21	0	1	1	2	0	18	0	18	1	0	4	5	46
Total	3	90	7	100	0	2	4	6	12	85	0	97	8	2	12	22	225
Grand Total	9	197	17	223	2	9	18	29	29	220	0	249	16	5	26	47	548
Apprch %	4	88.3	7.6		6.9	31	62.1		11.6	88.4	0		34	10.6	55.3		
Total %	1.6	35.9	3.1	40.7	0.4	1.6	3.3	5.3	5.3	40.1	0	45.4	2.9	0.9	4.7	8.6	

	SR-7 Southbound				Herber Road Westbound				SR-7 Northbound				Herber Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**3**	**31**	**3**	**37**	**1**	**3**	**9**	**13**	**5**	39	0	44	**4**	0	2	6	**100**
04:15 PM	3	25	2	30	1	0	2	3	3	**48**	0	**51**	2	1	**4**	7	91
04:30 PM	0	30	3	33	0	3	0	3	5	22	0	27	2	**2**	4	**8**	71
04:45 PM	0	21	2	23	0	1	3	4	4	26	0	30	0	0	4	4	61
Total Volume	6	107	10	123	2	7	14	23	17	135	0	152	8	3	14	25	323
% App. Total	4.9	87	8.1		8.7	30.4	60.9		11.2	88.8	0		32	12	56		
PHF	.500	.863	.833	.831	.500	.583	.389	.442	.850	.703	.000	.745	.500	.375	.875	.781	.808

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County of Imperial
N/S: SR-7
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File Name : 03_CIM_SR-7_Herber PM
Site Code : 04120461
Start Date : 12/8/2020
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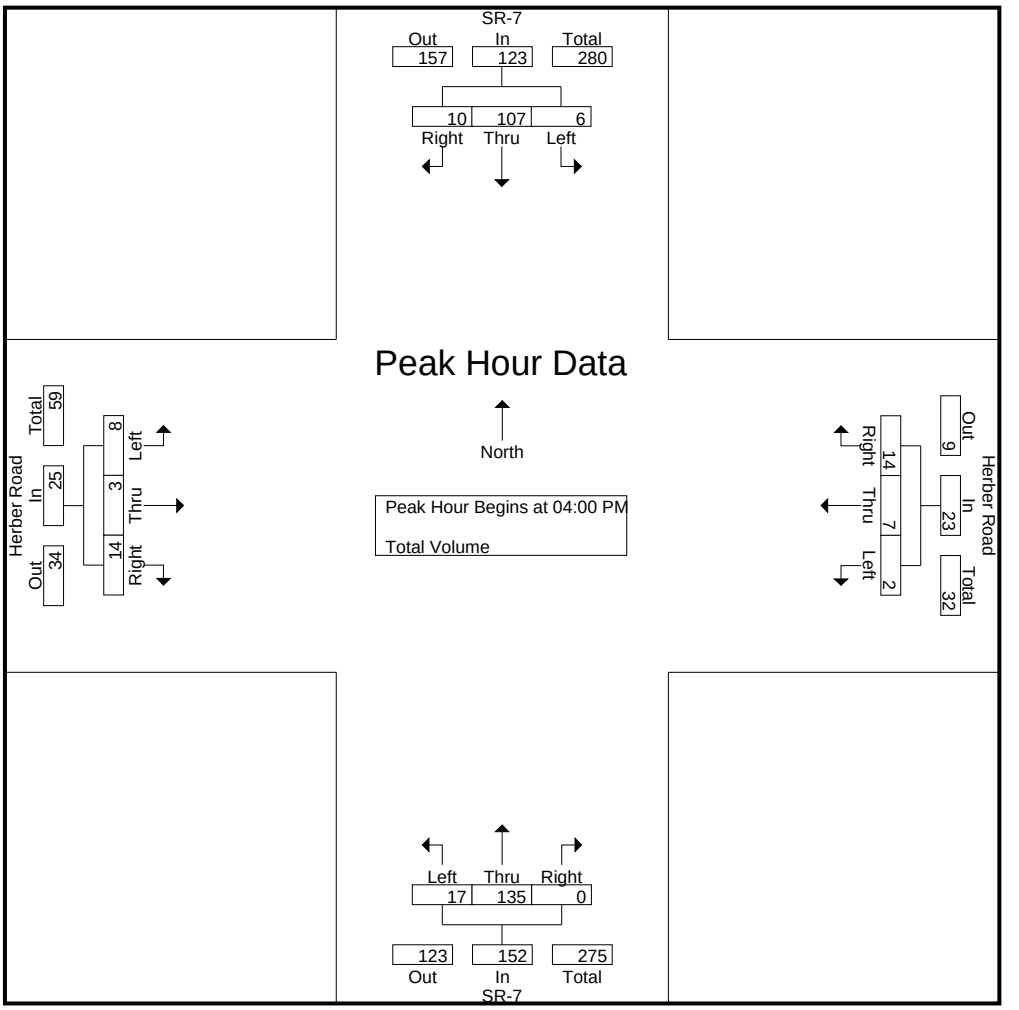

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:15 PM			
+0 mins.	**3**	**31**	**3**	**37**	**1**	**3**	**9**	**13**	**5**	39	0	44	2	1	**4**	7
+15 mins.	3	25	2	30	1	0	2	3	3	**48**	0	**51**	2	**2**	4	8
+30 mins.	0	30	3	33	0	3	0	3	5	22	0	27	0	0	4	4
+45 mins.	0	21	2	23	0	1	3	4	4	26	0	30	**3**	2	4	**9**
Total Volume	6	107	10	123	2	7	14	23	17	135	0	152	7	5	16	28
% App. Total	4.9	87	8.1		8.7	30.4	60.9		11.2	88.8	0		25	17.9	57.1	
PHF	.500	.863	.833	.831	.500	.583	.389	.442	.850	.703	.000	.745	.583	.625	1.000	.778

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County of Imperial
N/S: SR-7
E/W: I-8 Eastbound Ramps
Weather: Clear

File Name : 04_CIM_SR-7_I-8E AM
Site Code : 04120461
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Groups Printed- Total Volume

	SR-7 Southbound				I-8 Eastbound On Ramp Westbound				SR-7 Northbound				I-8 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	13	1	14	0	0	0	0	0	61	1	62	6	0	34	40	116
07:15 AM	0	7	0	7	0	0	0	0	0	55	0	55	7	0	17	24	86
07:30 AM	0	20	0	20	0	0	0	0	0	45	0	45	6	0	36	42	107
07:45 AM	0	16	0	16	0	0	0	0	0	45	0	45	7	0	34	41	102
Total	0	56	1	57	0	0	0	0	0	206	1	207	26	0	121	147	411
08:00 AM	0	10	0	10	0	0	0	0	0	52	2	54	6	0	17	23	87
08:15 AM	0	13	0	13	0	0	0	0	0	36	3	39	6	0	24	30	82
08:30 AM	0	21	1	22	0	0	0	0	0	40	2	42	4	0	24	28	92
08:45 AM	0	15	1	16	0	0	0	0	0	47	1	48	8	0	28	36	100
Total	0	59	2	61	0	0	0	0	0	175	8	183	24	0	93	117	361
Grand Total	0	115	3	118	0	0	0	0	0	381	9	390	50	0	214	264	772
Apprch %	0	97.5	2.5		0	0	0		0	97.7	2.3		18.9	0	81.1		
Total %	0	14.9	0.4	15.3	0	0	0	0	0	49.4	1.2	50.5	6.5	0	27.7	34.2	

	SR-7 Southbound				I-8 Eastbound On Ramp Westbound				SR-7 Northbound				I-8 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	13	**1**	14	0	0	0	0	0	**61**	**1**	**62**	6	0	34	40	**116**
07:15 AM	0	7	0	7	0	0	0	0	0	55	0	55	**7**	0	17	24	86
07:30 AM	0	**20**	0	**20**	0	0	0	0	0	45	0	45	6	0	**36**	**42**	107
07:45 AM	0	16	0	16	0	0	0	0	0	45	0	45	7	0	34	41	102
Total Volume	0	56	1	57	0	0	0	0	0	206	1	207	26	0	121	147	411
% App. Total	0	98.2	1.8		0	0	0		0	99.5	0.5		17.7	0	82.3		
PHF	.000	.700	.250	.713	.000	.000	.000	.000	.000	.844	.250	.835	.929	.000	.840	.875	.886

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County of Imperial
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E/W: I-8 Eastbound Ramps
Weather: Clear

File Name : 04_CIM_SR-7_I-8E AM
Site Code : 04120461
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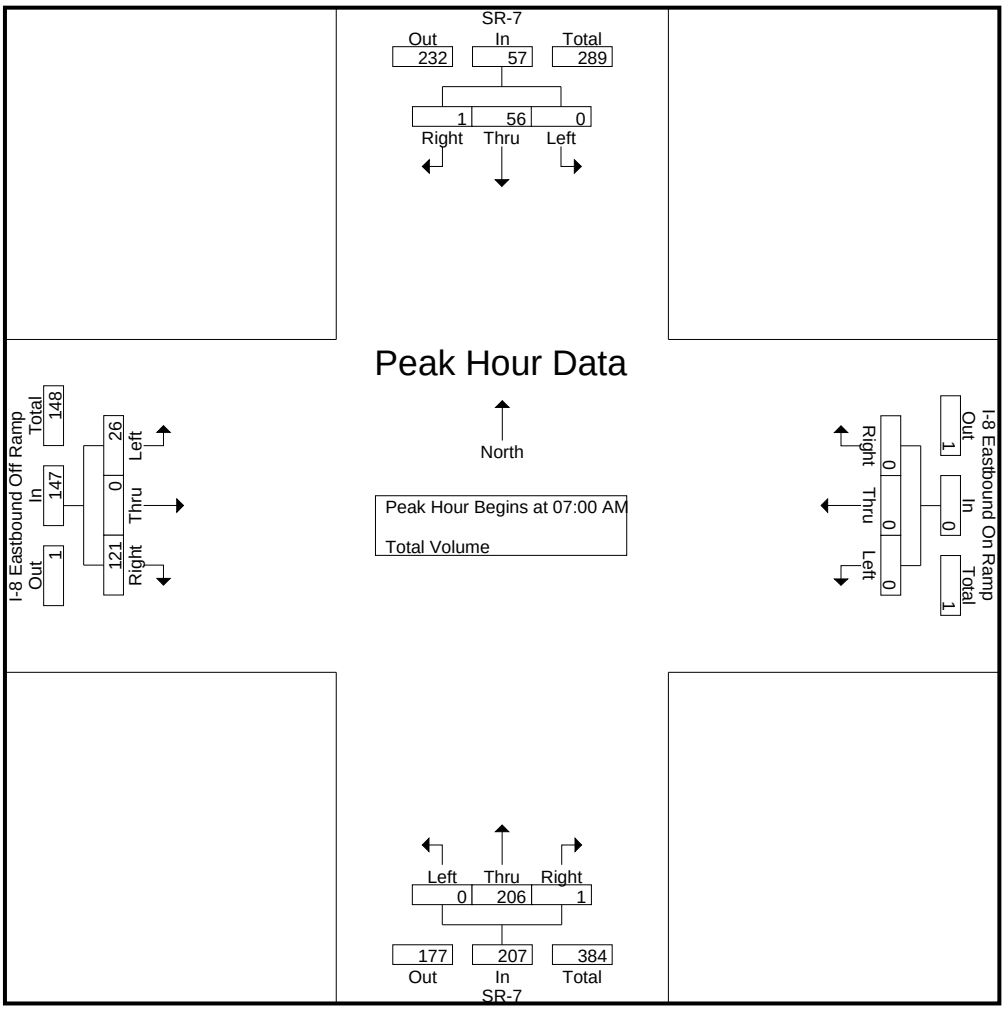

