



**martin and martin, incorporated**

37 South Main Street • Suite A • Chambersburg, Pennsylvania • 17201-2251

(717) 264-6759

(717) 264-7339 (fax)

Website: martinandmartininc.com

November 2, 2022

PaDEP – Waste Management  
Attn: Roger Bellas  
2 Public Square  
Wilkes-Barre, PA 18701-1915

RE: Blythe Recycling and Demolition Site  
(BRADS) Permit #101679  
Major Modification to Increase Tonnage  
Our file: b/1312.2/2022/MajorModTonInc/SubLtr

Dear Roger:

On behalf of BRADS, we are transmitting the landfill's Application to increase the ADV and MDV from 1,500 tons per day to 3,000 tons per day. We will forward copies of the application to Blythe Township, Schuylkill County Commissioners and the Schuylkill County Planning Commission.

In accordance with applicable regulations; public notice, Act 14 Notification, and notifications of contiguous landowners have been sent.

In the event there are any questions concerning this correspondence please don't hesitate to contact this office at your convenience.

Very truly yours,  
**MARTIN AND MARTIN, INCORPORATED**

Kevin N. Bodner

cc: BRADS Landfill  
Schuylkill County  
Schuylkill Planning

**MUNICIPAL • URBAN • REGIONAL • LAND DEVELOPMENT AND ENVIRONMENTAL PLANNERS**

**MUNICIPAL • CIVIL • SANITARY • SOLID WASTE AND ENVIRONMENTAL ENGINEERS**

0089

MARTIN & MARTIN, INC.

37 S MAIN ST., SUITE A  
CHAMBERSBURG, PA 17201

**F&M**  
TRUST  
Trust Bank  
60-430/313

11/2/22

TO THE  
ORDER OF

Commonwealth of PA  
seven thousand eight hundred

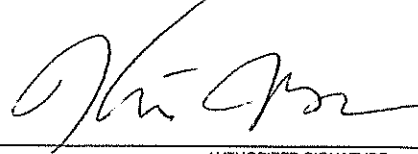
\$ 7,800.<sup>00</sup>

$\frac{XX}{XX}$

DOLLARS

MEMO

BRADS - Tonnage Mod



AUTHORIZED SIGNATURE

[REDACTED]

MARTIN & MARTIN, INC.

00890

MARTIN & MARTIN, INC.

00890





**BLYTHE RECYCLING AND  
DEMOLITION SITE HOLDINGS, INC.**  
A Construction and Demolition Waste Facility

**PERMIT #101679**

***Major Modification for  
Tonnage Increase***

by  
**Blythe Township,  
Schuylkill County,  
Pennsylvania**



**WASTE CONNECTIONS INC.**  
*Connect with the Future®*

**November 2022**

Prepared by:



**Martin and Martin, Incorporated**  
37 South Main Street, Suite A  
Chambersburg, PA 17201  
Phone: 717-264-6759  
Website: [martinandmartininc.com](http://martinandmartininc.com)

# **BLYTHERECYCLING AND DEMOLITION SITE HOLDINGS, INC.**

## **Major Modification Application for Tonnage Increase**

### **TABLE OF CONTENTS**

Checklist

Project Narrative

Form GIF

General Information Form

Form A

Application for Municipal or Residual Waste  
Permit

Form B

Professional Certification

Form B1

Application Form Certification

Form C-1

Compliance History

Form D

Environmental Assessment

Form 1

Facility Plan

Form 14

Operation Plan

Form 46

Relationship Between Municipal Waste  
Management Plans and Permits

Traffic Study

Harms Benefits Analysis

Support Letters

Burma Road Maintenance Agreement

Addition to Traffic Compliance Plan

# Checklist

## CHECKLIST – MAJOR MODIFICATION TO A MUNICIPAL WASTE LANDFILL PERMIT OR A RESIDUAL WASTE LANDFILL OR IMPOUNDMENT PERMIT

This checklist is to assist the Department and the Applicant in assuring that all the forms, notices, documentation and fees required for an application for a major modification to a municipal waste landfill or residual waste landfill have been addressed. This checklist should be signed by the Applicant and submitted to the Department as part of the application package. Failure to do so may cause the application to be administratively incomplete and ineligible for Permit Decision Guarantee (PDG).<sup>1</sup>

This checklist will be utilized by the Department and Applicant during the pre-application meeting to indicate the forms and other information which must be included in the application and public notifications that are needed. The Department will check the appropriate box in the first two columns to indicate the forms and information required ("Req") or not applicable ("N/A"). The Applicant will then ensure the required forms and information are included in the application by checking the corresponding box in the third column.

In cases where no pre-application meeting is held, the Applicant will indicate what forms are included in the application by checking the appropriate boxes in the third column.

The most current version of the forms found on the Department's online eLibrary should be utilized.

Name of Applicant or Permittee BRADS – Holdings, Inc. Permit No. (if applicable) 10169

Links to the Department Website for All Permit Application Forms:

<b>Municipal Waste</b>	<a href="http://www.portal.state.pa.us/portal/server.pt?open=514&amp;objID=589662&amp;mode=2">http://www.portal.state.pa.us/portal/server.pt?open=514&amp;objID=589662&amp;mode=2</a>
<b>Residual Waste</b>	<a href="http://www.portal.state.pa.us/portal/server.pt?open=514&amp;objID=589687&amp;mode=2">http://www.portal.state.pa.us/portal/server.pt?open=514&amp;objID=589687&amp;mode=2</a>

### Standard Permit Forms

Req.	N/A	√	Name	Form No. (Municipal)	Form No. (Residual)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	GIF - General Information Form	1300-PM-BIT0001	1300-PM-BIT0001
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Form A - Application	2540-PM-BWM0357	2540-PM-BWM0357
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Form B - Professional Certification	2540-PM-BWM0358	2540-PM-BWM0358
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Form B1 - Application for Certification	2540-PM-BWM0359	2540-PM-BWM0359

<sup>1</sup>DISCLAIMER: The process and procedures outlined in this Checklist are intended to supplement existing requirements. Nothing in the Checklist shall affect regulatory requirements.

The process, procedures and interpretations herein are not an adjudication or a regulation. There is no intent on the part of DEP to give the rules in this Checklist that weight or deference. This document establishes the framework within which DEP will exercise its administrative discretion in the future. DEP reserves the discretion to deviate from this policy statement if circumstances warrant.

DEP reserves the right to supplement the list of forms and information included on this Checklist at any time during the permit review process. This Checklist should not be construed as an exhaustive list of forms and information to be submitted by the Applicant.

**Standard Permit Forms (cont.)**

Req.	N/A	√	Name	Form No. (Municipal)	Form No. (Residual)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Form C1 - Compliance History Certification <sup>2</sup>	2540-PM-BWM0351	2540-PM-BWM0351
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form HW-C - Compliance History <sup>2</sup>	2540-FM-BWM0058	2540-FM-BWM0058

<sup>2</sup>Either Form C1 OR Form HW-C should be submitted depending on the modification requested.

**Additional Forms Required Based on the Modification Requested**

Req.	N/A	√	Name	Form No. (Municipal)	Form No. (Residual)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Form D - Environmental Assessment	2540-PM-BWM0172	2540-PM-BWM0172
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form E – Contractual Consent of Landowner	2540-PM-BWM0353	2540-PM-BWM0353
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form F – Soils Information – Phase I	2540-PM-BWM0371	2540-PM-BWM0371
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form FC-1 - Disposal of Virgin Fuel Contaminated Soil	2540-PM-BWM0244	2540-PM-BWM0244
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form G (A) - Air Resource Protection	2540-FM-BWM0391a	2540-FM-BWM0391a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form G(B) - Non Methane Organic Compounds (NMOC) Emissions Estimate	2540-FM-BWM0391b	2540-FM-BWM0391b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form H - Revegetation Plan	2540-PM-BWM0375	2540-PM-BWM0375
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form I - Soil Erosion and Sedimentation Control	2540-PM-BWM0390	2540-PM-BWM0390
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form J - Soils Phase II	2540-PM-BWM0376	2540-PM-BWM0376
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form K - Gas Management	2540-PM-BWM0379	2540-PM-BWM0379
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form L - Contingency Plan	2540-PM-BWM0384	2540-PM-BWM0384
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form Q - Equivalency Review Request	2540-PM-BWM0386	2540-PM-BWM0386
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form R - Waste Analyses/Classification	2540-PM-BWM0396	2540-PM-BWM0396
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form R1 - Waste Analysis and Classification	2540-PM-BWM0001	2540-PM-BWM0001
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form X - Radiation Protection Action Plan	2500-FM-BWM0430	2500-FM-BWM0430
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 1 - Facility Plan	2540-PM-BWM0170	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 1R - Facility Plan		2540-PM-BWM0355

**Additional Forms Required Based on the Modification Requested (cont.)**

Req.	N/A	√	Name	Form No. (Municipal)	Form No. (Residual)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 2 - Map Requirement - Phase I	2540-PM-BWM0173	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 2R - Map Requirements, Phase I		2540-PM-BWM0360
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 3 - Map Requirement - Phase II	2540-PM-BWM0007	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 3R - Map Requirement – Phase II		2540-PM-BWM0361
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 4R - Map Requirements		2540-PM-BWM0362
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 5 - Map Requirements	2540-PM-BWM0154	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 5R - Map Requirements		2540-PM-BWM0363
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 6 - Geological Information	2540-PM-BWM0176	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 6R - Geological Information		2540-PM-BWM0365
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 7 - Hydrogeological Information	2540-PM-BWM0177	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 7R - Hydrogeological Information		2540-PM-BWM0366
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 8 - Baseline Groundwater Analysis, Phase I	2540-PM-BWM0178	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 8R - Baseline Groundwater Analysis		2540-PM-BWM0367
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 10 - Baseline Groundwater Analysis C/D Landfill	2540-PM-BWM0180	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 10R - Mineral Deposits Information, Phase I		2540-PM-BWM0368
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 11 - Mineral Deposits Information, Phase I	2540-PM-BWM0181	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 11R - Alternative Water Supply		2540-PM-BWM0369
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 12 - Alternative Water Supply, Phase I	2540-PM-BWM0182	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 12R - Operation Plan		2540-PM-BWM0081
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 13R - Water Quality Monitoring System, Phase II		2540-PM-BWM0372
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 14 - Operation Plan	2540-PM-BWM0011	



**Additional Forms Required Based on the Modification Requested (cont.)**

Req.	N/A	√	Name	Form No. (Municipal)	Form No. (Residual)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 16R - Liner System		2540-PM-BWM0393
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 17R - Leachate Management		2540-PM-BWM0378
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 18 - Water Quality Monitoring System, Phase II	2540-PM-BWM0040	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 18R - Closure-Post Closure Land Use Plan		2540-PM-BWM0385
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 21R - Groundwater Assessment Plan		2540-PM-BWM0388
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 22R - Abatement Plan		2540-FM-BWM0389
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 23R - Control Plans		2540-PM-BWM0392
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 24 - Liner System, Phase II	2540-PM-BWM0150	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 24R - Residual Waste Disposal Impoundments		2540-PM-BWM0500
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 25 - Leachate Management, Phase II	2540-PM-BWM0152	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 25R - Source Reduction Strategy		2540-PM-BWM0349
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 28 - Closure-Post Closure Land Use Plan	2540-PM-BWM0153	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 35 - Approval to Process or Dispose of Processed Infectious/Chemotherapeutic Waste	2540-PM-BWM0157	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 36 - Approval Request to Dispose Incinerator Ash Residue	2540-PM-BWM0155	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 37 - Certification of Facility Construction Activity	2540-PM-BWM0012	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 43 - Request for Approval to Dispose or Process Sewage Sludge	2540-PM-BWM0199	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 45 - Protection of Capacity	2540-PM-BWM0209	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 51 - Municipal Waste Landfill Groundwater Assessment Plan	2540-PM-BWM0005	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 53 - MW Landfill - C/D Waste Landfill Abatement Plan	2540-PM-BWM0207	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 54 - Background Meteorological Monitoring	2540-PM-BWM0503	

### Bonding Worksheets

Req.	N/A	√	Name	Form No. (Municipal)	Form No. (Residual)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Bonding Worksheet Instructions	2540-FM-BWM0580	2540-FM-BWM0580
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Landfills and Disposal Impoundments	2540-FM-BWM0581	2540-FM-BWM0581

### Public Notification Under 25 Pa. Code Chapters 271.141 and 287.151

Req.	N/A	√	Type
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Newspaper of general circulation 3 consecutive weeks beginning _____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Contiguous land owners (list) <u>See in Form A</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Host Municipality or Municipalities: <u>See in Form A</u>

### Confidential Information Under 25 Pa. Code Chapters 271.5 and 287.5, and the Bureau of Waste Management's "Procedures for Handling Confidential Information Requests" document.

Req.	N/A	√	Description
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If proposed by the applicant, a demonstration that application information satisfies the regulatory requirements for confidentiality.

### Registration with Pennsylvania Department of State

Req.	√	Name	Form No.
<input type="checkbox"/>	<input type="checkbox"/>	Pennsylvania Enterprise Registration	PA-100

### Application Fee

Req.	N/A	√	Authorization Type	Amount
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Additional Types of Waste Not Approved in the Permit (Municipal)	\$300
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Additional Types of Waste Not Approved in the Permit (Residual)	\$600
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Residual Waste Disposal Impoundment	\$4,600
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Landfill (Municipal, Construction/Demolition or Residual)	\$7,800

### Additional Application Copies

Req.	N/A	√	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	One original and <u>0</u> * additional copies of the application

\*Sent Electronically to David Pannucci

\*\*Copies will be sent to: Blythe Township, Schuylkill County Commissioners and Schuylkill County Planning Commission

**Public Notification and Comment Under 25 Pa. Code Chapters 271.142-144, 271.202, and 287.152-154, and the Department's "Local Municipality Involvement Process" Policy, Document Number 254-2100-100.**

√	Type
<input type="checkbox"/>	Publication in the <i>Pennsylvania Bulletin</i>
<input type="checkbox"/>	30-day Public Comment Period
<input type="checkbox"/>	Public Hearing(s) may be required
<input type="checkbox"/>	Local Municipality Involvement Process

**Notes/Additional Comments**

Signature of Applicant or Authorized Representative: \_\_\_\_\_

Date: 11/1/22

Printed Name: Kevin N. Bodner

Title: Engineer

# Project Narrative

**BLYTHE RECYCLING AND DEMOLITION SITE HOLDINGS, INC.**  
A Construction and Demolition Waste Facility

**PERMIT #101679**

***Request for Quarterly Daily Average Tonnage Increase and Maximum Daily Tonnage Increase***

---

**Increase in Average Daily Volume and Maximum Daily Volume**

Blythe Recycling and Demolition Site Holdings, Inc. (BRADS) requests Department approval of a Major Permit Modification to increase its Quarterly Daily Tonnage and Maximum Daily Tonnage from 1,500 tons per day to 3,000 tons per day. The proposed new waste acceptance hours are 6 a.m. to 6 p.m. Included herewith is the Traffic Impact Study, based on 3,000 tons per day of landfill related traffic, together with the Harms-Benefits Analysis.

- **Traffic** – BRADS proposes no changes to the approved haul route – long haul transfer vehicles must access the site from I-81 at the Mahanoy City exit and southwest on Burma Road to the landfill. Additionally, the traffic impact study done for this tonnage increase request shows the study area intersections will operate at the same overall level of service with the proposed increased traffic.
- **Benefits** – In addition to maintaining the currently provided benefits to Blythe Township, East Norwegian Township, Mahanoy Township, Middleport Borough and Ryan Township with the associated increase in present value associated with accelerated payment of these fees, BRADS is proposing to add the following benefits following approval of this modification: Saint Clair School District \$0.10/ton\*; Saint Clair Fire Department \$0.05/ton\*; and, Saint Clair Police Department \$0.05/ton\*. Also, as part of this modification BRADS is proposing 150 tons/year of free disposal to both Blythe Township and the Borough of Saint Clair.
- **Equipment, Manpower and Support Facilities** - BRADS maintains ample equipment and manpower to properly manage and dispose of the proposed increased waste flow. The support facilities including the access road and tire wash can easily accommodate the increased traffic.
- **Support** – Both the Borough of Saint Clair and the Saint Clair School District have voiced support for the increase in tonnage proposal. Included within this application are letters from both.

**Revised 1/23**

**\*Tons in excess of 1,500 tons per day-**

- **Overweight Trucks** – BRADS under Blythe Township originally submitted a similar tonnage increase modification in 2020. That application was withdrawn. However, during that review, there was concern about overweight trucks. BRADS has since implemented a tiered fee surcharge to overweight trucks. A copy of that fee surcharge program is included in this application.
- **Burma Road** – During the review of the previously submitted tonnage increase modification, there was PennDOT concern about the maintenance of the Burma Road as a result of a tonnage increase. BRADS has since entered into a maintenance agreement with PennDOT. A copy of that agreement is included in this application.



# General Info Form

Application



**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL  
PROTECTION

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

## GENERAL INFORMATION FORM – AUTHORIZATION APPLICATION

Before completing this General Information Form (GIF), read the step-by-step instructions provided in this application package. This form is used by the Department of Environmental Protection (DEP) to inform our programs regarding what other DEP permits or authorizations may be needed for the proposed project or activity. This version of the General Information Form (GIF) must be completed and returned with any program-specific application being submitted to the DEP.

<b>Related ID#s (If Known)</b> Client ID# 101679      APS ID# _____ Site ID# 636694      Auth ID# _____ Facility ID# _____		<b>DEP USE ONLY</b> Date Received & General Notes
---	--	--

CLIENT INFORMATION				
DEP Client ID#	Client Type / Code MUNI	Dun & Bradstreet ID#		
Legal Organization Name or Registered Fictitious Name Blythe Recycling and Demolition Site Holdings, Inc.		Employer ID# (EIN) 20-0892431	Is the EIN a SSN? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> NO	
State of Incorporation or Registration of Fictitious Name PA	<input checked="" type="checkbox"/> Corporation <input type="checkbox"/> LLC <input type="checkbox"/> Partnership <input type="checkbox"/> LLP <input type="checkbox"/> LP <input type="checkbox"/> Sole Proprietorship <input type="checkbox"/> Association/Organization <input type="checkbox"/> Estate/Trust <input type="checkbox"/> Other			
Individual Last Name	First Name	MI	Suffix	
Additional Individual Last Name	First Name	MI	Suffix	
Mailing Address Line 1 P.O. Box 335		Mailing Address Line 2		
Address Last Line – City St. Clair	State PA	ZIP+4 17970	Country USA	
Client Contact Last Name Pannucci	First Name David	MI	Suffix	
Client Contact Title Region Engineer	Phone 570-429-2023	Ext	Cell Phone	
Email Address david.pannucci@wasteconnections.com	FAX 570-429-2101			

SITE INFORMATION						
DEP Site ID#	Site Name BRADS - Blythe Recycling and Demolition Site Holdings, Inc.					
EPA ID#	Estimated Number of Employees to be Present at Site					10
Description of Site Construction and Demolition Landfill						
Tax Parcel ID(s):						
County Name(s)	Municipality(ies)	City	Boro	Twp	State	
Schuylkill	Blythe	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Site Location Line 1 1061 Burma Road		Site Location Line 2				
Site Location Last Line – City New Philadelphia	State PA	ZIP+4 17959				

### Detailed Written Directions to Site

1-81 to Mahanoy City Exit. South to SR1006 (Burma Road), then Southwest 7 Miles to the Site on the Right.

<b>Site Contact Last Name</b> Pannucci	<b>First Name</b> David	<b>MI</b>	<b>Suffix</b>
<b>Site Contact Title</b> Region Engineer		<b>Site Contact Firm</b> BRADS	
<b>Mailing Address Line 1</b> P.O. Box 335		<b>Mailing Address Line 2</b>	
<b>Mailing Address Last Line – City</b> St. Clair		<b>State</b> PA	<b>ZIP+4</b> 17970
<b>Phone</b> 570-429-2023	<b>Ext</b>	<b>FAX</b>	<b>Email Address</b> david.pannucci@wasteconnections.com
<b>NAICS Codes</b> (Two- & Three-Digit Codes – List All That Apply) 4953			<b>6-Digit Code</b> (Optional)

**Client to Site Relationship**

OWNOP (BRADS Holdings, Inc. Owns and Operates BRADS Landfill)

**FACILITY INFORMATION**

**Modification of Existing Facility**

- |   |                                     |                                     |
|---|-------------------------------------|-------------------------------------|
| <b>1. Will this project modify an existing facility, system, or activity?</b>                             | <b>Yes</b>                          | <b>No</b>                           |
| <input checked="" type="checkbox"/>   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| <b>2. Will this project involve an addition to an existing facility, system, or activity?</b>             | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| <i>If "Yes", check all relevant facility types and provide DEP facility identification numbers below.</i> |                                     |                                     |

Facility Type	DEP Fac ID#	Facility Type	DEP Fac ID#
<input type="checkbox"/> Air Emission Plant		<input type="checkbox"/> Industrial Minerals Mining Operation	
<input type="checkbox"/> Beneficial Use (water)		<input type="checkbox"/> Laboratory Location	
<input type="checkbox"/> Blasting Operation		<input type="checkbox"/> Land Recycling Cleanup Location	
<input type="checkbox"/> Captive Hazardous Waste Operation		<input type="checkbox"/> Mine Drainage Treatment / Land Recycling Project Location	
<input type="checkbox"/> Coal Ash Beneficial Use Operation		<input checked="" type="checkbox"/> Municipal Waste Operation	101679
<input type="checkbox"/> Coal Mining Operation		<input type="checkbox"/> Oil & Gas Encroachment Location	
<input type="checkbox"/> Coal Pillar Location		<input type="checkbox"/> Oil & Gas Location	
<input type="checkbox"/> Commercial Hazardous Waste Operation		<input type="checkbox"/> Oil & Gas Water Poll Control Facility	
<input type="checkbox"/> Dam Location		<input type="checkbox"/> Public Water Supply System	
<input type="checkbox"/> Deep Mine Safety Operation -Anthracite		<input type="checkbox"/> Radiation Facility	
<input type="checkbox"/> Deep Mine Safety Operation -Bituminous		<input type="checkbox"/> Residual Waste Operation	
<input type="checkbox"/> Deep Mine Safety Operation -Ind Minerals		<input type="checkbox"/> Storage Tank Location	
<input type="checkbox"/> Encroachment Location (water, wetland)		<input type="checkbox"/> Water Pollution Control Facility	
<input type="checkbox"/> Erosion & Sediment Control Facility		<input type="checkbox"/> Water Resource	
<input type="checkbox"/> Explosive Storage Location		<input type="checkbox"/> Other:	

Latitude/Longitude Point of Origin	Latitude			Longitude		
	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
	40	44	23	76	9	22
<b>Horizontal Accuracy Measure</b>	Feet			--or-- Meters		
<b>Horizontal Reference Datum Code</b>	<input type="checkbox"/> North American Datum of 1927 <input type="checkbox"/> North American Datum of 1983 <input type="checkbox"/> World Geodetic System of 1984					
<b>Horizontal Collection Method Code</b>						
<b>Reference Point Code</b>						
<b>Altitude</b>	Feet			--or-- Meters		
<b>Altitude Datum Name</b>	<input type="checkbox"/> The National Geodetic Vertical Datum of 1929 <input type="checkbox"/> The North American Vertical Datum of 1988 (NAVD88)					
<b>Altitude (Vertical) Location Datum Collection Method Code</b>						
<b>Geometric Type Code</b>						
<b>Data Collection Date</b>						
<b>Source Map Scale Number</b>	Inch(es)			=	Feet	
	--or-- Centimeter(s)			=	Meters	

## PROJECT INFORMATION

**Project Name**

BRADS

**Project Description**

Major Modification - Tonnage Increase

**Project Consultant Last Name**

Bodner

**First Name**

Kevin

**MI****Suffix****Project Consultant Title**

Engineer

**Consulting Firm**

Martin and Martin, Inc.

**Mailing Address Line 1**

37 S. Main Street

**Mailing Address Line 2**

Suite A

**Address Last Line – City**

Chambersburg

**State**

PA

**ZIP+4**

17201

**Phone**

717-267-6759

**Ext****FAX**

717-264-7339

**Email Address**

knbodner@yahoo.com

**Time Schedules**

ASAP

**Project Milestone (Optional)**

Major Modification Approval

1. Is the project located in or within a 0.5-mile radius of an Environmental Justice community as defined by DEP? ☐ Yes ☐ No

To determine if the project is located in or within a 0.5-mile radius of an environmental justice community, please use the online [Environmental Justice Areas Viewer](#).

2. Have you informed the surrounding community prior to submitting the application to the Department? ☒ Yes ☐ No

Method of notification: \_\_\_\_\_

3. Have you addressed community concerns that were identified? ☐ Yes ☐ No ☒ N/A

If no, please briefly describe the community concerns that have been expressed and not addressed.

4. Is your project funded by state or federal grants? ☐ Yes ☒ No

**Note:** If "Yes", specify what aspect of the project is related to the grant and provide the grant source, contact person and grant expiration date.

Aspect of Project Related to Grant

Grant Source: \_\_\_\_\_

Grant Contact Person: \_\_\_\_\_

Grant Expiration Date: \_\_\_\_\_

5. Is this application for an authorization on Appendix A of the Land Use Policy? (For referenced list, see Appendix A of the Land Use Policy attached to GIF instructions) ☐ Yes ☒ No

**Note:** If "No" to Question 5, the application is not subject to the Land Use Policy.

If "Yes" to Question 5, the application is subject to this policy and the Applicant should answer the additional questions in the **Land Use Information** section.

### LAND USE INFORMATION

**Note:** Applicants should submit copies of local land use approvals or other evidence of compliance with local comprehensive plans and zoning ordinances.

1.	Is there an adopted county or multi-county comprehensive plan?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
2.	Is there a county stormwater management plan?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
3.	Is there an adopted municipal or multi-municipal comprehensive plan?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
4.	Is there an adopted county-wide zoning ordinance, municipal zoning ordinance or joint municipal zoning ordinance?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
<p><b>Note:</b> If the Applicant answers "No" to either Questions 1, 3 or 4, the provisions of the PA MPC are not applicable and the Applicant does not need to respond to questions 5 and 6 below. If the Applicant answers "Yes" to questions 1, 3 and 4, the Applicant should respond to questions 5 and 6 below.</p>					
5.	Does the proposed project meet the provisions of the zoning ordinance or does the proposed project have zoning approval? If zoning approval has been received, attach documentation.	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
6.	Have you attached Municipal and County Land Use Letters for the project?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No

### COORDINATION INFORMATION

**Note:** The PA Historical and Museum Commission must be notified of proposed projects in accordance with DEP Technical Guidance Document 012-0700-001 utilizing the Project Review Form.

If the activity will be a mining project (i.e., mining of coal or industrial minerals, coal refuse disposal and/or the operation of a coal or industrial minerals preparation/processing facility), respond to questions 1.0 through 2.5 below.

If the activity will not be a mining project, skip questions 1.0 through 2.5 and begin with question 3.0.

1.0	Is this a coal mining project? If "Yes", respond to 1.1-1.6. If "No", skip to Question 2.0.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
1.1	Will this coal mining project involve coal preparation/ processing activities in which the total amount of coal prepared/processed will be equal to or greater than 200 tons/day?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
1.2	Will this coal mining project involve coal preparation/ processing activities in which the total amount of coal prepared/processed will be greater than 50,000 tons/year?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
1.3	Will this coal mining project involve coal preparation/ processing activities in which thermal coal dryers or pneumatic coal cleaners will be used?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
1.4	For this coal mining project, will sewage treatment facilities be constructed and treated waste water discharged to surface waters?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
1.5	Will this coal mining project involve the construction of a permanent impoundment meeting one or more of the following criteria: (1) a contributory drainage area exceeding 100 acres; (2) a depth of water measured by the upstream toe of the dam at maximum storage elevation exceeding 15 feet; (3) an impounding capacity at maximum storage elevation exceeding 50 acre-feet?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
1.6	Will this coal mining project involve underground coal mining to be conducted within 500 feet of an oil or gas well?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
2.0	Is this a non-coal (industrial minerals) mining project? If "Yes", respond to 2.1-2.6. If "No", skip to Question 3.0.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
2.1	Will this non-coal (industrial minerals) mining project involve the crushing and screening of non-coal minerals other than sand and gravel?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No

2.2	Will this non-coal (industrial minerals) mining project involve the crushing and/or screening of sand and gravel with the exception of wet sand and gravel operations (screening only) and dry sand and gravel operations with a capacity of less than 150 tons/hour of unconsolidated materials?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
2.3	Will this non-coal (industrial minerals) mining project involve the construction, operation and/or modification of a portable non-metallic (i.e., non-coal) minerals processing plant under the authority of the General Permit for Portable Non-metallic Mineral Processing Plants (i.e., BAQ-PGPA/GP-3)?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
2.4	For this non-coal (industrial minerals) mining project, will sewage treatment facilities be constructed and treated waste water discharged to surface waters?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
2.5	Will this non-coal (industrial minerals) mining project involve the construction of a permanent impoundment meeting one or more of the following criteria: (1) a contributory drainage area exceeding 100 acres; (2) a depth of water measured by the upstream toe of the dam at maximum storage elevation exceeding 15 feet; (3) an impounding capacity at maximum storage elevation exceeding 50 acre-feet?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
3.0	Will your project, activity, or authorization have anything to do with a well related to oil or gas production, have construction within 200 feet of, affect an oil or gas well, involve the waste from such a well, or string power lines above an oil or gas well? If "Yes", respond to 3.1-3.3. If "No", skip to Question 4.0.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
3.1	Does the oil- or gas-related project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a watercourse, floodway or body of water (including wetlands)?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
3.2	Will the oil- or gas-related project involve discharge of industrial wastewater or stormwater to a dry swale, surface water, ground water or an existing sanitary sewer system or storm water system? If "Yes", discuss in <i>Project Description</i> .	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
3.3	Will the oil- or gas-related project involve the construction and operation of industrial waste treatment facilities?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
4.0	Will the project involve a construction activity that results in earth disturbance? If "Yes", specify the total disturbed acreage.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
4.0.1	Total Disturbed Acreage				
4.0.2	Will the project discharge or drain to a special protection water (EV or HQ) or an EV wetland?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
4.0.3	Will the project involve a construction activity that results in earth disturbance in the area of the earth disturbance that are contaminated at levels exceeding residential or non-residential medium-specific concentrations (MSCs) in 25 Pa. Code Chapter 250 at residential or non-residential construction sites, respectively?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
5.0	Does the project involve any of the following: water obstruction and/or encroachment, wetland impacts, or floodplain project by the Commonwealth/political subdivision or public utility? If "Yes", respond to 5.1-5.7. If "No", skip to Question 6.0.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
5.1	Water Obstruction and Encroachment Projects – Does the project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a watercourse, floodway or body of water?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
5.2	Wetland Impacts – Does the project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a wetland?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No



5.3	Floodplain Projects by the Commonwealth, a Political Subdivision of the Commonwealth or a Public Utility – Does the project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a floodplain?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
5.4	Is your project an interstate transmission natural gas pipeline?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
5.5	Does your project consist of linear construction activities which result in earth disturbance in two or more DEP regions AND three or more counties?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
5.6	Does your project utilize Floodplain Restoration as a best management practice for Post Construction Stormwater Management?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
5.7	Does your project utilize Class V Gravity / Injection Wells as a best management practice for Post Construction Stormwater Management?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
6.0	Will the project involve discharge of construction related stormwater to a dry swale, surface water, ground water or separate storm water system?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
6.1	Will the project involve discharge of industrial waste stormwater or wastewater from an industrial activity or sewage to a dry swale, surface water, ground water or an existing sanitary sewer system or separate storm water system?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
7.0	Will the project involve the construction and operation of industrial waste treatment facilities?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
8.0	Will the project involve construction of sewage treatment facilities, sanitary sewers, or sewage pumping stations? If "Yes", indicate estimated proposed flow (gal/day). Also, discuss the sanitary sewer pipe sizes and the number of pumping stations/treatment facilities/name of downstream sewage facilities in the <i>Project Description</i> , where applicable.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
8.0.1 Estimated Proposed Flow (gal/day)					
9.0	Will the project involve the subdivision of land, or the generation of 800 gpd or more of sewage on an existing parcel of land or the generation of an additional 400 gpd of sewage on an already-developed parcel, or the generation of 800 gpd or more of industrial wastewater that would be discharged to an existing sanitary sewer system?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
9.0.1	Was Act 537 sewage facilities planning submitted and approved by DEP? If "Yes" attach the approval letter. Approval required prior to 105/NPDES approval.	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
10.0	Is this project for the beneficial use of biosolids for land application within Pennsylvania? If "Yes" indicate how much (i.e. gallons or dry tons per year).	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
10.0.1	Gallons Per Year (residential septage)				
10.0.2	Dry Tons Per Year (biosolids)				
11.0	Does the project involve construction, modification or removal of a dam? If "Yes", identify the dam.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
11.0.1	Dam Name				
12.0	Will the project interfere with the flow from, or otherwise impact, a dam? If "Yes", identify the dam.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
12.0.1	Dam Name				

13.0	Will the project involve operations (excluding during the construction period) that produce air emissions (i.e., NOX, VOC, etc.)?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
	13.0.1 If "Yes", is the operation subject to the agricultural exemption in 35 P.S. § 4004.1?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
	13.0.2 If the answer to 13.0.1 is "No", identify each type of emission followed by the estimated amount of that emission. Enter all types & amounts of emissions; separate each set with semicolons.				
14.0	Does the project include the construction or modification of a drinking water supply to serve 15 or more connections or 25 or more people, at least 60 days out of the year? If "Yes", check all proposed sub-facilities.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
	14.0.1 Number of Persons Served _____				
	14.0.2 Number of Employee/Guests _____				
	14.0.3 Number of Connections _____				
	14.0.4 Sub-Fac: Distribution System	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
	14.0.5 Sub-Fac: Water Treatment Plant	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
	14.0.6 Sub-Fac: Source	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
	14.0.7 Sub-Fac: Pump Station	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
	14.0.8 Sub Fac: Transmission Main	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
	14.0.9 Sub-Fac: Storage Facility	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
15.0	Will your project include infiltration of storm water or waste water to ground water within one-half mile of a public water supply well, spring or infiltration gallery?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
16.0	Is your project to be served by an existing public water supply? If "Yes", indicate name of supplier and attach letter from supplier stating that it will serve the project.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
	16.0.1 Supplier's Name _____				
	16.0.2 Letter of Approval from Supplier is Attached	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
17.0	Will this project be served by on-lot drinking water wells?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
18.0	Will this project involve a new or increased drinking water withdrawal from a river, stream, spring, lake, well or other water bod(ies)? If "Yes", reference Safe Drinking Water Program.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
	18.0.1 Source Name _____				
19.0	Will the construction or operation of this project involve treatment, storage, reuse, or disposal of waste? If "Yes", indicate what type (i.e., hazardous, municipal (including infectious & chemotherapeutic), residual) and the amount to be treated, stored, re-used or disposed.	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
	19.0.1 Type & Amount This is a C&D Landfill Project – See Form 1				
20.0	Will your project involve the removal of coal, minerals, contaminated media, or solid waste as part of any earth disturbance activities?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
21.0	Does your project involve installation of a field constructed underground storage tank? If "Yes", list each Substance & its Capacity. <u>Note:</u> Applicant may need a Storage Tank Site Specific Installation Permit.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
	21.0.1 Enter all substances & capacity of each; separate each set with semicolons. _____				

22.0 Does your project involve installation of an aboveground storage tank greater than 21,000 gallons capacity at an existing facility? If "Yes", list each Substance & its Capacity. **Note:** Applicant may need a Storage Tank Site Specific Installation Permit. ☐ Yes ☒ No

22.0.1 Enter all substances & capacity of each; separate each set with semicolons.

23.0 Does your project involve installation of a tank greater than 1,100 gallons which will contain a highly hazardous substance as defined in DEP's Regulated Substances List, 2570-BK-DEP2724? If "Yes", list each Substance & its Capacity. **Note:** Applicant may need a Storage Tank Site Specific Installation Permit. ☐ Yes ☒ No

23.0.1 Enter all substances & capacity of each; separate each set with semicolons.

24.0 Does your project involve installation of a storage tank at a new facility with a total AST capacity greater than 21,000 gallons? If "Yes", list each Substance & its Capacity. **Note:** Applicant may need a Storage Tank Site Specific Installation Permit. ☐ Yes ☒ No

24.0.1 Enter all substances & capacity of each; separate each set with semicolons.

**NOTE:** If the project includes the installation of a regulated storage tank system, including diesel emergency generator systems, the project may require the use of a Department Certified Tank Handler. For a full list of regulated storage tanks and substances, please go to [www.dep.pa.gov](http://www.dep.pa.gov) search term storage tanks

25.0 Will the intended activity involve the use of a radiation source? ☐ Yes ☒ No

### CERTIFICATION

I certify that I have the authority to submit this application on behalf of the applicant named herein and that the information provided in this application is true and correct to the best of my knowledge and information.

For applicants supplying an EIN number: I am applying for a permit or authorization from the Pennsylvania Department of Environmental Protection (DEP). As part of this application, I will provide DEP with an accurate EIN number for the applicant entity. By filing this application with DEP, I hereby authorize DEP to confirm the accuracy of the EIN number provided with the Pennsylvania Department of Revenue. As applicant, I further consent to the Department of Revenue discussing the same with DEP prior to issuance of the Commonwealth permit or authorization.

Type or Print Name David Pannucci

David Pannucci  
Signature

Region Engineer  
Title

11/1/2022  
Date

# Form A



**FORM A**  
**APPLICATION FOR MUNICIPAL OR RESIDUAL WASTE PERMIT**

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided herein. Replacement/substitution of or attachment to this form is prohibited. Improperly completed forms may be rejected by the Department, may be considered to be violations of the Department's Rules and Regulations, and may result in assessment of fines and penalties.

**SECTION A. APPLICANT IDENTIFIER (Check one of the boxes and identify both)**

<input checked="" type="checkbox"/> Owner	Name: Blythe Recycling and Demolition Site Holdings, Inc. Address: P.O. Box 335, St. Clair, PA 17970	Phone #: 570-429-2023 Email: david.pannucci@wasteconnections.com
<input type="checkbox"/> Operator	Name: Address:	Phone #: Email:

**SECTION B. TYPE OF FACILITY**

Municipal Waste Landfill.....	<input type="checkbox"/>	Residual Waste Landfill .....	<input type="checkbox"/>
Construction/Demolition Waste Landfill .....	<input checked="" type="checkbox"/>	Class I .....	<input type="checkbox"/>
Municipal Waste Composting Facility .....	<input type="checkbox"/>	Class II .....	<input type="checkbox"/>
Municipal Waste Incinerator or Resource Recovery Facility...	<input type="checkbox"/>	Class III .....	<input type="checkbox"/>
Municipal Waste Demonstration Facility .....	<input type="checkbox"/>	Residual Waste Disposal Impoundment	
Municipal Waste Transfer Facility .....	<input type="checkbox"/>	Class I .....	<input type="checkbox"/>
Municipal Waste Processing Facility .....	<input type="checkbox"/>	Class II .....	<input type="checkbox"/>
Other, Specify .....	<input type="checkbox"/>	Residual Waste Composting Facility .....	<input type="checkbox"/>
		Residual Waste Demonstration Facility .....	<input type="checkbox"/>
		Residual Waste Transfer Facility .....	<input type="checkbox"/>
		Residual Waste Incinerator or Other Processing Facility ...	<input type="checkbox"/>
		Residual Waste Agricultural Utilization .....	<input type="checkbox"/>
		Residual Waste Land Reclamation .....	<input type="checkbox"/>
		Oil and Gas Wastewater Storage Impoundment .....	<input type="checkbox"/>
		Other, Specify .....	<input type="checkbox"/>

**SECTION C. MAP LOCATION**

U.S.G.S. Map Location of Facility (attach the map and identify location on the USGS map)

7.5" Map Name Pottsville

Center of Facility:

Latitude 40 ° 44 ' 23 " Longitude 76 ° 09 ' 22 "

**SECTION D. GENERAL INFORMATION**

Number of New Acres Proposed for Permit (Issued) <u>0</u> •	Number of Acres Proposed for Permit (New) <u>0</u> •
Total Acres of the Property <u>400</u> •	
Number of Previously Permitted Acres <u>252</u> •	Current Permit ID Number(s) <u>101679</u>

**SECTION E. AFFIDAVIT**

COMMONWEALTH/STATE OF PA  
 COUNTY OF Franklin ss: \_\_\_\_\_

Sworn and subscribed to before me this 1st day  
 of November 19 2022

Commonwealth of Pennsylvania - Notary Seal  
 KEVIN BODNER - Notary Public  
 Franklin County  
 My Commission Expires January 28, 2025  
 Commission Number 1274323

[Signature]  
 NOTARY PUBLIC

My Commission Expires

1/28/25

Print or type name to be Signed: David Pannucci

Date 11/1/2022

Date: 11/1/2022

I, David Pannucci do hereby certify pursuant to the penalties of 18 Pa. C.S.A.  
 (Signature of Applicant)

Section 4904 to the best of my knowledge, information, and belief that the information contained in this application is true and correct and is in conformance with 25 PA. Code Chapters 271 or 287, whichever is applicable, of the rules and regulations of the Department of Environmental Protection.

**SECTION F. APPLICATION FEE****A. Municipal Facilities****i. Application for new permit, or repermitting. (ref. 271.128)**

- |                          |          |   |  |
|--------------------------|----------|---|--|
| <input type="checkbox"/> | \$18,500 | - | Municipal Waste Landfill   |
| <input type="checkbox"/> | \$19,250 | - | Construction/Demolition Waste Landfill                                   |
| <input type="checkbox"/> | \$4,400  | - | Transfer Facility  |
| <input type="checkbox"/> | \$1,900  | - | Incinerator or Resource Recovery Facility                                |
| <input type="checkbox"/> | \$4,000  | - | Other Municipal Waste Processing Facility, including Composting Facility |
| <input type="checkbox"/> | \$17,300 | - | Demonstration Facility   |

**ii. Application for a major permit modification.**

- |                                     |         |   |  |
|-------------------------------------|---------|---|--|
| <input type="checkbox"/>            | \$300   | - | Addition of types of waste not approved in the permit                    |
| <input checked="" type="checkbox"/> | \$7,800 | - | Municipal Waste Landfill and Construction/Demolition Waste Landfill      |
| <input type="checkbox"/>            | \$700   | - | Transfer Facility  |
| <input type="checkbox"/>            | \$1,500 | - | Incinerator or Resource Recovery Facility                                |
| <input type="checkbox"/>            | \$700   | - | Other Municipal Waste Processing Facility, including Composting Facility |
| <input type="checkbox"/>            | \$6,700 | - | Demonstration Facility   |

iii. ☐ \$300 - Permit Reissuance

iv. ☐ \$300 - Permit Renewal

v. ☐ \$300 - Minor Permit Modification



**SECTION F. APPLICATION FEE (Continued)****A. Residual Facilities****i. Application for new permit, or repermitting. (ref. 287.141)**

- ☐ \$25,900 – Residual Waste Landfill
- ☐ \$8,500 – Residual Waste Disposal Impoundment
- ☐ \$5,200 – Residual Waste Transfer Facility
- ☐ \$8,300 – Residual Waste Noncaptive Incinerator
- ☐ \$2,200 – Residual Waste Captive Incinerator
- ☐ \$5,200 – Other Waste Processing Facility, including Composting Facility
- ☐ \$8,500 – Residual Waste Demonstration Facility
- ☐ \$5,100 – Residual Waste Land Reclamation
- ☐ \$5,100 – Residual Waste Agricultural Utilization
- ☐ \$8,500 – Oil and Gas Wastewater Storage Impoundment

**ii. Application for a major permit modification.**

- ☐ \$600 – Addition of types of waste not approved in the permit
- ☐ \$7,800 – Residual Waste Landfill
- ☐ \$600 – Residual Waste Agricultural Utilization
- ☐ \$1,900 – Residual Waste Land Reclamation
- ☐ \$1,500 – Residual Waste Incinerator Facility
- ☐ \$700 – Residual Waste Transfer or Other Processing Facility, including Composting Facility
- ☐ \$5,800 – Residual Waste Demonstration Facility
- ☐ \$4,600 – Residual Waste Disposal Impoundment
- ☐ \$4,600 – Oil and Gas Wastewater Storage Impoundment

**iii. ☐ \$400 – Residual Waste Permit Reissuance****iv. ☐ \$300 – Residual Waste Permit Renewal****v. ☐ \$300 – Residual Waste Minor Permit Modification****SECTION G. PUBLIC NOTICE - SECTION 271.141 (MUNICIPAL), 287.151 (RESIDUAL)**

For a new permit, major permit modification, permit renewal, permit reissuance, and submission of a closure plan, attach the proof of public notice for each of the following:

1. Newspaper - Attach the name of the newspaper, circulation location, copies of the notice, and dates of publication.
2. Municipality - Attach copies of the written notices sent to the host township and host county, and copies of the returned certified mail signature cards.
3. Contiguous Landowners - Attach copies of the written notice(s) sent to each landowner and copies of the returned certified mail signature cards.

**SECTION H. MUNICIPAL WASTE MANAGEMENT PLANS AND PERMITS**

For a new permit, major permit modification, permit renewal, or permit reissuance of a municipal waste landfill or resource recovery facility permit, is the proposed facility located in a county that has an approved municipal waste management plan that complies with Section 513 of Act 101? Yes ☒ No ☐

If the above answer is "yes", the applicant must complete form 46 - Relationship between Municipal Waste Management Plans and Permits.

**NOTE:** For each permit application, please submit the original (mark as such) and additional copies as requested by the Department's regional office.

Form A-1

---

Public Legal Notice

## **ATTACHMENT A - 1**

### **Public Notice of a Municipal Waste Permit Application**

Notice is hereby given that BRADS Landfill in Blythe Township will file a Permit Application with the Pennsylvania Department of Environmental Protection (DEP), Northeast Regional Office to increase the Average Daily Volume (ADV) and Maximum Daily Volume (MDV) from 1,500 tons per day to 3,000 tons per day. The landfill is located on Burma Road, Blythe Township, Schuylkill County, Pennsylvania.

Copies of the application are available for review and copying at the DEP Northeast Regional Office at Two Public Square, Wilkes-Barre, PA between the hours of 8:00 am and 4:00 pm by appointment. Fees for copying may be charged by the DEP. After the DEP determines that the application is administratively complete, copies will be submitted to the municipal offices of Blythe Township, Schuylkill County Commissioners and the Schuylkill County Planning Commission by the DEP.

The host municipality and the County may submit recommendations for permit conditions, revisions, permit approval or disapproval, and other comments to the DEP within sixty (60) days of receipt of a complete application.

The DEP will also accept and consider comments from the public during the permit review. Comments would be sent to Mr. Roger Bellas, Regional Solid Waste Manager, Northeast Regional Office, Two Public Square, Wilkes-Barre, PA 18711-0790.

REPUBLICAN HERALD  
PO BOX 3478  
SCRANTON PA 18505-0478  
(570)348-9183  
Fax (570)348-9149

ORDER CONFIRMATION

Salesperson: VENTURI SHARON X5270 Printed at 10/26/22 11:55 by svent

-----  
Acct #: 175833

Ad #: 82674492

Status: New

MARTIN & MARTIN INC  
37 S MAIN ST STE A  
CHAMBERSBURG PA 17201

Start: 10/27/2022 Stop: 11/10/2022  
Times Ord: 3 Times Run: \*\*\*  
TSLEG 1.00 X 65.00 Words: 212  
Total TSLEG 65.00  
Class: X1010 LEGALS & PUBLIC NOTICES  
Rate: CLL Cost: 941.10

# Affidavits: 1

Ad Descrpt: BLYTHE RECYCLING/DEMOLITI

Descr Cont: PUBLIC NOTICE OF A MUNICI

Given by: \*

P.O. #:

Contact:

Phone: (717)264-6759

Fax#: (717)264-7339

Email:

Agency:

Created: svent 10/26/22 10:59

Last Changed: svent 10/26/22 11:53  
-----

PUB ZONE EDT TP RUN DATES  
RHRH CL 3 S 10/27 11/03,10  
RHIN INTR 6 S 10/27 11/03,10  
-----

AUTHORIZATION

Under this agreement rates are subject to change with 30 days notice. In the event of a cancellation before schedule completion, I understand that the rate charged will be based upon the rate for the number of insertions used.

\_\_\_\_\_  
Name (print or type)

\_\_\_\_\_  
Name (signature)

(CONTINUED ON NEXT PAGE)

REPUBLICAN HERALD  
PO BOX 3478  
SCRANTON PA 18505-0478  
(570) 348-9183  
Fax (570) 348-9149

ORDER CONFIRMATION (CONTINUED)

Salesperson: VENTURI SHARON X5270 Printed at 10/26/22 11:55 by svent

-----  
Acct #: 175833

Ad #: 82674492

Status: New

**PUBLIC NOTICE OF A  
MUNICIPAL WASTE PERMIT  
APPLICATION**

Notice is hereby given that BRADS Landfill in Blythe Township will file a Permit Application with the Pennsylvania Department of Environmental Protection (DEP), Northeast Regional Office to increase the Average Daily Volume (ADV) and Maximum Daily Volume (MDV) from 1,500 tons per day to 3,000 tons per day. The landfill is located on Burma Road, Blythe Township, Schuylkill County, Pennsylvania.

Copies of the application are available for review and copying at the DEP Northeast Regional Office at Two Public Square, Wilkes-Barre, PA between the hours of 8:00 am and 4:00 pm by appointment. Fees for copying may be charged by the DEP. After the DEP determines that the application is administratively complete, copies will be submitted to the municipal offices of Blythe Township, Schuylkill County Commissioners and the Schuylkill County Planning Commission by the DEP.

The host municipality and the County may submit recommendations for permit conditions, revisions, permit approval or disapproval, and other comments to the DEP within sixty (60) days of receipt of a complete application.

The DEP will also accept and consider comments from the public during the permit review. Comments would be sent to Mr. Roger Bellas, Regional Solid Waste Manager, Northeast Regional Office, Two Public Square, Wilkes-Barre, PA 18711-0790.

Form A-2

---

County/Municipal  
Notifications



# **martin and martin, incorporated**

37 south main street • suite A • chambersburg, pennsylvania • 17201-2251

(717) 264-6759

(717) 264-7339 (fax)

[www.martinandmartininc.com](http://www.martinandmartininc.com)

October 25, 2022

Blythe Township  
P.O. Box 91  
Cumbola, PA 17930

**CERTIFIED MAIL: 7022 0410 0001 8885 4031**

RE: BRADS – ADV/MDV Tonnage Modification  
Our file: b/1312.2/2022/MajModTonnageInc/NL-T

Gentlemen:

In accordance with Act 14 and Section 271.141(d) of Regulations adopted under the Pennsylvania Solid Waste Management Act, this letter is to inform you that BRADS Landfill in Blythe Township intends to file a Major Permit Modification with the Pennsylvania Department of Environmental Protection (PaDEP), Northeast Regional Office. This modification is to increase the Average Daily Tonnage (ADT) and Maximum Daily Volume (MDV) from 1,500 tons per day to 3,000 tons per day.

This application will be available for review and copying at the DEP Northeast Regional Office of the DEP at Two Public Square, Wilkes-Barre, PA 18711-0790 between the hours of 8:00 a.m. and 4:00 p.m. by appointment. Fees for copying may be charged by the DEP. Copies of the application will be available at Blythe Township and Schuylkill County.

Very truly yours,  
**MARTIN AND MARTIN, INCORPORATED**

Kevin N. Bodner

**MUNICIPAL • URBAN • REGIONAL • LAND DEVELOPMENT AND ENVIRONMENTAL PLANNERS**

**MUNICIPAL • CIVIL • SANITARY • SOLID WASTE AND ENVIRONMENTAL ENGINEERS**



**U.S. Postal Service™**  
**CERTIFIED MAIL® RECEIPT**  
 Domestic Mail Only

For delivery information, visit our website at [www.usps.com](http://www.usps.com)®.

Cumbola, PA 17930

Certified Mail Fee \$4.00  
 Extra Services & Fees (check box, add fee as appropriate)  
☐ Return Receipt (hardcopy) \$0.00  
☐ Return Receipt (electronic) \$0.00  
☐ Certified Mail Restricted Delivery \$0.00  
☐ Adult Signature Required \$0.00  
☐ Adult Signature Restricted Delivery \$0.00

Postage \$0.60

Total Postage and Fees \$7.85

Sent To

Blythe Township

Street and Apt. No., or PO Box No.

PO Box 91

City, State, ZIP+4®

Cumbola, PA 17930

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7022 0410 0001 8885 4031

CHAMBERSBURG POST OFFICE  
 OCT 25 2022/25/2022

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Blythe Township  
 PO Box 91  
 Cumbola, PA 17930



9590 9402 7481 2055 2370 88

2. Article Number (Transfer from service label)

7022 0410 0001 8885 4031

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature

x *Robert J. Conville*

☒ Agent

☐ Addressee

B. Received by (Printed Name)

ROBERT J. CONVILLE

C. Date of Delivery

10/26/22

D. Is delivery address different from item 1? ☐ Yes  
 If YES, enter delivery address below: ☒ No

3. Service Type

- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☒ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over \$500)

- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2020 PSN 7530-02-000-9053

13122

Domestic Return Receipt





# **martin and martin, incorporated**

37 south main street • suite A • chambersburg, pennsylvania • 17201-2251

(717) 264-6759

(717) 264-7339 (fax)

[www.martinandmartininc.com](http://www.martinandmartininc.com)

October 25, 2022

Schuylkill County Board of Commissioners  
Schuylkill County Court House  
Second Street and Laurel Blvd.  
Pottsville, PA 17901

**CERTIFIED MAIL: 7022 0410 0001 8885 4024**

RE: BRADS – ADV/MDV Tonnage Modification  
Our file: b/1312.2/2022/MajModTonnageInc/NL-C

Gentlemen:

In accordance with Act 14 and Section 271.141(d) of Regulations adopted under the Pennsylvania Solid Waste Management Act, this letter is to inform you that BRADS Landfill in Blythe Township intends to file a Major Permit Modification with the Pennsylvania Department of Environmental Protection (PaDEP), Northeast Regional Office. This modification is to increase the Average Daily Tonnage (ADT) and Maximum Daily Volume (MDV) from 1,500 tons per day to 3,000 tons per day.

This application will be available for review and copying at the DEP Northeast Regional Office of the DEP at Two Public Square, Wilkes-Barre, PA 18711-0790 between the hours of 8:00 a.m. and 4:00 p.m. by appointment. Fees for copying may be charged by the DEP. Copies of the application will be available at Blythe Township and Schuylkill County.

Very truly yours,  
**MARTIN AND MARTIN, INCORPORATED**

Kevin N. Bodner

**MUNICIPAL • URBAN • REGIONAL • LAND DEVELOPMENT AND ENVIRONMENTAL PLANNERS**

**MUNICIPAL • CIVIL • SANITARY • SOLID WASTE AND ENVIRONMENTAL ENGINEERS**

7022 0410 0001 8885 4024

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only	
For delivery information, visit our website at <a href="http://www.usps.com">www.usps.com</a> ®.	
Pottsville, PA 17901	
Certified Mail Fee	\$4.00
Extra Services & Fees (check box, add fee as appropriate)	\$3.25
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00
Postage	\$0.60
Total Postage and Fees	\$7.85
Sent To Schuylkill County Board of Commissioners Second Street and Laurel Blvd. Pottsville, PA 17901	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	



SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY		
<ul style="list-style-type: none"> <li>Complete items 1, 2, and 3.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>	<p>A. Signature  <input checked="" type="checkbox"/> Agent  <input checked="" type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name)            Linda Deatruck</p> <p>C. Date of Delivery            OCT 28 2022</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes            If YES, enter delivery address below: <input type="checkbox"/> No</p>		
<p>1. Article Addressed to:            Schuylkill County Board of Commissioners            Schuylkill County Court House            Second Street and Laurel Blvd.            Pottsville, PA 17901</p> <p>2. Article Number (Transfer from service label)            7022 0410 0001 8885 4024</p>	<p>3. Service Type</p> <table border="0"> <tr> <td> <input type="checkbox"/> Adult Signature  <input type="checkbox"/> Adult Signature Restricted Delivery  <input checked="" type="checkbox"/> Certified Mail®  <input type="checkbox"/> Certified Mail Restricted Delivery  <input type="checkbox"/> Collect on Delivery  <input type="checkbox"/> Collect on Delivery Restricted Delivery  <input type="checkbox"/> Insured Mail  <input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)               </td> <td> <input type="checkbox"/> Priority Mail Express®  <input type="checkbox"/> Registered Mail™  <input type="checkbox"/> Registered Mail Restricted Delivery  <input type="checkbox"/> Signature Confirmation™  <input type="checkbox"/> Signature Confirmation Restricted Delivery               </td> </tr> </table>	<input type="checkbox"/> Adult Signature <input type="checkbox"/> Adult Signature Restricted Delivery <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Insured Mail <input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)	<input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Signature Confirmation Restricted Delivery
<input type="checkbox"/> Adult Signature <input type="checkbox"/> Adult Signature Restricted Delivery <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Insured Mail <input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)	<input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Signature Confirmation Restricted Delivery		



Form A-3

---

Contiguous Landowner  
Notifications





# **martin and martin, incorporated**

37 south main street • suite A • chambersburg, pennsylvania • 17201-2251

(717) 264-6759

(717) 264-7339 (fax)

[www.martinandmartininc.com](http://www.martinandmartininc.com)

October 25, 2022

Reading Anthracite Company  
200 Mahantango Street  
Pottsville, PA 17901

**CERTIFIED MAIL: 7022 0410 0001 8885 4048**

RE: BRADS – ADV/MDV Tonnage Modification  
Our file: b/1312.2/2022/MajModTonnageInc/CLN

To Whom it May Concern:

In accordance with Act 14 and Section 271.141(d) of Regulations adopted under the Pennsylvania Solid Waste Management Act, this letter is to inform you that BRADS Landfill in Blythe Township intends to file a Major Permit Modification with the Pennsylvania Department of Environmental Protection (PaDEP), Northeast Regional Office. This modification is to increase the Average Daily Tonnage (ADT) and Maximum Daily Volume (MDV) from 1,500 tons per day to 3,000 tons per day.

This application will be available for review and copying at the DEP Northeast Regional Office of the DEP at Two Public Square, Wilkes-Barre, PA 18711-0790 between the hours of 8:00 a.m. and 4:00 p.m. by appointment. Fees for copying may be charged by the DEP. Copies of the application will be available at Blythe Township and Schuylkill County.

Very truly yours,  
**MARTIN AND MARTIN, INCORPORATED**

Kevin N. Bodner

**MUNICIPAL • URBAN • REGIONAL • LAND DEVELOPMENT AND ENVIRONMENTAL PLANNERS**

**MUNICIPAL • CIVIL • SANITARY • SOLID WASTE AND ENVIRONMENTAL ENGINEERS**

7022 0410 0001 8885 4048

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only	
For delivery information, visit our website at <a href="http://www.usps.com">www.usps.com</a> ®.	
Pottsville, PA 17901	
Certified Mail Fee	\$4.00
Extra Services & Fees (check box and fee as appropriate)	
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00
Postage	\$0.60
Total Postage and Fees	\$7.85
Sent To	Reading Anthracite Company
Street and Apt. No., or PO Box No.	200 Mahantago Street
City, State, ZIP+4®	Pottsville, PA 17901
PS Form 3800, April 2015 PSN 7530-02-000-9047	See Reverse for Instructions

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> <li>Complete items 1, 2, and 3.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>	<p>A. Signature  <input checked="" type="checkbox"/> Agent  <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name)</p> <p>C. Date of Delivery  10/27/22</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes  If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>Reading Anthracite Company  200 Mahantago Street  Pottsville, PA 17901</p>	<p>3. Service Type</p> <p><input type="checkbox"/> Adult Signature  <input type="checkbox"/> Adult Signature Restricted Delivery  <input checked="" type="checkbox"/> Certified Mail®  <input type="checkbox"/> Certified Mail Restricted Delivery  <input type="checkbox"/> Collect on Delivery  <input type="checkbox"/> Collect on Delivery Restricted Delivery  <input type="checkbox"/> Insured Mail  <input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)</p> <p><input type="checkbox"/> Priority Mail Express®  <input type="checkbox"/> Registered Mail™  <input type="checkbox"/> Registered Mail Restricted Delivery  <input type="checkbox"/> Signature Confirmation™  <input type="checkbox"/> Signature Confirmation Restricted Delivery</p>
<p>2. Article Number (Transfer from service label)</p> <p>7022 0410 0001 8885 4048</p>	
<p>9590 9402 7481 2055 2371 18</p>	
<p>PS Form 3811, July 2020 PSN 7530-02-000-9053</p>	<p>Domestic Return Receipt</p>





# **martin and martin, incorporated**

37 south main street • suite A • chambersburg, pennsylvania • 17201-2251

(717) 264-6759

(717) 264-7339 (fax)

[www.martinandmartininc.com](http://www.martinandmartininc.com)

October 25, 2022

BRADS Landfill  
PO Box 335  
St. Clair, PA 17970

**CERTIFIED MAIL: 7022 0410 0001 8885 5779**

RE: BRADS – ADV/MDV Tonnage Modification  
Our file: b/1312.2/2022/MajModTonnageInc/CLN

To Whom it May Concern:

In accordance with Act 14 and Section 271.141(d) of Regulations adopted under the Pennsylvania Solid Waste Management Act, this letter is to inform you that BRADS Landfill in Blythe Township intends to file a Major Permit Modification with the Pennsylvania Department of Environmental Protection (PaDEP), Northeast Regional Office. This modification is to increase the Average Daily Tonnage (ADT) and Maximum Daily Volume (MDV) from 1,500 tons per day to 3,000 tons per day.

This application will be available for review and copying at the DEP Northeast Regional Office of the DEP at Two Public Square, Wilkes-Barre, PA 18711-0790 between the hours of 8:00 a.m. and 4:00 p.m. by appointment. Fees for copying may be charged by the DEP. Copies of the application will be available at Blythe Township and Schuylkill County.

Very truly yours,  
**MARTIN AND MARTIN, INCORPORATED**

Kevin N. Bodner

**MUNICIPAL • URBAN • REGIONAL • LAND DEVELOPMENT AND ENVIRONMENTAL PLANNERS**

**MUNICIPAL • CIVIL • SANITARY • SOLID WASTE AND ENVIRONMENTAL ENGINEERS**

**U.S. Postal Service™**  
**CERTIFIED MAIL® RECEIPT**  
 Domestic Mail Only

For delivery information, visit our website at [www.usps.com](http://www.usps.com)®.

Saint Clair, PA 17970

Certified Mail Fee \$4.00  
 \$3.25  
 Extra Services & Fees (check box, add fee as appropriate)  
☐ Return Receipt (hardcopy) \$0.00  
☐ Return Receipt (electronic) \$0.00  
☐ Certified Mail Restricted Delivery \$0.00  
☐ Adult Signature Required \$0.00  
☐ Adult Signature Restricted Delivery \$0.00

Postage \$0.60

Total Postage and Fees \$7.85

Sent To BRADS Landbill  
 Street and Apt. No., or PO Box No. PO Box 335  
 City, State, ZIP+4® St. Clair, PA 17970

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions



**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

BRADS Landbill  
 PO Box 335  
 St. Clair, PA 17970



9590 9402 7481 2055 2371 32

2. Article Number (Transfer from service label)

7022 0410 0001 8885 5779

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature

X

B. Received by (Printed Name)

☐ Agent  
☐ Addressee

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes  
 If YES, enter delivery address below: ☐ No



3. Service Type

- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☒ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over \$500)

- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2020 PSN 7530-02-000-9053 1312.2

Domestic Return Receipt





# **martin and martin, incorporated**

37 south main street • suite A • chambersburg, pennsylvania • 17201-2251

(717) 264-6759

(717) 264-7339 (fax)

www.martinandmartininc.com

October 25, 2022

Schuylkill County Municipal Authority  
PO Box 960  
Pottsville, PA 17901

**CERTIFIED MAIL: 7022 0410 0001 8885 5793**

RE: BRADS – ADV/MDV Tonnage Modification  
Our file: b/1312.2/2022/MajModTonnageInc/CLN

Members:

In accordance with Act 14 and Section 271.141(d) of Regulations adopted under the Pennsylvania Solid Waste Management Act, this letter is to inform you that BRADS Landfill in Blythe Township intends to file a Major Permit Modification with the Pennsylvania Department of Environmental Protection (PaDEP), Northeast Regional Office. This modification is to increase the Average Daily Tonnage (ADT) and Maximum Daily Volume (MDV) from 1,500 tons per day to 3,000 tons per day.

This application will be available for review and copying at the DEP Northeast Regional Office of the DEP at Two Public Square, Wilkes-Barre, PA 18711-0790 between the hours of 8:00 a.m. and 4:00 p.m. by appointment. Fees for copying may be charged by the DEP. Copies of the application will be available at Blythe Township and Schuylkill County.

Very truly yours,  
**MARTIN AND MARTIN, INCORPORATED**

Kevin N. Bodner

**MUNICIPAL • URBAN • REGIONAL • LAND DEVELOPMENT AND ENVIRONMENTAL PLANNERS**

**MUNICIPAL • CIVIL • SANITARY • SOLID WASTE AND ENVIRONMENTAL ENGINEERS**



U.S. Postal Service™  
**CERTIFIED MAIL® RECEIPT**  
Domestic Mail Only

For delivery information, visit our website at [www.usps.com](http://www.usps.com)®.

Pottsville, PA 17901

Certified Mail Fee \$4.00

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$0.00  
☐ Return Receipt (electronic) \$0.00  
☐ Certified Mail Restricted Delivery \$0.00  
☐ Adult Signature Required \$0.00  
☐ Adult Signature Restricted Delivery \$0.00

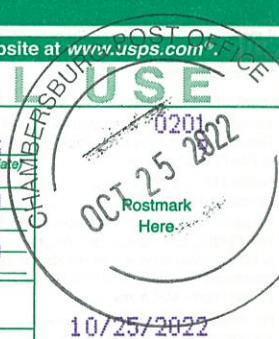
Postage \$0.60

Total Postage and Fees \$7.85

Sent To  
Schuylkill County Municipal Authority  
Street and Apt. No., or PO Box No.  
PO Box 960  
City, State, ZIP+4®  
Pottsville, PA 17901 13122

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions



7022 0410 0001 8885 5793



# **martin and martin, incorporated**

37 south main street • suite A • chambersburg, pennsylvania • 17201-2251

(717) 264-6759

(717) 264-7339 (fax)

www.martinandmartininc.com

October 25, 2022

n/f Fatula, Sciuchetti, Bucklar and Bucklar  
204 North Mill Street  
St. Clair, PA 17970

**CERTIFIED MAIL: 7022 0410 0001 8885 5809**

RE: BRADS – ADV/MDV Tonnage Modification  
Our file: b/1312.2/2022/MajModTonnageInc/CLN

Members:

In accordance with Act 14 and Section 271.141(d) of Regulations adopted under the Pennsylvania Solid Waste Management Act, this letter is to inform you that BRADS Landfill in Blythe Township intends to file a Major Permit Modification with the Pennsylvania Department of Environmental Protection (PaDEP), Northeast Regional Office. This modification is to increase the Average Daily Tonnage (ADT) and Maximum Daily Volume (MDV) from 1,500 tons per day to 3,000 tons per day.

This application will be available for review and copying at the DEP Northeast Regional Office of the DEP at Two Public Square, Wilkes-Barre, PA 18711-0790 between the hours of 8:00 a.m. and 4:00 p.m. by appointment. Fees for copying may be charged by the DEP. Copies of the application will be available at Blythe Township and Schuylkill County.

Very truly yours,  
**MARTIN AND MARTIN, INCORPORATED**

Kevin N. Bodner

**MUNICIPAL • URBAN • REGIONAL • LAND DEVELOPMENT AND ENVIRONMENTAL PLANNERS**

**MUNICIPAL • CIVIL • SANITARY • SOLID WASTE AND ENVIRONMENTAL ENGINEERS**

7022 0410 0001 8885 5809

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only	
For delivery information, visit our website at <a href="http://www.usps.com">www.usps.com</a> ®.	
Saint Clair, PA 17970	
Certified Mail Fee	\$4.00
Extra Services & Fees (check box, add fee as appropriate)	\$7.25
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00
Postage	\$0.60
Total Postage and Fees	\$7.85
Sent To	n/f Fatula, Sciuchetti, Buckland & Bucklar
Street and Apt. No., or PO Box No.	204 North Mill Street
City, State, ZIP+4®	St. Clair, PA 17970
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> <li>Complete items 1, 2, and 3.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>	<p>A. Signature X <i>Julia Fatula</i> <input type="checkbox"/> Agent <input checked="" type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) <i>Julia Fatula</i></p> <p>C. Date of Delivery <i>10/28</i></p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input checked="" type="checkbox"/> No</p>
<p>1. Article Addressed to: n/f Fatula, Sciuchetti, Buckland &amp; Bucklar 204 North Mill Street St. Clair, PA 17970</p>	<p>3. Service Type</p> <p><input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express®</p> <p><input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™</p> <p><input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery</p> <p><input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™</p> <p><input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery</p> <p><input type="checkbox"/> Collect on Delivery Restricted Delivery</p> <p><input type="checkbox"/> Insured Mail</p> <p><input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)</p>
<p>2. Article Number (Transfer from service label) 7022 0410 0001 8885 5809</p>	<p>Domestic Return Receipt</p>

1312.2

# Form B





COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised

DEP USE ONLY

Date Received

## FORM B PROFESSIONAL CERTIFICATION

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form B, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General References: Section 271.122, 287.122

### SECTION A. SITE IDENTIFIER

Applicant/permittee: Blythe Recycling and Demolition Site Holdings, Inc.

Site Name: Blythe Recycling and Demolition Site (BRADS)

Facility ID (as issued by DEP): 101679

### SECTION B. REGISTERED PROFESSIONAL ENGINEER

I, Joshph M. McDowell, P.E.

(Engineer's Name – Print or Type)

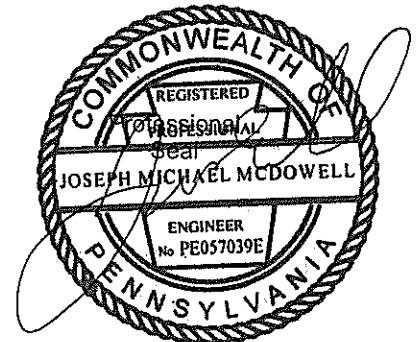
being a Registered Professional Engineer in accordance with the Pennsylvania Professional Engineer's Registration Law, do hereby certify to the best of my knowledge, information, and belief that the information contained in the accompanying application, plans, specifications, and reports has been prepared in accordance with accepted practice of engineering, are true and correct, and are in accordance with the Rules and Regulations of the Department of Environmental Protection. I also certify that those individuals indicated in the following paragraphs prepared this application under my supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

Signature

Date

License Number PE057039EExpiration Date 9/30/23Address 37 S. Main Street, Suite AChambersburg, PA 17201

Telephone No. ( 717 ) 264-6759



**SECTION C. SOIL SCIENTIST PROVIDING SOILS INFORMATION**

I, N/A \_\_\_\_\_ do hereby certify  
 (Soil Scientists Name – Print or Type)

to the best of my knowledge, information, and belief that the soils information contained in this application has been prepared in accordance with accepted practices of soil science and in accordance with the Rules and Regulations of the Department of Environmental Protection. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

Signature \_\_\_\_\_ Date \_\_\_\_\_

Address \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Telephone No. ( ) \_\_\_\_\_

**SECTION D. REGISTERED PROFESSIONAL GEOLOGIST**

I, N/A \_\_\_\_\_ being a  
 (Hydrogeologist's Name – Print or Type)

Registered Professional Geologist in accordance with the Pennsylvania Professional Geologists Registration Law, do hereby certify to the best of my knowledge, information, and belief that the hydrogeology information contained in this application has been prepared in accordance with the accepted practices of hydrogeology and in accordance with the Rules and Regulations of the Department of Environmental Protection. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

Signature \_\_\_\_\_ Date \_\_\_\_\_

License Number \_\_\_\_\_ Expiration Date \_\_\_\_\_

Address \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Professional  
Seal

Telephone No. ( ) \_\_\_\_\_

# Form B1



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised

DEP USE ONLY

Date Received

## FORM B1 APPLICATION FORM CERTIFICATION

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form B1, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

### SECTION A. SITE IDENTIFIER

Applicant/permittee: Blythe Recycling and Demolition Site Holdings, Inc.

Site Name: Blythe Recycling and Demolition Site (BRADS)

Facility ID (as issued by DEP): 101679

### SECTION B. CERTIFICATION

#### Professional Engineer

I, Joseph M. McDowell, P.E.

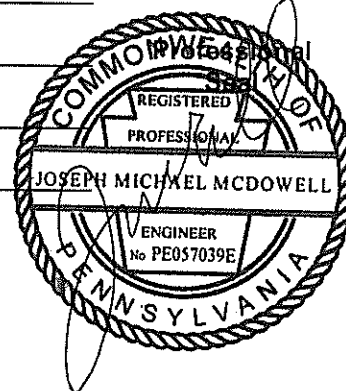
(Engineer's Name -Print or Type)

being a Registered Professional Engineer in accordance with the Pennsylvania Professional Engineer's Registration Law, do hereby certify that the forms used in the accompanying application have been reproduced under my supervision and have the same exact content and the same format as the forms prepared by the Department. I am aware that there are significant penalties for altering the content of the Department's forms, including the possibility of fines and imprisonment.

Signature

Date

11/1/22

License Number PE057039EExpiration Date 9/30/2023Address 37 S. Main Street, Suite AChambersburg, PA 17201Telephone No. ( 717 ) 264-6759



# Form C-1



**FORM C1**  
**COMPLIANCE HISTORY CERTIFICATION**

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided herein. Improperly completed forms may be rejected by the Department, may be considered to be violations of the Department's Rules and Regulations, and may result in assessment of fines and penalties.

**Instructions:**

If your last Form HW-C does not require to be amended, execute the certification Form C1 Compliance History Certification (2540-PM-BWM0351 Rev. 9/2013) indicating that the Form HW-C, on file is complete and current. Be sure the form is properly signed, sealed, and notarized. Please note that the date on the certification Form C1 must be the date the HW-C, on file, was notarized.

If the applicant, permittee, or licensee ("application") is a corporation, this form must be signed by two corporate officers (a president or vice-president and a secretary or treasurer) authorized to execute the form or by one corporate officer and one corporate employee in Pennsylvania with sufficient authority over the solid waste management activity being licensed or permitted to execute this form on behalf of the corporation. **ATTACH A COPY OF THE ARTICLES OF INCORPORATION OF THE APPLICANT.**

**SECTION A. APPLICANT IDENTIFIER**

Facility Name: BRADS – Blythe Recycling and Demolition Site Holdings, Inc.

**SECTION B. CERTIFICATION**

This is to certify that no changes, additions, or other supplemental data are required to amend the most recent form HW-C, Compliance History dated October 3, 2022 and submitted to the Pennsylvania Department of Environmental Protection by BRADS, which amendments would update and make current and complete all the information provided therein. The Compliance History now in the Department's possession reflects the Company's current status of officers, corporate structure as applicable, and compliance with environmental laws and regulations, and there are no instances of unlawful conduct as defined by the Pennsylvania Solid Waste Management Act of July 7, 1980 (35 P.S. §6018.610) that have not been corrected to the satisfaction of the Department.

David Pannucci  
(Signature)

Name: David Pannucci  
(Print or Type Name)


Title: Regional Engineer  
(Print or Type Title)

Commonwealth of Pennsylvania - Notary Seal  
KEVIN BODNER - Notary Public  
Franklin County  
My Commission Expires January 28, 2025  
Commission Number 1274323

Sworn to and subscribed before me this 1st day of November  
20 22.  
[Signature]  
Notary Public

SECTION B. (Continued)


Commonwealth of Pennsylvania - Notary Seal  
KEVIN BODNER - Notary Public  
Franklin County  
My Commission Expires January 28, 2025  
Commission Number 1274323

  
(Signature)

Name: Astar A. Lawson  
(Print or Type Name)

Title: District Manager  
(Print or Type Title)

Sworn to and subscribed before me this  
2nd day of November  
20 22

  
Notary Public

Previously submitted  
Attach copy of Articles of Incorporation

# Form D





## FORM D ENVIRONMENTAL ASSESSMENT FOR MUNICIPAL AND RESIDUAL WASTE MANAGEMENT FACILITIES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form D, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General References: 271.126, 271.127, 287.126 and 287.127

### SECTION A. SITE IDENTIFIER

Applicant/permittee **Blythe Township**

Site Name **Blythe Recycling and Demolition Site Holdings, Inc. (BRADS)**

Facility ID (as issued by DEP) **101679**

**ENVIRONMENT ASSESSMENT CRITERIA** **NOTE: BRADS completed and PaDEP approved a Form D Environmental Assessment (EA) as a part of the Permitting Process for this facility. Consistent with DEP EA guidance and Department's recent request, this updated Form D – EA identifies any changes to the EA process that are triggered by this tonnage and operating hours Modification. "N/A" entries indicate that the prior Form D response is not altered by this requested Modification.**

#### A. Geologic

1. Is the proposed facility within an area with a 10% or greater probability that a maximum horizontal acceleration will exceed 0.10g in 250 years as mapped by the Pennsylvania Geologic Survey or the United States Geological Survey? If yes, the applicant shall specify design measures necessary to withstand potential seismic events, and the Department will determine whether the proposed design measures provide adequate protection from earthquake damage. **N/A**
2. Are there any potential geologic hazards, foundation problems, or groundwater conditions which require site investigation? If yes, identify and describe. **N/A**

Note: The Bureau of Topographic and Geologic Survey does not certify whether any site has potential geologic problems, but will provide lists of published geologic reports that will aid the applicant to determine the nature of the site. Design measures to withstand potential seismic events are specified in EPA/600/R-95/051, RCRA Subtitle D (258), Seismic Design Guidance for Municipal Solid Waste Landfill Facilities, 1995.

#### B. Scenic Rivers - Describe any affirmative responses and proposals to minimize or mitigate any environmental impact.