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	16	0	16	0	0	0	0	0	**61**	**1**	**62**	6	0	34	40
+15 mins.	0	10	0	10	0	0	0	0	0	55	0	55	**7**	0	17	24
+30 mins.	0	13	0	13	0	0	0	0	0	45	0	45	6	0	**36**	**42**
+45 mins.	0	**21**	**1**	**22**	0	0	0	0	0	45	0	45	7	0	34	41
Total Volume	0	60	1	61	0	0	0	0	0	206	1	207	26	0	121	147
% App. Total	0	98.4	1.6		0	0	0		0	99.5	0.5		17.7	0	82.3	
PHF	.000	.714	.250	.693	.000	.000	.000	.000	.000	.844	.250	.835	.929	.000	.840	.875

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County of Imperial
N/S: SR-7
E/W: I-8 Eastbound Ramps
Weather: Clear

File Name : 04_CIM_SR-7_I-8E PM
Site Code : 04120461
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Groups Printed- Total Volume

	SR-7 Southbound				I-8 Eastbound On Ramp Westbound				SR-7 Northbound				I-8 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	23	0	23	0	0	0	0	0	49	2	51	6	0	14	20	94
04:15 PM	0	17	0	17	0	0	0	0	0	49	4	53	14	0	12	26	96
04:30 PM	0	22	1	23	0	0	0	0	0	25	1	26	18	0	12	30	79
04:45 PM	0	11	0	11	0	0	0	0	0	29	2	31	8	0	11	19	61
Total	0	73	1	74	0	0	0	0	0	152	9	161	46	0	49	95	330
05:00 PM	0	18	2	20	0	0	0	0	0	27	2	29	18	0	9	27	76
05:15 PM	0	14	3	17	0	0	0	0	0	20	1	21	18	0	15	33	71
05:30 PM	0	15	1	16	0	0	0	0	0	24	0	24	23	0	10	33	73
05:45 PM	0	13	0	13	0	0	0	0	0	21	2	23	14	0	9	23	59
Total	0	60	6	66	0	0	0	0	0	92	5	97	73	0	43	116	279
Grand Total	0	133	7	140	0	0	0	0	0	244	14	258	119	0	92	211	609
Apprch %	0	95	5		0	0	0		0	94.6	5.4		56.4	0	43.6		
Total %	0	21.8	1.1	23	0	0	0	0	0	40.1	2.3	42.4	19.5	0	15.1	34.6	

	SR-7 Southbound				I-8 Eastbound On Ramp Westbound				SR-7 Northbound				I-8 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**23**	0	**23**	0	0	0	0	0	**49**	2	51	6	0	**14**	20	94
04:15 PM	0	17	0	17	0	0	0	0	0	49	**4**	**53**	14	0	12	26	**96**
04:30 PM	0	22	**1**	23	0	0	0	0	0	25	1	26	**18**	0	12	**30**	79
04:45 PM	0	11	0	11	0	0	0	0	0	29	2	31	8	0	11	19	61
Total Volume	0	73	1	74	0	0	0	0	0	152	9	161	46	0	49	95	330
% App. Total	0	98.6	1.4		0	0	0		0	94.4	5.6		48.4	0	51.6		
PHF	.000	.793	.250	.804	.000	.000	.000	.000	.000	.776	.563	.759	.639	.000	.875	.792	.859

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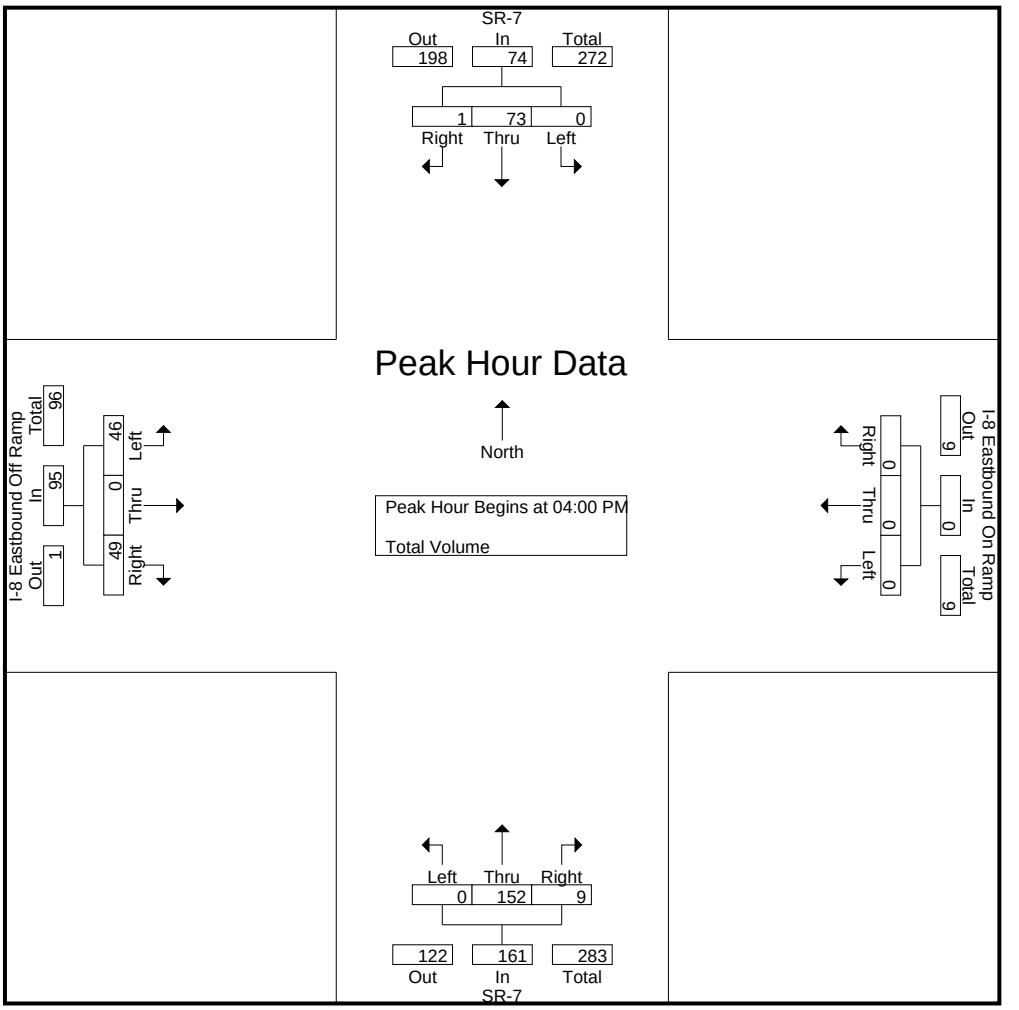
County of Imperial
N/S: SR-7
E/W: I-8 Eastbound Ramps
Weather: Clear

File Name : 04_CIM_SR-7_I-8E PM
Site Code : 04120461
Start Date : 12/8/2020



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

	04:00 PM				04:00 PM				04:00 PM				05:00 PM			
+0 mins.	0	**23**	0	**23**	0	0	0	0	0	**49**	2	51	18	0	9	27
+15 mins.	0	17	0	17	0	0	0	0	0	49	**4**	**53**	18	0	**15**	**33**
+30 mins.	0	22	**1**	23	0	0	0	0	0	25	1	26	**23**	0	10	33
+45 mins.	0	11	0	11	0	0	0	0	0	29	2	31	14	0	9	23
Total Volume	0	73	1	74	0	0	0	0	0	152	9	161	73	0	43	116
% App. Total	0	98.6	1.4		0	0	0		0	94.4	5.6		62.9	0	37.1	
PHF	.000	.793	.250	.804	.000	.000	.000	.000	.000	.776	.563	.759	.793	.000	.717	.879

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County of Imperial
N/S: Orchard Road/SR-7
E/W: I-8 Westbound Ramps
Weather: Clear

File Name : 05_CIM_Orchard_I-8E AM
Site Code : 04120461
Start Date : 12/8/2020
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Groups Printed- Total Volume

	Orchard Road Southbound				I-8 Westbound Off Ramp Westbound				SR-7 Northbound				I-8 Westbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	10	7	17	0	0	1	1	4	26	28	58	0	0	0	0	76
07:15 AM	0	9	6	15	1	0	0	1	9	27	32	68	0	0	0	0	84
07:30 AM	0	19	10	29	1	0	1	2	3	20	25	48	0	0	0	0	79
07:45 AM	0	19	13	32	1	0	2	3	7	24	30	61	0	0	0	0	96
Total	0	57	36	93	3	0	4	7	23	97	115	235	0	0	0	0	335
08:00 AM	0	11	4	15	1	0	2	3	3	18	40	61	0	0	0	0	79
08:15 AM	0	16	9	25	0	0	0	0	0	21	22	43	0	0	0	0	68
08:30 AM	0	18	6	24	3	0	0	3	5	17	27	49	0	0	0	0	76
08:45 AM	0	15	11	26	0	0	2	2	6	21	28	55	0	0	0	0	83
Total	0	60	30	90	4	0	4	8	14	77	117	208	0	0	0	0	306
Grand Total	0	117	66	183	7	0	8	15	37	174	232	443	0	0	0	0	641
Apprch %	0	63.9	36.1		46.7	0	53.3		8.4	39.3	52.4		0	0	0		
Total %	0	18.3	10.3	28.5	1.1	0	1.2	2.3	5.8	27.1	36.2	69.1	0	0	0	0	

	Orchard Road Southbound				I-8 Westbound Off Ramp Westbound				SR-7 Northbound				I-8 Westbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	9	6	15	**1**	0	0	1	**9**	**27**	32	**68**	0	0	0	0	84
07:30 AM	0	**19**	10	29	1	0	1	2	3	20	25	48	0	0	0	0	79
07:45 AM	0	19	**13**	**32**	1	0	**2**	**3**	7	24	30	61	0	0	0	0	**96**
08:00 AM	0	11	4	15	1	0	2	3	3	18	**40**	61	0	0	0	0	79
Total Volume	0	58	33	91	4	0	5	9	22	89	127	238	0	0	0	0	338
% App. Total	0	63.7	36.3		44.4	0	55.6		9.2	37.4	53.4		0	0	0		
PHF	.000	.763	.635	.711	1.00	.000	.625	.750	.611	.824	.794	.875	.000	.000	.000	.000	.880

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County of Imperial
N/S: Orchard Road/SR-7
E/W: I-8 Westbound Ramps
Weather: Clear