1. Is the project located in the waterway or corridor of a stream or river designated as a Pennsylvania Scenic River or a waterway included in the National Wild and Scenic River System? **NO – The Clarion and Allegheny Rivers are the only National Wild and Scenic Rivers in Pennsylvania ([www.nps.gov/rivers/pa.html](http://www.nps.gov/rivers/pa.html)). Portions of the Schuylkill River are designated as a Pennsylvania Scenic River, the closest of which is approximately 6 miles from the project site. ([www.dcnr.state.pa.us/rivers/scenicrivers/schuylkillhome.htm](http://www.dcnr.state.pa.us/rivers/scenicrivers/schuylkillhome.htm))**

**No Change. N/A**



2. Is the project located within one mile of the stream or river bank of a 1-A priority waterway, as identified by the Department of Conservation and Natural Resources? **NO – The project is not located within one mile of a stream designated as a 1-A priority waterway. The following website – [www.dcnr.state.pa.us/brc/rivers/scenicrivers/prioritywaterways.aspx](http://www.dcnr.state.pa.us/brc/rivers/scenicrivers/prioritywaterways.aspx) – indicates that the Department of Conservation and Natural Resources is no longer maintaining the list of Priority 1-A Waterways.**

**No Change. N/A**

3. Is the project located within one mile of the stream or river bank of a waterway under study for designation as a Pennsylvania Scenic River or inclusion in the National Wild and Scenic River System? **NO – The project is not located within one mile of a stream under study for designation as a Pennsylvania Scenic River ([www.dcnr.state.pa.us/rivers/scenicrivers.html](http://www.dcnr.state.pa.us/rivers/scenicrivers.html)) or inclusion in the National Wild and Scenic River System ([www.nps.gov/rivers/study.html](http://www.nps.gov/rivers/study.html)).**

**No Change. N/A**

4. Is the project located in the drainage area (watershed) of a stream or river designated as a Pennsylvania Scenic River or a National Wild and Scenic River? **NO – Portions of the Schuylkill River are designated as a Pennsylvania Scenic River, however the portion of the Schuylkill River that serves as the watershed for the project is not designated as such. ([www.dcnr.state.pa.us/rivers/scenicrivers/schuylkillhome.htm](http://www.dcnr.state.pa.us/rivers/scenicrivers/schuylkillhome.htm)) The Clarion and Allegheny Rivers are the only National Wild and Scenic Rivers in Pennsylvania ([www.nps.gov/rivers.pa](http://www.nps.gov/rivers.pa)).** **NO Change. N/A**

5. Will the project result in discharges of any kind to the waterway or corridor of a stream or river designated as a Pennsylvania Scenic River or National Wild and Scenic River? **NO – See Question 1**

**No Change. N/A**

6. Will the project result in increased railroad or highway traffic having an adverse impact upon a waterway designated as a Pennsylvania Scenic River or a National Wild and Scenic River? **NO – See Question 1**

**No Change. N/A**

7. Can the project be seen from the waterway or corridor of a stream or river designated as a Pennsylvania Scenic River or National Wild and Scenic River? **No.**

**No Change. N/A**

8. Does the project impact, visually or physically, the aesthetic environment or recreational activities or opportunities of a stream or river designated as a Pennsylvania Scenic River or National Wild and Scenic River? **No.**

**No Change. N/A**

9. Are remedial or mitigating measures necessary to make the project conform to land and water management guidelines that were developed for this specific Pennsylvania Scenic River or National Wild and Scenic River?

**No.**

**No Change. N/A**

10. Is the project located within a Special Protection Watershed, as designated in Chapter 93 (relating to Pennsylvania's Stream Water Quality Criteria) of the Rules and Regulations of the Pennsylvania Department of Environmental Protection? If yes:

**NO – The four streams in the vicinity of the project are Mill Creek, Silver Creek, Wolf Creek, and the Schuylkill River. The pertinent zones for each of these streams in relation to the Project are all classified as Cold Water Fisheries (CWF) as shown in 25 Pennsylvania Code Chapter 93.**

**No Change. N/A**

- Identify the stream and watershed, and the distance of the stream from the project.
- Describe the characteristics of the project which might create adverse impacts on the stream.
- Describe measures to be taken to minimize adverse impacts on the stream.

11. Will the project, absent control measures, result in an increase in the peak discharge rate for storm water drainage from the project site? If yes:

**N/A**

- a. Describe the amount of increase in the peak discharge rate for storm water drainage.
- b. Describe adverse impacts that might result from the increase in peak discharge rate for stormwater drainage.
- c. Describe measures to be taken to minimize adverse impacts from the increase in the peak discharge rate for storm water drainage.

12. Are remedial or mitigating measures required as part of the implementation and management plans for this project? If yes, identify and demonstrate the degree of mitigation.

**N/A**

### C. Wetlands

1. Are wetlands present within the facility or adjacent areas? If yes, Wetlands must be identified by using the 1987 Corp of Engineers Wetland Delineation Manual for the Department's regulatory purposes. Current wetland identification and delineation procedures are available from DEP Regional Offices. Direct impacts to wetlands (changing their cross section by grading or excavating) will require a Chapter 105 permit. A Chapter 105 permit will not be issued until the applicant demonstrates that impacts have minimized or avoided to the greatest extent practicable and approved plans for mandatory replacement of wetlands have been submitted. A determination must be made as to whether the wetlands are Exceptional Value (EV) according to Chapter 105. These wetlands have a higher level of protection.

**N/A – There is no earth disturbance associated with this modification.**

2. An environmental assessment shall be included with the permit application. It shall evaluate the wetland's functions and values. According to application requirements an assessment of the functions and values of wetlands may include, but not limited to, the items listed below. (Proposed indirect impacts to wetlands, which do not include a change in the wetland cross section, such as an alteration in hydrology alone, will not require a Chapter 105 permit, but will require an environmental assessment.)

**N/A – There is no earth disturbance associated with this modification.**

- a. Do the wetlands serve an important natural biological function, including food chain production; providing general habitat; and providing nesting, spawning, rearing and resting sites for aquatic or land species? **N/A**

- b. Are the wetlands set aside for study of the aquatic environment or as sanctuaries or refuges? **No.**

**N/A**

- c. Would alteration or destruction of the wetlands detrimentally affect natural drainage characteristics, sedimentation patterns, salinity distribution, flushing characteristics, natural water filtration process, current patterns or other environmental characteristics? **No.**

**N/A**

- d. Are the wetlands significant in shielding other areas from wave action erosion, or storm damage? **No.**

**N/A**

- e. Do the wetlands serve as valuable storage areas for storm and flood waters? **No.**

**N/A**

- f. Are the wetlands prime natural recharge areas (i.e., locations where surface and groundwater are directly interconnected)? **No.**

**N/A**



- g. To assist with an assessment of the functions and values please provide a description of the wetland classification according to the Cowardin classification system, including the wetland's water regime. **N/A**

#### D. Parks

1. Is the project located within one mile of: a unit of the National Parks System; a state, county, local or municipal park; a recreation facility operated by the U.S. Army Corps of Engineers; a state forest picnic area; a national landmark; or the Allegheny River Reservoir in the Allegheny National Forest? If yes:

**NO – There are no parks or recreation facilities within one mile of the proposed project area. The closest state park is the Locust Lake State Park, which is approximately 1.6 miles to the north of the project area.**

**Requested updated feedback from agency via letter dated 11/12/20.**

- a. Identify the park or other area and its distance from the project. **N/A**
- b. Conduct visual and traffic analyses. **N/A**
- c. Describe the characteristics of the project which might create adverse environmental, visual, or traffic impacts on or in the vicinity of the park or other area. **N/A**
- d. Describe measures to be taken to minimize adverse impacts on the park or other area. **N/A**
2. Is the project within one mile of the foot path of the Appalachian Trail? If yes:

**NO – The Appalachian Trail is approximately 14 miles to the south of the project area.**

**No Change. N/A**

- a. Indicate the distance from the project to the Appalachian Trail. **N/A**
- b. Conduct visual and traffic analyses. **N/A**
- c. Describe the characteristics of the project which might create adverse environmental, visual, or traffic impacts on the Appalachian Trail. **None – The project is 14 miles from the Appalachian Trail.**
- d. Describe measures to be taken to minimize adverse impacts on the Appalachian Trail. **N/A**
3. Is the project located within one mile of a national natural landmark designated by the U.S. National Park Service; or of a natural area, or of a wild area designated by the Pennsylvania Environmental Quality Board? If yes:

**NO – No national natural landmarks, natural areas, or wild areas are present within one mile of the proposed project site.**

**No Change. N/A**

- a. Identify the natural landmark, natural area, or wild area and its distance from the project. **N/A**
- b. Conduct visual and traffic analyses. **N/A**
- c. Describe the characteristics of the project which might create adverse environmental, visual, or traffic impacts on the natural landmark, natural area, or wild area. **N/A**
- d. Describe measures to be taken to minimize adverse impacts on the natural landmark, natural area, or wild area. **N/A**

#### E. Fish, Game and Plants

1. Is the project located within one mile or within an identified potential impact area of a national wildlife refuge, national fish hatchery, or national environmental center operated by the U.S. Fish and Wildlife Service? If yes:

**NO – The project is not located within one mile of a national wildlife refuge, national fish hatchery, or national environmental center operated by the U.S. Fish and Wildlife Service (See attached maps).**

**No Change. N/A**

- a. Identify the wildlife refuge, fish hatchery, or environmental center and its distance from the project. **N/A**
- b. Conduct visual and traffic analyses. **N/A**



- c. Describe the characteristics of the project which might create adverse environmental, visual, or traffic impacts on the wildlife refuge, fish hatchery, or environmental center. **N/A**
- d. Describe measures to be taken to minimize adverse impacts on the wildlife refuge, fish hatchery, or environmental center. **N/A**

2. Is the project located within 1/4 mile of the boundary of a state forest or state game land; or of the proclamation boundary of the Allegheny National Forest? If yes:

**NO – The project is not located with 1/4-mile of the boundary of a state forest or state game land, or of the proclamation boundary of the Allegheny National Forest. Requested updated feedback from agency via letter dated 11/12/2020. Also included is a map from DCNR showing State forest land and State game land in the area.**

**No Change. N/A**

- a. Identify the forest or game land and its distance from the project. **N/A**
  - b. Describe the characteristics of the project which might create adverse impacts on the forest or game land. **N/A**
  - c. Describe measures to be taken to minimize adverse impacts of the project on the forest and game land. **N/A**
3. Is the project located within an area which supports endangered, threatened, rare plant or animal species listed under the Federal Endangered Species Act, 16 U.S.C.A. §1531 et seq. (1973); the Act of June 23, 1982 (P.L. 597, No. 170), as amended, known as the Wild Resources Conservation Act, 32 P.S. §5301 et seq.; the Act of October 16, 1980 (P.L. 996, No. 175), as amended, known as the Pennsylvania Fish and Boat Code, 30 Pa. C.S.A. §101 et seq. or the Act of July 8, 1986 (P.L. 442, No. 93), as amended, known as the Pennsylvania Game and Wildlife Code, 34 Pa. C.S.A. §101 et seq. or located in exemplary natural communities as defined by the Pennsylvania Natural Diversity Inventory? If yes:

**N/A**

- a. Identify the species and the habitat area or natural community and the location of the project within the area.

**N/A**

- b. Describe the characteristics of the project which might create adverse impacts on the species, habitat, or natural community.

**None- No earth disturbance is associated with this modification.**

**N/A**

- c. Describe measures to be taken to minimize adverse impacts on the species, habitat, or natural community.

**N/A No earth disturbance is associated with this modification.**

**No Change. N/A**

- d. Describe any contact you have had with the Pennsylvania Fish and Boat Commission, Pennsylvania Game Commission, U.S. Fish and Wildlife Service, or the Pennsylvania Department of Environmental Protection (Plant Program) about the project.

**N/A**

4. Does the proposed project impact critical and unique wildlife habitats (deer wintering areas, caves, denning sites, rock outcrops, or similar habitats)? If yes, please identify these habitats and describe proposals to minimize or mitigate these impacts.

**N/A**

5. Is the facility within 1/4 mile of a water resource listed as stocked waters by the Pennsylvania Fish and Boat Commission? **N/A**

6. Is the facility within 1/4 mile of a water resource designated as a wild trout stream by the Pennsylvania Fish and Boat Commission? **N/A**
7. Is the facility within 1/4 mile of a High Quality or Exceptional Value stream listed in 25 Pa. Code Ch. 93? If yes, indicate stream classification. **No. N/A**
8. Is there any perennial stream(s) within or directly hydrologically connected to the project? if yes:

**N/A**

- a. Identify the streams and watershed and the location of the stream(s) in relation to the project. **Little Wolf Creek – east of site.**
- b. Identify the fish species present within the perennial stream(s). **None**
- c. Identify the protected uses, as designated in 25 Pa. Code Ch. 93 (relating to Pennsylvania's Stream Water Quality Criteria), that are listed for the stream(s)/watershed(s). **None**
- d. Describe the characteristics of the project which might create adverse impacts on the stream(s). **None – Project helps restore former stream.**
- e. Describe measures to be taken to minimize adverse impacts on the stream(s). **N/A- No earth disturbance is associated with this modification.**
9. Is the facility within one mile of a stream commonly used for recreational activities? If yes:
- NO – Two streams are located within 1 mile of the project – Silver Creek and Wolf Creek. Neither of these streams is considered high-quality or exceptional value. Also, neither is listed as Approved Trout Waters.**

**N/A**

- a. Describe the characteristics of the project which may create adverse visual and traffic impacts. **N/A**
- b. Describe measures to be taken to minimize the adverse impacts. **N/A**

#### F. Water Uses

1. Is the project located within the watershed or aquifer, and within one mile, of a public water supply facility dependent on groundwater sources; or upstream, within the watershed, and within three miles of a public water supply facility dependent on surface sources? If yes:

**No. N/A**

- a. Identify the public water supply facility and its supply sources, locate both on a topographic map, and indicate their distances from the project. **N/A**
- b. Briefly describe the public water supply facility, including capacity and population served. **N/A**
- c. Describe measures to be taken to protect the public water supply facility from any potential harm. **N/A**
2. Is the project within the groundwater recharge area for any public or private water supplies? If yes, provide the following:

**No. N/A**

- a. Delineate the position of the proposed permit area within relevant groundwater flow systems. **N/A**
- b. Identify public and private water supplies which may potentially be adversely affected by groundwater flow associated with the proposed facility, including a detailed hydrogeologic study addressing the potential effect of the proposed facility on the water supplies. **N/A**
- c. Does the hydrogeologic study mentioned above indicate adverse affects on any public or private water supplies? If yes, provide the following: feasibility of permanently replacing or restoring the water supply to like



quantity and quality with the existing supply and at no additional cost to the owner. A description of the means to restore or replace the water supply shall also be provided. **N/A**

3. Is the project located within a high quality or exceptional value watershed? If yes:

**NO – The four streams in the vicinity of the project are Mill Creek, Silver Creek, Wolf Creek, and the Schuylkill River. None of the pertinent zones for each of these streams in relation to the Project are classified as high quality or exceptional value as shown in 25 Pennsylvania Code Chapter 93.**

**N/A**

- a. Identify the stream segment. **N/A**
- b. List any physical or chemical parameters that would be associated with the discharge or runoff from the facility. **N/A**

#### G. Recreation

Is there a potential impact the facility will have on recreational areas or facilities within one mile of the proposed project? If yes, identify any mitigation proposals to eliminate or reduce adverse impacts and any mitigation proposals to enhance these areas.

**NO – There are no recreation areas within 1 mile of the Project area.**

**N/A**

#### H. Historic/Archaeologic

1. Is the project located within one mile of an historic or archaeological property owned by the Pennsylvania Historical and Museum Commission? If yes:

**NO – A letter from the PHMC is included stating that no historic or archaeological property is within 1 mile of the Project. Requested updated feedback from agency via letter dated 11/12/20.**

**N/A**

- a. Identify the historic or archaeological property and its distance from the project. **N/A**
- b. Conduct visual and traffic analyses and impact on the historic or archaeological property. **N/A**
- c. Describe the characteristics of the project which might create adverse environmental, visual, or traffic impacts on the historic and archeological properties. **N/A**
- d. Describe measures to be taken to minimize adverse impacts on the historic and archeological properties. **N/A**

2. Is the project located within 1/4 mile of a historic site listed in the National Register of Historic Places or the Pennsylvania Inventory of Historic Places or an archaeological site listed in the Pennsylvania Archaeological Site Survey? If yes:

**NO – A letter from the PHMC is included stating that no historic or archaeological property is within 1 mile of the Project.**

**N/A**

- a. Identify the historic or archaeological site and its distance from the project. **N/A**
- b. Describe the characteristics of the project which might create adverse impacts on the historic or archaeological site. **N/A**
- c. Describe measures to be taken to minimize adverse impacts on the historic or archaeological site. **N/A**
- d. Indicate any contact you have had with the Pennsylvania Historical and Museum Commission about the project. **N/A**

I. Airports (applies to landfill only)

1. Is the proposed landfill located within 6 miles of a public airport and subject to 49 U.S.C. §44718(d) (relating to limitation on construction of landfills)? If yes:

**NO – The closest public airport is the Schuylkill County (Joe Zerby) Airport located approximately 12 miles to the west of the Project location. N/A**

- a. Has the public airport received grants under Chapter 471 and is primarily served by general aviation aircraft and regularly scheduled flights of aircraft designed for 60 passengers or less? **N/A**
- b. Has the Pa. State aviation agency requested the FAA Administration to exempt the landfill from the application of Section 44718(d) and the FAA Administration has issued the exemption in writing stating that the facility will have no adverse impact on aviation safety? **N/A**

2. Is the existing landfill or proposed expansion within 6 miles of an airport runway? If yes:

**NO – The closest public airport is the Schuylkill County (Joe Zerby) Airport located approximately 12 miles to the west of the Project location. N/A**

Attach Proof of Notice to the Bureau of Aviation of the Pennsylvania Department of Transportation, the Federal Aviation Administration and the airport and the response received to each notification.

J. Traffic

The following information is requested, in part, to assist the Department of Environmental Protection, in consultation with the Department of Transportation or their designee or other appropriate reviewers, in determining whether further traffic and/or roadway studies are necessary as part of this permit application. The information will also assist in determining the scope of such a study, should one be required. Department of Transportation guidelines and criteria are available to advise the applicant of the scope and manner in which such studies shall be conducted and presented.

**SEE ATTACHED TRAFFIC STUDY**

1. Identify routes from the nearest limited access (or major) highway used by vehicles traveling to and from the facility ('approach routes'). Submit PennDOT Type 10 maps clearly showing the location of the facility, approach routes and the nearest limited access (or other major) highway. Highlight all municipalities on approach routes on these maps. Submit a site plan showing the location of all existing or proposed driveways to the facility.
2. Identify daily and hourly traffic volumes that will result along each approach route, hourly and daily, from construction and operation of the facility. Identify the traffic volumes by the number, direction (to or from the site), type (use AASHTO vehicle designations), size, weight and distribution of vehicles used for construction and operation of the facility. Project the same data out for each of the next ten years.
3. Identify locations on approach routes where bridge and/or roadway conditions (e.g., weight limits, vertical clearance restrictions, one-lane or narrow bridges, insufficient lane widths, or roadway surfaces) may require repair or improvement to accommodate traffic related to the proposed facility. Describe necessary improvements.
4. Identify sections of roadway along the approach routes that are congested (e.g., that experience traffic backups or queuing), or are expected to be congested within the next ten years. Identify the impact that the additional facility traffic will have on traffic flow, and describe measures to mitigate related congestion.
5. Identify, by location, land uses along the approach routes, such as residential, commercial, industrial and agricultural, and identify residences fronting the roadways (50 feet setback or less), schools, hospitals, nursing homes and other significant buildings. Describe potential adverse impacts of increased facility traffic volumes and recommend countermeasures.
6. Identify locations on approach routes where intersection turning radii are insufficient to allow turns to be made within the physical boundaries of the roadway pavement and without encroaching on opposing travel lanes. Describe necessary improvements.
7. Identify locations on approach routes where horizontal alignment, lane width, and other factors would result in encroachment onto sidewalk areas, or opposing/adjacent travel lanes, or onto shoulder areas. Identify locations of shoulder drop-offs, and of potential shoulder deterioration caused by the volume of traffic from the facility. Describe proposed solutions.

8. Identify locations on approach routes where shoulders or a roadside clear zone are not present and a combination of factors such as curvature, lane width, etc. would result in off-tracking or run-off-the-road concerns. Describe necessary improvements.
9. Identify locations on approach routes where long steep grades, hazardous grade speed limits, truck pull off areas or truck escape ramps exist.
10. Identify locations on approach routes where substantial lengths of grade, without climbing lanes or passing lanes, would impede truck speed. Describe countermeasures.
11. Identify locations on approach routes which may present under clearance problems. Describe countermeasures.
12. Identify locations on approach routes where sight distance or turning, acceleration or deceleration lane lengths are inadequate for the type, size and weight of vehicles that will be generated by the proposed facility. Describe mitigation measures.
13. Identify other safety-related considerations relative to waste facility traffic on approach routes. Assess impacts on school bus traffic. Describe countermeasures.
14. Does the applicant have a Highway Occupancy Permit for this facility issued by PennDOT or by the local municipality? If yes, please attach the permit and any conditions. If no, please explain.
15. Has a traffic impact study previously been completed for this project? If yes, attach the study.
16. Identify potential adverse environmental impacts to parks, playgrounds, recreation areas, forests, picnic areas, natural landmarks, wild areas, rivers, wetlands, public water supplies, historic sites, or other areas, that may result from traffic to and from the proposed facility. Take into account exhaust fumes, odors, noise, and other environmental factors. Describe measures to be taken to minimize or mitigate potential adverse impacts which you identify.

K. Zoning and Land Use **N/A**

1. Does the county where this project is located or proposed have a comprehensive local land use plan? **YES**
2. Does the municipality where this project is located or proposed have a comprehensive local land use plan? **YES**
3. Does the county or municipality where your project is located have a zoning ordinance? **YES**
  - a. Provide a copy of the local zoning ordinance and land use plans adopted by the county or local government.  
**The relevant portion of Blythe Township Zoning Ordinance is included.**
  - b. Identify possible conflicts the new facility will have with local zoning ordinances and land use plans  
**No conflicts are anticipated.**
  - c. Submit copy of the expanded notice sent to county and local government asking information if the permit application conflicts with their zoning ordinances and land use plans. **N/A**
  - d. Identify measures that have or will be taken to obtain municipal approval.  
**This project is being undertaken by the municipality.**
  - e. If municipal approval is already secured, provide copies of such land-use approvals. **N/A**
4. Is the project located on preserved farmland that is restricted to agricultural use by (a) an agricultural conservation easement under the authority of the Act of June 30, 1981 (P.L. 128, No. 43), as amended, known as the Agricultural Area Security Law, 3 Pa. C.S.A. §901 et seq. or (b) deed restrictions that have been imposed under the authority of the Act of January 19, 1967 (P.L. 992, No. 442) as amended, known as the Open Space Law, 53 P.S. §5001 et seq. and that have been recorded in the appropriate county land records office (c) easements owned by any other "qualified conservation organization," as that term is defined at Section 170(h)(3) of the Internal Revenue Code? If yes, identify the location and acreage of preserved farmland and an explanation on how the facility can be located on this area and still be in compliance with the conservation easement. If the project is located adjacent to preserved farmland: identify the location and acreage of preserved farmland, the location of the project and the potential impact the project may have on the preserved farmland.

**no N/A**



5. Is the project located on farmland in agricultural security areas that have been approved by local government units after public review and comment according to the procedure in the act of June 30, 1981 (P.L. 128, No. 43), as amended, known as the Agricultural Area Security Law, 3 Pa. C.S.A. §901 et seq.? If yes, identify the location and acreage of farmland in agricultural security areas and the location of the project. Secure and attach comments and recommendations from the township Agricultural Security Area advisory committee.

**NO N/A**

6. Is the project located on farmland that is enrolled for preferential tax assessments as land in "agricultural use" under the Act of December 19, 1974 (P.L. 973, No. 319), as amended, known as the Pennsylvania Farmland and Forest Land Assessment Act of 1974, 72 P.S. §5490.1 et seq. Or as "farmland" under the Act of January 13, 1966 (1965 P.L. 1292, No. 515), as amended, known as "An act enabling certain counties of the Commonwealth to covenant with land owners for preservation of land in farm, forest, water supply, or open space uses." If yes, identify the location and acreage of farmland enrolled for preferential tax assessments and the location of the project.

**NO N/A**

7. Is the project located on farmland planned for agricultural use, subject to agricultural use and subject to agricultural zoning under the authority of the Act of July 31, 1968 (P.L. 805, No. 247), as amended, known as the Pennsylvania Municipalities Planning Code, 53 P.S. §10101 et seq.? If yes, identify the location and acreage of this farmland and the location of the project. Include comments and recommendations from the county planning commission and/or the local planning commission.

**NO N/A**

8. Is the project located on active farmland? If yes, does the active farmland include land capability classes designated as I, II, III, IV or unique? If yes, identify possible alternatives to avoid these classes of soils and measures taken to minimize impacts. Attach recommendations from the local Cooperative Extension Service or the county Natural Resources Conservation Service.

**NO N/A**

9. If the project is not located on active farmland, will the project affect land identified as prime farmland, farmland of state-wide importance, or farmland of local importance? If yes, attach comments and recommendations from the Natural Resources Conservation Service.

**NO N/A**

L. Planning

1. Will disposal of the waste at this facility be inconsistent with municipal, county, regional or state solid waste plans or laws in the area where the waste is generated? **NO N/A**
2. For municipal waste disposal and processing facilities, list the approved municipal, county, regional or state solid waste plans or laws that will be implemented by the proposed facility. Provide the name and telephone number of a contact person from the agency that approved the plan as well as relevant documentation for each plan. List the waste streams that are affected by the planning laws in place where the waste is generated.

**SEE FORM 46**

M. Air Quality Impact

1. Describe briefly the impacts on ambient air quality. This includes the emissions of volatile organic compounds, toxic air compounds, fugitive particulate emissions and other air pollutants.

**N/A**

2. Based upon site specific meteorological data describe the prevailing wind direction and speed and describe potential adverse air impacts to the surrounding community. **Prevailing wind direction from west to east.**

**N/A**

3. Describe the control measures to be taken to mitigate or minimize the potential adverse air impacts which you identify. **See Form 14**

**N/A**

4. Does this facility have an existing air program? If yes, please attach. **N/A**
5. Has an air plan approval application been submitted for this project? If yes, identify when and where this application was submitted. **N/A**

**N. Benefits and Harms: Environmental, Social and Economic**

**See the attached Harms-Benefits analysis, showing that the benefits clearly outweigh the known and/or potential harms.**

Complete this section for municipal waste landfills, construction/demolition waste landfills, municipal waste resource recovery facilities, noncaptive residual waste landfills, noncaptive residual waste disposal impoundments and residual waste incinerators and other facilities where a known and/or potential environmental harm exists after mitigation.

1. Environmental benefits of the project, both on-site and off-site.
2. Benefits to local businesses.
3. Benefits to local economy.
4. Benefits of local employment.
5. Benefits to local residents and local government.
6. Benefits from host agreements.
7. Benefits based on demographics.
8. Harms and potential harms to property values.
9. Harms and potential harms to aesthetics/community character of the surrounding community.
10. Harms and potential harms to the health and safety of the surrounding population.
11. Impacts on environmental justice communities.
12. Harms and potential harms associated with uncompensated losses to local government (i.e. road maintenance).
13. Harms and potential harms associated with the quality of life within the local area.
14. Harms and potential harms on the local economy.
15. Harms and potential harms on the quality of the surrounding environment.

**MW:**

MW Landfill  
CD Landfill  
RRF

or

Other if K or P env. Harms remain despite mitigation

**RW:**

Noncaptive landfill  
Disposal impoundment  
Incinerator

or

Other if K or P env. Harm remains despite mitigation



# PHMC

## Historic/Archaeological Sites





Commonwealth of Pennsylvania  
Pennsylvania Historical and Museum Commission  
Bureau for Historic Preservation  
Commonwealth Keystone Building, 2nd Floor  
400 North Street  
Harrisburg, PA 17120-0093

NOV 24 2003

1312 \*

November 20, 2003

Scott R. Shildt  
Martin and Martin, Incorporated  
37 South Main Street Suite A  
Chambersburg, PA 17201-2251

TO EXPEDITE REVIEW USE  
BHP REFERENCE NUMBER

Re: File No. ER 2004-0332-107-A  
LAND, Construction and Demolition Landfill  
Permit, BRADS (Blythe Recycling and  
Demolition Site) File # 1312 (ZipA2-1312k),  
Blythe Twp., Schuylkill Co.

Dear Mr. Shildt:

The Bureau for Historic Preservation has reviewed the above named project under the authority of the Environmental Rights amendment, Article 1, Section 27 of the Pennsylvania Constitution and the Pennsylvania History Code, 37 Pa. Cons. Stat. Section 500 et seq. (1988). This review includes comments on the project's potential effect on both historic and archaeological resources.

Based on our survey files, which include both archaeological sites and standing structures, there are no National Register eligible or listed historic or archaeological properties in the area of this proposed project. Therefore, your responsibility for consultation on this project is complete.

Should artifacts or archaeological resources be encountered during construction, we request that you notify our office. This notification will not delay your project in any way. We simply wish to record this information before it is lost. The Bureau for Historic Preservation can be contacted at (717) 783-8946. Thank you in advance for this consideration. If you need a **status only** of the reviewed project please call Tina Webber at (717) 705-4036.

Sincerely,

Kurt W. Carr, Chief  
Division of Archaeology &  
Protection

KWC/lmm

# BLYTHE TOWNSHIP

## Zoning Ordinance

width and five (5) feet in height, planted with six (6) foot tall evergreen trees, spaced three (3) feet on center, measured in all directions, with wood mulch and groundcover, shall be required along the entire tract boundary abutting such district. The landscape berm and its plant material shall be maintained to ensure a continuous solid landscape screen, including replacement of dead, diseased, or damaged plant material, for the entire duration of the industrial activity or subsequent industrial activity.

5.900 II MINING DISTRICT

The Mining District has been established as a result of extensive mining activities prevalent to the Township and the region. This District acknowledges on-going mining activities. Industrial park development is promoted within this District for the purpose of adaptive reuse of reclaimed land or land not subject to mining activities. The potential for industrial park development in proximity to public sewer and water is acknowledged as an asset to community and economic development.

5.901 Uses Permitted by Right

- a) municipal and/or municipal authority uses

5.902 Uses Permitted by Conditional Use

- a) industrial park, subject to the following conditions.
1. A tract proposed for industrial park development shall be under single ownership, or, in the case of multiple ownership, the lot(s) shall be developed according to a single overall plan with common authority and responsibility.
  2. It is the intent of the industrial park to be multiple structures and uses within a unified development - not individually owned lots. Uses permitted within the industrial park are identified as uses permitted by right in the I District.
  3. Minimum tract size: 10 acres
  4. Minimum tract frontage: 250 feet
  5. Minimum setback: 30 feet
  6. All uses within industrial park shall have access to an interior road, providing common

points of access for all uses to the public road system.

7. No structure within the site shall be located within forty (40) feet of the property line of the tract.
8. No structure shall be closer than forty (40) feet to another structure.
9. Maximum building height: 35 feet
10. Maximum coverage: 60%
11. All parking, loading, and outdoor storage shall be located to the side or rear of the buildings.
12. Parking shall not be permitted along interior roads of the industrial park.
13. Adequate parking should be provided per use within the industrial park.
14. All industrial park development shall take place in accord with an overall site development plan. The plan shall include:
  - (A) location of all potential buildings and off-street parking
  - (B) interior road system and pedestrian circulation system
  - (C) unified stormwater management plan
  - (D) landscaping and lighting
  - (E) public sewer and public water provisions
  - (F) fire hydrants/protection
  - (G) provisions for common ownership of common infrastructure and amenities or Management Corporative documents
15. Landscaped screening, as described in §5.805.
  - b) single family dwelling subject to the following conditions:
    1. resolution of subsurface mineral rights and conditions

2. The area and bulk regulations of Section 5.204 shall be applied to single family dwellings.

5.903 Uses Permitted by Special Exception

- a) underground mining
- b) strip mining
- c) excavation operations including the processing of surface culm or material piles

5.904 Area and Bulk Regulations

All mining and excavation operations shall conform to the restrictions set forth in Section 6.700 of this Ordinance.

5.1000 MR MINING-RESIDENTIAL DISTRICT

The Mining-Residential District has been established for the purpose of promoting large scale, higher density residential development upon lands reclaimed from mining operations. Planned unit developments within this District are intended to provide a variety of housing opportunities along with recreational, commercial, office and business opportunities available through Village Centers and open space.

5.1001 Uses Permitted by Right

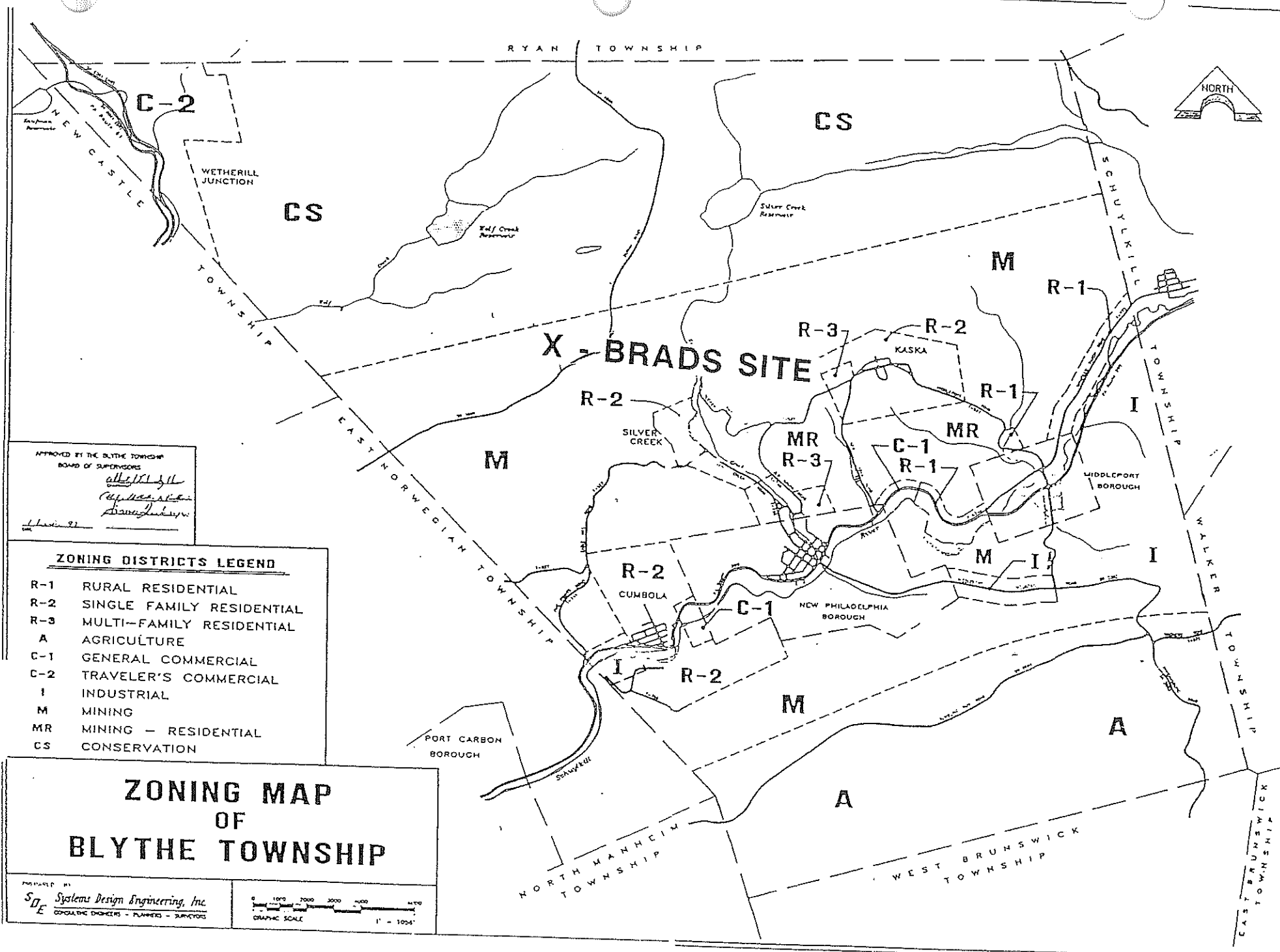
- a) municipal and/or municipal authority uses

5.1002 Uses Permitted by Conditional Use

- a) Planned residential development subject to the following conditions and Article VII.

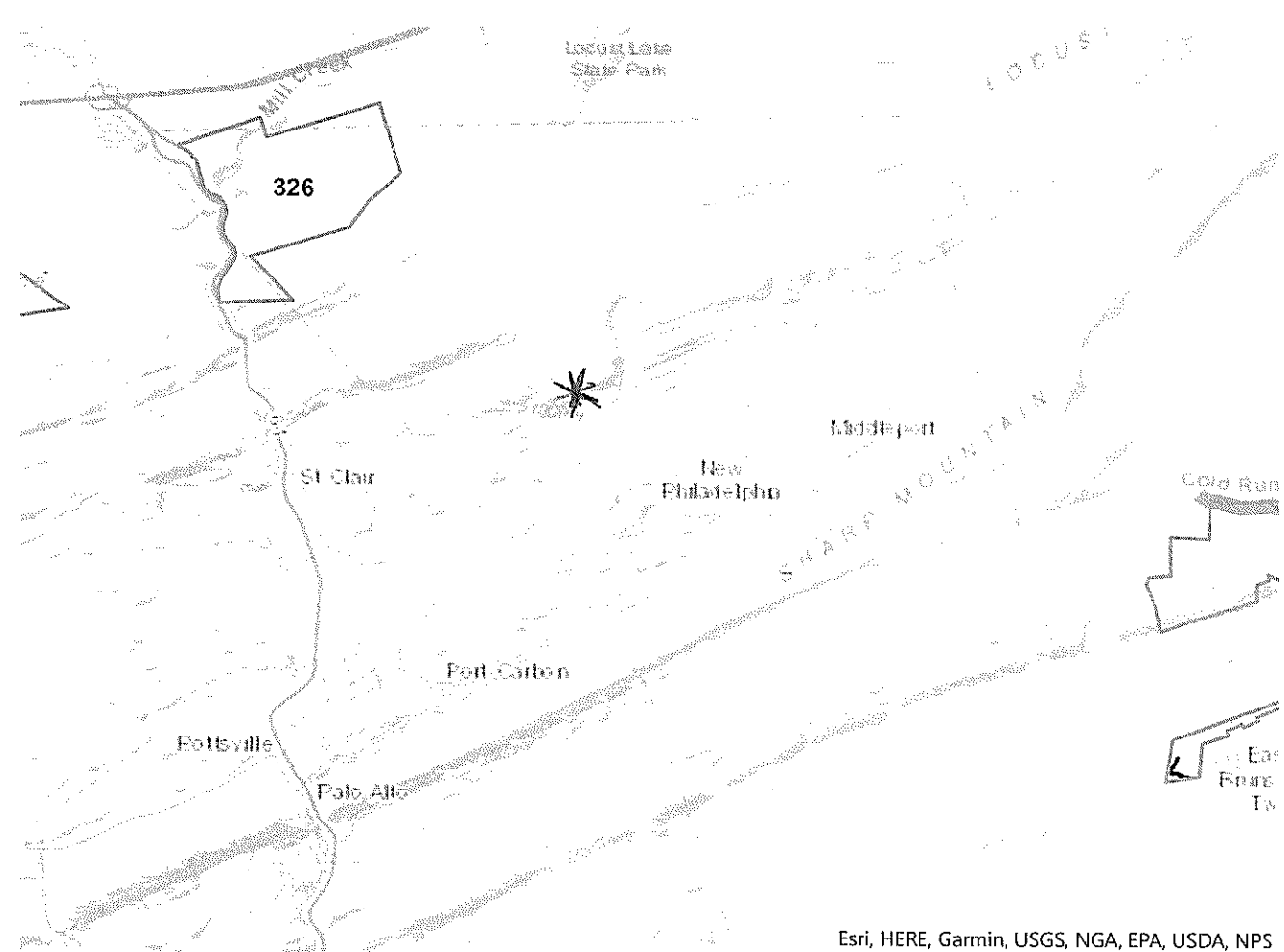
1. Requirements:

- (A) minimum tract size: 50 acres
- (B) gross density: 8 units/acre
- (C) minimum open space: 35 percent
- (D) minimum active recreational amenities: 25 percent of open space (facilities fully equipped)
- (E) maximum non-residential area: 20%
- (F) residential mix:
  - single units: 40 percent
  - townhouses: 40 percent
  - apartments: 20 percent





# State Game Land Maps

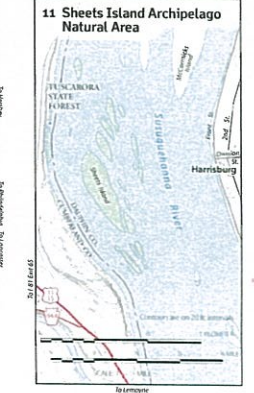
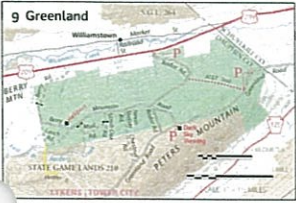
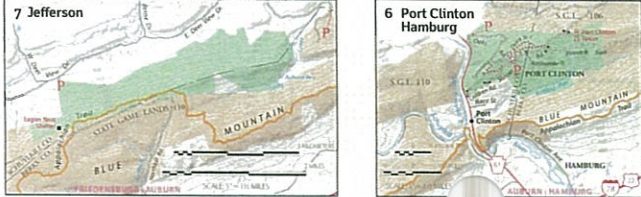
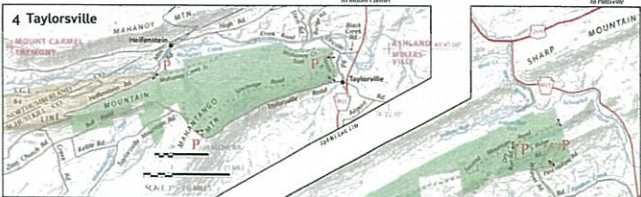
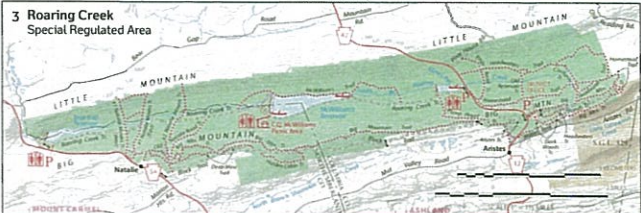
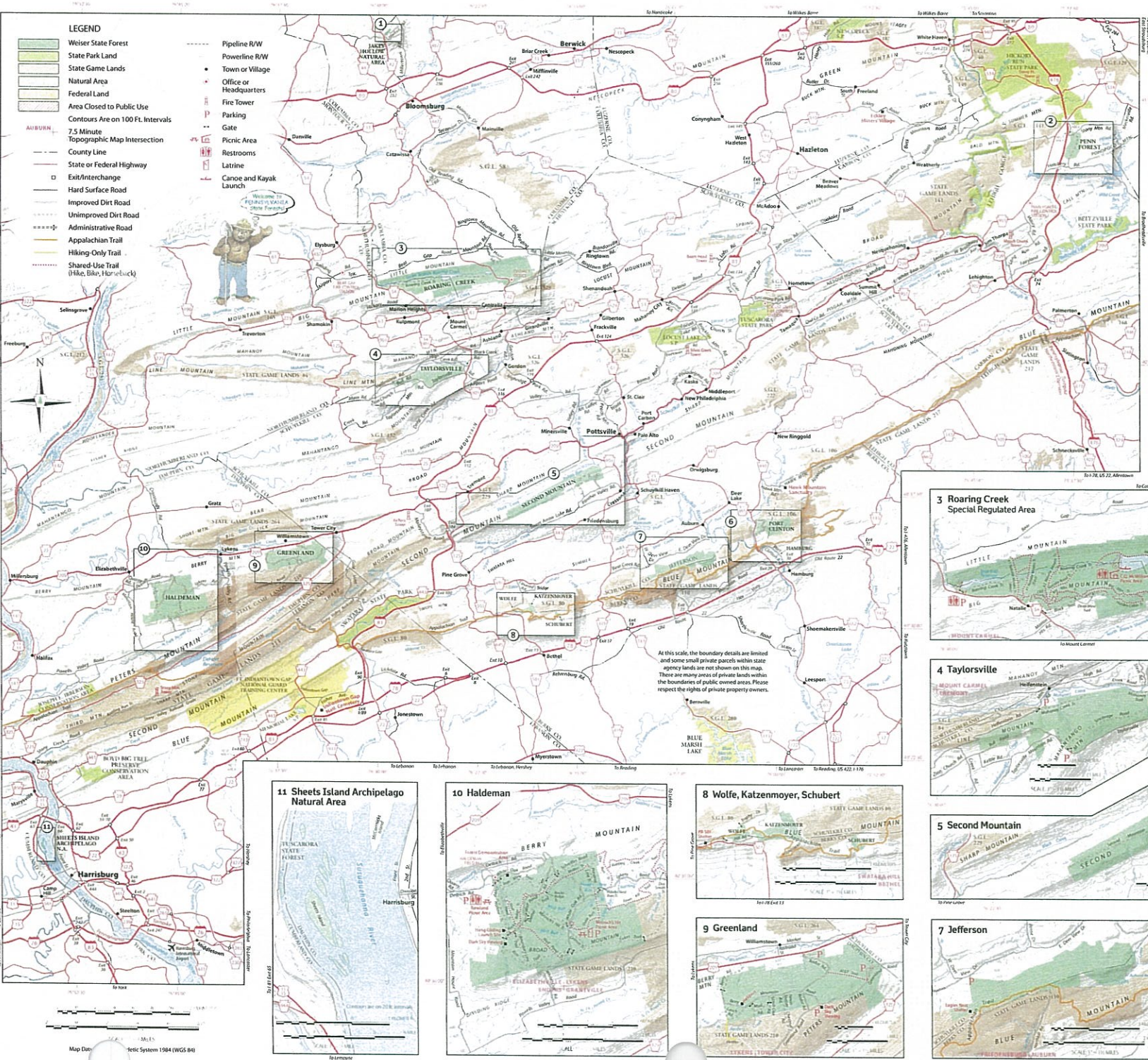


Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS



# Weiser State Forest

Department of Conservation and Natural Resources  
Bureau of Forestry





# Requested Agency Feedback Letter





# **martin and martin, incorporated**

37 south main street • suite A • chambersburg, pennsylvania • 17201-2251

(717) 264-6759

(717) 264-7339 (fax)

www.martinandmartininc.com

November 12, 2020

Schuylkill County Planning Commission  
401 N. Second Street  
Pottsville, PA 17901

Certified Mail: 7019 1120 0000 1383 4880

RE: BRADS  
Blythe Twp. - Schuylkill County  
Our file: b/1312/2020/TI/NL Planning Com

To Whom It May Concern:

Blythe Township, Schuylkill Co, doing business as BRADS (Blythe Recycling and Demolition Site), is seeking a permit to increase the daily tonnage at its Construction and Demolition Landfill, currently permitted by PaDEP, on a portion of its 400 acre tract. The disposal footprint, disposal capacity, and operations remain the same; just an increase in the allowable daily rate of tons is proposed. Although you have previously provided us with answers to the below questions relative to this site, at the request of DEP, as it relates to this tonnage increase application and in accordance with the DEP's Environmental Assessment Process, we are attaching hereto a copy of the USGS map showing the site and ask you to provide us with responses to the following Form D questions which are outlined as follows:

1. Is the project located within one mile of: a unit of the National Parks System; a state, county, or municipal park; a recreation facility operated by the U.S. Army Corps of Engineers; a state forest picnic area; or the Allegheny River Reservoir in the Allegheny National Forest? If yes, identify the park or other area and its distance from the project.

Your prompt response would be much appreciated. If you have any questions in this regard, please do not hesitate to contact me.

Very truly yours,  
**MARTIN AND MARTIN, INCORPORATED**

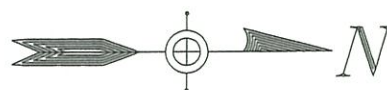
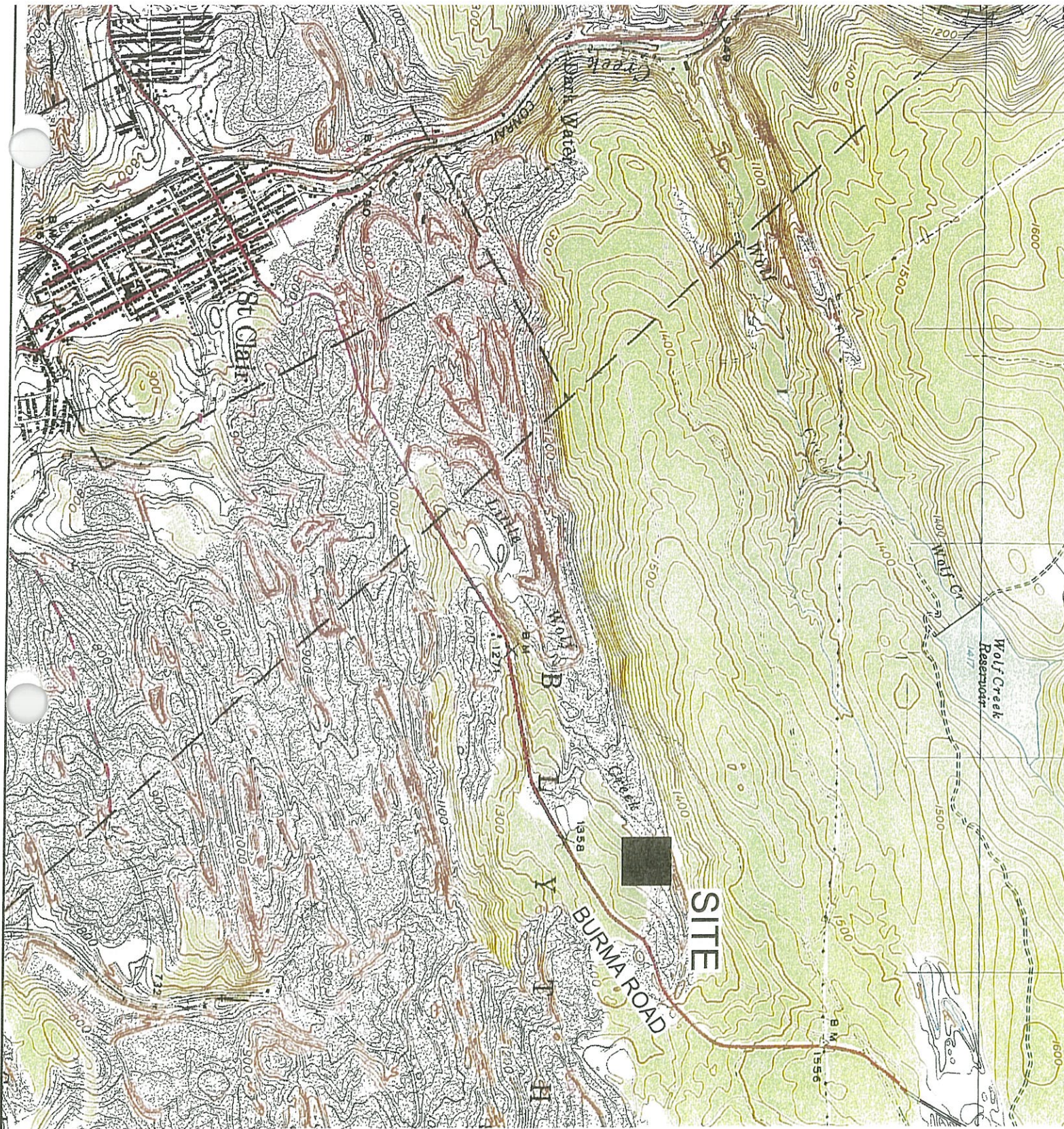
  
Kevin N. Bodner

Enclosure  
cc: BRADS

**MUNICIPAL • URBAN • REGIONAL • LAND DEVELOPMENT AND ENVIRONMENTAL PLANNERS**

**MUNICIPAL • CIVIL • SANITARY • SOLID WASTE AND ENVIRONMENTAL ENGINEERS**





Source: Pottsville USGS Topo. Quad 7.5-Minute



**martin and martin incorporated**  
 phone: (717) 37 south main street • suite A  
 264-6759 chambersburg, pennsylvania . 17201

SHEET TITLE

SITE MAP

BLYTHE TOWNSHIP

SCHUYLKILL COUNTY

**BRADS LANDFILL**  
**PENNSYLVANIA**

Scale: 1"=2000'

Job # 1312

Date: 12.12

By: MSH

Chk'd: MSH



088 1383 4880 0000 1120 0000 1383 4880

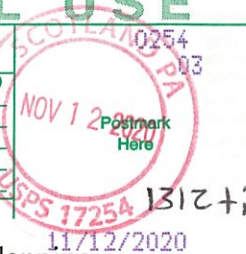
**U.S. Postal Service™**  
**CERTIFIED MAIL® RECEIPT**  
*Domestic Mail Only*

For delivery information, visit our website at [www.usps.com](http://www.usps.com)®.

Pottsville, PA 17901

Certified Mail Fee	\$3.55
Extra Services & Fees (check box, add fee as appropriate)	\$2.85
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00
Postage	\$0.55
<b>Total</b>	<b>\$6.95</b>

**Schuykill County Planning Commission**  
**401 N. Second Street & Laurel Blvd.**  
**Pottsville, PA 17901**



PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

**Schuykill County Planning Commission**  
**401 N. Second Street & Laurel Blvd.**  
**Pottsville, PA 17901**



9590 9402 1550 5362 8008 74

2. Article Number (Transfer from service label)

7019 1120 0000 1383 4880

**COMPLETE THIS SECTION ON DELIVERY**

- A. Signature **X** *C19* ☐ Agent ☐ Addressee
- B. Received by (Printed Name) *DM 01017* C. Date of Delivery *11-17-20*
- D. Is delivery address different from item 1? ☐ Yes  
 If YES, enter delivery address below: ☐ No

DEC 03 2020

1312+

3. Service Type
- |  |   |
|--|---|
| <input type="checkbox"/> Adult Signature                         | <input type="checkbox"/> Priority Mail Express®                     |
| <input type="checkbox"/> Adult Signature Restricted Delivery     | <input type="checkbox"/> Registered Mail™                           |
| <input checked="" type="checkbox"/> Certified Mail®              | <input type="checkbox"/> Registered Mail Restricted Delivery        |
| <input type="checkbox"/> Certified Mail Restricted Delivery      | <input type="checkbox"/> Return Receipt for Merchandise             |
| <input type="checkbox"/> Collect on Delivery                     | <input type="checkbox"/> Signature Confirmation™                    |
| <input type="checkbox"/> Collect on Delivery Restricted Delivery | <input type="checkbox"/> Signature Confirmation Restricted Delivery |

PS Form 3811, July 2015 PSN 7530-02-000-9053

Domestic Return Receipt





# **martin and martin, incorporated**

37 south main street • suite A • chambersburg, pennsylvania • 17201-2251

(717) 264-6759

(717) 264-7339 (fax)

www.martinandmartininc.com

November 12, 2020

Pennsylvania Historical and Museum Commission  
Bureau for Historic Preservation  
300 North Street  
Harrisburg, Pennsylvania 17120

Certified Mail: 7019 1120 0000 1383 4866

RE: BRADS  
Blythe Twp. - Schuylkill County  
Our file: b/1312/2020/TI/NL Hist-Mus Com

To Whom It May Concern:

Blythe Township, Schuylkill Co, doing business as BRADS (Blythe Recycling and Demolition Site), is seeking a permit to increase the daily tonnage at its Construction and Demolition Landfill, currently permitted by PaDEP, on a portion of its 400 acre tract. The disposal footprint, disposal capacity, and operations remain the same; just an increase in the allowable daily rate of tons is proposed. Although you have previously provided us with answers to the below questions relative to this site, at the request of DEP, as it relates to this tonnage increase application and in accordance with the DEP's Environmental Assessment Process, we are attaching hereto a copy of the USGS map showing the site and ask you to provide us with responses to the following Form D questions which are outlined as follows:

1. Is the project located within one mile of an historic property owned by the Pennsylvania Historical and Museum Commission? If yes, identify the historic property and its distance from the project.
2. Is the project located within ¼-mile of a historic site listed in the National Register of Historic Places or the Pennsylvania Inventory of Historic Places or an archaeological site listed in the Pennsylvania Archaeological Site Survey? If yes, identify the historic or archaeological site and its distance from the project.

Your prompt response would be much appreciated. If you have any questions in this regard, please do not hesitate to contact me.

Very truly yours,  
**MARTIN AND MARTIN, INCORPORATED**

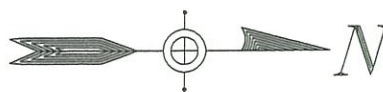
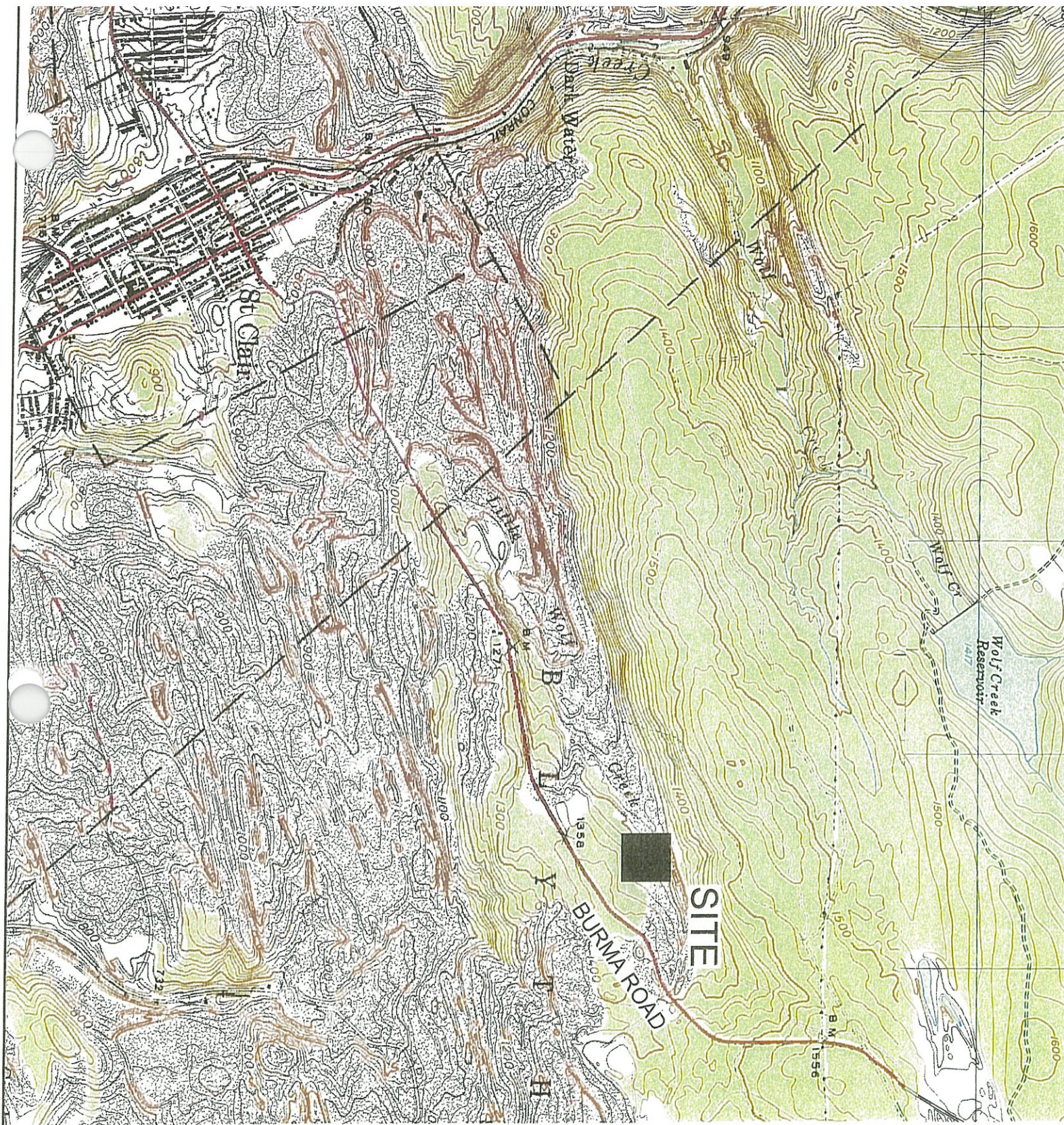
Kevin N. Bodner

Enclosure  
cc: BRADS

**MUNICIPAL • URBAN • REGIONAL • LAND DEVELOPMENT AND ENVIRONMENTAL PLANNERS**

**MUNICIPAL • CIVIL • SANITARY • SOLID WASTE AND ENVIRONMENTAL ENGINEERS**





1000' 0 1000' 2000'  
Scale: 1" = 2000'

Source: Pottsville USGS Topo. Quad 7.5-Minute



**martin and martin incorporated**

phone: (717) 37 south main street • suite A  
264-6759 chambersburg, pennsylvania . 17201

SHEET TITLE

**SITE MAP**

BLYTHE TOWNSHIP

SCHUYLKILL COUNTY

**BRADS LANDFILL  
PENNSYLVANIA**

Scale: 1"=2000'

Job # 1312

Date: 12.12

By: MSH

Chk'd: MSH



7019 1120 0000 1383 4866

**U.S. Postal Service™**  
**CERTIFIED MAIL® RECEIPT**  
*Domestic Mail Only*

For delivery information, visit our website at [www.usps.com](http://www.usps.com)®.

Harrisburg, PA 17108

**OFFICIAL USE**

Certified Mail Fee \$3.55

Extra Services & Fees (check box, add fee as appropriate)

<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00

Postage \$0.55

Total Fee \$4.05

Sent To

Street or PO Box

City, State, ZIP+4®

Pennsylvania Historical and Museum  
Commission  
Bureau for Historic Preservation  
300 North Box 1026 Street  
Harrisburg, Pennsylvania 17108-1026

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Pennsylvania Historical and Museum  
Commission  
Bureau for Historic Preservation  
300 North Box 1026 Street  
Harrisburg, Pennsylvania 17108-1026

2. Article Number (Transfer from service label)

9590 9402 1550 5362 8008 50

7019 1120 0000 1383 4866

PS Form 3811, July 2015 PSN 7530-02-000-9053

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature

☒ Agent  
☒ Addressee

B. Received by (Printed Name)

C. Date of Delivery

NOV 18 2020

D. Is delivery address different from item 1? ☐ Yes  
If YES, enter delivery address below: ☐ No

NOV 23 2020  
1312 ti

3. Service Type

<input type="checkbox"/> Adult Signature	<input type="checkbox"/> Priority Mail Express®
<input type="checkbox"/> Adult Signature Restricted Delivery	<input type="checkbox"/> Registered Mail™
<input checked="" type="checkbox"/> Certified Mail®	<input type="checkbox"/> Registered Mail Restricted Delivery
<input type="checkbox"/> Certified Mail Restricted Delivery	<input type="checkbox"/> Return Receipt for Merchandise
<input type="checkbox"/> Collect on Delivery	<input type="checkbox"/> Signature Confirmation™
<input type="checkbox"/> Collect on Delivery Restricted Delivery	<input type="checkbox"/> Signature Confirmation Restricted Delivery

Domestic Return Receipt



# **martin and martin, incorporated**

37 south main street • suite A • chambersburg, pennsylvania • 17201-2251

(717) 264-6759

(717) 264-7339 (fax)

www.martinandmartininc.com

November 12, 2020

Department of Conservation and Natural Resources  
Bureau of Recreation and Conservation  
P.O. Box 8475  
Harrisburg, PA 17105-8475

Certified Mail: 7019 1120 0000 1383 4859

RE: BRADS  
Blythe Twp. - Schuylkill County  
Our file: b/1312/2020/TI/NL C&N Resources

To Whom It May Concern:

Blythe Township, Schuylkill Co, doing business as BRADS (Blythe Recycling and Demolition Site), is seeking a permit to increase the daily tonnage at its Construction and Demolition Landfill, currently permitted by PaDEP, on a portion of its 400 acre tract. The disposal footprint, disposal capacity, and operations remain the same; just an increase in the allowable daily rate of tons is proposed. Although you have previously provided us with answers to the below questions relative to this site, at the request of DEP, as it relates to this tonnage increase application and in accordance with the DEP's Environmental Assessment Process, we are attaching hereto a copy of the USGS map showing the site and ask you to provide us with responses to the following Form D questions which are outlined as follows:

1. Is the project located in the waterway or corridor of a stream or river designated as a Pennsylvania Scenic River or a waterway included in the National Wild and Scenic River System?
2. Is the project located within one mile of the stream or riverbank of a 1-A priority waterway, as identified by the Department of Conservation and Natural Resources?
3. Is the project located within one mile of the stream or riverbank of a waterway under study for designation as a Pennsylvania Scenic River or inclusion in the National Wild and Scenic River System?

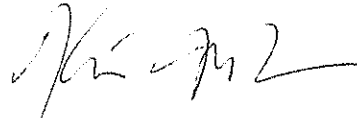
**MUNICIPAL • URBAN • REGIONAL • LAND DEVELOPMENT AND ENVIRONMENTAL PLANNERS**

**MUNICIPAL • CIVIL • SANITARY • SOLID WASTE AND ENVIRONMENTAL ENGINEERS**

4. Is the project located in the drainage area (watershed) of a stream or river designated as a Pennsylvania Scenic River or a National Wild and Scenic River?
5. Can the project be seen from the waterway or corridor of a stream or river designated as a Pennsylvania Scenic River or National Wild and Scenic River?
6. Does the project impact, visually or physically, the aesthetic environment or recreational activities or opportunities of a stream or river designated as a Pennsylvania Scenic River or National Wild and Scenic River?
7. Are remedial or mitigating measures necessary to make the project conform to land and water management guidelines that were developed for this specific Pennsylvania Scenic River or National Wild and Scenic River?
8. Is the project located within a Special Protection Watershed, as designated in Chapter 93 (relating to Pennsylvania's Stream Water Quality Criteria) of the Rules and Regulations of the Pennsylvania Department of Environmental Protection? If yes, identify the stream and watershed, and the distance of the stream from the project.
9. Is the project located within one mile of: a unit of the National Parks System; a state, county, or municipal park; a recreation facility operated by the U.S. Army Corps of Engineers; a state forest picnic area; or the Allegheny River Reservoir in the Allegheny National Forest? If yes, identify the park or other area and its distance from the project.

Your prompt response would be much appreciated. If you have any questions in this regard, please do not hesitate to contact me.

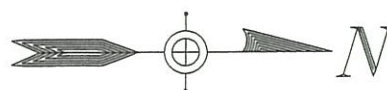
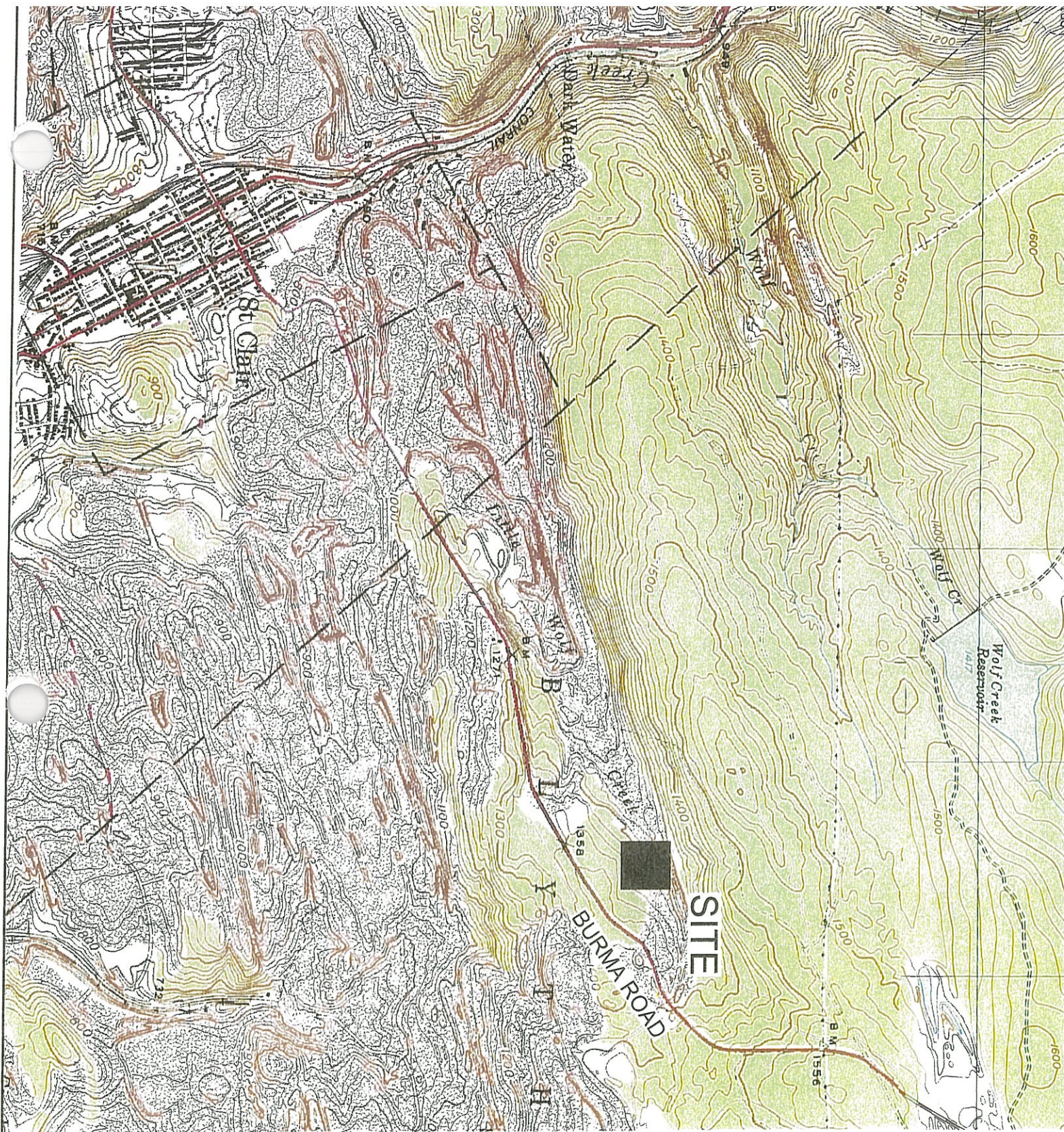
Very truly yours,  
**MARTIN AND MARTIN, INCORPORATED**



Kevin N. Bodner

Enclosure  
cc: BRADS





1000' 0 1000' 2000'  
Scale: 1" = 2000'

Source: Pottsville USGS Topo. Quad 7.5-Minute



**martin and martin incorporated**  
phone: (717) 37 south main street • suite A  
264-6759 chambersburg, pennsylvania . 17201

SHEET TITLE

SITE MAP

BLYTHE TOWNSHIP

SCHUYLKILL COUNTY

**BRADS LANDFILL**  
PENNSYLVANIA

Scale: 1"=2000'

Job # 1312

Date: 12.12

By: MSH

Chk'd: MSH



7019 1120 0000 1383 4859

**U.S. Postal Service™**  
**CERTIFIED MAIL® RECEIPT**  
 Domestic Mail Only

For delivery information, visit our website at [www.usps.com](http://www.usps.com)®.

Harrisburg, PA 17105

Certified Mail Fee	\$3.55
Extra Services & Fees (check box, add fee as appropriate)	\$2.85
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00

Postage \$0.55

Total P

Sent To

Street

City, St

Department of Conservation and Natural Resources

Bureau of Recreation and Conservation

P.O. Box 8475

Harrisburg, PA 17105-8475

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions



**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Department of Conservation and Natural Resources  
 Bureau of Recreation and Conservation  
 P.O. Box 8475  
 Harrisburg, PA 17105-8475



9590 9402 1550 5362 8008 43

2. Article Number (Transfer from service label)

7019 1120 0000 1383 4859

PS Form 3811, July 2015 PSN 7530-02-000-9053

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature

X

A. Naid

☐ Agent

☐ Addressee

B. Received by (Printed Name)

NOV 19 2020

C. Date of Delivery

NOV 18 2020

D. Is delivery address different from item 1? ☐ Yes  
 If YES, enter delivery address below: ☐ No

NOV 28 2020

1312ti

3. Service Type

- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☒ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Mail Restricted Delivery

- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Return Receipt for Merchandise
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

Domestic Return Receipt

## Blythe Township Disposal Modification--Scenic River Review

From: Rossiter, Kelly (krossiter@pa.gov)

To: knbodner@yahoo.com

Date: Wednesday, December 2, 2020, 01:58 PM EST

### Pennsylvania Scenic Rivers Program Reviews – 2020

**Project Name:** BRADS

**Description:** Disposal tonnage modification

**Location:** Blythe Township, Schuylkill County

**Applicant Code:** 945

**Request Date:** November 12, 2020

Mr. Bodner,

Information submitted regarding the subject application has been reviewed. There are no Pennsylvania designated Scenic Rivers or National Wild and Scenic Rivers involved; therefore, the Pennsylvania Scenic Rivers Program has no concerns regarding this project. This project area was also reviewed related to investments that DCNR has made through previous grant projects and no project investments are located within the project site boundaries; therefore, DCNR has no concerns regarding this project's impact on federal or state-funded conservation or recreation improvements in the area. Should you have any questions regarding our review, process or recommendations for this or future applications, please contact me.

Per your request, the Form D questions are answered below:

1. Is the project located in the waterway or corridor of a stream or river designated as a Pennsylvania Scenic River or a waterway included in the National Wild and Scenic River System? **No**
2. Is the project located within one mile of the stream or river bank of a 1-A priority waterway, as identified by the Department of Conservation and Natural Resources? ***Our program no longer evaluates permits that impact 1-A priority Waterways***
3. Is the project located within one mile of the stream or river bank of a waterway under study for designation as a Pennsylvania Scenic River or inclusion in the National Wild and Scenic River System? **No**
4. Is the project located in the drainage area (watershed) of a stream or river designated as a Pennsylvania Scenic River or a National Wild and Scenic River? ***Possibly---the Schuylkill River is a designated PA Scenic River. Depending on what HUC level the analysis is based on, this site may relate to the designated river watershed***

5. Will the project result in discharges of any kind to the waterway or corridor of a stream or river designated as a Pennsylvania Scenic River or National Wild and Scenic River System? **No**

6. Will the project result in increased railroad or highway traffic having an adverse impact upon a waterway designated as a Pennsylvania Scenic River or a National Wild and Scenic River? ***Uncertain, but unlikely. Depending on the method and travel route that the additional tonnage will use to access the landfill, the project may or may not result in increased traffic adversely impacting the Schuylkill River***

7. Can the project be seen from the waterway or corridor of a stream or river designated as a Pennsylvania Scenic River or a National Wild and Scenic River? **No**

8. Does the project impact, visually or physically, the aesthetic environment or recreational activities or opportunities of a stream or river designated as a Pennsylvania Scenic River or a National Wild and Scenic River? **No**

9. Are remedial or mitigating measures necessary to make the project conform to land and water management guidelines that were developed for this specific Pennsylvania Scenic River or National Wild and Scenic River? **No**

10. Is the project located within a Special Protection Watershed, as designated in Chapter 93 (relating to Pennsylvania's Stream Water Quality Criteria) of the Rules and Regulations of the Pennsylvania Department of Environmental Protection?

***DCNR does not have jurisdiction over Chapter 93; please consult DEP staff for this information.***

11. Will the project, absent control measures, result in an increase in the peak discharge rate for storm water drainage from the project site? **No**

12. Are remedial or mitigating measures required as part of the implementation and management plans for this project.? If Yes, identify and demonstrate the degree of mitigation. **No**

**Kelly Rossiter, AICP** | Rivers Program Specialist

Department of Conservation and Natural Resources  
Bureau of Recreation and Conservation

400 Market St, 5<sup>th</sup> Floor | Harrisburg, PA 17101-2301

Phone: 717.772.3319 | Fax: 717.787.9577

<http://www.dcnr.state.pa.us/brc> | [www.ExplorePAtrails.com](http://www.ExplorePAtrails.com)





# **martin and martin, incorporated**

37 south main street • suite A • chambersburg, pennsylvania • 17201-2251

(717) 264-6759

(717) 264-7339 (fax)

www.martinandmartininc.com

November 12, 2020

Department of the Army  
Philadelphia District Corps of Engineers  
Wanamaker Building  
100 Penn Square East  
Philadelphia, PA 19107

Certified Mail: 7019 1120 0000 1383 4842

RE: BRADS  
Blythe Twp. - Schuylkill County  
Our file: b/1312/TI/NL Army

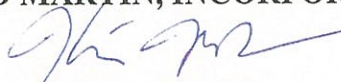
To Whom It May Concern:

Blythe Township, Schuylkill Co, doing business as BRADS (Blythe Recycling and Demolition Site), is seeking a permit to increase the daily tonnage at its Construction and Demolition Landfill, currently permitted by PaDEP, on a portion of its 400 acre tract. The disposal footprint, disposal capacity, and operations remain the same; just an increase in the allowable daily rate of tons is proposed. Although you have previously provided us with answers to the below questions relative to this site, at the request of DEP, as it relates to this tonnage increase application and in accordance with the DEP's Environmental Assessment Process, we are attaching hereto a copy of the USGS map showing the site and ask you to provide us with responses to the following Form D questions which are outlined as follows:

1. Is the project located within one mile of: a unit of the National Parks System; a state, county, or municipal park; a recreation facility operated by the U.S. Army Corps of Engineers; a state forest picnic area; or the Allegheny River Reservoir in the Allegheny National Forest? If yes, identify the park or other area and its distance from the project.

Your prompt response would be much appreciated. If you have any questions in this regard, please do not hesitate to contact me.

Very truly yours,  
**MARTIN AND MARTIN, INCORPORATED**



Kevin N. Bodner

Enclosure  
cc: BRADS

**MUNICIPAL • URBAN • REGIONAL • LAND DEVELOPMENT AND ENVIRONMENTAL PLANNERS**

**MUNICIPAL • CIVIL • SANITARY • SOLID WASTE AND ENVIRONMENTAL ENGINEERS**





Source: Pottsville USGS Topo. Quad 7.5-Minute



**martin and martin incorporated**

phone: (717)  
264-6759

37 south main street • suite A  
chambersburg, pennsylvania . 17201

SHEET TITLE

**SITE MAP**

BLYTHE TOWNSHIP

SCHUYLKILL COUNTY

**BRADS LANDFILL  
PENNSYLVANIA**

Scale: 1"=2000'

Job # 1312

Date: 12.12

By: MSH

Chk'd: MSH



7019 1120 0000 1383 4842

# U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only

For delivery information, visit our website at [www.usps.com](http://www.usps.com)®.

Philadelphia, PA 19107

Certified Mail Fee \$3.55  
Extra Services & Fees (check box, add fee as appropriate)  
☐ Return Receipt (hardcopy) \$2.85  
☐ Return Receipt (electronic) \$0.00  
☐ Certified Mail Restricted Delivery \$0.00  
☐ Adult Signature Required \$0.00  
☐ Adult Signature Restricted Delivery \$0.00

Postage \$0.55

Total

\$

Sent

Street

City

Department of the Army  
Philadelphia District Corps of Engineers  
Wanamaker Building  
100 Penn Square East  
Philadelphia, PA 19107

NOV 12 2020  
Postmark Here  
USPS 17254

1312 +1

11/12/2020

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

## SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Department of the Army  
Philadelphia District Corps of Engineers  
Wanamaker Building  
100 Penn Square East  
Philadelphia, PA 19107



9590 9402 1550 5362 8008 36

2. Article Number (Transfer from service label)

7019 1120 0000 1383 4842

## COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent  
☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

11/10/20

D. Is delivery address different from item 1? ☐ Yes  
If YES, enter delivery address below: ☐ No

NOV 20 2020

1312 +1

3. Service Type

- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☒ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Return Receipt for Merchandise
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2015 PSN 7530-02-000-9053

Domestic Return Receipt



# **martin and martin, incorporated**

37 south main street • suite A • chambersburg, pennsylvania • 17201-2251

(717) 264-6759

(717) 264-7339 (fax)

www.martinandmartininc.com

November 12, 2020

United States Department of the Interior  
National Park Service  
*Mid-Atlantic Region*  
143 South Third Street  
Philadelphia, PA 19106

Certified Mail: 7019 1120 0000 1383 4835

RE: BRADS Construction – Demolition Waste Landfill  
Blythe Twp. - Schuylkill County  
Our file: b/1312/2020/TI/NL National Park Service

To Whom It May Concern:

Blythe Township, Schuylkill Co, doing business as BRADS (Blythe Recycling and Demolition Site), is seeking a permit to increase the daily tonnage at its Construction and Demolition Landfill, currently permitted by PaDEP, on a portion of its 400 acre tract. The disposal footprint, disposal capacity, and operations remain the same; just an increase in the allowable daily rate of tons is proposed. Although you have previously provided us with answers to the below questions relative to this site, at the request of DEP, as it relates to this tonnage increase application and in accordance with the DEP's Environmental Assessment Process, we are attaching hereto a copy of the USGS map showing the site and ask you to provide us with responses to the following Form D questions which are outlined as follows:

1. Is the project located in the waterway or corridor of a stream or river designated as a Pennsylvania Scenic River or a waterway included in the National Wild and Scenic River System?
2. Is the project located within one mile of the stream or riverbank of a waterway under study for designation as a Pennsylvania Scenic River or inclusion in the National Wild and Scenic River System?

**MUNICIPAL • URBAN • REGIONAL • LAND DEVELOPMENT AND ENVIRONMENTAL PLANNERS**

**MUNICIPAL • CIVIL • SANITARY • SOLID WASTE AND ENVIRONMENTAL ENGINEERS**




United States Department of the Interior  
National Park Service  
November 12, 2020  
Page 2

3. Is the project located in the drainage area (watershed) of a stream or river designated as a Pennsylvania Scenic River or a National Wild and Scenic River?
4. Will the project result in discharges of any kind to the waterway or corridor of a stream or river designated as a Pennsylvania Scenic River or National Wild and Scenic River?
5. Will the project result in increased railroad or highway traffic having an adverse impact upon a waterway designated as a Pennsylvania Scenic River or a National Wild and Scenic River?
6. Can the project be seen from the waterway or corridor of a stream or river designated as a Pennsylvania Scenic River or National Wild and Scenic River?
7. Does the project impact, visually or physically, the aesthetic environment or recreational activities or opportunities of a stream or river designated as a Pennsylvania Scenic River or National Wild and Scenic River?
8. Are remedial or mitigating measures necessary to make the project conform to land and water management guidelines that were developed for this specific Pennsylvania Scenic River or National Wild and Scenic River?
9. Is the project located within one mile of: a unit of the National Parks System; a state, county, or municipal park; a recreation facility operated by the U.S. Army Corps of Engineers; a state forest picnic area; or the Allegheny River Reservoir in the Allegheny National Forest? If yes, identify the park or other area and its distance from the project.
10. Is the project located within one mile of a national natural landmark designated by the U.S. National Park Service; or of a natural area, or of a wild area designated by the Pennsylvania Environmental Quality Board? If yes, identify the natural landmark, natural area, or wild area and its distance from the project.

Your prompt response would be much appreciated. If you have any questions in this regard, please do not hesitate to contact me.

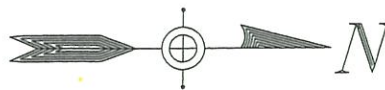
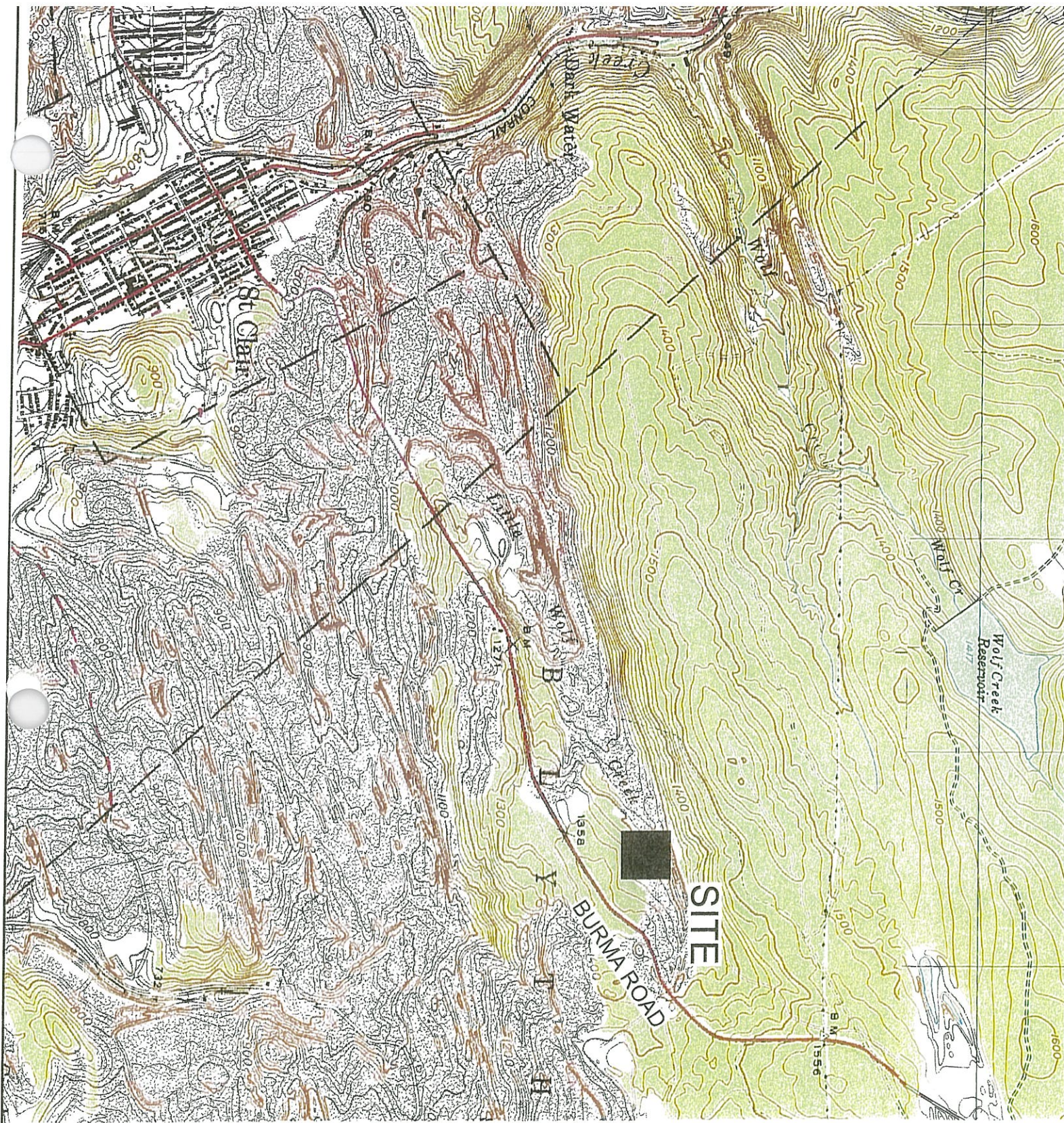
Very truly yours,  
**MARTIN AND MARTIN, INCORPORATED**



Kevin N. Bodner

Enclosure  
cc: BRADS





1000' 0 1000' 2000'  
Scale: 1" = 2000'

Source: Pottsville USGS Topo. Quad 7.5-Minute



**martin and martin incorporated**

phone: (717) 264-6759  
37 south main street • suite A  
chambersburg, pennsylvania . 17201

SHEET TITLE

**SITE MAP**

BLYTHE TOWNSHIP

SCHUYLKILL COUNTY

**BRADS LANDFILL  
PENNSYLVANIA**

Scale: 1"=2000'

Job # 1312

Date: 12.12

By: MSH

Chk'd: MSH



7019 1120 0000 1383 4835

U.S. Postal Service™  
**CERTIFIED MAIL® RECEIPT**  
Domestic Mail Only

For delivery information, visit our website at [www.usps.com](http://www.usps.com)®.

Philadelphia, PA 19106

OFFICIAL USE

Certified Mail Fee	\$3.55
Extra Services & Fees (check box, add fee as appropriate)	\$2.85
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00

Postage \$0.55

Total F

Sent To

Street

City, S

United States Department of the Interior  
National Park Service  
Mid-Atlantic Region  
143 South Third Street  
Philadelphia, PA 19106





Re-sent 6/30/21

953



**martin and martin, incorporated**

37 south main street • suite A • chambersburg, pennsylvania • 17201-2251

(717) 264-6759  
(717) 264-7339 (fax)  
www.martinandmartininc.com

November 12, 2020

United States Department of the Interior  
National Park Service  
*Mid-Atlantic Region*  
143 South Third Street  
Philadelphia, PA 19106

Certified Mail: 7019 1120 0000 1383 ~~4835~~  
4651

RE: BRADS Construction – Demolition Waste Landfill  
Blythe Twp. - Schuylkill County  
Our file: b/1312/2020/TI/NL National Park Service

To Whom It May Concern:

Blythe Township, Schuylkill Co, doing business as BRADS (Blythe Recycling and Demolition Site), is seeking a permit to increase the daily tonnage at its Construction and Demolition Landfill, currently permitted by PaDEP, on a portion of its 400 acre tract. The disposal footprint, disposal capacity, and operations remain the same; just an increase in the allowable daily rate of tons is proposed. Although you have previously provided us with answers to the below questions relative to this site, at the request of DEP, as it relates to this tonnage increase application and in accordance with the DEP's Environmental Assessment Process, we are attaching hereto a copy of the USGS map showing the site and ask you to provide us with responses to the following Form D questions which are outlined as follows:

1. Is the project located in the waterway or corridor of a stream or river designated as a Pennsylvania Scenic River or a waterway included in the National Wild and Scenic River System?
2. Is the project located within one mile of the stream or riverbank of a waterway under study for designation as a Pennsylvania Scenic River or inclusion in the National Wild and Scenic River System?

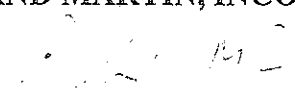
MUNICIPAL • URBAN • REGIONAL • LAND DEVELOPMENT AND ENVIRONMENTAL PLANNERS

MUNICIPAL • CIVIL • SANITARY • SOLID WASTE AND ENVIRONMENTAL ENGINEERS

3. Is the project located in the drainage area (watershed) of a stream or river designated as a Pennsylvania Scenic River or a National Wild and Scenic River?
4. Will the project result in discharges of any kind to the waterway or corridor of a stream or river designated as a Pennsylvania Scenic River or National Wild and Scenic River?
5. Will the project result in increased railroad or highway traffic having an adverse impact upon a waterway designated as a Pennsylvania Scenic River or a National Wild and Scenic River?
6. Can the project be seen from the waterway or corridor of a stream or river designated as a Pennsylvania Scenic River or National Wild and Scenic River?
7. Does the project impact, visually or physically, the aesthetic environment or recreational activities or opportunities of a stream or river designated as a Pennsylvania Scenic River or National Wild and Scenic River?
8. Are remedial or mitigating measures necessary to make the project conform to land and water management guidelines that were developed for this specific Pennsylvania Scenic River or National Wild and Scenic River?
9. Is the project located within one mile of: a unit of the National Parks System; a state, county, or municipal park; a recreation facility operated by the U.S. Army Corps of Engineers; a state forest picnic area; or the Allegheny River Reservoir in the Allegheny National Forest? If yes, identify the park or other area and its distance from the project.
10. Is the project located within one mile of a national natural landmark designated by the U.S. National Park Service; or of a natural area, or of a wild area designated by the Pennsylvania Environmental Quality Board? If yes, identify the natural landmark, natural area, or wild area and its distance from the project.

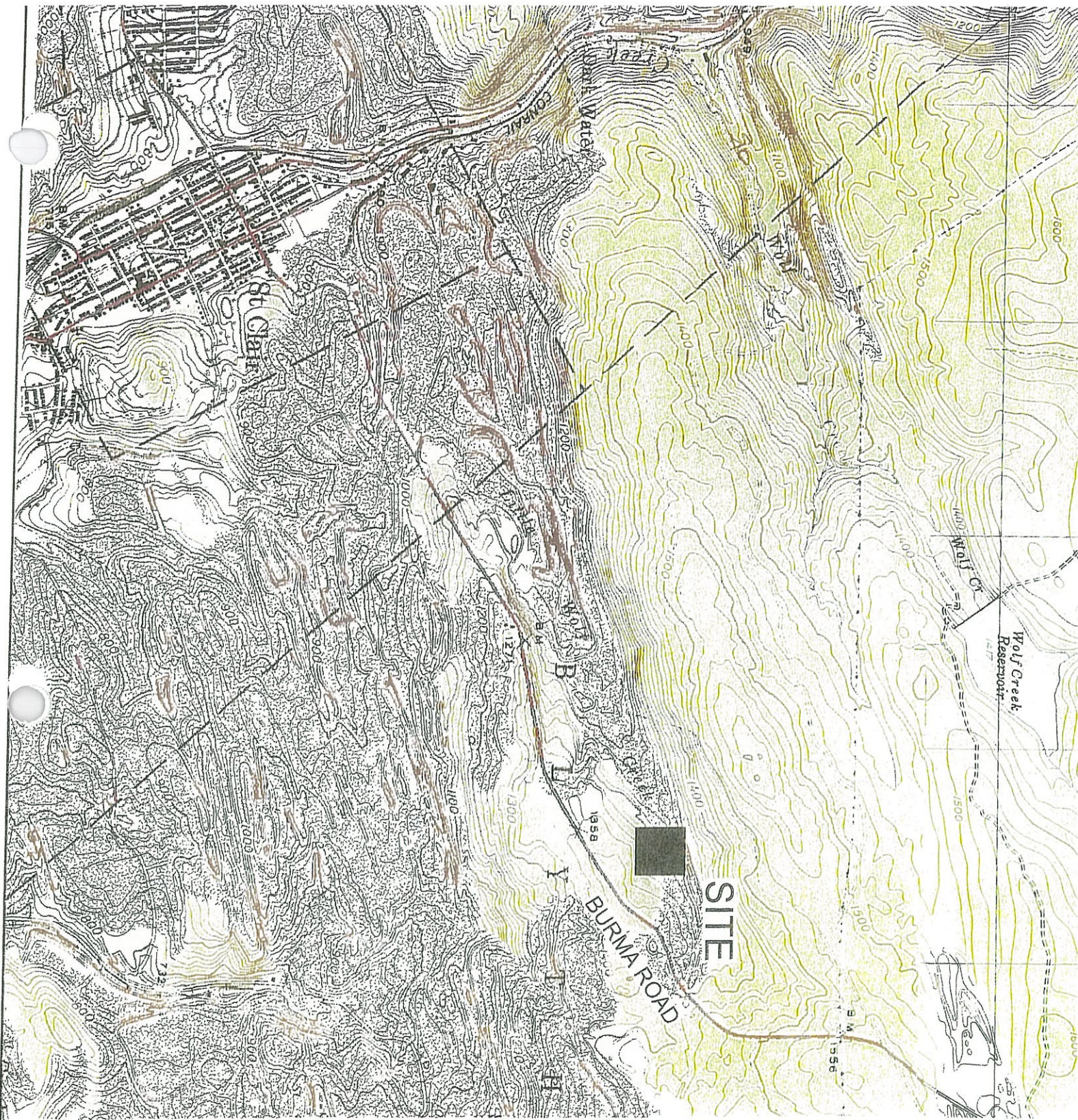
Your prompt response would be much appreciated. If you have any questions in this regard, please do not hesitate to contact me.

Very truly yours,  
**MARTIN AND MARTIN, INCORPORATED**

  
Kevin N. Bodner

Enclosure  
cc: BRADS





Source: Pottsville USGS Topo. Quad 7.5-Minute



**martin and martin incorporated**

phone: (717) 37 south main street • suite A  
264-6759 chambersburg, pennsylvania 17201

SHEET TITLE

**SITE MAP**

BLYTHE TOWNSHIP

SCHUYLKILL COUNTY

**BRADS LANDFILL  
PENNSYLVANIA**

Scale: 1"=2000

Job # 1312

Date: 12.12

By: MSH

Chk'd: MSH



**U.S. Postal Service™**  
**CERTIFIED MAIL® RECEIPT**  
 Domestic Mail Only

For delivery information, visit our website at [www.usps.com](http://www.usps.com)®.

Philadelphia, PA 19106

Certified Mail Fee \$3.60  
 Extra Services & Fees (check box, add fee as appropriate)  
☐ Return Receipt (hardcopy) \$  
☐ Return Receipt (electronic) \$  
☐ Certified Mail Restricted Delivery \$  
☐ Adult Signature Required \$  
☐ Adult Signature Restricted Delivery \$

Postage \$0.55

Total Postage and Fees \$7.00

Sent To

U.S. Dept. of the Interior, National Park Service

Street and Apt. No., or PO Box No.

143 South Third Street - Mid-Atlantic Region

City, State, ZIP+4®

Philadelphia, PA 19106

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

7019 1120 0000 1383 4651



**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

**United States Dept. of the Interior**  
**National Park Service**  
**Mid-Atlantic Region**  
**143 South Third Street**  
**Philadelphia, PA 19106**



9590 9402 1550 5362 8004 61

2. Article Number (Transfer from service label)

7019 1120 0000 1383 4651

PS Form 3811, July 2015 PSN 7530-02-000-9053

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature

X

☐ Agent

☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes  
 If YES, enter delivery address below: ☐ No

3. Service Type

- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☒ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over \$500)

- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Return Receipt for Merchandise
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

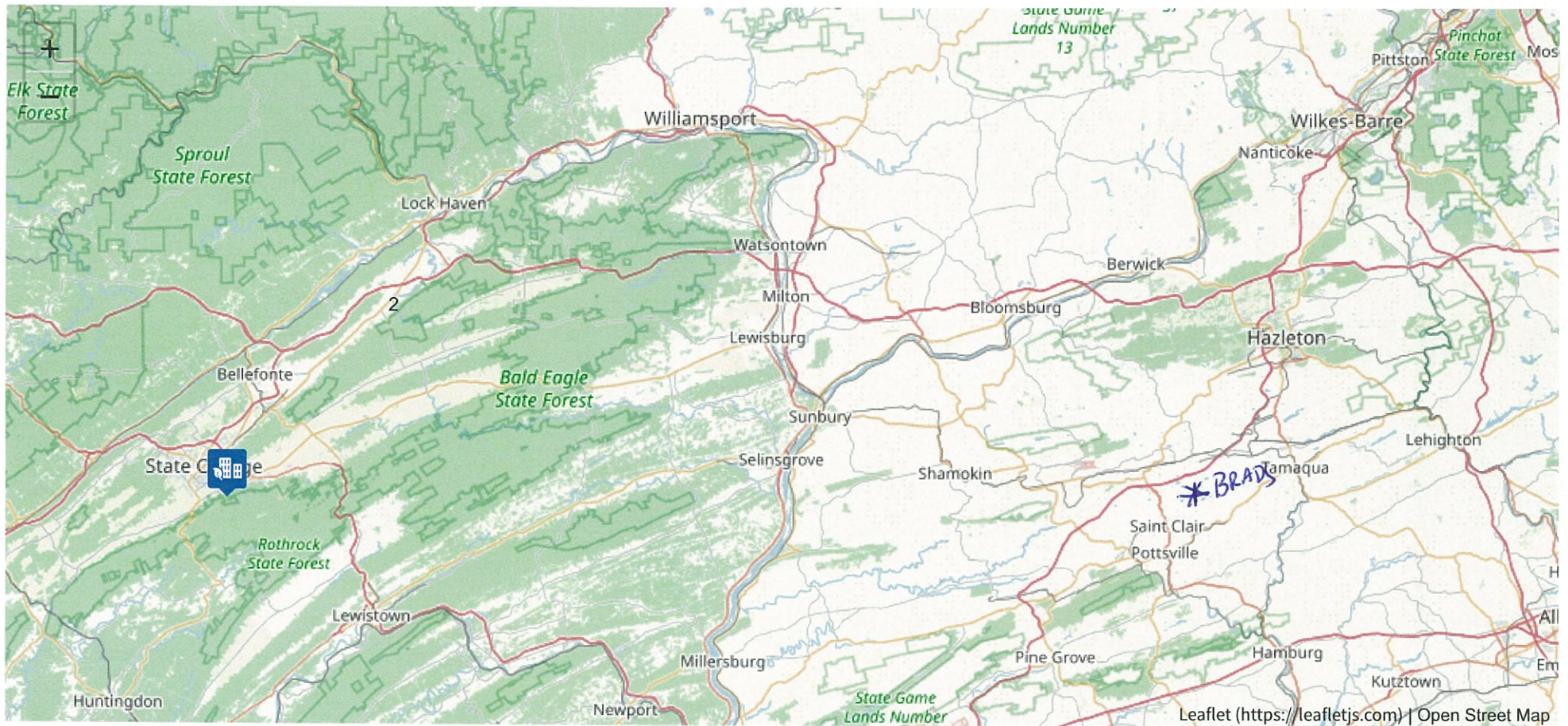
Domestic Return Receipt

# E.1

---

Fish, Game & Plants  
Maps of Refuges, Hatcheries and  
Environmental Centers





# Our Facilities

Refine Your Search

Facility Type

State

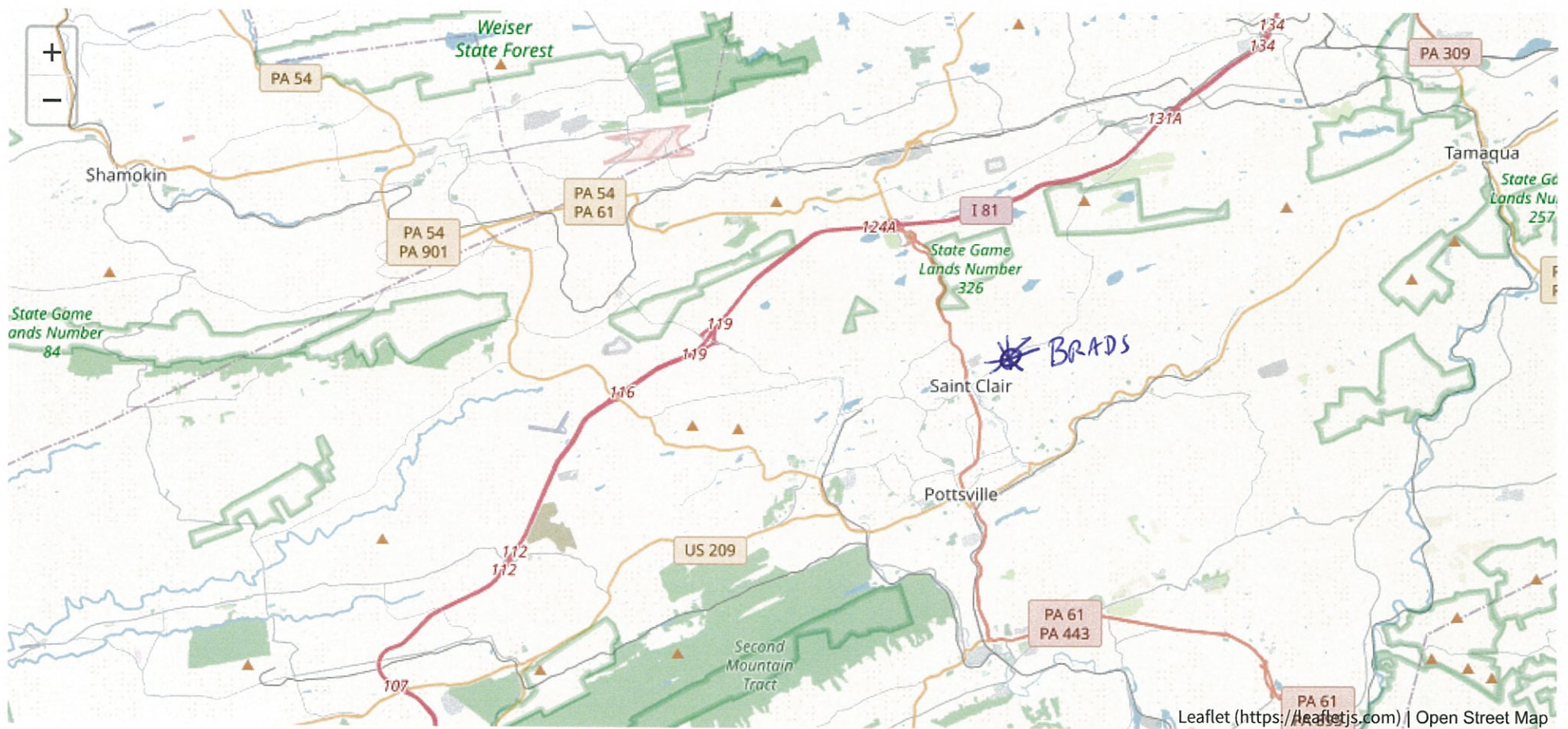
E. T

No facilities



Help improve this site





# Our Facilities

## Refine Your Search

Facility Type

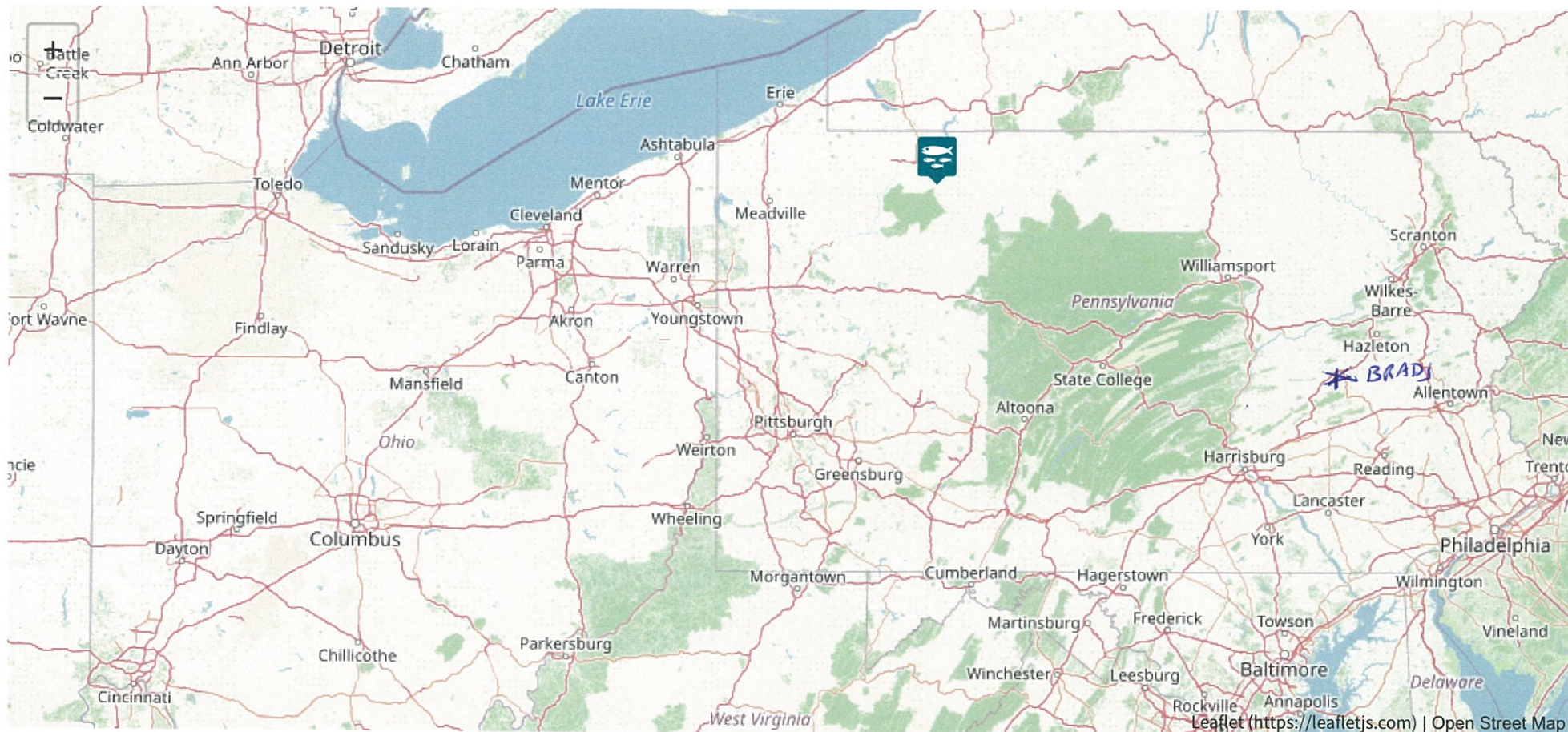
National Wildlife Refuge (590)

State

E. 1

Help improve this site





# Our Facilities

## Refine Your Search

Facility Type

National Fish Hatchery (67)

State

E. 1



Help improve this site



Re-sent 6/30/21

GB



**martin and martin, incorporated**

37 south main street • suite A • chambersburg, pennsylvania • 17201-2251

(717) 264-6759

(717) 264-7339 (fax)

www.martinandmartininc.com

November 12, 2020

Pennsylvania Game Commission  
2001 Elmerton Avenue  
Harrisburg, PA 17110-9797

Certified Mail: 7019 1120 0000 1383 4873

RE: BRADS  
Blythe Twp. - Schuylkill County  
Our file: b/1312/2020/TI/NL Pa Game Com

To Whom It May Concern:

Blythe Township, Schuylkill Co, doing business as BRADS (Blythe Recycling and Demolition Site), is seeking a permit to increase the daily tonnage at its Construction and Demolition Landfill, currently permitted by PaDEP, on a portion of its 400 acre tract. The disposal footprint, disposal capacity, and operations remain the same; just an increase in the allowable daily rate of tons is proposed. Although you have previously provided us with answers to the below questions relative to this site, at the request of DEP, as it relates to this tonnage increase application and in accordance with the DEP's Environmental Assessment Process, we are attaching hereto a copy of the USGS map showing the site and ask you to provide us with responses to the following Form D questions which are outlined as follows:

1. Is the project located within an area which supports endangered, threatened, rare plant or animal species listed under the Federal Endangered Species Act, 16 U.S.C.A. § 1531 et seq. (1973); the Act of June 23, 1982 (P.L. 597, No. 170), as amended, known as the Wild Resources Conservation Act, 32 P.S. § 5301 et seq.; the Act of October 16, 1980 (P.L. 996, No. 175), as amended, known as the Pennsylvania Fish and Boat Code, 30 Pa. C.S.A. § 101 et seq. or the Act of July 8, 1986 (P.L. 442, No. 93), as amended, known as the Pennsylvania Game and Wildlife Code, 34 Pa. C.S.A. § 101 et seq. or located in exemplary natural communities as defined by the Pennsylvania Natural Diversity Inventory? If yes, identify the species and the habitat area or natural community and the location of the project within the area.

MUNICIPAL • URBAN • REGIONAL • LAND DEVELOPMENT AND ENVIRONMENTAL PLANNERS

MUNICIPAL • CIVIL • SANITARY • SOLID WASTE AND ENVIRONMENTAL ENGINEERS



Pennsylvania Game Commission

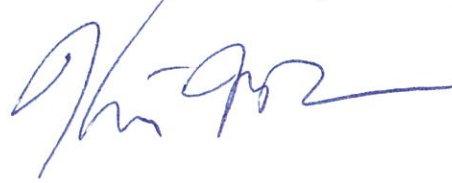
November 12, 2020

Page 2

2. Does the proposed project impact critical and unique wildlife habitats (deer wintering areas, caves, denning sites, rock outcrops, or similar habitats)? If yes, please identify these habitats and describe proposals to minimize or mitigate these impacts.

Your prompt response would be much appreciated. If you have any questions in this regard, please do not hesitate to contact me.

Very truly yours,  
**MARTIN AND MARTIN, INCORPORATED**

A handwritten signature in blue ink, appearing to read 'Kevin N. Bodner', written over the company name.

Kevin N. Bodner

Enclosure

cc: BRADS

**U.S. Postal Service™**  
**CERTIFIED MAIL® RECEIPT**  
*Domestic Mail Only*

For delivery information, visit our website at [www.usps.com](http://www.usps.com)®.

Harrisburg, PA 17110

**7019 1120 0000 1383 4873**

Certified Mail Fee \$3.60

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$0.00

☐ Return Receipt (electronic) \$0.00

☐ Certified Mail Restricted Delivery \$0.00

☐ Adult Signature Required \$0.00

☐ Adult Signature Restricted Delivery \$0.00

Postage \$0.55

Total \$7.00

Sent

Street

City, State, ZIP+4®

Harrisburg, PA 17110-9797

PS Form 3811, July 2015 PSN 7530-02-000-9047 See Reverse for Instructions

HARRISBURG POST OFFICE  
JUN 30 2021  
1312 +1

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> <li>Complete items 1, 2, and 3.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>	<p>A. Signature X <i>CMPC</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) <i>CMPC</i> C. Date of Delivery <i>7/2/21</i></p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p> <p style="text-align: right;">1312 +1</p>
<p>1. Article Addressed to:</p> <p style="text-align: center;">Pennsylvania Game Commission 2001 Elmerton Avenue Harrisburg, PA 17110-9797</p>	
<p>2. Article Number (Transfer from service label)</p> <p style="text-align: center;"><b>7019 1120 0000 1383 4873</b></p>	<p>3. Service Type</p> <p><input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express®</p> <p><input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™</p> <p><input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery</p> <p><input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Return Receipt for Merchandise</p> <p><input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation™</p> <p><input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery (\$500)</p>
<p>PS Form 3811, July 2015 PSN 7530-02-000-9053 Domestic Return Receipt</p>	

# Form 1

---

## Facility Plan





## FORM 1 FACILITY PLAN

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 1, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General References: 273.112, 277.112, 279.102, 283.102

### SECTION A. SITE IDENTIFIER

Applicant/permittee Blythe Recycling and Demolition Site Holdings, Inc.

Site Name Blythe Recycling and Demolition Site (BRADS)

Facility ID (as issued by DEP) 101679

### SECTION B. NARRATIVE

Provide a narrative that describes the following:

1. General operational concept for proposed facility; including:
  - a. Origin, composition, and weight or volume of solid waste\*
  - b. Type of liner system
  - c. Proposed capacity of facility\*
  - d. Expected life of facility and size\*
  - e. Sequence and timing of solid waste disposal operations
2. A detailed description of the volume of soil needed to construct and operate the facility and of the method by which the soil will be delivered. The description will include the number of trucks, the access roads they will use, delivery times and any other information relevant to assessing the impacts of the operation.

\*Complete page 2 of this form (Sections A, B, C, D & E)

## SECTION C.

## A. Origin, composition, and weight or volume of wastes

Waste Type	Origin	Composition	Present Weight or Volume (tons, cubic yards, gallons/yr)
1. Municipal			
2. Construction/Demolition	Schuylkill & other PA Counties & nearby States	C&D Waste	3,000 t/d avg.
3. Sewage/sludge			
4. Residual			
5. Other (Explain)			

Additional Comments

B. Proposed capacity of facility (tons, cubic yards, gallons/yr) 17,854,000 cy permitted

## C. Daily Waste Quantities

1. Maximum daily volume or weight 3,000 t/d max.\*2. Average daily volume or weight 3,000 t/d avg.D. Expected life of facility (years) 11.8 yearsE. Size of facility (acres) 252 Ac. Permit - 110 Ac. Disposal Footprint

\*Calculation of averaged daily volume or weight must be on a quarterly basis.

# **BRADS CONSTRUCTION AND DEMOLITION LANDFILL**

**ATTACHMENT 1-1**

**FORM 1**

**FACILITY PLAN**



# **BRADS LANDFILL APPLICATION FOR PERMIT**

## **ATTACHMENT 1-1 FORM 1 – FACILITY PLAN**

### **ITEM 1 – GENERAL OPERATING CONCEPTS**

#### **Background**

The BRADS Construction and Demolition Landfill is located in Blythe Township, Schuylkill County, Pennsylvania, off of Burma Road. The landfill will accept construction/demolition, waste primarily from Schuylkill, Lehigh, Pike, Lackawanna and Luzerne Counties, PA as well as from other Pennsylvania Counties and nearby states.

#### **Daily Operations**

Traffic to the landfill is via Burma Road. All incoming vehicles will be directed to report to the weigh master for inspection of waste, weighing, recording of origin and composition of waste. Upon approval of the weigh master, traffic will be directed to the working face. All incoming waste will be additionally inspected upon unloading at the working face for compliance with the approved operational plan. Upon approval by the landfill manager or supervisor, the waste will be compacted and spread in uniform layers (lifts) using the area method. All exposed waste will be covered with suitable cover soil or approved alternative daily cover material at the end of each week or more frequently as required. Any areas previously filled and covered that are not operational for thirty days or more, will be stabilized with temporary vegetation. Any dust created at the landfill will be controlled by wetting by mobile (tank) water trucks, as required by seasonal climatic conditions. Litter from the site will be controlled by policing the area and nearby roadways and utilizing portable/permanent litter control fences. The facility will be secured with chain link fence with locking gates. Both temporary and permanent channels, ditches and sedimentation control facilities will prevent accelerated erosion. Stormwater will be controlled through channels, slope benches and sedimentation basins which serve to detain peak flows on site.

Leachate collected from the landfill will flow both by gravity and pumping systems to an on site leachate storage system from which the leachate will initially be hauled off-site to a POTW or similar treatment plant. Ultimately, off-site treatment at the SVSA POTW will manage the leachate.

### **ITEM 1A – ORIGIN, COMPOSITION AND WEIGHTS OF WASTE STREAM**

BRADS Landfill will accept construction/demolition wastes from the following areas:

- Pennsylvania
- New Jersey
- New York
- Other nearby states

## **Construction/Demolition**

The site will accept solid waste resulting from the construction or demolition of structures and buildings including, but not limited to, wood, metals, plaster, asphaltic substances, block, bricks, unsegregated concrete, waste from, land clearing, grubbing and excavation, uncontaminated soil, rock, stone, gravel and concrete.

## **ITEM 1B – LINER SYSTEMS**

The liner system will be designed, constructed and operated to prevent the migration of leachate through the liner to the greatest degree provided by such a system. The liner system will be designed to be resistant to physical failure and to be chemically compatible with the anticipated waste stream and resultant leachate through the use of high density polyethylene (HDPE) geomembrane. The liner system will entail:

1. 1.5 feet of granular protective cover;
2. 60-mil textured HDPE primary geomembrane;
3. Geotextile – If 1 foot of granular detection stone used;
4. 1 foot of granular detection stone (or composite geonet); and,
5. 6-inches (minimum) of compacted subbase, permeability less than or equal to  $1 \times 10^{-5}$  cm/sec.

In addition to this liner system components, 6-inch nominal diameter, SDR 11 HDPE perforated pipes will be located throughout the leachate collection system and 6-inch nominal diameter SDR 11 HDPE perforated pipes and/or geonet drainage ways will be located throughout the leachate detection system to convey leachate to the sumps for subsequent removal and treatment.

Each element of the liner system will be designed and constructed to meet or exceed the performance standards and requirements of Section 277.251 of the current DEP municipal waste rules and regulations.

# **ITEM 1C THROUGH 1E – LANDFILL CAPACITY, LIFE EXPECTANCY AND SEQUENCE OF DISPOSAL OPERATIONS**

The sequence of operation will be to construct the cells in numerical order (1 - 6). The size of each cell, its capacity, longevity, and excavation/fill volumes are shown on the following table.

## **BRADS CONSTRUCTION AND DEMOLITION LANDFILL**

Cell #	Area Cell (Acres)	Capacity <sup>(1)</sup>		Longevity (yrs) <sup>(3)</sup>
		CY	Tons <sup>(2)</sup>	
1	18	1,827,000	1,114,470	1.21
2	16.4	2,563,000	1,563,430	1.69
3	20.5	1,923,000	1,173,030	1.27
4	23.7	5,410,000	3,300,100	3.57
5	13.7	3,413,000	2,081,930	2.25
6	17.1	2,718,000	1,657,980	1.79
Total	109.4	17,854,000 <sup>(4)</sup>	10,890,940	11.78

- (1) Capacity is net of liner system and final cover
- (2) Assumes VCF = 0.61
- (3) 3,000 Tons/day – 308 days/year
- (4) Permitted

## **EXCAVATION / FILL**

Cell #	Total Excavation (CY)	Soil (CY) (2)	Rock (CY) (2)	Cell Construction FILL (CY) (1)	Strip Pit Backfill (cy)(1)	Soil Stockpile (cy)
1	1,560,000	683,000	877,000	184,500	416,300 + 810,000	150,000
2	180,000	153,000	27,000	86,700		(3,000)
3	273,000	224,000	49,000	0		0
4	963,000	245,000	718,000	25,000		230,000
5	374,000	216,000	158,000	60		(32,700)
6	432,000	117,000	315,000	0		160,200
Total	3,782,000	1,638,000	2,144,000	296,260	1,226,300	504,500

- (1) Includes pits to east and west.
- (2) Quantities within BRADS property.



Form 14

---

Inserts

### **ITEM G-1 - TONNAGE**

The average daily volume of waste estimated to be accepted at the proposed site is 3,000 tons/day of construction/demolition waste.

### **ITEM G-2 – WASTE MEASUREMENT**

All incoming waste will be measured by use of the scales described herein and in the Waste Acceptance Plan (Form R). The scales meet the requirements of the Measures Act of 1965 (73 P.S. 16511691) and the regulations thereunder and conforms to H44 Federal Standards. Full load and tare weights of each truck, along with all information required by the waste acceptance plan will be electronically recorded by the operator, a licensed weighmaster under the Public Weighmaster Act (73 P.S. 1771-1996), and the regulations thereunder. This scale will be inspected and maintained in accordance with the manufacturer's recommendations to assure accuracy.

### **ITEM G-3 – WASTE COMPLIANCE**

The facility will accept construction/demolition waste. Construction/demolition waste will be measured in accordance with the waste acceptance plan and this operations plan. The BRADS Landfill will conform to the DEP requirements by implementing the design and procedures contained in this application. The approved Waste Acceptance Plan describes a plan that is consistent with the basic limitations relating to operating requirements.

### **ITEM H-1 – WATER MONITORING**

The background monitoring plan will be implemented as approved by DEP.

### **ITEM H-2 – BACKGROUND MONITORING**

Background groundwater monitoring began during 2003.

### **ITEM H-3 – UNAPPROVED WASTES**

The operator shall prevent unapproved wastes and/or residual wastes from being accepted and disposed of at the site by implementing the procedures specified in the Waste Acceptance Plan (Attachment 14-3).

### **ITEM H-4 – APPROVED WASTES**

Only waste(s) approved by the Department shall be handled as received by the operator by implementing the procedures specified in the Waste Acceptance Plan. Special handling and disposal includes specific measures to prevent contaminant exposure to landfill personnel, haulers, and others.

## **ITEM H-5 – LEACHATE RECIRCULATION**

Leachate recirculation is not currently planned, but may be proposed in the future by Permit Modification. The proposed leachate management system will collect and convey accumulated leachate to a POTW Treatment Plant, to a stream discharge following treatment, or to on-site (equalization) storage tanks.

## **ITEM I – OPERATING HOURS**

The permitted hours of the facility for waste acceptance are 6:00 a.m. to 6:00 p.m. Monday through Saturday. The facility shall be closed Sundays. Hours for construction and development of subsequent site areas may vary from these as required. Equipment operations hours will be from 3 a.m. until 9 p.m. Waste delivery to the Waste Container Storage Area shall be 24 hours, Monday through Saturday.

## **ITEM J – ACCESS PLAN**

The landfill site access roads will support two-way traffic over the entire length. Portions of this road will continue to be used throughout the active life of the landfill. Additional segments of permanent access road will be constructed during development of the cells as shown. The new roadway segments will also support landfill traffic and be constructed as described below.

The approved pavement design assumes a refuse transfer truck as the design vehicle with a total gross vehicle weight of 80,000 lbs. and an applied axle loading of 18,000 lbs. per axle.

The criteria exceeds the PennDOT maximum permissible vehicle highway loading of 80,000 with an associated single axle loading of 16,000 lbs. per axle as described in PennDOT vehicle loading designation 3-3. This represents the maximum anticipated loading to be encountered at the facility by over-the-road vehicles.

The allowable bearing capacity of the subgrade soil beneath the site access road (unpaved section), which controls the design, was estimated to be 2,200 psi. This value incorporates a factor of safety of 3.0 against a bearing failure. The estimated contact pressure of the design vehicles is 1,350 psi. Therefore, there is adequate bearing capacity for the maximum anticipated design loading.

## **ITEM J-1 – ROADWAY EROSION AND SEDIMENT CONTROL**

Site access road and parking area erosion and sedimentation will be minimized by paving and/or selection of AASHTO No. 2 or 3 size stone surfacing. This aggregate will be compacted to yield a dense structure. This will ensure a stable, erosion resistant pavement structure. Sedimentation and erosion will be further controlled by construction of a roadside ditching and a sloped pavement structure to facilitate drainage for the 25-year, 24-hour storm event. Refer to Form I.

Revised: 9/07 - 8/19 – 9/20- 1/23
-----------------------------------



# Form 46

---

Relationship between Municipal Waste  
Management Plans and Permits



Date Prepared

11/2022

I.D. Number

101679

## FORM 46

# RELATIONSHIP BETWEEN MUNICIPAL WASTE MANAGEMENT PLANS AND PERMITS

**General References:** 271.201, 273.1 39, 283.1 1 2, Section 507 of Act 101

Instructions: Attach required information 8 1/2 x 11 inch sheets. Complete all items for municipal waste landfills and resource recovery facilities.

Provide a written narrative that describes the following:

1. To what extent do the county plan implementing documents submitted by the host county designate the facility to receive a specified volume of waste? **BRADS is included in the Schuylkill County Municipal Solid Waste Plan. Volumes of waste to be delivered to the landfill are not specified.**
2. To what extent do other plan implementing documents designate the facility to receive a specified volume of waste?  
**None at this time.**
3. If the facility is not provided for in the host county plan; **N/A**
  - a. Does the proposed facility interfere with the implementation of the approved plan? Explain.
  - b. Does the proposed facility interfere with municipal waste collection, storage, transportation, processing, or disposal in the host county? Explain.
  - c. Does the environmental assessment, as described in 25 Pa. Code §271.127, demonstrate that the proposed location of the facility is at least as suitable as alternative locations?

In addition, the applicant must provide evidence that the governing body of the proposed host county has received written notice of the proposed facility from the applicant according to Section 504 of the Solid Waste Management Act.

**See Form A Attachments**

2016

PREPARED BY  
THE OFFICE OF SOLID WASTE &  
RESOURCE MANAGEMENT

# Schuylkill County Municipal Solid Waste Management Plan




**Nestor Resources, Inc.**

---



# Schuylkill County Municipal Solid Waste Management Plan Update and Revision 2016



This project was paid for in part with funding made possible by an  
Act 101, Section 901 Planning Grant provided by the Pennsylvania Department  
of Environmental Protection,  
Bureau of Planning and Waste Minimization.

**PROJECT CONSULTANT  
NESTOR RESOURCES, INC.  
VALENCIA, PA**

## Acknowledgements

### **Schuylkill County Board of Commissioners**

George F. Halcovage Jr. Gary J. Hess Frank J. Staudenmeier

### **Schuylkill County Real Estate/Engineering**

Lisa Mahall, County Engineer & Real Estate Director

### **Schuylkill County Office of Solid Waste & Resource Management**

Joseph Scribbick, Recycling Coordinator

### **Project Consultant**

Michele Nestor, President

Nestor Resources, Inc.

### **Solid Waste Advisory Committee**

#### **Cities**

Tom Palamar City of Pottsville

#### **Boroughs**

Mike Devlin Schuylkill Haven Borough

#### **Townships**

Jim Thomas Cass Township

#### **Waste & Recycling Industry**

Steve Field Weiner Iron & Metal Corp.

Larry Wittig Tamaqua Transfer Station

Brett Dexter CES Landfill

Jonas Kreitzer Kreitzer Sanitation

Mike Walborn Kreitzer Sanitation

#### **Industry**

Clay Long SAPA

#### **School**

Chris Brommer Blue Mountain High School

#### **Civic Group**

Bob Stablum – SKIP



## SECTION 1 CONTRACTORS, PROPOSED FACILITIES, LEGAL FORMALITIES

Site Name	Facility		Contacts		Capacity Agreement		
	Owner	Site Location	Technical	Operational	All Required Forms and Signatures	Agreed to Contract Terms and Conditions Exceptions or Comments	Requires Put or Pay or Minimum Tonnage
Alliance Landfill	Waste Management	398 South Keyser Avenue Taylor, PA 18517	Tara Hemmer	Tara Hemmer	YES	YES	NO
Blythe Recycling & Demolition Site	FKV, LLC	PO Box 91 Cumbola, PA 17930	Rick Bodner	Charlie Nowak	YES	YES	NO
Commonwealth Environmental Landfill	Commonwealth Environmental Systems LP	9 Commonwealth Road Hegins, PA 17938	Brett Dexter	David Leung	YES	YES	NO
Conestoga Landfill	BFI Waste Systems of North America, LLC Republic Services, Inc	420 Quarry Road PO Box 128 Morgantown, PA 19543	Mark Pedersen	Mark Pedersen	YES	YES	NO
Cumberland County Landfill	Advanced Disposal Services	620 Newville Road Newburg, PA 17240	Kevin Bush	Kevin Bush	YES	YES	NO
Grand Central Landfill	Waste Management	910 W. Pennsylvania Avenue Pen Argyl, PA 18072	Scott Perin	Scott Perin	YES	YES	NO
Hyland Landfill	Casella Waste	6653 Herdman Road Angelica, NY	Joseph Boyles	Joseph Boyles	YES	YES	NO
Keystone Sanitary Landfill	Keystone Sanitary Landfill Inc	249 Dunham Drive Dunmore, PA 18512	Joe Dexter	Joe Dexter	YES	YES	NO
Lancaster County Waste to Energy Facility	Lancaster County Solid Waste Management Authority	1299 Harrisburg Pike PO Box 4425 Lancaster, PA 17604	James Warner	Robert Zorbaugh	YES	YES	NO
McKean	Casella Waste	19 Ness Lane Kane, PA 16735	Larry Shilling	Raymond Duerr	YES	YES	NO
Modern Landfill	Republic Services, Inc	4400 Mount Pisgah Road York, PA 17406	Mark Pedersen	Mark Pedersen	YES	YES	NO



## SECTION 2 PERMIT STATUS AND CONDITIONS OF OPERATIONS

Facility	Local	Permitted	Accessibility and Terms of Use			
Site Name	Host Agreements	Permit # Issuing State Expiration Date	Remaining Permitted Capacity 2014	Current Constraints or Limitations	Operating Days Per Year	Operating Hours
Alliance Landfill	Taylor Borough Ransom Township Lackawanna County	PA 100933 10/31/20	29,605,544 cyds	NONE	Monday-Saturday (305)	7:00 AM-3:00 PM Monday-Friday 7:00 AM-11:00 AM Saturday
Blythe Recycling & Demolition Site	Blythe Township Schuylkill County	PA 101679 1/20/2025	PENDING CONSTRUCTION	PENDING CONSTRUCTION	PENDING CONSTRUCTION	PENDING CONSTRUCTION
Commonwealth Environmental Landfill	Reilly Township Foster Township Frailey Township Schuylkill County	PA 101615 1/31/2017	17,516,254 cyds	NONE	Monday-Friday (305)	6:00 AM-3:00 PM Monday-Friday
Conestoga Landfill	New Morgan Borough Caernarvon Township Berks County	PA 101509 9/1/2017	19,824,585 cyds	NONE	Monday-Saturday (274)	5:00 AM-7:30 PM Monday-Friday (Sat-6:00 AM-11:00 AM)
Cumberland County Landfill	Hopewell Township North Newton Township Newburgh Borough	PA 100945 12/8/2017	14,844,127 cyds	NONE	Monday-Saturday (312)	7:00 AM-4:00 PM Monday-Friday (Sat-7:00 AM-noon)
Grand Central Landfill	Pen Argyl Borough Wind Gap Borough Plainfield Township Northampton County	PA 100265	1, 127, 993 cyds.	NONE	Monday-Saturday (305)	6:00 AM-6:00 PM Monday-Friday 6:00 AM-11:00 AM Saturday
Hyland	Angelica Allegany County, NY	NY 9-0232-00003/00002 5/1/2015	9,733,784 cyds	NONE Proposed as back-up facility only	Monday-Saturday (266)	7:00 AM-9:00 PM Monday-Saturday



## Recommendations for Disposal Facility Designation

Based upon the review and evaluation of the proposals, it was determined all of the facilities meet the established selection criteria. Some of the facilities are operating with permits that will expire before 2024. A few have capacity that could be greatly depleted during the term of the contract, but have room for expansion and design modifications. In these instances, actions to modify or renew existing permits are expected to result in approvals. One of the facilities currently has an active permit, but during the planning and procurement process it was not yet constructed and in operation. This same facility is restricted to accepting only construction and demolition waste.

All qualify to become designated disposal facilities in the Schuylkill County Municipal Solid Waste Management Plan. The facility with pending construction otherwise satisfies the requirements, and will be considered a designated facility contingent on receipt of PADEP's approval for it to physically receive waste.

In summary, the Schuylkill County Board of Commissioners will execute and enter into disposal capacity agreements with the facilities shown here. The table is arranged in alphabetical order by the owner/operator with each corresponding facility listed below.

**Table 6-1 Schuylkill County Designated Disposal Sites 2015-2024**

<b>Advanced Disposal</b> Cumberland County Western Berks Landfill	<b>Keystone Environmental (DeNaples)</b> Commonwealth Environmental Systems Landfill Keystone Sanitary Landfill
<b>FKV, LLC</b> Blythe Recycling & Demolition Site (upon approval of Construction QA & QC)	<b>Lancaster County Solid Waste Management Authority</b> LCSWMA Waste to Energy Facility Susquehanna Resource Recovery Complex
<b>Casella Waste Management</b> McKean County Landfill Hyland Landfill* *Back-up Facility:	<b>Republic Services</b> Conestoga Landfill Modern Landfill
<b>Clinton County Solid Waste Authority</b> Wayne Township Landfill	<b>Waste Management</b> Alliance Landfill Grand Central Landfill Mountain View Reclamation Landfill
<b>J.P. Mascaro &amp; Sons</b> Pioneer Crossing Landfill	<b>York County Solid Waste &amp; Refuse Authority</b> York County Resource Recovery Center

# Traffic Study



August 6, 2020

TPD# FKV.00001



TRAFFIC PLANNING AND DESIGN, INC.



## **Blythe Recycling & Demolition Site**

Transportation Impact Study

*Blythe Township, Schuylkill County*

**For Submission To:**

PADEP

# BLYTHE RECYCLING AND DEMOLITION SITE TRANSPORTATION IMPACT STUDY

FOR SUBMISSION TO:

PADEP

Prepared For:

**Blythe Township Landfill**

Charlie Nowak

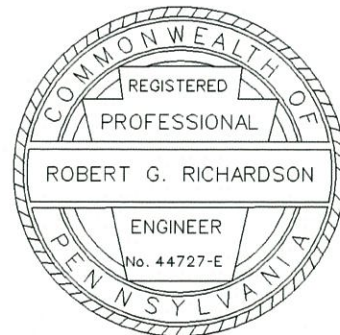
1061 Burma Road

New Philadelphia, PA 17959

August 6, 2020

**TPD # FKV.00001**

Phone: (570) 429-2023



Prepared By:

**Traffic Planning and Design, Inc.**

1720 Spillman Drive, Suite 260

Bethlehem, Pennsylvania 18015

A handwritten signature in blue ink, appearing to read "Guy Richardson", written over the printed name of Robert G. Richardson.

Phone: (610) 625-4242

E-mail: [TPD@TrafficPD.com](mailto:TPD@TrafficPD.com)

Web Site: [www.trafficpd.com](http://www.trafficpd.com)

Robert G. Richardson, P.E.

*Senior Vice President*

Pennsylvania License No. 044727-E

## Table of Contents

EXECUTIVE SUMMARY .....	i
INTRODUCTION .....	1
STUDY AREA – SITE LOCATION AND APPROACH ROUTES .....	1
EXISTING ROADWAY NETWORK.....	2
SCHEDULED ROADWAY IMPROVEMENTS.....	3
TRAFFIC VOLUME DEVELOPMENT .....	3
TRIP GENERATION .....	7
TRIP DISTRIBUTION .....	8
DRIVEWAY CLASSIFICATION.....	9
LEVELS OF SERVICE FOR AN INTERSECTION.....	9
CAPACITY ANALYSIS METHODOLOGY .....	10
LEVELS OF SERVICE IN THE STUDY AREA .....	11
AUXILIARY TURN LANE ANALYSIS .....	15

### FIGURES 1 – 12

### TECHNICAL APPENDICES

Appendix A:	Study Area Photographs
Appendix B:	Manual Traffic and ATR Count Printouts
Appendix C:	Trip Generation Documentation
Appendix D:	Volume Development Worksheets
Appendix E:	Capacity Analysis and Queue Analysis
Appendix F:	Signal Plans
Appendix G:	Critical and Follow-up Headway Calculations
Appendix H:	Auxiliary Turn Lane Warrants



## EXECUTIVE SUMMARY

The purpose of this study is to examine the potential traffic impact associated with the Blythe Recycling and Demolition Site (BRADS) expansion on the roadway network in Blythe Township, Schuylkill County, PA. Based on this evaluation, the following conclusions were reached:

- » The existing Blythe Recycling and Demolition Site (BRADS) facility located on the northern side of Burma Road (S.R. 1006), approximately 2.2 miles east of the West Hancock Street and Second Street intersection.
- » BRADS is proposing to increase the maximum tonnage from 1,500 tons per day (tpd) to 3,000 tons per day (tpd).
- » Access to the site is served by one (1) full-access roadway to Burma Road. All truck traffic will continue to enter via I-81.
- » The measured sight distance at the site driveways exceed PennDOT's acceptable sight distance requirements.
- » With the increase in tonnage, the landfill will generate approximately 36 new truck trips and 2 new car trips during the weekday A.M. peak hour and 7 new truck trips and 2 new car trips during the weekday P.M. peak hour. Note that the additional car trips are conservative as no additional employee traffic is anticipated due to the increase in tonnage.
- » Under 2030 projected conditions with the expansion of the landfill, the study area intersections will operate at the same overall intersection level of service (ILOS) as under 2030 base conditions, during the weekday A.M. and P.M. peak hours. Furthermore, all overall intersection delays fall within PennDOT's allowable 10-second variance between base (no-build) and projected (build) condition scenarios.
- » Overall intersection level of service (ILOS) at the site driveway intersections will operate at LOS A under 2030 Projected Conditions. Turning movements at site driveway intersections will operate at LOS B or better. The study area site driveways will operate at the same overall intersection level of service (ILOS) as under 2030 base conditions, during the weekday A.M. and P.M. peak hours.
- » Under 2030 projected conditions, the right and left turn lane warrants are not satisfied to any of the proposed driveways. A 300-foot westbound right-turn lane is provided into the site and will remain under future conditions.
- » Levels of Service (LOS) for the study area intersections have been summarized in matrix form. **Table I** details the overall intersection LOS for each study area intersection.

TABLE I  
OVERALL INTERSECTION LEVEL OF SERVICE SUMMARY

Intersection	Time Period	Existing	Design Year 2030		Meets LOS Requirements?
			Base	Projected	
S.R. 61 & Hancock Street	A.M. Peak	B (13.4)	B (13.6)	B (13.6)	YES
	P.M. Peak	B (17.6)	B (18.2)	B (18.3)	YES
2 <sup>nd</sup> Street & Hancock Street	A.M. Peak	B (13.4)	B (13.6)	B (13.6)	YES
	P.M. Peak	B (14.4)	B (14.5)	B (14.6)	YES
Burma Road & Site Driveway	A.M. Peak	A (1.7)	A (1.7)	A (2.9)	YES
	P.M. Peak	A (0.4)	A (0.4)	A (0.7)	YES
Burma Road & Morea Road	A.M. Peak	A (4.0)	A (4.0)	A (4.6)	YES
	P.M. Peak	A (4.2)	A (4.2)	A (4.4)	YES
I-81 SB on/off ramps & Morea Road	A.M. Peak	A (3.1)	A (3.2)	A (3.1)	YES
	P.M. Peak	A (1.3)	A (2.4)	A (2.4)	YES
I-81 SB on/off ramps & S.R. 0054/Morea Road	A.M. Peak	A (3.1)	A (3.1)	A (3.2)	YES
	P.M. Peak	A (3.0)	A (3.0)	A (3.0)	YES
I-81 NB on/off ramps & S.R. 0054	A.M. Peak	A (0.0)	A (0.0)	A (0.0)	YES
	P.M. Peak	A (0.0)	A (0.0)	A (0.0)	YES

Base = No-Build scenario

Projected = Build scenario

ILOS = Overall Intersection Level of Service; Unsignalized ILOS calculated in accordance with Figure 5 of Policies and Procedures for Transportation Impact Studies.

## INTRODUCTION

Traffic Planning and Design, Inc. (TPD) has completed a traffic impact study for the Blythe Recycling and Demolition Site (BRADS) expansion in Blythe Township, Schuylkill County, PA. As shown in **Figure 1**, the site is located on the northern side of Burma Road (S.R. 1006), approximately 2.2 miles east of the West Hancock Street and Second Street intersection. BRADS is proposing to increase the maximum tonnage from 1,500 tons per day (tpd) to 3,000 tons per day (tpd). The site plan is shown in **Figure 2**.

This report has been prepared in accordance with PennDOT's *Policies and Procedures for Transportation Impact Studies*, dated January 28, 2009.

## STUDY AREA – SITE LOCATION AND APPROACH ROUTES

### Site Description and Location

Blythe Recycling and Demolition Site (BRADS) facility is located on the northern side of Burma Road (S.R. 1006) in Blythe Township, Schuylkill County. The approach route for vehicles traveling to and from the BRADS Facility is shown on **Figure 3**. Traffic generated by the site will access Burma Road from the Interstate 81 northbound and southbound on/off ramps (Approach Route 1) and from Route 61 (Approach Route 2). ***It should be noted that all tractor-trailer trucks which desire to access the site will travel via Approach Route 1 and will be prohibited from traveling through Saint Clair Borough.***

### Approach Routes

#### APPROACH ROUTE 1

##### Entering the Site

From the I-81 northbound on/off ramps and traveling to the site, vehicles will access westbound Route 54 (S.R. 0054). At approximately 0.1 miles, Route 54 intersects with Morea Road (S.R. 1008) to form an unsignalized intersection. Vehicles will perform a left-turn movement onto westbound Morea Road. Vehicles traveling to the site which utilize the I-81 southbound on/off ramps will perform a left-turn movement from the off-ramp onto westbound Morea Road.

Vehicles will travel on Morea Road for approximately 1.2 miles to the unsignalized intersection with Burma Road (S.R. 1006). Vehicles will perform a left-turn movement onto Burma Road. The segment of Burma Road between Morea Road and the site driveway is approximately 6.3 miles. From Burma Road, vehicles will perform a right-turn movement into the site driveway. ***Again, it should be noted that all tractor-trailer trucks which desire to access the site will travel via Approach Route 1 and will be prohibited from traveling through Saint Clair Borough.***

##### Exiting the Site

From the site driveway, vehicles will perform a left-turn movement onto eastbound Burma Road and continue toward Morea Road. At the intersection of Burma Road and Morea Road, vehicles will perform a right-turn movement. Vehicles desiring to travel southbound on I-81 will perform a right-turn movement onto the southbound I-81 on-ramps, while vehicles desiring to travel northbound on I-81 will continue approximately



0.2 miles on Morea Road, perform a right-turn movement onto eastbound Route 54, and will perform a right-turn movement onto the northbound I-81 on-ramp.

#### APPROACH ROUTE 2

##### **Entering the Site**

From Route 61 and traveling to the site, vehicles will perform either a left- or right-turn movement onto West Hancock Street at the signalized intersection. At approximately 0.1 miles, West Hancock Street intersects Second Street to form a signalized intersection. Vehicles will travel through the intersection and continue eastbound on West Hancock Street, which is named Burma Road outside of Saint Clair Borough. Vehicles will travel on Burma Road for approximately 2.2 miles and perform a left-turn movement into the site driveway.

##### **Exiting the Site**

From the site driveway, vehicles will perform a right-turn movement onto westbound Burma Road and continue toward Route 61. At the intersection of West Hancock Street and Route 61, vehicles will perform either a left- or right-turn movement. ***Again, it should be noted that all tractor-trailer trucks which desire to access the site will travel via Approach Route 1 and will be prohibited from traveling through Saint Clair Borough.***

## **EXISTING ROADWAY NETWORK**

*A SURVEY OF THE EXISTING ROADWAY SYSTEM IN THE STUDY AREA IS AS FOLLOWS:*

Interstate 81 (I-81) is a four-lane, north-south, rural interstate highway with posted speed limit of 65 mph. I-81 contains an interchange (Mahanoy City) with Route 54, with two on-ramps and two off-ramps for both the northbound and southbound direction of I-81, depending on which direction a vehicle desires to travel on Route 54. The pavement and lane markings are in good condition.

Route 54 (S.R. 0054) is a four-lane, east-west, rural minor arterial with a posted speed limit of 55 miles per hour (m.p.h.) in the vicinity of the study area. Route 54 contains a separate westbound left-turn lane at its unsignalized T-intersection with Morea Road, with Morea Road as the STOP-controlled approach. The pavement and lane markings are in good condition.

Morea Road (S.R. 1008) is a two-lane, east-west rural major collector with a posted speed limit of 45 mph in the vicinity of the study area. Morea Road forms an unsignalized T-intersection with Burma Road, with Burma Road as the STOP-controlled approach. The pavement and lane markings are in good condition.

Burma Road (S.R. 1006) is a two-lane, east-west rural minor collector with a posted speed limit of 45 mph in the vicinity of the site. The pavement and lane markings are in good condition.

West Hancock Street is a two-lane, east-west local road with a posted speed limit of 25 mph in the vicinity of the study area. West Hancock Street forms a signalized intersection with Second Street. The pavement and lane markings are in fair condition.

Second Street (S.R. 1027) is a two-lane, north-south rural minor arterial with a posted speed limit of 35 mph in the vicinity of the study area. The pavement and lane markings are in fair condition.

Route 61 (Route 61 By-Pass) (S.R. 6061) is a four-lane, north-south rural principal arterial with a posted speed limit of 45 mph in the vicinity of the study area. Route 61 contains separate left-turn lanes at

its signalized intersection with West Hancock Street. The pavement and lane markings are in good condition.

The existing lane configurations for the intersections within the study area are shown in **Figure 3**. Study area photographs are included in **Appendix A**.

## SCHEDULED ROADWAY IMPROVEMENTS

### Programmed Improvements

Based on a review of the Pennsylvania Transportation Improvement Program (TIP), there are no programmed roadway improvements in the vicinity of the proposed site. There are programmed improvements along PA Route 61. These improvements include pavement resurfacing. These improvements are expected to cost a total of \$56,562,000 and are scheduled during the second and third four-year period of the PennDOT 12-Year Plan. It is TPD's understanding that the construction for this project is estimated to be completed in the year 2032. These improvements will not impact the landfill.

## TRAFFIC VOLUME DEVELOPMENT

### Existing Traffic Volumes

Manual traffic counts were conducted on 15-minute intervals during the weekday morning (7:00 to 9:00 A.M.) and weekday evening (4:00 to 6:00 P.M.) peak periods. Data pertaining to heavy vehicles, pedestrians and transit vehicles were observed during the manual counts. Peak hours and count dates for the study area intersections are identified in **Table 1**.



TABLE 1  
MANUAL TRAFFIC COUNT INFORMATION

Intersection	Date of Traffic Counts <sup>2</sup>	Time Period	Intersection Peak Hour <sup>1</sup>
S.R. 61 & Hancock Street	Tuesday May 14, 2019	Weekday A.M.	7:30 to 8:30 A.M.
		Weekday P.M.	4:00 to 5:00 P.M.
2 <sup>nd</sup> Street & Hancock Street	Tuesday May 14, 2019	Weekday A.M.	7:30 to 8:30 A.M.
		Weekday P.M.	4:15 to 5:15 P.M.
Burma Road & Site Driveway	Tuesday May 14, 2019	Weekday A.M.	7:15 to 8:15 A.M.
		Weekday P.M.	4:00 to 5:00 P.M.
Burma Road & Morea Road	Tuesday May 14, 2019	Weekday A.M.	7:15 to 8:15 A.M.
		Weekday P.M.	4:00 to 5:00 P.M.
I-81 SB on/off ramps & Morea Road	Tuesday May 14, 2019	Weekday A.M.	7:00 to 8:00 A.M.
		Weekday P.M.	4:00 to 5:00 P.M.
I-81 SB on/off ramps & S.R. 0054/Morea Road	Tuesday May 14, 2019	Weekday A.M.	7:00 to 8:00 A.M.
		Weekday P.M.	4:00 to 5:00 P.M.
I-81 NB on/off ramps & S.R. 0054	Tuesday May 14, 2019	Weekday A.M.	7:00 to 8:00 A.M.
		Weekday P.M.	4:00 to 5:00 P.M.

1 - Peak Hour consists of the four consecutive 15-minute intervals where the highest traffic volumes occur.

2 - Schools were confirmed to be in session

### Automatic Traffic Recorder Counts

24-hour Automatic Traffic Recorder (ATR) counts were conducted along the BRADS access road east and west of the existing driveway to Burma Road in order to determine the existing traffic volumes/patterns from 6:00 A.M. to 7:00 P.M. on a typical work day.

The ATR counts were conducted on Wednesday, May 15 2019. The weekday A.M. peak hour occurred from 7:00 to 8:00 A.M. and the weekday P.M. peak hour occurred from 4:00 to 5:00 P.M.

Existing condition traffic volumes for the weekday A.M. and weekday P.M. peak hours are illustrated in **Figures 4-5**. Manual traffic count data sheets are provided in **Appendix B**.

### Roadway and Bridge Conditions

The approach routes are free of constrictive roadway deficiencies such as one-lane or narrow bridges and vertical clearance restrictions. It should also be noted the pavement and lane markings along the approach routes are in good or fair condition, except for the northbound Second Street approach to West Hancock Street, which indicates some deterioration and rutting. A 10-Ton Weight Limit exists for the segment of West Hancock Road between Second Street and Route 61. **Again, it should be noted that all tractor-trailer trucks which desire to access the site will travel via Approach Route 1 and will be prohibited from traveling through Saint Clair Borough.**

TPD also observed two (2) golf-cart crossing tunnels underneath Burma Road associated with the nearby golf course (Mountain Valley Golf Course). No signage is associated with these tunnel crossings.



## Traffic Congestion

The approach routes were observed in the field to determine if any areas along these roadway segments are congested now or may be congested within the next ten years. As will be discussed later in the report, all intersections within the study will operate at acceptable levels of service for Base (no-build) and Projected (build) Conditions for Year 2030.

## Land Use Context

Burma Road (S.R. 1006): In addition to being fronted primarily by wooded areas, land uses along Burma Road include a golf course (containing a minimum 30-foot wide vegetation buffer) and construction-material demolition sites.

Morea Road (S.R. 1008): Morea Road is fronted by a gas station and hotel near its intersection with Route 54, as well as construction-material demolition sites and a cemetery.

West Hancock Street: West Hancock Street is located within Saint Clair Borough and is fronted by retail uses, residential uses, a church, and a school. A number of these structures are located within 50 feet of the West Hancock edge-of-pavement and are located more than two (2) miles from the proposed site entrance.

## Intersection Turning Radii

Based upon field observations, all intersection turning radii appear to be adequate at each of the intersections along the approach routes. No trucks were observed to encroach on opposing travel lanes or curb radii.

## Horizontal Alignment

There are no locations along the approach routes where horizontal alignment or lane widths will limit the accessibility to the proposed site. There is no evidence of shoulder or opposing lane encroachment along the approach routes. It should be noted that TPD observed speed advisory signs along Burma Road due to the horizontal alignment.

## Roadside Clear Zone

Burma Road maintains approximately four to six-foot wide shoulders throughout the approach routes and contains guiderail along most horizontal curves. There are no locations where conditions would result in roadside obstructions.

## Grades

There are no locations where long steep grades, hazardous grade speed limits, truck pull-off areas, or truck escape ramps exist along the approach routes that would cause undue vehicle delay. Burma Road contains some segments of roadway with an approximate grade of 4% (+4% northbound). Many of these segments along the length of grades contain a passing zone. Therefore, due to the existence of appropriate passing zones, the vertical alignment of the approach routes is such that no undue safety concerns were found for vehicles accessing the proposed site.

## Underclearance

Approach Route 1 contains an underpass along Burma Road due to the I-81 crossing. This underpass is signed as 14 feet, 0 inches. Therefore, the approach routes contain adequate underclearance for all anticipated vehicles traveling to and from the proposed site.

## Additional Roadway Characteristics

It should be noted that no residences exist along Burma Road in the vicinity of the site that would require a bus stop. Other observed additional roadway characteristics, including curvature, grades, lane widths, clear zones, underclearance, sight distance, or lane lengths, have been determined to be such that no undue safety concerns will exist for vehicles accessing the proposed site.

## Environmental Impacts

It is TPD's opinion that based upon the amount of vehicles and vehicle-types anticipated to be generated by the proposed site, and based upon field inspection, there are no land uses such as parks, playgrounds, recreation areas, forests, picnic areas, natural landmarks, wild areas, wetlands, public water supplies, historic sites, or other areas that will experience adverse environmental impacts from a transportation perspective.

## BASE (NO-BUILD) CONDITIONS

### Annual Background Growth

A background growth factor for the roadways in the study area was developed based on growth factors for August 2020 to July 2021 obtained from the PennDOT Bureau of Planning and Research (BPR). The PennDOT BPR suggests using a background growth trend factor of 0.31% per year in Schuylkill County for rural non-interstate roadways. As such, the background growth factor was applied annually to yield overall growth percentages of 3.14% (0.31% per year, compounded over 10 years) for the 2030 design year.

### 2030 Base (No-Build) Conditions volume Development

The additional traffic volumes due to background growth were added to the existing traffic data to produce 2030 base (no-build) condition traffic volumes. Base condition volumes for the weekday A.M. and weekday P.M. peak hours are illustrated in **Figures 7-8** for the 2030 design year conditions.

## SITE ACCESS

Access to the site is provided by one full-access driveway on Burma Road, located approximately 2.2 miles east of the intersection of West Hancock Street and Second Street. It should be noted that this driveway has been designed to accommodate WB-62 vehicles which will access the site via Approach Route 1. No changes are anticipated due to the increase in tonnage.



## Sight Distance Analysis

A sight distance analysis was prepared for the proposed site driveway. In general, recommended safe sight distances depend upon the posted speed limit and roadway grades. The existing sight distances at the proposed driveways were measured in accordance with PennDOT Publication 282 Highway Occupancy Permit Guidelines and compared to PennDOT's desirable sight distance standard, which is identified in 67 PA Code Chapter 441.8(h), "Access to and Occupancy of Highways by Driveways and Local Roads." In addition, measured sight distances at the proposed driveways were compared to PennDOT's safe stopping sight distance standard, which is calculated by the following equation:

$$SSSD = 1.47VT + V^2/[30(f \pm g)]$$

SSSD = safe stopping sight distance (acceptable sight distance)

V = Vehicle Speed

T = Perception Reaction Time of Driver (2.5 seconds)

f = Coefficient of Friction for Wet Pavements

g = Percent of Roadway Grade Divided by 100

**Table 2** shows the measured, desirable, acceptable (SSSD), and required sight distances at the site driveway on Burma Road for vehicles entering and exiting the site.

TABLE 2  
SIGHT DISTANCE ANALYSIS  
SITE DRIVEWAY TO BURMA RD

	Direction	Speed	Grade <sup>1</sup>	Sight Distances (feet)			
				TRUCK DES	CAR DES	SSSD	EXIST
Exiting Movements	To the left	45 mph	-1%	1225	635	390	620'
	To the right	45 mph	+1%	1225	570	376	750'
Entering Left Turns	Approaching same direction	45 mph	+1%	690	445	376	760'
	Approaching opposite direction	45 mph	-1%	690	445	390	715'

DES = PennDOT Desirable Sight Distance

SSSD = PennDOT Acceptable Sight Distance

EXIST = Existing (measured) Sight Distance

<sup>1</sup> = Roadway Grade Approaching Driveway

As shown in **Table 2**, all existing sight distances at the proposed driveway location will exceed PennDOT's acceptable sight distance requirements, and in most cases will exceed PennDOT's desirable sight distance requirements, with the removal of existing vegetation on the northern side of Burma Road, along the site frontage.

## TRIP GENERATION

TPD determined trip generation for the proposed Blythe Recycling and Demolition Site expansion based upon information obtained from the client. The following activities anticipated to be performed at the proposed expansion, and the associated truck traffic, are shown in **Table 3**.



TABLE 3  
TRIP GENERATION CALCULATIONS  
PROPOSED LANDFILL EXPANSION

Site Characteristics	Existing	Proposed	Percent Increase
Maximum Capacity	1,500 tons	3,000 tons	100%
Average Capacity	1237.26 tons	3,000 tons <sup>1</sup>	142%
Truck Volume <sup>2</sup>	~13 A.M. Peak Hour trucks ~2.5 P.M. Peak Hour trucks	18 New A.M. Peak Hour trucks 3.5 New P.M. Peak Hour trucks	142%

<sup>1</sup> = Conservative estimate of average capacity. Proposed average capacity will likely be lower than maximum capacity.

<sup>2</sup> = Existing truck trips are calculated by a 19 day existing average provided by the BRADS landfill site.

As shown in **Table 3**, the average capacity is projected to increase by 142 percent. Therefore, the existing truck average volumes are anticipated to grow by 142 percent.

**Table 4** indicates the anticipated 142 percent growth of weekday A.M and weekday P.M peak hour trip generation of the proposed landfill expansion.

TABLE 4  
TRIP GENERATION SUMMARY

Time Period	Scenario	Entering			Exiting			Combined		
		Cars	Trucks	Total	Cars	Trucks	Total	Cars	Trucks	Total
AM Peak	Existing Conditions	2	8	10	1	22	23	3	30	33
	New Trips	1	10	11	1	26	27	2	36	38
	Projected Conditions	3	18	21	2	48	50	5	66	71
PM Peak	Existing Conditions	2	0	2	10	0	10	12	0	12
	New Trips	1	1	2	1	6	7	2	7	9
	Projected Conditions	3	1	4	11	6	17	14	7	21

Based on the trip generation summary in **Table 4**, the proposed landfill expansion will generate 38 new trips during the weekday A.M. peak hour and 9 new trips during the weekday P.M. peak hour. Trip generation supporting documentation is included in **Appendix C**.

## TRIP DISTRIBUTION

The distribution of trips generated by the proposed development was based on the local road network, the existing traffic patterns, the proposed use of the site, the site access driveway location, and types of vehicles accessing the site. The trip distribution percentages for new trips are shown in **Table 5** below.