File Name : 05_CIM_Orchard_I-8E AM
Site Code : 04120461
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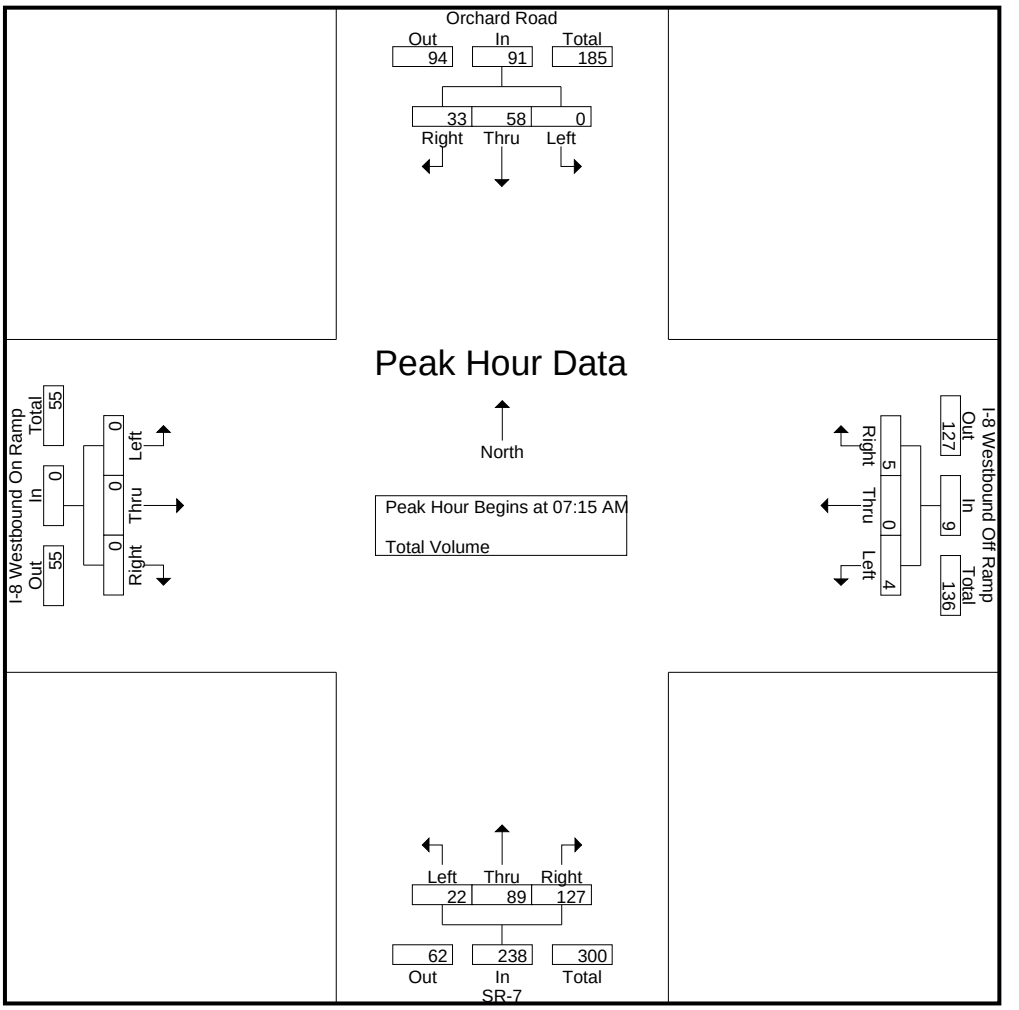

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:15 AM				07:15 AM				07:00 AM			
+0 mins.	0	**19**	10	29	**1**	0	0	1	**9**	**27**	32	**68**	0	0	0	0
+15 mins.	0	19	**13**	**32**	1	0	1	2	3	20	25	48	0	0	0	0
+30 mins.	0	11	4	15	1	0	**2**	**3**	7	24	30	61	0	0	0	0
+45 mins.	0	16	9	25	1	0	2	3	3	18	**40**	61	0	0	0	0
Total Volume	0	65	36	101	4	0	5	9	22	89	127	238	0	0	0	0
% App. Total	0	64.4	35.6		44.4	0	55.6		9.2	37.4	53.4		0	0	0	
PHF	.000	.855	.692	.789	1.000	.000	.625	.750	.611	.824	.794	.875	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

County of Imperial
N/S: Orchard Road/SR-7
E/W: I-8 Westbound Ramps
Weather: Clear

File Name : 05_CIM_Orchard_I-8E PM
Site Code : 04120461
Start Date : 12/8/2020
Page No : 1

Groups Printed- Total Volume

	Orchard Road Southbound				I-8 Westbound Off Ramp Westbound				SR-7 Northbound				I-8 Westbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	21	11	32	3	0	1	4	4	24	26	54	0	0	0	0	90
04:15 PM	0	16	10	26	3	0	2	5	3	41	25	69	0	0	0	0	100
04:30 PM	0	21	11	32	0	0	0	0	1	28	8	37	0	0	0	0	69
04:45 PM	0	12	15	27	0	0	1	1	5	23	17	45	0	0	0	0	73
Total	0	70	47	117	6	0	4	10	13	116	76	205	0	0	0	0	332
05:00 PM	0	13	8	21	7	0	1	8	2	23	16	41	0	0	0	0	70
05:15 PM	0	16	4	20	2	0	0	2	1	24	12	37	0	0	0	0	59
05:30 PM	0	14	10	24	1	0	2	3	1	31	17	49	0	0	0	0	76
05:45 PM	0	7	7	14	5	0	1	6	0	21	14	35	0	0	0	0	55
Total	0	50	29	79	15	0	4	19	4	99	59	162	0	0	0	0	260
Grand Total	0	120	76	196	21	0	8	29	17	215	135	367	0	0	0	0	592
Apprch %	0	61.2	38.8		72.4	0	27.6		4.6	58.6	36.8		0	0	0		
Total %	0	20.3	12.8	33.1	3.5	0	1.4	4.9	2.9	36.3	22.8	62	0	0	0	0	

	Orchard Road Southbound				I-8 Westbound Off Ramp Westbound				SR-7 Northbound				I-8 Westbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**21**	11	**32**	**3**	0	1	4	4	24	**26**	54	0	0	0	0	90
04:15 PM	0	16	10	26	3	0	**2**	**5**	3	**41**	25	**69**	0	0	0	0	**100**
04:30 PM	0	21	11	32	0	0	0	0	1	28	8	37	0	0	0	0	69
04:45 PM	0	12	**15**	27	0	0	1	1	**5**	23	17	45	0	0	0	0	73
Total Volume	0	70	47	117	6	0	4	10	13	116	76	205	0	0	0	0	332
% App. Total	0	59.8	40.2		60	0	40		6.3	56.6	37.1		0	0	0		
PHF	.000	.833	.783	.914	.500	.000	.500	.500	.650	.707	.731	.743	.000	.000	.000	.000	.830

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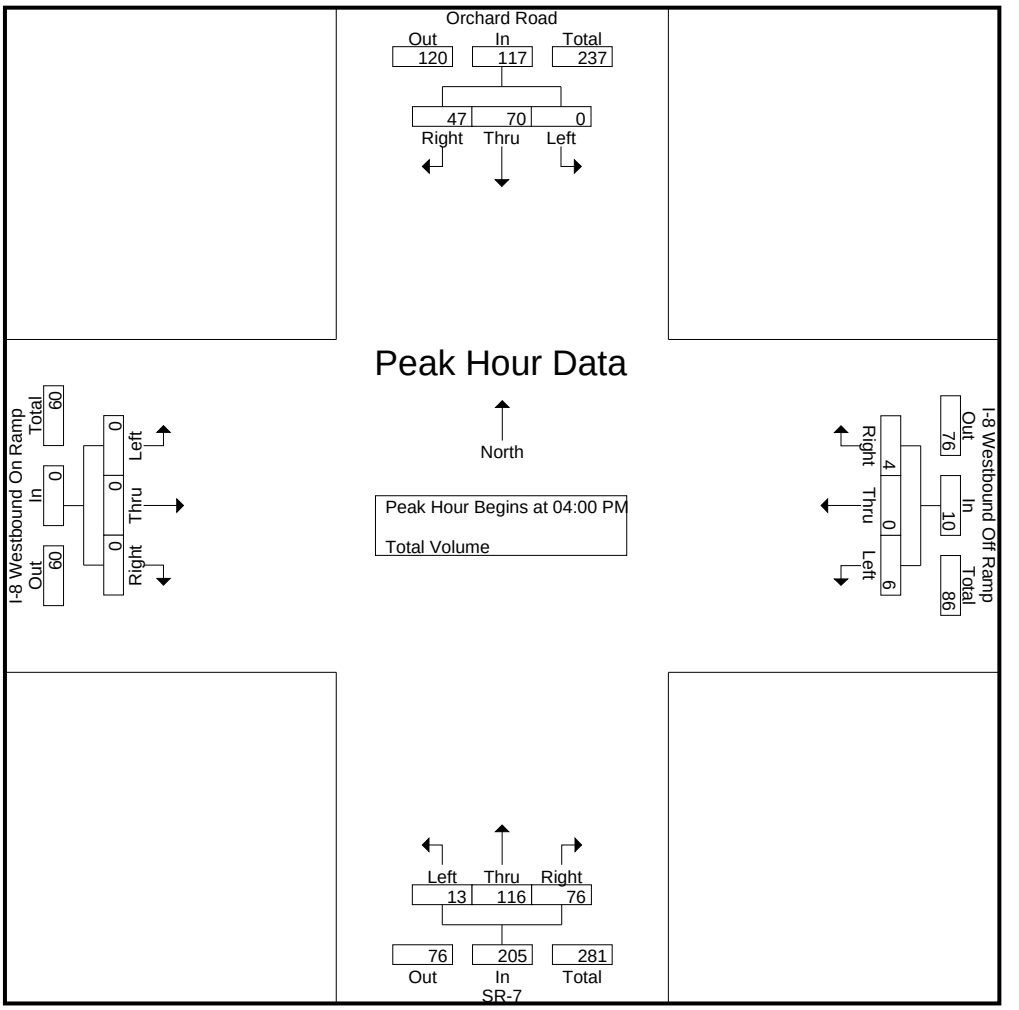

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	**21**	11	**32**	**7**	0	1	**8**	4	24	**26**	54	0	0	0	0
+15 mins.	0	16	10	26	2	0	0	2	3	**41**	25	**69**	0	0	0	0
+30 mins.	0	21	11	32	1	0	**2**	3	1	28	8	37	0	0	0	0
+45 mins.	0	12	**15**	27	5	0	1	6	**5**	23	17	45	0	0	0	0
Total Volume	0	70	47	117	15	0	4	19	13	116	76	205	0	0	0	0
% App. Total	0	59.8	40.2		78.9	0	21.1		6.3	56.6	37.1		0	0	0	
PHF	.000	.833	.783	.914	.536	.000	.500	.594	.650	.707	.731	.743	.000	.000	.000	.000