TABLE 5  
TRIP DISTRIBUTION PERCENTAGES – New Trips

Direction - To/From	Assignment (To/From)	Distribution Percentage	
		Car	Truck
North	via Northbound I-81	4%	50%
	via Route 61	45%	0%
South	via Southbound I-81	4%	50%
	via Route 61	45%	0%

The trip distributions for the proposed development during the weekday A.M. and P.M peak hours are shown in **Figures 8-9**.

## PROJECTED (BUILD) CONDITION TRAFFIC VOLUMES

The site-generated trips for the proposed development were added to the 2030 base (no-build) condition traffic volumes to develop 2030 projected (build) condition traffic volumes.

Projected condition traffic volumes for the design year of 2030 for the weekday A.M. and P.M. peak hours are shown in **Figures 10-11**. Traffic volume development worksheets are contained in **Appendix D**.

## DRIVEWAY CLASSIFICATION

Driveways intersecting state roads are classified in the Pennsylvania Code, Title 67, Chapter 441. Low volume driveways are used by 25 to 750 vehicles per day. A medium volume driveway is used by 750 to 1500 vehicles per day. High volume driveways are used by more than 1500 vehicles per day. Based on the anticipated site trip generation and the assignment of site traffic, the classifications of the site driveway is listed in **Table 6**.

TABLE 6  
DRIVEWAY CLASSIFICATIONS

State Road	Driveway	Weekday Trips	Weekday Vehicles	Driveway Type
Burma Road (S.R. 1006)	Full Access Driveway	Existing: 290	Existing: 145	Low volume
		Proposed: 414	Proposed: 207	Low Volume

*Note: A "trip" equals an entering or an exiting vehicle. Therefore, weekday vehicles = weekday trips/2.*

The site driveway is currently classified as a low volume driveway. Under proposed conditions, the driveway will remain classified as a low volume driveway.

## LEVELS OF SERVICE FOR AN INTERSECTION

For analysis of intersections, level of service is defined in terms of delay, which is a measure of driver discomfort and frustration, fuel consumption, and lost travel time. Level of service (LOS) criteria is stated in terms of



control delay per vehicle for a one-hour analysis period. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The criteria are shown in **Table 7**. Delay, as it relates to level of service, is a complex measure and is dependent upon a number of variables. For signalized intersections, these variables include the quality of vehicle progression, the cycle length, the green time ratio, and the volume/capacity ratio for the lane group in question. For unsignalized intersections, delay is related to the availability of gaps in the flow of traffic on the major street and the driver's discretion in selecting an appropriate gap for a particular movement from the minor street (straight across, left or right turn).

TABLE 7  
LEVEL OF SERVICE CRITERIA  
UNSIGNALIZED AND SIGNALIZED INTERSECTIONS <sup>1</sup>

Level of Service	Control Delay Per Vehicle (Seconds)	
	Signalized	Unsignalized
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 or v/c > 1.0	> 50 or v/c > 1.0

<sup>1</sup> Obtained from Exhibits 18-4 and 19-1 of the Transportation Research Board's *Highway Capacity Manual 2010*

## CAPACITY ANALYSIS METHODOLOGY

Capacity analyses were conducted for the weekday A.M. and P.M. peak hours at the study area intersections. These analyses were conducted according to the methodologies contained in the *Highway Capacity Manual* (HCM) 6<sup>th</sup> Edition using *Synchro 10* software.

The following conditions were analyzed, as applicable:

- » Existing conditions;
- » 2030 Base conditions (Build-out year without expansion);
- » 2030 Projected conditions (Build-out year with expansion).

It should be noted that based on methodologies contained in Chapter 10 of PennDOT's Publication 46, TPD adjusted the following HCM 6<sup>th</sup> Edition default values in the *Synchro 10* capacity analysis. These adjustments were made at the signalized intersections within the study area for all time periods based on the study area location being classified as Suburban:

- » Base saturation flow rates for signalized intersections. The saturation flow rate was changed from the default value of 1900 to 1800 based on Exhibit 10-9.
- » Start-up lost time and extension of effective green time for signalized intersections. The startup lost time was changed from the default value of 2.0 seconds to 2.5 seconds. Based on the total clearance time (yellow plus all-red time) being greater than 5 seconds, the extension of green time was changed from the default value of 2 seconds to 3.5 seconds. These adjusted values were based on Exhibit 10-10.

In addition, capacity analyses were conducted at the proposed site driveway intersections under the 2030 projected conditions. The capacity analysis worksheets are included in **Appendix E**. The PennDOT-approved signal plans are included in **Appendix F**.



PennDOT's Transportation Impact Study Guidelines outlined in Strike-Off Letter 470-09-4, dated February 12, 2009 contain the following criteria regarding levels of service:

- » Page 29 of the Guidelines state that if evaluation of the With Development Horizon Year Scenario to the Without Development Horizon Year Scenario indicates that the overall intersection level of service has dropped, the applicant will be required to mitigate the level of service if the increase in overall intersection delay is greater than 10-seconds. If the overall intersection delay increase is less than or equal to 10-seconds, mitigation of the intersection will not be required.
- » Page 29 of the Guidelines state that for mitigation scenarios, applicants are expected to mitigate the overall intersection LOS to the original Without Development LOS; the 10-second delay variance is not applied to mitigation scenarios. Applicants may be required to address available storage and queue lengths at critical movements or approaches even if the overall LOS requirements are met.
- » Page 31 of the Guidelines state that if signalization is the preferred alternative for mitigation, overall intersection LOS C in rural areas and LOS D in urban areas is acceptable.
- » Page 31 of the Guidelines states new signalized or unsignalized intersection established to serve as access to the development shall be designed to operate at minimum LOS C for rural areas, and minimum LOS D for urban areas.
- » The capacity analyses included manually calculated critical headways and follow-up headways per the Highway Capacity Manual (HCM) 6<sup>th</sup> Edition Chapter 19, Two-Way Stop-Controlled Intersections. Critical and follow-up headway calculation worksheets are included in **Appendix G**.

## LEVELS OF SERVICE IN THE STUDY AREA

Level of service (LOS) matrices for the study area intersections are shown in **Table 8** for the weekday A.M. and weekday P.M. peak hours.

TABLE 8  
LEVEL OF SERVICE DELAY (SECONDS) SUMMARY

Intersection	Movement	Weekday A.M. Peak Hour			Weekday P.M. Peak Hour		
		Existing Condition	Design Year 2030		Existing Condition	Design Year 2030	
			Base	Projected		Base	Projected
S.R. 61 & Hancock Street	EB L/T/R	C	C	C	C	C	C
	WB L/T/R	C	C	C	C	C	C
	NB L	C	C	C	C	C	C
	NB T/R	B	B	B	B	B	B
	SB L/T	C	C	C	C	C	C
	SB R	B	B	B	B	B	B
	ILOS	B (13.4)	B (13.6)	B (13.6)	B (17.6)	B (18.2)	B (18.3)
2 <sup>nd</sup> Street & Hancock Street	EB L/T/R	B	B	B	C	C	C
	WB L/T/R	B	B	B	B	B	B
	NB L/T/R	A	A	A	A	A	A
	SB L/T/R	A	A	A	A	A	A
	ILOS	B (13.4)	B (13.6)	B (13.6)	B (14.4)	B (14.5)	B (14.6)
Burma Road & Site Driveway	EB L/T	A	A	A	A	A	A
	WB T/R	A	A	A	A	A	A
	SB L	B	B	B	A	A	A
	ILOS	A (1.7)	A (1.7)	A (2.9)	A (0.4)	A (0.4)	A (0.7)
Burma Road & Morea Road	EB T/R	A	A	A	A	A	A
	WB L/T	A	A	A	A	A	A
	NB L	B	B	B	B	B	B
	ILOS	A (4.0)	A (4.0)	A (4.6)	A (4.2)	A (4.2)	A (4.4)
I-81 SB on/off ramps & Morea Road	EB T/R	A	A	A	A	A	A
	WB L/T	A	A	A	A	A	A
	NB L	A	A	B	A	A	A
	ILOS	A (3.1)	A (3.2)	A (3.1)	A (1.3)	A (2.4)	A (2.4)
I-81 SB on/off ramps & S.R. 0054/Morea Road	EB L/T	B	B	B	B	B	B
	EB R	A	A	A	A	A	A
	WB L/T	A	A	A	A	A	A
	WB R	A	A	A	A	A	A
	NB L/T	A	A	A	A	A	A
	NB R	A	A	A	A	A	A
	SB R	A	A	A	A	A	A
	ILOS	A (3.1)	A (3.1)	A (3.2)	A (3.0)	A (3.0)	A (3.0)
I-81 NB on/off ramps & S.R. 0054	EB L/T	A	A	A	A	A	A
	EB R	A	A	A	A	A	A
	WB L	A	A	A	A	A	A
	NB L/T	A	A	A	A	A	A
	NB R	A	A	A	A	A	A
	SB R	A	A	A	A	A	A
	ILOS	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)

Base = No-Build scenario / Projected = Build scenario

ILOS = Overall Intersection Level of Service;

Unsignalized ILOS calculated in accordance with Figure 5 of Policies and Procedures for Transportation Impact Studies.

As shown in **Table 8**, under 2030 projected conditions the study area intersections will operate at an acceptable **overall intersection level of service (ILOS) B or better, similar to 2030 base conditions**, during the weekday A.M. and P.M. peak hours.

All approaches and turning movements at the site driveway intersections will operate at **LOS B or better** under 2030 projected conditions during the weekday A.M. and P.M. peak hours. All levels of service at the study area intersections comply with the requirements outlined in PennDOT's TIS Guidelines.

## **95TH PERCENTILE QUEUE ANALYSIS**

Queue analyses were conducted at the study area intersections using *Synchro 10* software. For this analysis, the 95<sup>th</sup> percentile queue is defined as the queue length that is exceeded in 5% of the signal cycles. As an example, for a signal with a 90-second cycle, this means that the 95<sup>th</sup> percentile queue length will be exceeded during 2 of the 40 signal cycles that occur during the peak hour. The queue analysis results are summarized in **Table 9** for the analyzed peak hours.



TABLE 9  
95TH PERCENTILE QUEUE ANALYSIS

Intersection	Movement	Base 2030 Conditions			Projected 2030 Conditions		
		Existing Storage	A.M. Peak Hour	P.M. Peak Hour	Proposed Storage	A.M. Peak Hour	P.M. Peak Hour
S.R. 61 & Hancock Street	EB L/T/R	--	73	125	--	73	125
	WB L/T/R	--	73	85	--	73	85
	NB L	190'	8	40	190'	8	40
	NB T/R	--	65	228	--	65	228
	SB L	190'	40	85	190'	40	85
	SB T/R	--	95	115	--	95	115
2 <sup>nd</sup> Street & Hancock Street	EB L/T/R	--	98	170	--	100	170
	WB L/T/R	--	78	50	--	78	50
	NB L/T/R	--	60	78	--	60	78
	SB L/T/R	--	10	8	--	10	8
Burma Road & Site Driveway	EB L/T	--	0	0	--	0	0
	WB T	--	0	0	--	0	0
	WB R	300'	0	0	300'	0	0
	SB L/R	--	3	0	--	8	3
Burma Road & Morea Road	EB T/R	--	0	0	--	0	0
	WB L/T	--	5	5	--	5	5
	NB L/R	--	10	15	--	13	15
I-81 SB on/off ramps & Morea Road	EB T/R	--	0	0	--	0	0
	WB L/T	--	3	3	--	3	3
	NB L/R	--	8	5	--	10	5
I-81 SB on/off ramps & S.R. 0054/Morea Road	EB L	--	0	5	--	0	5
	EB R	300'	0	0	300'	0	0
	WB R	--	3	5	--	3	5
	NB L	110'	10	5	110'	10	5
	NB T	--	0	0	--	0	0
	NB R	--	0	0	--	0	0
	SB T/R	--	0	0	--	0	0
I-81 NB on/off ramps & S.R. 0054	EB T	--	0	0	--	0	0
	EB R	--	0	0	--	0	0
	WB L	90'	0	0	90'	0	0
	WB T	--	0	0	--	0	0
	NB R	--	0	0	--	0	0
	SB R	--	0	0	--	0	0

Base = No-Build scenario / Projected = Build scenario

As shown in **Table 9**, all of the projected condition queues are comparable to the base (no-build) conditions.

Queue analysis worksheets are included with the capacity analysis worksheets provided in **Appendix E**.

## AUXILIARY TURN LANE ANALYSIS

TPD evaluated auxiliary turn lane warrants at the site access intersections. The warrant analysis methodology contained within Chapter 11 of PennDOT's *Publication 46*, Section 11.17 and Strike-Off Letter 470-08-07 was utilized for this evaluation.

### Findings

**Table 10** summarizes the results of the auxiliary turn lane analysis at the site access intersections.

TABLE 10  
AUXILIARY TURN LANE ANALYSIS SUMMARY

Intersection	Auxiliary Lane	Warrant Satisfied?		Required Lane Length	Existing Lane Length	Projected Lane Length
		AM	PM			
Burma Road & Site Driveway	EB Left-Turn Lane	No	No	--	--	--
	WB Right-Turn Lane	No	No	--	300'	300'

Based on the criteria outlined above, under 2030 projected conditions at Burma Road & Site Driveway intersection, left-turn lane warrants are not satisfied for movements into the site.

Based on the criteria outlined above, under 2030 projected conditions at the Burma Road & Site Driveway intersection, right-turn lane warrants are not satisfied for movements into the site. A 300-foot westbound right-turn lane is provided into the site and will remain under future conditions.

Auxiliary turn lane warrant analysis worksheets are contained in **Appendix H**.

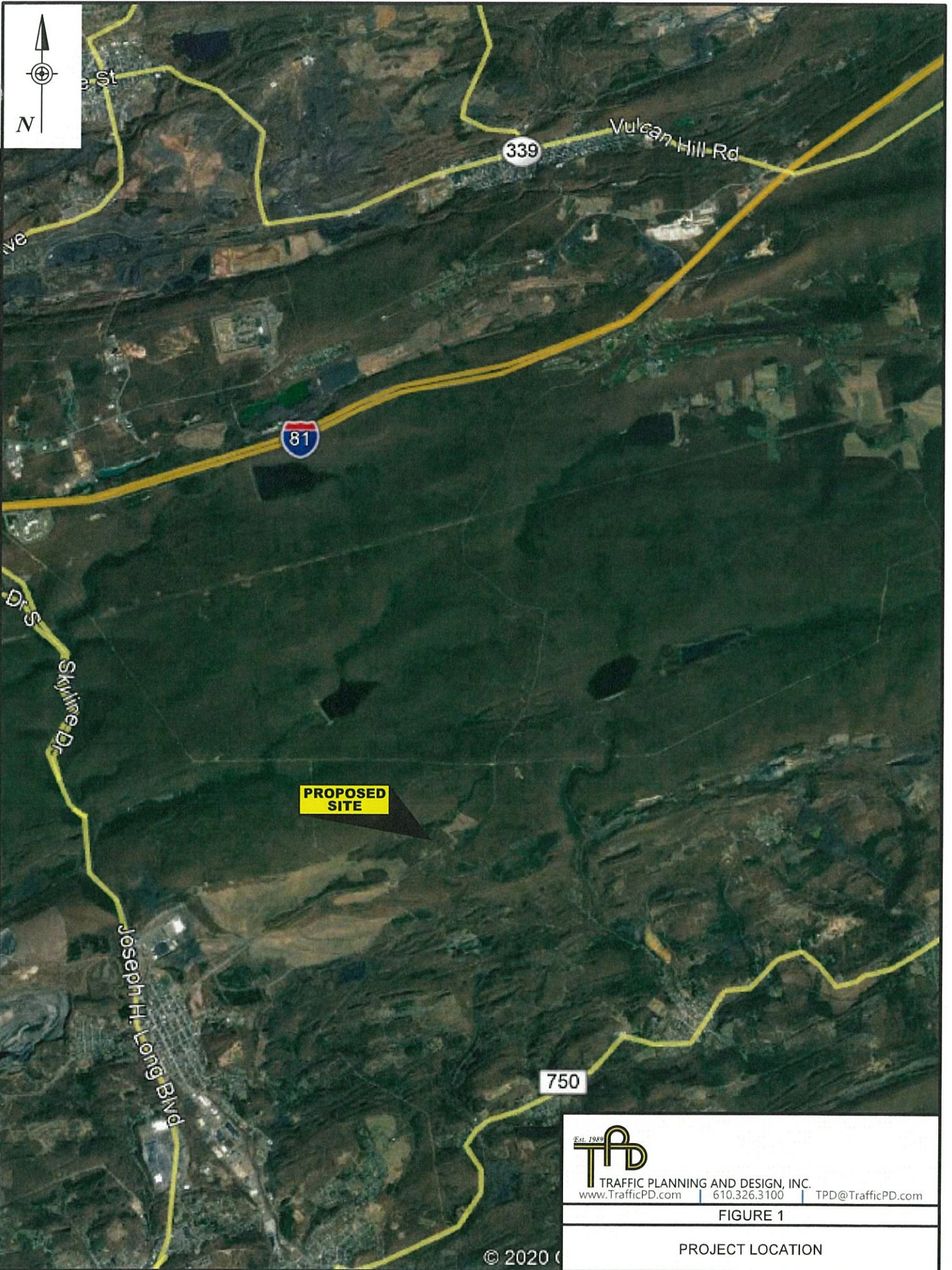
## CONCLUSIONS

Based on the results of the Transportation Impact Assessment (TIA) for the proposed landfill expansion, TPD offers the following conclusions:

- » The existing Blythe Recycling and Demolition Site (BRADS) facility located on the northern side of Burma Road (S.R. 1006), approximately 2.2 miles east of the West Hancock Street and Second Street intersection.
- » BRADS is proposing to increase the maximum tonnage from 1,500 tons per day (tpd) to 3,000 tons per day (tpd).
- » Access to the site is served by one (1) full-access roadway to Burma Road. All truck traffic will continue to enter via I-81.
- » The measured sight distance at the site driveways exceed PennDOT's acceptable sight distance requirements.
- » With the increase in tonnage, the landfill will generate approximately 36 new truck trips and 2 new car trips during the weekday A.M. peak hour and 7 new truck trips and 2 new car trips during the weekday P.M. peak hour. Note that the additional car trips are conservative as no additional employee traffic is anticipated due to the increase in tonnage.

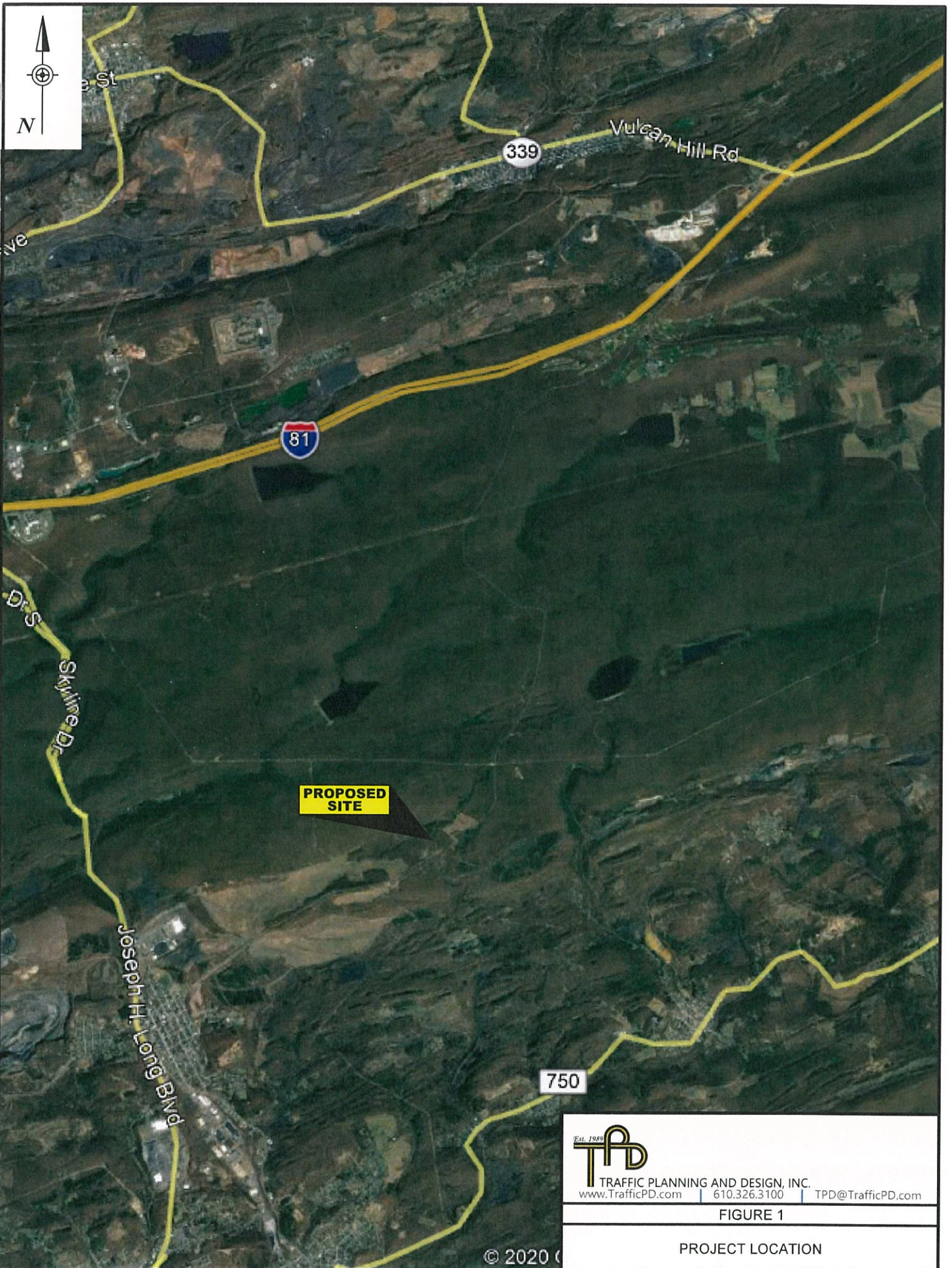
- Under 2030 projected conditions with the expansion of the landfill, the study area intersections will operate at the same overall intersection level of service (ILOS) as under 2030 base conditions, during the weekday A.M. and P.M. peak hours. Furthermore, all overall intersection delays fall within PennDOT's allowable 10-second variance between base (no-build) and projected (build) condition scenarios.
- Overall intersection level of service (ILOS) at the site driveway intersections will operate at LOS A under 2030 Projected Conditions. Turning movements at site driveway intersections will operate at LOS B or better. The study area site driveways will operate at the same overall intersection level of service (ILOS) as under 2030 base conditions, during the weekday A.M. and P.M. peak hours.
- Under 2030 projected conditions, the right and left turn lane warrants are not satisfied to any of the proposed driveways. A 300-foot westbound right-turn lane is provided into the site and will remain under future conditions.





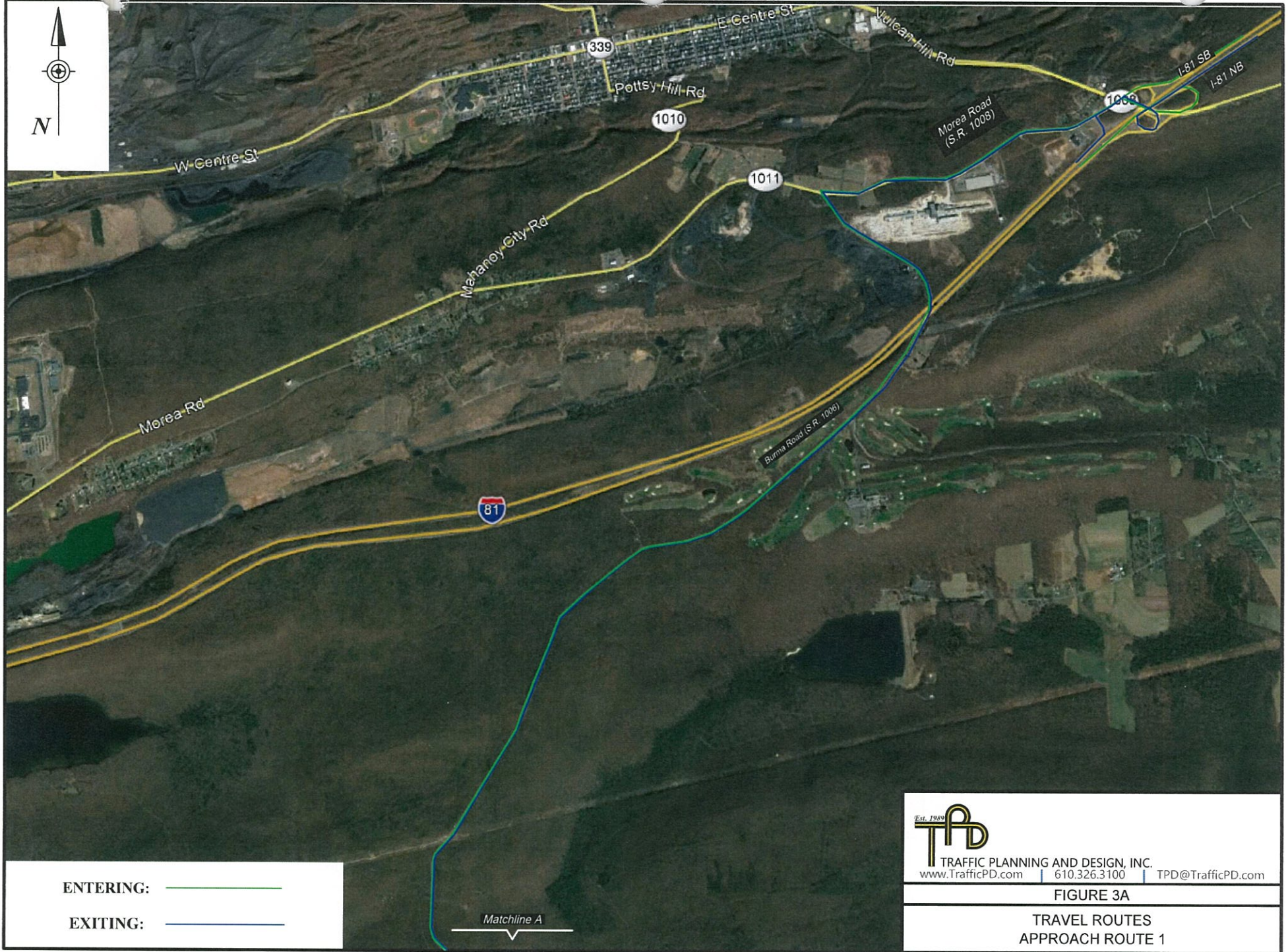
c:\pwork\hnp\project\1052526\NPKV\_00001\_Figures.dgn  
7/10/2020 11:02:11 AM  
1001



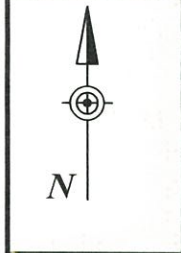


c:\pwork\proj\project\arterial\052526\FKV\_00001\_Figures.dgn  
1/10/2020 11:02:14  
lshattler









Matchline A

**PROPOSED SITE**

SITE DRIVEWAY

BURMA ROAD (S.R. 1006)

61

S.R. 0061

N 2nd St

E Hancock Street

HWY

HWY 1006

750

Valley St

N Valley St

Lake Run Rd

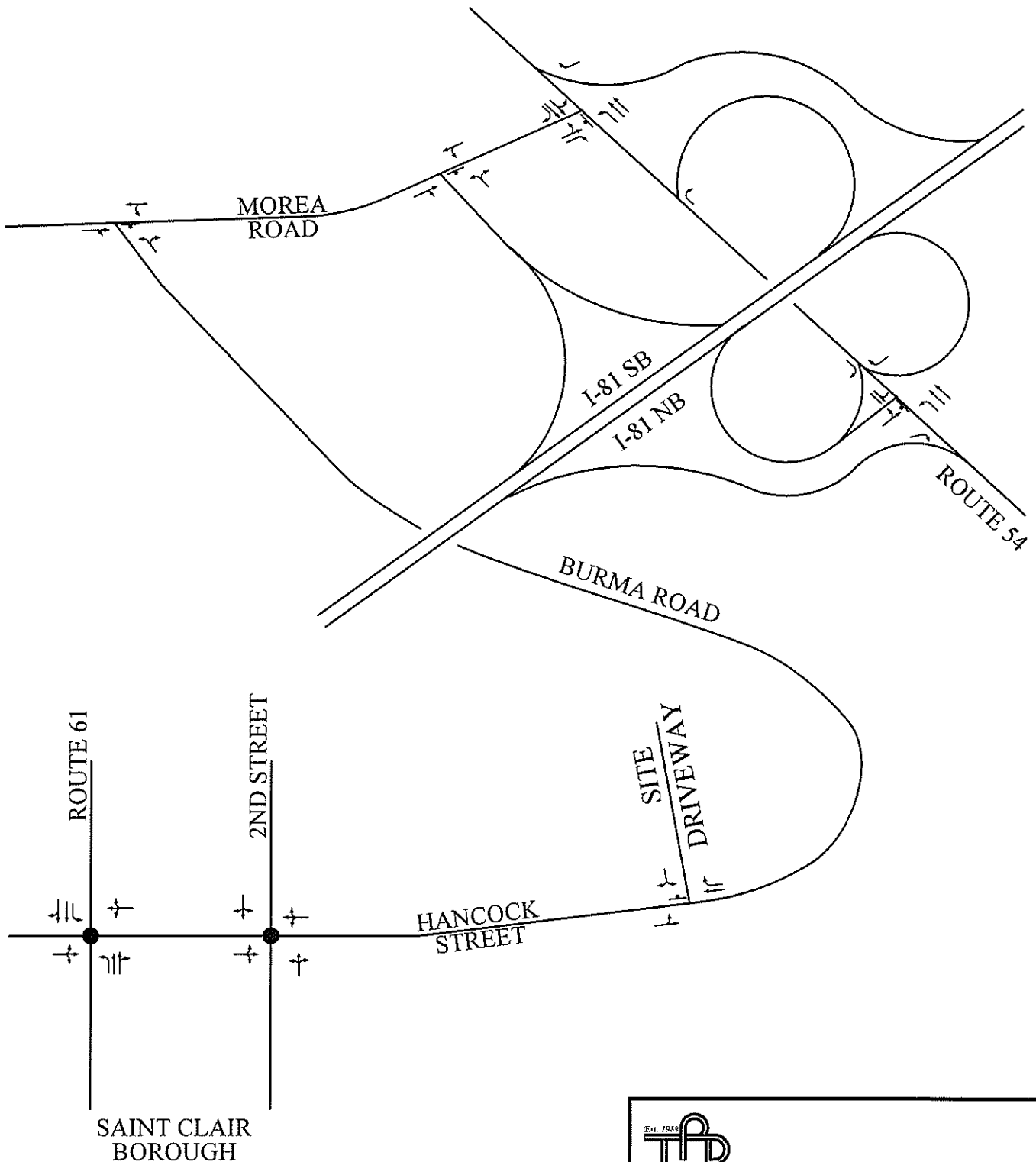
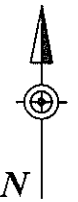
ENTERING: \_\_\_\_\_  
EXITING: \_\_\_\_\_



TRAFFIC PLANNING AND DESIGN, INC.  
www.TrafficPD.com | 610.326.3100 | TPD@TrafficPD.com

FIGURE 3B

TRAVEL ROUTES  
APPROACH ROUTE 2



**KEY:**

- STOP CONTROLLED
- SIGNALIZED INTERSECTION

SCHEMATIC DRAWING: NOT TO SCALE

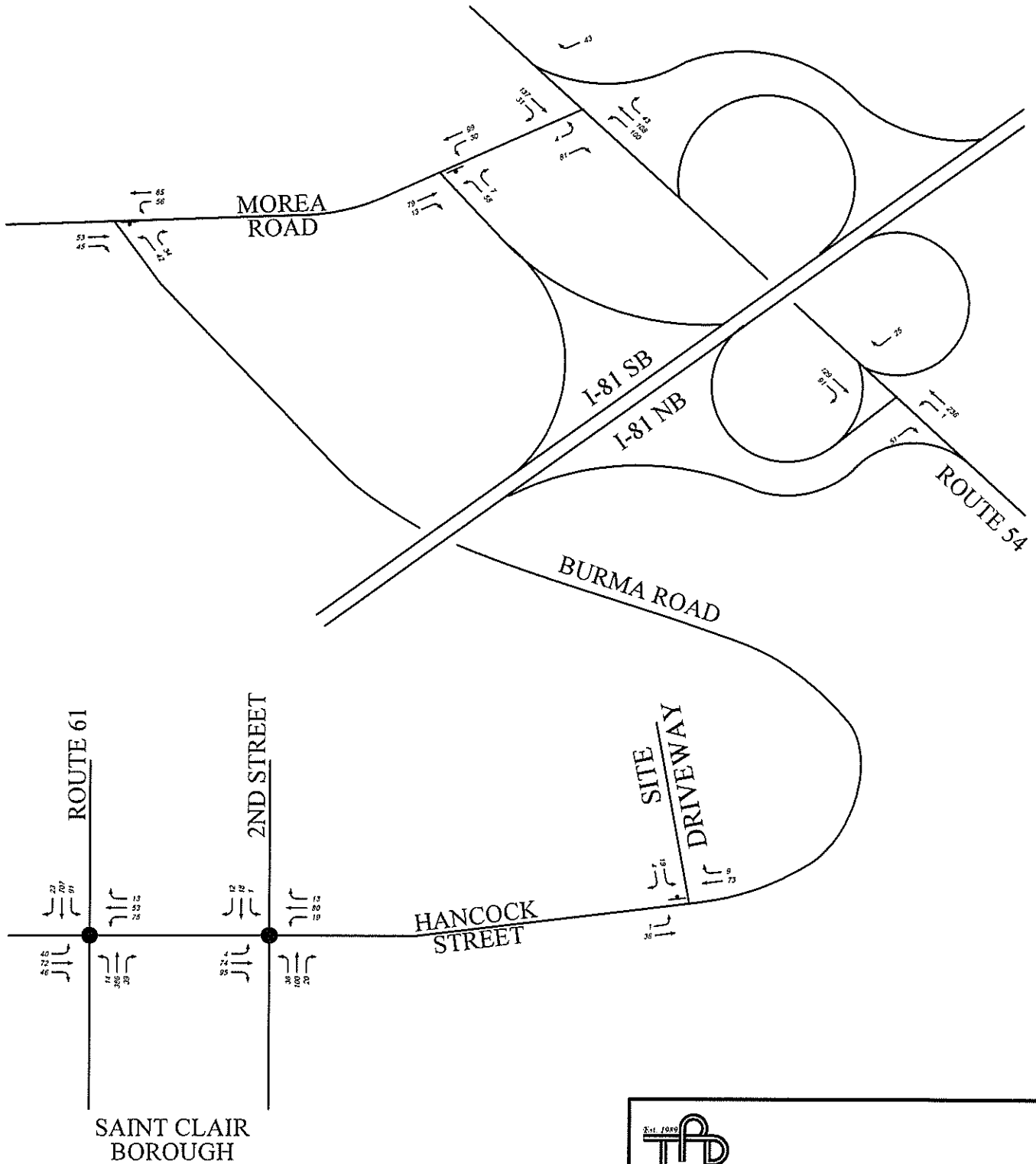


TRAFFIC PLANNING AND DESIGN, INC.  
[www.TrafficPD.com](http://www.TrafficPD.com) | 610.326.3100 | [TPD@TrafficPD.com](mailto:TPD@TrafficPD.com)

FIGURE 4

EXISTING LANE CONFIGURATION

Counts were conducted on Tuesday, May 14, 2019



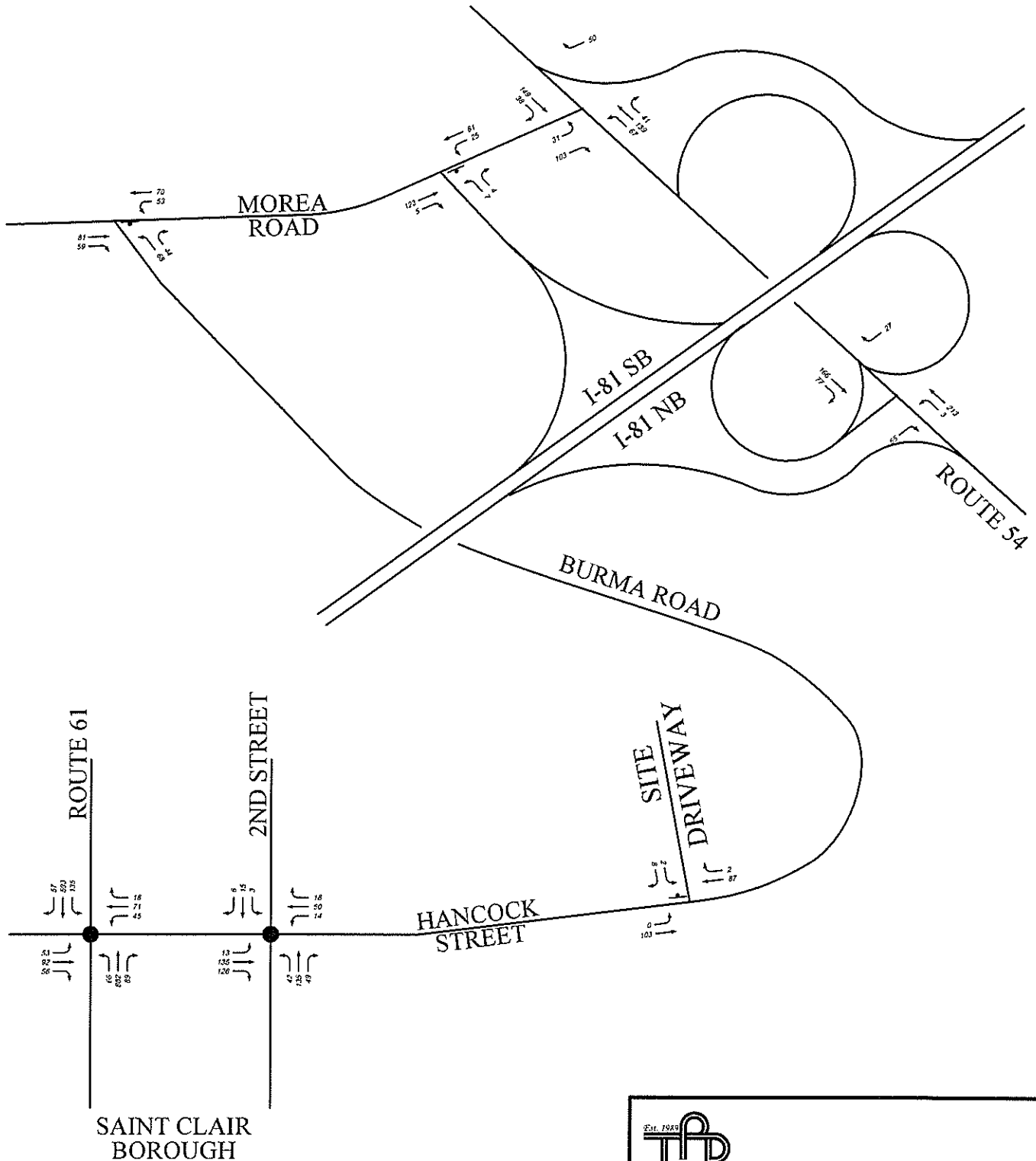
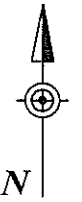
**KEY:**  
 — STOP CONTROLLED  
 ● SIGNALIZED INTERSECTION  
 SCHEMATIC DRAWING: NOT TO SCALE

**TRAFFIC PLANNING AND DESIGN, INC.**  
[www.TrafficPD.com](http://www.TrafficPD.com) | 610.326.3100 | [TPD@TrafficPD.com](mailto:TPD@TrafficPD.com)

**FIGURE 5**  
 EXISTING CONDITIONS  
 A.M. PEAK HOUR  
 TRAFFIC VOLUMES

atter\41052526VNY.00001.Figures.dgn  
 7/26/2020 3:02 PM  
 L:\net\lrc





**KEY:**

- STOP CONTROLLED
- SIGNALIZED INTERSECTION

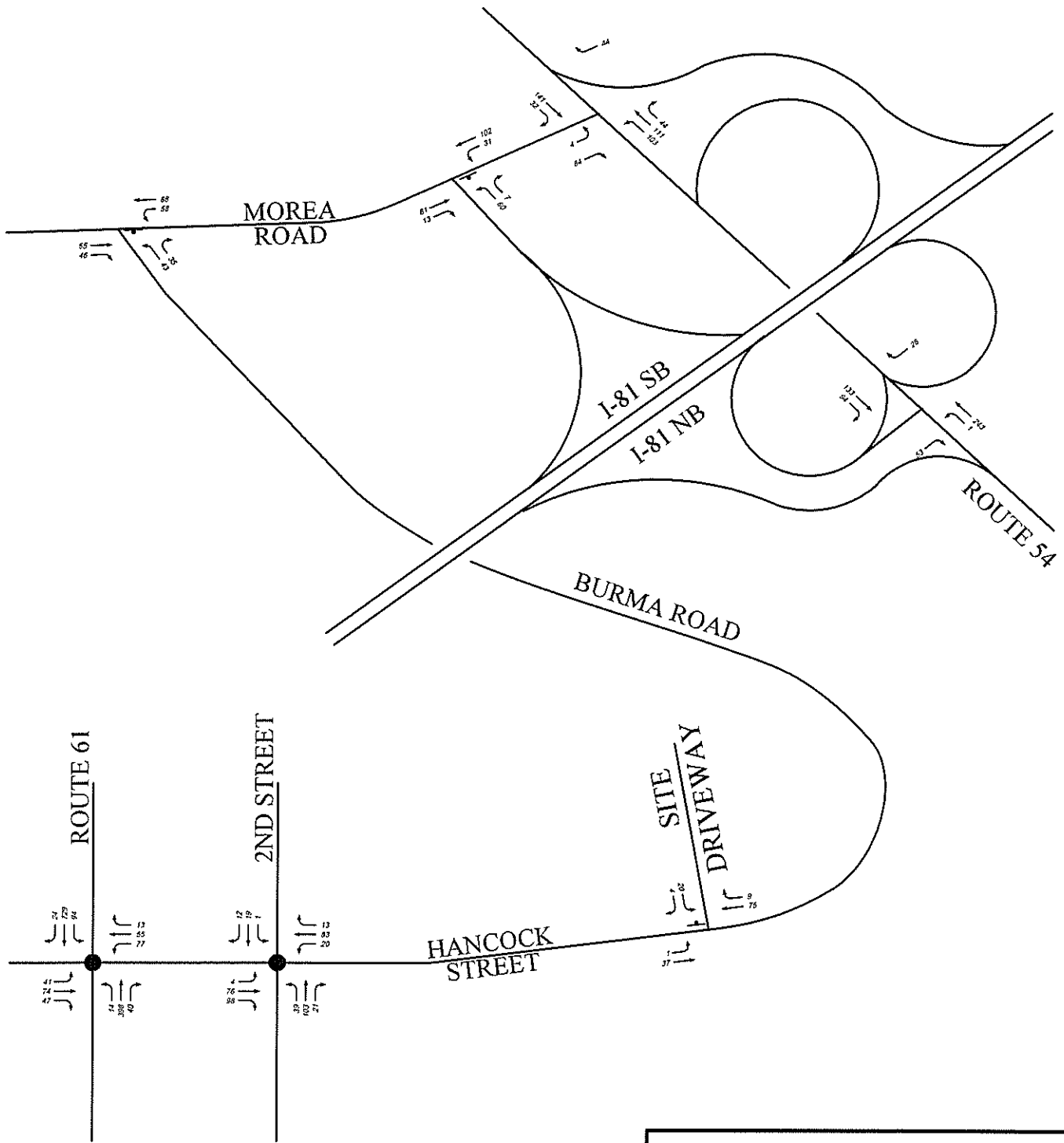
SCHEMATIC DRAWING: NOT TO SCALE



TRAFFIC PLANNING AND DESIGN, INC.  
[www.TrafficPD.com](http://www.TrafficPD.com) | 610.326.3100 | [TPD@TrafficPD.com](mailto:TPD@TrafficPD.com)

**FIGURE 6**

EXISTING CONDITIONS  
 P.M. PEAK HOUR  
 TRAFFIC VOLUMES



**KEY:**

- STOP CONTROLLED
- SIGNALIZED INTERSECTION

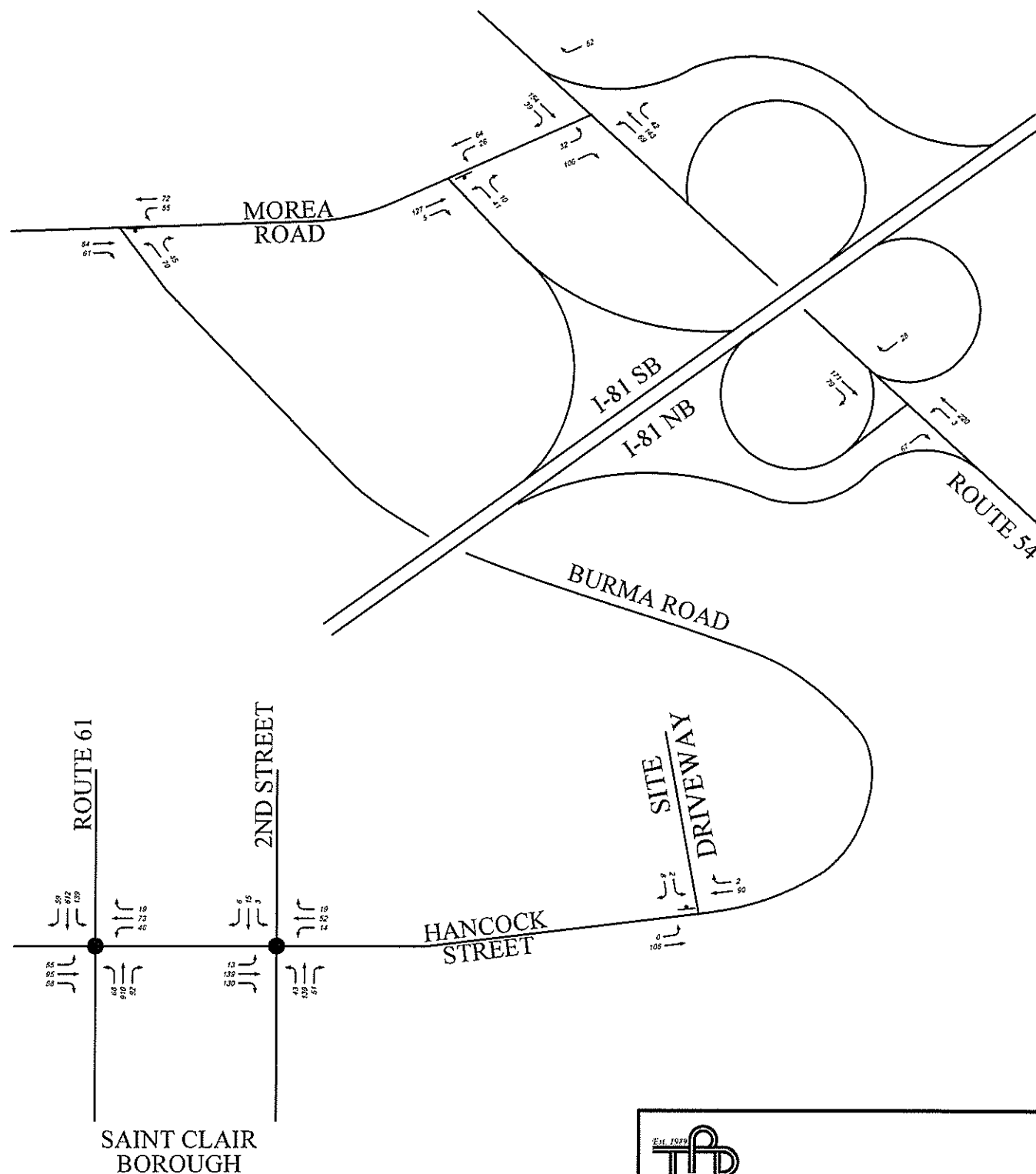
SCHEMATIC DRAWING: NOT TO SCALE



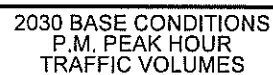
TRAFFIC PLANNING AND DESIGN, INC.  
[www.TrafficPD.com](http://www.TrafficPD.com) | 610.326.3100 | [TPD@TrafficPD.com](mailto:TPD@TrafficPD.com)

**FIGURE 7**

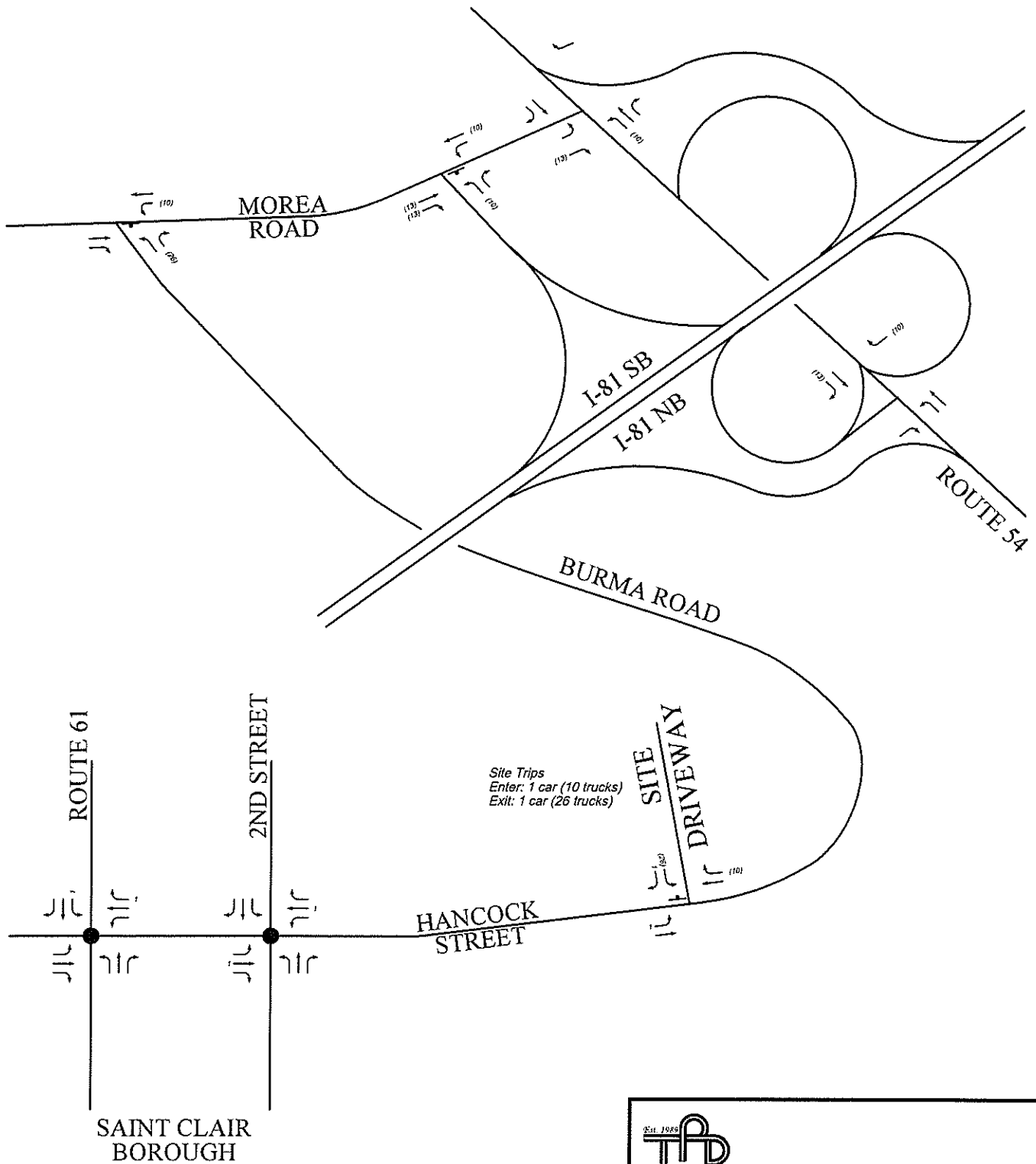
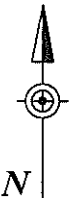
2030 BASE CONDITIONS  
 A.M. PEAK HOUR  
 TRAFFIC VOLUMES



**SCHEMATIC DRAWING:NOT TO SCALE**







**KEY:**

- STOP CONTROLLED
- SIGNALIZED INTERSECTION

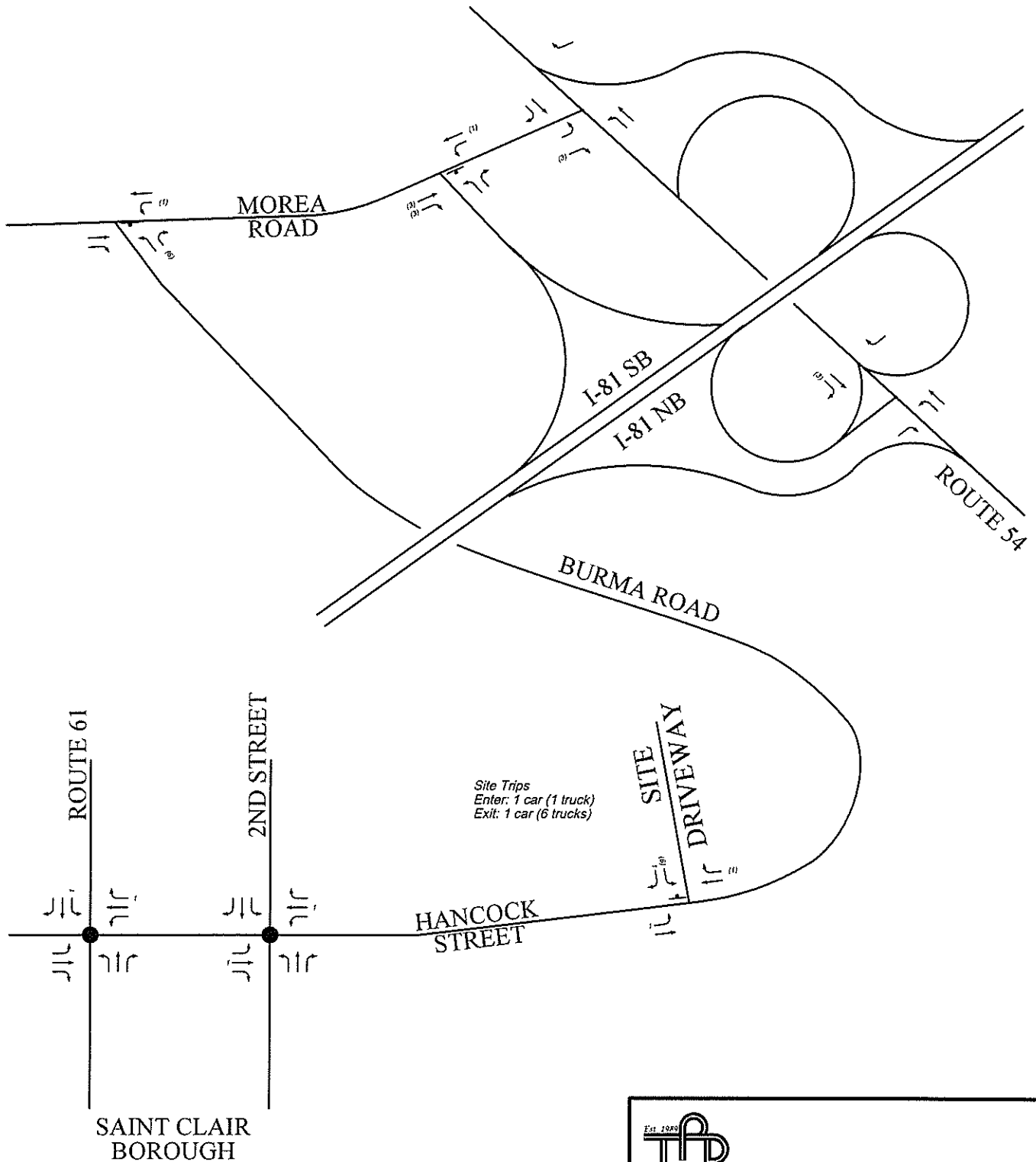
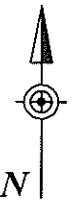
SCHEMATIC DRAWING: NOT TO SCALE



TRAFFIC PLANNING AND DESIGN, INC.  
[www.TrafficPD.com](http://www.TrafficPD.com) | 610.326.3100 | [TPD@TrafficPD.com](mailto:TPD@TrafficPD.com)

**FIGURE 9**

NEW SITE TRIPS  
A.M. PEAK HOUR  
CAR (TRUCK) TRAFFIC VOLUMES



**KEY:**



**STOP CONTROLLED**



**SIGNALIZED INTERSECTION**

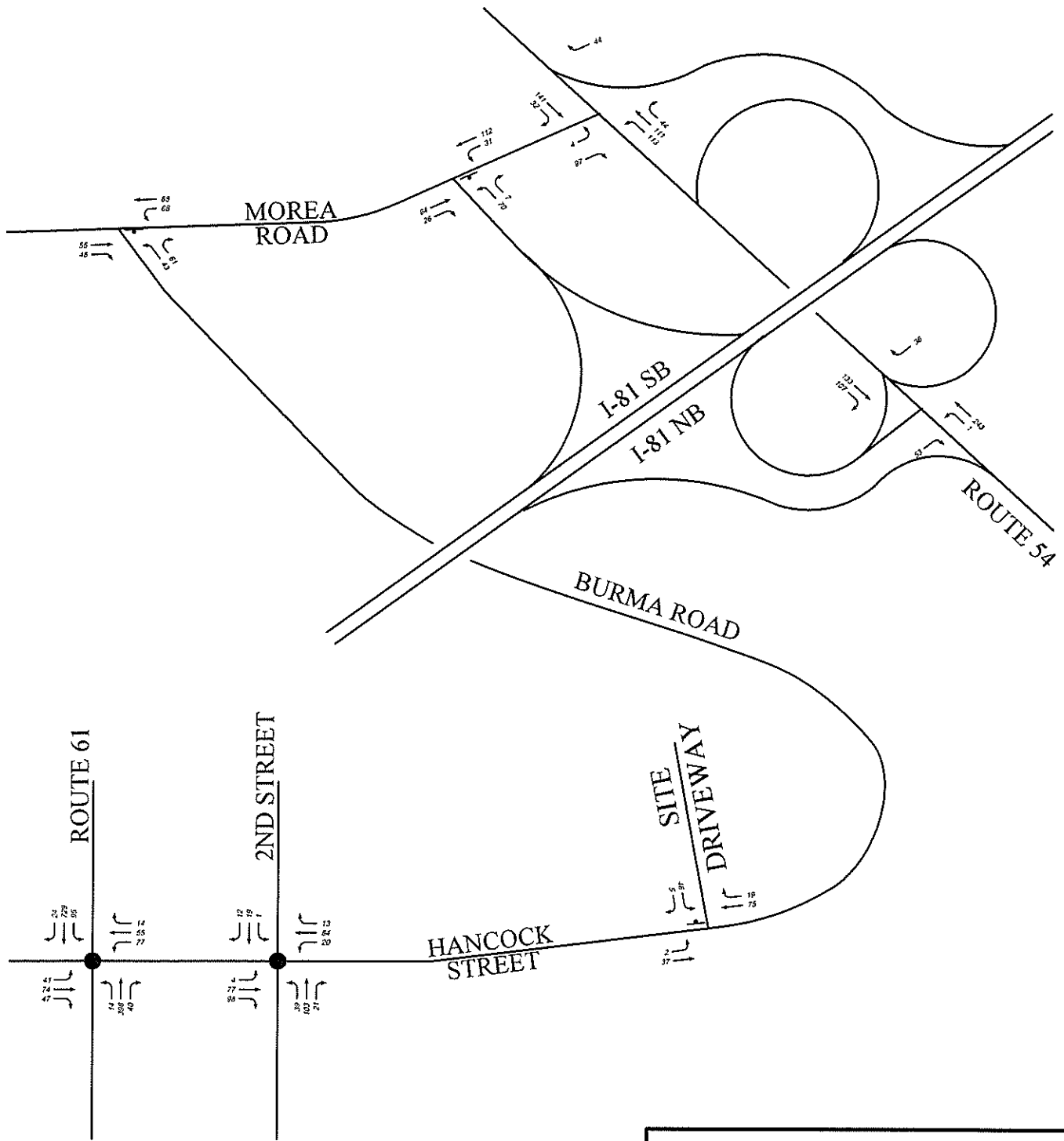
**SCHEMATIC DRAWING: NOT TO SCALE**



TRAFFIC PLANNING AND DESIGN, INC.  
www.TrafficPD.com | 610.326.3100 | TPD@TrafficPD.com

**FIGURE 10**

**NEW SITE TRIPS  
P.M. PEAK HOUR  
CAR (TRUCK) TRAFFIC VOLUMES**



**KEY:**

- STOP CONTROLLED
- SIGNALIZED INTERSECTION

SCHEMATIC DRAWING: NOT TO SCALE

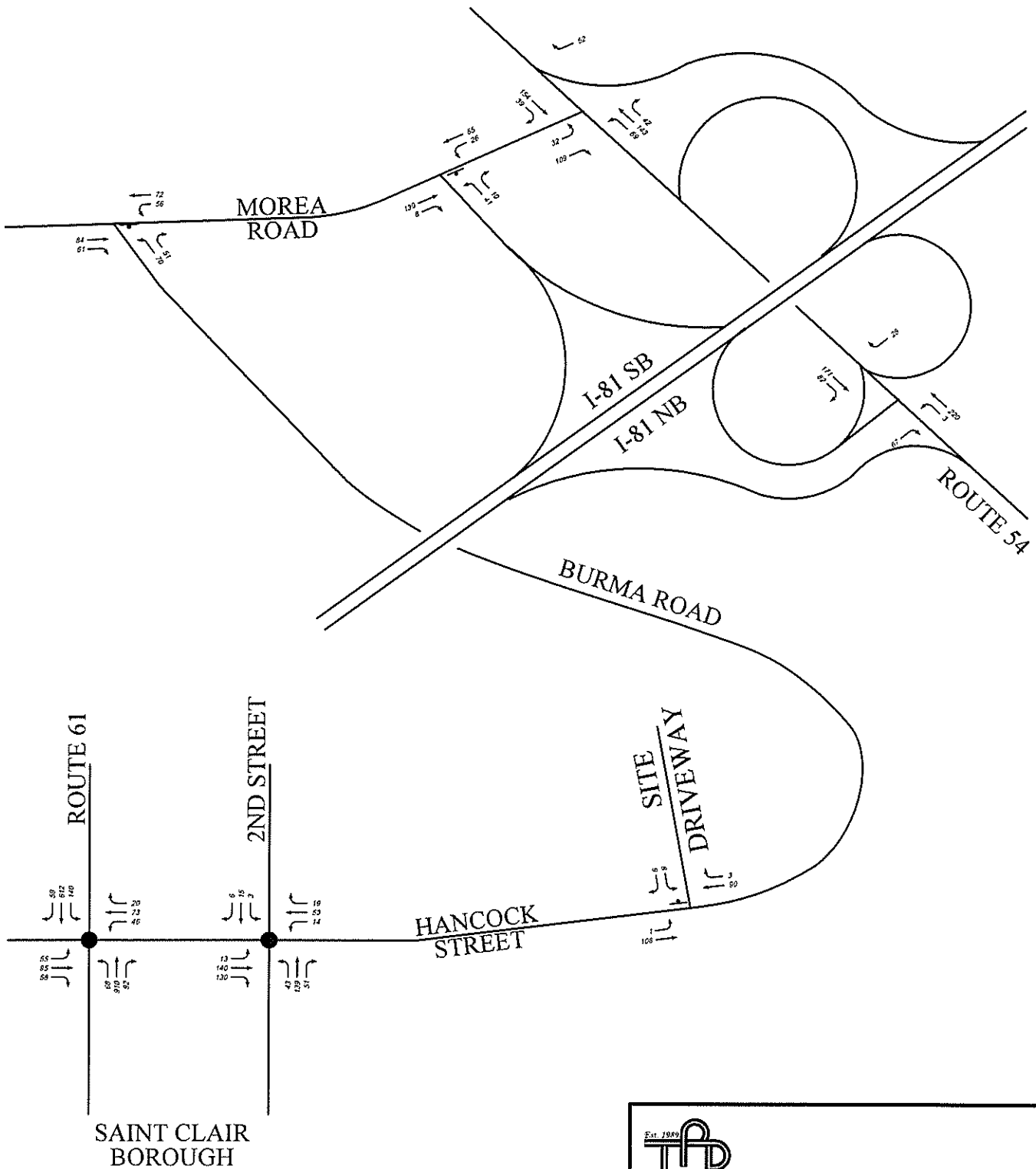


TRAFFIC PLANNING AND DESIGN, INC.  
[www.TrafficPD.com](http://www.TrafficPD.com) | 610.326.3100 | [TPD@TrafficPD.com](mailto:TPD@TrafficPD.com)

**FIGURE 11**

2030 PROJECTED CONDITIONS  
 A.M. PEAK HOUR  
 TRAFFIC VOLUMES





— STOP CONTROLLED  
● SIGNALIZED INTERSECTION

**SCHEMATIC DRAWING:NOT TO SCALE**

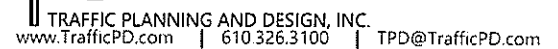


FIGURE 12

2030 PROJECTED CONDITIONS  
P.M. PEAK HOUR  
TRAFFIC VOLUMES

***APPENDIX A:***  
***Study Area Photographs***



<b>Direction / Road:</b>	NB Route 54 (Vulcan Hill Rd)
<b>Approach / Departure:</b>	Approach
<b>Distance:</b>	50 feet

---



<b>Direction / Road:</b>	NB Route 54 (Vulcan Hill Rd)
<b>Approach / Departure:</b>	Approach
<b>Distance:</b>	200 feet

---

---



Job #: FKV.00001

Date Taken: 5-15-2019

Intersection Of: Route 54 & I-81 NB on/off-ramps



**Direction / Road:** SB Route 54 (Vulcan Hill Rd)  
**Approach / Departure:** Approach  
**Distance:** 50 feet



**Direction / Road:** SB Route 54 (Vulcan Hill Rd)  
**Approach / Departure:** Approach  
**Distance:** 200 feet

---

---





**Direction / Road:** EB I-81 NB on/off-ramps  
**Approach / Departure:** Approach  
**Distance:** 50 feet



**Direction / Road:** EB I-81 NB on/off-ramps  
**Approach / Departure:** Approach  
**Distance:** 200 feet



Job #: FKV.00001

Date Taken: 5-15-2019

Intersection Of: Route 54 & I-81 SB on/off-ramps



Direction / Road:	NB Route 54 (Vulcan Hill Rd)
Approach / Departure:	Approach
Distance:	50 feet



Direction / Road:	NB Route 54 (Vulcan Hill Rd)
Approach / Departure:	Approach
Distance:	200 feet



Job #: FKV.00001

Date Taken: 5-15-2019

Intersection Of: Route 54 & I-81 SB on/off-ramps



**Direction / Road:** SB Route 54 (Vulcan Hill Rd)  
**Approach / Departure:** Approach  
**Distance:** 50 feet



**Direction / Road:** SB Route 54 (Vulcan Hill Rd)  
**Approach / Departure:** Approach  
**Distance:** 200 feet

---

---



Job #: FKV.00001

Date Taken: 5-15-2019

Intersection Of: Route 54 & I-81 SB on/off-ramps



Direction / Road: EB I-81 SB on/off-ramps

Approach / Departure: Approach

Distance: 50 feet



Direction / Road: EB I-81 SB on/off-ramps

Approach / Departure: Approach

Distance: 200 feet



Job #: FKV.00001

Date Taken: 5-15-2019

Intersection Of: Route 54 & I-81 SB on/off-ramps



Direction / Road: WB I-81 SB on/off-ramps

Approach / Departure: Approach

Distance: 50 feet



Direction / Road: WB I-81 SB on/off-ramps

Approach / Departure: Approach

Distance: 200 feet





Direction / Road:	NB I-81 SB on/off-ramps
Approach / Departure:	Approach
Distance:	50 feet



Direction / Road:	NB I-81 SB on/off-ramps
Approach / Departure:	Approach
Distance:	200 feet



Job #: FKV.00001

Date Taken: 5-15-2019

Intersection Of: I-81 SB on/off-ramps & Morea Road



Direction / Road: EB Morea Road

Approach / Departure: Approach

Distance: 50 feet



Direction / Road: EB Morea Road

Approach / Departure: Approach

Distance: 200 feet



Job #: FKV.00001

Date Taken: 5-15-2019

Intersection Of: I-81 SB on/off-ramps & Morea Road



Direction / Road: WB Morea Road

Approach / Departure: Approach

Distance: 50 feet



Direction / Road: WB Morea Road

Approach / Departure: Approach

Distance: 200 feet





<b>Direction / Road:</b>	NB Burma Road
<b>Approach / Departure:</b>	Approach
<b>Distance:</b>	50 feet



<b>Direction / Road:</b>	NB Burma Road
<b>Approach / Departure:</b>	Approach
<b>Distance:</b>	200 feet





<b>Direction / Road:</b>	EB Morea Road
<b>Approach / Departure:</b>	Approach
<b>Distance:</b>	50 feet



<b>Direction / Road:</b>	EB Morea Road
<b>Approach / Departure:</b>	Approach
<b>Distance:</b>	200 feet



Job #: FKV.00001

Date Taken: 5-15-2019

Intersection Of: Burma Road & Morea Road



Direction / Road: WB Morea Road

Approach / Departure: Approach

Distance: 50 feet



Direction / Road: WB Morea Road

Approach / Departure: Approach

Distance: 200 feet



Job #: FKV.00001

Date Taken: 5-15-2019

Intersection Of: S.R. 61 & Hancock Street



Direction / Road: NB S.R. 61

Approach / Departure: Approach

Distance: 50 feet



Direction / Road: NB S.R. 61

Approach / Departure: Approach

Distance: 200 feet



Job #: FKV.00001

Date Taken: 5-15-2019

Intersection Of: S.R. 61 & Hancock Street



Direction / Road: SB S.R. 61  
Approach / Departure: Approach  
Distance: 50 feet



Direction / Road: SB S.R. 61  
Approach / Departure: Approach  
Distance: 200 feet



Job #: FKV.00001

Date Taken: 5-15-2019

Intersection Of: S.R. 61 & Hancock Street



Direction / Road: EB Hancock Street

Approach / Departure: Approach

Distance: 50 feet



Direction / Road: EB Hancock Street

Approach / Departure: Approach

Distance: 200 feet





**Direction / Road:** WB Hancock Street  
**Approach / Departure:** Approach  
**Distance:** 50 feet



**Direction / Road:** WB Hancock Street  
**Approach / Departure:** Approach  
**Distance:** 200 feet





Direction / Road: NB 2nd Street  
Approach / Departure: Approach  
Distance: 50 feet



Direction / Road: NB 2nd Street  
Approach / Departure: Approach  
Distance: 200 feet





**Direction / Road:** SB 2nd Street  
**Approach / Departure:** Approach  
**Distance:** 50 feet



**Direction / Road:** SB 2nd Street  
**Approach / Departure:** Approach  
**Distance:** 200 feet





Direction / Road: EB Hancock Street

Approach / Departure: Approach

Distance: 50 feet



Direction / Road: EB Hancock Street

Approach / Departure: Approach

Distance: 200 feet





Direction / Road: WB Hancock Street

Approach / Departure: Approach

Distance: 50 feet



Direction / Road: WB Hancock Street

Approach / Departure: Approach

Distance: 200 feet



Job #: FKV.00001

Date Taken: 5-15-2019

Intersection Of: Site Driveway & Burma Road



Direction / Road: SB Site Driveway

Approach / Departure: Approach

Distance: 50 feet



Direction / Road: SB Site Driveway

Approach / Departure: Approach

Distance: 200 feet



Job #: FKV.00001

Date Taken: 5-15-2019

Intersection Of: Site Driveway & Burma Road



Direction / Road: EB Burma Road

Approach / Departure: Approach

Distance: 50 feet



Direction / Road: EB Burma Road

Approach / Departure: Approach

Distance: 200 feet



Job #: FKV.00001

Date Taken: 5-15-2019

Intersection Of: Site Driveway & Burma Road



Direction / Road: WB Burma Road

Approach / Departure: Approach

Distance: 50 feet



Direction / Road: WB Burma Road

Approach / Departure: Approach

Distance: 200 feet





Direction / Road: Site Driveway – Looking Out  
Approach / Departure: \_\_\_\_\_  
Distance: \_\_\_\_\_



Direction / Road: Site Driveway – Looking In  
Approach / Departure: \_\_\_\_\_  
Distance: \_\_\_\_\_





Direction / Road: Site Driveway – Looking Right  
Approach / Departure: \_\_\_\_\_  
Distance: \_\_\_\_\_



Direction / Road: Site Driveway – Looking Left  
Approach / Departure: \_\_\_\_\_  
Distance: \_\_\_\_\_

---

---

## ***APPENDIX B:***

### ***Manual Traffic and ATR Count Printouts***



Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:

Count Name: Site Driveway &  
Burma Road  
Site Code:  
Start Date: 05/14/2019  
Page No: 1

## Turning Movement Data

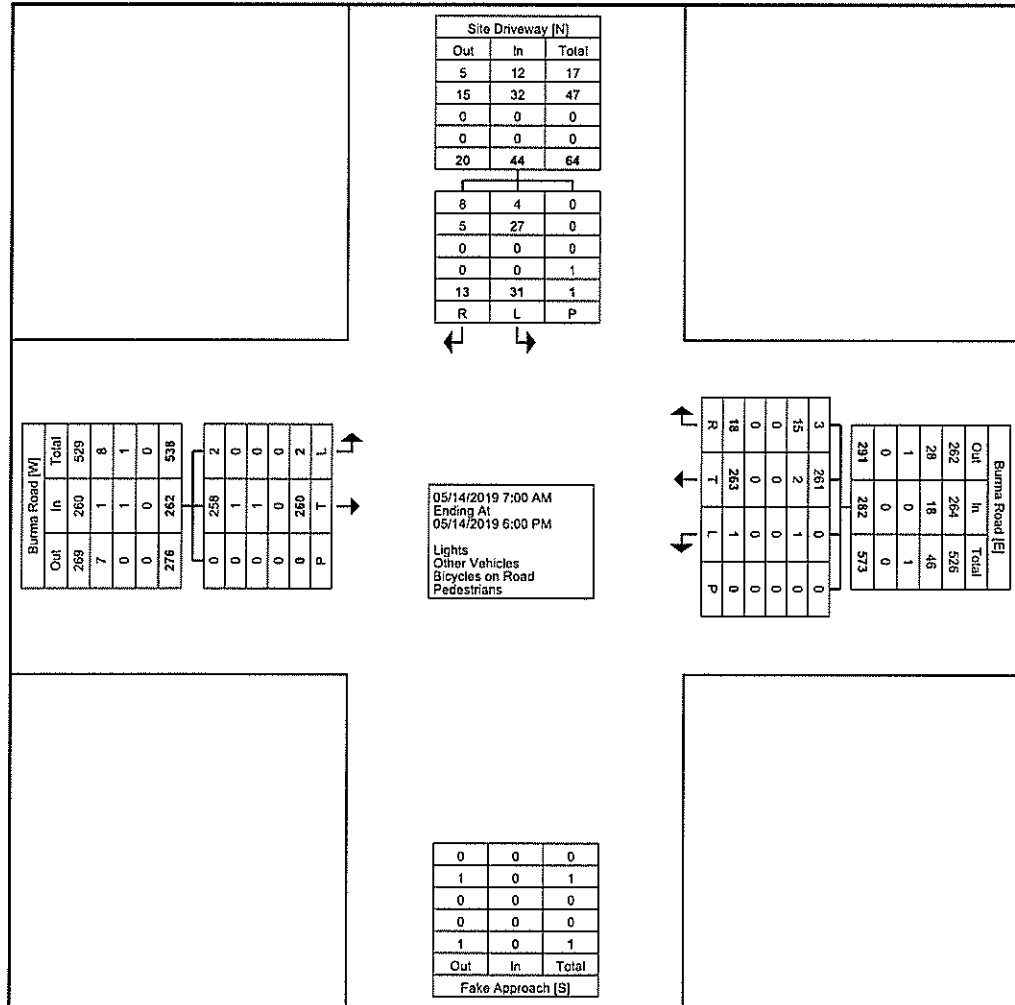
Start Time	Burma Road Eastbound				Burma Road Westbound					Site Driveway Southbound				Int. Total
	Left	Thru	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	
7:00 AM	0	7	0	7	0	7	6	0	13	1	0	1	1	21
7:15 AM	1	12	0	13	1	20	2	0	23	3	2	0	5	41
7:30 AM	0	11	0	11	0	21	2	0	23	6	0	0	6	40
7:45 AM	0	4	0	4	0	15	3	0	18	0	1	0	1	23
Hourly Total	1	34	0	35	1	63	13	0	77	10	3	1	13	125
8:00 AM	0	9	0	9	0	17	1	0	18	10	1	0	11	38
8:15 AM	0	11	0	11	0	21	0	0	21	8	1	0	9	41
8:30 AM	0	6	0	6	0	15	0	0	15	1	0	0	1	22
8:45 AM	0	8	0	8	0	14	2	0	16	0	0	0	0	24
Hourly Total	0	34	0	34	0	67	3	0	70	19	2	0	21	125
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	14	0	14	0	27	2	0	29	2	8	0	10	53
4:15 PM	0	29	0	29	0	19	0	0	19	0	0	0	0	48
4:30 PM	0	33	0	33	0	22	0	0	22	0	0	0	0	55
4:45 PM	0	27	0	27	0	19	0	0	19	0	0	0	0	46
Hourly Total	0	103	0	103	0	87	2	0	89	2	8	0	10	202
5:00 PM	0	32	0	32	0	11	0	0	11	0	0	0	0	43
5:15 PM	1	24	0	25	0	8	0	0	8	0	0	0	0	33
5:30 PM	0	21	0	21	0	15	0	0	15	0	0	0	0	36
5:45 PM	0	12	0	12	0	12	0	0	12	0	0	0	0	24
Hourly Total	1	89	0	90	0	46	0	0	46	0	0	0	0	136
Grand Total	2	260	0	262	1	263	18	0	282	31	13	1	44	588
Approach %	0.8	99.2	-	-	0.4	93.3	6.4	-	-	70.5	29.5	-	-	-
Total %	0.3	44.2	-	44.6	0.2	44.7	3.1	-	48.0	5.3	2.2	-	7.6	-
Lights	2	258	-	260	0	261	3	-	264	4	8	-	12	536
% Lights	100.0	99.2	-	99.2	0.0	99.2	16.7	-	93.6	12.9	61.5	-	27.3	91.2
Other Vehicles	0	1	-	1	1	2	15	-	18	27	5	-	32	51
% Other Vehicles	0.0	0.4	-	0.4	100.0	0.8	83.3	-	6.4	87.1	38.5	-	72.7	8.7
Bicycles on Road	0	1	-	1	0	0	0	-	0	0	0	-	0	1
% Bicycles on Road	0.0	0.4	-	0.4	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.2
Pedestrians	-	-	0	-	-	-	-	0	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	0.0	-	-	-	0.0	-	-



Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 jhudak@trafficpd.com

Counted By: Mio  
Set Up By: JH  
Weather: Clear:

Count Name: Site Driveway &  
Burma Road  
Site Code:  
Start Date: 05/14/2019  
Page No: 2



Turning Movement Data Plot



Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:

Count Name: Site Driveway &  
Burma Road  
Site Code:  
Start Date: 05/14/2019  
Page No: 3

### Turning Movement Peak Hour Data (7:15 AM)

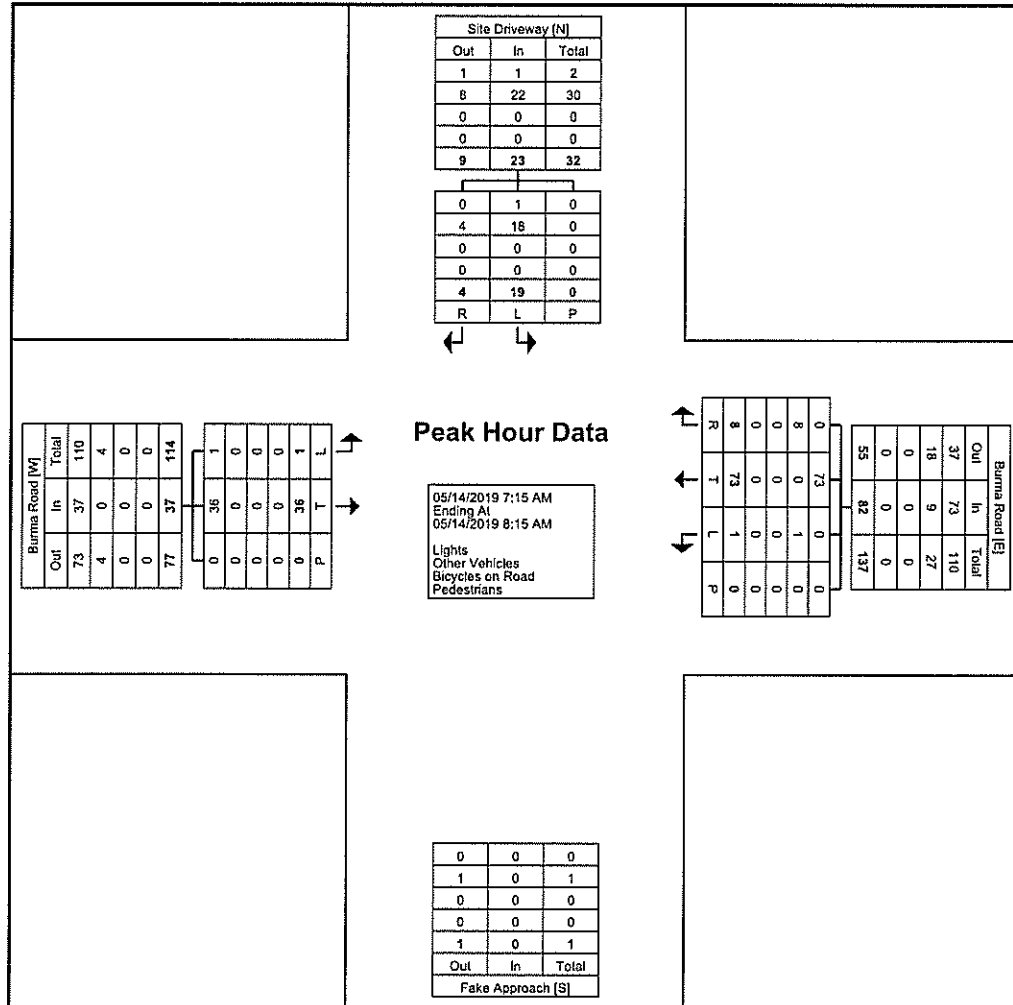
[illegible]



Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 jhudak@trafficpd.com

Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:

Count Name: Site Driveway &  
Burma Road  
Site Code:  
Start Date: 05/14/2019  
Page No: 4



Turning Movement Peak Hour Data Plot (7:15 AM)









Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 [jhudak@trafficpd.com](mailto:jhudak@trafficpd.com)

Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:

Count Name: Site Driveway &  
Burma Road  
Site Code:  
Start Date: 05/14/2019  
Page No: 7



Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:

Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 jhudak@trafficpd.com

Count Name: 2nd Street &  
Hancock Street  
Site Code:  
Start Date: 05/14/2019  
Page No: 1

### Turning Movement Data

Start Time	Hancock Street Eastbound						Hancock Street Westbound						2nd Street Northbound						2nd Street Southbound						Int. Total
	Left	Thru	Right	Right on Red	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	
7:00 AM	0	11	7	8	2	26	2	13	1	0	0	16	8	16	3	0	0	27	0	2	0	0	0	2	71
7:15 AM	1	13	8	6	1	28	5	12	4	0	0	21	5	16	5	1	0	27	0	0	0	2	0	2	78
7:30 AM	2	16	15	9	0	42	2	18	0	2	0	22	8	23	6	0	0	37	0	6	5	1	0	12	113
7:45 AM	0	10	15	8	2	33	6	20	4	0	0	30	9	23	4	0	0	36	0	3	2	1	1	6	105
Hourly Total	3	50	45	31	6	129	15	63	9	2	0	89	30	78	18	1	0	127	0	11	7	4	1	22	367
8:00 AM	1	29	13	6	4	49	5	10	4	0	1	19	7	27	3	0	2	37	0	4	1	0	0	5	110
8:15 AM	1	19	15	14	0	49	6	32	3	0	2	41	14	27	5	2	0	48	1	5	1	1	1	8	146
8:30 AM	1	8	12	10	2	31	9	12	2	1	0	24	13	30	5	0	0	48	0	6	1	1	0	8	111
8:45 AM	1	12	9	6	1	28	6	15	3	0	3	24	4	25	7	0	0	36	0	2	1	0	1	3	91
Hourly Total	4	68	49	36	7	157	26	69	12	1	6	108	38	109	20	2	2	169	1	17	4	2	2	24	458
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	2	36	20	9	2	67	7	18	4	0	0	29	16	20	8	0	0	44	1	5	0	1	1	7	147
4:15 PM	1	31	27	8	4	67	4	18	5	0	2	27	11	27	11	5	1	54	0	5	0	1	0	6	154
4:30 PM	5	28	23	8	0	64	2	12	3	0	2	17	11	40	11	0	0	62	0	1	3	0	1	4	147
4:45 PM	3	29	26	8	5	66	2	8	4	0	1	14	9	28	10	0	0	47	0	6	0	1	1	7	134
Hourly Total	11	124	96	33	17	264	15	56	16	0	6	87	47	115	40	5	6	207	1	17	3	3	2	24	582
5:00 PM	4	47	16	10	2	77	6	12	6	0	0	24	11	40	11	1	0	63	3	3	1	0	0	7	171
5:15 PM	4	24	15	12	0	55	1	11	1	0	0	13	14	38	5	2	2	59	1	4	3	0	0	8	135
5:30 PM	2	25	7	8	1	42	6	7	4	0	0	17	18	23	5	1	0	47	1	6	3	0	2	10	116
5:45 PM	1	22	16	3	0	42	2	11	7	1	2	21	8	25	4	0	0	37	3	3	3	0	0	9	109
Hourly Total	11	118	54	33	5	216	15	41	18	1	4	75	51	126	25	4	5	206	8	16	10	0	4	34	531
Grand Total	29	360	244	133	36	766	71	229	55	4	15	359	166	428	103	12	13	709	10	61	24	9	10	104	1938
Approach %	3.8	47.0	31.9	17.4	-	-	19.8	63.8	15.3	1.1	-	-	23.4	60.4	14.5	1.7	-	-	9.6	58.7	23.1	8.7	-	-	-
Total %	1.5	18.6	12.6	6.9	-	39.5	3.7	11.8	2.6	0.2	-	18.5	8.6	22.1	5.3	0.6	-	36.6	0.5	3.1	1.2	0.5	-	5.4	-
Lights	28	351	232	129	-	740	64	219	54	4	-	341	155	394	97	11	-	657	10	58	22	8	-	98	1836
% Lights	96.6	97.5	95.1	97.0	-	96.6	90.1	95.6	98.2	100.0	-	95.0	93.4	92.1	94.2	91.7	-	92.7	100.0	95.1	91.7	88.9	-	94.2	94.7
Other Vehicles	1	9	12	4	-	26	7	10	1	0	-	18	11	34	6	1	-	52	0	3	2	1	-	6	102
% Other Vehicles	3.4	2.5	4.9	3.0	-	3.4	9.9	4.4	1.8	0.0	-	5.0	6.6	7.9	5.8	8.3	-	7.3	0.0	4.9	8.3	11.1	-	5.8	5.3
Bicycles on Road	0	0	0	0	-	0	0	0	0	-	0	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	96	-	-	-	-	-	100	-	-	-	-	-	100	-	-	-	-	-	100	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

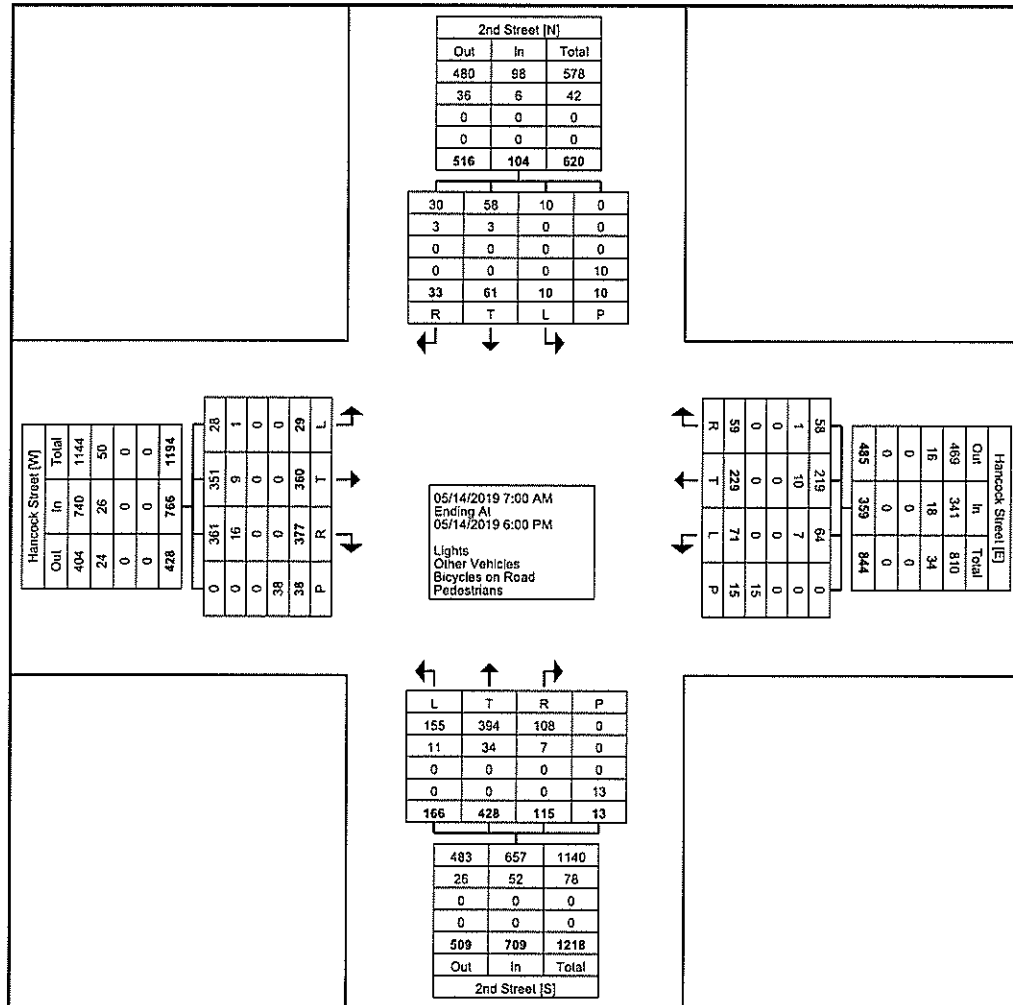




Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 jhudak@trafficpd.com

Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:

Count Name: 2nd Street &  
Hancock Street  
Site Code:  
Start Date: 05/14/2019  
Page No: 2



Turning Movement Data Plot



Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 jhudak@trafficpd.com

Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:

Count Name: 2nd Street &  
Hancock Street  
Site Code:  
Start Date: 05/14/2019  
Page No: 3

### Turning Movement Peak Hour Data (7:30 AM)

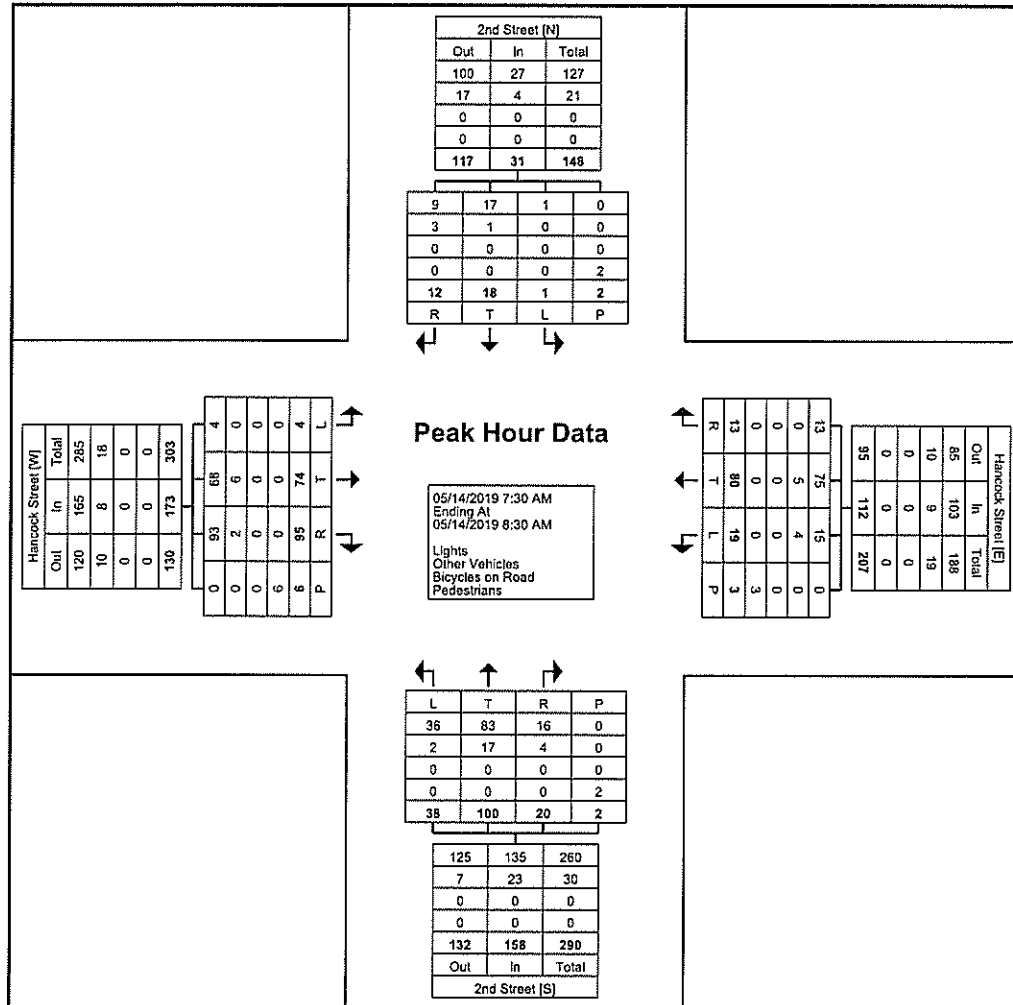
Start Time	Hancock Street Eastbound						Hancock Street Westbound						2nd Street Northbound						2nd Street Southbound						Int. Total
	Left	Thru	Right	Right on Red	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	
7:30 AM	2	16	15	9	0	42	2	18	0	2	0	22	8	23	6	0	0	37	0	6	5	1	0	12	113
7:45 AM	0	10	15	8	0	33	6	20	4	0	0	30	9	23	4	0	0	36	0	3	2	1	0	6	105
8:00 AM	1	29	13	6	4	49	5	10	4	0	0	19	7	27	3	0	0	37	0	4	1	0	0	5	110
8:15 AM	1	19	15	14	0	49	6	32	3	0	0	41	14	27	5	2	0	48	1	5	1	1	0	8	146
Total	4	74	58	37	0	173	19	80	11	2	0	112	38	100	18	2	0	158	1	18	9	3	0	31	474
Approach %	2.3	42.8	33.5	21.4	-	-	17.0	71.4	9.8	1.8	-	-	24.1	63.3	11.4	1.3	-	-	3.2	58.1	29.0	9.7	-	-	-
Total %	0.8	15.6	12.2	7.8	-	36.5	4.0	16.9	2.3	0.4	-	23.6	8.0	21.1	3.8	0.4	-	33.3	0.2	3.8	1.9	0.6	-	6.5	-
PHF	0.500	0.638	0.967	0.661	-	0.883	0.792	0.625	0.688	0.250	-	0.683	0.679	0.926	0.750	0.250	-	0.823	0.250	0.750	0.450	0.750	-	0.646	0.812
Lights	4	68	56	37	-	165	15	75	11	2	-	103	36	83	15	1	-	135	1	17	7	2	-	27	430
% Lights	100.0	91.9	96.6	100.0	-	95.4	78.9	93.8	100.0	100.0	-	92.0	94.7	83.0	83.3	50.0	-	85.4	100.0	94.4	77.8	66.7	-	87.1	90.7
Other Vehicles	0	6	2	0	-	8	4	5	0	0	-	9	2	17	3	1	-	23	0	1	2	1	-	4	44
% Other Vehicles	0.0	8.1	3.4	0.0	-	4.6	21.1	6.3	0.0	0.0	-	8.0	5.3	17.0	16.7	50.0	-	14.6	0.0	5.6	22.2	33.3	-	12.9	9.3
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:

Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 jhudak@trafficpd.com

Count Name: 2nd Street &  
Hancock Street  
Site Code:  
Start Date: 05/14/2019  
Page No: 4



Turning Movement Peak Hour Data Plot (7:30 AM)





Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 jhudak@trafficpd.com

Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:

Count Name: 2nd Street &  
Hancock Street  
Site Code:  
Start Date: 05/14/2019  
Page No: 5

### Turning Movement Peak Hour Data (4:15 PM)

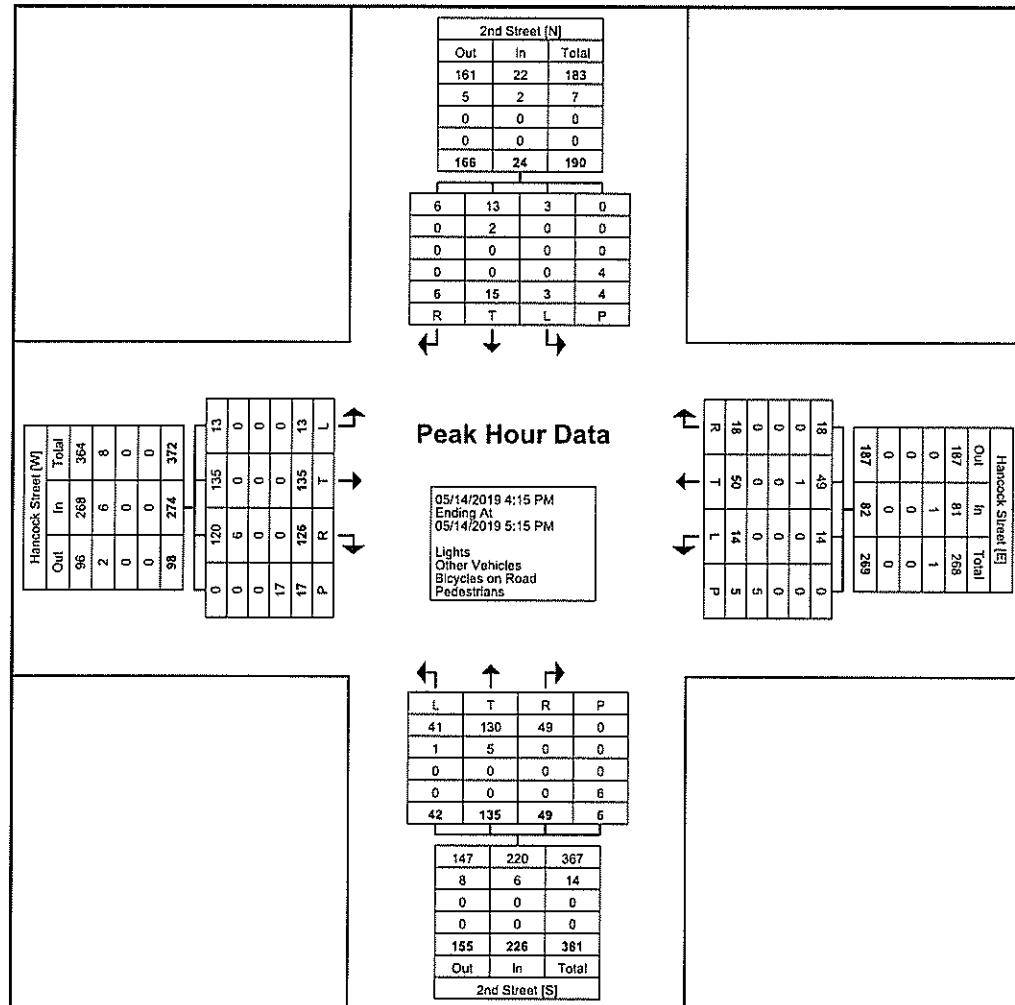
Start Time	Hancock Street Eastbound						Hancock Street Westbound						2nd Street Northbound						2nd Street Southbound						Int. Total
	Left	Thru	Right	Right on Red	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	
4:15 PM	1	31	27	8	0	67	4	18	5	0	0	27	11	27	11	5	0	54	0	5	0	1	0	6	154
4:30 PM	5	28	23	8	0	64	2	12	3	0	0	17	11	40	11	0	0	62	0	1	3	0	0	4	147
4:45 PM	3	29	26	8	0	66	2	8	4	0	0	14	9	28	10	0	0	47	0	6	0	1	0	7	134
5:00 PM	4	47	16	10	0	77	6	12	6	0	0	24	11	40	11	1	0	63	3	3	1	0	0	7	171
Total	13	135	92	34	0	274	14	50	18	0	0	82	42	135	43	6	0	226	3	15	4	2	0	24	606
Approach %	4.7	49.3	33.6	12.4	-	-	17.1	61.0	22.0	0.0	-	-	18.6	59.7	19.0	2.7	-	-	12.5	62.5	16.7	8.3	-	-	-
Total %	2.1	22.3	15.2	5.6	-	45.2	2.3	8.3	3.0	0.0	-	13.5	6.9	22.3	7.1	1.0	-	37.3	0.5	2.5	0.7	0.3	-	4.0	-
PHF	0.650	0.718	0.852	0.850	-	0.890	0.583	0.694	0.750	0.000	-	0.759	0.955	0.844	0.977	0.300	-	0.897	0.250	0.625	0.333	0.500	-	0.857	0.886
Lights	13	135	86	34	-	268	14	49	18	0	-	81	41	130	43	6	-	220	3	13	4	2	-	22	591
% Lights	100.0	100.0	93.5	100.0	-	97.8	100.0	98.0	100.0	-	-	98.8	97.6	96.3	100.0	100.0	-	97.3	100.0	86.7	100.0	100.0	-	91.7	97.5
Other Vehicles	0	0	6	0	-	6	0	1	0	0	-	1	1	5	0	0	-	6	0	2	0	0	-	2	15
% Other Vehicles	0.0	0.0	6.5	0.0	-	2.2	0.0	2.0	0.0	-	-	1.2	2.4	3.7	0.0	0.0	-	2.7	0.0	13.3	0.0	0.0	-	8.3	2.5
Bicycles on Road	0	0	0	0	-	0	0	0	0	-	0	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	17	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	4	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:

Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 jhudak@trafficpd.com

Count Name: 2nd Street &  
Hancock Street  
Site Code:  
Start Date: 05/14/2019  
Page No: 6



Turning Movement Peak Hour Data Plot (4:15 PM)



Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 jhudak@trafficpd.com

Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:

Count Name: 2nd Street &  
Hancock Street  
Site Code:  
Start Date: 05/14/2019  
Page No: 7



Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:

Count Name: S.R. 61 &  
Hancock Street  
Site Code:  
Start Date: 05/14/2019  
Page No: 1

## Turning Movement Data

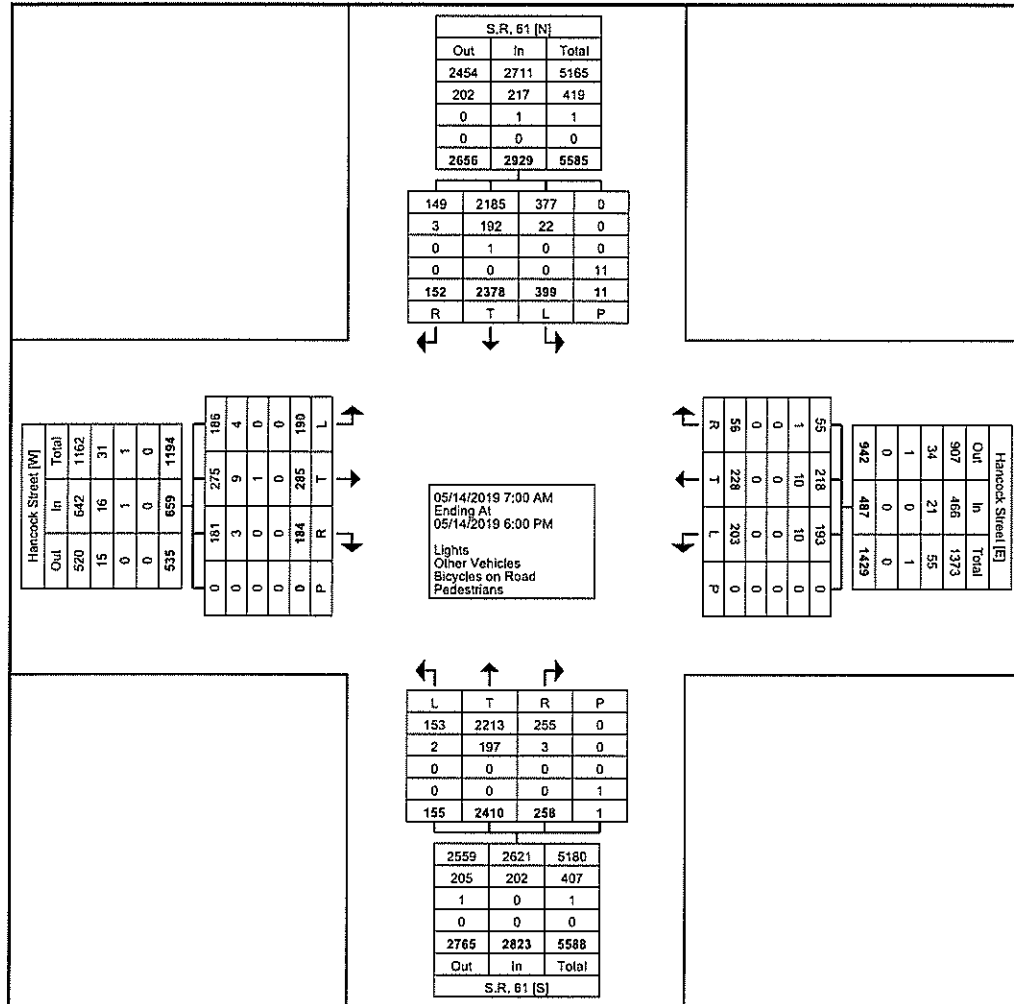
Start Time	Hancock Street Eastbound						Hancock Street Westbound						S.R. 61 Northbound						S.R. 61 Southbound						Int. Total
	Left	Thru	Right	Right on Red	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	
7:00 AM	11	11	1	4	0	27	14	12	0	0	0	26	5	91	10	0	0	106	10	91	3	0	0	104	263
7:15 AM	12	14	4	6	0	36	12	9	3	0	0	24	2	99	6	2	0	109	20	118	6	0	0	144	313
7:30 AM	10	17	8	3	0	38	19	12	4	0	0	35	9	110	8	4	0	131	21	166	7	2	0	196	400
7:45 AM	8	17	5	5	0	35	18	17	3	0	0	38	2	98	4	0	0	104	21	206	1	0	0	228	405
Hourly Total	41	59	18	18	0	136	63	50	10	0	0	123	18	398	28	6	0	450	72	581	17	2	0	672	1381
8:00 AM	12	16	13	2	0	43	12	9	1	0	0	22	1	91	12	1	0	105	29	160	5	1	0	195	365
8:15 AM	10	22	6	4	0	42	26	15	5	0	0	46	2	87	10	0	0	99	20	175	7	0	0	202	389
8:30 AM	14	14	2	3	0	33	16	14	3	0	0	33	6	100	9	1	0	116	17	163	5	0	0	185	367
8:45 AM	10	11	9	0	0	30	10	6	7	0	0	23	8	98	8	2	0	116	18	157	10	0	0	185	354
Hourly Total	46	63	30	9	0	148	64	44	16	0	0	124	17	376	39	4	0	436	84	655	27	1	0	767	1475
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	17	24	5	3	0	49	14	21	5	0	0	40	13	219	20	2	0	254	35	174	9	0	0	218	561
4:15 PM	10	29	14	5	0	58	11	22	4	0	0	37	16	209	22	4	0	251	27	153	14	0	0	194	540
4:30 PM	19	21	15	0	0	55	11	17	5	0	0	33	20	222	14	4	0	260	40	134	17	2	0	193	541
4:45 PM	7	18	9	5	0	39	9	11	4	0	0	24	17	232	20	3	0	272	33	132	12	3	0	180	515
Hourly Total	53	92	43	13	0	201	45	71	18	0	0	134	66	882	76	13	0	1037	135	593	52	5	0	785	2157
5:00 PM	11	29	11	3	0	54	5	15	3	0	0	23	16	215	27	5	0	263	39	147	15	0	0	201	541
5:15 PM	13	19	10	6	0	48	9	19	2	0	0	30	16	192	24	0	0	232	29	141	9	0	0	179	489
5:30 PM	13	9	8	6	0	36	8	18	5	0	0	31	12	185	15	1	0	213	20	145	10	1	0	176	456
5:45 PM	13	14	4	5	0	36	9	11	2	0	0	22	10	162	19	1	0	192	20	116	13	0	0	149	399
Hourly Total	50	71	33	20	0	174	31	63	12	0	0	106	54	754	85	7	0	900	108	549	47	1	0	705	1885
Grand Total	190	285	124	60	0	659	203	228	56	0	0	487	155	2410	228	30	0	2823	399	2378	143	9	0	2929	6898
Approach %	28.8	43.2	18.8	9.1	-	-	41.7	46.8	11.5	0.0	-	-	5.5	85.4	8.1	1.1	-	-	13.6	81.2	4.9	0.3	-	-	-
Total %	2.8	4.1	1.8	0.9	-	9.6	2.9	3.3	0.8	0.0	-	7.1	2.2	34.9	3.3	0.4	-	40.9	5.8	34.5	2.1	0.1	-	42.5	-
Lights	186	275	123	58	-	642	193	218	55	0	-	466	153	2213	225	30	-	2621	377	2185	141	8	-	2711	6440
% Lights	97.9	96.5	99.2	96.7	-	97.4	95.1	95.6	98.2	-	-	95.7	98.7	91.8	98.7	100.0	-	92.8	94.5	91.9	98.6	88.9	-	92.6	93.4
Other Vehicles	4	9	1	2	-	16	10	10	1	0	-	21	2	197	3	0	-	202	22	192	2	1	-	217	456
% Other Vehicles	2.1	3.2	0.8	3.3	-	2.4	4.9	4.4	1.8	-	-	4.3	1.3	8.2	1.3	0.0	-	7.2	5.5	8.1	1.4	11.1	-	7.4	6.6
Bicycles on Road	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	2
% Bicycles on Road	0.0	0.4	0.0	0.0	-	0.2	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 jhudak@trafficpd.com

Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:

Count Name: S.R. 61 &  
Hancock Street  
Site Code:  
Start Date: 05/14/2019  
Page No: 2



Turning Movement Data Plot



Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 jhudak@trafficpd.com

Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:

Count Name: S.R. 61 &  
Hancock Street  
Site Code:  
Start Date: 05/14/2019  
Page No: 3

### Turning Movement Peak Hour Data (7:30 AM)

Start Time	Hancock Street Eastbound						Hancock Street Westbound						S.R. 61 Northbound						S.R. 61 Southbound						Int. Total
	Left	Thru	Right	Right on Red	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	
7:30 AM	10	17	8	3	0	38	19	12	4	0	0	35	9	110	8	4	0	131	21	166	7	2	1	196	400
7:45 AM	8	17	5	5	0	35	18	17	3	0	0	38	2	98	4	0	0	104	21	206	1	0	1	228	405
8:00 AM	12	16	13	2	0	43	12	9	1	0	0	22	1	91	12	1	0	105	29	160	6	1	1	195	365
8:15 AM	10	22	6	4	0	42	26	15	5	0	0	46	2	87	10	0	0	99	20	175	7	0	0	202	389
Total	40	72	32	14	0	158	75	53	13	0	0	141	14	385	34	5	0	439	91	707	20	3	3	821	1559
Approach %	25.3	45.6	20.3	8.9	-	-	53.2	37.6	9.2	0.0	-	-	3.2	87.9	7.7	1.1	-	-	11.1	86.1	2.4	0.4	-	-	-
Total %	2.6	4.6	2.1	0.9	-	10.1	4.8	3.4	0.8	0.0	-	9.0	0.9	24.8	2.2	0.3	-	28.2	5.8	45.3	1.3	0.2	-	52.7	-
PHF	0.833	0.818	0.615	0.700	-	0.919	0.721	0.779	0.650	0.000	-	0.766	0.389	0.877	0.708	0.313	-	0.838	0.784	0.858	0.714	0.375	-	0.900	0.962
Lights	37	69	31	14	-	151	69	49	13	0	-	131	14	333	32	5	-	384	83	642	20	2	-	747	1413
% Lights	92.5	95.8	96.9	100.0	-	95.6	92.0	92.5	100.0	-	-	92.9	100.0	86.3	94.1	100.0	-	87.5	91.2	90.8	100.0	66.7	-	91.0	90.6
Other Vehicles	3	3	1	0	-	7	6	4	0	0	-	10	0	53	2	0	-	55	8	64	0	1	-	73	145
% Other Vehicles	7.5	4.2	3.1	0.0	-	4.4	8.0	7.5	0.0	-	-	7.1	0.0	13.7	5.9	0.0	-	12.5	8.8	9.1	0.0	33.3	-	8.9	9.3
Bicycles on Road	0	0	0	0	-	0	0	0	0	-	0	0	0	0	0	0	-	0	0	1	0	0	-	1	1
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.1	0.0	0.0	-	0.1	0.1
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

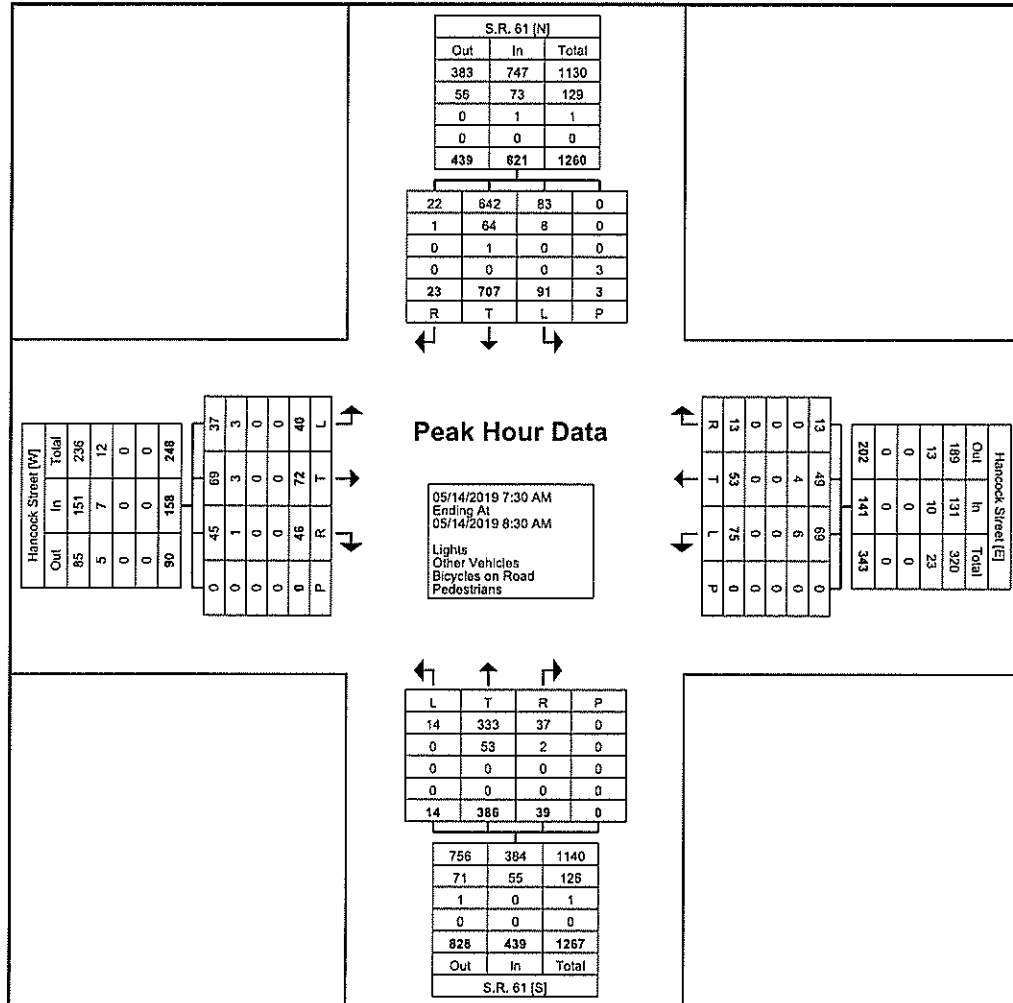




Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 jhudak@trafficpd.com

Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:

Count Name: S.R. 61 &  
Hancock Street  
Site Code:  
Start Date: 05/14/2019  
Page No: 4



Turning Movement Peak Hour Data Plot (7:30 AM)

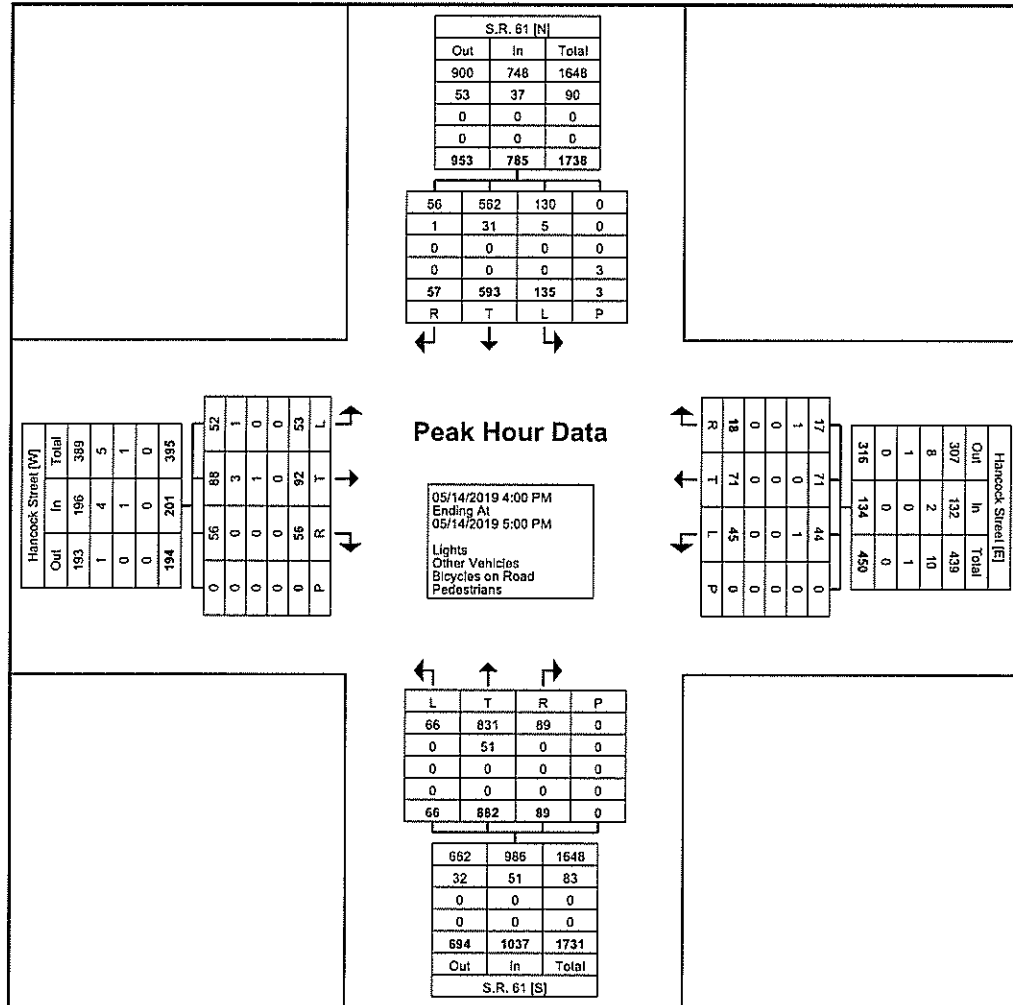




Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:

Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 jhudak@trafficpd.com

Count Name: S.R. 61 &  
Hancock Street  
Site Code:  
Start Date: 05/14/2019  
Page No: 6







Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 jhudak@trafficpd.com

Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:

Count Name: S.R. 61 &  
Hancock Street  
Site Code:  
Start Date: 05/14/2019  
Page No: 7

Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:

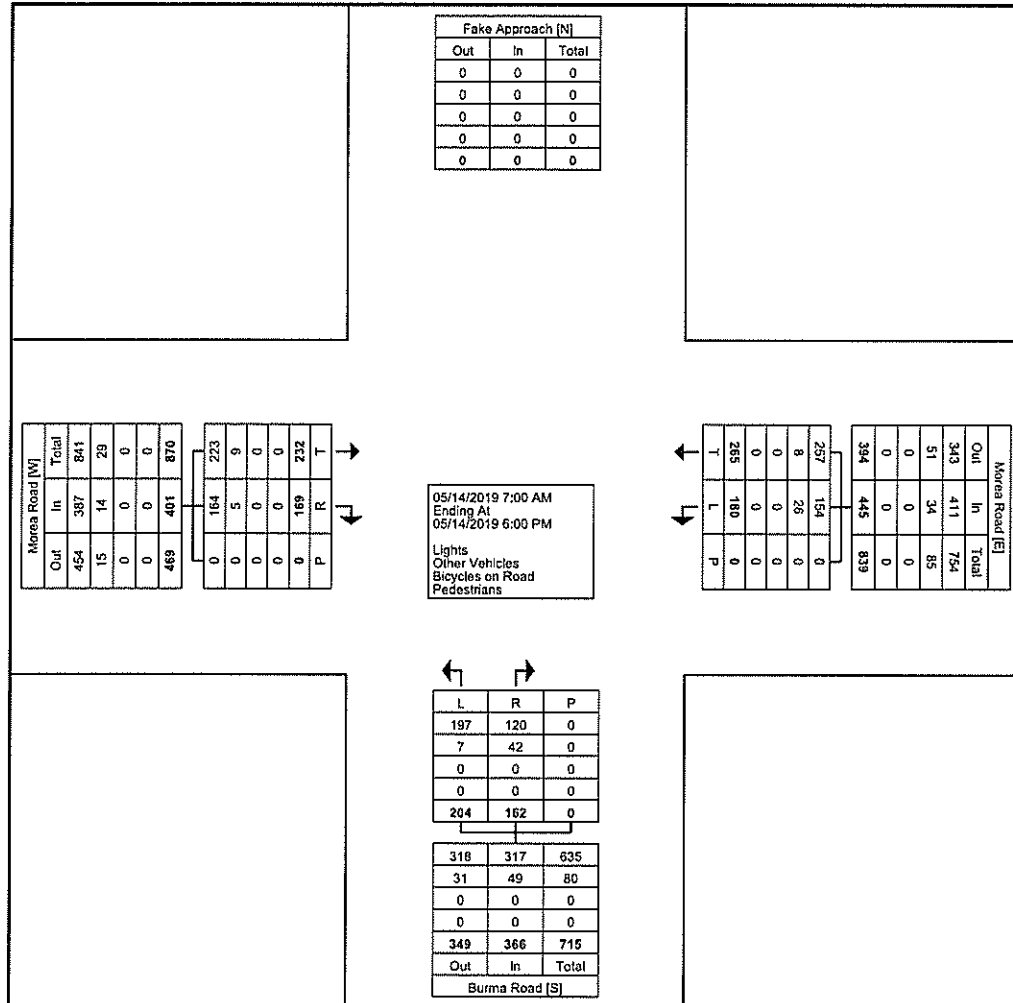
Count Name: Burma Road &  
Morea Road  
Site Code:  
Start Date: 05/14/2019  
Page No: 1

## Turning Movement Data

[illegible]

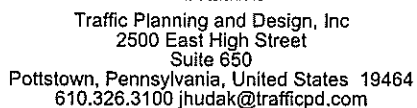
Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:

Count Name: Burma Road &  
Morea Road  
Site Code:  
Start Date: 05/14/2019  
Page No: 2



### Turning Movement Data Plot





Count Name: Burma Road &  
Morea Road  
Site Code:  
Start Date: 05/14/2019  
Page No: 3

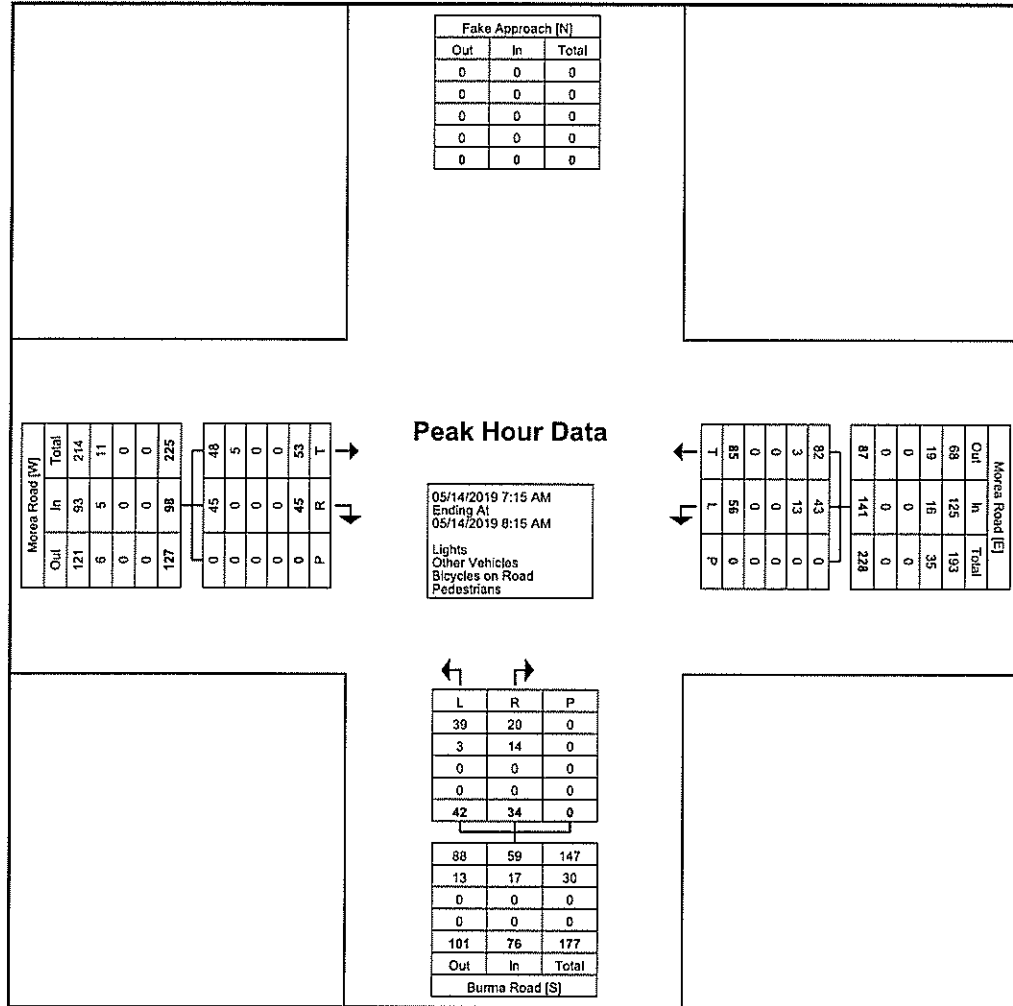
[illegible]



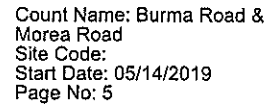
Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 jhudak@trafficpd.com

Counted By: Mlo:  
Set Up By: JH:  
Weather: Clear:

Count Name: Burma Road &  
Morea Road  
Site Code:  
Start Date: 05/14/2019  
Page No: 4



Turning Movement Peak Hour Data Plot (7:15 AM)



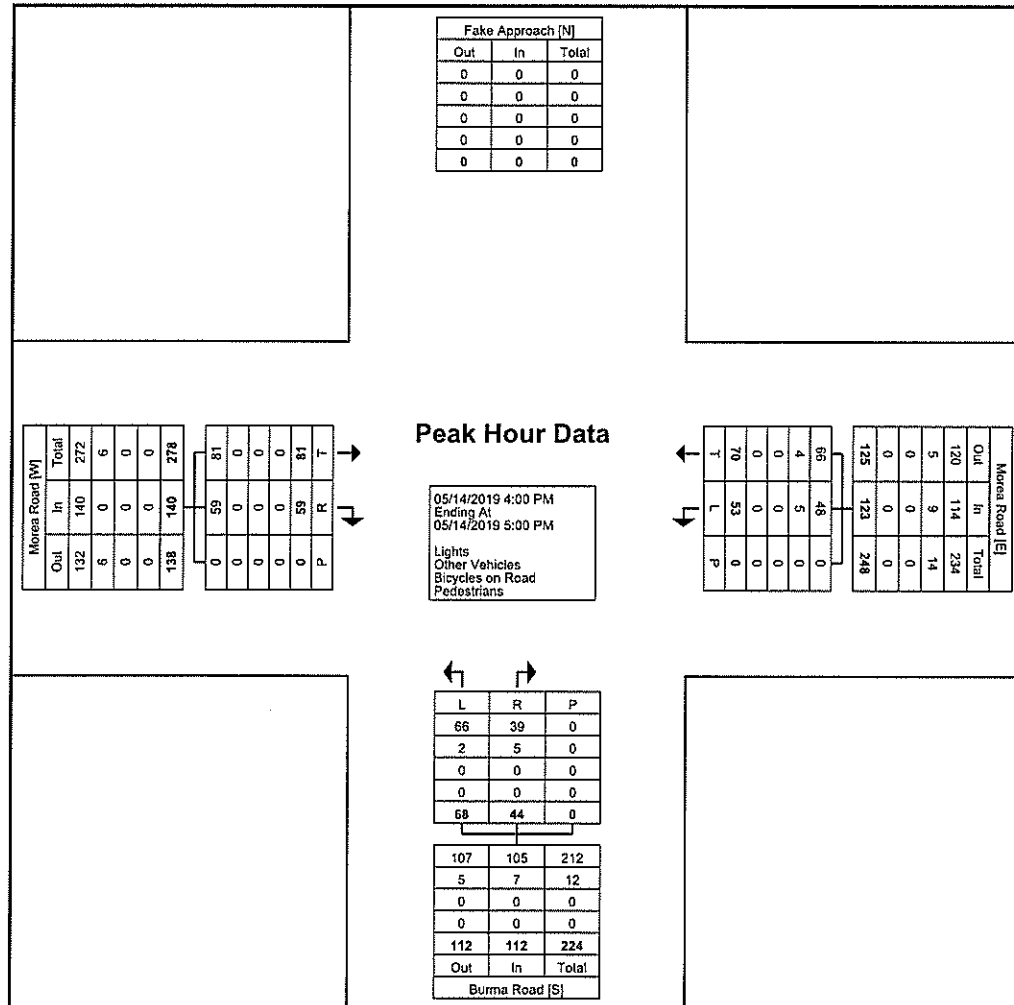




Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:

Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 jhudak@trafficpd.com

Count Name: Burma Road &  
Morea Road  
Site Code:  
Start Date: 05/14/2019  
Page No: 6





Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 jhudak@trafficpd.com

Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:

Count Name: Burma Road &  
Morea Road  
Site Code:  
Start Date: 05/14/2019  
Page No: 7



Traffic Planning and Design, Inc  
 2500 East High Street  
 Suite 650  
 Pottstown, Pennsylvania, United States 19464  
 610.326.3100 jhudak@trafficpd.com

Counted By: Mio:  
 Set Up By: JH:  
 Weather: Clear:

Count Name: ATR 1  
 Site Code:  
 Start Date: 05/14/2019  
 Page No: 1

**Direction (Northbound)**

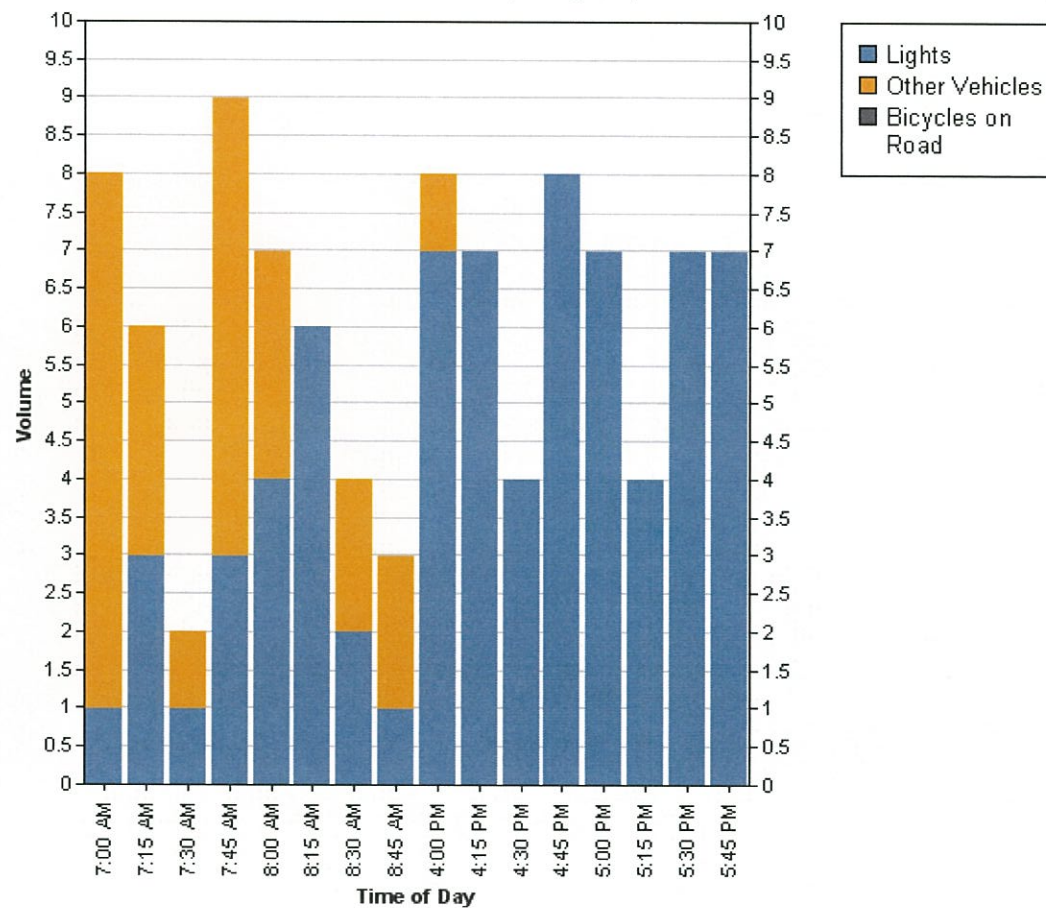
Start Time	Lights	Other Vehicles	Bicycles on Road	Total
7:00 AM	1	7	0	8
7:15 AM	3	3	0	6
7:30 AM	1	1	0	2
7:45 AM	3	6	0	9
8:00 AM	4	3	0	7
8:15 AM	6	0	0	6
8:30 AM	2	2	0	4
8:45 AM	1	2	0	3
4:00 PM	7	1	0	8
4:15 PM	7	0	0	7
4:30 PM	4	0	0	4
4:45 PM	8	0	0	8
5:00 PM	7	0	0	7
5:15 PM	4	0	0	4
5:30 PM	7	0	0	7
5:45 PM	7	0	0	7
Total	72	25	0	97
Total %	74.2	25.8	0.0	100.0
AM Times	7:45 AM	7:00 AM	7:00 AM	7:45 AM
AM Peaks	15	17	0	26
PM Times	4:00 PM	4:00 PM	4:00 PM	4:00 PM
PM Peaks	26	1	0	27




Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:


Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 jhudak@trafficpd.com

Count Name: ATR 1  
Site Code:  
Start Date: 05/14/2019  
Page No: 2






Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:



Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 [jhudak@trafficpd.com](mailto:jhudak@trafficpd.com)



Count Name: ATR 1  
Site Code:  
Start Date: 05/14/2019  
Page No: 3

**Study Name Route 54 (Vulcan Hill Rd) & I-81 NB on/off-ramps**

**Start Date 05/14/2019**

**Start Time 7:00 AM**

**Site Code**

**Project FKV.00001**

**Counted By: Mio**

**Set Up By: JH**

**Weather:Clear**

**Type Road  
Classification Lights**

ATR No.,	Route 54		I-81			
	Eastbound		Westbound		Northbound	Southbound
	Through	Right	Left	Through	Right	Right
	3			2	6	1
7:00 AM	23	14	1	49	6	1
7:15 AM	20	16	0	61	11	3
7:30 AM	31	28	0	53	13	1
7:45 AM	36	23	0	56	15	3
8:00 AM	29	12	0	35	9	4
8:15 AM	19	20	0	44	7	6
8:30 AM	34	19	0	28	5	2
8:45 AM	25	13	0	26	6	1
4:00 PM	51	29	0	41	12	7
4:15 PM	32	19	0	44	17	7
4:30 PM	42	18	3	50	15	4
4:45 PM	36	14	0	63	18	8
5:00 PM	45	20	0	46	12	7
5:15 PM	33	12	0	50	19	4
5:30 PM	30	8	1	54	12	7
5:45 PM	31	16	1	33	6	7



**Study Name Route 54 (Vulcan Hill Rd) & I-81 NB on/off-ramps**

**Start Date 05/14/2019**

**Start Time 7:00 AM**

**Site Code**

**Project FKV.00001**

**Counted By: Mio**

**Set Up By: JH**

**Weather:Clear**

**Type Road**

**Classification Other Vehicles**

ATR No.,	Route 54				I-81		
	Eastbound		Westbound		Northbound	Southbound	
	Through	Right	Left	Through	Right	Right	
	3				2	6	1
7:00 AM	3	1	0	3	1		7
7:15 AM	7	2	0	2	4		3
7:30 AM	4	1	0	8	1		1
7:45 AM	5	4	0	4	0		6
8:00 AM	0	5	0	3	4		3
8:15 AM	6	3	0	4	1		0
8:30 AM	2	7	0	4	2		2
8:45 AM	1	6	0	1	1		2
4:00 PM	1	2	0	5	1		1
4:15 PM	2	2	0	4	0		0
4:30 PM	1	3	0	4	1		0
4:45 PM	1	0	0	2	1		0
5:00 PM	0	1	0	1	0		0
5:15 PM	0	0	0	0	0		0
5:30 PM	0	0	1	1	2		0
5:45 PM	0	0	0	1	1		0

**Study Name Route 54 (Vulcan Hill Rd) & I-81 NB on/off-ramps**

**Start Date 05/14/2019**

**Start Time 7:00 AM**

**Site Code**

**Project FKV.00001**

**Counted By: Mio**

**Set Up By: JH**

**Weather:Clear**

**Type Road**

**Classification Bicycles on Road**

	Route 54		I-81	
	Eastbound	Westbound	Northbound	Southbound
	Through	Right	Through	Right
ATR No.,				
7:00 AM				
7:15 AM				
7:30 AM				
7:45 AM				
8:00 AM				
8:15 AM				
8:30 AM				
8:45 AM				
4:00 PM				
4:15 PM				
4:30 PM				
4:45 PM				
5:00 PM				
5:15 PM				
5:30 PM				
5:45 PM				

**Study Name** Route 54 (Vulcan Hill Rd) & I-81 SB on/off-ramps - Morea Road

**Start Date** 05/14/2019

**Start Time** 7:00 AM

**Site Code**

**Project** FKV.00001

**Counted By:** Mio

**Set Up By:** JH

**Weather:** Clear

**Type** Crosswalk

**Classification** Pedestrians

	Morea Road Eastbound			I-81 SB on/off-ramps Westbound			Route 54 (Vulcan Hill Rd) Northbound			Route 54 (Vulcan Hill Rd) Southbound		
Start Time	Peds CW	Peds CCW	Peds Combin	Peds CW	Peds CCW	Peds Combin	Peds CW	Peds CCW	Peds Combin	Peds CW	Peds CCW	Peds Combin
7:00 AM	0	0		0	0		0	0		0	0	
7:15 AM	0	0		0	0		0	0		0	0	
7:30 AM	0	0		0	0		0	0		0	0	
7:45 AM	0	0		0	0		0	0		0	0	
8:00 AM	0	0		0	0		0	0		0	0	
8:15 AM	0	0		0	0		0	0		0	0	
8:30 AM	0	0		0	0		0	0		0	0	
8:45 AM	0	0		0	0		0	0		0	0	
4:00 PM	0	0		0	0		0	0		0	0	
4:15 PM	0	0		0	0		0	0		0	0	
4:30 PM	0	0		0	0		0	0		0	0	
4:45 PM	0	0		0	0		0	0		0	0	
5:00 PM	0	0		0	0		0	0		0	0	
5:15 PM	0	0		0	0		0	0		0	0	
5:30 PM	0	0		0	0		0	0		0	0	
5:45 PM	0	0		0	0		0	0		0	0	



**Study Name Route 54 (Vulcan Hill Rd) & I-81 NB on/off-ramps**

**Start Date 05/14/2019**

**Start Time 7:00 AM**

**Site Code**

**Project FKV.00001**

**Counted By: Mio**

**Set Up By: JH**

**Weather:Clear**

**Type Road  
Classification Totals**

ATR No.,	Route 54		I-81			
	Eastbound		Westbound		Northbound	Southbound
	Through	Right	Left	Through	Right	Right
7:00 AM	26	18	1	52	7	8
7:15 AM	27	29	0	63	15	6
7:30 AM	35	27	0	61	14	2
7:45 AM	41	17	0	60	15	9
8:00 AM	29	23	0	38	13	7
8:15 AM	25	26	0	48	8	6
8:30 AM	36	19	0	32	7	4
8:45 AM	26	31	0	27	7	3
4:00 PM	52	21	0	46	13	8
4:15 PM	34	21	0	48	17	7
4:30 PM	43	14	3	54	16	4
4:45 PM	37	21	0	65	19	8
5:00 PM	45	12	0	47	12	7
5:15 PM	33	8	0	50	19	4
5:30 PM	30	16	2	55	14	7
5:45 PM	31	0	1	34	7	7

**Study Name** Route 54 (Vulcan Hill Rd) & I-81 SB on/off-ramps - Morea Road

**Start Date** 05/14/2019

**Start Time** 7:00 AM

**Site Code**

**Project** FKV.00001

**Counted By:** Mio

**Set Up By:** JH

**Weather:** Clear

**Type Road**

**Classification Lights**

Start Time	Morea Road Eastbound				I-81 SB on/off-ramps Westbound			Route 54 (Vulcan Hill Rd) Northbound			Route 54 (Vulcan Hill Rd) Southbound		
	Hard Left	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
7:00 AM		0	0	16	0	0	10	13	23	8	0	21	6
7:15 AM		2	0	12	0	0	4	21	33	10	0	31	8
7:30 AM		2	0	20	0	0	12	24	17	10	0	33	12
7:45 AM		0	0	20	0	0	13	21	29	10	0	40	4
8:00 AM		3	0	12	0	0	11	15	16	6	0	27	4
8:15 AM		5	0	17	0	0	7	11	29	9	0	24	6
8:30 AM		2	0	16	0	0	8	12	10	5	0	35	8
8:45 AM		0	0	11	0	0	1	9	15	4	0	28	8
4:00 PM		7	0	35	0	0	9	15	23	10	0	44	11
4:15 PM		11	0	19	0	0	19	11	36	7	0	29	7
4:30 PM		5	0	24	0	0	9	15	27	11	0	41	15
4:45 PM		8	0	18	0	0	12	22	48	8	0	31	4
5:00 PM		4	0	30	0	0	22	13	19	12	0	30	9
5:15 PM		7	0	20	0	0	19	14	30	8	0	29	10
5:30 PM		7	0	16	0	0	18	14	32	11	0	20	12
5:45 PM		9	0	23	0	0	12	11	25	3	0	27	6

Study Name Route 54 (Vulcan Hill Rd) & I-81 SB on/off-ramps - Morea Road

Start Date 05/14/2019

Start Time 7:00 AM

Site Code

Project FKV.00001

Counted By: Mio

Set Up By: JH

Weather: Clear

Type Road  
Classification Other Vehicles

	Morea Road Eastbound				I-81 SB on/off-ramps Westbound			Route 54 (Vulcan Hill Rd) Northbound			Route 54 (Vulcan Hill Rd) Southbound		
Start Time	Hard Left	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
7:00 AM		0	0	1	0	0	0	7	0	1	0	2	0
7:15 AM		0	0	1	0	0	0	4	1	1	0	8	0
7:30 AM		0	0	5	0	0	1	3	3	3	0	2	1
7:45 AM		0	0	6	0	0	3	7	2	0	0	0	0
8:00 AM		0	0	4	0	0	2	1	5	0	0	0	1
8:15 AM		0	0	8	0	0	1	0	1	3	0	3	0
8:30 AM		0	0	6	0	0	0	3	1	2	0	3	1
8:45 AM		0	0	2	0	0	0	3	2	0	0	2	1
4:00 PM		0	0	2	0	0	0	2	2	2	0	1	0
4:15 PM		0	0	3	0	0	1	0	1	2	0	1	0
4:30 PM		0	0	2	0	0	0	1	1	1	0	1	1
4:45 PM		0	0	0	0	0	0	1	1	0	0	1	0
5:00 PM		0	0	0	0	0	0	0	0	1	0	2	1
5:15 PM		0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM		0	0	1	0	0	0	0	0	0	0	1	0
5:45 PM		0	0	0	0	0	0	0	1	0	0	0	0



**Weather:Clear**

[illegible]

**Study Name** Route 54 (Vulcan Hill Rd) & I-81 SB on/off-ramps - Morea Road

**Start Date** 05/14/2019

**Start Time** 7:00 AM

**Site Code**

**Project** FKV.00001

**Counted By:** Mio

**Set Up By:** JH

**Weather:** Clear

**Type Crosswalk**

**Classification Pedestrians**

Start Time	Morea Road Eastbound			I-81 SB on/off-ramps Westbound			Route 54 (Vulcan Hill Rd) Northbound			Route 54 (Vulcan Hill Rd) Southbound		
	Peds CW	Peds CCW	Peds Combin	Peds CW	Peds CCW	Peds Combin	Peds CW	Peds CCW	Peds Combin	Peds CW	Peds CCW	Peds Combin
7:00 AM	0	0		0	0		0	0		0	0	
7:15 AM	0	0		0	0		0	0		0	0	
7:30 AM	0	0		0	0		0	0		0	0	
7:45 AM	0	0		0	0		0	0		0	0	
8:00 AM	0	0		0	0		0	0		0	0	
8:15 AM	0	0		0	0		0	0		0	0	
8:30 AM	0	0		0	0		0	0		0	0	
8:45 AM	0	0		0	0		0	0		0	0	
4:00 PM	0	0		0	0		0	0		0	0	
4:15 PM	0	0		0	0		0	0		0	0	
4:30 PM	0	0		0	0		0	0		0	0	
4:45 PM	0	0		0	0		0	0		0	0	
5:00 PM	0	0		0	0		0	0		0	0	
5:15 PM	0	0		0	0		0	0		0	0	
5:30 PM	0	0		0	0		0	0		0	0	
5:45 PM	0	0		0	0		0	0		0	0	

**Study Name** Route 54 (Vulcan Hill Rd) & I-81 SB on/off-ramps - Morea Road

**Start Date** 05/14/2019

**Start Time** 7:00 AM

**Site Code**

**Project** FKV.00001

**Counted By:** Mio

**Set Up By:** JH

**Weather:** Clear

**Type Road**  
**Classification Totals**

	Morea Road Eastbound				I-81 SB on/off-ramps Westbound			Route 54 (Vulcan Hill Rd) Northbound			Route 54 (Vulcan Hill Rd) Southbound		
Start Time	Hard Left	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
7:00 AM		0	0	17	0	0	10	20	23	9	0	23	6
7:15 AM		2	0	13	0	0	4	25	34	11	0	39	8
7:30 AM		2	0	25	0	0	13	27	20	13	0	35	13
7:45 AM		0	0	26	0	0	16	28	31	10	0	40	4
8:00 AM		3	0	16	0	0	13	16	21	6	0	27	5
8:15 AM		5	0	25	0	0	8	11	30	12	0	27	6
8:30 AM		2	0	22	0	0	8	15	11	7	0	38	9
8:45 AM		0	0	13	0	0	1	12	17	4	0	30	9
4:00 PM		7	0	37	0	0	9	17	25	12	0	45	11
4:15 PM		11	0	22	0	0	20	11	37	9	0	30	7
4:30 PM		5	0	26	0	0	9	16	28	12	0	42	16
4:45 PM		8	0	18	0	0	12	23	49	8	0	32	4
5:00 PM		4	0	30	0	0	22	13	19	13	0	32	10
5:15 PM		7	0	20	0	0	19	14	30	8	0	29	10
5:30 PM		7	0	17	0	0	18	14	32	11	0	21	12
5:45 PM		9	0	23	0	0	12	11	26	3	0	27	6





Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 jhudak@trafficpd.com

Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:

Count Name: ATR 5  
Site Code:  
Start Date: 05/14/2019  
Page No: 1

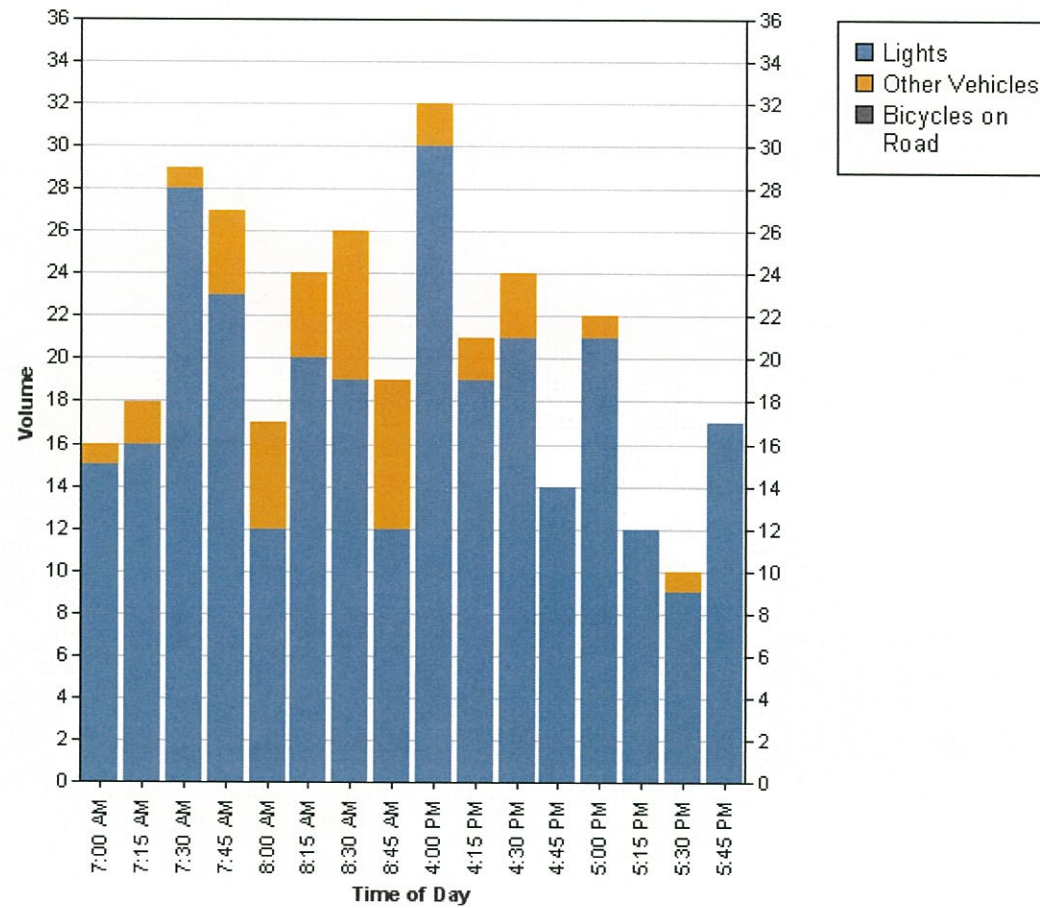
**Direction (Westbound)**


Start Time	Lights	Other Vehicles	Bicycles on Road	Total
7:00 AM	15	1	0	16
7:15 AM	16	2	0	18
7:30 AM	28	1	0	29
7:45 AM	23	4	0	27
8:00 AM	12	5	0	17
8:15 AM	20	4	0	24
8:30 AM	19	7	0	26
8:45 AM	12	7	0	19
4:00 PM	30	2	0	32
4:15 PM	19	2	0	21
4:30 PM	21	3	0	24
4:45 PM	14	0	0	14
5:00 PM	21	1	0	22
5:15 PM	12	0	0	12
5:30 PM	9	1	0	10
5:45 PM	17	0	0	17
Total	288	40	0	328
Total %	87.8	12.2	0.0	100.0
AM Times	7:30 AM	8:00 AM	7:00 AM	7:30 AM
AM Peaks	83	23	0	97
PM Times	4:00 PM	4:00 PM	4:00 PM	4:00 PM
PM Peaks	84	7	0	91

Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:


Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 jhudak@trafficpd.com

Count Name: ATR 5  
Site Code:  
Start Date: 05/14/2019  
Page No: 2






Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:



Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 [jhudak@trafficpd.com](mailto:jhudak@trafficpd.com)



Count Name: ATR 5  
Site Code:  
Start Date: 05/14/2019  
Page No: 3





Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 jhudak@trafficpd.com

Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:

Count Name: ATR 4  
Site Code:  
Start Date: 05/14/2019  
Page No: 1

**Direction (Westbound)**

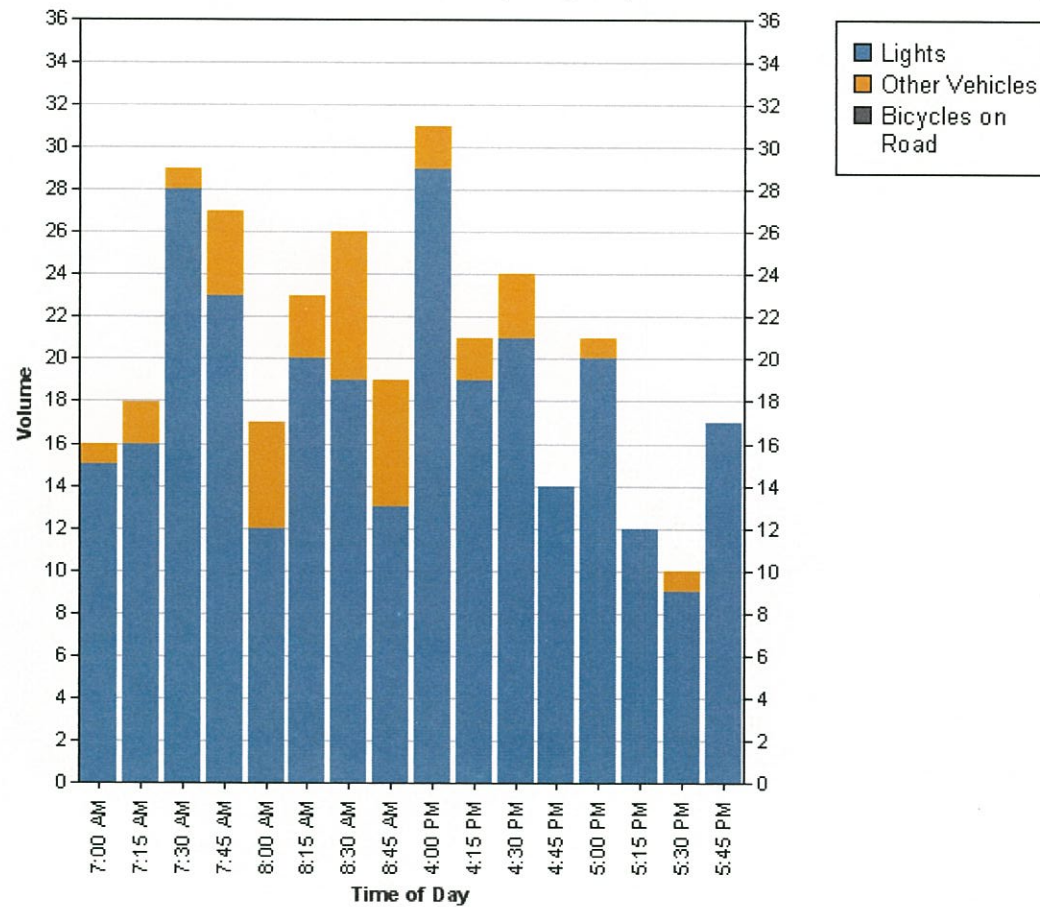
Start Time	Lights	Other Vehicles	Bicycles on Road	Total
7:00 AM	15	1	0	16
7:15 AM	16	2	0	18
7:30 AM	28	1	0	29
7:45 AM	23	4	0	27
8:00 AM	12	5	0	17
8:15 AM	20	3	0	23
8:30 AM	19	7	0	26
8:45 AM	13	6	0	19
4:00 PM	29	2	0	31
4:15 PM	19	2	0	21
4:30 PM	21	3	0	24
4:45 PM	14	0	0	14
5:00 PM	20	1	0	21
5:15 PM	12	0	0	12
5:30 PM	9	1	0	10
5:45 PM	17	0	0	17
Total	287	38	0	325
Total %	88.3	11.7	0.0	100.0
AM Times	7:30 AM	8:00 AM	7:00 AM	7:30 AM
AM Peaks	83	21	0	96
PM Times	4:00 PM	4:00 PM	4:00 PM	4:00 PM
PM Peaks	83	7	0	90



Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 jhudak@trafficpd.com

Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:

Count Name: ATR 4  
Site Code:  
Start Date: 05/14/2019  
Page No: 2



Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:

Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 [jhudak@trafficpd.com](mailto:jhudak@trafficpd.com)

Count Name: ATR 4  
Site Code:  
Start Date: 05/14/2019  
Page No: 3





Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 jhudak@trafficpd.com

Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:

Count Name: ATR 2  
Site Code:  
Start Date: 05/14/2019  
Page No: 1

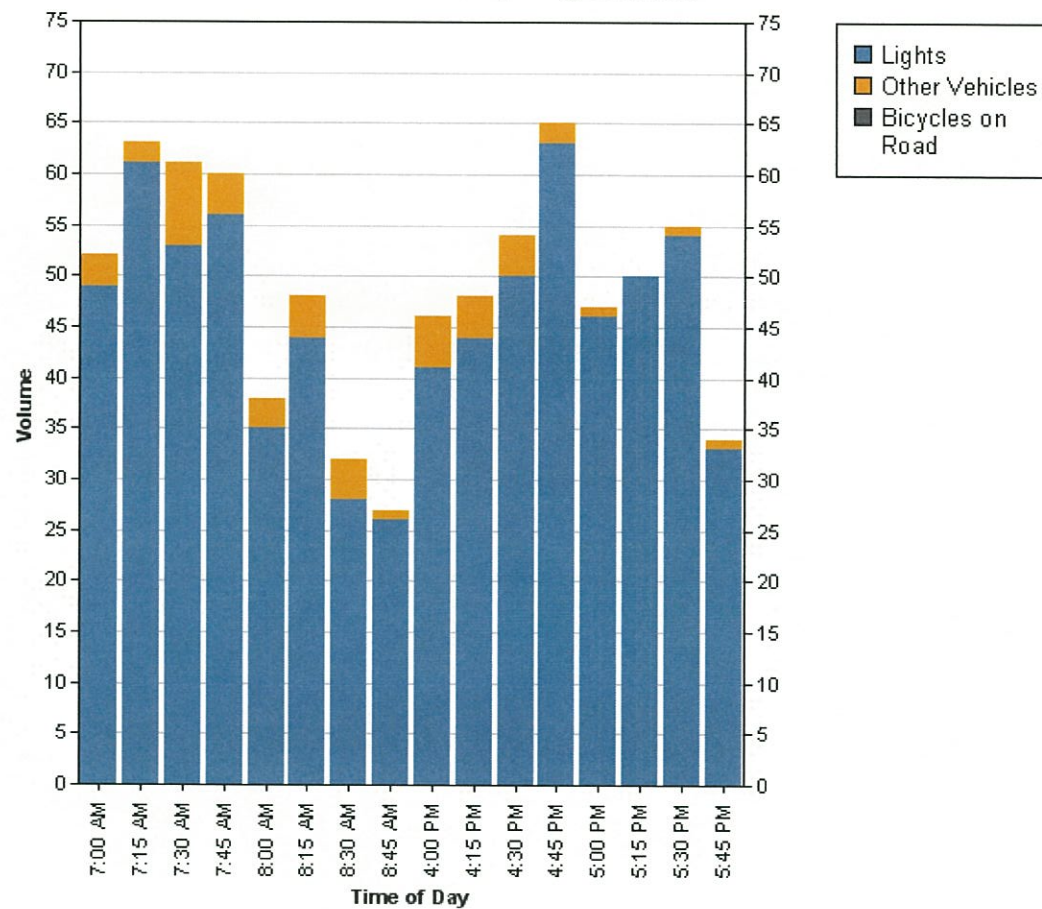
**Direction (Northbound)**

Start Time	Lights	Other Vehicles	Bicycles on Road	Total
7:00 AM	49	3	0	52
7:15 AM	61	2	0	63
7:30 AM	53	8	0	61
7:45 AM	56	4	0	60
8:00 AM	35	3	0	38
8:15 AM	44	4	0	48
8:30 AM	28	4	0	32
8:45 AM	26	1	0	27
4:00 PM	41	5	0	46
4:15 PM	44	4	0	48
4:30 PM	50	4	0	54
4:45 PM	63	2	0	65
5:00 PM	46	1	0	47
5:15 PM	50	0	0	50
5:30 PM	54	1	0	55
5:45 PM	33	1	0	34
Total	733	47	0	780
Total %	94.0	6.0	0.0	100.0
AM Times	7:00 AM	7:30 AM	7:00 AM	7:00 AM
AM Peaks	219	19	0	236
PM Times	4:45 PM	4:00 PM	4:00 PM	4:45 PM
PM Peaks	213	15	0	217

Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:

Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 jhudak@trafficpd.com

Count Name: ATR 2  
Site Code:  
Start Date: 05/14/2019  
Page No: 2



Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:

Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 [jhudak@trafficpd.com](mailto:jhudak@trafficpd.com)

Count Name: ATR 2  
Site Code:  
Start Date: 05/14/2019  
Page No: 3





Traffic Planning and Design, Inc  
 2500 East High Street  
 Suite 650  
 Pottstown, Pennsylvania, United States 19464  
 610.326.3100 jhudak@trafficpd.com

Counted By: Mio:  
 Set Up By: JH:  
 Weather: Clear:

Count Name: ATR 3  
 Site Code:  
 Start Date: 05/14/2019  
 Page No: 1

**Direction (Southbound)**

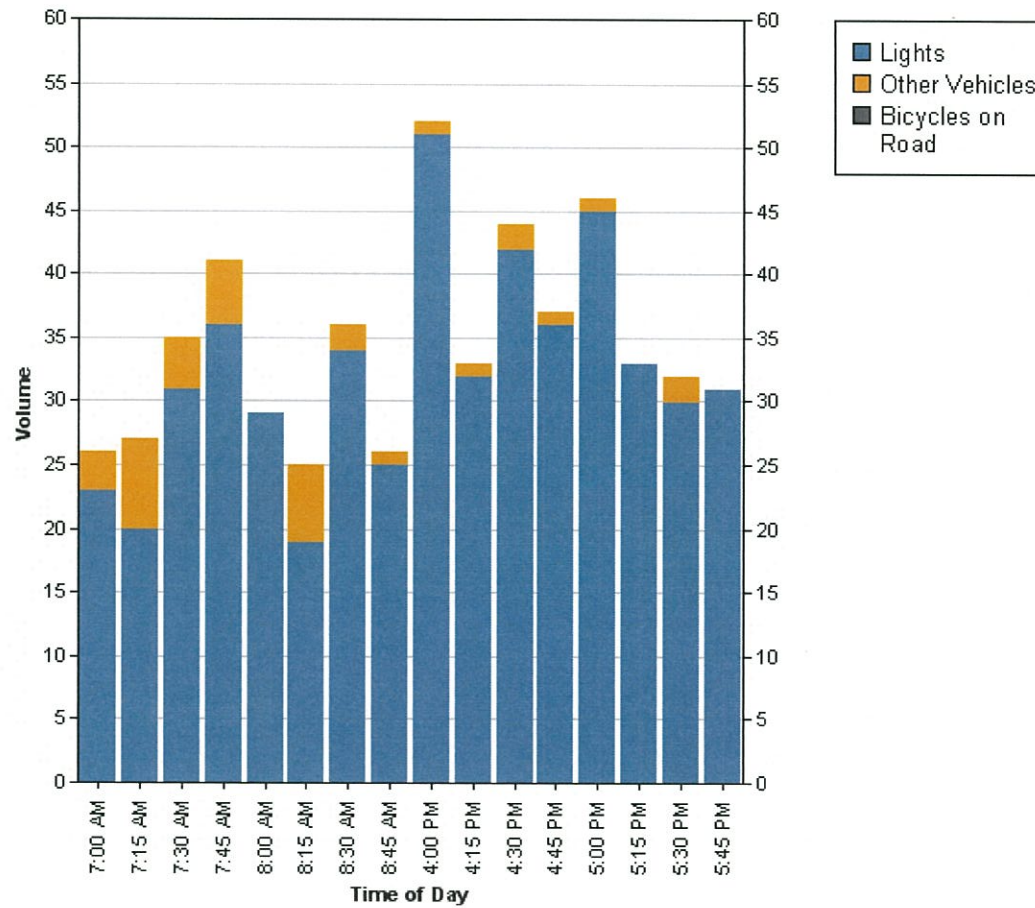
Start Time	Lights	Other Vehicles	Bicycles on Road	Total
7:00 AM	23	3	0	26
7:15 AM	20	7	0	27
7:30 AM	31	4	0	35
7:45 AM	36	5	0	41
8:00 AM	29	0	0	29
8:15 AM	19	6	0	25
8:30 AM	34	2	0	36
8:45 AM	25	1	0	26
4:00 PM	51	1	0	52
4:15 PM	32	1	0	33
4:30 PM	42	2	0	44
4:45 PM	36	1	0	37
5:00 PM	45	1	0	46
5:15 PM	33	0	0	33
5:30 PM	30	2	0	32
5:45 PM	31	0	0	31
Total	517	36	0	553
Total %	93.5	6.5	0.0	100.0
AM Times	7:45 AM	7:00 AM	7:00 AM	7:15 AM
AM Peaks	118	19	0	132
PM Times	4:00 PM	4:00 PM	4:00 PM	4:00 PM
PM Peaks	161	5	0	166



Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 jhudak@trafficpd.com

Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:

Count Name: ATR 3  
Site Code:  
Start Date: 05/14/2019  
Page No: 2





Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 jhudak@trafficpd.com

Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:

Count Name: I-81 SB on/off-ramps & Morea Road  
Site Code:  
Start Date: 05/14/2019  
Page No: 1

### Turning Movement Data

Start Time	Morea Road Eastbound				Morea Road Westbound				I-81 SB on/off-ramps Northbound				Int. Total
	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	
7:00 AM	12	2	0	14	6	21	0	27	13	0	0	13	54
7:15 AM	17	2	0	19	10	23	0	33	19	2	0	21	73
7:30 AM	24	4	0	28	7	28	0	35	15	2	0	17	80
7:45 AM	26	5	0	31	7	27	1	34	11	3	0	14	79
Hourly Total	79	13	0	92	30	99	1	129	58	7	0	65	286
8:00 AM	14	5	0	19	5	13	2	18	10	2	0	12	49
8:15 AM	22	6	0	28	6	13	1	19	6	3	0	9	56
8:30 AM	20	9	0	29	4	16	2	20	7	4	0	11	60
8:45 AM	16	5	0	21	9	15	0	24	8	0	0	8	53
Hourly Total	72	25	0	97	24	57	5	81	31	9	0	40	218
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	42	2	0	44	5	19	0	24	7	4	0	11	79
4:15 PM	26	3	0	29	6	16	0	22	11	1	0	12	63
4:30 PM	28	0	0	28	4	20	0	24	13	1	0	14	66
4:45 PM	27	0	0	27	10	26	0	36	9	4	0	13	76
Hourly Total	123	5	0	128	25	81	0	106	40	10	0	50	284
5:00 PM	29	0	0	29	5	20	0	25	15	5	0	20	74
5:15 PM	29	1	0	30	7	19	0	26	3	0	0	3	59
5:30 PM	17	1	0	18	6	15	0	21	4	2	0	6	45
5:45 PM	29	0	0	29	1	16	0	17	9	1	0	10	56
Hourly Total	104	2	0	106	19	70	0	89	31	8	0	39	234
Grand Total	378	45	0	423	98	307	6	405	160	34	0	194	1022
Approach %	89.4	10.6	-	-	24.2	75.8	-	-	82.5	17.5	-	-	-
Total %	37.0	4.4	-	41.4	9.6	30.0	-	39.6	15.7	3.3	-	19.0	-
Lights	347	17	-	364	94	280	-	374	149	32	-	181	919
% Lights	91.8	37.8	-	86.1	95.9	91.2	-	92.3	93.1	94.1	-	93.3	89.9
Other Vehicles	31	28	-	59	4	27	-	31	11	2	-	13	103
% Other Vehicles	8.2	62.2	-	13.9	4.1	8.8	-	7.7	6.9	5.9	-	6.7	10.1
Bicycles on Road	0	0	-	0	0	0	-	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	0	-	-	-	0	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	0.0	-	-	-	-	-	-

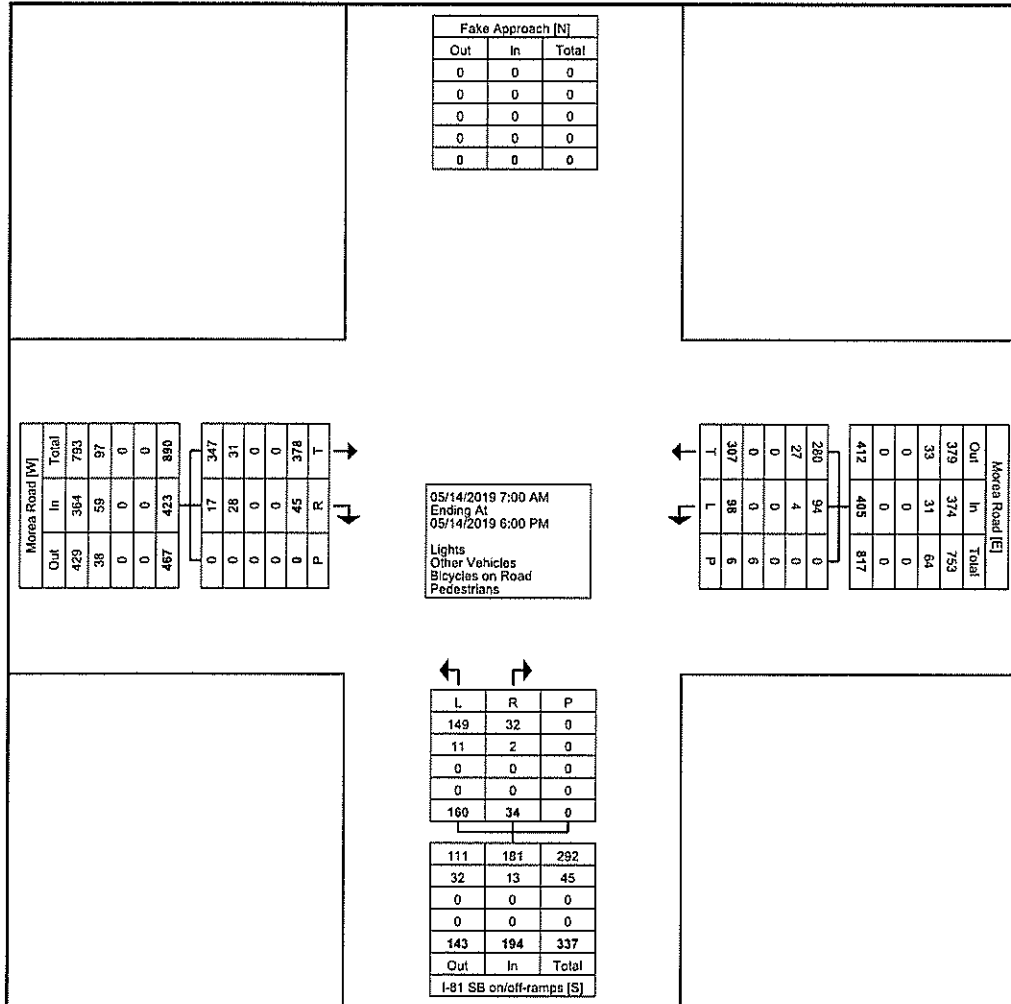




Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 jhudak@trafficpd.com

Counted By: Mlo:  
Set Up By: JH:  
Weather: Clear:

Count Name: I-81 SB on/off-  
ramps & Morea Road  
Site Code:  
Start Date: 05/14/2019  
Page No: 2



Turning Movement Data Plot



Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 jhudak@trafficpd.com

Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:

Count Name: I-81 SB on/off-ramps & Morea Road  
Site Code:  
Start Date: 05/14/2019  
Page No: 3

### Turning Movement Peak Hour Data (7:00 AM)

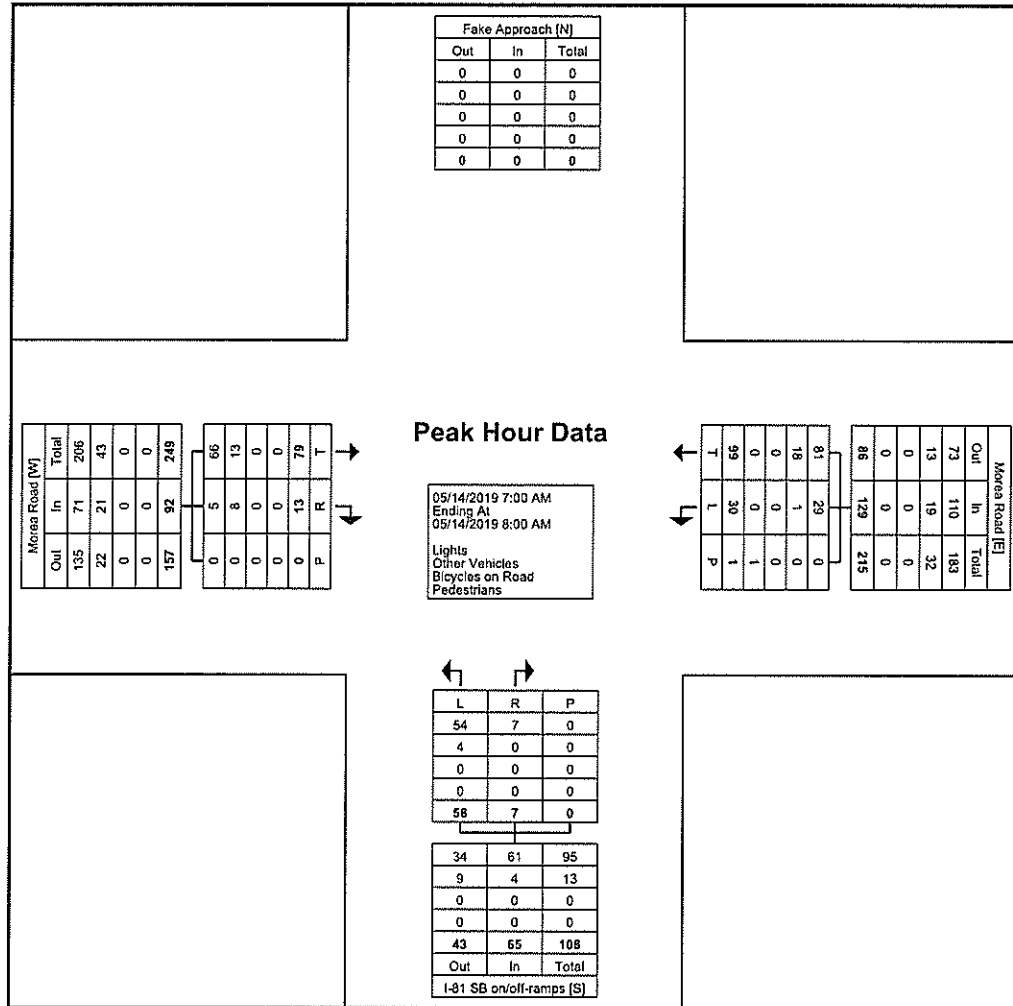
Start Time	Morea Road Eastbound				Morea Road Westbound				I-81 SB on/off-ramps Northbound				Int. Total
	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	
7:00 AM	12	2	0	14	6	21	0	27	13	0	0	13	54
7:15 AM	17	2	0	19	10	23	0	33	19	2	0	21	73
7:30 AM	24	4	0	28	7	28	0	35	15	2	0	17	80
7:45 AM	26	5	0	31	7	27	1	34	11	3	0	14	79
Total	79	13	0	92	30	99	1	129	58	7	0	65	285
Approach %	85.9	14.1	-	-	23.3	76.7	-	-	89.2	10.8	-	-	-
Total %	27.6	4.5	-	32.2	10.5	34.6	-	45.1	20.3	2.4	-	22.7	-
PHF	0.760	0.650	-	0.742	0.750	0.884	-	0.921	0.763	0.583	-	0.774	0.894
Lights	66	5	-	71	29	81	-	110	54	7	-	61	242
% Lights	83.5	38.5	-	77.2	96.7	81.8	-	85.3	93.1	100.0	-	93.8	84.6
Other Vehicles	13	8	-	21	1	18	-	19	4	0	-	4	44
% Other Vehicles	16.5	61.5	-	22.8	3.3	18.2	-	14.7	6.9	0.0	-	6.2	15.4
Bicycles on Road	0	0	-	0	0	0	-	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	0	-	-	-	1	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	100.0	-	-	-	-	-	-



Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 jhudak@trafficpd.com

Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:

Count Name: I-81 SB on/off-  
ramps & Morea Road  
Site Code:  
Start Date: 05/14/2019  
Page No: 4









Traffic Planning and Design, Inc  
 2500 East High Street  
 Suite 650  
 Pottstown, Pennsylvania, United States 19464  
 610.326.3100 jhudak@trafficpd.com

Counted By: Mio:  
 Set Up By: JH:  
 Weather: Clear:

Count Name: ATR 6  
 Site Code:  
 Start Date: 05/14/2019  
 Page No: 1

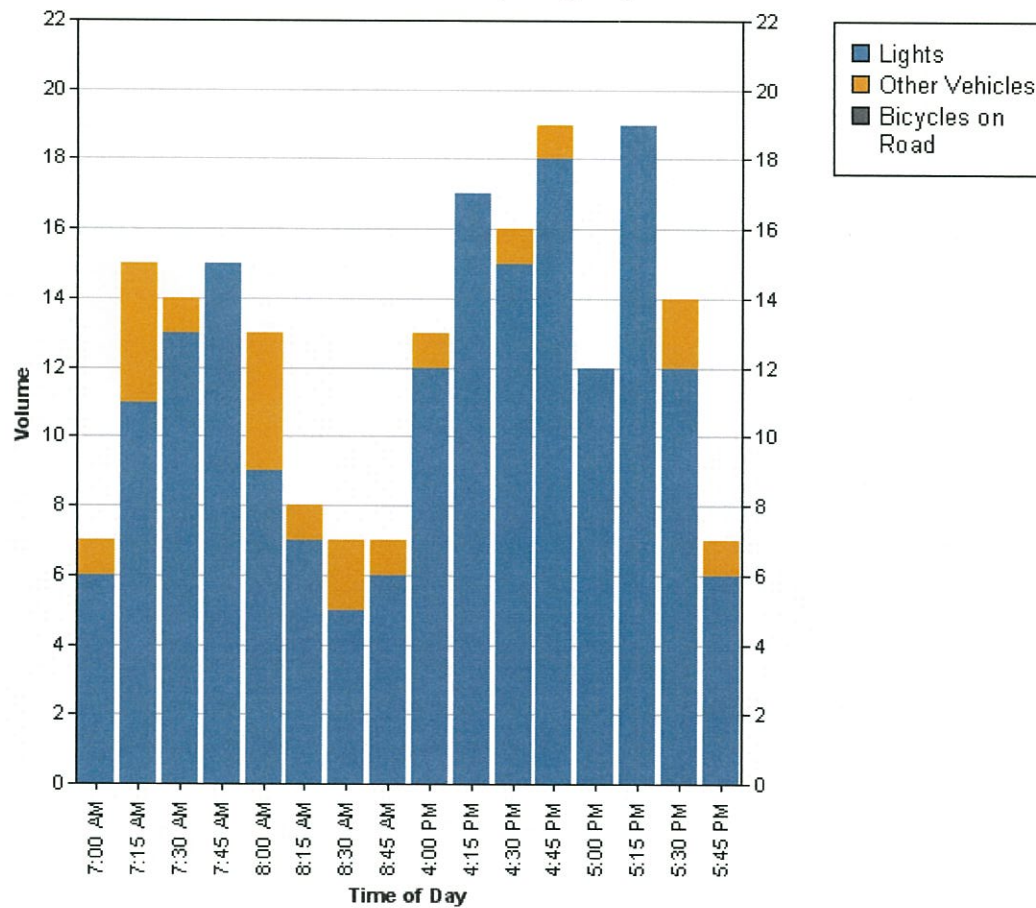
**Direction (Eastbound)**

Start Time	Lights	Other Vehicles	Bicycles on Road	Total
7:00 AM	6	1	0	7
7:15 AM	11	4	0	15
7:30 AM	13	1	0	14
7:45 AM	15	0	0	15
8:00 AM	9	4	0	13
8:15 AM	7	1	0	8
8:30 AM	5	2	0	7
8:45 AM	6	1	0	7
4:00 PM	12	1	0	13
4:15 PM	17	0	0	17
4:30 PM	15	1	0	16
4:45 PM	18	1	0	19
5:00 PM	12	0	0	12
5:15 PM	19	0	0	19
5:30 PM	12	2	0	14
5:45 PM	6	1	0	7
Total	183	20	0	203
Total %	90.1	9.9	0.0	100.0
AM Times	7:15 AM	7:15 AM	7:00 AM	7:15 AM
AM Peaks	48	9	0	57
PM Times	4:30 PM	4:00 PM	4:00 PM	4:30 PM
PM Peaks	64	3	0	66

Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:

Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 jhudak@trafficpd.com

Count Name: ATR 6  
Site Code:  
Start Date: 05/14/2019  
Page No: 2





Counted By: Mio:  
Set Up By: JH:  
Weather: Clear:

Traffic Planning and Design, Inc  
2500 East High Street  
Suite 650  
Pottstown, Pennsylvania, United States 19464  
610.326.3100 jhudak@trafficpd.com

Count Name: ATR 6  
Site Code:  
Start Date: 05/14/2019  
Page No: 3

## ***APPENDIX C:***

### ***Trip Generation Documentation***

# Trip Generation Calculations

Existing Conditions										
Time Period		Entering			Exiting			Combined		
		Cars	Trucks	Total	Cars	Trucks	Total	Cars	Trucks	Total
AM Peak	7:15 AM	2	8	10	1	22	23	3	30	33
PM Peak	4:00 PM	2	0	2	10	0	10	12	0	12

New Trips										
Time Period		Entering			Exiting			Combined		
		Cars	Trucks	Total	Cars	Trucks	Total	Cars	Trucks	Total
AM Peak	7:15 AM	1	10	11	1	26	27	2	36	38
PM Peak	4:00 PM	1	1	2	1	6	7	2	7	9

Projected Conditions										
Time Period		Entering			Exiting			Combined		
		Cars	Trucks	Total	Cars	Trucks	Total	Cars	Trucks	Total
AM Peak	7:15 AM	3	18	21	2	48	50	5	66	71
PM Peak	4:00 PM	3	1	4	11	6	17	14	7	21

## Existing Conditions 19 days

Time Period	Total Trucks/Hr	Average Trucks/Hr	Variation factor
7:00 AM	131	6.89	10.1%
8:00 AM	243	12.79	18.7%
9:00 AM	196	10.32	15.1%
10:00 AM	133	7.00	10.2%
11:00 AM	99	5.21	7.6%
12:00 PM	105	5.53	8.1%
1:00 PM	103	5.42	7.9%
2:00 PM	115	6.05	8.8%
3:00 PM	129	6.79	9.9%
4:00 PM	48	2.53	3.7%

Total Trucks: 1302 68.53  
Total Material (Tons): 23506.62  
Tons/Truck: 18.05  
Avg Tons/Day: 1237.257

## Proposed Conditions (3000 tons/day)

Truck Trips	New Trucks
9.82	20
18.22	36
14.70	29
9.97	20
7.42	15
7.88	16
7.72	15
8.62	17
9.67	19
3.60	7

54.22

10.60

Prop Increase: 3000  
Growth: 142%



**Blythe Township Landfill**  
**Trucks Per Hour Report**Transactions from 06/01/2020 through 06/22/2020  
Inbound and Outbound Tickets  
Third Party and Intercompany Customers  
Recycle and Disposal Material

ier ID: LLOGAN

Site ID: All

Hour	Total Trucks Per Hour	Average Trucks Per Hour
07:00 - 08:00	131.00	6.89
08:00 - 09:00	243.00	12.79
09:00 - 10:00	196.00	10.32
10:00 - 11:00	133.00	7.00
11:00 - 12:00	99.00	5.21
12:00 - 13:00	105.00	5.53
13:00 - 14:00	103.00	5.42
14:00 - 15:00	115.00	6.05
15:00 - 16:00	129.00	6.79
16:00 - 17:00	48.00	2.53
<b><u>Report Grand Totals</u></b>	<b><u>1,302.00</u></b>	

1,302 tickets and 1,302 transactions

**End of Report**

RpWs.rpt

Material: All  
Site ID: All

Blythe Township Landfill

**Material Report**

Transactions from 06/01/2020 through 06/22/2020

Inbound and Outbound Tickets

Third Party and Intercompany Customers

Recycle and Disposal Material

Material Summary

Page 1 of 1

6/23/2020

6:39AM

ser ID: LLOGAN

	Bill Units	Cubic Yards	Tons	Est Tons
<b>C&amp;D - C&amp;D</b>	23,196.38 TN	0.00	23,196.38	0.00
<i>1,256 tickets and 1,256 transactions</i>				
<b>FINES - Fines</b>	266.13 TN	0.00	266.13	0.00
<i>13 tickets and 13 transactions</i>				
<b>GRPUBIC - GATE RATE - GENERAL PUBLIC</b>	44.11 TN	0.00	44.11	0.00
<i>33 tickets and 33 transactions</i>				
<b>TIP - TIPPER FEE</b>	81.00 EA	0.00	0.00	0.00
<i>81 tickets and 81 transactions</i>				
<b><u>Report Grand Totals</u></b>		<u>0.00</u>	<u>23,506.62</u>	<u>0.00</u>

*1,302 tickets and 1,383 transactions*

**End of Report**

***APPENDIX D:***  
***Traffic Volume Development Worksheets***



TPD# FKV.00001  
 8/6/2020  
 Traffic Volumes Worksheet  
 Intersection:  
 Synchro Node:

SR 61 & Hancock Street									
1	Adjacent Intersections:	West	2	East	0	North	0	South	5

Time Period: Weekday A.M. Peak Hour

	Eastbound			Westbound			Northbound			Southbound			Intersection Volume
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	
Existing Counts	40	72	46	75	53	13	14	386	39	91	707	23	1559
Balancing													0
Existing Volumes (Balanced)	40	72	46	75	53	13	14	386	39	91	707	23	1559

Base growth (0.31% compounded for 10 yrs)	1	2	1	2	2	0	0	12	1	3	22	1	47
---	---	---	---	---	---	---	---	----	---	---	----	---	----

2030 Base Volumes	41	74	47	77	55	13	14	398	40	94	729	24	1606
-------------------	----	----	----	----	----	----	----	-----	----	----	-----	----	------

Landfill	
Car	Truck
ENTER =	1 10
EXIT =	1 26

Landfill Car Trips						1				1			
Landfill Truck Trips													
Total SITE Trip Distribution						1				1			

2030 Projected Volumes	41	74	47	77	55	14	14	398	40	95	729	24	1606
------------------------	----	----	----	----	----	----	----	-----	----	----	-----	----	------

Time Period: Weekday P.M. Peak Hour

	Eastbound			Westbound			Northbound			Southbound			Intersection Volume
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	
Existing Counts	53	92	56	45	71	18	66	882	89	135	593	57	2157
Balancing													0
Existing Volumes (Balanced)	53	92	56	45	71	18	66	882	89	135	593	57	2157

Base growth (0.31% compounded for 10 yrs)	2	3	2	1	2	1	2	28	3	4	19	2	69
---	---	---	---	---	---	---	---	----	---	---	----	---	----

2030 Base Volumes	55	95	58	46	73	19	68	910	92	139	612	59	2226
-------------------	----	----	----	----	----	----	----	-----	----	-----	-----	----	------

Landfill	
Car	Truck
ENTER =	1 1
EXIT =	1 6

Landfill Car Trips						1				1			
Landfill Truck Trips													
Total SITE Trip Distribution						1				1			

2030 Projected Volumes	55	95	58	46	73	20	68	910	92	140	612	59	2226
------------------------	----	----	----	----	----	----	----	-----	----	-----	-----	----	------

TPD# FKV.00001  
 8/6/2020  
 Traffic Volumes Worksheet  
 Intersection:  
 Synchro Node:

Hancock Street & 2nd Street									
2	Adjacent Intersections:	West	2	East	0	North	0	South	5

Time Period: Weekday A.M. Peak Hour

	Eastbound			Westbound			Northbound			Southbound			Intersection Volume
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	
Existing Counts	4	74	95	19	80	13	38	100	20	1	18	12	474
Balancing													0
Existing Volumes (Balanced)	4	74	95	19	80	13	38	100	20	1	18	12	474
Base growth (0.31% compounded for 10 yrs)	0	2	3	1	3	0	1	3	1	0	1	0	15
2030 Base Volumes	4	76	98	20	83	13	39	103	21	1	19	12	489

Landfill		
	Car	Truck
ENTER =	1	10
EXIT =	1	26

Landfill Car Trips		1			1								
Landfill Truck Trips													
Total SITE Trip Distribution		1			1								
2030 Projected Volumes	4	77	98	20	84	13	39	103	21	1	19	12	489

Time Period: Weekday P.M. Peak Hour

	Eastbound			Westbound			Northbound			Southbound			Intersection Volume
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	
Existing Counts	13	135	126	14	50	18	42	135	49	3	15	6	606
Balancing													0
Existing Volumes (Balanced)	13	135	126	14	50	18	42	135	49	3	15	6	606
Base growth (0.31% compounded for 10 yrs)	0	4	4	0	2	1	1	4	2	0	0	0	18
2030 Base Volumes	13	139	130	14	52	19	43	139	51	3	15	6	624

Landfill		
	Car	Truck
ENTER =	1	1
EXIT =	1	6

Landfill Car Trips		1			1								
Landfill Truck Trips													
Total SITE Trip Distribution		1			1								
2030 Projected Volumes	13	140	130	14	53	19	43	139	51	3	15	6	624

TPD# FKV.00001  
 8/6/2020  
 Traffic Volumes Worksheet  
 Intersection:  
 Synchro Node:

Burma Road & Site Driveway												
3	Adjacent Intersections:			West	2	East	0	North	0	South	5	

Time Period: Weekday A.M. Peak Hour

	Eastbound			Westbound			Northbound			Southbound			Intersection Volume
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	
Existing Counts	1	36	0	1	73	8	0	0	0	19	0	4	142
Balancing				-1		1							0
Existing Volumes (Balanced)	1	36	0	0	73	9	0	0	0	19	0	4	142
Base growth (0.31% compounded for 10 yrs)	0	1	0	0	2	0	0	0	0	1	0	0	4
2030 Base Volumes	1	37	0	0	75	9	0	0	0	20	0	4	146

Landfill	
Car	Truck
ENTER =	1 10
EXIT =	1 26

Landfill Car Trips	1											1	
Landfill Truck Trips						10				26			
Total SITE Trip Distribution	1					10				26		1	
2030 Projected Volumes	2	37	0	0	75	19	0	0	0	46	0	5	146

Time Period: Weekday P.M. Peak Hour

	Eastbound			Westbound			Northbound			Southbound			Intersection Volume
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	
Existing Counts	0	103	0	0	87	2	0	0	0	2	0	8	202
Balancing													0
Existing Volumes (Balanced)	0	103	0	0	87	2	0	0	0	2	0	8	202
Base growth (0.31% compounded for 10 yrs)	0	3	0	0	3	0	0	0	0	0	0	0	6
2030 Base Volumes	0	106	0	0	90	2	0	0	0	2	0	8	208

Landfill	
Car	Truck
ENTER =	1 1
EXIT =	1 6

Landfill Car Trips	1					1						1	
Landfill Truck Trips						1				6			
Total SITE Trip Distribution	1					1				6		1	
2030 Projected Volumes	1	106	0	0	90	3	0	0	0	8	0	9	208



TPD# FKV.00001

8/6/2020

Traffic Volumes Worksheet

Intersection:

Synchro Node:

Morea Road & Burma Road									
4	Adjacent Intersections:	West	2	East	0	North	0	South	5

Time Period: Weekday A.M. Peak Hour

	Eastbound			Westbound			Northbound			Southbound			Intersection Volume
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	
Existing Counts	0	53	45	56	85	0	42	0	34	0	0	0	315
Balancing													0
Existing Volumes (Balanced)	0	53	45	56	85	0	42	0	34	0	0	0	315

Base growth (0.31% compounded for 10 yrs)	0	2	1	2	3	0	1	0	1	0	0	0	10
---	---	---	---	---	---	---	---	---	---	---	---	---	----

2030 Base Volumes	0	55	46	58	88	0	43	0	35	0	0	0	325
-------------------	---	----	----	----	----	---	----	---	----	---	---	---	-----

Landfill	
Car	Truck
ENTER = 1	10
EXIT = 1	26

Landfill Car Trips													
Landfill Truck Trips				10					26				
Total SITE Trip Distribution				10					26				

2030 Projected Volumes	0	55	46	68	88	0	43	0	61	0	0	0	325
------------------------	---	----	----	----	----	---	----	---	----	---	---	---	-----

Time Period: Weekday P.M. Peak Hour

	Eastbound			Westbound			Northbound			Southbound			Intersection Volume
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	
Existing Counts	0	81	59	53	70	0	68	0	44	0	0	0	375
Balancing													0
Existing Volumes (Balanced)	0	81	59	53	70	0	68	0	44	0	0	0	375

Base growth (0.31% compounded for 10 yrs)	0	3	2	2	2	0	2	0	1	0	0	0	12
---	---	---	---	---	---	---	---	---	---	---	---	---	----

2030 Base Volumes	0	84	61	55	72	0	70	0	45	0	0	0	387
-------------------	---	----	----	----	----	---	----	---	----	---	---	---	-----

Landfill	
Car	Truck
ENTER = 1	1
EXIT = 1	6

Landfill Car Trips				1					6				
Landfill Truck Trips				1					6				
Total SITE Trip Distribution				1					6				

2030 Projected Volumes	0	84	61	56	72	0	70	0	51	0	0	0	387
------------------------	---	----	----	----	----	---	----	---	----	---	---	---	-----

TPD# FKV.00001  
 8/6/2020  
 Traffic Volumes Worksheet  
 Intersection:  
 Synchro Node:

Morea Road & I-81 SB on/off ramps									
5	Adjacent Intersections:	West	2	East	0	North	0	South	5

Time Period: Weekday A.M. Peak Hour

	Eastbound			Westbound			Northbound			Southbound			Intersection Volume
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	
Existing Counts	0	79	13	30	99	0	58	0	7	0	0	0	286
Balancing													0
Existing Volumes (Balanced)	0	79	13	30	99	0	58	0	7	0	0	0	286
Base growth (0.31% compounded for 10 yrs)	0	2	0	1	3	0	2	0	0	0	0	0	8
2030 Base Volumes	0	81	13	31	102	0	60	0	7	0	0	0	294

Landfill	
Car	Truck
ENTER = 1	10
EXIT = 1	26

Landfill Car Trips													
Landfill Truck Trips		13	13		10		10						
Total SITE Trip Distribution		13	13		10		10						
2030 Projected Volumes	0	94	26	31	112	0	70	0	7	0	0	0	294

Time Period: Weekday P.M. Peak Hour

	Eastbound			Westbound			Northbound			Southbound			Intersection Volume
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	
Existing Counts	0	123	5	25	81	0	40	0	10	0	0	0	284
Balancing													0
Existing Volumes (Balanced)	0	123	5	25	81	0	40	0	10	0	0	0	284
Base growth (0.31% compounded for 10 yrs)	0	4	0	1	3	0	1	0	0	0	0	0	9
2030 Base Volumes	0	127	5	26	84	0	41	0	10	0	0	0	293

Landfill	
Car	Truck
ENTER = 1	1
EXIT = 1	6

Landfill Car Trips													
Landfill Truck Trips		3	3		1								
Total SITE Trip Distribution		3	3		1								
2030 Projected Volumes	0	130	8	26	85	0	41	0	10	0	0	0	293

TPD# FKV.00001  
 8/6/2020  
 Traffic Volumes Worksheet  
 Intersection:  
 Synchro Node:

Morea Road/I-81 Ramps & Route 54									
6	Adjacent Intersections:	West	2	East	0	North	0	South	5

Time Period: Weekday A.M. Peak Hour

	Eastbound			Westbound			Northbound			Southbound			Intersection Volume
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	
Existing Counts	4	0	81	0	0	43	100	108	43	0	137	31	547
Balancing													0
Existing Volumes (Balanced)	4	0	81	0	0	43	100	108	43	0	137	31	547

Base growth (0.31% compounded for 10 yrs)	0	0	3	0	0	1	3	3	1	0	4	1	16
---	---	---	---	---	---	---	---	---	---	---	---	---	----

2030 Base Volumes	4	0	84	0	0	44	103	111	44	0	141	32	563
-------------------	---	---	----	---	---	----	-----	-----	----	---	-----	----	-----

Landfill		
Car	Truck	
ENTER =	1	10
EXIT =	1	26

Landfill Car Trips													
Landfill Truck Trips			13				10						
Total SITE Trip Distribution			13				10						

2030 Projected Volumes	4	0	97	0	0	44	113	111	44	0	141	32	563
------------------------	---	---	----	---	---	----	-----	-----	----	---	-----	----	-----

Time Period: Weekday P.M. Peak Hour

	Eastbound			Westbound			Northbound			Southbound			Intersection Volume
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	
Existing Counts	31	0	103	0	0	50	67	139	41	0	149	38	618
Balancing													0
Existing Volumes (Balanced)	31	0	103	0	0	50	67	139	41	0	149	38	618

Base growth (0.31% compounded for 10 yrs)	1	0	3	0	0	2	2	4	1	0	5	1	19
---	---	---	---	---	---	---	---	---	---	---	---	---	----

2030 Base Volumes	32	0	106	0	0	52	69	143	42	0	154	39	637
-------------------	----	---	-----	---	---	----	----	-----	----	---	-----	----	-----

Landfill		
Car	Truck	
ENTER =	1	1
EXIT =	1	6

Landfill Car Trips													
Landfill Truck Trips			3										
Total SITE Trip Distribution			3										

2030 Projected Volumes	32	0	109	0	0	52	69	143	42	0	154	39	637
------------------------	----	---	-----	---	---	----	----	-----	----	---	-----	----	-----



TPD# FKV.00001  
 8/6/2020  
 Traffic Volumes Worksheet  
 Intersection:  
 Synchro Node:

Route 54 & I-81 NB Ramps									
7	Adjacent Intersections:	West	2	East	0	North	0	South	5

Time Period: Weekday A.M. Peak Hour

	Eastbound			Westbound			Northbound			Southbound			Intersection
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	Volume
Existing Counts	0	129	91	1	236	0	0	0	51	0	0	25	533
Balancing													0
Existing Volumes (Balanced)	0	129	91	1	236	0	0	0	51	0	0	25	533
Base growth (0.31% compounded for 10 yrs)	0	4	3	0	7	0	0	0	2	0	0	1	17
2030 Base Volumes	0	133	94	1	243	0	0	0	53	0	0	26	550

Landfill	
Car	Truck
ENTER = 1	10
EXIT = 1	26

Landfill Car Trips													
Landfill Truck Trips			13									10	
Total SITE Trip Distribution			13									10	
2030 Projected Volumes	0	133	107	1	243	0	0	0	53	0	0	36	550

Time Period: Weekday P.M. Peak Hour

	Eastbound			Westbound			Northbound			Southbound			Intersection
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	Volume
Existing Counts	0	166	77	3	213	0	0	0	65	0	0	27	551
Balancing													0
Existing Volumes (Balanced)	0	166	77	3	213	0	0	0	65	0	0	27	551
Base growth (0.31% compounded for 10 yrs)	0	5	2	0	7	0	0	0	2	0	0	1	17
2030 Base Volumes	0	171	79	3	220	0	0	0	67	0	0	28	568

Landfill	
Car	Truck
ENTER = 1	1
EXIT = 1	6

Landfill Car Trips													
Landfill Truck Trips			3										
Total SITE Trip Distribution			3										
2030 Projected Volumes	0	171	82	3	220	0	0	0	67	0	0	28	568

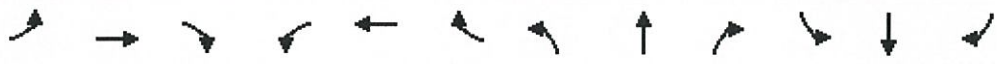
***APPENDIX E:***  
***Capacity Analysis Worksheets***

## ***Existing Conditions***



1: Route 61 & Hancock Street  
Existing Conditions

FKV.00001  
Timing Plan: A.M. Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↔	↔		↔	↔	
Traffic Volume (vph)	40	72	46	75	53	13	14	386	39	91	707	23
Future Volume (vph)	40	72	46	75	53	13	14	386	39	91	707	23
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	11	11	16	16	16	12	12	12	12	12	12
Grade (%)		-3%			4%			1%			-3%	
Storage Length (ft)	0		0	0		0	190		0	190		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		413			614			553			554	
Travel Time (s)		11.3			16.7			8.4			8.4	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	8%	4%	1%	8%	8%	0%	0%	14%	1%	9%	9%	1%
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		7.0	15.0		7.0	15.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		13.0	23.0		13.0	23.0	
Total Split (s)	27.0	27.0		27.0	27.0		17.0	36.0		17.0	36.0	
Total Split (%)	33.8%	33.8%		33.8%	33.8%		21.3%	45.0%		21.3%	45.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	5.5		3.5	5.5	
All-Red Time (s)	3.5	3.5		3.5	3.5		2.5	2.5		2.5	2.5	
Lost Time Adjust (s)		-1.0			-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)		6.0			6.0		5.0	7.0		5.0	7.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	

Intersection Summary

Area Type: Other







Cycle Length: 80

Actuated Cycle Length: 55.2

Natural Cycle: 55

Control Type: Semi Act-Uncoord

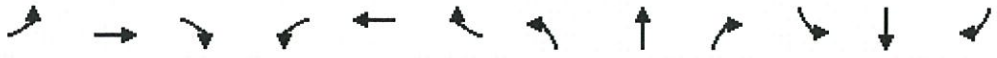
Splits and Phases: 1: Route 61 & Hancock Street

 Ø1 17 s	 Ø2 36 s	 Ø4 27 s
 Ø5 17 s	 Ø6 36 s	 Ø8 27 s



1: Route 61 & Hancock Street  
Existing Conditions

FKV.00001  
Timing Plan: A.M. Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↗	↕		↖	↕	
Traffic Volume (veh/h)	40	72	46	75	53	13	14	386	39	91	707	23
Future Volume (veh/h)	40	72	46	75	53	13	14	386	39	91	707	23
Initial Q (Qb), 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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1855	1855	1855	1662	1662	1662	1794	1598	1598	1784	1784	1784
Adj Flow Rate, veh/h	42	75	33	78	55	14	15	402	36	95	736	21
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	8	8	8	0	14	14	9	9	9
Cap, veh/h	155	143	56	225	91	21	82	965	86	217	1420	41
Arrive On Green	0.12	0.14	0.12	0.12	0.14	0.12	0.05	0.34	0.32	0.13	0.42	0.40
Sat Flow, veh/h	388	984	387	738	630	144	1709	2819	251	1699	3365	96
Grp Volume(v), veh/h	150	0	0	147	0	0	15	216	222	95	371	386
Grp Sat Flow(s),veh/h/ln	1759	0	0	1512	0	0	1709	1518	1553	1699	1695	1767
Q Serve(g_s), s	0.0	0.0	0.0	0.5	0.0	0.0	0.4	5.1	5.2	2.4	7.6	7.6
Cycle Q Clear(g_c), s	3.7	0.0	0.0	4.2	0.0	0.0	0.4	5.1	5.2	2.4	7.6	7.6
Prop In Lane	0.28		0.22	0.53		0.10	1.00		0.16	1.00		0.05
Lane Grp Cap(c), veh/h	316	0	0	305	0	0	82	520	532	217	715	746
V/C Ratio(X)	0.47	0.00	0.00	0.48	0.00	0.00	0.18	0.41	0.42	0.44	0.52	0.52
Avail Cap(c_a), veh/h	806	0	0	707	0	0	439	942	963	436	1052	1096
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
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.9	0.0	0.0	19.1	0.0	0.0	21.4	11.8	11.9	18.8	10.0	10.0
Incr Delay (d2), s/veh	1.6	0.0	0.0	1.7	0.0	0.0	1.1	0.5	0.5	1.4	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.8	0.0	0.0	2.8	0.0	0.0	0.3	2.4	2.5	1.6	3.4	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.5	0.0	0.0	20.8	0.0	0.0	22.4	12.3	12.4	20.2	10.2	10.2
LnGrp LOS	C	A	A	C	A	A	C	B	B	C	B	B
Approach Vol, veh/h		150			147			453			852	
Approach Delay, s/veh		20.5			20.8			12.7			11.3	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.0	23.0		12.8	7.2	26.7		12.8				
Change Period (Y+Rc), s	6.0	8.0		7.0	6.0	8.0		7.0				
Max Green Setting (Gmax), s	11.0	28.0		20.0	11.0	28.0		20.0				
Max Q Clear Time (g_c+l1), s	4.9	7.6		5.7	2.9	10.1		6.2				
Green Ext Time (p_c), s	0.1	1.4		0.6	0.0	0.4		0.6				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			13.4									
HCM 6th LOS			B									



2: 2nd street & Hancock Street  
Existing Conditions

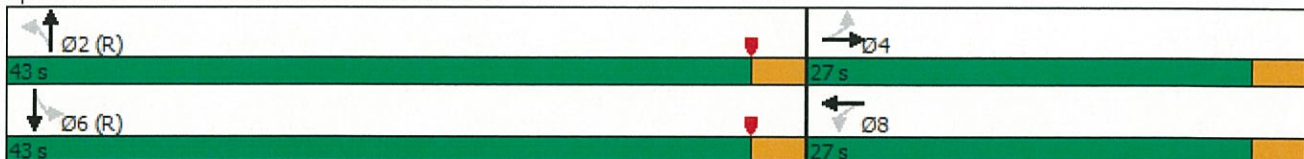
FKV.00001  
Timing Plan: A.M. Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Volume (vph)	4	74	95	19	80	13	38	100	20	1	18	12
Future Volume (vph)	4	74	95	19	80	13	38	100	20	1	18	12
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	11	11	11	11	11	14	14	14	14	14	14
Grade (%)		1%			0%			1%			-2%	
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		614			797			525			483	
Travel Time (s)		16.7			21.7			10.2			9.4	
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles (%)	0%	8%	2%	21%	6%	0%	5%	17%	20%	0%	6%	25%
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Total Split (s)	27.0	27.0		27.0	27.0		43.0	43.0		43.0	43.0	
Total Split (%)	38.6%	38.6%		38.6%	38.6%		61.4%	61.4%		61.4%	61.4%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		3.0			3.0			3.0			3.0	
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary

Area Type: Other  
 Cycle Length: 70  
 Actuated Cycle Length: 70  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow  
 Natural Cycle: 40  
 Control Type: Pretimed

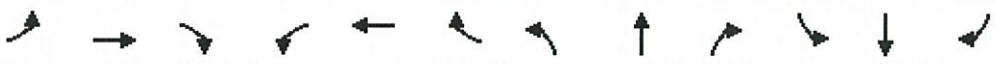
Splits and Phases: 2: 2nd street & Hancock Street











2: 2nd street & Hancock Street  
Existing Conditions

FKV.00001  
Timing Plan: A.M. Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	4	74	95	19	80	13	38	100	20	1	18	12
Future Volume (veh/h)	4	74	95	19	80	13	38	100	20	1	18	12
Initial Q (Qb), 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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1682	1682	1682	1716	1716	1716	1618	1618	1618	1861	1861	1861
Adj Flow Rate, veh/h	5	91	71	23	99	14	47	123	23	1	22	11
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	8	8	8	6	6	6	17	17	17	6	6	6
Cap, veh/h	57	303	227	117	435	56	236	572	101	60	670	324
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.57	0.57	0.57	0.57	0.57	0.57
Sat Flow, veh/h	12	883	662	166	1268	165	300	1002	176	13	1172	567
Grp Volume(v), veh/h	167	0	0	136	0	0	193	0	0	34	0	0
Grp Sat Flow(s),veh/h/ln	1557	0	0	1598	0	0	1478	0	0	1752	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.5	0.0	0.0	4.0	0.0	0.0	4.2	0.0	0.0	0.6	0.0	0.0
Prop In Lane	0.03		0.43	0.17		0.10	0.24		0.12	0.03		0.32
Lane Grp Cap(c), veh/h	587	0	0	608	0	0	909	0	0	1054	0	0
V/C Ratio(X)	0.28	0.00	0.00	0.22	0.00	0.00	0.21	0.00	0.00	0.03	0.00	0.00
Avail Cap(c_a), veh/h	587	0	0	608	0	0	909	0	0	1054	0	0
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
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	16.9	0.0	0.0	16.4	0.0	0.0	7.3	0.0	0.0	6.6	0.0	0.0
Incr Delay (d2), s/veh	1.2	0.0	0.0	0.9	0.0	0.0	0.5	0.0	0.0	0.1	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	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.8	0.0	0.0	2.9	0.0	0.0	2.3	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.1	0.0	0.0	17.3	0.0	0.0	7.9	0.0	0.0	6.6	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		167			136			193			34	
Approach Delay, s/veh		18.1			17.3			7.9			6.6	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		43.0		27.0		43.0		27.0				
Change Period (Y+Rc), s		3.0		3.0		3.0		3.0				
Max Green Setting (Gmax), s		40.0		24.0		40.0		24.0				
Max Q Clear Time (g_c+I1), s		6.2		7.5		2.6		6.0				
Green Ext Time (p_c), s		1.1		0.8		0.1		0.7				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			13.4									
HCM 6th LOS			B									

### 3: Burma Road & Site Driveway Existing Conditions

FKV.00001  
Timing Plan: A.M. Peak Hour

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1	36	73	9	19	4
Future Volume (vph)	1	36	73	9	19	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	10	10
Grade (%)		0%	0%		3%	
Storage Length (ft)	0			300	0	0
Storage Lanes	0			1	1	0
Taper Length (ft)	25				25	
Link Speed (mph)		45	45		25	
Link Distance (ft)		591	423		281	
Travel Time (s)		9.0	6.4		7.7	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	0%	100%	100%	95%	100%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					



### 3: Burma Road & Site Driveway Existing Conditions

FKV.00001  
Timing Plan: A.M. Peak Hour

#### Intersection

Int Delay, s/veh 1.7

#### Movement

	EBL	EBT	WBT	WBR	SBL	SBR
--	-----	-----	-----	-----	-----	-----

Lane Configurations		↕	↕	↕	↕	
Traffic Vol, veh/h	1	36	73	9	19	4
Future Vol, veh/h	1	36	73	9	19	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	300	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	3	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	0	0	100	100	95	100
Mvmt Flow	1	41	84	10	22	5

#### Major/Minor

	Major1	Major2	Minor2
--	--------	--------	--------

Conflicting Flow All	94	0	0	127	84
Stage 1	-	-	-	84	-
Stage 2	-	-	-	43	-
Critical Hdwy	4.3	-	-	8	7.5
Critical Hdwy Stg 1	-	-	-	6.95	-
Critical Hdwy Stg 2	-	-	-	6.95	-
Follow-up Hdwy	3	-	-	3.9	4
Pot Cap-1 Maneuver	1115	-	-	745	791
Stage 1	-	-	-	821	-
Stage 2	-	-	-	869	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1115	-	-	744	791
Mov Cap-2 Maneuver	-	-	-	744	-
Stage 1	-	-	-	820	-
Stage 2	-	-	-	869	-

#### Approach

	EB	WB	SB
--	----	----	----

HCM Control Delay, s	0.2	0	10
HCM LOS			B

#### Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
--	-----	-----	-----	-----	-------

Capacity (veh/h)	1115	-	-	-	752
HCM Lane V/C Ratio	0.001	-	-	-	0.035
HCM Control Delay (s)	8.2	0	-	-	10
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1



4: Burma Road & Morea Road  
Existing Conditions

FKV.00001  
Timing Plan: A.M. Peak Hour

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	
Traffic Volume (vph)	53	45	56	85	42	34
Future Volume (vph)	53	45	56	85	42	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11
Grade (%)	2%			-2%	-3%	
Link Speed (mph)	45			45	45	
Link Distance (ft)	759			885	961	
Travel Time (s)	11.5			13.4	14.6	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	9%	0%	23%	4%	7%	41%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					

4: Burma Road & Morea Road  
Existing Conditions

FKV.00001  
Timing Plan: A.M. Peak Hour

Intersection

Int Delay, s/veh 4

Movement EBT EBR WBL WBT NBL NBR

Lane Configurations	↶			↷	↶	↷
Traffic Vol, veh/h	53	45	56	85	42	34
Future Vol, veh/h	53	45	56	85	42	34
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, %	2	-	-	-2	-3	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	9	0	23	4	7	41
Mvmt Flow	61	52	64	98	48	39

Major/Minor Major1 Major2 Minor1

Conflicting Flow All	0	0	113	0	313	87
Stage 1	-	-	-	-	87	-
Stage 2	-	-	-	-	226	-
Critical Hdwy	-	-	4.33	-	5.87	6.31
Critical Hdwy Stg 1	-	-	-	-	4.87	-
Critical Hdwy Stg 2	-	-	-	-	4.87	-
Follow-up Hdwy	-	-	3.2	-	3.1	3.5
Pot Cap-1 Maneuver	-	-	1032	-	795	921
Stage 1	-	-	-	-	1072	-
Stage 2	-	-	-	-	941	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1032	-	743	921
Mov Cap-2 Maneuver	-	-	-	-	743	-
Stage 1	-	-	-	-	1072	-
Stage 2	-	-	-	-	879	-

Approach EB WB NB










HCM Control Delay, s	0	3.5	10
HCM LOS			B

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h)	813	-	-	1032	-
HCM Lane V/C Ratio	0.107	-	-	0.062	-
HCM Control Delay (s)	10	-	-	8.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-

5: I-81 SB & Morea Road  
Existing Conditions

FKV.00001  
Timing Plan: A.M. Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	79	13	30	99	58	7
Future Volume (vph)	79	13	30	99	58	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	9	9	9	12	12
Grade (%)	-1%			1%	-3%	
Link Speed (mph)	45			45	25	
Link Distance (ft)	453			522	399	
Travel Time (s)	6.9			7.9	10.9	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	16%	62%	3%	18%	7%	0%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					



5: I-81 SB & Morea Road  
Existing Conditions

FKV.00001  
Timing Plan: A.M. Peak Hour

Intersection

Int Delay, s/veh 3.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	↑
Traffic Vol, veh/h	79	13	30	99	58	7
Future Vol, veh/h	79	13	30	99	58	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	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-1	-	-	1	-3	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	16	62	3	18	7	0
Mvmt Flow	89	15	34	111	65	8






















Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	104
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.4
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	3
Pot Cap-1 Maneuver	-	-	1103
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1103
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.9	9.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	825	-	-	1103	-
HCM Lane V/C Ratio	0.089	-	-	0.031	-
HCM Control Delay (s)	9.8	-	-	8.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

6: Route 54 & Morea Road/I-81  
Existing Conditions

FKV.00001  
Timing Plan: A.M. Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								 			 	
Traffic Volume (vph)	4	0	81	0	0	43	100	108	43	0	137	31
Future Volume (vph)	4	0	81	0	0	43	100	108	43	0	137	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	10	13	13	13	10	14	10	12	12	10
Grade (%)		1%			2%			-1%			1%	
Storage Length (ft)	0		300	0		0	110		0	0		0
Storage Lanes	1		1	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		45			25			55			55	
Link Distance (ft)		522			511			904			1161	
Travel Time (s)		7.9			13.9			11.2			14.4	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	22%	6%	11%	0%	9%	2%	0%	0%	6%	0%	0%	14%
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											



6: Route 54 & Morea Road/I-81  
Existing Conditions

FKV.00001  
Timing Plan: A.M. Peak Hour

Intersection

Int Delay, s/veh 3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰		↱				↰	↱	↕	↰	↱	↕
Traffic Vol, veh/h	4	0	81	0	0	43	100	108	43	0	137	31
Future Vol, veh/h	4	0	81	0	0	43	100	108	43	0	137	31
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	-	-	Free	-	-	None	-	-	Free	-	-	Yield
Storage Length	0	-	300	-	-	0	110	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	2	-	-	-1	-	-	1	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	22	6	11	0	9	2	0	0	6	0	0	14
Mvmt Flow	4	0	91	0	0	48	112	121	48	0	154	35

Major/Minor	Minor2	Minor1	Major1	Major2
Conflicting Flow All	457	-	61	154
Stage 1	172	-	-	-
Stage 2	285	-	-	-
Critical Hdwy	7.5	-	6.4	4.3
Critical Hdwy Stg 1	7.14	-	-	-
Critical Hdwy Stg 2	7.14	-	-	-
Follow-up Hdwy	3.2	-	3.2	3
Pot Cap-1 Maneuver	528	0	1037	1064
Stage 1	863	0	-	0
Stage 2	724	0	-	0
Platoon blocked, %				
Mov Cap-1 Maneuver	463	-	1037	1064
Mov Cap-2 Maneuver	463	-	-	-
Stage 1	772	-	-	-
Stage 2	618	-	-	-













Approach	EB	WB	NB	SB
HCM Control Delay, s	12.9	8.6	4.2	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	WBLn1	SBT	SBR
Capacity (veh/h)	1064	-	463	-	1037	-	-
HCM Lane V/C Ratio	0.106	-	0.01	-	0.047	-	-
HCM Control Delay (s)	8.8	-	12.9	0	8.6	-	-
HCM Lane LOS	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.4	-	0	-	0.1	-	-



7: I-81 & Route 54  
Existing Conditions



















FKV.00001  
Timing Plan: A.M. Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑	↑↑				↑			↑
Traffic Volume (vph)	0	129	91	1	236	0	0	0	51	0	0	25
Future Volume (vph)	0	129	91	1	236	0	0	0	51	0	0	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	16	13	10	10	12	12	16	12	12	14
Grade (%)		-1%			2%			2%			0%	
Storage Length (ft)	0		0	90		0	0		0	0		0
Storage Lanes	0		1	1		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		55			55			30			30	
Link Distance (ft)		904			1213			651			686	
Travel Time (s)		11.2			15.0			14.8			15.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	15%	10%	0%	7%	0%	0%	12%	0%	0%	0%	64%
Shared Lane Traffic (%)												
Sign Control		Free			Free			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											



1: Route 61 & Hancock Street  
Existing Conditions

FKV.00001  
Timing Plan: P.M. Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	92	56	45	71	18	66	882	89	135	593	57
Future Volume (vph)	53	92	56	45	71	18	66	882	89	135	593	57
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	11	11	16	16	16	12	12	12	12	12	12
Grade (%)		-3%			4%			1%			-3%	
Storage Length (ft)	0		0	0		0	190		0	190		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		413			614			553			554	
Travel Time (s)		11.3			16.7			8.4			8.4	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	3%	0%	2%	0%	6%	0%	6%	0%	4%	5%	2%
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		7.0	15.0		7.0	15.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		13.0	23.0		13.0	23.0	
Total Split (s)	26.0	26.0		26.0	26.0		22.0	42.0		22.0	42.0	
Total Split (%)	28.9%	28.9%		28.9%	28.9%		24.4%	46.7%		24.4%	46.7%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	5.5		3.5	5.5	
All-Red Time (s)	3.5	3.5		3.5	3.5		2.5	2.5		2.5	2.5	
Lost Time Adjust (s)		-1.0			-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)		6.0			6.0		5.0	7.0		5.0	7.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	

Intersection Summary

Area Type: Other







Cycle Length: 90

Actuated Cycle Length: 77.6

Natural Cycle: 60

Control Type: Semi Act-Uncoord




















Splits and Phases: 1: Route 61 & Hancock Street

 Ø1	 Ø2	 Ø4
22 s	42 s	26 s
 Ø5	 Ø6	 Ø8
22 s	42 s	26 s



1: Route 61 & Hancock Street  
Existing Conditions

FKV.00001  
Timing Plan: P.M. Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	92	56	45	71	18	66	882	89	135	593	57
Future Volume (veh/h)	53	92	56	45	71	18	66	882	89	135	593	57
Initial Q (Qb), 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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1869	1869	1869	1779	1779	1779	1794	1710	1710	1855	1841	1841
Adj Flow Rate, veh/h	55	96	44	47	74	19	69	919	79	141	618	54
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	0	0	0	0	6	6	4	5	5
Cap, veh/h	143	157	64	153	170	37	170	1180	101	227	1362	119
Arrive On Green	0.15	0.16	0.15	0.15	0.16	0.15	0.10	0.39	0.37	0.13	0.42	0.40
Sat Flow, veh/h	374	954	387	414	1028	226	1709	3028	260	1767	3254	284
Grp Volume(v), veh/h	195	0	0	140	0	0	69	493	505	141	332	340
Grp Sat Flow(s),veh/h/ln	1716	0	0	1668	0	0	1709	1625	1663	1767	1749	1790
Q Serve(g_s), s	1.8	0.0	0.0	0.0	0.0	0.0	2.1	15.1	15.1	4.3	7.7	7.8
Cycle Q Clear(g_c), s	6.0	0.0	0.0	4.2	0.0	0.0	2.1	15.1	15.1	4.3	7.7	7.8
Prop In Lane	0.28		0.23	0.34		0.14	1.00		0.16	1.00		0.16
Lane Grp Cap(c), veh/h	334	0	0	330	0	0	170	633	648	227	732	749
V/C Ratio(X)	0.58	0.00	0.00	0.42	0.00	0.00	0.41	0.78	0.78	0.62	0.45	0.45
Avail Cap(c_a), veh/h	635	0	0	611	0	0	512	1002	1026	529	1079	1104
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
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.5	0.0	0.0	21.8	0.0	0.0	24.0	15.2	15.3	23.4	11.8	11.9
Incr Delay (d2), s/veh	2.3	0.0	0.0	1.2	0.0	0.0	1.6	2.1	2.1	2.8	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.7	0.0	0.0	3.2	0.0	0.0	1.5	8.2	8.4	3.1	4.2	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.8	0.0	0.0	23.0	0.0	0.0	25.5	17.3	17.3	26.2	12.0	12.1
LnGrp LOS	C	A	A	C	A	A	C	B	B	C	B	B
Approach Vol, veh/h		195			140			1067			813	
Approach Delay, s/veh		24.8			23.0			17.8			14.5	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.3	29.1		15.4	10.6	30.7		15.4				
Change Period (Y+Rc), s	6.0	8.0		7.0	6.0	8.0		7.0				
Max Green Setting (Gmax), s	16.0	34.0		19.0	16.0	34.0		19.0				
Max Q Clear Time (g_c+I1), s	6.8	17.6		8.0	4.6	10.2		6.2				
Green Ext Time (p_c), s	0.3	3.5		0.7	0.1	0.4		0.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			17.6									
HCM 6th LOS			B									



2: 2nd street & Hancock Street  
Existing Conditions

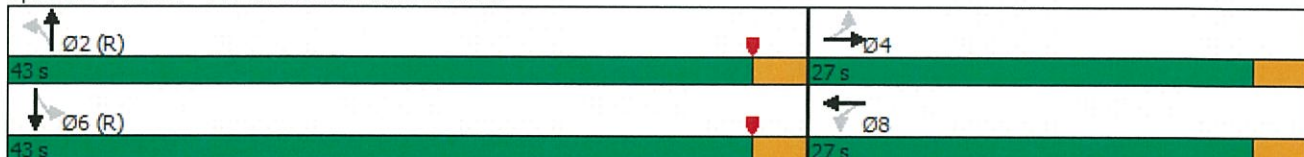
FKV.00001  
Timing Plan: P.M. Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	135	126	14	50	18	42	135	49	3	15	6
Future Volume (vph)	13	135	126	14	50	18	42	135	49	3	15	6
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	11	11	11	11	11	14	14	14	14	14	14
Grade (%)		1%			0%			1%			-2%	
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		614			797			525			483	
Travel Time (s)		16.7			21.7			10.2			9.4	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	5%	0%	2%	0%	2%	4%	0%	0%	13%	0%
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Total Split (s)	27.0	27.0		27.0	27.0		43.0	43.0		43.0	43.0	
Total Split (%)	38.6%	38.6%		38.6%	38.6%		61.4%	61.4%		61.4%	61.4%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		3.0			3.0			3.0			3.0	
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary

Area Type: Other  
 Cycle Length: 70  
 Actuated Cycle Length: 70  
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow  
 Natural Cycle: 40  
 Control Type: Pretimed

















Splits and Phases: 2: 2nd street & Hancock Street





2: 2nd street & Hancock Street  
Existing Conditions







FKV.00001  
Timing Plan: P.M. Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	135	126	14	50	18	42	135	49	3	15	6
Future Volume (veh/h)	13	135	126	14	50	18	42	135	49	3	15	6
Initial Q (Qb), 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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1794	1794	1794	1772	1772	1772	1808	1808	1808	1757	1757	1757
Adj Flow Rate, veh/h	15	152	104	16	56	20	47	152	48	3	17	5
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	2	2	2	4	4	4	13	13	13
Cap, veh/h	67	339	219	119	370	119	202	625	185	130	671	186
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.57	0.57	0.57	0.57	0.57	0.57
Sat Flow, veh/h	37	988	639	172	1078	347	247	1094	323	126	1174	325
Grp Volume(v), veh/h	271	0	0	92	0	0	247	0	0	25	0	0
Grp Sat Flow(s),veh/h/ln	1664	0	0	1598	0	0	1664	0	0	1625	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	8.9	0.0	0.0	2.6	0.0	0.0	4.9	0.0	0.0	0.4	0.0	0.0
Prop In Lane	0.06		0.38	0.17		0.22	0.19		0.19	0.12		0.20
Lane Grp Cap(c), veh/h	625	0	0	608	0	0	1012	0	0	986	0	0
V/C Ratio(X)	0.43	0.00	0.00	0.15	0.00	0.00	0.24	0.00	0.00	0.03	0.00	0.00
Avail Cap(c_a), veh/h	625	0	0	608	0	0	1012	0	0	986	0	0
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
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.0	0.0	0.0	16.0	0.0	0.0	7.5	0.0	0.0	6.5	0.0	0.0
Incr Delay (d2), s/veh	2.2	0.0	0.0	0.5	0.0	0.0	0.6	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.6	0.0	0.0	1.9	0.0	0.0	3.0	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.2	0.0	0.0	16.5	0.0	0.0	8.1	0.0	0.0	6.6	0.0	0.0
LnGrp LOS	C	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		271			92			247			25	
Approach Delay, s/veh		20.2			16.5			8.1			6.6	
Approach LOS		C			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		43.0		27.0		43.0		27.0				
Change Period (Y+Rc), s		3.0		3.0		3.0		3.0				
Max Green Setting (Gmax), s		40.0		24.0		40.0		24.0				
Max Q Clear Time (g_c+I1), s		6.9		10.9		2.4		4.6				
Green Ext Time (p_c), s		1.5		1.4		0.1		0.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			14.4									
HCM 6th LOS			B									



### 3: Burma Road & Site Driveway Existing Conditions

FKV.00001  
Timing Plan: P.M. Peak Hour

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	103	87	2	2	8
Future Volume (vph)	0	103	87	2	2	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	10	10
Grade (%)		0%	0%		3%	
Storage Length (ft)	0			300	0	0
Storage Lanes	0			1	1	0
Taper Length (ft)	25				25	
Link Speed (mph)		45	45		25	
Link Distance (ft)		591	423		281	
Travel Time (s)		9.0	6.4		7.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					

### 3: Burma Road & Site Driveway Existing Conditions

FKV.00001  
Timing Plan: P.M. Peak Hour

#### Intersection

Int Delay, s/veh 0.4

#### Movement

	EBL	EBT	WBT	WBR	SBL	SBR
--	-----	-----	-----	-----	-----	-----

Lane Configurations		↕	↕	↕	↕	
Traffic Vol, veh/h	0	103	87	2	2	8
Future Vol, veh/h	0	103	87	2	2	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	300	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	3	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	0	112	95	2	2	9

#### Major/Minor

	Major1	Major2	Minor2
--	--------	--------	--------

Conflicting Flow All	97	0	207
Stage 1	-	-	95
Stage 2	-	-	112
Critical Hdwy	4.3	-	7
Critical Hdwy Stg 1	-	-	6
Critical Hdwy Stg 2	-	-	6
Follow-up Hdwy	3	-	3
Pot Cap-1 Maneuver	1112	-	874
Stage 1	-	-	1065
Stage 2	-	-	1043
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1112	-	874
Mov Cap-2 Maneuver	-	-	874
Stage 1	-	-	1065
Stage 2	-	-	1043

#### Approach

	EB	WB	SB
--	----	----	----

HCM Control Delay, s	0	0	8.7
HCM LOS			A










#### Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
--	-----	-----	-----	-----	-------

Capacity (veh/h)	1112	-	-	-	986
HCM Lane V/C Ratio	-	-	-	-	0.011
HCM Control Delay (s)	0	-	-	-	8.7
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

4: Burma Road & Morea Road  
Existing Conditions

FKV.00001  
Timing Plan: P.M. Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	81	59	53	70	68	44
Future Volume (vph)	81	59	53	70	68	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11
Grade (%)	2%			-2%	-3%	
Link Speed (mph)	45			45	45	
Link Distance (ft)	759			885	961	
Travel Time (s)	11.5			13.4	14.6	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	9%	6%	3%	11%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					



4: Burma Road & Morea Road  
Existing Conditions

FKV.00001  
Timing Plan: P.M. Peak Hour

Intersection

Int Delay, s/veh 4.2

Movement EBT EBR WBL WBT NBL NBR

Lane Configurations	↶			↷	↶	↷
Traffic Vol, veh/h	81	59	53	70	68	44
Future Vol, veh/h	81	59	53	70	68	44
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, %	2	-	-	-2	-3	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	9	6	3	11
Mvmt Flow	92	67	60	80	77	50

Major/Minor Major1 Major2 Minor1

Conflicting Flow All	0	0	159	0	326	126
Stage 1	-	-	-	-	126	-
Stage 2	-	-	-	-	200	-
Critical Hdwy	-	-	4.1	-	5.83	6.01
Critical Hdwy Stg 1	-	-	-	-	4.83	-
Critical Hdwy Stg 2	-	-	-	-	4.83	-
Follow-up Hdwy	-	-	3	-	3	3.1
Pot Cap-1 Maneuver	-	-	1069	-	808	993
Stage 1	-	-	-	-	1067	-
Stage 2	-	-	-	-	996	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1069	-	760	993
Mov Cap-2 Maneuver	-	-	-	-	760	-
Stage 1	-	-	-	-	1067	-
Stage 2	-	-	-	-	937	-

Approach EB WB NB











HCM Control Delay, s	0	3.7	10.1
HCM LOS			B

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h)	837	-	-	1069	-
HCM Lane V/C Ratio	0.152	-	-	0.056	-
HCM Control Delay (s)	10.1	-	-	8.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0.2	-

5: I-81 SB & Morea Road  
Existing Conditions

FKV.00001  
Timing Plan: P.M. Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	123	5	25	81	7	4
Future Volume (vph)	123	5	25	81	7	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	9	9	9	12	12
Grade (%)	-1%			1%	-3%	
Link Speed (mph)	45			45	25	
Link Distance (ft)	453			522	399	
Travel Time (s)	6.9			7.9	10.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	20%	0%	5%	5%	0%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					



5: I-81 SB & Morea Road  
Existing Conditions

FKV.00001  
Timing Plan: P.M. Peak Hour

Intersection

Int Delay, s/veh 1.3

Movement EBT EBR WBL WBT NBL NBR

Lane Configurations	1			1	2	
Traffic Vol, veh/h	123	5	25	81	7	4
Future Vol, veh/h	123	5	25	81	7	4
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, %	-1	-	-	1	-3	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	20	0	5	5	0
Mvmt Flow	137	6	28	90	8	4

Major/Minor Major1 Major2 Minor1

Conflicting Flow All	0	0	143	0	286	140
Stage 1	-	-	-	-	140	-
Stage 2	-	-	-	-	146	-
Critical Hdwy	-	-	4.1	-	5.85	6
Critical Hdwy Stg 1	-	-	-	-	4.85	-
Critical Hdwy Stg 2	-	-	-	-	4.85	-
Follow-up Hdwy	-	-	3	-	3	3.1
Pot Cap-1 Maneuver	-	-	1082	-	847	976
Stage 1	-	-	-	-	1053	-
Stage 2	-	-	-	-	1047	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1082	-	824	976
Mov Cap-2 Maneuver	-	-	-	-	824	-
Stage 1	-	-	-	-	1053	-
Stage 2	-	-	-	-	1019	-

Approach EB WB NB

HCM Control Delay, s	0	2	9.2
HCM LOS			A





















Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h)	873	-	-	1082	-
HCM Lane V/C Ratio	0.014	-	-	0.026	-
HCM Control Delay (s)	9.2	-	-	8.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	-



6: Route 54 & Morea Road/I-81  
Existing Conditions

FKV.00001  
Timing Plan: P.M. Peak Hour










												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	0	103	0	0	50	67	139	41	0	149	38
Future Volume (vph)	31	0	103	0	0	50	67	139	41	0	149	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	10	13	13	13	10	14	10	12	12	10
Grade (%)		1%			2%			-1%			1%	
Storage Length (ft)	0		300	0		0	110		0	0		0
Storage Lanes	1		1	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		45			25			55			55	
Link Distance (ft)		522			511			904			1161	
Travel Time (s)		7.9			13.9			11.2			14.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	22%	6%	11%	0%	9%	2%	0%	0%	6%	0%	0%	14%
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											

6: Route 54 & Morea Road/I-81  
Existing Conditions

FKV.00001  
Timing Plan: P.M. Peak Hour

Intersection

Int Delay, s/veh 3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	0	103	0	0	50	67	139	41	0	149	38
Future Vol, veh/h	31	0	103	0	0	50	67	139	41	0	149	38
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	-	-	Free	-	-	None	-	-	Free	-	-	Yield
Storage Length	0	-	300	-	-	0	110	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	2	-	-	-1	-	-	1	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	22	6	11	0	9	2	0	0	6	0	0	14
Mvmt Flow	34	0	114	0	0	56	74	154	46	0	166	42

Major/Minor	Minor2	Minor1	Major1	Major2
Conflicting Flow All	412	-	-	77 166 0
Stage 1	187	-	-	-
Stage 2	225	-	-	-
Critical Hdwy	7.5	-	-	6.4 4.3
Critical Hdwy Stg 1	7.14	-	-	-
Critical Hdwy Stg 2	7.14	-	-	-
Follow-up Hdwy	3.2	-	-	3.2 3
Pot Cap-1 Maneuver	569	0 0 0	0 1015 1054	- 0 0
Stage 1	843	0 0 0	0 - -	0 0 -
Stage 2	794	0 0 0	0 - -	0 0 -
Platoon blocked, %				-
Mov Cap-1 Maneuver	509	-	-	1015 1054
Mov Cap-2 Maneuver	509	-	-	-
Stage 1	784	-	-	-
Stage 2	698	-	-	-













Approach	EB	WB	NB	SB
HCM Control Delay, s	12.6	8.8	2.8	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	WBLn1	SBT	SBR
Capacity (veh/h)	1054	-	509	-	1015	-	-
HCM Lane V/C Ratio	0.071	-	0.068	-	0.055	-	-
HCM Control Delay (s)	8.7	-	12.6	0	8.8	-	-
HCM Lane LOS	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	0.2	-	-



7: I-81 & Route 54  
Existing Conditions

FKV.00001  
Timing Plan: P.M. Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑	↑↑				↑			↑
Traffic Volume (vph)	0	166	77	3	213	0	0	0	65	0	0	27
Future Volume (vph)	0	166	77	3	213	0	0	0	65	0	0	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	16	13	10	10	12	12	16	12	12	14
Grade (%)		-1%			2%			2%			0%	
Storage Length (ft)	0		0	90		0	0		0	0		0
Storage Lanes	0		1	1		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		55			55			30			30	
Link Distance (ft)		904			1213			651			686	
Travel Time (s)		11.2			15.0			14.8			15.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	15%	10%	0%	7%	0%	0%	12%	0%	0%	0%	64%
Shared Lane Traffic (%)												
Sign Control		Free			Free			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											





## ***2030 Base Conditions***

1: Route 61 & Hancock Street  
Base 2030 Conditions

FKV.00001  
Timing Plan: A.M. Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	74	47	77	55	13	14	398	40	94	729	24
Future Volume (vph)	41	74	47	77	55	13	14	398	40	94	729	24
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	11	11	16	16	16	12	12	12	12	12	12
Grade (%)		-3%			4%			1%			-3%	
Storage Length (ft)	0		0	0		0	190		0	190		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		413			614			553			554	
Travel Time (s)		11.3			16.7			8.4			8.4	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	8%	4%	1%	8%	8%	0%	0%	14%	1%	9%	9%	1%
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		7.0	15.0		7.0	15.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		13.0	23.0		13.0	23.0	
Total Split (s)	27.0	27.0		27.0	27.0		17.0	36.0		17.0	36.0	
Total Split (%)	33.8%	33.8%		33.8%	33.8%		21.3%	45.0%		21.3%	45.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	5.5		3.5	5.5	
All-Red Time (s)	3.5	3.5		3.5	3.5		2.5	2.5		2.5	2.5	
Lost Time Adjust (s)		-1.0			-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)		6.0			6.0		5.0	7.0		5.0	7.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 55.5

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Splits and Phases: 1: Route 61 & Hancock Street



















17 s	36 s	27 s
17 s	36 s	27 s



1: Route 61 & Hancock Street  
Base 2030 Conditions

FKV.00001






Timing Plan: A.M. Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	74	47	77	55	13	14	398	40	94	729	24
Future Volume (veh/h)	41	74	47	77	55	13	14	398	40	94	729	24
Initial Q (Qb), 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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1855	1855	1855	1662	1662	1662	1794	1598	1598	1784	1784	1784
Adj Flow Rate, veh/h	43	77	34	80	57	14	15	415	37	98	759	22
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	8	8	8	0	14	14	9	9	9
Cap, veh/h	155	146	58	226	95	21	82	960	85	219	1417	41
Arrive On Green	0.13	0.15	0.13	0.13	0.15	0.13	0.05	0.34	0.32	0.13	0.42	0.40
Sat Flow, veh/h	384	986	388	733	638	140	1709	2820	250	1699	3363	97
Grp Volume(v), veh/h	154	0	0	151	0	0	15	223	229	98	382	399
Grp Sat Flow(s),veh/h/ln	1758	0	0	1511	0	0	1709	1518	1553	1699	1695	1766
Q Serve(g_s), s	0.0	0.0	0.0	0.5	0.0	0.0	0.4	5.3	5.4	2.5	7.9	7.9
Cycle Q Clear(g_c), s	3.8	0.0	0.0	4.3	0.0	0.0	0.4	5.3	5.4	2.5	7.9	7.9
Prop In Lane	0.28		0.22	0.53		0.09	1.00		0.16	1.00		0.06
Lane Grp Cap(c), veh/h	321	0	0	309	0	0	82	517	528	219	714	744
V/C Ratio(X)	0.48	0.00	0.00	0.49	0.00	0.00	0.18	0.43	0.43	0.45	0.54	0.54
Avail Cap(c_a), veh/h	801	0	0	703	0	0	436	936	958	434	1045	1089
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
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.9	0.0	0.0	19.1	0.0	0.0	21.5	12.0	12.1	18.9	10.2	10.2
Incr Delay (d2), s/veh	1.6	0.0	0.0	1.7	0.0	0.0	1.1	0.6	0.6	1.4	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.9	0.0	0.0	2.9	0.0	0.0	0.3	2.5	2.6	1.6	3.6	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.5	0.0	0.0	20.8	0.0	0.0	22.6	12.6	12.6	20.4	10.4	10.4
LnGrp LOS	C	A	A	C	A	A	C	B	B	C	B	B
Approach Vol, veh/h		154			151			467			879	
Approach Delay, s/veh		20.5			20.8			12.9			11.5	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.1	23.0		13.0	7.2	26.8		13.0				
Change Period (Y+Rc), s	6.0	8.0		7.0	6.0	8.0		7.0				
Max Green Setting (Gmax), s	11.0	28.0		20.0	11.0	28.0		20.0				
Max Q Clear Time (g_c+l1), s	5.0	7.8		5.8	2.9	10.4		6.3				
Green Ext Time (p_c), s	0.1	1.5		0.6	0.0	0.4		0.6				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				13.6								
HCM 6th LOS				B								



2: 2nd street & Hancock Street  
Base 2030 Conditions









FKV.00001  
Timing Plan: A.M. Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	76	98	20	83	13	39	103	21	1	19	12
Future Volume (vph)	4	76	98	20	83	13	39	103	21	1	19	12
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	11	11	11	11	11	14	14	14	14	14	14
Grade (%)		1%			0%			1%			-2%	
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		614			797			525			483	
Travel Time (s)		16.7			21.7			10.2			9.4	
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles (%)	0%	8%	2%	21%	6%	0%	5%	17%	20%	0%	6%	25%
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Total Split (s)	27.0	27.0		27.0	27.0		43.0	43.0		43.0	43.0	
Total Split (%)	38.6%	38.6%		38.6%	38.6%		61.4%	61.4%		61.4%	61.4%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		3.0			3.0			3.0			3.0	
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary

Area Type: Other  
 Cycle Length: 70  
 Actuated Cycle Length: 70  
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow  
 Natural Cycle: 40  
 Control Type: Pretimed

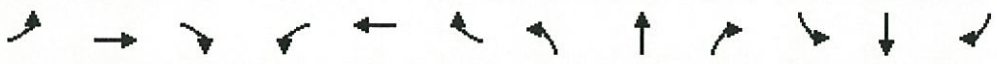
Splits and Phases: 2: 2nd street & Hancock Street

 Ø2 (R)  43 s	 Ø4  27 s
 Ø6 (R)  43 s	 Ø8  27 s



2: 2nd street & Hancock Street  
Base 2030 Conditions












FKV.00001  
Timing Plan: A.M. Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Volume (veh/h)	4	76	98	20	83	13	39	103	21	1	19	12
Future Volume (veh/h)	4	76	98	20	83	13	39	103	21	1	19	12
Initial Q (Qb), 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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1682	1682	1682	1716	1716	1716	1618	1618	1618	1861	1861	1861
Adj Flow Rate, veh/h	5	94	75	25	102	14	48	127	24	1	23	11
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	8	8	8	6	6	6	17	17	17	6	6	6
Cap, veh/h	57	300	230	121	431	54	233	573	102	60	681	315
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.57	0.57	0.57	0.57	0.57	0.57
Sat Flow, veh/h	12	874	671	178	1256	158	297	1004	178	13	1191	552
Grp Volume(v), veh/h	174	0	0	141	0	0	199	0	0	35	0	0
Grp Sat Flow(s),veh/h/ln	1556	0	0	1592	0	0	1479	0	0	1755	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.8	0.0	0.0	4.2	0.0	0.0	4.3	0.0	0.0	0.6	0.0	0.0
Prop In Lane	0.03		0.43	0.18		0.10	0.24		0.12	0.03		0.31
Lane Grp Cap(c), veh/h	586	0	0	606	0	0	909	0	0	1056	0	0
V/C Ratio(X)	0.30	0.00	0.00	0.23	0.00	0.00	0.22	0.00	0.00	0.03	0.00	0.00
Avail Cap(c_a), veh/h	586	0	0	606	0	0	909	0	0	1056	0	0
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
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.0	0.0	0.0	16.5	0.0	0.0	7.4	0.0	0.0	6.6	0.0	0.0
Incr Delay (d2), s/veh	1.3	0.0	0.0	0.9	0.0	0.0	0.6	0.0	0.0	0.1	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	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.9	0.0	0.0	3.1	0.0	0.0	2.4	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.3	0.0	0.0	17.4	0.0	0.0	7.9	0.0	0.0	6.6	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		174			141			199			35	
Approach Delay, s/veh		18.3			17.4			7.9			6.6	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		43.0		27.0		43.0		27.0				
Change Period (Y+Rc), s		3.0		3.0		3.0		3.0				
Max Green Setting (Gmax), s		40.0		24.0		40.0		24.0				
Max Q Clear Time (g_c+I1), s		6.3		7.8		2.6		6.2				
Green Ext Time (p_c), s		1.2		0.9		0.1		0.7				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			13.6									
HCM 6th LOS			B									



3: Burma Road & Site Driveway  
Base 2030 Conditions

FKV.00001  
Timing Plan: A.M. Peak Hour

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1	37	75	9	20	4
Future Volume (vph)	1	37	75	9	20	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	10	10
Grade (%)		0%	0%		3%	
Storage Length (ft)	0			300	0	0
Storage Lanes	0			1	1	0
Taper Length (ft)	25				25	
Link Speed (mph)		45	45		25	
Link Distance (ft)		591	423		281	
Travel Time (s)		9.0	6.4		7.7	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	0%	100%	100%	95%	100%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					

3: Burma Road & Site Driveway  
Base 2030 Conditions

FKV.00001  
Timing Plan: A.M. Peak Hour

Intersection

Int Delay, s/veh 1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑	↑	↑	↑
Traffic Vol, veh/h	1	37	75	9	20	4
Future Vol, veh/h	1	37	75	9	20	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	300	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	3	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	0	0	100	100	95	100
Mvmt Flow	1	43	86	10	23	5

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	96	0	0 131 86
Stage 1	-	-	- 86 -
Stage 2	-	-	- 45 -
Critical Hdwy	4.3	-	- 8 7.5
Critical Hdwy Stg 1	-	-	- 6.95 -
Critical Hdwy Stg 2	-	-	- 6.95 -
Follow-up Hdwy	3	-	- 3.9 4
Pot Cap-1 Maneuver	1113	-	- 740 789
Stage 1	-	-	- 819 -
Stage 2	-	-	- 867 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1113	-	- 739 789
Mov Cap-2 Maneuver	-	-	- 739 -
Stage 1	-	-	- 818 -
Stage 2	-	-	- 867 -





Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	10
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1113	-	-	-	747
HCM Lane V/C Ratio	0.001	-	-	-	0.037
HCM Control Delay (s)	8.2	0	-	-	10
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1



4: Burma Road & Morea Road  
Base 2030 Conditions

FKV.00001  
Timing Plan: A.M. Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	55	46	58	88	43	35
Future Volume (vph)	55	46	58	88	43	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11
Grade (%)	2%			-2%	-3%	
Link Speed (mph)	45			45	45	
Link Distance (ft)	759			885	961	
Travel Time (s)	11.5			13.4	14.6	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	9%	0%	23%	4%	7%	41%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					



4: Burma Road & Morea Road  
Base 2030 Conditions

FKV.00001  
Timing Plan: A.M. Peak Hour

Intersection

Int Delay, s/veh 4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↶			↷	↶	↷
Traffic Vol, veh/h	55	46	58	88	43	35
Future Vol, veh/h	55	46	58	88	43	35
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, %	2	-	-	-2	-3	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	9	0	23	4	7	41
Mvmt Flow	63	53	67	101	49	40

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	116
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.33
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	3.2
Pot Cap-1 Maneuver	-	-	1030
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1030
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.5	10
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	804	-	-	1030	-
HCM Lane V/C Ratio	0.112	-	-	0.065	-
HCM Control Delay (s)	10	-	-	8.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-

5: I-81 SB & Morea Road  
Base 2030 Conditions

FKV.00001  
Timing Plan: A.M. Peak Hour

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	
Traffic Volume (vph)	81	13	31	102	60	7
Future Volume (vph)	81	13	31	102	60	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	9	9	9	12	12
Grade (%)	-1%			1%	-3%	
Link Speed (mph)	45			45	25	
Link Distance (ft)	453			522	399	
Travel Time (s)	6.9			7.9	10.9	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	16%	62%	3%	18%	7%	0%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					



5: I-81 SB & Morea Road  
Base 2030 Conditions

FKV.00001  
Timing Plan: A.M. Peak Hour

Intersection

Int Delay, s/veh 3.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↱	↱	
Traffic Vol, veh/h	81	13	31	102	60	7
Future Vol, veh/h	81	13	31	102	60	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	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-1	-	-	1	-3	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	16	62	3	18	7	0
Mvmt Flow	91	15	35	115	67	8

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	106
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.4
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	3
Pot Cap-1 Maneuver	-	-	1101
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1101
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-





















Approach	EB	WB	NB
HCM Control Delay, s	0	2	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	815	-	-	1101	-
HCM Lane V/C Ratio	0.092	-	-	0.032	-
HCM Control Delay (s)	9.9	-	-	8.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-



6: Route 54 & Morea Road/I-81  
Base 2030 Conditions

FKV.00001  
Timing Plan: A.M. Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	0	84	0	0	44	103	111	44	0	141	32
Future Volume (vph)	4	0	84	0	0	44	103	111	44	0	141	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	10	13	13	13	10	14	10	12	12	10
Grade (%)		1%			2%			-1%			1%	
Storage Length (ft)	0		300	0		0	110		0	0		0
Storage Lanes	1		1	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		45			25			55			55	
Link Distance (ft)		522			511			904			1161	
Travel Time (s)		7.9			13.9			11.2			14.4	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	22%	6%	11%	0%	9%	2%	0%	0%	6%	0%	0%	14%
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											

6: Route 54 & Morea Road/I-81  
Base 2030 Conditions

FKV.00001  
Timing Plan: A.M. Peak Hour

Intersection

Int Delay, s/veh 3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰		↰			↰	↰	↰	↰		↰	
Traffic Vol, veh/h	4	0	84	0	0	44	103	111	44	0	141	32
Future Vol, veh/h	4	0	84	0	0	44	103	111	44	0	141	32
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	-	-	Free	-	-	None	-	-	Free	-	-	Yield
Storage Length	0	-	300	-	-	0	110	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	2	-	-	-1	-	-	1	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	22	6	11	0	9	2	0	0	6	0	0	14
Mvmt Flow	4	0	94	0	0	49	116	125	49	0	158	36

Major/Minor	Minor2	Minor1	Major1	Major2
Conflicting Flow All	471	-	-	-
Stage 1	176	-	-	-
Stage 2	295	-	-	-
Critical Hdwy	7.5	-	-	-
Critical Hdwy Stg 1	7.14	-	-	-
Critical Hdwy Stg 2	7.14	-	-	-
Follow-up Hdwy	3.2	-	-	-
Pot Cap-1 Maneuver	516	0	0	0
Stage 1	857	0	0	0
Stage 2	712	0	0	0
Platoon blocked, %				
Mov Cap-1 Maneuver	450	-	-	-
Mov Cap-2 Maneuver	450	-	-	-
Stage 1	764	-	-	-
Stage 2	604	-	-	-













Approach	EB	WB	NB	SB
HCM Control Delay, s	13.1	8.7	4.2	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	WBLn1	SBT	SBR
Capacity (veh/h)	1060	-	450	-	1034	-	-
HCM Lane V/C Ratio	0.109	-	0.01	-	0.048	-	-
HCM Control Delay (s)	8.8	-	13.1	0	8.7	-	-
HCM Lane LOS	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.4	-	0	-	0.1	-	-



7: I-81 & Route 54  
Base 2030 Conditions

FKV.00001  
Timing Plan: A.M. Peak Hour



















												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑	↑↑				↑			↑
Traffic Volume (vph)	0	133	94	1	243	0	0	0	53	0	0	26
Future Volume (vph)	0	133	94	1	243	0	0	0	53	0	0	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	16	13	10	10	12	12	16	12	12	14
Grade (%)		-1%			2%			2%			0%	
Storage Length (ft)	0		0	90		0	0		0	0		0
Storage Lanes	0		1	1		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		55			55			30			30	
Link Distance (ft)		904			1213			651			686	
Travel Time (s)		11.2			15.0			14.8			15.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	15%	10%	0%	7%	0%	0%	12%	0%	0%	0%	64%
Shared Lane Traffic (%)												
Sign Control		Free			Free			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											





1: Route 61 & Hancock Street  
Base 2030 Conditions

FKV.00001  
Timing Plan: P.M. Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	95	58	46	73	19	68	910	92	139	612	59
Future Volume (vph)	55	95	58	46	73	19	68	910	92	139	612	59
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	11	11	16	16	16	12	12	12	12	12	12
Grade (%)		-3%			4%			1%			-3%	
Storage Length (ft)	0		0	0		0	190		0	190		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		413			614			553			554	
Travel Time (s)		11.3			16.7			8.4			8.4	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	3%	0%	2%	0%	6%	0%	6%	0%	4%	5%	2%
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		7.0	15.0		7.0	15.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		13.0	23.0		13.0	23.0	
Total Split (s)	26.0	26.0		26.0	26.0		22.0	42.0		22.0	42.0	
Total Split (%)	28.9%	28.9%		28.9%	28.9%		24.4%	46.7%		24.4%	46.7%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	5.5		3.5	5.5	
All-Red Time (s)	3.5	3.5		3.5	3.5		2.5	2.5		2.5	2.5	
Lost Time Adjust (s)		-1.0			-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)		6.0			6.0		5.0	7.0		5.0	7.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	

Intersection Summary

Area Type: Other







Cycle Length: 90

Actuated Cycle Length: 78.9

Natural Cycle: 60

Control Type: Semi Act-Uncoord




















Splits and Phases: 1: Route 61 & Hancock Street

 Ø1	 Ø2	 Ø4
22 s	42 s	26 s
 Ø5	 Ø6	 Ø8
22 s	42 s	26 s



1: Route 61 & Hancock Street  
Base 2030 Conditions

















FKV.00001  
Timing Plan: P.M. Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	95	58	46	73	19	68	910	92	139	612	59
Future Volume (veh/h)	55	95	58	46	73	19	68	910	92	139	612	59
Initial Q (Qb), 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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1869	1869	1869	1779	1779	1779	1794	1710	1710	1855	1841	1841
Adj Flow Rate, veh/h	57	99	46	48	76	20	71	948	82	145	638	56
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	0	0	0	0	6	6	4	5	5
Cap, veh/h	142	160	66	150	171	39	169	1198	104	230	1389	122
Arrive On Green	0.15	0.17	0.15	0.15	0.17	0.15	0.10	0.40	0.38	0.13	0.43	0.41
Sat Flow, veh/h	376	950	391	404	1018	229	1709	3026	262	1767	3253	285
Grp Volume(v), veh/h	202	0	0	144	0	0	71	509	521	145	343	351
Grp Sat Flow(s),veh/h/ln	1716	0	0	1652	0	0	1709	1625	1663	1767	1749	1789
Q Serve(g_s), s	1.9	0.0	0.0	0.0	0.0	0.0	2.3	16.2	16.2	4.6	8.2	8.3
Cycle Q Clear(g_c), s	6.5	0.0	0.0	4.5	0.0	0.0	2.3	16.2	16.2	4.6	8.2	8.3
Prop In Lane	0.28		0.23	0.33		0.14	1.00		0.16	1.00		0.16
Lane Grp Cap(c), veh/h	338	0	0	331	0	0	169	643	658	230	747	764
V/C Ratio(X)	0.60	0.00	0.00	0.43	0.00	0.00	0.42	0.79	0.79	0.63	0.46	0.46
Avail Cap(c_a), veh/h	614	0	0	588	0	0	494	967	990	511	1041	1065
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
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.2	0.0	0.0	22.4	0.0	0.0	24.9	15.6	15.7	24.2	12.0	12.1
Incr Delay (d2), s/veh	2.4	0.0	0.0	1.3	0.0	0.0	1.7	2.7	2.6	2.9	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.0	0.0	0.0	3.4	0.0	0.0	1.6	8.9	9.1	3.4	4.5	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.6	0.0	0.0	23.7	0.0	0.0	26.6	18.3	18.3	27.1	12.2	12.2
LnGrp LOS	C	A	A	C	A	A	C	B	B	C	B	B
Approach Vol, veh/h		202			144			1101			839	
Approach Delay, s/veh		25.6			23.7			18.8			14.8	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.6	30.3		15.9	10.8	32.1		15.9				
Change Period (Y+Rc), s	6.0	8.0		7.0	6.0	8.0		7.0				
Max Green Setting (Gmax), s	16.0	34.0		19.0	16.0	34.0		19.0				
Max Q Clear Time (g_c+I1), s	7.1	18.7		8.5	4.8	10.7		6.5				
Green Ext Time (p_c), s	0.3	3.6		0.8	0.1	0.4		0.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			18.2									
HCM 6th LOS			B									



2: 2nd street & Hancock Street  
Base 2030 Conditions

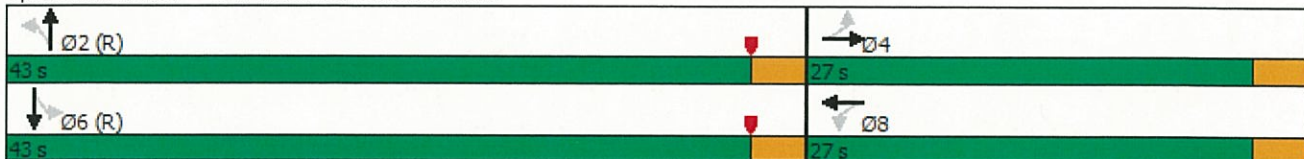
FKV.00001  
Timing Plan: P.M. Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	139	130	14	52	19	43	139	51	3	15	6
Future Volume (vph)	13	139	130	14	52	19	43	139	51	3	15	6
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	11	11	11	11	11	14	14	14	14	14	14
Grade (%)		1%			0%			1%			-2%	
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		614			797			525			483	
Travel Time (s)		16.7			21.7			10.2			9.4	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	5%	0%	2%	0%	2%	4%	0%	0%	13%	0%
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Total Split (s)	27.0	27.0		27.0	27.0		43.0	43.0		43.0	43.0	
Total Split (%)	38.6%	38.6%		38.6%	38.6%		61.4%	61.4%		61.4%	61.4%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		3.0			3.0			3.0			3.0	
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary

Area Type: Other  
Cycle Length: 70  
Actuated Cycle Length: 70  
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow  
Natural Cycle: 40  
Control Type: Pretimed

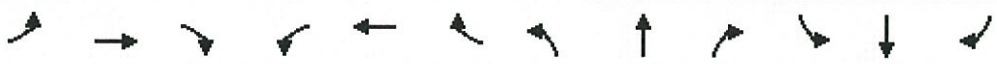
Splits and Phases: 2: 2nd street & Hancock Street
















2: 2nd street & Hancock Street  
Base 2030 Conditions

FKV.00001  
Timing Plan: P.M. Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	13	139	130	14	52	19	43	139	51	3	15	6
Future Volume (veh/h)	13	139	130	14	52	19	43	139	51	3	15	6
Initial Q (Qb), 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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1794	1794	1794	1772	1772	1772	1808	1808	1808	1757	1757	1757
Adj Flow Rate, veh/h	15	156	108	16	58	21	48	156	50	3	17	5
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	2	2	2	4	4	4	13	13	13
Cap, veh/h	67	337	221	116	371	121	201	624	187	130	671	186
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.57	0.57	0.57	0.57	0.57	0.57
Sat Flow, veh/h	36	983	644	164	1083	354	245	1092	328	126	1173	325
Grp Volume(v), veh/h	279	0	0	95	0	0	254	0	0	25	0	0
Grp Sat Flow(s), veh/h/ln	1663	0	0	1601	0	0	1664	0	0	1624	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	9.2	0.0	0.0	2.7	0.0	0.0	5.1	0.0	0.0	0.4	0.0	0.0
Prop In Lane	0.05		0.39	0.17		0.22	0.19		0.20	0.12		0.20
Lane Grp Cap(c), veh/h	624	0	0	609	0	0	1012	0	0	986	0	0
V/C Ratio(X)	0.45	0.00	0.00	0.16	0.00	0.00	0.25	0.00	0.00	0.03	0.00	0.00
Avail Cap(c_a), veh/h	624	0	0	609	0	0	1012	0	0	986	0	0
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
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.1	0.0	0.0	16.0	0.0	0.0	7.5	0.0	0.0	6.5	0.0	0.0
Incr Delay (d2), s/veh	2.3	0.0	0.0	0.5	0.0	0.0	0.6	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.8	0.0	0.0	2.0	0.0	0.0	3.1	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.4	0.0	0.0	16.6	0.0	0.0	8.1	0.0	0.0	6.6	0.0	0.0
LnGrp LOS	C	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		279			95			254			25	
Approach Delay, s/veh		20.4			16.6			8.1			6.6	
Approach LOS		C			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		43.0		27.0		43.0		27.0				
Change Period (Y+Rc), s		3.0		3.0		3.0		3.0				
Max Green Setting (Gmax), s		40.0		24.0		40.0		24.0				
Max Q Clear Time (g_c+I1), s		7.1		11.2		2.4		4.7				
Green Ext Time (p_c), s		1.5		1.4		0.1		0.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				14.5								
HCM 6th LOS				B								

3: Burma Road & Site Driveway  
Base 2030 Conditions

FKV.00001  
Timing Plan: P.M. Peak Hour

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	106	90	2	2	8
Future Volume (vph)	0	106	90	2	2	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	10	10
Grade (%)		0%	0%		3%	
Storage Length (ft)	0			300	0	0
Storage Lanes	0			1	1	0
Taper Length (ft)	25				25	
Link Speed (mph)		45	45		25	
Link Distance (ft)		591	423		281	
Travel Time (s)		9.0	6.4		7.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					



3: Burma Road & Site Driveway  
Base 2030 Conditions

FKV.00001  
Timing Plan: P.M. Peak Hour

Intersection

Int Delay, s/veh 0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↑	↗	↘	
Traffic Vol, veh/h	0	106	90	2	2	8
Future Vol, veh/h	0	106	90	2	2	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	300	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	3	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	0	115	98	2	2	9





Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	100	0	0 213 98
Stage 1	-	-	- 98 -
Stage 2	-	-	- 115 -
Critical Hdwy	4.3	-	- 7 6.5
Critical Hdwy Stg 1	-	-	- 6 -
Critical Hdwy Stg 2	-	-	- 6 -
Follow-up Hdwy	3	-	- 3 3.1
Pot Cap-1 Maneuver	1110	-	- 866 1015
Stage 1	-	-	- 1061 -
Stage 2	-	-	- 1039 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1110	-	- 866 1015
Mov Cap-2 Maneuver	-	-	- 866 -
Stage 1	-	-	- 1061 -
Stage 2	-	-	- 1039 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1110	-	-	-	981
HCM Lane V/C Ratio	-	-	-	-	0.011
HCM Control Delay (s)	0	-	-	-	8.7
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

4: Burma Road & Morea Road  
Base 2030 Conditions

FKV.00001  
Timing Plan: P.M. Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	84	61	55	72	70	45
Future Volume (vph)	84	61	55	72	70	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11
Grade (%)	2%			-2%	-3%	
Link Speed (mph)	45			45	45	
Link Distance (ft)	759			885	961	
Travel Time (s)	11.5			13.4	14.6	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	9%	6%	3%	11%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					



4: Burma Road & Morea Road  
Base 2030 Conditions

FKV.00001  
Timing Plan: P.M. Peak Hour

Intersection

Int Delay, s/veh 4.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↶			↷	↶	↷
Traffic Vol, veh/h	84	61	55	72	70	45
Future Vol, veh/h	84	61	55	72	70	45
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, %	2	-	-	-2	-3	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	9	6	3	11
Mvmt Flow	95	69	63	82	80	51

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	164
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	3
Pot Cap-1 Maneuver	-	-	1065
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1065
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-










Approach	EB	WB	NB
HCM Control Delay, s	0	3.7	10.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	827	-	-	1065	-
HCM Lane V/C Ratio	0.158	-	-	0.059	-
HCM Control Delay (s)	10.2	-	-	8.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0.2	-



5: I-81 SB & Morea Road  
Base 2030 Conditions

FKV.00001  
Timing Plan: P.M. Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	127	5	26	84	41	10
Future Volume (vph)	127	5	26	84	41	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	9	9	9	12	12
Grade (%)	-1%			1%	-3%	
Link Speed (mph)	45			45	25	
Link Distance (ft)	453			522	399	
Travel Time (s)	6.9			7.9	10.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	20%	0%	5%	5%	0%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

5: I-81 SB & Morea Road  
Base 2030 Conditions

FKV.00001  
Timing Plan: P.M. Peak Hour

Intersection

Int Delay, s/veh 2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	
Traffic Vol, veh/h	127	5	26	84	41	10
Future Vol, veh/h	127	5	26	84	41	10
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, %	-1	-	-	1	-3	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	20	0	5	5	0
Mvmt Flow	141	6	29	93	46	11

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	147	0	295	144
Stage 1	-	-	-	-	144	-
Stage 2	-	-	-	-	151	-
Critical Hdwy	-	-	4.1	-	5.85	6
Critical Hdwy Stg 1	-	-	-	-	4.85	-
Critical Hdwy Stg 2	-	-	-	-	4.85	-
Follow-up Hdwy	-	-	3	-	3	3.1
Pot Cap-1 Maneuver	-	-	1078	-	838	971
Stage 1	-	-	-	-	1049	-
Stage 2	-	-	-	-	1042	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1078	-	815	971
Mov Cap-2 Maneuver	-	-	-	-	815	-
Stage 1	-	-	-	-	1049	-
Stage 2	-	-	-	-	1013	-





















Approach	EB	WB	NB
HCM Control Delay, s	0	2	9.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	842	-	-	1078	-
HCM Lane V/C Ratio	0.067	-	-	0.027	-
HCM Control Delay (s)	9.6	-	-	8.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-



6: Route 54 & Morea Road/I-81  
Base 2030 Conditions

FKV.00001  
Timing Plan: P.M. Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	0	106	0	0	52	69	143	42	0	154	39
Future Volume (vph)	32	0	106	0	0	52	69	143	42	0	154	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	10	13	13	13	10	14	10	12	12	10
Grade (%)		1%			2%			-1%			1%	
Storage Length (ft)	0		300	0		0	110		0	0		0
Storage Lanes	1		1	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		45			25			55			55	
Link Distance (ft)		522			511			904			1161	
Travel Time (s)		7.9			13.9			11.2			14.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	22%	6%	11%	0%	9%	2%	0%	0%	6%	0%	0%	14%
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											











6: Route 54 & Morea Road/I-81  
Base 2030 Conditions

FKV.00001  
Timing Plan: P.M. Peak Hour

Intersection

Int Delay, s/veh 3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	0	106	0	0	52	69	143	42	0	154	39
Future Vol, veh/h	32	0	106	0	0	52	69	143	42	0	154	39
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	-	-	Free	-	-	None	-	-	Free	-	-	Yield
Storage Length	0	-	300	-	-	0	110	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	2	-	-	-1	-	-	1	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	22	6	11	0	9	2	0	0	6	0	0	14
Mvmt Flow	36	0	118	0	0	58	77	159	47	0	171	43













Major/Minor	Minor2	Minor1				Major1		Major2				
Conflicting Flow All	427	-	-	-	-	80	171	0	-	-	-	0
Stage 1	193	-	-	-	-	-	-	-	-	-	-	-
Stage 2	234	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.5	-	-	-	-	6.4	4.3	-	-	-	-	-
Critical Hdwy Stg 1	7.14	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.14	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.2	-	-	-	-	3.2	3	-	-	-	-	-
Pot Cap-1 Maneuver	555	0	0	0	0	1011	1050	-	0	0	-	-
Stage 1	835	0	0	0	0	-	-	-	0	0	-	-
Stage 2	783	0	0	0	0	-	-	-	0	0	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	494	-	-	-	-	1011	1050	-	-	-	-	-
Mov Cap-2 Maneuver	494	-	-	-	-	-	-	-	-	-	-	-
Stage 1	774	-	-	-	-	-	-	-	-	-	-	-
Stage 2	684	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.9	8.8	2.8	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	WBLn1	SBT	SBR
Capacity (veh/h)	1050	-	494	-	1011	-	-
HCM Lane V/C Ratio	0.073	-	0.072	-	0.057	-	-
HCM Control Delay (s)	8.7	-	12.9	0	8.8	-	-
HCM Lane LOS	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	0.2	-	-

7: I-81 & Route 54  
Base 2030 Conditions

FKV.00001  
Timing Plan: P.M. Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑	↑↑				↑			↑
Traffic Volume (vph)	0	171	79	3	220	0	0	0	67	0	0	28
Future Volume (vph)	0	171	79	3	220	0	0	0	67	0	0	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	16	13	10	10	12	12	16	12	12	14
Grade (%)		-1%			2%			2%			0%	
Storage Length (ft)	0		0	90		0	0		0	0		0
Storage Lanes	0		1	1		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		55			55			30			30	
Link Distance (ft)		904			1213			651			686	
Travel Time (s)		11.2			15.0			14.8			15.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	15%	10%	0%	7%	0%	0%	12%	0%	0%	0%	64%
Shared Lane Traffic (%)												
Sign Control		Free			Free			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											






## ***2030 Projected Conditions***

1: Route 61 & Hancock Street  
Projected 2030 Conditions

FKV.00001  
Timing Plan: A.M. Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Volume (vph)	41	74	47	77	55	14	14	398	40	95	729	24
Future Volume (vph)	41	74	47	77	55	14	14	398	40	95	729	24
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	11	11	16	16	16	12	12	12	12	12	12
Grade (%)		-3%			4%			1%			-3%	
Storage Length (ft)	0		0	0		0	190		0	190		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		413			614			553			554	
Travel Time (s)		11.3			16.7			8.4			8.4	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	8%	4%	1%	8%	8%	0%	0%	14%	1%	9%	9%	1%
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		7.0	15.0		7.0	15.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		13.0	23.0		13.0	23.0	
Total Split (s)	27.0	27.0		27.0	27.0		17.0	36.0		17.0	36.0	
Total Split (%)	33.8%	33.8%		33.8%	33.8%		21.3%	45.0%		21.3%	45.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	5.5		3.5	5.5	
All-Red Time (s)	3.5	3.5		3.5	3.5		2.5	2.5		2.5	2.5	
Lost Time Adjust (s)		-1.0			-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)		6.0			6.0		5.0	7.0		5.0	7.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	

Intersection Summary

Area Type: Other













Cycle Length: 80

Actuated Cycle Length: 55.5

Natural Cycle: 60

Control Type: Semi Act-Uncoord




















Splits and Phases: 1: Route 61 & Hancock Street

 Ø1  17 s	 Ø2  36 s	 Ø4  27 s
 Ø5  17 s	 Ø6  36 s	 Ø8  27 s



1: Route 61 & Hancock Street  
Projected 2030 Conditions

















FKV.00001  
Timing Plan: A.M. Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	74	47	77	55	14	14	398	40	95	729	24
Future Volume (veh/h)	41	74	47	77	55	14	14	398	40	95	729	24
Initial Q (Qb), 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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1855	1855	1855	1662	1662	1662	1794	1598	1598	1784	1784	1784
Adj Flow Rate, veh/h	43	77	34	80	57	15	15	415	37	99	759	22
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	8	8	8	0	14	14	9	9	9
Cap, veh/h	155	147	58	225	95	22	82	958	85	219	1416	41
Arrive On Green	0.13	0.15	0.13	0.13	0.15	0.13	0.05	0.34	0.32	0.13	0.42	0.40
Sat Flow, veh/h	383	987	388	725	636	149	1709	2820	250	1699	3363	97
Grp Volume(v), veh/h	154	0	0	152	0	0	15	223	229	99	382	399
Grp Sat Flow(s),veh/h/ln	1758	0	0	1510	0	0	1709	1518	1553	1699	1695	1766
Q Serve(g_s), s	0.0	0.0	0.0	0.6	0.0	0.0	0.4	5.3	5.4	2.5	7.9	8.0
Cycle Q Clear(g_c), s	3.8	0.0	0.0	4.4	0.0	0.0	0.4	5.3	5.4	2.5	7.9	8.0
Prop In Lane	0.28		0.22	0.53		0.10	1.00		0.16	1.00		0.06
Lane Grp Cap(c), veh/h	323	0	0	310	0	0	82	516	527	219	714	744
V/C Ratio(X)	0.48	0.00	0.00	0.49	0.00	0.00	0.18	0.43	0.44	0.45	0.54	0.54
Avail Cap(c_a), veh/h	800	0	0	701	0	0	435	935	956	433	1043	1087
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
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.9	0.0	0.0	19.2	0.0	0.0	21.5	12.0	12.1	19.0	10.2	10.2
Incr Delay (d2), s/veh	1.6	0.0	0.0	1.7	0.0	0.0	1.1	0.6	0.6	1.4	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.9	0.0	0.0	2.9	0.0	0.0	0.3	2.5	2.6	1.6	3.6	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.5	0.0	0.0	20.9	0.0	0.0	22.6	12.6	12.7	20.4	10.4	10.4
LnGrp LOS	C	A	A	C	A	A	C	B	B	C	B	B
Approach Vol, veh/h		154			152			467			880	
Approach Delay, s/veh		20.5			20.9			13.0			11.6	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.1	23.0		13.0	7.2	26.8		13.0				
Change Period (Y+Rc), s	6.0	8.0		7.0	6.0	8.0		7.0				
Max Green Setting (Gmax), s	11.0	28.0		20.0	11.0	28.0		20.0				
Max Q Clear Time (g_c+I1), s	5.0	7.8		5.8	2.9	10.4		6.4				
Green Ext Time (p_c), s	0.1	1.5		0.6	0.0	0.4		0.6				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			13.6									
HCM 6th LOS			B									



2: 2nd street & Hancock Street  
Projected 2030 Conditions

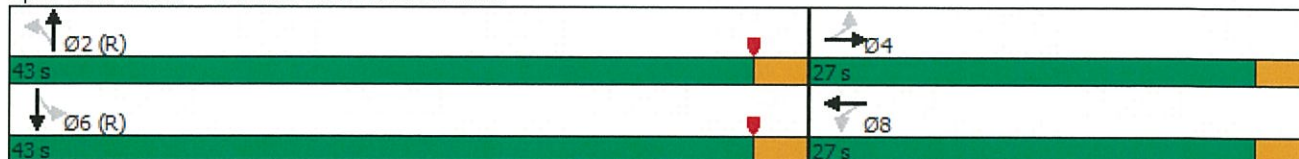
FKV.00001  
Timing Plan: A.M. Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	77	98	20	84	13	39	103	21	1	19	12
Future Volume (vph)	4	77	98	20	84	13	39	103	21	1	19	12
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	11	11	11	11	11	14	14	14	14	14	14
Grade (%)		1%			0%			1%			-2%	
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		614			797			525			483	
Travel Time (s)		16.7			21.7			10.2			9.4	
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles (%)	0%	8%	2%	21%	6%	0%	5%	17%	20%	0%	6%	25%
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Total Split (s)	27.0	27.0		27.0	27.0		43.0	43.0		43.0	43.0	
Total Split (%)	38.6%	38.6%		38.6%	38.6%		61.4%	61.4%		61.4%	61.4%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		3.0			3.0			3.0			3.0	
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary

Area Type: Other  
Cycle Length: 70  
Actuated Cycle Length: 70  
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow  
Natural Cycle: 40  
Control Type: Pretimed


Splits and Phases: 2: 2nd street & Hancock Street





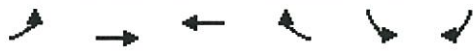




2: 2nd street & Hancock Street  
Projected 2030 Conditions

FKV.00001  
Timing Plan: A.M. Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	4	77	98	20	84	13	39	103	21	1	19	12
Future Volume (veh/h)	4	77	98	20	84	13	39	103	21	1	19	12
Initial Q (Qb), 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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1682	1682	1682	1716	1716	1716	1618	1618	1618	1861	1861	1861
Adj Flow Rate, veh/h	5	95	75	25	104	14	48	127	24	1	23	11
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	8	8	8	6	6	6	17	17	17	6	6	6
Cap, veh/h	57	301	229	120	433	53	233	573	102	60	681	315
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.57	0.57	0.57	0.57	0.57	0.57
Sat Flow, veh/h	12	878	667	174	1263	156	297	1004	178	13	1191	552
Grp Volume(v), veh/h	175	0	0	143	0	0	199	0	0	35	0	0
Grp Sat Flow(s),veh/h/ln	1557	0	0	1594	0	0	1479	0	0	1755	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.8	0.0	0.0	4.3	0.0	0.0	4.3	0.0	0.0	0.6	0.0	0.0
Prop In Lane	0.03		0.43	0.17		0.10	0.24		0.12	0.03		0.31
Lane Grp Cap(c), veh/h	587	0	0	607	0	0	909	0	0	1056	0	0
V/C Ratio(X)	0.30	0.00	0.00	0.24	0.00	0.00	0.22	0.00	0.00	0.03	0.00	0.00
Avail Cap(c_a), veh/h	587	0	0	607	0	0	909	0	0	1056	0	0
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
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.0	0.0	0.0	16.5	0.0	0.0	7.4	0.0	0.0	6.6	0.0	0.0
Incr Delay (d2), s/veh	1.3	0.0	0.0	0.9	0.0	0.0	0.6	0.0	0.0	0.1	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	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.0	0.0	0.0	3.1	0.0	0.0	2.4	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.3	0.0	0.0	17.4	0.0	0.0	7.9	0.0	0.0	6.6	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		175			143			199			35	
Approach Delay, s/veh		18.3			17.4			7.9			6.6	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		43.0		27.0		43.0		27.0				
Change Period (Y+Rc), s		3.0		3.0		3.0		3.0				
Max Green Setting (Gmax), s		40.0		24.0		40.0		24.0				
Max Q Clear Time (g_c+I1), s		6.3		7.8		2.6		6.3				
Green Ext Time (p_c), s		1.2		0.9		0.1		0.7				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				13.6								
HCM 6th LOS				B								

3: Burma Road & Site Driveway  
Projected 2030 Conditions

FKV.00001  
Timing Plan: A.M. Peak Hour

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	2	37	75	19	46	5
Future Volume (vph)	2	37	75	19	46	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	10	10
Grade (%)		0%	0%		3%	
Storage Length (ft)	0			300	0	0
Storage Lanes	0			1	1	0
Taper Length (ft)	25				25	
Link Speed (mph)		45	45		25	
Link Distance (ft)		591	423		281	
Travel Time (s)		9.0	6.4		7.7	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	0%	100%	100%	95%	100%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					



3: Burma Road & Site Driveway  
Projected 2030 Conditions

FKV.00001  
Timing Plan: A.M. Peak Hour

Intersection

Int Delay, s/veh 2.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕	↕	↕	↕
Traffic Vol, veh/h	2	37	75	19	46	5
Future Vol, veh/h	2	37	75	19	46	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	300	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	3	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	0	0	100	100	95	100
Mvmt Flow	2	43	86	22	53	6





Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	108	0	0 133 86
Stage 1	-	-	- - 86 -
Stage 2	-	-	- - 47 -
Critical Hdwy	4.3	-	- - 8 7.5
Critical Hdwy Stg 1	-	-	- - 6.95 -
Critical Hdwy Stg 2	-	-	- - 6.95 -
Follow-up Hdwy	3	-	- - 3.9 4
Pot Cap-1 Maneuver	1103	-	- - 738 789
Stage 1	-	-	- - 819 -
Stage 2	-	-	- - 865 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1103	-	- - 737 789
Mov Cap-2 Maneuver	-	-	- - 737 -
Stage 1	-	-	- - 817 -
Stage 2	-	-	- - 865 -

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	10.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1103	-	-	-	742
HCM Lane V/C Ratio	0.002	-	-	-	0.079
HCM Control Delay (s)	8.3	0	-	-	10.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

4: Burma Road & Morea Road  
Projected 2030 Conditions

FKV.00001  
Timing Plan: A.M. Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	55	46	68	88	43	61
Future Volume (vph)	55	46	68	88	43	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11
Grade (%)	2%			-2%	-3%	
Link Speed (mph)	45			45	45	
Link Distance (ft)	759			885	961	
Travel Time (s)	11.5			13.4	14.6	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	9%	0%	23%	4%	7%	41%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					



4: Burma Road & Morea Road  
Projected 2030 Conditions

FKV.00001  
Timing Plan: A.M. Peak Hour

Intersection

Int Delay, s/veh 4.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↱	↱	
Traffic Vol, veh/h	55	46	68	88	43	61
Future Vol, veh/h	55	46	68	88	43	61
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, %	2	-	-	-2	-3	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	9	0	23	4	7	41
Mvmt Flow	63	53	78	101	49	70

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	116	0	347	90
Stage 1	-	-	-	-	90	-
Stage 2	-	-	-	-	257	-
Critical Hdwy	-	-	4.33	-	5.87	6.31
Critical Hdwy Stg 1	-	-	-	-	4.87	-
Critical Hdwy Stg 2	-	-	-	-	4.87	-
Follow-up Hdwy	-	-	3.2	-	3.1	3.5
Pot Cap-1 Maneuver	-	-	1030	-	763	917
Stage 1	-	-	-	-	1069	-
Stage 2	-	-	-	-	914	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1030	-	702	917
Mov Cap-2 Maneuver	-	-	-	-	702	-
Stage 1	-	-	-	-	1069	-
Stage 2	-	-	-	-	841	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.8	10.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	814	-	-	1030	-
HCM Lane V/C Ratio	0.147	-	-	0.076	-
HCM Control Delay (s)	10.2	-	-	8.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0.2	-



5: I-81 SB & Morea Road  
Projected 2030 Conditions

FKV.00001  
Timing Plan: A.M. Peak Hour

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	
Traffic Volume (vph)	94	26	31	112	70	7
Future Volume (vph)	94	26	31	112	70	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	9	9	9	12	12
Grade (%)	-1%			1%	-3%	
Link Speed (mph)	45			45	25	
Link Distance (ft)	453			522	399	
Travel Time (s)	6.9			7.9	10.9	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	16%	62%	3%	18%	7%	0%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					

5: I-81 SB & Morea Road  
Projected 2030 Conditions

FKV.00001  
Timing Plan: A.M. Peak Hour

Intersection

Int Delay, s/veh 3.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↱	↱	
Traffic Vol, veh/h	94	26	31	112	70	7
Future Vol, veh/h	94	26	31	112	70	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	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-1	-	-	1	-3	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	16	62	3	18	7	0
Mvmt Flow	106	29	35	126	79	8

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	135	0	317	121
Stage 1	-	-	-	-	121	-
Stage 2	-	-	-	-	196	-
Critical Hdwy	-	-	4.4	-	5.87	5.9
Critical Hdwy Stg 1	-	-	-	-	4.87	-
Critical Hdwy Stg 2	-	-	-	-	4.87	-
Follow-up Hdwy	-	-	3	-	3.1	3.1
Pot Cap-1 Maneuver	-	-	1076	-	791	1003
Stage 1	-	-	-	-	1038	-
Stage 2	-	-	-	-	968	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1076	-	763	1003
Mov Cap-2 Maneuver	-	-	-	-	763	-
Stage 1	-	-	-	-	1038	-
Stage 2	-	-	-	-	934	-











Approach	EB	WB	NB
HCM Control Delay, s	0	1.8	10.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	780	-	-	1076	-
HCM Lane V/C Ratio	0.111	-	-	0.032	-
HCM Control Delay (s)	10.2	-	-	8.5	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-



6: Route 54 & Morea Road/I-81  
Projected 2030 Conditions

FKV.00001  
Timing Plan: A.M. Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	0	97	0	0	44	113	111	44	0	141	32
Future Volume (vph)	4	0	97	0	0	44	113	111	44	0	141	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	10	13	13	13	10	14	10	12	12	10
Grade (%)		1%			2%			-1%			1%	
Storage Length (ft)	0		300	0		0	110		0	0		0
Storage Lanes	1		1	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		45			25			55			55	
Link Distance (ft)		522			511			904			1161	
Travel Time (s)		7.9			13.9			11.2			14.4	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	22%	6%	11%	0%	9%	2%	0%	0%	6%	0%	0%	14%
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											












6: Route 54 & Morea Road/I-81  
Projected 2030 Conditions

FKV.00001  
Timing Plan: A.M. Peak Hour

Intersection

Int Delay, s/veh 3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	0	97	0	0	44	113	111	44	0	141	32
Future Vol, veh/h	4	0	97	0	0	44	113	111	44	0	141	32
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	-	-	Free	-	-	None	-	-	Free	-	-	Yield
Storage Length	0	-	300	-	-	0	110	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	2	-	-	-1	-	-	1	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	22	6	11	0	9	2	0	0	6	0	0	14
Mvmt Flow	4	0	109	0	0	49	127	125	49	0	158	36













Major/Minor	Minor2	Minor1				Major1			Major2			
Conflicting Flow All	493	-	-	-	-	63	158	0	-	-	-	0
Stage 1	176	-	-	-	-	-	-	-	-	-	-	-
Stage 2	317	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.5	-	-	-	-	6.4	4.3	-	-	-	-	-
Critical Hdwy Stg 1	7.14	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.14	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.2	-	-	-	-	3.2	3	-	-	-	-	-
Pot Cap-1 Maneuver	497	0	0	0	0	1034	1060	-	0	0	-	-
Stage 1	857	0	0	0	0	-	-	-	0	0	-	-
Stage 2	688	0	0	0	0	-	-	-	0	0	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	430	-	-	-	-	1034	1060	-	-	-	-	-
Mov Cap-2 Maneuver	430	-	-	-	-	-	-	-	-	-	-	-
Stage 1	754	-	-	-	-	-	-	-	-	-	-	-
Stage 2	577	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.5	8.7	4.5	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	WBLn1	SBT	SBR
Capacity (veh/h)	1060	-	430	-	1034	-	-
HCM Lane V/C Ratio	0.12	-	0.01	-	0.048	-	-
HCM Control Delay (s)	8.9	-	13.5	0	8.7	-	-
HCM Lane LOS	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.4	-	0	-	0.1	-	-

7: I-81 & Route 54  
Projected 2030 Conditions

FKV.00001  
Timing Plan: A.M. Peak Hour

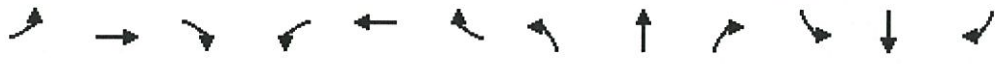
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑	↑↑				↑			↑
Traffic Volume (vph)	0	133	107	1	243	0	0	0	53	0	0	36
Future Volume (vph)	0	133	107	1	243	0	0	0	53	0	0	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	16	13	10	10	12	12	16	12	12	14
Grade (%)		-1%			2%			2%			0%	
Storage Length (ft)	0		0	90		0	0		0	0		0
Storage Lanes	0		1	1		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		55			55			30			30	
Link Distance (ft)		904			1213			651			686	
Travel Time (s)		11.2			15.0			14.8			15.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	15%	10%	0%	7%	0%	0%	12%	0%	0%	0%	64%
Shared Lane Traffic (%)												
Sign Control		Free			Free			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											





1: Route 61 & Hancock Street  
Projected 2030 Conditions

FKV.00001  
Timing Plan: P.M. Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↕		↗	↕	
Traffic Volume (vph)	55	95	58	46	73	20	68	910	92	140	612	59
Future Volume (vph)	55	95	58	46	73	20	68	910	92	140	612	59
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	11	11	16	16	16	12	12	12	12	12	12
Grade (%)		-3%			4%			1%			-3%	
Storage Length (ft)	0		0	0		0	190		0	190		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		413			614			553			554	
Travel Time (s)		11.3			16.7			8.4			8.4	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	3%	0%	2%	0%	6%	0%	6%	0%	4%	5%	2%
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		7.0	15.0		7.0	15.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		13.0	23.0		13.0	23.0	
Total Split (s)	26.0	26.0		26.0	26.0		22.0	42.0		22.0	42.0	
Total Split (%)	28.9%	28.9%		28.9%	28.9%		24.4%	46.7%		24.4%	46.7%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	5.5		3.5	5.5	
All-Red Time (s)	3.5	3.5		3.5	3.5		2.5	2.5		2.5	2.5	
Lost Time Adjust (s)		-1.0			-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)		6.0			6.0		5.0	7.0		5.0	7.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	

Intersection Summary

Area Type: Other

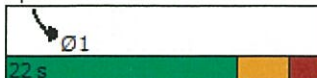
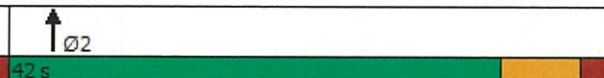




Cycle Length: 90

Actuated Cycle Length: 79

Natural Cycle: 60

Control Type: Semi Act-Uncoord




















Splits and Phases: 1: Route 61 & Hancock Street



1: Route 61 & Hancock Street  
Projected 2030 Conditions

















FKV.00001  
Timing Plan: P.M. Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	95	58	46	73	20	68	910	92	140	612	59
Future Volume (veh/h)	55	95	58	46	73	20	68	910	92	140	612	59
Initial Q (Qb), 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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1869	1869	1869	1779	1779	1779	1794	1710	1710	1855	1841	1841
Adj Flow Rate, veh/h	57	99	46	48	76	21	71	948	82	146	638	56
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	0	0	0	0	6	6	4	5	5
Cap, veh/h	142	160	66	149	170	40	169	1197	104	231	1391	122
Arrive On Green	0.15	0.17	0.15	0.15	0.17	0.15	0.10	0.40	0.38	0.13	0.43	0.41
Sat Flow, veh/h	376	950	391	402	1011	239	1709	3026	262	1767	3253	285
Grp Volume(v), veh/h	202	0	0	145	0	0	71	509	521	146	343	351
Grp Sat Flow(s),veh/h/ln	1717	0	0	1652	0	0	1709	1625	1663	1767	1749	1789
Q Serve(g_s), s	1.9	0.0	0.0	0.0	0.0	0.0	2.3	16.2	16.3	4.6	8.2	8.3
Cycle Q Clear(g_c), s	6.5	0.0	0.0	4.6	0.0	0.0	2.3	16.2	16.3	4.6	8.2	8.3
Prop In Lane	0.28		0.23	0.33		0.14	1.00		0.16	1.00		0.16
Lane Grp Cap(c), veh/h	338	0	0	331	0	0	169	643	658	231	748	765
V/C Ratio(X)	0.60	0.00	0.00	0.44	0.00	0.00	0.42	0.79	0.79	0.63	0.46	0.46
Avail Cap(c_a), veh/h	613	0	0	587	0	0	493	966	989	510	1039	1064
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
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.2	0.0	0.0	22.5	0.0	0.0	25.0	15.7	15.7	24.3	12.0	12.1
Incr Delay (d2), s/veh	2.4	0.0	0.0	1.3	0.0	0.0	1.7	2.7	2.6	2.9	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.0	0.0	0.0	3.4	0.0	0.0	1.6	8.9	9.1	3.4	4.5	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.7	0.0	0.0	23.8	0.0	0.0	26.6	18.3	18.3	27.1	12.2	12.2
LnGrp LOS	C	A	A	C	A	A	C	B	B	C	B	B
Approach Vol, veh/h	202			145			1101			840		
Approach Delay, s/veh	25.7			23.8			18.9			14.8		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.7	30.3		15.9	10.8	32.2		15.9				
Change Period (Y+Rc), s	6.0	8.0		7.0	6.0	8.0		7.0				
Max Green Setting (Gmax), s	16.0	34.0		19.0	16.0	34.0		19.0				
Max Q Clear Time (g_c+I1), s	7.1	18.7		8.5	4.8	10.7		6.6				
Green Ext Time (p_c), s	0.3	3.6		0.8	0.1	0.4		0.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				18.3								
HCM 6th LOS				B								



2: 2nd street & Hancock Street  
Projected 2030 Conditions

FKV.00001  
Timing Plan: P.M. Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	140	130	14	53	19	43	139	51	3	15	6
Future Volume (vph)	13	140	130	14	53	19	43	139	51	3	15	6
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	11	11	11	11	11	14	14	14	14	14	14
Grade (%)		1%			0%			1%			-2%	
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		614			797			525			483	
Travel Time (s)		16.7			21.7			10.2			9.4	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	5%	0%	2%	0%	2%	4%	0%	0%	13%	0%
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Total Split (s)	27.0	27.0		27.0	27.0		43.0	43.0		43.0	43.0	
Total Split (%)	38.6%	38.6%		38.6%	38.6%		61.4%	61.4%		61.4%	61.4%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		3.0			3.0			3.0			3.0	
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary

Area Type: Other  
Cycle Length: 70  
Actuated Cycle Length: 70  
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow  
Natural Cycle: 40  
Control Type: Pretimed

















Splits and Phases: 2: 2nd street & Hancock Street
















2: 2nd street & Hancock Street  
Projected 2030 Conditions

FKV.00001  
Timing Plan: P.M. Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	140	130	14	53	19	43	139	51	3	15	6
Future Volume (veh/h)	13	140	130	14	53	19	43	139	51	3	15	6
Initial Q (Qb), 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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1794	1794	1794	1772	1772	1772	1808	1808	1808	1757	1757	1757
Adj Flow Rate, veh/h	15	157	108	16	60	21	48	156	50	3	17	5
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	2	2	2	4	4	4	13	13	13
Cap, veh/h	67	338	220	115	376	119	201	624	187	130	671	186
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.57	0.57	0.57	0.57	0.57	0.57
Sat Flow, veh/h	36	986	642	160	1097	347	245	1092	328	126	1173	325
Grp Volume(v), veh/h	280	0	0	97	0	0	254	0	0	25	0	0
Grp Sat Flow(s),veh/h/ln	1664	0	0	1604	0	0	1664	0	0	1624	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	9.2	0.0	0.0	2.8	0.0	0.0	5.1	0.0	0.0	0.4	0.0	0.0
Prop In Lane	0.05		0.39	0.16		0.22	0.19		0.20	0.12		0.20
Lane Grp Cap(c), veh/h	625	0	0	610	0	0	1012	0	0	986	0	0
V/C Ratio(X)	0.45	0.00	0.00	0.16	0.00	0.00	0.25	0.00	0.00	0.03	0.00	0.00
Avail Cap(c_a), veh/h	625	0	0	610	0	0	1012	0	0	986	0	0
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
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.1	0.0	0.0	16.0	0.0	0.0	7.5	0.0	0.0	6.5	0.0	0.0
Incr Delay (d2), s/veh	2.3	0.0	0.0	0.6	0.0	0.0	0.6	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.8	0.0	0.0	2.0	0.0	0.0	3.1	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.5	0.0	0.0	16.6	0.0	0.0	8.1	0.0	0.0	6.6	0.0	0.0
LnGrp LOS	C	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h	280			97			254			25		
Approach Delay, s/veh	20.5			16.6			8.1			6.6		
Approach LOS	C			B			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	43.0			27.0			43.0			27.0		
Change Period (Y+Rc), s	3.0			3.0			3.0			3.0		
Max Green Setting (Gmax), s	40.0			24.0			40.0			24.0		
Max Q Clear Time (g_c+l1), s	7.1			11.2			2.4			4.8		
Green Ext Time (p_c), s	1.5			1.4			0.1			0.4		
Intersection Summary												
HCM 6th Ctrl Delay	14.6											
HCM 6th LOS	B											

3: Burma Road & Site Driveway  
Projected 2030 Conditions

FKV.00001  
Timing Plan: P.M. Peak Hour

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1	106	90	3	8	9
Future Volume (vph)	1	106	90	3	8	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	10	10
Grade (%)		0%	0%		3%	
Storage Length (ft)	0			300	0	0
Storage Lanes	0			1	1	0
Taper Length (ft)	25				25	
Link Speed (mph)		45	45		25	
Link Distance (ft)		591	423		281	
Travel Time (s)		9.0	6.4		7.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					



3: Burma Road & Site Driveway  
Projected 2030 Conditions

FKV.00001  
Timing Plan: P.M. Peak Hour

Intersection

Int Delay, s/veh 0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕	↕	↕	↕
Traffic Vol, veh/h	1	106	90	3	8	9
Future Vol, veh/h	1	106	90	3	8	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	300	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	3	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	1	115	98	3	9	10

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	101	0	0 215 98
Stage 1	-	-	- 98 -
Stage 2	-	-	- 117 -
Critical Hdwy	4.3	-	- 7 6.5
Critical Hdwy Stg 1	-	-	- 6 -
Critical Hdwy Stg 2	-	-	- 6 -
Follow-up Hdwy	3	-	- 3 3.1
Pot Cap-1 Maneuver	1109	-	- 863 1015
Stage 1	-	-	- 1061 -
Stage 2	-	-	- 1036 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1109	-	- 862 1015
Mov Cap-2 Maneuver	-	-	- 862 -
Stage 1	-	-	- 1060 -
Stage 2	-	-	- 1036 -










Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1109	-	-	-	937
HCM Lane V/C Ratio	0.001	-	-	-	0.02
HCM Control Delay (s)	8.2	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1



4: Burma Road & Morea Road  
Projected 2030 Conditions

FKV.00001  
Timing Plan: P.M. Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	84	61	56	72	70	51
Future Volume (vph)	84	61	56	72	70	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11
Grade (%)	2%			-2%	-3%	
Link Speed (mph)	45			45	45	
Link Distance (ft)	759			885	961	
Travel Time (s)	11.5			13.4	14.6	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	9%	6%	3%	11%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					

4: Burma Road & Morea Road  
Projected 2030 Conditions

FKV.00001  
Timing Plan: P.M. Peak Hour

Intersection

Int Delay, s/veh 4.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	↰	↱
Traffic Vol, veh/h	84	61	56	72	70	51
Future Vol, veh/h	84	61	56	72	70	51
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, %	2	-	-	-2	-3	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	9	6	3	11
Mvmt Flow	95	69	64	82	80	58

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	164
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	3
Pot Cap-1 Maneuver	-	-	1065
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1065
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.8	10.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	831	-	-	1065	-
HCM Lane V/C Ratio	0.165	-	-	0.06	-
HCM Control Delay (s)	10.2	-	-	8.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0.2	-

5: I-81 SB & Morea Road  
Projected 2030 Conditions

FKV.00001  
Timing Plan: P.M. Peak Hour

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰			↱	↰	↱
Traffic Volume (vph)	130	8	26	85	41	10
Future Volume (vph)	130	8	26	85	41	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	9	9	9	12	12
Grade (%)	-1%			1%	-3%	
Link Speed (mph)	45			45	25	
Link Distance (ft)	453			522	399	
Travel Time (s)	6.9			7.9	10.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	20%	0%	5%	5%	0%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					



5: I-81 SB & Morea Road  
Projected 2030 Conditions

FKV.00001  
Timing Plan: P.M. Peak Hour

Intersection

Int Delay, s/veh 2.4

Movement EBT EBR WBL WBT NBL NBR

Lane Configurations	↶			↷	↷	
Traffic Vol, veh/h	130	8	26	85	41	10
Future Vol, veh/h	130	8	26	85	41	10
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, %	-1	-	-	1	-3	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	20	0	5	5	0
Mvmt Flow	144	9	29	94	46	11

Major/Minor Major1 Major2 Minor1

Conflicting Flow All	0	0	153	0	301	149
Stage 1	-	-	-	-	149	-
Stage 2	-	-	-	-	152	-
Critical Hdwy	-	-	4.1	-	5.85	6
Critical Hdwy Stg 1	-	-	-	-	4.85	-
Critical Hdwy Stg 2	-	-	-	-	4.85	-
Follow-up Hdwy	-	-	3	-	3	3.1
Pot Cap-1 Maneuver	-	-	1074	-	832	965
Stage 1	-	-	-	-	1044	-
Stage 2	-	-	-	-	1041	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1074	-	809	965
Mov Cap-2 Maneuver	-	-	-	-	809	-
Stage 1	-	-	-	-	1044	-
Stage 2	-	-	-	-	1012	-

Approach EB WB NB






















HCM Control Delay, s	0	2	9.6
HCM LOS			A

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h)	835	-	-	1074	-
HCM Lane V/C Ratio	0.068	-	-	0.027	-
HCM Control Delay (s)	9.6	-	-	8.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

6: Route 54 & Morea Road/I-81  
Projected 2030 Conditions

FKV.00001  
Timing Plan: P.M. Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								 			 	
Traffic Volume (vph)	32	0	109	0	0	52	69	143	42	0	154	39
Future Volume (vph)	32	0	109	0	0	52	69	143	42	0	154	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	10	13	13	13	10	14	10	12	12	10
Grade (%)		1%			2%			-1%			1%	
Storage Length (ft)	0		300	0		0	110		0	0		0
Storage Lanes	1		1	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		45			25			55			55	
Link Distance (ft)		522			511			904			1161	
Travel Time (s)		7.9			13.9			11.2			14.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	22%	6%	11%	0%	9%	2%	0%	0%	6%	0%	0%	14%
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											



6: Route 54 & Morea Road/I-81  
Projected 2030 Conditions

FKV.00001  
Timing Plan: P.M. Peak Hour

Intersection

Int Delay, s/veh 3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰		↱			↰	↰	↱	↱		↱	↱
Traffic Vol, veh/h	32	0	109	0	0	52	69	143	42	0	154	39
Future Vol, veh/h	32	0	109	0	0	52	69	143	42	0	154	39
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	-	-	Free	-	-	None	-	-	Free	-	-	Yield
Storage Length	0	-	300	-	-	0	110	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	2	-	-	-1	-	-	1	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	22	6	11	0	9	2	0	0	6	0	0	14
Mvmt Flow	36	0	121	0	0	58	77	159	47	0	171	43

Major/Minor	Minor2	Minor1				Major1		Major2				
Conflicting Flow All	427	-	-	-	-	80	171	0	-	-	-	0
Stage 1	193	-	-	-	-	-	-	-	-	-	-	-
Stage 2	234	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.5	-	-	-	-	6.4	4.3	-	-	-	-	-
Critical Hdwy Stg 1	7.14	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.14	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.2	-	-	-	-	3.2	3	-	-	-	-	-
Pot Cap-1 Maneuver	555	0	0	0	0	1011	1050	-	0	0	-	-
Stage 1	835	0	0	0	0	-	-	-	0	0	-	-
Stage 2	783	0	0	0	0	-	-	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	494	-	-	-	-	1011	1050	-	-	-	-	-
Mov Cap-2 Maneuver	494	-	-	-	-	-	-	-	-	-	-	-
Stage 1	774	-	-	-	-	-	-	-	-	-	-	-
Stage 2	684	-	-	-	-	-	-	-	-	-	-	-













Approach	EB	WB	NB	SB
HCM Control Delay, s	12.9	8.8	2.8	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	WBLn1	SBT	SBR
Capacity (veh/h)	1050	-	494	-	1011	-	-
HCM Lane V/C Ratio	0.073	-	0.072	-	0.057	-	-
HCM Control Delay (s)	8.7	-	12.9	0	8.8	-	-
HCM Lane LOS	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	0.2	-	-



7: I-81 & Route 54  
Projected 2030 Conditions

FKV.00001  
Timing Plan: P.M. Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑	↑↑				↑			↑
Traffic Volume (vph)	0	171	82	3	220	0	0	0	67	0	0	28
Future Volume (vph)	0	171	82	3	220	0	0	0	67	0	0	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	16	13	10	10	12	12	16	12	12	14
Grade (%)		-1%			2%			2%			0%	
Storage Length (ft)	0		0	90		0	0		0	0		0
Storage Lanes	0		1	1		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		55			55			30			30	
Link Distance (ft)		904			1213			651			686	
Travel Time (s)		11.2			15.0			14.8			15.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	15%	10%	0%	7%	0%	0%	12%	0%	0%	0%	64%
Shared Lane Traffic (%)												
Sign Control		Free			Free			Free			Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized



***APPENDIX F:***  
***PennDOT Traffic Signal Plans***



# PHASING, TIMING AND SEQUENCE CHART

PHASE	INTERVAL	1+5	1+6	2+5	2+6	4+8	EMERGENCY FLASHING OPERATION
1,11	R R R	C Y R	R R R	C Y R	R R R	R R R	Y
2	Y Y R	Y Y R	R R R	R R R	R R R	R R R	R
4	Y Y R	Y Y R	R R R	R R R	R R R	R R R	R
3,12	R R R	R R R	C Y R	C Y R	R R R	R R R	Y
5,6,7,8	R R R	R R R	R R R	R R R	R R R	R R R	R
9,10	H H H	H H H	H H H	H H H	H H H	H H H	OFF
FIXED	3.5 2.5	3.5 2.5	3.5 2.5	3.5 2.5	3.5 2.5	3.5 2.5	
MINIMUM	7	7	7	7	7	7	
ADDED INITIAL							
MAX INITIAL							
PASSAGE	3	3	3	3	3	3	
BEFORE REDUCE							
TO REDUCE							
MIN GAP							
MAX 1	11	11	11	11	11	11	
MAX 2	16	16	16	16	16	16	
PEDESTRIAN							
MEMORY	NON-LOCKING	NON-LOCKING	NON-LOCKING	NON-LOCKING	NON-LOCKING	NON-LOCKING	

## WEEKLY PROGRAM CHART

EVENT	DAY OF WEEK	TIME	CYCLE (SEC)	OFFSET (SEC)	COMMENTS
1	MTWTFSS	06:00:00			MAX 1, FREE
2	MTWTFSS	14:00:00			MAX 2, FREE

## \*\* DENSITY ZONE NOTES

- RANGE OF DETECTION: 0-100 FEET FROM STOP BAR  
- MINIMUM SPEED BOUNDARY: 1-35 MPH

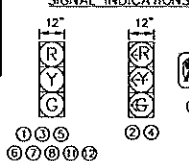
## \*\* ADVANCE DILEMMA ZONE NOTES

- ESTIMATED TIME OF ARRIVAL: MIN. 2.5-MAX 5.5 SEC  
- RANGE OF DETECTION: MIN 50-MAX 450 FT.  
- MINIMUM SPEED BOUNDARY: 30-100 MPH

## NOTES

- ALL SIGNALS EQUIPPED WITH LEDS
- SIGNALS 1-8, 11 AND 12 EQUIPPED WITH BACKPLATES WITH RETROREFLECTIVE BORDERS

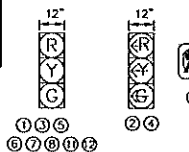
NEAREST SIGNAL  
2364 RUSSELL STREET



## PHASING NOTES

- IF FOLLOWED BY PHASE 1+6
- IF FOLLOWED BY PHASE 2+5
- IF FOLLOWED BY PHASE 2+6
- IF FOLLOWED BY PHASE 1+5
- IF FOLLOWED BY PHASE 2+5
- UPON PEDESTRIAN ACTUATION ONLY OTHERWISE H AT ALL TIMES

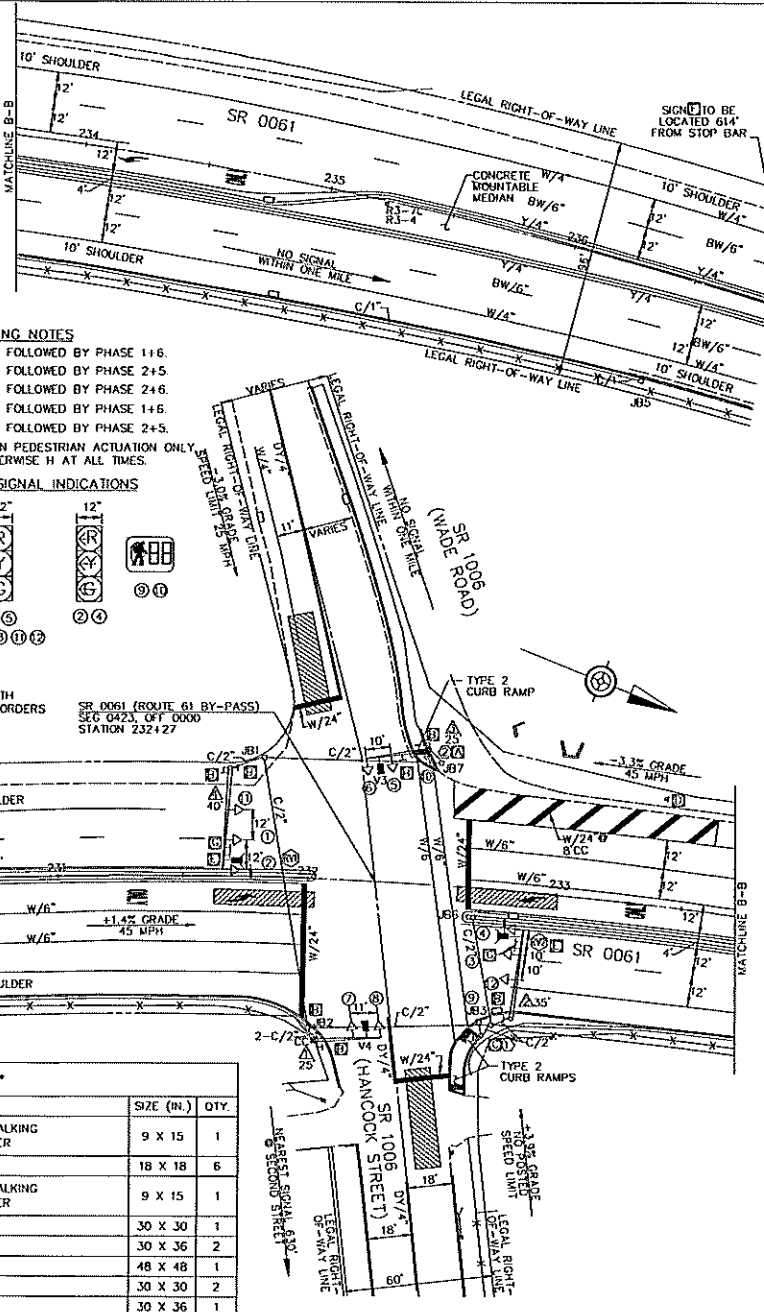
## SIGNAL INDICATIONS



## SIGN TABULATION\*\*

SYMBOL	SERIES	DESCRIPTION	SIZE (IN.)	QTY.
A	R10-3E	EDUCATIONAL PUSH BUTTON FOR WALKING PERSON SIGNAL W/COUNTDOWN-TIMER	9 X 15	1
B	R9-3	NO PEDESTRIAN CROSSING	18 X 18	6
C	R10-3E	EDUCATIONAL PUSH BUTTON FOR WALKING PERSON SIGNAL W/COUNTDOWN-TIMER	9 X 15	1
D	R4-107	KEEP OFF SHOULDER	30 X 30	1
E	R10-10L	LEFT TURN SIGNAL	30 X 36	2
F	W3-3	SIGNAL AHEAD	48 X 48	1
G	R3-4	NO U-TURN	30 X 30	2
H	R10-11	NO TURN ON RED	30 X 36	1

\* Overhead street name signs to be structure mounted flat sheet aluminum with stiffeners. Overhead street name signs to consist of white legend and border on green background.  
\*\* All signs to utilize retroreflective Type III, IV, V, VI, VII, VIII, IX, or X sheeting for legend, border, and background.



DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	SCHUYLKILL			
SAINT CLAIR BOROUGH				
PERMIT NO.: 53-425-006	SHEET		2	OF 2
DATE ISSUED: 12-7-87	DATE REVISED: 2-20-20			

## GENERAL NOTES

Installation, operation and maintenance of this traffic signal to be in accordance with Pennsylvania Department of Transportation Regulations on Official Traffic Control Devices.  
No modifications to this installation are permitted unless prior approval is granted, in writing, by the department.  
All maintenance necessary for proper visibility of the signals, including trimming trees, is the responsibility of the Permittee.  
All signs and pavement markings indicated on this drawing are considered part of the permit and are to be installed and maintained by the Permittee, unless otherwise indicated, except the longitudinal pavement markings on State highways which will be maintained by the department.  
Install Traffic Signal Supports in accordance with Publication 149, Chapter 5.  
The bottom of signal heads and signs erected over the roadway are not to be less than 15 feet nor more than 19 feet above the roadway. The bottom of post mounted signal heads are to be not less than 8 feet nor more than 15 feet above the sidewalk or pavement grade.  
The minimum horizontal distance between signal heads measured at right angles to the approach is to be 8 feet.  
In addition to this signal permit, the Permittee will obtain a Highway Occupancy Permit prior to any openings being made in or under any portion of a State Highway, if applicable.  
This drawing cannot be used as a construction drawing unless the Permittee complies with the provisions of Act 287-1974 as amended, Prevention of Damage to Underground Utilities. Prior to construction consult with utility companies to resolve any problems which may be created due to the location of utilities.  
Place pavement markings in accordance with the Department of Transportation Pavement Marking TC-8600 Series Standards.  
Maintenance and protection of traffic for the installation and maintenance of this traffic signal to be in accordance with Publication 213, Work Zone Traffic Control.

## LEGEND

- 25'-MA SIGNAL HEAD
- PEDESTRIAN SIGNAL HEAD
- PEDESTRIAN PUSH BUTTON
- SIGN/IDENTIFYING LETTER
- RADAR/VIDEO DETECTOR
- VIDEO DETECTION CAMERA
- VIDEO DETECTION ZONE
- DETECTABLE WARNING SURFACE
- CONTROLLER CABINET
- JUNCTION BOX
- CONDUIT
- DOUBLE YELLOW LINE / 4" WIDTH
- SOLID YELLOW LINE / 4" WIDTH
- SOLID WHITE LINE / 4" WIDTH
- BROKEN WHITE LINE / 6" WIDTH
- SOLID WHITE LINE / 6" WIDTH
- SOLID WHITE LINE / 24" WIDTH

County: SCHUYLKILL  
Municipality: SAINT CLAIR BOROUGH  
Intersection: SR 0061 AND SR 1006 (HANCOCK ST./WADE RD.)