APPENDIX B : EXISTING YEAR CONDITIONS ANALYSIS WORKSHEETS

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	61	0	0	54	0	0
Future Vol, veh/h	61	0	0	54	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	66	0	0	59	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	66	0	125	66
Stage 1	-	-	-	-	66	-
Stage 2	-	-	-	-	59	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1536	-	870	998
Stage 1	-	-	-	-	957	-
Stage 2	-	-	-	-	964	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1536	-	870	998
Mov Cap-2 Maneuver	-	-	-	-	870	-
Stage 1	-	-	-	-	957	-
Stage 2	-	-	-	-	964	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1536	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	66	0	0	82	0	0
Future Vol, veh/h	66	0	0	82	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	72	0	0	89	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	72	0	161	72
Stage 1	-	-	-	-	72	-
Stage 2	-	-	-	-	89	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1528	-	830	990
Stage 1	-	-	-	-	951	-
Stage 2	-	-	-	-	934	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1528	-	830	990
Mov Cap-2 Maneuver	-	-	-	-	830	-
Stage 1	-	-	-	-	951	-
Stage 2	-	-	-	-	934	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1528	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	61	54	7	6	7
Future Vol, veh/h	10	61	54	7	6	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	66	59	8	7	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	67	0	-	0	151	63
Stage 1	-	-	-	-	63	-
Stage 2	-	-	-	-	88	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1535	-	-	-	841	1002
Stage 1	-	-	-	-	960	-
Stage 2	-	-	-	-	935	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1535	-	-	-	835	1002
Mov Cap-2 Maneuver	-	-	-	-	835	-
Stage 1	-	-	-	-	953	-
Stage 2	-	-	-	-	935	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1535	-	-	-	835	1002
HCM Lane V/C Ratio	0.007	-	-	-	0.008	0.008
HCM Control Delay (s)	7.4	-	-	-	9.3	8.6
HCM Lane LOS	A	-	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	-	0	0

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	66	82	10	2	17
Future Vol, veh/h	5	66	82	10	2	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	72	89	11	2	18

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	100	0	-	0	177	95
Stage 1	-	-	-	-	95	-
Stage 2	-	-	-	-	82	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1493	-	-	-	813	962
Stage 1	-	-	-	-	929	-
Stage 2	-	-	-	-	941	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1493	-	-	-	811	962
Mov Cap-2 Maneuver	-	-	-	-	811	-
Stage 1	-	-	-	-	926	-
Stage 2	-	-	-	-	941	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1493	-	-	-	811	962
HCM Lane V/C Ratio	0.004	-	-	-	0.003	0.019
HCM Control Delay (s)	7.4	-	-	-	9.5	8.8
HCM Lane LOS	A	-	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	-	0	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	25	106	27	26	8	53	176	31	4	123	40
Future Volume (veh/h)	21	25	106	27	26	8	53	176	31	4	123	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	23	27	115	29	28	9	58	191	34	4	134	43
Adj No. of Lanes	1	1	2	1	1	1	2	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	694	745	1115	646	745	633	1198	1416	633	581	1416	633
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Ln Grp Delay, s/veh	8.6	8.3	8.6	8.7	8.3	8.2	9.0	8.8	8.4	9.1	8.6	8.5
Ln Grp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		165			66			283			181	
Approach Delay, s/veh		8.6			8.5			8.8			8.6	
Approach LOS		A			A			A			A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		5.0		5.0		5.0		5.0
Phs Duration (G+Y+Rc), s		22.5		22.5		22.5		22.5
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green (Gmax), s		18.0		18.0		18.0		18.0
Max Allow Headway (MAH), s		4.9		4.2		4.9		4.6
Max Q Clear (g_c+I1), s		3.8		3.2		3.6		3.1
Green Ext Time (g_e), s		1.3		0.5		0.7		0.2
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.00		0.00		0.00		0.00

Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		2333		1365		1151		1241

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		3539		1863		3539		1863

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1583		2787		1583		1583

Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment								

Lanes in Grp	0	2	0	1	0	1	0	1
Grp Vol (v), veh/h	0	58	0	23	0	4	0	29
Grp Sat Flow (s), veh/h/ln	0	1166	0	1365	0	1151	0	1241
Q Serve Time (g_s), s	0.0	0.7	0.0	0.5	0.0	0.1	0.0	0.7
Cycle Q Clear Time (g_c), s	0.0	1.8	0.0	0.9	0.0	1.6	0.0	1.1
Perm LT Sat Flow (s_l), veh/h/ln	0	1166	0	1365	0	1151	0	1241
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	18.0	0.0	18.0	0.0	18.0	0.0	18.0
Perm LT Serve Time (g_u), s	0.0	16.9	0.0	17.6	0.0	16.5	0.0	17.6
Perm LT Q Serve Time (g_ps), s	0.0	0.7	0.0	0.5	0.0	0.1	0.0	0.7
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	1198	0	694	0	581	0	646
V/C Ratio (X)	0.00	0.05	0.00	0.03	0.00	0.01	0.00	0.04
Avail Cap (c_a), veh/h	0	1198	0	694	0	581	0	646
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	9.0	0.0	8.5	0.0	9.1	0.0	8.5
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.0	0.0	8.6	0.0	9.1	0.0	8.7
1st-Term Q (Q1), veh/ln	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.2
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.2
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	191	0	27	0	134	0	28
Grp Sat Flow (s), veh/h/ln	0	1770	0	1863	0	1770	0	1863
Q Serve Time (g_s), s	0.0	1.5	0.0	0.4	0.0	1.1	0.0	0.4
Cycle Q Clear Time (g_c), s	0.0	1.5	0.0	0.4	0.0	1.1	0.0	0.4
Lane Grp Cap (c), veh/h	0	1416	0	745	0	1416	0	745
V/C Ratio (X)	0.00	0.13	0.00	0.04	0.00	0.09	0.00	0.04
Avail Cap (c_a), veh/h	0	1416	0	745	0	1416	0	745
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.6	0.0	8.2	0.0	8.4	0.0	8.2
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.1	0.0	0.1	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.8	0.0	8.3	0.0	8.6	0.0	8.3
1st-Term Q (Q1), veh/ln	0.0	0.7	0.0	0.2	0.0	0.5	0.0	0.2

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.8	0.0	0.2	0.0	0.5	0.0	0.2
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.00	0.00	0.02	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	2	0	1	0	1
Grp Vol (v), veh/h	0	34	0	115	0	43	0	9
Grp Sat Flow (s), veh/h/ln	0	1583	0	1393	0	1583	0	1583
Q Serve Time (g_s), s	0.0	0.6	0.0	1.2	0.0	0.8	0.0	0.2
Cycle Q Clear Time (g_c), s	0.0	0.6	0.0	1.2	0.0	0.8	0.0	0.2
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	633	0	1115	0	633	0	633
V/C Ratio (X)	0.00	0.05	0.00	0.10	0.00	0.07	0.00	0.01
Avail Cap (c_a), veh/h	0	633	0	1115	0	633	0	633
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.3	0.0	8.4	0.0	8.3	0.0	8.1
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.2	0.0	0.2	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.4	0.0	8.6	0.0	8.5	0.0	8.2
1st-Term Q (Q1), veh/ln	0.0	0.3	0.0	0.4	0.0	0.3	0.0	0.1
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.3	0.0	0.5	0.0	0.4	0.0	0.1
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	8.6
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	52	98	14	103	9	94	106	17	0	64	62
Future Volume (veh/h)	36	52	98	14	103	9	94	106	17	0	64	62
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	39	57	107	15	112	10	102	115	18	0	70	67
Adj No. of Lanes	1	1	2	1	1	1	2	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	617	745	1115	624	745	633	1258	1416	633	160	1416	633
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.40	0.40
Ln Grp Delay, s/veh	9.7	8.6	8.6	8.8	9.0	8.2	8.9	8.5	8.3	0.0	8.3	8.8
Ln Grp LOS	A	A	A	A	A	A	A	A	A		A	A
Approach Vol, veh/h		203			137			235			137	
Approach Delay, s/veh		8.8			9.0			8.7			8.6	
Approach LOS		A			A			A			A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		5.0		5.0		5.0		5.0
Phs Duration (G+Y+Rc), s		22.5		22.5		22.5		22.5
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green (Gmax), s		18.0		18.0		18.0		18.0
Max Allow Headway (MAH), s		4.7		4.4		4.7		5.0
Max Q Clear (g_c+I1), s		3.8		4.6		3.2		3.7
Green Ext Time (g_e), s		0.9		0.6		0.5		0.5
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.00		0.00		0.00		0.00

Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		2419		1264		1252		1217

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		3539		1863		3539		1863

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1583		2787		1583		1583

Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment								

Lanes in Grp	0	2	0	1	0	1	0	1
Grp Vol (v), veh/h	0	102	0	39	0	0	0	15
Grp Sat Flow (s), veh/h/ln	0	1210	0	1264	0	1252	0	1217
Q Serve Time (g_s), s	0.0	1.2	0.0	0.9	0.0	0.0	0.0	0.3
Cycle Q Clear Time (g_c), s	0.0	1.8	0.0	2.6	0.0	0.0	0.0	1.2
Perm LT Sat Flow (s_l), veh/h/ln	0	1210	0	1264	0	1252	0	1217
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	18.0	0.0	18.0	0.0	0.0	0.0	18.0
Perm LT Serve Time (g_u), s	0.0	17.5	0.0	16.3	0.0	0.0	0.0	17.1
Perm LT Q Serve Time (g_ps), s	0.0	1.2	0.0	0.9	0.0	0.0	0.0	0.3
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	1258	0	617	0	160	0	624
V/C Ratio (X)	0.00	0.08	0.00	0.06	0.00	0.00	0.00	0.02
Avail Cap (c_a), veh/h	0	1258	0	617	0	160	0	624
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.8	0.0	9.5	0.0	0.0	0.0	8.7
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.9	0.0	9.7	0.0	0.0	0.0	8.8
1st-Term Q (Q1), veh/ln	0.0	0.4	0.0	0.3	0.0	0.0	0.0	0.1
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.4	0.0	0.3	0.0	0.0	0.0	0.1
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	115	0	57	0	70	0	112
Grp Sat Flow (s), veh/h/ln	0	1770	0	1863	0	1770	0	1863
Q Serve Time (g_s), s	0.0	0.9	0.0	0.9	0.0	0.5	0.0	1.7
Cycle Q Clear Time (g_c), s	0.0	0.9	0.0	0.9	0.0	0.5	0.0	1.7
Lane Grp Cap (c), veh/h	0	1416	0	745	0	1416	0	745
V/C Ratio (X)	0.00	0.08	0.00	0.08	0.00	0.05	0.00	0.15
Avail Cap (c_a), veh/h	0	1416	0	745	0	1416	0	745
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.4	0.0	8.4	0.0	8.3	0.0	8.6
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.2	0.0	0.1	0.0	0.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.5	0.0	8.6	0.0	8.3	0.0	9.0
1st-Term Q (Q1), veh/ln	0.0	0.4	0.0	0.4	0.0	0.3	0.0	0.9