Reviewed: *Wm. M. Dwyer* 2/14/20  
Municipal Official Date

Reviewed: *Chris Dwyer* 2/15/20  
District Traffic Signals Div. Date

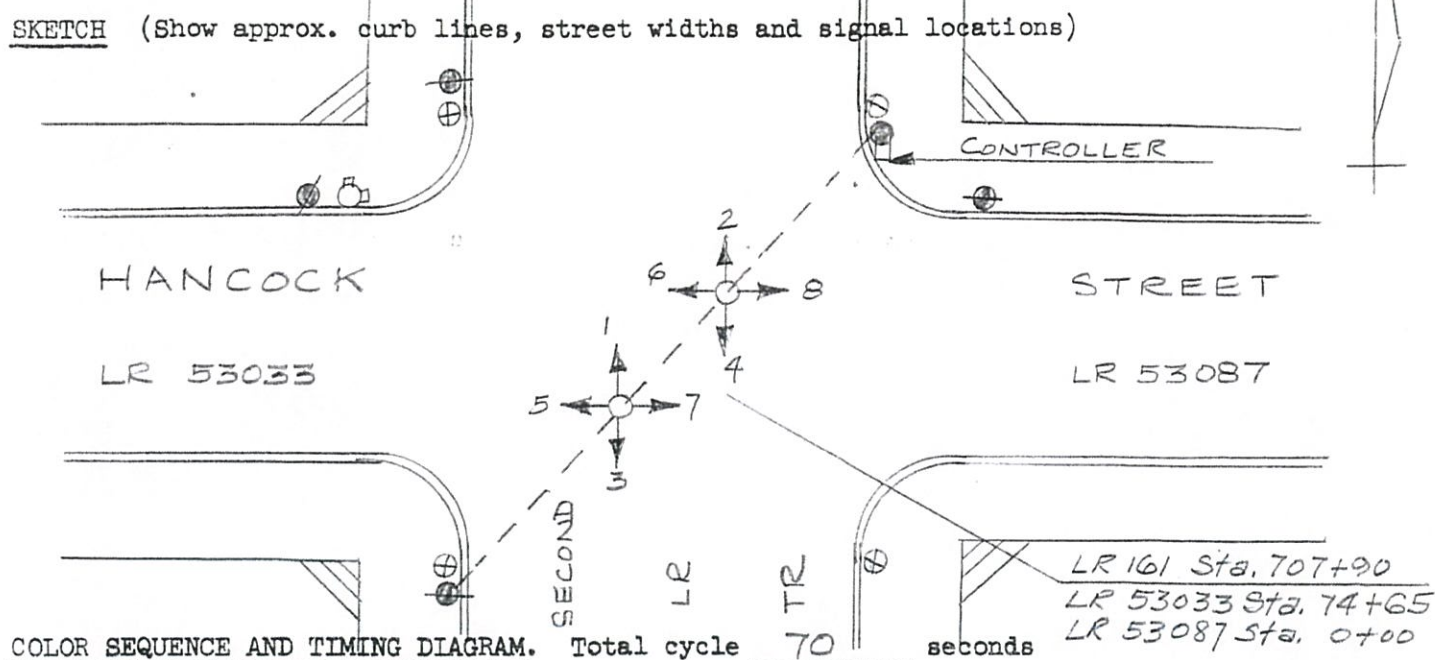
Recommended: *Steve Wynn* 2/15/20  
District Traffic Engineer Date

Scale: 25 0 25 50

6

DRAWN BY: ALP SCALE: 1"=40' DATE: 4-16-67

SKETCH (Show approx. curb lines, street widths and signal locations)



Interval No.

Signal No.

1-2-3-4

5-6-7-8

40

3

24

3

Time in sec.  
for each  
interval

Use dots as guide in drawing diagram.

Signed

S. L. Burn

Date

5-13-60



COMMONWEALTH OF PENNSYLVANIA  
Department of Highways  
TRAFFIC DIVISIONTRAFFIC SIGNAL DESCRIPTION

Permit No. 5169

Municipality Borough of St. Clair County Schuylkill  
Intersection Second Street (LR 161, TR 122) and Hancock Street (LR 53033 & LR 53087)

Type (O.H. - Pedestal - etc.) Overhead (2 units)No. of faces 8 . Is each lens independently illuminated? YesAre all lenses 8" dia.? Yes . Is position of lenses correct? YesIs controller located at this intersection? Yes If not, give its  
location \_\_\_\_\_Type of controller (Fixed time, manual, ped. act., etc.) Fixed-time

How many signals are operated from same controller? One List these at  
bottom of sheet. Is system alternate or simultaneous? Simultaneous

Is color sequence correct? Yes

Is controller equipped with flashers? Yes If so, how does it flash? Red  
on Hancock Street yellow on Second Street

Is installation standard in ALL respects? YesIs installation completely satisfactory in your opinion? Yes

REMARKS AND RECOMMENDATIONS (Include any additional facts necessary for  
full description. Use additional page if necessary.)

Stop signs have been removed previously.

Traffic signal installation synchronized with signals at Second and Carroll Streets  
so as to provide for a simultaneous system along Second Street.

Eagle Signal Controller  
EA 71B124A

**APPENDIX G:**  
*Critical and Follow-up Headways*

FKV.00001

Int. 3

Site Driveway

## Critical Headway

			tc base	tc hv	phv	t cg	G	t 3lt	Base Crit
major left	AM	EBL	4.3	1	0%	0.1	0	0	4.3
	PM	EBL	4.3	1	0%	0.1	0	0	4.3
minor right	AM	SBR	6.2	1	100%	0.1	3	0	7.5
	PM	SBR	6.2	1	0%	0.1	3	0	6.5
minor left	AM	SBL	7.1	1	95%	0.2	3	0.7	8.0
	PM	SBL	7.1	1	0%	0.2	3	0.7	7.0

## Follow-up headway

			t fbase	t fhv	phv	Follow-up
major left	AM	EBL	3	0.9	0%	3.0
	PM	EBL	3	0.9	0%	3.0
minor right	AM	SBR	3.1	0.9	100%	4.0
	PM	SBR	3.1	0.9	0%	3.1
minor left	AM	SBL	3	0.9	95%	3.9
	PM	SBL	3	0.9	0%	3.0



FKV.00001

Int. 4

Morea Rd &amp; Burma Rd

## Critical Headway

			tc base	tc hv	phv	t cg	G	t 3lt	Base Crit
major left	AM	WBL	4.3	1	23%	0.1	-2	0	4.3
	PM	WBL	4.3	1	0%	0.1	-2	0	4.1
minor right	AM	NBR	6.2	1	41%	0.1	-3	0	6.3
	PM	NBR	6.2	1	5%	0.1	-3	0	6.0
minor left	AM	NBL	7.1	1	7%	0.2	-3	0.7	5.9
	PM	NBL	7.1	1	2%	0.2	-3	0.7	5.8

## Follow-up headway

			t fbase	t fhv	phv	Follow-up
major left	AM	WBL	3	0.9	23%	3.2
	PM	WBL	3	0.9	0%	3.0
minor right	AM	NBR	3.1	0.9	41%	3.5
	PM	NBR	3.1	0.9	5%	3.1
minor left	AM	NBL	3	0.9	7%	3.1
	PM	NBL	3	0.9	2%	3.0

FKV.00001

Int. 5

Morea Rd &amp; I-81 SB

## Critical Headway

			tc base	tc hv	phv	t cg	G	t 3lt	Base Crit
major left	AM	WB L	4.3	1	3%	0.1	1	0	4.4
	PM	WB L	4.3	1	5%	0.1	1	0	4.5
minor right	AM	NB R	6.2	1	0%	0.1	-3	0	5.9
	PM	NB R	6.2	1	20%	0.1	-3	0	6.1
minor left	AM	NB L	7.1	1	7%	0.2	-3	0.7	5.9
	PM	NB L	7.1	1	2%	0.2	-3	0.7	5.8

## Follow-up headway

			t fbase	t fhv	phv	Follow-up
major left	AM	WB L	3	0.9	3%	3.0
	PM	WB L	3	0.9	5%	3.0
minor right	AM	NB R	3.1	0.9	0%	3.1
	PM	NB R	3.1	0.9	20%	3.3
minor left	AM	NB L	3	0.9	7%	3.1
	PM	NB L	3	0.9	2%	3.0

## Critical Headway

			tc base	tc hv	phv	t cg	G	t 3lt	Base Crit
Major left	AM	EBL	4.3	1	0%	0	1	0	4.3
	PM	EBL	4.3	1	0%	0	1	0	4.3
Major left	AM	WBL	4.3	1	0%	0	-1	0	4.3
	PM	WBL	4.3	1	0%	0	-1	0	4.3
Minor right	AM	NBR	6.2	1	11%	0.1	1	0	6.4
	PM	NBR	6.2	1	12%	0.1	1	0	6.4
Minor right	AM	SBR	6.2	1	2%	0.1	2	0	6.4
	PM	SBR	6.2	1	2%	0.1	2	0	6.4
Minor through	AM	NBT	6.5	1	6%	0.2	1	0	6.8
	PM	NBT	6.5	1	3%	0.2	1	0	6.7
Minor Through	AM	SBT	6.5	1	9%	0.2	2	0	7.0
	PM	SBT	6.5	1	3%	0.2	2	0	6.9
Minor left	AM	NBL	7.1	1	22%	0.2	1	0	7.5
	PM	NBL	7.1	1	6%	0.2	1	0	7.4
Minor left	AM	SBL	7.1	1	0%	0.2	2	0	7.5
	PM	SBL	7.1	1	0%	0.2	2	0	7.5

## Follow-up headway

			t fbase	t fhv	phv	Follow-up
Major left	AM	EBL	3	0.9	0%	3.0
	PM	EBL	3	0.9	0%	3.0
Major left	AM	WBL	3	0.9	0%	3.0
	PM	WBL	3	0.9	0%	3.0
Minor right	AM	NBR	3.1	0.9	11%	3.2
	PM	NBR	3.1	0.9	12%	3.2
Minor right	AM	SBR	3.1	0.9	2%	3.1
	PM	SBR	3.1	0.9	2%	3.1
Minor through	AM	NBT	4	0.9	6%	4.1
	PM	NBT	4	0.9	3%	4.0
Minor Through	AM	SBT	4	0.9	9%	4.1
	PM	SBT	4	0.9	3%	4.0
Minor left	AM	NBL	3	0.9	22%	3.2
	PM	NBL	3	0.9	6%	3.1
Minor left	AM	SBL	3	0.9	0%	3.0
	PM	SBL	3	0.9	0%	3.0



**APPENDIX H:**  
***Auxiliary Turn Lane Warrant Analysis***

# Turn Lane Warrant and Length Analysis Workbook

## STUDY LOCATION AND ANALYSIS INFORMATION

Municipality:	Blythe Township	Analysis Date:	7/30/2020
County:	Schuylkill County	Conducted By:	JJS
PennDOT Engineering District:	5	Checked By:	PHS
		Agency/Company Name:	Traffic Planning and Design, Inc.
Intersection & Approach Description: Burma Road (S.R. 1006) & Site Driveway			
Analysis Period:	2030 Projected (Build)	Number of Approach Lanes:	1
Design Hour:	AM Peak Hour	Undivided or Divided Highway:	Undivided
Intersection Control:	Unsignalized		
Posted Speed Limit (MPH):	45	Type of Analysis:	Left Turn Lane
Type of Terrain:	Level	Left or Right-Turn Lane Analysis?:	Left Turn Lane

## VOLUME CALCULATIONS

Left Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	2	0.0%	2
	Through	-	37	0.0%	37
	Right	Yes	0	0.0%	0
Opposing	Left	Yes	0	0.0%	0
	Through	-	75	100.0%	113
	Right	Yes	19	100.0%	29
Advancing Volume: 39					
Opposing Volume: 142					
Left Turn Volume: 2					
% Left Turns in Advancing Volume: 5.13%					
Right Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	0	0.0%	N/A
	Through	-	75	100.0%	N/A
	Right	-	19	100.0%	N/A
Advancing Volume: N/A					
Right Turn Volume: N/A					

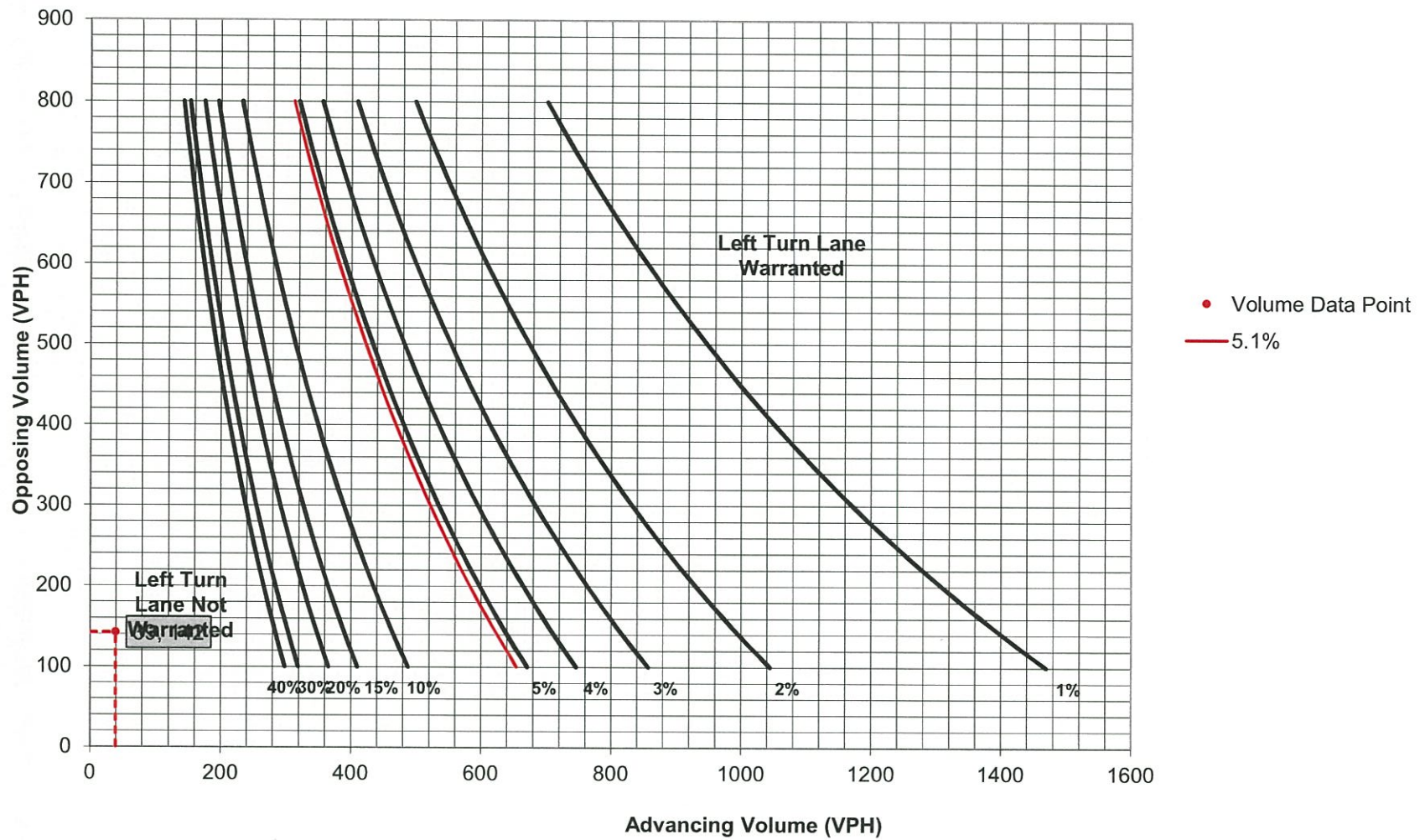
## TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings		Right Turn Lane Warrant Findings	
Applicable Warrant Figure:	Figure 3	Applicable Warrant Figure:	N/A
Warrant Met?:	No	Warrant Met?:	N/A

## TURN LANE LENGTH CALCULATIONS

Intersection Control:	Unsignalized	Average # of Vehicles/Cycle:	N/A			
Design Hour Volume of Turning Lane:	2					
Cycles Per Hour (Assumed):	60					
Cycles Per Hour (If Known):						
PennDOT Publication 46, Exhibit 11-6						
Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B
Left Turn Lane Storage Length, Condition A:		N/A		Feet		
Condition B:		N/A		Feet		
Condition C:		N/A		Feet		
Required Left Turn Lane Storage Length:		N/A		Feet		
Additional Findings:		N/A				
Additional Comments / Justifications:						

**Figure 3. Warrant for left turn lanes on two-lane highways**  
**(45 mph speed, unsignalized and signalized intersections)**  
 (L = % Left Turns in Advancing Volume)





# Turn Lane Warrant and Length Analysis Workbook

## STUDY LOCATION AND ANALYSIS INFORMATION

Municipality:	Blythe Township	Analysis Date:	7/30/2020
County:	Schuylkill County	Conducted By:	JJS
PennDOT Engineering District:	5	Checked By:	PHS
		Agency/Company Name:	Traffic Planning and Design, Inc.

Intersection & Approach Description: Burma Road (S.R. 1006) & Site Driveway

Analysis Period:	2030 Projected (Build)	Number of Approach Lanes:	1
Design Hour:	AM Peak Hour	Undivided or Divided Highway:	Undivided
Intersection Control:	Unsignalized		
Posted Speed Limit (MPH):	45		
Type of Terrain:	Level		

Left or Right-Turn Lane Analysis?: **Type of Analysis**  
Right Turn Lane

## VOLUME CALCULATIONS

### Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	2	0.0%	N/A
	Through	-	37	0.0%	N/A
	Right	Yes	0	0.0%	N/A
Opposing	Left	Yes	0	0.0%	N/A
	Through	-	75	100.0%	N/A
	Right	Yes	19	100.0%	N/A

Advancing Volume:	N/A
Opposing Volume:	N/A
Left Turn Volume:	N/A

% Left Turns in Advancing Volume:	N/A
-----------------------------------	-----

### Right Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	0	0.0%	0
	Through	-	75	100.0%	113
	Right	-	19	100.0%	29

Advancing Volume:	142
Right Turn Volume:	29

## TURN LANE WARRANT FINDINGS

### Left Turn Lane Warrant Findings

Applicable Warrant Figure:	N/A
Warrant Met?:	N/A

### Right Turn Lane Warrant Findings

Applicable Warrant Figure:	Figure 10
Warrant Met?:	No

## TURN LANE LENGTH CALCULATIONS

Intersection Control:	Unsignalized	Average # of Vehicles/Cycle:	N/A
Design Hour Volume of Turning Lane:	29		
Cycles Per Hour (Assumed):	60		
Cycles Per Hour (If Known):			

### PennDOT Publication 46, Exhibit 11-6

Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

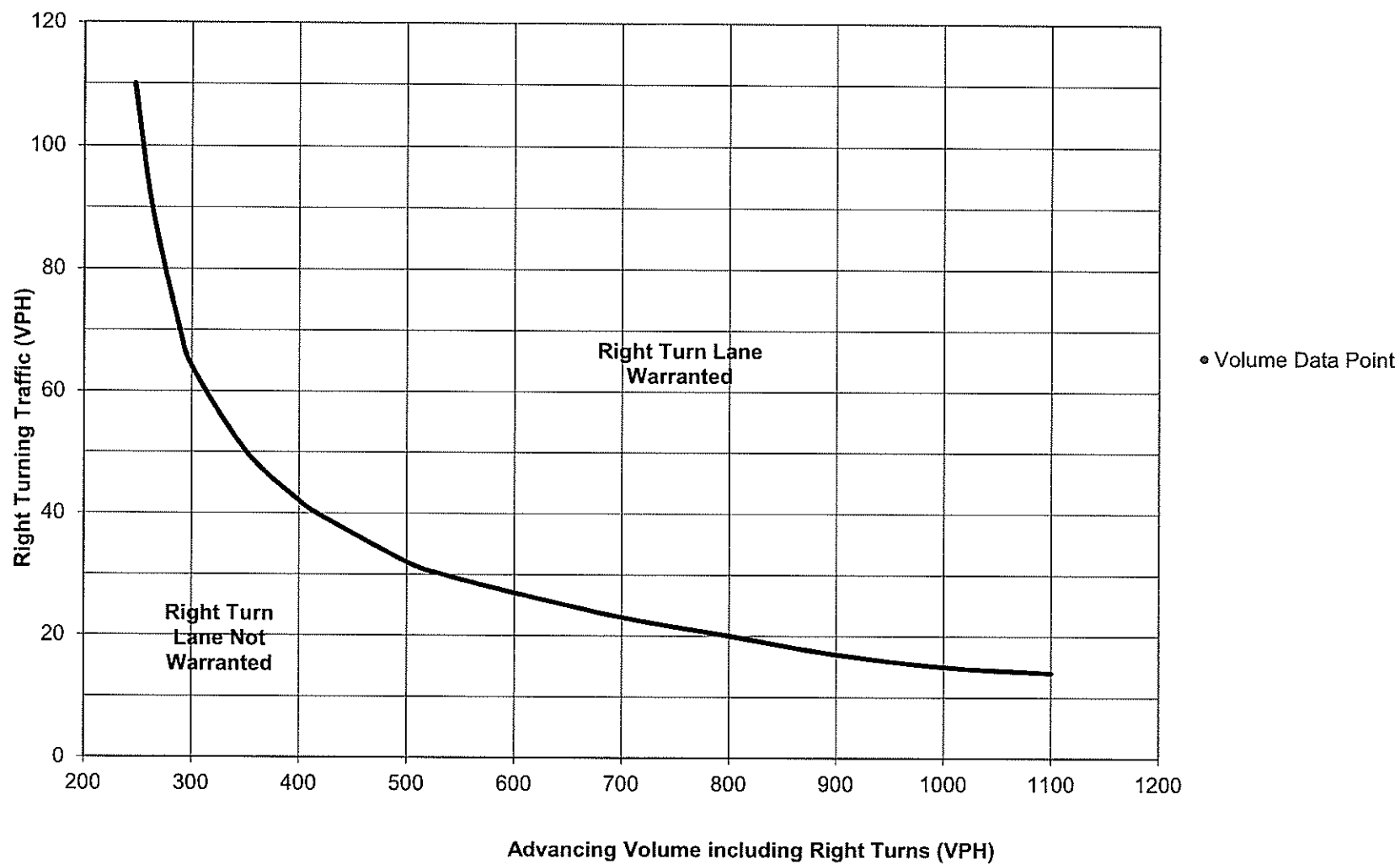
Right Turn Lane Storage Length, Condition A:	N/A	Feet
Condition B:	N/A	Feet
Condition C:	N/A	Feet
Required Right Turn Lane Storage Length:	N/A	Feet

### Additional Findings:

Additional Comments / Justifications:

N/A
-----

**Figure 10. Warrant for right turn lanes on two-lane roadways  
(45 mph or greater speeds, unsignalized and signalized intersections)**





# Turn Lane Warrant and Length Analysis Workbook

## STUDY LOCATION AND ANALYSIS INFORMATION

Municipality:	Blythe Township	Analysis Date:	7/30/2020
County:	Schuylkill County	Conducted By:	JJS
PennDOT Engineering District:	5	Checked By:	PHS
		Agency/Company Name:	Traffic Planning and Design, Inc.

Intersection & Approach Description: Burma Road (S.R. 1006) & Site Driveway

Analysis Period:	2030 Projected (Build)	Number of Approach Lanes:	1
Design Hour:	PM Peak Hour	Undivided or Divided Highway:	Undivided
Intersection Control:	Unsignalized		
Posted Speed Limit (MPH):	45	Type of Analysis:	Left Turn Lane
Type of Terrain:	Level	Left or Right-Turn Lane Analysis?:	Left Turn Lane

## VOLUME CALCULATIONS

### Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	1	0.0%	1
	Through	-	106	0.0%	106
	Right	Yes	0	0.0%	0
Opposing	Left	Yes	0	0.0%	0
	Through	-	90	1.0%	91
	Right	Yes	3	0.0%	3

Advancing Volume:	107
Opposing Volume:	94
Left Turn Volume:	1

% Left Turns in Advancing Volume: 0.93%

### Right Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	0	0.0%	N/A
	Through	-	90	1.0%	N/A
	Right	-	3	0.0%	N/A

Advancing Volume:	N/A
Right Turn Volume:	N/A

## TURN LANE WARRANT FINDINGS

### Left Turn Lane Warrant Findings

Applicable Warrant Figure: **Figure 3**

Warrant Met?: **No**

### Right Turn Lane Warrant Findings

Applicable Warrant Figure: **N/A**

Warrant Met?: **N/A**

## TURN LANE LENGTH CALCULATIONS

Intersection Control:	Unsignalized	Average # of Vehicles/Cycle:	N/A
Design Hour Volume of Turning Lane:	1		
Cycles Per Hour (Assumed):	60		
Cycles Per Hour (If Known):			

### PennDOT Publication 46, Exhibit 11-6

Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

Left Turn Lane Storage Length, Condition A: **N/A** Feet

Condition B: **N/A** Feet

Condition C: **N/A** Feet

Required Left Turn Lane Storage Length: **N/A** Feet

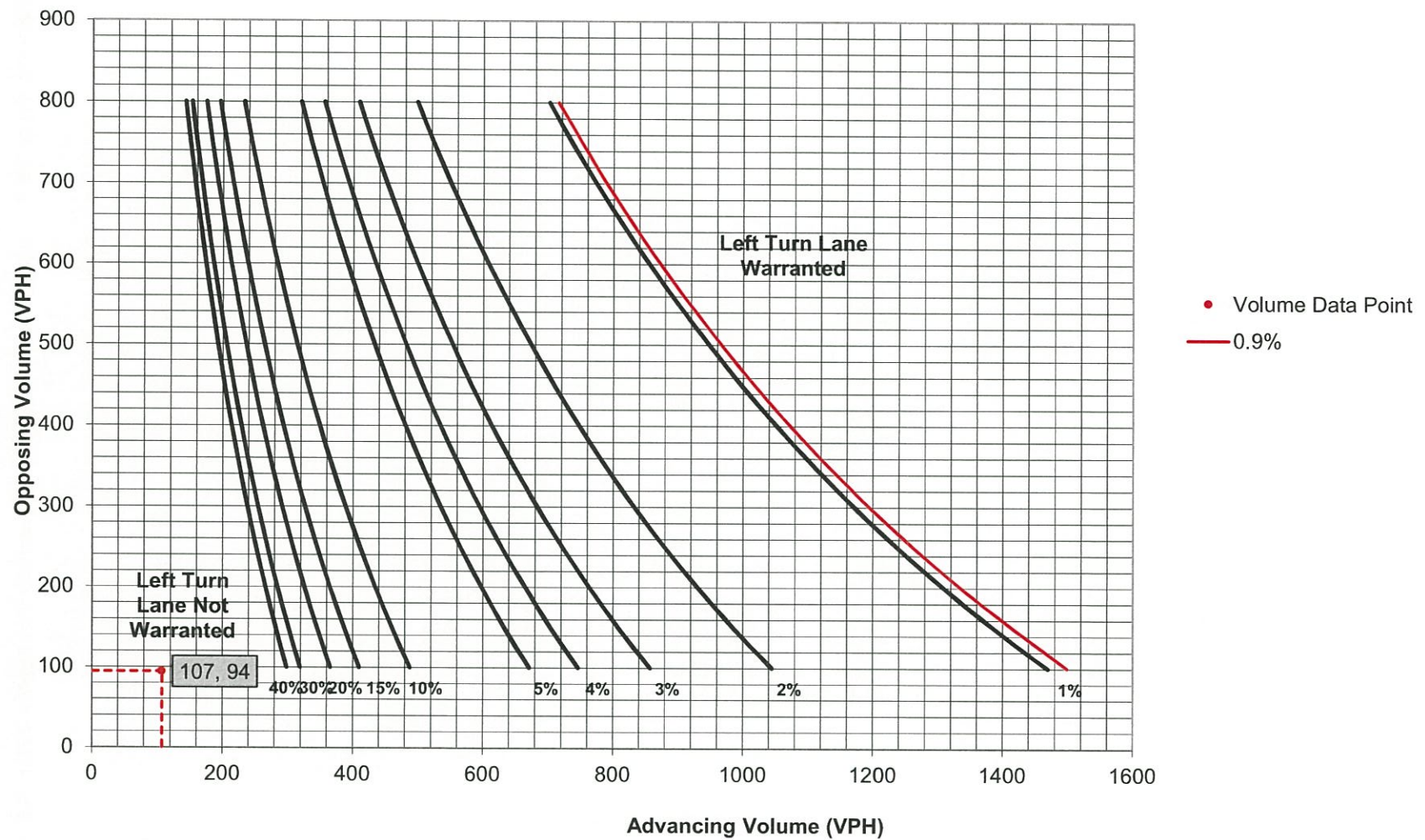
Additional Findings:

N/A

Additional Comments / Justifications:



**Figure 3. Warrant for left turn lanes on two-lane highways**  
**(45 mph speed, unsignalized and signalized intersections)**  
(L = % Left Turns in Advancing Volume)



# Turn Lane Warrant and Length Analysis Workbook

## STUDY LOCATION AND ANALYSIS INFORMATION

Municipality:	Blythe Township	Analysis Date:	7/30/2020
County:	Schuylkill County	Conducted By:	JJS
PennDOT Engineering District:	5	Checked By:	PHS
		Agency/Company Name:	Traffic Planning and Design, Inc.

Intersection & Approach Description: Burma Road (S.R. 1006) & Site Driveway

Analysis Period:	2030 Projected (Build)	Number of Approach Lanes:	1
Design Hour:	PM Peak Hour	Undivided or Divided Highway:	Undivided
Intersection Control:	Unsignalized		
Posted Speed Limit (MPH):	45		
Type of Terrain:	Level	Left or Right-Turn Lane Analysis?:	Right Turn Lane

## VOLUME CALCULATIONS

### Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	1	0.0%	N/A
	Through	-	106	0.0%	N/A
	Right	Yes	0	0.0%	N/A
Opposing	Left	Yes	0	0.0%	N/A
	Through	-	90	1.0%	N/A
	Right	Yes	3	0.0%	N/A

Advancing Volume: N/A  
Opposing Volume: N/A  
Left Turn Volume: N/A

% Left Turns in Advancing Volume: N/A

### Right Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	0	0.0%	0
	Through	-	90	1.0%	91
	Right	-	3	0.0%	3

Advancing Volume: 94  
Right Turn Volume: 3

## TURN LANE WARRANT FINDINGS

### Left Turn Lane Warrant Findings

Applicable Warrant Figure: N/A  
Warrant Met?: N/A

### Right Turn Lane Warrant Findings

Applicable Warrant Figure: Figure 10  
Warrant Met?: No

## TURN LANE LENGTH CALCULATIONS

Intersection Control: Unsignalized  
Design Hour Volume of Turning Lane: 3  
Cycles Per Hour (Assumed): 60  
Cycles Per Hour (If Known):

Average # of Vehicles/Cycle: N/A

### PennDOT Publication 46, Exhibit 11-6

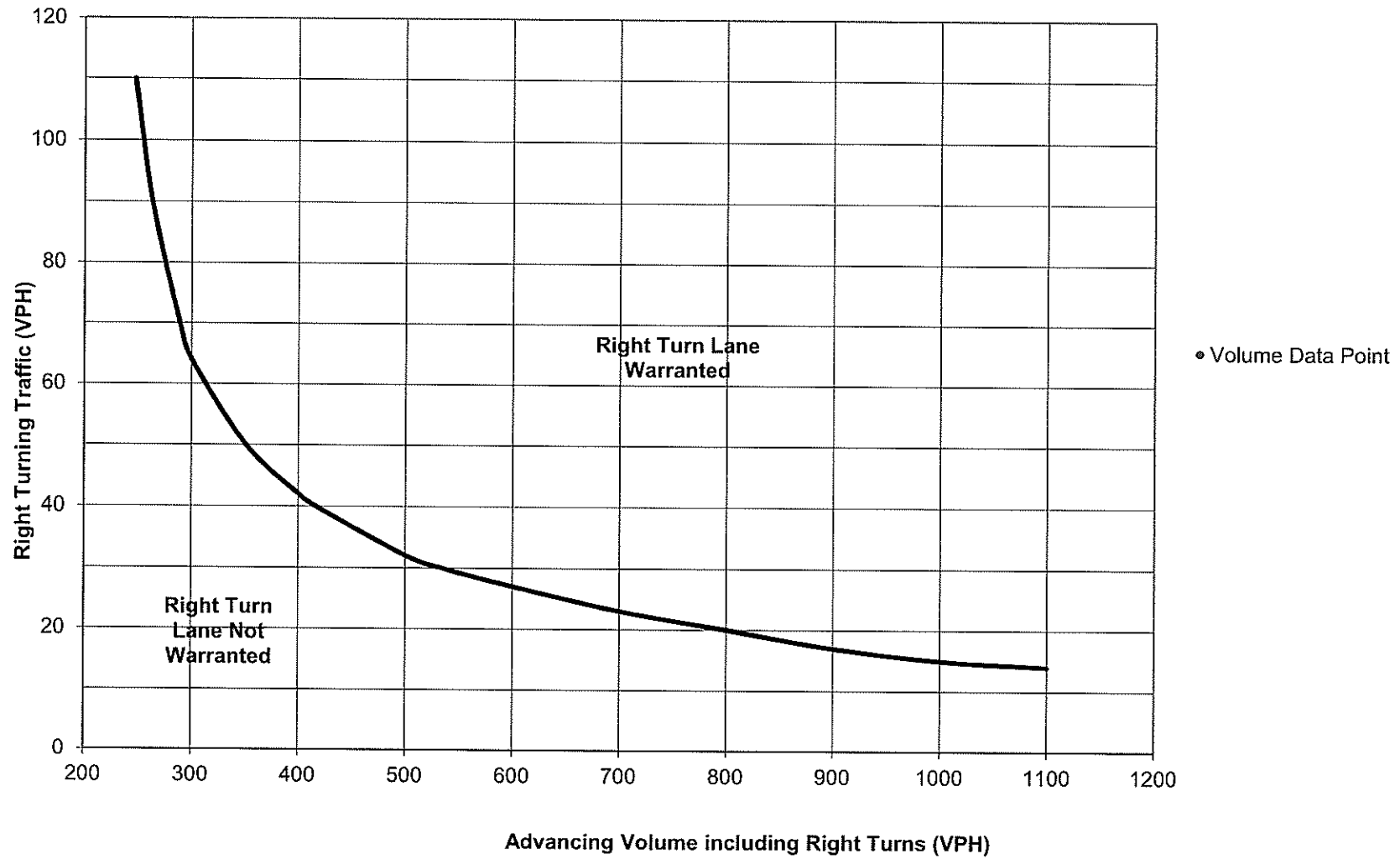
Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

Right Turn Lane Storage Length, Condition A: N/A Feet  
Condition B: N/A Feet  
Condition C: N/A Feet  
Required Right Turn Lane Storage Length: N/A Feet

Additional Findings:

Additional Comments / Justifications:

**Figure 10. Warrant for right turn lanes on two-lane roadways  
(45 mph or greater speeds, unsignalized and signalized intersections)**





# Harms-Benefits Analysis

**BRADS Landfill**  
**Tonnage Increase Permit Modification**  
**Harms and Benefits Analysis**

Blythe Recycling and Demolition Site (“BRADS”) has prepared this Harms and Benefits Analysis pursuant to the Department’s municipal waste regulations at 25 Pa. Code §271.127, and in conformance with the Department’s guidance no. 254-2100-101, Environmental Assessment Process, Phase I Review. This Analysis demonstrates that the actual benefits of the pending request to increase the waste volumes at the BRADS Landfill (“Landfill”) from 1,500 tons per day (“tpd”) to 3,000 tpd clearly outweigh known or potential environmental harms that may remain after minimization and mitigation.

The identification and evaluation of known or potential environmental harms is based on the applicant’s thorough knowledge of the site and the community and of operating experience at this as well as other facilities, and relies on the information contained in both this pending application and the site’s currently approved permit documentation, including specifically that contained in its Form D – Environmental Assessment for Municipal and Residual Waste Management Facilities.

As described therein, the only known or potential harms associated with this request are the potential impact to traffic along the approach route to the site and the potential nuisance impacts such as dust, odor, litter, and noise at the working face. These potential harms are minimized, mitigated and clearly outweighed by the real social and economic benefits proposed herein. These benefits include additional financial benefits to be provided to local municipalities by the site, along with the increased present value of currently provided benefits and other fees. Each benefit and known or potential harm is evaluated below to assess the relative “weight” of the associated impact – i.e., minimal, limited, moderate or significant – taking into account the duration, intensity, frequency and reach of the impact, and the sensitivity of receptors.

In summary, this request is for a 1,500 tons per day increase in daily volume. BRADS has efficiently and effectively handled the currently approved daily waste volume of 1,500 tpd, and is confident that the requested additional daily waste tonnage can similarly be properly managed.

**EVALUATION OF KNOWN OR POTENTIAL HARMS**

Consistent with the Department’s guidance, BRADS has identified additional traffic along the approach route and the potential for odor, dust, litter, and noise nuisances at the working face as the known or potential harms associated with the proposed daily tonnage increase. As described below, BRADS contends that these potential harms are individually of minimal to no weight, and collectively should be afforded no more than minimal to no weight, in the Department’s balancing of harms and benefits.

**Social Harms - Truck Safety Hazards, Traffic, and Public Safety along Approach Route**

A social harm to be considered in an increase in daily waste volumes is truck traffic to and from the facility. A potential correlation exists between waste volumes received and truck traffic; in that truck accidents, spills, damage to roadways, etc. increase when waste volume received and related vehicle trips increase, resulting in a potential health and safety harm. In this regard, traffic impacts associated with a proposed 3,000 tpd waste receipt rate were evaluated via a detailed Traffic Impact Study (“TIS”) conducted by Traffic Planning and Design, dated August 6, 2020; which is included as a separate document in this submittal. This TIS was prepared consistent with the Department’s regulations and guidance. Specifically, the TIS indicates that there are negligible adverse traffic impacts associated with the proposed increase in daily waste volumes.

As detailed in the DEP-approved Transportation Compliance Plan (“TCP”) for the Landfill, there are various protocols utilized by site personnel to encourage hauler compliance with local, state, and federal transportation requirements. For instance, the TCP established procedures for directing long-haul truck traffic to specific routes (i.e. Interstate 81, Mahanoy City route) to enter and exit the facility. Moreover, other TCP procedures - e.g.,

compliance checks, warnings and various corrective options (i.e. directives, driver delay time, surcharges and even denial of access) exist to encourage haulers properly observe landfill imposed rules and access route requirements.

These mitigation efforts in place at the Landfill serve to reduce the frequency and severity of, and potential for occurrence of, adverse impacts associated with the existing and proposed Landfill-related truck traffic. Furthermore, note that the duration and intensity of adverse impact, if such did occur, would be brief given that the corrective measures set forth in the TCP exist to promptly address a potential situation.

Consistent with the PennDOT TIS policy, the potential for traffic impacts has been minimized and mitigated and BRADS contends that the weight of any potential harm to users of the local roadways associated with the proposed increase in truck traffic is of minimal to no weight.

#### Environmental Harms - Working Face Nuisances – Odors, Dust, Litter and Noise

As mentioned previously, during operations at current waste volumes, the facility has consistently operated devoid of complaint or related violation. As such, the facility has demonstrated the ability to safely and properly manage nuisance related concerns. For example, protocols established at the working face (i.e. reduced working face size, aggressive litter fencing, limitation on activity during high winds, cover soils application as needed, etc.) have proven to minimize and mitigate potential for adverse impact to the rural environment in proximity to the facility.

Nonetheless, to the extent working face odor, dust, litter, and noise is required to be considered a harm, past analysis of harms at this facility reveals that frequency, intensity, reach, and duration of adverse impact does not correlate to the amount of waste disposed. Rather, the potential for such nuisance impacts is found to be driven by a variety of other conditions (e.g., velocity and direction of wind). Thus, the proposed increase in daily tonnage accepted actually produces a decrease in site life and a corresponding reduction in the number of days which might present such conditions. As such, the increased tonnage request corresponds to a reduction in the frequency, intensity, reach, and duration of potential adverse impacts associated with working face odors, dust, litter and noise.

Based on the ability of the site to safely and properly implement successful operating procedures to manage substantial volumes of waste on a daily basis, and the minimal to negligible potential for adverse impact from site operations, BRADS contends that the weight of the remaining nuisance harms associated with odors, dust, litter or noise at the working face is of minimal to no weight.

### EVALUATION OF SOCIAL AND ECONOMIC BENEFITS

The BRADS Landfill currently provides several social and economic benefits identified in its Permit and previously approved Environmental Assessment which were already deemed as sufficient to support that volume of waste:

#### Current Benefits

- Blythe Township: Benefit = \$1.00/ton of waste received
- East Norwegian Township : Benefit = \$0.10/ton of waste received
- Mahanoy Township: Benefit = \$0.10/ton of waste received
- Middleport Borough: Benefit = \$0.10/ton of waste received
- Ryan Township: Benefit = \$0.10/ton of waste received

The proposed increase in tonnage does not change the total amount of these benefits. Moreover, BRADS is offering additional benefits to the Saint Clair and Blythe Township locales, which would also become a condition of the Permit, as follows:



### **Proposed Additional Benefits**

- \$0.10/ton of waste received – to Saint Clair School District
- \$0.05/ton of waste received – to Saint Clair Fire Department
- \$0.05/ton of waste received – to Saint Clair Police Department
- 150 tons/year free disposal to Blythe Township
- 150 tons/year of free disposal to Saint Clair
- An additional \$0.75/ton of waste received - to Blythe Township
- \$10,000/year to Blythe Township
- \$10,000/year to the Township's Fire Department
- \$10,000/year to the Township's Police Department

Over the life of the site, the value of the above additional benefits to the recipients exceeds \$10,006,445.

### **Present Value of Current Host and Other Fees:**

The increased present value of fees currently and/or proposed to be paid provides known social and economic benefit to each governmental body receiving those fees. For this permit modification, the Landfill will be able to accept waste at a higher rate, resulting in earlier host and other fee payments to the townships, with those payments yielding a greater present value. The increased net present value of these earlier payments amounts to approximately \$9,173,311; \$6,999,236.20 to Blythe Township, and \$2,174,074.70 to Blythe's neighboring municipalities, as presented in the economic analysis included as Attachment 1. BRADS contends that weight of the earlier payment and increased present value of these fees is moderate for the benefitting municipalities.

### **Summary of Social and Economic Benefits:**

The economic comparison of the net present value of the various fees and other economic benefits identified above is summarized in the table below. As previously discussed, the aggregate total of the financial component of the currently mandated benefits is the same between current conditions and upon approval of the proposed tonnage increase, but the earlier delivery of these funds and services results in increased social and economic benefits. The value of the newly proposed benefits is clearly an economic and social benefit as shown below.

<b>Benefits</b>	<b>New Benefits</b>	<b>Weight of Social and Economic Benefit</b>
Current Host and other fees	Net Present Value Increase	Major
New Per ton Fees to Saint Clair:	School Fire Department Police Department	Moderate
Free Tonnage Disposal	St. Clair Borough and Blythe Township	Slight to Moderate

### **BALANCING**

BRADS Landfill has thoughtfully considered and carefully weighed the known and potential harms and noted benefits individually and collectively for balancing the harms versus the benefits. In doing so, BRADS has evaluated each of the social and economic benefits directly attributable to the proposed project. These benefits include the present value of the various fees, services and financial commitments, resulting in a combined net increase in present value of \$9,863,320 per Attachment 1, Economic Analysis.

Moreover, with the increase in daily tonnage, the overall duration of the known and potential traffic and nuisance impacts are reduced as a result of the proportionately abbreviated site life (by as much as approximately 50%).

These environmental, social and economic benefits were then balanced against the identified potential environmental harms associated with the proposed daily tonnage increase, to the extent remaining after minimization and mitigation. These potential environmental harms include traffic along the approach route and odor, dust, litter and noise at the working face. As discussed, these impacts have been minimized and mitigated, such that the remaining weight of each is non-existent to minimal. Even considered collectively and synergistically, the known and potential environmental harms from the proposed permit modification are not more than minimal. On balance, BRADS contends that the slight to moderate social and economic benefits of the project clearly outweigh the non-existent to minimal environmental harms.

### CONCLUSION

BRADS Landfill has demonstrated that individually and collectively, the net social and economic benefits associated with the proposed daily tonnage increase from 1,500 tpd to 3,000 tpd clearly outweigh the known and potential environmental harms of the project.

## BLYTHE RECYCLING AND DEMOLITION SITE

A Construction and Demolition Waste Facility

### *Major Modification for Tonnage Increase*

#### **Attachment 1 - ECONOMIC ANALYSIS Assumes Tonnage Increase Begins April, 2023**

In order to evaluate the net present value of the economic benefits from the proposed increase in tons per day (tpd), a comparison of the facility's remaining life follows:

- 2021 Annual Report Waste density: 0.628 tons/cy
- 2021 Annual Report Reported Capacity Remaining: 10,547,299 tons
- Tonnage received – 2022 thru September 208,730 tons
- Estimated tons to be received October 2022 thru March 2023 159,153 tons
- BRADS Total Remaining Capacity – April, 2023 10,179,416 tons

Based on the information listed above, the minimum expected life of the BRADS facility can be calculated as follows:

Total Capacity – tons	Operating Days/Yr.	Daily Tonnage	Years Remaining
10,179,416	302	3,000 proposed	11.2
10,179,416	302	1,500 existing	22.5

#### A. Value of Benefits

The table below summarizes the current annual host fees and the fees at the proposed tonnage increase:

Beneficiary of fees	Current - 1500 tpd	Proposed - 3000 tpd
<b>Blythe Twp. - \$1/ton</b>	\$453,000	\$906,000
<b>East Norwegian Twp. - \$0.10/ton</b>	\$45,300	\$90,600
<b>Mahanoy Township - \$0.10/ton</b>	\$45,300	\$90,600
<b>Middleport Borough - \$0.10/ton</b>	\$45,300	\$90,600
<b>Ryan Township - \$0.10/ton</b>	\$45,300	\$90,600
<b>Blythe Twp. – Add'l \$0.75/ton</b>	0	\$679,500
<b>Blythe Twp. – \$10,000/yr</b>	0	\$10,000
<b>Blythe Fire Dept. – \$10,000/yr</b>	0	\$10,000
<b>Blythe Police Dept. – \$10,000/yr</b>	0	\$10,000
<b>St. Clair School District - \$0.10/ton*</b>	0	\$45,300
<b>St. Clair Fire Dept- \$0.05/ton*</b>	0	\$22,650
<b>St. Clair Police Dept. - \$0.05/ton*</b>	0	\$22,650
<b>Total Annualized Benefit</b>	<b>\$634,200</b>	<b>\$2,068,500</b>

\*Tonnage in excess of 1,500 tpd



B. Total Current \$/ton Benefit to Municipalities

$$\text{\$1.40/ton} \times 1,500 \text{ tpd} \times 302 \text{ d/yr} = \text{\$634,200/year} \times 22.5 \text{ years} = \text{\$14,269,500}$$

C. Net Present Value @ Current Tonnage Rate – assume 3.5% interest @ 22.5 years.  
Present Value multiplier =  $1/(1+i)^n$  -  $i=3.5\%$ ,  $n=22.5$  years

$$\text{\$14,269,500} \times 0.461 = \text{\$6,580,385}$$

D. Total Proposed \$/ton Benefit to Municipalities

$$(\text{\$2.35/ton} \times 3,000 \text{ tpd}^{**} \times 302 \text{ d/yr}) + (\text{\$30,000/yr}) = \text{\$2,068,500} \times 11.2 \text{ years} = \text{\$23,167,200}$$

E. Net Present Value @ Proposed Tonnage Rate

Again assume 3.5% - 11.2 years  
 $\text{\$23,167,200} \times 0.680 = \text{\$15,753,696}$

F. Net Present Value Difference with Tonnage Increase

$\text{\$15,753,696} - 6,580,385$	$= \text{\$9,173,311}$
76.3% to Blythe Twp	$= \text{\$6,999,236.20}$
23.7% to Neighboring Communities	$= \text{\$2,174,074.70}$

\*\* - St. Clair benefit is in excess of 1,500 tpd



# SAINT CLAIR AREA SCHOOL DISTRICT

Addressing the Needs of Students & Community

July 20, 2020

Blythe Township Supervisors

1061 Burma Road

PO Box 335

Saint Clair, PA 17970

RECEIVED  
JUL 23 2020

BY: .....

RE: Blythe Township Landfill

Dear Blythe Township Supervisors:

During their regular board meeting on July 15, 2020, the Saint Clair Area School Board of Directors voted to accept, receive, and file the information regarding the Blythe Township Landfill.

The Saint Clair Area School District is very appreciative of your proposal that will greatly benefit our students and staff. Please feel free to contact us if we can be of any assistance.

Sincerely,

Thomas McLaughlin

Superintendent

TM:mbz

227 SOUTH MILL STREET SAINT CLAIR, PA 17970-1338 (570) 429-2716

"We are an Equal Rights and Opportunity School District"

## AGREEMENT

THIS AGREEMENT, made by and between the BOROUGH OF ST. CLAIR (hereinafter "Borough") and the TOWNSHIP OF BLYTHE (hereinafter "Township").

WHEREAS, Township has petitioned to modify an existing Pennsylvania Department of Environment Protection (hereinafter "PA DEP") permit for its construction and demolition landfill (hereinafter C&D Landfill); and

WHEREAS, Township has offered to pay Borough a certain fee per ton in exchange for Borough not opposing Township's modification request to increase the daily tonnage from 1,500 tons per day to 3,000 tons per day; and

WHEREAS, Borough is willing to accept the fee as noted.

## WITNESSETH:

NOW, THEREFORE, WITNESSETH, in consideration of the promises and the mutual promises, covenants and undertakings hereinafter set forth and for the good and valuable consideration, receipt of which is hereby acknowledged by each of the parties hereto, Borough and Township, each intending to be legally bound, hereby covenant and agree as follows:

1. Borough hereby agrees that it will not oppose the Township's request to PA DEP that its C&D Landfill permit be modified from 1,500 tons per day to 3,000 tons per day.

2. In the event the Township's Modification Request is permitted by the PA DEP, the Township or its Solid Waste Authority shall pay, upon the PA DEP's issuance of a final and un-appealable permit modification, the following fees to the Borough of St. Clair:

\$0.05 per ton to be earmarked for the St. Clair Fire Department; and

\$0.05 per ton to be earmarked for the St. Clair Police Department.



These fees shall be made payable to the Borough of St. Clair but the funds shall be earmarked as noted herein.

3. In further consideration of the mutual agreements and conditions contained herein, Township agrees to provide 150 tons per year of free disposal at its C&D Landfill for the benefit of the Borough.

4. Upon execution of this Agreement, the Borough shall transmit a letter to PA DEP indicating it will not oppose the Township's Permit Modification.

IN WITNESS WHEREOF, and intending to be legally bound hereby, the undersigned have set their hands and seals this 2<sup>nd</sup> day of November, 2020.

BOROUGH OF ST. CLAIR

ATTEST: Ralad Prince By: Wm M. Murphy

TOWNSHIP OF BLYTHE

ATTEST: Teresa D Conville By: Jeff A. Miller

# Letter from the Borough of St. Clair

Law Offices  
**EDWARD M. BRENNAN**

Telephone: (570) 628-2461  
Fax: (570) 628-4498

Attorney-at-Law  
306 Mahantongo Street  
Pottsville, PA 17901  

---

**Thomas K. Noonan**  
**Attorney-at-Law**  
*of Counsel*

October 22, 2020

**Via – Hand Delivered**

Gino O. DiNicola, Esquire  
Pfeiffer, Brown, DiNicola & Frantz  
1800 West End Avenue  
Pottsville, PA 17901

**RE: Borough of St. Clair/ Blythe Township C&D Landfill**

Dear Gino:

Enclosed please find an Agreement which documents the offer contained in Blythe Township's letter to my client and the Borough's acceptance of the offer by way of resolution. Please have someone from Blythe sign all three fully executed documents. Kindly return two of the three to me. Please keep the third copy for the Township records.

If you would like to discuss this matter further, please telephone me at your convenience.

Sincerely,



EDWARD M. BRENNAN

EMB/bap  
Enclosures  
cc: St. Clair Borough Council



## AGREEMENT

THIS AGREEMENT, made by and between the BOROUGH OF ST. CLAIR (hereinafter "Borough") and the TOWNSHIP OF BLYTHE (hereinafter "Township").

WHEREAS, Township has petitioned to modify an existing Pennsylvania Department of Environment Protection (hereinafter "PA DEP") permit for its construction and demolition landfill (hereinafter C&D Landfill); and

WHEREAS, Township has offered to pay Borough a certain fee per ton in exchange for Borough not opposing Township's modification request to increase the daily tonnage from 1,500 tons per day to 3,000 tons per day; and

WHEREAS, Borough is willing to agree to the fee as noted.

## WITNESSETH:

NOW, THEREFORE, WITNESSETH, in consideration of the promises and the mutual promises, covenants and undertakings hereinafter set forth and for the good and valuable consideration, receipt of which is hereby acknowledged by each of the parties hereto, Borough and Township, each intending to be legally bound, hereby covenant and agree as follows:

1. Borough hereby agrees that it will not oppose the Township's request to PA DEP that its C&D Landfill permit be modified from 1,500 tons per day to 3,000 tons per day.

2. Township's or its Solid Waste Authority shall pay the following fees to the Borough of St. Clair:

\$0.05 per ton to be earmarked for the St. Clair Fire Department; and

\$0.05 per ton to be earmarked for the St. Clair Police Department.

These fees shall be made payable to the Borough of St. Clair but the funds shall be earmarked as noted herein.

3. In further consideration of the mutual agreements and conditions contained herein, Township agrees to provide 150 tons per year of free disposal at its C&D Landfill for the benefit of the Borough.

IN WITNESS WHEREOF, and intending to be legally bound hereby, the undersigned have set their hands and seals this 22<sup>nd</sup> day of October, 2020.

BOROUGH OF ST. CLAIR

ATTEST:

Edward M. Gennay

By:

Wm M. Dwyer

TOWNSHIP OF BLYTHE

ATTEST: \_\_\_\_\_

By: \_\_\_\_\_

# Burma Road PennDOT Maintenance Agreement





## EXCESS MAINTENANCE AGREEMENT

PLEASE TYPE OR PRINT ALL INFORMATION IN BLUE OR BLACK INK

Agreement Number \_\_\_\_\_ Executed Date \_\_\_\_\_

This Excess Maintenance Agreement ("Agreement") is made and entered into, by, and between the POSTING AUTHORITY and the USER, Blythe Recycling and Demolition Site Holdings \_\_\_\_\_, FID/SS Number 20-0892431, with offices located at Waterway Square Place, Suite 110, The Woodlands, TX 77380

### DEFINITIONS

**Appurtenance** means the properly lying within the right-of-way of a highway, together with any improvement placed within this right of way.

**Bridge** means any structure including supports, erected over a depression or an obstruction, such as, but not limited to, water, highway, or railway and having a track or passageway for carrying traffic or other moving loads and having an opening measured along the center of the roadway of more than eight feet between supports (Publication 100A Bridge Management System 2 Coding Manual).

**Excess Maintenance** means maintenance or restoration or both that is in excess of normal maintenance (but not improvements beyond the state of repair existing at the date of the initial inspection) that is necessary to maintain the roadway, shoulders, drainage facilities, and other appurtenances because of the use of over-posted-weight-vehicles, and in accordance with the Maintenance Plan.

**Execution Date** is the date this Agreement has been fully executed by both the USER and the POSTING AUTHORITY.

**Existing State of Repair** shall be the condition of the highway(s), on the date upon which the initial inspection document is signed by the USER and/or the POSTING AUTHORITY.

**Highway** means any highway or bridge on the POSTING AUTHORITY'S system of highways and bridges, including the entire width between right-of-way lines, over which the POSTING AUTHORITY has assumed, or has been legislatively given, jurisdiction.

**Maintenance Plan** means a comprehensive schedule of USER'S duties relating to excess maintenance, preventative maintenance and restoration of the highway or appurtenance. The *Maintenance Plan* is part of this Agreement by reference as though physically attached.

**Normal Maintenance** means the usual and typical activities necessary to maintain the roadway, shoulders, drainage facilities, and other appurtenances in the state of repair existing at the date of the inspection, and in accordance with the Maintenance Plan.

**Over-Posted-Weight-Vehicle** means a vehicle or combination having a gross weight in excess of a posted weight restriction.

**POSTING AUTHORITY** means the Commonwealth of Pennsylvania, acting through the Department of Transportation as to State highways, and appropriate state or local authorities as to all other streets and highways.

**Preventative Maintenance** means maintenance and restoration or both (including upgrade) of a posted highway for the purpose of maintaining the facilities in satisfactory operating condition by providing for systematic inspection, detection, and correction of incipient failures either before they occur or before they develop into major defects, and in accordance with the Maintenance Plan.

### Type of Permits

**Type 1 Permit** - A Type 1 permit authorizes use of a particular posted highway or portion thereof by an over-posted-weight vehicle. It is valid only when carried in the USER'S over-posted-weight-vehicle.

**Type 2 Permit** - A Type 2 permit authorizes use of a particular posted highway or portion thereof by any number of over-posted-weight vehicles being driven to or from a common destination and is valid only when conspicuously displayed at the USER'S place of business.

**Type 3 Permit** - A Type 3 permit authorizes use of a number of specified posted highways or portion thereof by over-posted-weight vehicles and is valid only when carried in the USER'S over-posted-weight-vehicle.

### BACKGROUND

The USER wishes to operate vehicles or combinations, together with loads, in excess of posted weight restrictions. The POSTING AUTHORITY, pursuant to 75 Pa CS § 4902 and 67 Pa. Code, Chapter 189, *Hauling in Excess of Posted Weight Limit*, is willing to permit the movement of the USER'S vehicles or combinations, together with loads, in excess of the posted weight restrictions, conditioned upon the execution of an approved form of security by the USER in favor of the POSTING AUTHORITY, to cover the costs of excess and preventative maintenance and restoration and all related costs, in accordance with the terms, conditions, and provisions of this Agreement.

### AGREEMENT

For and in consideration of the mutual promises hereinafter set forth, the parties, intending to be legally bound, agree for themselves and their successors and assigns as follows:

#### Permission to Move Vehicles

1. The POSTING AUTHORITY will permit the USER to move vehicles or combinations, together with loads, in excess of the posted weight restrictions on the portion(s) of highway(s) in SR 1006 - 120/1499-240/0000 (Geographic Location), subject to all provisions of the *Vehicle Code*, 75 Pa CS § 4902 and 67 Pa Code, Chapter 189, and in accordance with all Permits issued under this agreement. The specific highways authorized for use by over-posted-weight vehicles and the security amount(s), for the purposes of this Agreement, shall be listed on the document titled "Authorization to Exceed Posted Weight Restrictions" and made part of this Agreement by reference as though physically attached.

### Multiple Users

2. If more than one **USER** seeks to obtain a Type 1 or Type 2 permit to operate overweight vehicles on weight restricted highways that are the subject of an active permit held by another **USER**, the prospective and current **USERS** may agree among themselves as to their relative responsibility for the cost of excess maintenance and each **USER** may then enter into an Agreement with the **POSTING AUTHORITY** to be billed according to their agreed upon shares. If the **USERS** cannot agree upon their relative responsibility, the **POSTING AUTHORITY** will determine the relative shares and will enter into Agreements with and accept security from any **USER** agreeing to such determination. The preceding shall apply even if one or more **USERS** have already entered into an Agreement and posted security when another **USER** expresses the desire to obtain a permit to operate on the same highway.

### Haulers Without Permits

3. The **USER** will promptly notify the **POSTING AUTHORITY** if it becomes aware of any unpermitted haulers that are exceeding the posted weight limits on the roadways that are the subject of this Agreement.

### Responsibility of USER

4. The portion(s) of posted highway(s) and appurtenances shall be maintained to a level consistent with the existing state of repair at the time of the Initial Inspection. Preventative Maintenance projects to improve the posted highway beyond the existing state of repair may be performed pursuant to the authority granted by this Agreement, but the **POSTING AUTHORITY** may not require a **USER** to upgrade the condition of the posted highway beyond the existing state of repair without the **USER's** consent. The **USER** may be required to provide a Maintenance Plan detailing expected maintenance procedures and related items to be employed by the **USER** and made a part of this agreement as though physically attached. The nonperformance of normal maintenance by the **POSTING AUTHORITY** shall under no circumstances constitute grounds for an offset or credit against any excess maintenance, preventative maintenance or restoration responsibilities of the **USER**.

The **POSTING AUTHORITY** shall determine, at its discretion, whether the excess and preventative maintenance and restoration are satisfactory.

### Inspections and Roadway Condition Surveys

5. The **USER** and the **POSTING AUTHORITY** agree inspections shall be made in order to determine the condition of the portion(s) of the posted highway(s) and appurtenances. The inspections should be conducted jointly by the **POSTING AUTHORITY** and the **USER**; however, the absence of the **USER** shall not prevent the inspection from being conducted. The **POSTING AUTHORITY** shall prepare a document describing the condition of the posted highway(s) and appurtenances together with the nature and extent of any repairs needed to correct any existing damage for which the **USER** may be liable. Photographs and video may also be taken. The documents and photographs and video (if taken), of the Initial Inspection, shall be incorporated by reference as though physically attached and made a part of this Agreement. The **USER** shall pay all costs associated with the inspections and roadway condition surveys.

- a) **Initial Inspection** - Upon full execution of this Agreement and prior to any hauling activity, an initial inspection shall be made. The inspection is used to determine the existing state of repair of the posted highway(s) and appurtenances together with the nature and extent of any repairs needed to correct existing damage for which the **USER** will not be liable.
- b) **Interim Inspection** - The **POSTING AUTHORITY** may, at its discretion, conduct periodic interim or re-inspections to determine the extent of any repairs for which the **USER** may be liable and require immediate attention and to ensure the damages do not exceed the amount of surety provided.
- c) **Final Inspection** - A final inspection of the posted highway(s) and appurtenances will be conducted to determine the extent of any repairs needed to correct damages for which the **USER** may be liable.
- d) **Roadway Condition Survey** - The **POSTING AUTHORITY** may conduct frequent, but less detailed surveys of the roadway to determine overall condition and identify any areas in need of repair.

### Performance of Excess and Preventative Maintenance and Restoration

6. Excess and preventative maintenance and restoration shall be performed in accordance with maintenance option A.

#### OPTION "A"

The excess and preventative maintenance and restoration shall be performed by the **POSTING AUTHORITY'S** maintenance forces and/or a contractor(s) selected by the **POSTING AUTHORITY** through its prescribed procedures. The excess and preventative maintenance and restoration shall be performed to a level consistent with that agreed to in Paragraph 4 (above). The work shall be in conformance with Pennsylvania Department of Transportation's specifications (*Publication 408* and supplements thereto) and shall be supervised and inspected by the **POSTING AUTHORITY**.

The **POSTING AUTHORITY** may invoice the **USER** for the estimated cost of repairs using either the latest maintenance contract prices or the latest average monthly maintenance unit prices. These estimated costs shall be computed for all damages noted on the roadway condition survey, interim inspection and/or final inspection. The **USER** agrees to reimburse the **POSTING AUTHORITY** for all estimated costs. The **POSTING AUTHORITY** will provide a final invoice, or reimbursement for over-payment, when maintenance and/or restoration work have been completed and actual costs are known.

The **USER** shall submit full payment to the **POSTING AUTHORITY** within 60 calendar days from the date of invoice. If the **USER** fails to make full payment, the **POSTING AUTHORITY** may at its discretion exercise its right under paragraph 10 below.

#### OPTION "B"

All excess and preventative maintenance and restoration shall be performed by the **USER** and/or its contractor(s). All excess and preventative maintenance and restoration shall be performed to a level consistent with that agreed to in Paragraph 4 (above). The work shall be in conformance with Pennsylvania Department of Transportation Specifications (*Publication 408* and supplements thereto).

The **USER** shall notify the **POSTING AUTHORITY** not less than three working days in advance of performing any excess and preventative maintenance and restoration. The **POSTING AUTHORITY** reserves the right to monitor or direct any excess and preventative maintenance or restoration. The **USER** shall track all repairs performed and submit a "Weekly Repair Log", including material quantity and location. The **USER** shall reimburse the **POSTING AUTHORITY** for any expenses so incurred by the **POSTING AUTHORITY**. All excess, preventative maintenance, and restoration associated with bridges, shall be specifically developed in a memorandum by the **POSTING AUTHORITY** and directed to the **USER** for completion.

If performance Option B has been agreed to, the **USER** shall:

- a) Provide proper traffic protection at all times during excess and preventative maintenance and restoration. This protection shall comply with the work area traffic control requirements as contained in the Pennsylvania Department of Transportation's specifications (*Publication 408* and supplements thereto and the Pennsylvania Department of Transportation's *Publication 213*).
- b) Provide proper environmental and erosion and sedimentation controls in accordance with Publication 408, Section 107.
- c) Comply with the requirements of 25 Pa Code Chapter 102, *Erosion and Sediment Control and Stormwater Management*, 25 Pa Code Chapter 92a, *National Pollutant Discharge Elimination System Permitting, Monitoring and Compliance*, 25 Pa. Code Chapter 105, *Water Obstruction and Encroachment Permitting*; and any other applicable Federal, State, or local laws, ordinances or regulations.
- d) Obtain all applicable permits and comply with the conditions included in said permits.
- e) Indemnify, save harmless, and defend (if requested) the **POSTING AUTHORITY** and its officers, agents, and employees, from all suits, actions, civil penalties, or claims of any character, name, or description brought for or on account of any violation of law/permit, injuries, death, or damages received or sustained by any person, persons, or property, during the performance of the work on portion(s) of the posted highway(s) and appurtenances to be repaired, by or for the **USER** or its officers, agents, employees, contractors, or representatives, whether the same be due to the use of defective materials, defective workmanship, neglect in safeguarding the work or by or on account of any act, omission, neglect, or misconduct of the **USER** or its officers, agents, employees, contractors, or representatives, during the performance of the work. In addition to any notice provided by a third party insurance company, the **USER** shall also notify the **POSTING AUTHORITY** of any change in insurance coverage, including but not limited to the **USER's** cancellation of its policy. In no event shall any maintenance or restoration activities be performed by the **USER**, or its officers, agents, employees, contractors, or representatives, without the requisite level of insurance and there shall be no lapse in coverage at any time during the duration of this Agreement.
- f) Provide evidence to the **POSTING AUTHORITY** of public liability insurance for bodily injury and property damage in the minimum amounts of \$250,000 per each person and \$1,000,000 each occurrence. This insurance shall be occurrence based. The insurance policy shall cover any loss that might occur during the performance of any excess and preventative maintenance or restoration by the **USER**, or its officers, agents, employees, contractors, or representatives. The **POSTING AUTHORITY** shall be named as an additional insured on the certificate of insurance. A copy of the certificate of insurance shall be attached to this Agreement as Exhibit "F". This insurance shall neither be changed nor cancelled without thirty (30) calendar days' advance written notice of such change or cancellation, excepting fifteen (15) days' advance written notice of cancellation for nonpayment of premium. This advance written notice of change or cancellation shall be forwarded to the **POSTING AUTHORITY'S** office located at \_\_\_\_\_.
- g) Promptly perform excess and preventative maintenance and restoration as needed pursuant to the requirements included in paragraph 4 above. If the **POSTING AUTHORITY** determines that the **USER** is not maintaining or restoring the portion(s) of the posted highway(s) and appurtenances to the level agreed to in Paragraph 4, the **POSTING AUTHORITY** will notify the **USER**, in writing, of this determination and the **USER** shall promptly perform the required excess maintenance, preventative maintenance or restoration.

#### Security

7. To secure the performance of the **USER'S** obligations, the **USER** shall execute and deliver to the **POSTING AUTHORITY** the following type(s) of security, pursuant to 67 PA Code, Chapter 189, *Hauling in Excess of Posted Weight Limit*.

- A. Irrevocable Letter of Credit
- B. Performance Bond
- C. Other Security Acceptable to the **POSTING AUTHORITY**.

This Agreement, together with the type(s) of security provided, may be filed in the appropriate prothonotary's office or other registry in a manner and at such time and frequency as the **POSTING AUTHORITY** deems proper. The **USER** shall pay the costs of such filings.

A copy of the security(s) and any supplemental security Agreement shall be attached to this Agreement as an Exhibit "E".



**USER** irrevocably authorizes any prothonotary, clerk of court, or attorney, in any action commenced for recovery of any amounts due and payable under this Agreement, to assess damages, confess a judgment, and issue writs of execution and/or attachment, without further notice or process, in favor of the **POSTING AUTHORITY**, from time to time and in such amounts as determined by the **POSTING AUTHORITY**. **USER** hereby releases **POSTING AUTHORITY** or any person acting on behalf of **POSTING AUTHORITY** from any liability whatsoever related to entering judgment and executing upon said judgment against **USER**. This clause shall not be construed to waive the **USER's** due process rights or any rights under the Administrative Agency Law, 2 Pa. C.S. §§ 101-754.

#### **Liability of USER**

8. The **USER** shall be liable for all costs of excess and preventative maintenance and restoration and all other expenses incurred pursuant to this Agreement, including but not limited to costs related to inspections, roadway condition surveys and administration costs. The **USER** agrees that the **POSTING AUTHORITY** is under no obligation to prove that the **USER** caused the damage.

The **USER** agrees to pay all invoices promptly.

The **USER'S** liability shall not be limited to the total amount of security provided.

The **USER** shall be responsible for third party vehicle and property claims that arise as a result of the **USER** activities.

#### **Termination**

9. The **USER** and the **POSTING AUTHORITY** retain the right to terminate their future obligations under this Agreement at any time by submitting a written notice of intent to terminate. As soon as possible after receipt of such notice, the **POSTING AUTHORITY** and the **USER** shall conduct a final inspection of the posted highway(s) and appurtenances.

The posted highway(s) and appurtenances shall be restored to a level consistent with that agreed to in Paragraph 4 (above). Restoration shall be performed by the party(s) agreed to in Paragraph 6 (above).

Upon notice of completion of all required work and reimbursement of all costs incurred by the **POSTING AUTHORITY**, this Agreement shall be terminated and of no further force or effect and all security delivered to the **POSTING AUTHORITY** by the **USER** shall be released.

#### **Remedies**

10. If the **USER** fails to comply with any provisions of the Agreement, the **POSTING AUTHORITY** may at its discretion:

- a) Notify the **USER** of noncompliance with the Agreement;
- b) Require additional security pursuant to Paragraph 12, below;
- c) Require additional plans or details to show how the **USER** will restore compliance with this Agreement;
- d) Suspend the **USER'S** permission to move vehicles or combinations, together with loads, in excess of the posted weight restriction over and across any posted highway(s) until the **USER** is in compliance with this Agreement;
- e) Revoke the **USER's** permission to move vehicles or combinations, together with loads, in excess of the posted weight restriction over and across any posted highway(s);
- f) Elect to maintain or restore the portion(s) of the posted highway(s) and appurtenances with the **USER** reimbursing the **POSTING AUTHORITY** for all costs so incurred;
- g) Proceed against security provided pursuant to Paragraphs 7 and 12 (below);
- h) Terminate this Agreement pursuant to Paragraph 9;
- i) Any other remedies allowed by law;
- j) Any or all of the above.

#### **Closing of Highways**

11. This Agreement shall not prohibit the **POSTING AUTHORITY** from closing a highway or bridge to any vehicle or combination in excess of a specific weight if such closing is authorized by law and is necessary for safety, or is a temporary closing due to climatic conditions or an Act of God or war.

#### **Additional Security**

12. The **POSTING AUTHORITY** shall have the right to require additional security upon that date the **POSTING AUTHORITY** determines, in its discretion, that the aggregate amount of damage to the posted highway(s) exceeds 75% of the face amount of the security furnished, or the amount published in 67 PA Code Chapter 189(d)(4), as amended, as of the date the **POSTING AUTHORITY** requires the additional security. If additional security is required, it shall be retained by the **POSTING AUTHORITY** until all excess maintenance and/or restorations have been completed. Failure to provide such additional security as is required shall constitute a breach of this Agreement.

#### **Right-to-Know**

13. The *Pennsylvania Right-to-Know Law*, 65 P.S. §§ 67.101-3104, as amended, applies to this Agreement. This Agreement is subject to, and the USER shall comply with, the clause entitled *Contract Provisions-Right to Know Law*, as amended, which is attached as "Exhibit B" and made part of this Agreement.

#### **Contractor Provisions**

14. The USER agrees to comply with the *Contractor Responsibility Provisions*, current version, which is attached as Exhibit "C" and made part of this Agreement, the *Provisions Concerning the Americans with Disabilities Act*, current version, which is attached as Exhibit "D" and made a part of this Agreement.

#### **Compliance with all Federal, State, and Local Law**

15. If the USER is notified by any federal, state, or local agency that it is not in full compliance with any federal, state, or local law, regulation, or ordinance associated with excess and preventative maintenance and restoration, the USER shall immediately correct any such violation or deficiency and shall cease all excess and preventative maintenance and restoration until the USER is in full compliance. The USER shall provide the POSTING AUTHORITY with written notice within one working day of any such notification.

#### **Non-waiver**

16. The failure by the POSTING AUTHORITY to require performance by the USER of any provision of this Agreement shall not affect the POSTING AUTHORITY'S right to require performance at a time thereafter, nor shall a waiver of any breach or default of this Agreement constitute a waiver of any subsequent breach or default, or a waiver of the provision itself.

#### **Severability**

17. If any provisions of this Agreement are held unenforceable, then such provision will be modified to reflect the parties' intention. All remaining provisions of this Agreement shall remain in full force and effect.

#### **Choice of Law and Forum**

18. This Agreement shall be interpreted under the laws of the Commonwealth of Pennsylvania. Venue for any dispute arising under this Agreement shall be in the Commonwealth of Pennsylvania.

#### **Agreement Supplementation**

19. This Agreement and the exhibits attached hereto constitute the entire Agreement between the parties and may not be transferred or assigned without the prior written consent of the parties hereto. This Agreement may be modified or amended by letter amendment to add or subtract routes, increase or decrease the security amount or type, or amend any maintenance plan submitted pursuant to this Agreement or its exhibits. For Commonwealth parties, letter amendments may be signed solely by the District Executive or his or her authorized designee.

COMMONWEALTH OF PENNSYLVANIA  
POSTING AUTHORITY  
EXCESS MAINTENANCE AGREEMENT

▼ DO NOT WRITE BELOW THIS LINE--FOR USER USE ONLY ▼

IN WITNESS WHEREOF, the parties have executed this Agreement the date first above written.

USER Phone Number: (865) 312-9601 USER Fax Number: \_\_\_\_\_

ATTEST:

Signature

7/15/22  
Date

BY

Signature

7/15/22  
Date

Region Engineering Manager  
Attest Title

Region Vice President  
Authorized Signatory Title

*If a Corporation, the President or Vice-president must sign and the Secretary, Treasurer, Assistant Secretary or Assistant Treasurer must attest; if a Sole Proprietorship, only the owner must sign; if a Partnership, only one partner need sign; if a Limited Partnership, only the general partner must sign. If a Municipality, Authority or other entity, please attach a resolution.*

▼ DO NOT WRITE BELOW THIS LINE--FOR POSTING AUTHORITY USE ONLY ▼

\_\_\_\_\_  
Name of POSTING AUTHORITY

By: \_\_\_\_\_

Signature

\_\_\_\_\_  
Date

▼ DO NOT WRITE BELOW THIS LINE--FOR COMMONWEALTH USE ONLY ▼

APPROVED AS TO LEGALITY AND FORM

BY \_\_\_\_\_

For Chief Counsel

\_\_\_\_\_  
Date

Preapproved Form:  
OGC No. 18-FA-6.0  
Approved OAG May 1, 2013



# Addition to Traffic Compliance Plan

**BLYTHE TOWNSHIP, COUNTY OF SCHUYLKILL  
IN THE COMMONWEALTH OF PENNSYLVANIA**

---

**RESOLUTION # 2020-02**

---

WHEREAS, BRADS has developed and implemented a Transportation Compliance Plan ("TCP"), which TCP is disseminated to the owners/operators of waste transportation vehicles that deliver waste to the BRADS construction and demolition waste facility;

WHEREAS this TCP is re-evaluated from time to time by Blythe Township in order to determine its effectiveness;

WHEREAS, if the evaluation reveals that waste transportation vehicles are entering the facility on a routine non-compliant basis, then revisions to the program will be made and enforcement measures will be enhanced;

WHEREAS, the TCP is made part of the Township's Disposal Agreement with customers and/or owners/operators of waste transportation vehicles;

WHEREAS, PaDEP has issued Notices of Violation for overweight vehicles to BRADS customers/haulers for overweight vehicles and PaDEP has encouraged BRADS to enhance its enforcement measures with such vehicles; and

WHEREAS, Blythe Township by and through its Board of Supervisors deems it necessary to revise its TCP as follows:

NOW THEREFORE BE IT RESOLVED the TCP shall be amended to include the following:

Overweight vehicles are currently a common occurrence at the landfill facility with some overweight vehicles being minor while others are more significant. Blythe believes that all our customers and their haulers should comply with the legal requirements imposed by government transportation authorities. The purpose of these requirements is the protection of the public from injury and the public roads from damage.

To encourage compliance a charge for overweight loads crossing the scales at the BRADS landfill shall be implemented in the manner as set forth in the attached Notice of Violation Surcharge. Blythe will use the proceeds of overweight charges for the benefit of the local community. Charges will be included on the weekly invoice and are payable by the recipient.

BRADS will distribute the amended TCP to all existing and new customers.

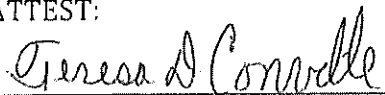
IN WITNESS WHEREOF, the members of the Board of Supervisors of Blythe Township have adopted this Resolution in lawful session on this 5th day of AUGUST, 2020.

BLYTHE TOWNSHIP  
SCHUYLKILL COUNTY, PENNSYLVANIA

BY:

  
\_\_\_\_\_  
CHAIRMAN, ADAM NOTHSTEIN

ATTEST:

  
\_\_\_\_\_



# Notice of Violation Surcharge

## BLYTHE TOWNSHIP

### Overweight Vehicles

The Pennsylvania Department of Environmental Protection ("Department") oversees overweight truck records from the Blythe Recycling and Demolition Site (BRADS) located in Blythe Township, Schuylkill County. Waste transportation vehicles exceeding the statutory maximum gross vehicle weights are a hazard to public safety. The BRADS facility is committed to working with owner/operators of Construction and Demolition waste transportation vehicles in an effort to continually improve waste transportation safety and environmental compliance.

To that end, Pennsylvania Code, 75 Pa. C.S. § 4941 states 'Maximum gross weight of vehicles (a)General rule.-- Except as provided for in subsection (d), no vehicle shall, when operated upon a highway, have a gross weight exceeding 80,000 pounds, and no combination driven upon a highway shall have a gross weight exceeding 80,000 pounds, or the applicable weight set as forth in subsection (b) or (c), whichever is less.'

### ADVISE OF LIMITS

When a commercial motor vehicle exceeds the maximum gross weight as identified by a BRADS Weighmaster, the following tier structure will apply:

- Tier 0 ☐ 80,001 – 82,400 lbs. GVW Warning
- Tier 1 ☐ 82,401 – 84,999 lbs. GVW \$300.00 Surcharge
- Tier 2 ☐ 85,000 – 89,999 lbs. GVW \$500.00 Surcharge
- Tier 3 ☐ 90,000+ lbs. GVW \$1,000.00 Surcharge

### TOWNSHIP RESOLUTION

The Board of Supervisors of Blythe Township, Schuylkill Township, Pennsylvania authorizes the Overweight Vehicle Surcharge to be assessed at the Blythe Recycling and Demolition Site (BRADS) by decree of Resolution #\_\_\_\_\_.

### STRUCTURED PENALTIES

- August, 2020 – Grace Period
- September, 2020 – Surcharge in Effect

Payments for surcharges are for the benefit of the local Blythe Township community.

Customer: \_\_\_\_\_ Driver: \_\_\_\_\_ Weighmaster: \_\_\_\_\_

Date: \_\_\_\_\_

Please make payments to:

**BLYTHE TOWNSHIP SUPERVISORS**  
P.O. BOX 91  
CUMBOLA, PA 17930