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.5	0.0	0.5	0.0	0.3	0.0	1.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	2	0	1	0	1
Grp Vol (v), veh/h	0	18	0	107	0	67	0	10
Grp Sat Flow (s), veh/h/ln	0	1583	0	1393	0	1583	0	1583
Q Serve Time (g_s), s	0.0	0.3	0.0	1.1	0.0	1.2	0.0	0.2
Cycle Q Clear Time (g_c), s	0.0	0.3	0.0	1.1	0.0	1.2	0.0	0.2
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	633	0	1115	0	633	0	633
V/C Ratio (X)	0.00	0.03	0.00	0.10	0.00	0.11	0.00	0.02
Avail Cap (c_a), veh/h	0	633	0	1115	0	633	0	633
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.2	0.0	8.4	0.0	8.5	0.0	8.2
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.2	0.0	0.3	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.3	0.0	8.6	0.0	8.8	0.0	8.2
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	0.4	0.0	0.5	0.0	0.1
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.4	0.0	0.6	0.0	0.1
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	8.7
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	3	5	3	2	13	15	196	3	8	158	10
Future Vol, veh/h	0	3	5	3	2	13	15	196	3	8	158	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	0	-	0	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3	5	3	2	14	16	213	3	9	172	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	330	438	86	351	446	107	183	0	0	216	0	0
Stage 1	190	190	-	245	245	-	-	-	-	-	-	-
Stage 2	140	248	-	106	201	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	599	511	956	579	506	926	1389	-	-	1351	-	-
Stage 1	794	742	-	737	702	-	-	-	-	-	-	-
Stage 2	849	700	-	888	734	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	580	501	956	565	496	926	1389	-	-	1351	-	-
Mov Cap-2 Maneuver	580	501	-	565	496	-	-	-	-	-	-	-
Stage 1	784	737	-	728	694	-	-	-	-	-	-	-
Stage 2	824	692	-	873	729	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.1	9.7	0.5	0.3
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1389	-	-	501	956	535	926	1351	-	-
HCM Lane V/C Ratio	0.012	-	-	0.007	0.006	0.01	0.015	0.006	-	-
HCM Control Delay (s)	7.6	-	-	12.2	8.8	11.8	8.9	7.7	-	-
HCM Lane LOS	A	-	-	B	A	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	0	0	-	-

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	3	14	2	7	14	17	135	0	6	107	10
Future Vol, veh/h	8	3	14	2	7	14	17	135	0	6	107	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	0	-	0	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	3	15	2	8	15	18	147	0	7	116	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	244	313	58	257	324	74	127	0	0	147	0	0
Stage 1	130	130	-	183	183	-	-	-	-	-	-	-
Stage 2	114	183	-	74	141	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	690	601	996	675	592	973	1457	-	-	1432	-	-
Stage 1	860	788	-	801	747	-	-	-	-	-	-	-
Stage 2	879	747	-	927	779	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	664	591	996	653	582	973	1457	-	-	1432	-	-
Mov Cap-2 Maneuver	664	591	-	653	582	-	-	-	-	-	-	-
Stage 1	850	784	-	791	738	-	-	-	-	-	-	-
Stage 2	846	738	-	905	775	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.6	9.7	0.8	0.4
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1457	-	-	642	996	596	973	1432	-	-
HCM Lane V/C Ratio	0.013	-	-	0.019	0.015	0.016	0.016	0.005	-	-
HCM Control Delay (s)	7.5	-	-	10.7	8.7	11.1	8.8	7.5	-	-
HCM Lane LOS	A	-	-	B	A	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0.1	0	0	-	-

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	121	0	26	0	0	0	0	206	1	1	56	0
Future Vol, veh/h	121	0	26	0	0	0	0	206	1	1	56	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	132	0	28	0	0	0	0	224	1	1	61	0

Major/Minor	Minor2						Major1			Major2		
Conflicting Flow All	175	288	61				-	0	0	225	0	0
Stage 1	63	63	-				-	-	-	-	-	-
Stage 2	112	225	-				-	-	-	-	-	-
Critical Hdwy	6.63	6.53	6.23				-	-	-	4.13	-	-
Critical Hdwy Stg 1	5.43	5.53	-				-	-	-	-	-	-
Critical Hdwy Stg 2	5.83	5.53	-				-	-	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319				-	-	-	2.219	-	-
Pot Cap-1 Maneuver	806	621	1004				0	-	-	1342	-	0
Stage 1	959	842	-				0	-	-	-	-	0
Stage 2	901	717	-				0	-	-	-	-	0
Platoon blocked, %								-	-		-	
Mov Cap-1 Maneuver	805	0	1004				-	-	-	1342	-	-
Mov Cap-2 Maneuver	805	0	-				-	-	-	-	-	-
Stage 1	959	0	-				-	-	-	-	-	-
Stage 2	900	0	-				-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.3	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	834	1342	-
HCM Lane V/C Ratio	-	-	0.192	0.001	-
HCM Control Delay (s)	-	-	10.3	7.7	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.7	0	-

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	46	0	49	0	0	0	0	152	9	0	74	0
Future Vol, veh/h	46	0	49	0	0	0	0	152	9	0	74	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	50	0	53	0	0	0	0	165	10	0	80	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	163	255	80	-	0	0	-	-	0
Stage 1	80	80	-	-	-	-	-	-	-
Stage 2	83	175	-	-	-	-	-	-	-
Critical Hdwy	6.63	6.53	6.23	-	-	-	-	-	-
Critical Hdwy Stg 1	5.43	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.83	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	-	-	-	-	-	-
Pot Cap-1 Maneuver	820	648	980	0	-	-	0	-	0
Stage 1	943	828	-	0	-	-	0	-	0
Stage 2	931	754	-	0	-	-	0	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	820	0	980	-	-	-	-	-	-
Mov Cap-2 Maneuver	820	0	-	-	-	-	-	-	-
Stage 1	943	0	-	-	-	-	-	-	-
Stage 2	931	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBT
Capacity (veh/h)	-	-	895	-
HCM Lane V/C Ratio	-	-	0.115	-
HCM Control Delay (s)	-	-	9.5	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	0.4	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	4	0	5	22	89	0	0	58	33
Future Vol, veh/h	0	0	0	4	0	5	22	89	0	0	58	33
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	4	0	5	24	97	0	0	63	36

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	226	244	97	99	0	-	-	-	0
Stage 1	145	145	-	-	-	-	-	-	-
Stage 2	81	99	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	762	658	959	1494	-	0	0	-	-
Stage 1	882	777	-	-	-	0	0	-	-
Stage 2	942	813	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	749	0	959	1494	-	-	-	-	-
Mov Cap-2 Maneuver	749	0	-	-	-	-	-	-	-
Stage 1	867	0	-	-	-	-	-	-	-
Stage 2	942	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	1.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	SBT	SBR
Capacity (veh/h)	1494	-	853	-	-
HCM Lane V/C Ratio	0.016	-	0.011	-	-
HCM Control Delay (s)	7.4	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	6	0	4	13	116	76	0	70	47
Future Vol, veh/h	0	0	0	6	0	4	13	116	76	0	70	47
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	7	0	4	14	126	83	0	76	51

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	298	323	168	127	0	0	-	-	0
Stage 1	196	196	-	-	-	-	-	-	-
Stage 2	102	127	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	693	595	876	1459	-	-	0	-	-
Stage 1	837	739	-	-	-	-	0	-	-
Stage 2	922	791	-	-	-	-	0	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	685	0	876	1459	-	-	-	-	-
Mov Cap-2 Maneuver	685	0	-	-	-	-	-	-	-
Stage 1	828	0	-	-	-	-	-	-	-
Stage 2	922	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.9	0.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	WBLn1	SBT	SBR
Capacity (veh/h)	1459	-	-	750	-	-
HCM Lane V/C Ratio	0.01	-	-	0.014	-	-
HCM Control Delay (s)	7.5	0	-	9.9	-	-
HCM Lane LOS	A	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	-	-

APPENDIX C : CONSTRUCTION YEAR PROJECT ANALYSIS WORKSHEETS

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	64	0	0	57	0	0
Future Vol, veh/h	64	0	0	57	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	70	0	0	62	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	70	0	132	70
Stage 1	-	-	-	-	70	-
Stage 2	-	-	-	-	62	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1531	-	862	993
Stage 1	-	-	-	-	953	-
Stage 2	-	-	-	-	961	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1531	-	862	993
Mov Cap-2 Maneuver	-	-	-	-	862	-
Stage 1	-	-	-	-	953	-
Stage 2	-	-	-	-	961	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1531	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	70	0	0	87	0	0
Future Vol, veh/h	70	0	0	87	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	76	0	0	95	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	76	0	171	76
Stage 1	-	-	-	-	76	-
Stage 2	-	-	-	-	95	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1523	-	819	985
Stage 1	-	-	-	-	947	-
Stage 2	-	-	-	-	929	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1523	-	819	985
Mov Cap-2 Maneuver	-	-	-	-	819	-
Stage 1	-	-	-	-	947	-
Stage 2	-	-	-	-	929	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1523	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	65	57	7	6	7
Future Vol, veh/h	11	65	57	7	6	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	71	62	8	7	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	70	0	-	0	161	66
Stage 1	-	-	-	-	66	-
Stage 2	-	-	-	-	95	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1531	-	-	-	830	998
Stage 1	-	-	-	-	957	-
Stage 2	-	-	-	-	929	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1531	-	-	-	823	998
Mov Cap-2 Maneuver	-	-	-	-	823	-
Stage 1	-	-	-	-	949	-
Stage 2	-	-	-	-	929	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1531	-	-	-	823	998
HCM Lane V/C Ratio	0.008	-	-	-	0.008	0.008
HCM Control Delay (s)	7.4	-	-	-	9.4	8.6
HCM Lane LOS	A	-	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	-	0	0

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	70	87	11	2	18
Future Vol, veh/h	5	70	87	11	2	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	76	95	12	2	20

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	107	0	-	0	187	101
Stage 1	-	-	-	-	101	-
Stage 2	-	-	-	-	86	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1484	-	-	-	802	954
Stage 1	-	-	-	-	923	-
Stage 2	-	-	-	-	937	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1484	-	-	-	800	954
Mov Cap-2 Maneuver	-	-	-	-	800	-
Stage 1	-	-	-	-	920	-
Stage 2	-	-	-	-	937	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1484	-	-	-	800	954
HCM Lane V/C Ratio	0.004	-	-	-	0.003	0.021
HCM Control Delay (s)	7.4	-	-	-	9.5	8.9
HCM Lane LOS	A	-	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	-	0	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	26	112	28	27	8	56	186	33	4	130	42
Future Volume (veh/h)	22	26	112	28	27	8	56	186	33	4	130	42
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	24	28	122	30	29	9	61	202	36	4	141	46
Adj No. of Lanes	1	1	2	1	1	1	2	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	693	745	1115	642	745	633	1187	1416	633	574	1416	633
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Ln Grp Delay, s/veh	8.6	8.3	8.7	8.7	8.3	8.2	9.1	8.8	8.5	9.2	8.6	8.6
Ln Grp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		174			68			299			191	
Approach Delay, s/veh		8.6			8.5			8.8			8.6	
Approach LOS		A			A			A			A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		5.0		5.0		5.0		5.0
Phs Duration (G+Y+Rc), s		22.5		22.5		22.5		22.5
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green (Gmax), s		18.0		18.0		18.0		18.0
Max Allow Headway (MAH), s		4.9		4.2		4.9		4.6
Max Q Clear (g_c+l1), s		3.9		3.2		3.7		3.1
Green Ext Time (g_e), s		1.3		0.5		0.8		0.2
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.00		0.00		0.00		0.00

Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		2312		1364		1138		1232

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		3539		1863		3539		1863

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1583		2787		1583		1583

Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment								

Lanes in Grp	0	2	0	1	0	1	0	1
Grp Vol (v), veh/h	0	61	0	24	0	4	0	30
Grp Sat Flow (s), veh/h/ln	0	1156	0	1364	0	1138	0	1232
Q Serve Time (g_s), s	0.0	0.8	0.0	0.5	0.0	0.1	0.0	0.7
Cycle Q Clear Time (g_c), s	0.0	1.9	0.0	0.9	0.0	1.7	0.0	1.1
Perm LT Sat Flow (s_l), veh/h/ln	0	1156	0	1364	0	1138	0	1232
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	18.0	0.0	18.0	0.0	18.0	0.0	18.0
Perm LT Serve Time (g_u), s	0.0	16.9	0.0	17.6	0.0	16.4	0.0	17.6
Perm LT Q Serve Time (g_ps), s	0.0	0.8	0.0	0.5	0.0	0.1	0.0	0.7
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	1187	0	693	0	574	0	642
V/C Ratio (X)	0.00	0.05	0.00	0.03	0.00	0.01	0.00	0.05
Avail Cap (c_a), veh/h	0	1187	0	693	0	574	0	642
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	9.0	0.0	8.5	0.0	9.1	0.0	8.6
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.1	0.0	8.6	0.0	9.2	0.0	8.7
1st-Term Q (Q1), veh/ln	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.2
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.3	0.0	0.2	0.0	0.0	0.0	0.3
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	202	0	28	0	141	0	29
Grp Sat Flow (s), veh/h/ln	0	1770	0	1863	0	1770	0	1863
Q Serve Time (g_s), s	0.0	1.6	0.0	0.4	0.0	1.1	0.0	0.4
Cycle Q Clear Time (g_c), s	0.0	1.6	0.0	0.4	0.0	1.1	0.0	0.4
Lane Grp Cap (c), veh/h	0	1416	0	745	0	1416	0	745
V/C Ratio (X)	0.00	0.14	0.00	0.04	0.00	0.10	0.00	0.04
Avail Cap (c_a), veh/h	0	1416	0	745	0	1416	0	745
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.6	0.0	8.2	0.0	8.4	0.0	8.2
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.1	0.0	0.1	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.8	0.0	8.3	0.0	8.6	0.0	8.3
1st-Term Q (Q1), veh/ln	0.0	0.8	0.0	0.2	0.0	0.5	0.0	0.2

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.8	0.0	0.2	0.0	0.6	0.0	0.2
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.00	0.00	0.02	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	2	0	1	0	1
Grp Vol (v), veh/h	0	36	0	122	0	46	0	9
Grp Sat Flow (s), veh/h/ln	0	1583	0	1393	0	1583	0	1583
Q Serve Time (g_s), s	0.0	0.6	0.0	1.2	0.0	0.8	0.0	0.2
Cycle Q Clear Time (g_c), s	0.0	0.6	0.0	1.2	0.0	0.8	0.0	0.2
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	633	0	1115	0	633	0	633
V/C Ratio (X)	0.00	0.06	0.00	0.11	0.00	0.07	0.00	0.01
Avail Cap (c_a), veh/h	0	633	0	1115	0	633	0	633
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.3	0.0	8.5	0.0	8.3	0.0	8.1
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.2	0.0	0.2	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.5	0.0	8.7	0.0	8.6	0.0	8.2
1st-Term Q (Q1), veh/ln	0.0	0.3	0.0	0.5	0.0	0.3	0.0	0.1
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.3	0.0	0.5	0.0	0.4	0.0	0.1
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	8.7
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	55	103	15	109	9	99	112	18	0	68	65
Future Volume (veh/h)	38	55	103	15	109	9	99	112	18	0	68	65
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	41	60	112	16	118	10	108	122	20	0	74	71
Adj No. of Lanes	1	1	2	1	1	1	2	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	612	745	1115	619	745	633	1250	1416	633	160	1416	633
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.40	0.40
Ln Grp Delay, s/veh	9.8	8.6	8.6	8.8	9.1	8.2	9.0	8.5	8.3	0.0	8.3	8.8
Ln Grp LOS	A	A	A	A	A	A	A	A	A		A	A
Approach Vol, veh/h		213			144			250			145	
Approach Delay, s/veh		8.8			9.0			8.7			8.6	
Approach LOS		A			A			A			A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		5.0		5.0		5.0		5.0
Phs Duration (G+Y+Rc), s		22.5		22.5		22.5		22.5
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green (Gmax), s		18.0		18.0		18.0		18.0
Max Allow Headway (MAH), s		4.7		4.4		4.7		5.0
Max Q Clear (g_c+I1), s		3.9		4.8		3.3		3.8
Green Ext Time (g_e), s		1.0		0.7		0.5		0.5
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.00		0.00		0.00		0.00

Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		2402		1257		1241		1208

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		3539		1863		3539		1863

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1583		2787		1583		1583

Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment								

Lanes in Grp	0	2	0	1	0	1	0	1
Grp Vol (v), veh/h	0	108	0	41	0	0	0	16
Grp Sat Flow (s), veh/h/ln	0	1201	0	1257	0	1241	0	1208
Q Serve Time (g_s), s	0.0	1.3	0.0	1.0	0.0	0.0	0.0	0.4
Cycle Q Clear Time (g_c), s	0.0	1.9	0.0	2.8	0.0	0.0	0.0	1.3
Perm LT Sat Flow (s_l), veh/h/ln	0	1201	0	1257	0	1241	0	1208
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	18.0	0.0	18.0	0.0	0.0	0.0	18.0
Perm LT Serve Time (g_u), s	0.0	17.4	0.0	16.2	0.0	0.0	0.0	17.1
Perm LT Q Serve Time (g_ps), s	0.0	1.3	0.0	1.0	0.0	0.0	0.0	0.4
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	1250	0	612	0	160	0	619
V/C Ratio (X)	0.00	0.09	0.00	0.07	0.00	0.00	0.00	0.03
Avail Cap (c_a), veh/h	0	1250	0	612	0	160	0	619
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.8	0.0	9.5	0.0	0.0	0.0	8.8
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.0	0.0	9.8	0.0	0.0	0.0	8.8
1st-Term Q (Q1), veh/ln	0.0	0.4	0.0	0.3	0.0	0.0	0.0	0.1
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.4	0.0	0.4	0.0	0.0	0.0	0.1
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	122	0	60	0	74	0	118
Grp Sat Flow (s), veh/h/ln	0	1770	0	1863	0	1770	0	1863
Q Serve Time (g_s), s	0.0	1.0	0.0	0.9	0.0	0.6	0.0	1.8
Cycle Q Clear Time (g_c), s	0.0	1.0	0.0	0.9	0.0	0.6	0.0	1.8
Lane Grp Cap (c), veh/h	0	1416	0	745	0	1416	0	745
V/C Ratio (X)	0.00	0.09	0.00	0.08	0.00	0.05	0.00	0.16
Avail Cap (c_a), veh/h	0	1416	0	745	0	1416	0	745
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.4	0.0	8.4	0.0	8.3	0.0	8.6
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.2	0.0	0.1	0.0	0.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.5	0.0	8.6	0.0	8.3	0.0	9.1
1st-Term Q (Q1), veh/ln	0.0	0.5	0.0	0.4	0.0	0.3	0.0	0.9

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.5	0.0	0.5	0.0	0.3	0.0	1.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	2	0	1	0	1
Grp Vol (v), veh/h	0	20	0	112	0	71	0	10
Grp Sat Flow (s), veh/h/ln	0	1583	0	1393	0	1583	0	1583
Q Serve Time (g_s), s	0.0	0.3	0.0	1.1	0.0	1.3	0.0	0.2
Cycle Q Clear Time (g_c), s	0.0	0.3	0.0	1.1	0.0	1.3	0.0	0.2
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	633	0	1115	0	633	0	633
V/C Ratio (X)	0.00	0.03	0.00	0.10	0.00	0.11	0.00	0.02
Avail Cap (c_a), veh/h	0	633	0	1115	0	633	0	633
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.2	0.0	8.4	0.0	8.5	0.0	8.2
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.2	0.0	0.4	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.3	0.0	8.6	0.0	8.8	0.0	8.2
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	0.4	0.0	0.6	0.0	0.1
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.2	0.0	0.5	0.0	0.6	0.0	0.1
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	8.8
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	3	5	3	2	14	16	207	3	8	167	11
Future Vol, veh/h	0	3	5	3	2	14	16	207	3	8	167	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	0	-	0	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3	5	3	2	15	17	225	3	9	182	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	348	462	91	370	471	113	194	0	0	228	0	0
Stage 1	200	200	-	259	259	-	-	-	-	-	-	-
Stage 2	148	262	-	111	212	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	582	495	949	562	489	918	1377	-	-	1337	-	-
Stage 1	783	735	-	723	692	-	-	-	-	-	-	-
Stage 2	840	690	-	882	726	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	562	486	949	548	480	918	1377	-	-	1337	-	-
Mov Cap-2 Maneuver	562	486	-	548	480	-	-	-	-	-	-	-
Stage 1	774	730	-	714	684	-	-	-	-	-	-	-
Stage 2	813	682	-	867	721	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.2	9.8	0.5	0.3
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1377	-	-	486	949	519	918	1337	-	-
HCM Lane V/C Ratio	0.013	-	-	0.007	0.006	0.01	0.017	0.007	-	-
HCM Control Delay (s)	7.6	-	-	12.5	8.8	12	9	7.7	-	-
HCM Lane LOS	A	-	-	B	A	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	3	15	2	7	15	18	142	0	6	113	11
Future Vol, veh/h	8	3	15	2	7	15	18	142	0	6	113	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	0	-	0	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	3	16	2	8	16	20	154	0	7	123	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	258	331	62	271	343	77	135	0	0	154	0	0
Stage 1	137	137	-	194	194	-	-	-	-	-	-	-
Stage 2	121	194	-	77	149	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	674	587	990	660	578	968	1447	-	-	1424	-	-
Stage 1	852	782	-	789	739	-	-	-	-	-	-	-
Stage 2	870	739	-	923	773	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	646	576	990	637	567	968	1447	-	-	1424	-	-
Mov Cap-2 Maneuver	646	576	-	637	567	-	-	-	-	-	-	-
Stage 1	840	778	-	778	729	-	-	-	-	-	-	-
Stage 2	835	729	-	900	769	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.6	9.7	0.8	0.3
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1447	-	-	625	990	581	968	1424	-	-
HCM Lane V/C Ratio	0.014	-	-	0.019	0.016	0.017	0.017	0.005	-	-
HCM Control Delay (s)	7.5	-	-	10.9	8.7	11.3	8.8	7.5	-	-
HCM Lane LOS	A	-	-	B	A	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	128	0	27	0	0	0	0	217	1	1	59	0
Future Vol, veh/h	128	0	27	0	0	0	0	217	1	1	59	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	139	0	29	0	0	0	0	236	1	1	64	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	184	303	64	-	0	0	237	0	0
Stage 1	66	66	-	-	-	-	-	-	-
Stage 2	118	237	-	-	-	-	-	-	-
Critical Hdwy	6.63	6.53	6.23	-	-	-	4.13	-	-
Critical Hdwy Stg 1	5.43	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.83	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	-	-	-	2.219	-	-
Pot Cap-1 Maneuver	797	609	1000	0	-	-	1329	-	0
Stage 1	956	840	-	0	-	-	-	-	0
Stage 2	895	708	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	796	0	1000	-	-	-	1329	-	-
Mov Cap-2 Maneuver	796	0	-	-	-	-	-	-	-
Stage 1	956	0	-	-	-	-	-	-	-
Stage 2	894	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.5	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	825	1329	-
HCM Lane V/C Ratio	-	-	0.204	0.001	-
HCM Control Delay (s)	-	-	10.5	7.7	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.8	0	-

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	49	0	52	0	0	0	0	160	9	0	78	0
Future Vol, veh/h	49	0	52	0	0	0	0	160	9	0	78	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	53	0	57	0	0	0	0	174	10	0	85	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	172	269	85	-	0	0	-	-	0
Stage 1	85	85	-	-	-	-	-	-	-
Stage 2	87	184	-	-	-	-	-	-	-
Critical Hdwy	6.63	6.53	6.23	-	-	-	-	-	-
Critical Hdwy Stg 1	5.43	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.83	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	-	-	-	-	-	-
Pot Cap-1 Maneuver	810	637	973	0	-	-	0	-	0
Stage 1	938	824	-	0	-	-	0	-	0
Stage 2	927	747	-	0	-	-	0	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	810	0	973	-	-	-	-	-	-
Mov Cap-2 Maneuver	810	0	-	-	-	-	-	-	-
Stage 1	938	0	-	-	-	-	-	-	-
Stage 2	927	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.6	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBT
Capacity (veh/h)	-	-	886	-
HCM Lane V/C Ratio	-	-	0.124	-
HCM Control Delay (s)	-	-	9.6	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	0.4	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	4	0	5	23	94	0	0	61	35
Future Vol, veh/h	0	0	0	4	0	5	23	94	0	0	61	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	4	0	5	25	102	0	0	66	38

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	237	256	102	104	0	-	-	-	0
Stage 1	152	152	-	-	-	-	-	-	-
Stage 2	85	104	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	751	648	953	1488	-	0	0	-	-
Stage 1	876	772	-	-	-	0	0	-	-
Stage 2	938	809	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	737	0	953	1488	-	-	-	-	-
Mov Cap-2 Maneuver	737	0	-	-	-	-	-	-	-
Stage 1	860	0	-	-	-	-	-	-	-
Stage 2	938	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	1.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	SBT	SBR
Capacity (veh/h)	1488	-	843	-	-
HCM Lane V/C Ratio	0.017	-	0.012	-	-
HCM Control Delay (s)	7.5	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	6	0	4	14	122	80	0	74	50
Future Vol, veh/h	0	0	0	6	0	4	14	122	80	0	74	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	7	0	4	15	133	87	0	80	54

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	314	341	177	134	0	0	-	-	0
Stage 1	207	207	-	-	-	-	-	-	-
Stage 2	107	134	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	679	581	866	1451	-	-	0	-	-
Stage 1	828	731	-	-	-	-	0	-	-
Stage 2	917	785	-	-	-	-	0	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	671	0	866	1451	-	-	-	-	-
Mov Cap-2 Maneuver	671	0	-	-	-	-	-	-	-
Stage 1	818	0	-	-	-	-	-	-	-
Stage 2	917	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	WBLn1	SBT	SBR
Capacity (veh/h)	1451	-	-	737	-	-
HCM Lane V/C Ratio	0.01	-	-	0.015	-	-
HCM Control Delay (s)	7.5	0	-	10	-	-
HCM Lane LOS	A	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0	-	-

APPENDIX D : CONSTRUCTION YEAR PLUS PROJECT ANALYSIS WORKSHEETS

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	64	225	25	57	0	0
Future Vol, veh/h	64	225	25	57	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	70	245	27	62	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	315	0	309	193
Stage 1	-	-	-	-	193	-
Stage 2	-	-	-	-	116	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1245	-	683	849
Stage 1	-	-	-	-	840	-
Stage 2	-	-	-	-	909	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1245	-	668	849
Mov Cap-2 Maneuver	-	-	-	-	668	-
Stage 1	-	-	-	-	840	-
Stage 2	-	-	-	-	889	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.4	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1245	-
HCM Lane V/C Ratio	-	-	-	0.022	-
HCM Control Delay (s)	0	-	-	8	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0.1	-

Intersection	
Int Delay, s/veh	7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	70	0	0	87	225	25
Future Vol, veh/h	70	0	0	87	225	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	76	0	0	95	245	27

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	76	0	171	76
Stage 1	-	-	-	-	76	-
Stage 2	-	-	-	-	95	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1523	-	819	985
Stage 1	-	-	-	-	947	-
Stage 2	-	-	-	-	929	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1523	-	819	985
Mov Cap-2 Maneuver	-	-	-	-	819	-
Stage 1	-	-	-	-	947	-
Stage 2	-	-	-	-	929	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	833	-	-	1523	-
HCM Lane V/C Ratio	0.326	-	-	-	-
HCM Control Delay (s)	11.4	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	1.4	-	-	0	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	289	57	7	6	7
Future Vol, veh/h	11	289	57	7	6	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	314	62	8	7	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	70	0	-	0	404	66
Stage 1	-	-	-	-	66	-
Stage 2	-	-	-	-	338	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1531	-	-	-	603	998
Stage 1	-	-	-	-	957	-
Stage 2	-	-	-	-	722	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1531	-	-	-	598	998
Mov Cap-2 Maneuver	-	-	-	-	598	-
Stage 1	-	-	-	-	949	-
Stage 2	-	-	-	-	722	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1531	-	-	-	598	998
HCM Lane V/C Ratio	0.008	-	-	-	0.011	0.008
HCM Control Delay (s)	7.4	-	-	-	11.1	8.6
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0	0

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	70	312	11	2	18
Future Vol, veh/h	5	70	312	11	2	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	76	339	12	2	20

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	351	0	-	0	431	345
Stage 1	-	-	-	-	345	-
Stage 2	-	-	-	-	86	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1208	-	-	-	581	698
Stage 1	-	-	-	-	717	-
Stage 2	-	-	-	-	937	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1208	-	-	-	579	698
Mov Cap-2 Maneuver	-	-	-	-	579	-
Stage 1	-	-	-	-	714	-
Stage 2	-	-	-	-	937	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	10.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1208	-	-	-	579	698
HCM Lane V/C Ratio	0.004	-	-	-	0.004	0.028
HCM Control Delay (s)	8	-	-	-	11.2	10.3
HCM Lane LOS	A	-	-	-	B	B
HCM 95th %tile Q(veh)	0	-	-	-	0	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	26	112	28	27	8	56	186	33	169	130	42
Future Volume (veh/h)	22	26	112	28	27	8	56	186	33	169	130	42
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	24	28	122	30	29	9	61	202	36	184	141	46
Adj No. of Lanes	1	1	2	1	1	1	2	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	693	745	1115	642	745	633	1187	1416	633	574	1416	633
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Ln Grp Delay, s/veh	8.6	8.3	8.7	8.7	8.3	8.2	9.1	8.8	8.5	12.3	8.6	8.6
Ln Grp LOS	A	A	A	A	A	A	A	A	A	B	A	A
Approach Vol, veh/h		174			68			299			371	
Approach Delay, s/veh		8.6			8.5			8.8			10.4	
Approach LOS		A			A			A			B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		5.0		5.0		5.0		5.0
Phs Duration (G+Y+Rc), s		22.5		22.5		22.5		22.5
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green (Gmax), s		18.0		18.0		18.0		18.0
Max Allow Headway (MAH), s		4.9		4.2		4.7		4.6
Max Q Clear (g_c+I1), s		3.9		3.2		9.2		3.1
Green Ext Time (g_e), s		1.3		0.5		1.2		0.2
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.00		0.00		0.00		0.00

Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		2312		1364		1138		1232

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		3539		1863		3539		1863

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1583		2787		1583		1583

Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment								

Lanes in Grp	0	2	0	1	0	1	0	1
Grp Vol (v), veh/h	0	61	0	24	0	184	0	30
Grp Sat Flow (s), veh/h/ln	0	1156	0	1364	0	1138	0	1232
Q Serve Time (g_s), s	0.0	0.8	0.0	0.5	0.0	5.5	0.0	0.7
Cycle Q Clear Time (g_c), s	0.0	1.9	0.0	0.9	0.0	7.2	0.0	1.1
Perm LT Sat Flow (s_l), veh/h/ln	0	1156	0	1364	0	1138	0	1232
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	18.0	0.0	18.0	0.0	18.0	0.0	18.0
Perm LT Serve Time (g_u), s	0.0	16.9	0.0	17.6	0.0	16.4	0.0	17.6
Perm LT Q Serve Time (g_ps), s	0.0	0.8	0.0	0.5	0.0	5.5	0.0	0.7
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	1187	0	693	0	574	0	642
V/C Ratio (X)	0.00	0.05	0.00	0.03	0.00	0.32	0.00	0.05
Avail Cap (c_a), veh/h	0	1187	0	693	0	574	0	642
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	9.0	0.0	8.5	0.0	10.9	0.0	8.6
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.1	0.0	1.5	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.1	0.0	8.6	0.0	12.3	0.0	8.7
1st-Term Q (Q1), veh/ln	0.0	0.2	0.0	0.2	0.0	1.7	0.0	0.2
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.3	0.0	0.2	0.0	2.0	0.0	0.3
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	202	0	28	0	141	0	29
Grp Sat Flow (s), veh/h/ln	0	1770	0	1863	0	1770	0	1863
Q Serve Time (g_s), s	0.0	1.6	0.0	0.4	0.0	1.1	0.0	0.4
Cycle Q Clear Time (g_c), s	0.0	1.6	0.0	0.4	0.0	1.1	0.0	0.4
Lane Grp Cap (c), veh/h	0	1416	0	745	0	1416	0	745
V/C Ratio (X)	0.00	0.14	0.00	0.04	0.00	0.10	0.00	0.04
Avail Cap (c_a), veh/h	0	1416	0	745	0	1416	0	745
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.6	0.0	8.2	0.0	8.4	0.0	8.2
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.1	0.0	0.1	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.8	0.0	8.3	0.0	8.6	0.0	8.3
1st-Term Q (Q1), veh/ln	0.0	0.8	0.0	0.2	0.0	0.5	0.0	0.2

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.8	0.0	0.2	0.0	0.6	0.0	0.2
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.00	0.00	0.02	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	2	0	1	0	1
Grp Vol (v), veh/h	0	36	0	122	0	46	0	9
Grp Sat Flow (s), veh/h/ln	0	1583	0	1393	0	1583	0	1583
Q Serve Time (g_s), s	0.0	0.6	0.0	1.2	0.0	0.8	0.0	0.2
Cycle Q Clear Time (g_c), s	0.0	0.6	0.0	1.2	0.0	0.8	0.0	0.2
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	633	0	1115	0	633	0	633
V/C Ratio (X)	0.00	0.06	0.00	0.11	0.00	0.07	0.00	0.01
Avail Cap (c_a), veh/h	0	633	0	1115	0	633	0	633
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.3	0.0	8.5	0.0	8.3	0.0	8.1
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.2	0.0	0.2	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.5	0.0	8.7	0.0	8.6	0.0	8.2
1st-Term Q (Q1), veh/ln	0.0	0.3	0.0	0.5	0.0	0.3	0.0	0.1
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.3	0.0	0.5	0.0	0.4	0.0	0.1
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	9.4
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	55	103	15	169	9	99	112	18	0	68	65
Future Volume (veh/h)	38	55	103	15	169	9	99	112	18	0	68	65
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	41	60	112	16	184	10	108	122	20	0	74	71
Adj No. of Lanes	1	1	2	1	1	1	2	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	556	745	1115	619	745	633	1250	1416	633	160	1416	633
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.40	0.40
Ln Grp Delay, s/veh	10.6	8.6	8.6	8.8	9.8	8.2	9.0	8.5	8.3	0.0	8.3	8.8
Ln Grp LOS	B	A	A	A	A	A	A	A	A		A	A
Approach Vol, veh/h		213			210			250			145	
Approach Delay, s/veh		9.0			9.6			8.7			8.6	
Approach LOS		A			A			A			A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		5.0		5.0		5.0		5.0
Phs Duration (G+Y+Rc), s		22.5		22.5		22.5		22.5
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green (Gmax), s		18.0		18.0		18.0		18.0
Max Allow Headway (MAH), s		4.7		4.4		4.7		5.1
Max Q Clear (g_c+I1), s		3.9		6.0		3.3		5.0
Green Ext Time (g_e), s		1.0		0.6		0.5		0.8
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.00		0.00		0.00		0.00

Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		2402		1184		1241		1208

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		3539		1863		3539		1863

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1583		2787		1583		1583

Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment								

Lanes in Grp	0	2	0	1	0	1	0	1
Grp Vol (v), veh/h	0	108	0	41	0	0	0	16
Grp Sat Flow (s), veh/h/ln	0	1201	0	1184	0	1241	0	1208
Q Serve Time (g_s), s	0.0	1.3	0.0	1.1	0.0	0.0	0.0	0.4
Cycle Q Clear Time (g_c), s	0.0	1.9	0.0	4.0	0.0	0.0	0.0	1.3
Perm LT Sat Flow (s_l), veh/h/ln	0	1201	0	1184	0	1241	0	1208
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	18.0	0.0	18.0	0.0	0.0	0.0	18.0
Perm LT Serve Time (g_u), s	0.0	17.4	0.0	15.0	0.0	0.0	0.0	17.1
Perm LT Q Serve Time (g_ps), s	0.0	1.3	0.0	1.1	0.0	0.0	0.0	0.4
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	1250	0	556	0	160	0	619
V/C Ratio (X)	0.00	0.09	0.00	0.07	0.00	0.00	0.00	0.03
Avail Cap (c_a), veh/h	0	1250	0	556	0	160	0	619
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.8	0.0	10.3	0.0	0.0	0.0	8.8
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.3	0.0	0.0	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.0	0.0	10.6	0.0	0.0	0.0	8.8
1st-Term Q (Q1), veh/ln	0.0	0.4	0.0	0.4	0.0	0.0	0.0	0.1
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.4	0.0	0.4	0.0	0.0	0.0	0.1
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	122	0	60	0	74	0	184
Grp Sat Flow (s), veh/h/ln	0	1770	0	1863	0	1770	0	1863
Q Serve Time (g_s), s	0.0	1.0	0.0	0.9	0.0	0.6	0.0	3.0
Cycle Q Clear Time (g_c), s	0.0	1.0	0.0	0.9	0.0	0.6	0.0	3.0
Lane Grp Cap (c), veh/h	0	1416	0	745	0	1416	0	745
V/C Ratio (X)	0.00	0.09	0.00	0.08	0.00	0.05	0.00	0.25
Avail Cap (c_a), veh/h	0	1416	0	745	0	1416	0	745
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.4	0.0	8.4	0.0	8.3	0.0	9.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.2	0.0	0.1	0.0	0.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.5	0.0	8.6	0.0	8.3	0.0	9.8
1st-Term Q (Q1), veh/ln	0.0	0.5	0.0	0.4	0.0	0.3	0.0	1.5

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.5	0.0	0.5	0.0	0.3	0.0	1.6
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	2	0	1	0	1
Grp Vol (v), veh/h	0	20	0	112	0	71	0	10
Grp Sat Flow (s), veh/h/ln	0	1583	0	1393	0	1583	0	1583
Q Serve Time (g_s), s	0.0	0.3	0.0	1.1	0.0	1.3	0.0	0.2
Cycle Q Clear Time (g_c), s	0.0	0.3	0.0	1.1	0.0	1.3	0.0	0.2
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	633	0	1115	0	633	0	633
V/C Ratio (X)	0.00	0.03	0.00	0.10	0.00	0.11	0.00	0.02
Avail Cap (c_a), veh/h	0	633	0	1115	0	633	0	633
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.2	0.0	8.4	0.0	8.5	0.0	8.2
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.2	0.0	0.4	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.3	0.0	8.6	0.0	8.8	0.0	8.2
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	0.4	0.0	0.6	0.0	0.1
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.2	0.0	0.5	0.0	0.6	0.0	0.1
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	9.0
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	3	13	3	2	14	16	207	3	8	324	11
Future Vol, veh/h	0	3	13	3	2	14	16	207	3	8	324	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	0	-	0	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3	14	3	2	15	17	225	3	9	352	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	518	632	176	455	641	113	364	0	0	228	0	0
Stage 1	370	370	-	259	259	-	-	-	-	-	-	-
Stage 2	148	262	-	196	382	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	440	396	837	489	391	918	1191	-	-	1337	-	-
Stage 1	622	619	-	723	692	-	-	-	-	-	-	-
Stage 2	840	690	-	787	611	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	424	388	837	470	383	918	1191	-	-	1337	-	-
Mov Cap-2 Maneuver	424	388	-	470	383	-	-	-	-	-	-	-
Stage 1	613	615	-	713	682	-	-	-	-	-	-	-
Stage 2	812	680	-	764	607	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.3	10.2	0.6	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1191	-	-	388	837	431	918	1337	-	-
HCM Lane V/C Ratio	0.015	-	-	0.008	0.017	0.013	0.017	0.007	-	-
HCM Control Delay (s)	8.1	-	-	14.4	9.4	13.5	9	7.7	-	-
HCM Lane LOS	A	-	-	B	A	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	3	15	2	7	15	26	299	0	6	113	11
Future Vol, veh/h	8	3	15	2	7	15	26	299	0	6	113	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	0	-	0	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	3	16	2	8	16	28	325	0	7	123	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	360	518	62	458	530	163	135	0	0	325	0	0
Stage 1	137	137	-	381	381	-	-	-	-	-	-	-
Stage 2	223	381	-	77	149	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	571	460	990	486	453	853	1447	-	-	1231	-	-
Stage 1	852	782	-	613	612	-	-	-	-	-	-	-
Stage 2	759	612	-	923	773	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	542	449	990	466	442	853	1447	-	-	1231	-	-
Mov Cap-2 Maneuver	542	449	-	466	442	-	-	-	-	-	-	-
Stage 1	836	777	-	601	600	-	-	-	-	-	-	-
Stage 2	721	600	-	899	768	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.2	10.8	0.6	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1447	-	-	513	990	447	853	1231	-	-
HCM Lane V/C Ratio	0.02	-	-	0.023	0.016	0.022	0.019	0.005	-	-
HCM Control Delay (s)	7.5	-	-	12.2	8.7	13.2	9.3	7.9	-	-
HCM Lane LOS	A	-	-	B	A	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.1	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	5.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	128	0	174	0	0	0	0	217	1	1	69	0
Future Vol, veh/h	128	0	174	0	0	0	0	217	1	1	69	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	139	0	189	0	0	0	0	236	1	1	75	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	195	314	75	-	0	0	237	0	0
Stage 1	77	77	-	-	-	-	-	-	-
Stage 2	118	237	-	-	-	-	-	-	-
Critical Hdwy	6.63	6.53	6.23	-	-	-	4.13	-	-
Critical Hdwy Stg 1	5.43	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.83	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	-	-	-	2.219	-	-
Pot Cap-1 Maneuver	785	601	986	0	-	-	1329	-	0
Stage 1	946	831	-	0	-	-	-	-	0
Stage 2	895	708	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	784	0	986	-	-	-	1329	-	-
Mov Cap-2 Maneuver	784	0	-	-	-	-	-	-	-
Stage 1	946	0	-	-	-	-	-	-	-
Stage 2	894	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.4	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	889	1329	-
HCM Lane V/C Ratio	-	-	0.369	0.001	-
HCM Control Delay (s)	-	-	11.4	7.7	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	1.7	0	-

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	49	0	52	0	0	0	0	317	9	0	78	0
Future Vol, veh/h	49	0	52	0	0	0	0	317	9	0	78	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	53	0	57	0	0	0	0	345	10	0	85	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	258	440	85	-	0	0	-	-	0
Stage 1	85	85	-	-	-	-	-	-	-
Stage 2	173	355	-	-	-	-	-	-	-
Critical Hdwy	6.63	6.53	6.23	-	-	-	-	-	-
Critical Hdwy Stg 1	5.43	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.83	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	-	-	-	-	-	-
Pot Cap-1 Maneuver	720	510	973	0	-	-	0	-	0
Stage 1	938	824	-	0	-	-	0	-	0
Stage 2	840	629	-	0	-	-	0	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	720	0	973	-	-	-	-	-	-
Mov Cap-2 Maneuver	720	0	-	-	-	-	-	-	-
Stage 1	938	0	-	-	-	-	-	-	-
Stage 2	840	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBT
Capacity (veh/h)	-	-	831	-
HCM Lane V/C Ratio	-	-	0.132	-
HCM Control Delay (s)	-	-	10	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.5	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	4	0	5	23	94	134	0	71	35
Future Vol, veh/h	0	0	0	4	0	5	23	94	134	0	71	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	4	0	5	25	102	146	0	77	38

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	321	340	175	115	0	0	-	-	0
Stage 1	225	225	-	-	-	-	-	-	-
Stage 2	96	115	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	673	582	868	1474	-	-	0	-	-
Stage 1	812	718	-	-	-	-	0	-	-
Stage 2	928	800	-	-	-	-	0	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	660	0	868	1474	-	-	-	-	-
Mov Cap-2 Maneuver	660	0	-	-	-	-	-	-	-
Stage 1	796	0	-	-	-	-	-	-	-
Stage 2	928	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	WBLn1	SBT	SBR
Capacity (veh/h)	1474	-	-	761	-	-
HCM Lane V/C Ratio	0.017	-	-	0.013	-	-
HCM Control Delay (s)	7.5	0	-	9.8	-	-
HCM Lane LOS	A	A	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-	-

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	6	0	4	161	132	80	0	74	50
Future Vol, veh/h	0	0	0	6	0	4	161	132	80	0	74	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	7	0	4	175	143	87	0	80	54

Major/Minor	Minor1		Major1		Major2				
Conflicting Flow All	644	671	187	134	0	0	-	-	0
Stage 1	537	537	-	-	-	-	-	-	-
Stage 2	107	134	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	437	378	855	1451	-	-	0	-	-
Stage 1	586	523	-	-	-	-	0	-	-
Stage 2	917	785	-	-	-	-	0	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	376	0	855	1451	-	-	-	-	-
Mov Cap-2 Maneuver	376	0	-	-	-	-	-	-	-
Stage 1	504	0	-	-	-	-	-	-	-
Stage 2	917	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.6	3.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	WBLn1	SBT	SBR
Capacity (veh/h)	1451	-	-	485	-	-
HCM Lane V/C Ratio	0.121	-	-	0.022	-	-
HCM Control Delay (s)	7.8	0	-	12.6	-	-
HCM Lane LOS	A	A	-	B	-	-
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-	-